CASE 5629: ODESSA NATURAL CORP. FOR POOL CREATION, ASSIGNMENT OF DISCOVERY ALLOWABLE AND SPECIAL POOL RULES, RIO ARRIBA&SANDOVAL

CASE NO.

5629

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,

ETC.

Case No. 3629
CONOCO NATURAL CORPORATION
POOL CREATION
and
SPECIAL POOL RULES
Rio Arriba and Sandoval Counties,
New Mexico
February 18, 1976

I N D E X

	Page No.
DISCOVERY WELL	
Dave M. Thomas, Jr.	
Chacon Jicarilla Apache No. 1	1
SUBSEQUENT WELLS	
Odessa Natural Corporation	
Chacon Jicarilla "D" No. 1	3
Chacon Jicarilla "D" No. 2	4
RECOMMENDED POOL BOUNDARIES	6
RECOMMENDED SPECIAL POOL RULES	7

FIGURES

	MAP OF AREA	Back Pocket
	Dave M. Thomas, Jr.	
	Chacon Jicarilla Apache No. 1	
1	Induction Electrolog	Back Pocket
2	Initial GOR	
3	Latest GOR	
4	Gas Analysis	
	Odessa Natural Corporation	
	Chacon Jicarilla "D" No. 1	
5	Induction Electric Log	Back Pocket
6	Initial GOR Test	
	Chacon Jicarilla "D" No. 2	
7	Induction Electric Log	Back Pocket
8	Initial GOR Test	
9	Gas Analysis	
10	PROPOSED HORIZONTAL POOL BOUNDARIES	

PETROLEUM ENGINEERING
RESERVOIR STUDIES
EVALUATIONS
GEOLOGICAL STUDIES

DELL R. WALSH, P.E.
President

WALSH
ENGINEERING & PRODUCTION
CORPORATION
EXECUTIVE BLDG. - 413 W. MAIN
P. O. BOX 254
FARMINGTON, NEW MEXICO
87401

LEASE MANAGEMENT
CONTRACT PUMPING
DRILLING SUPERVISION
WORKOVER SUPERVISION

TELEPHONE 325-8203

DISCOVERY WELL

The discovery well for the proposed new oil pool was:

Dave M. Thomas, Jr.
Chacon Jicarilla Apache "D", No. 1
875'FNL, 1140'FEL, Section 23-T23N-R3W
Sandoval County, New Mexico

Refer to Map of Area.

The well was originally drilled with Keesee and Thomas as operator. On February 13, 1975, the operator was changed to Dave M. Thomas, Jr.

The original acreage dedication was 320 acres in the W/2 Section 23-T23N-R3W, however, after completion as an oil well, the acreage dedication was changed to 40 acres in the NE/4NE/4, Section 23-T23N-R3W, on September 13, 1974.

The well was drilled as a wildcat gas well. After completion as an oil well, the unorthodox wildcat oil well location was approved by the New Mexico Oil Conservation Commission in Order No. R-4886.

Figure No. 1 is a copy of a portion of the Induction Electrolog, of the subject well, indicating the tops of formations and perforations.

Top of Formations:

Greenhorn	7215'
Graneros (Base of Greenhorn)	7280'
Dakota "A"	7303'
Dakota "B"	7418'
Dakota "C"	Not present
Dakota "D"	7510'
Burro Canyon	7586'

Four and one-half (4½") inch production casing was set at 7545'. A cementing stage collar is at 3298'. Calculated top of cement, 1st stage - 5900', 2nd stage ' 2550' (Protect Pictured Cliffs Formation).

Perforations

Dakota "A" 7315'-7325' ✓
7338'-7345' ✓

Perforations were sandwater fraced with 61,000 gals. water and 60,000 lbs. sand.

Due to low gas production it was necessary to install pumping equipment to produce the oil. The pump seating nipple is at 7285'.

Figure No. 2 and 3 are copies of the initial and subsequent GOR Tests. The Initial Potential for the well was - 95 BOPD, 55 MCFPD, GOR - 579 cubic feet gas per barrel oil, on September 4, 1974.

The current assigned allowable is 81 BOPD.

current prod about 45 BOPD

The current producing rate for the well is 30 BOPD and 23 MCFPD.

The gravity of the oil being produced is 47 ^{o}API at 60^{o}F.

Due to the low volume of gas, at a separator pressure of approximately 35 psig, being produced, an application for Exception to No-Flare Rule 306 was submitted to the New Mexico Oil Conservation Commission and approved as NFO Permit No. E-3-120, January 15, 1976.

Figure No. 4 is a copy of the Gas Analysis of the gas produced by the well.

Due to problems with hole conditions a porosity log was not run. From information on other wells in the area, it is estimated that the reservoir properties are:

Dakota "A" Zone
Porosity - 8 to 11%
Water Saturation - 40 to 50%

Dakota "B" Zone
Porosity - 7 to 9%
Water Saturation - 40 to 50%

It is proposed to workover the well to perforate and sandwater fracture the Dakota "B" Zone, 7425' to 7435'. During

the completion of the Odessa Natural Corporation wells Chacon Jicarilla "D" No. 1 and 2 in Sections 15 and 16-T23N-R3W, it was determined that the Dakota "B" Zone could produce sufficient natural gas to produce the well on a flowing basis instead of pumping.

SUBSEQUENT DEVELOPMENT WELLS

ODESSA NATURAL CORPORATION
CHACON JICARILLA "D", NO. 1

1. Location:
   1020'FSL, 1720'FEL, Section 15-T23N-R3W
   Rio Arriba County, New Mexico

2. Tops of Formations. Figure No. 5

Greenhorn	7203'
Graneros (Base of Greenhorn)	7230'
Dakota "A"	7250'
Dakota "B"	7364'
Dakota "C"	Not Present
Dakota "D"	7455'
Burro Canyon	7530'

51

NOTE: Corrected depth on log. It was determined that the original Induction-Electric Log recorded the formations 21' shallower than actual depth. Unless stated all depths refer to original recorded depths.

3. Perforations

7456'-7468'	Broke down and cleaned up with acid. Swab test indicated no oil, no gas and no water. Set permanent cast iron bridge plug at 7444'.
7366'-7371' and 7376'-7380'	Broke down and cleaned up with acid. Swab test indicated show of gas and oil, no water. Sandwater frac with 47,110 gals water and 40,000 lbs sand. After cleanup - 1,200 MCFPD with spray of oil and frac water.
7248'-7251' 7259'-7266' 7274'-7279' and 7285'-7290'	Sandwater frac with 84,700 gals water and 80,000 lbs. sand. After cleanup 2,600 MCFPD with heavy spray oil and frac water.

4. Initial Potential

Figure No. 6 is a copy of the initial GOR Test. The Initial Potential Test for the well was 142 BOPD, 1,385 MCFPD, GOR - 9753 cubic feet of gas per barrel of oil. Date of Initial Potential test was January 25, 1976

5. Current Production

The well is shut in while waiting for the gas purchasing company to install a gas line for gathering the gas.

ODESSA NATURAL CORPORATION
CHACON JICARILLA "D", NO. 2

1. Location

1777'FSL, 980'FEL, Section 16-T23N-R3W
Rio Arriba County, New Mexico

ST

2. Tops of Formations, Figure No. 7.

Greenhorn	7245'
Graneros (Base of Greenhorn)	7310'
Dakota "A"	7330'
Dakota "B"	7444'
Dakota "C"	Not Present
Dakota "D"	7537'
Burro Canyon	7620'

NOTE: Corrected depth on Log. It was determined that the original Induction Electric Log recorded the formations 26' shallower than actual depth. Unless stated all depths refer to original recorded depths.

3. Perforations

7446'-7456'	Broke down and cleaned up with acid. Swab test indicated show of gas, no oil, no water. Sandwater frac with 45,000 gals water and 40,000 pounds of sand. After cleanup - 1,000 to 2,000 MCFPD with heavy spray of oil and frac water.
7330'-7333'	Sandwater frac with 84,900 gals. water and
7338'-7358'	80,000 lbs. sand. Did not test after frac.

4. Initial Potential

Figure No. 8 is a copy of the initial GOR Test. The Initial Potential Test for the well was 120 BOPD, 1,064 MCFPD, GOR - 8870 cubic feet of gas per barrel of oil. Date of Initial Potential Test was January 12, 1976.

5. Gas Analysis

Figure Nc. 9 is a copy of the Gas Analysis of the gas produced by the well.

6. Current Production

The well is shut in while waiting for the gas purchasing company to install a gas line for gathering the gas.

RECOMMENDED POOL BOUNDARIES

VERTICAL

Refer to Figure No. 1, Induction Electrolog of Dave M. Thomas, Jr., Chacon Jicarilla Apache "D", No. 1.

The vertical boundary of the pool to include the interval commencing at the base of the Greenhorn formation, or top of the Graneros Shale, 7280', to such point 400 feet below the base of the Greenhorn formation, This interval has been previously used by the New Mexico Oil and Gas Conservation Commission in establishing the vertical boundaries of the Dakota formation for purposes of establishing a pool.

HORIZONTAL

The initial horizontal boundaries of the pool to include as follows, refer to Figure No. 10.

Township 23 N-Range 3 West

Rio Arriba County,
Section 14; W/2
Section 15; All
Section 16; E/2

Sandoval County,
Section 22; N/2
Section 23; All

RECOMMENDED SPECIAL POOL RULES

A. Each well completed or recompleted in the Oil Pool shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

B. Each well shall be located on a standard unit containing 320 acres, more or less, substantially in the form of a rectangle, which is a one-half section being a legal subdivision of the United States Public Land Surveys. The standard unit, 320 acres, can be either the North Half or South Half or can be East Half or West Half of a section being a legal subdivision of the United States Public Land Surveys.

C. The Secretary-Director of the Commission may grant an exception to the requirements of Rule B without notice and hearing when an application has been filed for a non-standard unit consisting of less than 320 acres or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

D. Each well shall be located no nearer than 330 feet to the outer boundary of the proration unit or to any governmental quarter-quarter section line nor nearer than 660 feet to the nearest well drilling to or capable of producing from the same pool.

E. The Secretary-Director may grant an exception to the requirements of Rule D without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators having offsetting leases within 1320' to the proposed location shall be notified of the application by registered or certified mail, and

the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

F. A standard proration unit (316 through 324 acres) shall be assigned an allowable of 747 barrels oil per day, and in the event there is more than one well on a 320-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 320 acres.

NOTE: The 747 barrels oil per day allowable is bases upon the following:

320-acre proration unit.	
First 40 acres	187 BOPD
80 BOPD for each additional 40 acres - 7 times 80 = 560 BOPD.	560 BOPD
Total	747 BOPD

G. That the limiting gas-oil ratio for the Oil Pool shall be 2,000 cubic feet of gas per barrel of oil produced.

H. The Secretary-Director of the Commission be authorized to grant, without notice and hearing, the conducting of interference tests with transfer of allowable from a shut in well to producing wells within the same lease.

I. The Special Pool Rules and Regulations would be considered temporary for a period not to exceed two years.

The recommendations for establishing the proposed pool boundaries and special rules will have no adverse effect on correlative rights.

[redacted] NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO TESTS

Revised 1-1-65

Operator	Pool	County
Keesee & Thomas	Undesignated Dakota	Sandoval

Address	TYPE OF TEST - (X)	Scheduled [ ]	Completion [X]	Special [ ]
P. O. Box 2026, Farmington, New Mexico 87401				

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS - OIL RATIO CU.FT./BBL
Chacon Jicarilla Apache "D"	1	A	23	23N	3W	9-26-74	F	2"	30	--	24	0	43	81	31	383

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

for: Keesee & Thomas

Ewell N. Walsh, P.E., President
Walsh Engr. & Prod. Corp.
(Title)

October 1, 1974
(Date)

Figure No. 2

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator: Dave M. Thomas, Jr.
Pool: Undesignated Dakota
County: Sandoval
Address: P. O. Box 2026, Farmington, New Mexico 87401
TYPE OF TEST - (X): Scheduled [ ] Completion [ ] Special [X]

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST: WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS - OIL RATIO CU.FT. BBL.
Chacon Jicarilla Apache "D"	1	A	23	23N	3W	1-10-76	P	2"	35	81	24	-0-	47	30	23	767

TEST FOR INFORMATION PURPOSES ONLY.

COPY OF TEST WAS NOT SENT TO NMOCC.

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

(Title)

(Date)

FIGURE NO. 3

Form 29-115 F (Rev. 5-62)

EL PASO NATURAL GAS COMPANY
SAN JUAN LABORATORY

FRACTIONAL DISTILLATION ANALYSIS [ ]

GAS CHROMATOGRAPHY ANALYSIS [ ]

Date of Run 1-22-76

Analysis No. VF 28390

Sample From ~~Gleason Natural Gas Co.~~ Dave M. Thomas, Jr.

Date Secured 1-13-76

Sample Marked Chacon Jicarilla Apache D-1

Secured By A.N.

COMPONENT	MOL. %	G.P.M.	LIQ. VOL. %
Carbon Dioxide	0.83		
Hydrogen Sulfide			
Nitrogen	2.55		
Methane	60.93		
Ethane	16.71		
Propane	13.67	3.752	
I-Butane	1.30	0.424	
N-Butane	2.75	0.864	
I-Pentane	0.51	0.186	
N-Pentane	0.40	0.144	
Hexane	0.35	0.152	
TOTALS	100.00	5.524	

Run By Koss Checked By James

Remarks
R L Ahrens
H. L. Holder
R. Ullrich
R. E. Johnson
R. B. Herr
M. E. Blakely, Jr.
R. F. Lemon
Don Adams
Walch Engineering (1)
P.O. Box 254
Farmington, New Mexico

HEATING VALUE
B.T.U. PER CU. FT.

Dry Basis, 14.696 lbs./sq. in., 60° F.
Calculated from % Composition 1441

Colorimeter

SULPHUR CONTENT
GRAINS PER 100 CU. FT.

14.7 lbs./sq. in., 60° F.
Hydrogen Sulfide

Mercaptans

SPECIFIC GRAVITY

14.696 lbs./sq. in., 60° F.
Calculated from % Composition 0.871

Calculated from % Liquid

VAPOR PRESSURE

PSIA at 100° F.
Calculated from Mole %

Column/s Used
AE & MS

Calculation By
NGPA

Carbon Dioxide
NGPA

Hydrogen Sulfide
Not Run

LOCATION AND WELL DATA

Sec. 15 T. 23 N. R. 3 W.

County
Sandoval

State
New Mexico

Formation

Bomb Pressure
59 @ 60° (FIGURE No. 4)

NEW MEXICO OIL CONSERVATION COMMISSION
GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator: Odessa Natural Corporation | Pool: Undesignated Dakota | County: Rio Arriba

Address:

TYPE OF TEST – (X): Scheduled ☐ Completion ☐ Special ☐

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST: WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT./BBL.
Chacon Jicarilla "D"	1	O	15	23N	3W	1-25-76	F	3/4	1050	--	24	-0-	49.1	142	1,385	9753

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

For: Odessa Natural Corp.

Ewell N. Walsh, P. E., Pres.
Walsh Engr. & Prod. Corp.
(Title)

February 2, 1976
(Date)

Figure No. 6

NEW MEXICO OIL CONSERVATION COMMISSION
GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator: Odessa Natural Corporation
Pool: Undesignated Dakota
County: Rio Arriba
Address: P. O. Box 3908, Odessa Texas 79760
TYPE OF TEST – (X): Scheduled ☐ Completion ☒ Special ☐

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT/BBL.
Chacon Jicarilla "D"	2	I	16	23N	3W	1-12-76	F	3/4"	150	None	24	0	45.1	120	1,064	8867

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.65.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

For Odessa Natural Corp.

Ewell N. Walsh

Ewell N. Walsh, P. E., Pres.
Walsh Engineering & Prod. Corporation (Title)
Jan. 14, 1976 (Date)

Figure No. 8

EL PASO NATURAL GAS COMPANY
GAS RESEARCH LABORATORY

FRACTIONAL DISTILLATION ANALYSIS [ ] GAS CHROMATOGRAPHY ANALYSIS [ ]

Date of Run: 1-22-76 Analysis No.: VF 28389

Sample From: Odessa Natural Corp. Date Secured: 1-13-76

Sample Marked: Chacon Jicarilla D #2 Secured By: AN

COMPONENT	MOL. %	G.P.M.	LIQ. VOL. %
Carbon Dioxide	0.48		
Hydrogen Sulfide			
Nitrogen	0.78		
Methane	71.78		
Ethane	14.51		
Propane	7.08	1.943	
I-Butane	1.19	0.388	
N-Butane	2.11	0.663	
I-Pentane	0.74	0.270	
N-Pentane	0.60	0.216	
Hexane	0.73	0.317	
TOTALS	100.00	3.799	

Run By: Ross Checked By: James

Remarks

R L Ahrens
H. L. Holder
R. Ullrich
R. E. Johnson
R. B. Herr
M. E. Blakely, Jr.
R. F. Lenon
Don Adams
Walch Engineering (1)
P.O. Box 254
Farmington, New Mexico
File

HEATING VALUE
B.T.U. PER CU. FT.

Dry Basis, 14.696 lbs./sq. in., 60° F.
Calculated from % Composition: 1358

Calorimeter:

SULPHUR CONTENT
GRAINS PER 100 CU. FT.

14.7 lbs./sq. in., 60° F.
Hydrogen Sulfide: Not Run

Mercaptans:

SPECIFIC GRAVITY

14.696 lbs./sq. in., 60° F.
Calculated from % Composition: 0.793

Calculated from % Liquid:

VAPOR PRESSURE

PSIA at 100° F.
Calculated from Mole %:

Column/s Used: AE & MS
Calculation By: NGPA
Carbon Dioxide: NGPA
Hydrogen Sulfide: Not Run

LOCATION AND WELL DATA

Sec. 16 T. 23 N. R. 3 W.
County: Sandoval
State: New Mexico
Formation:
Comb Pressure: 72 @ 60°F (FIGURE NO. 9)

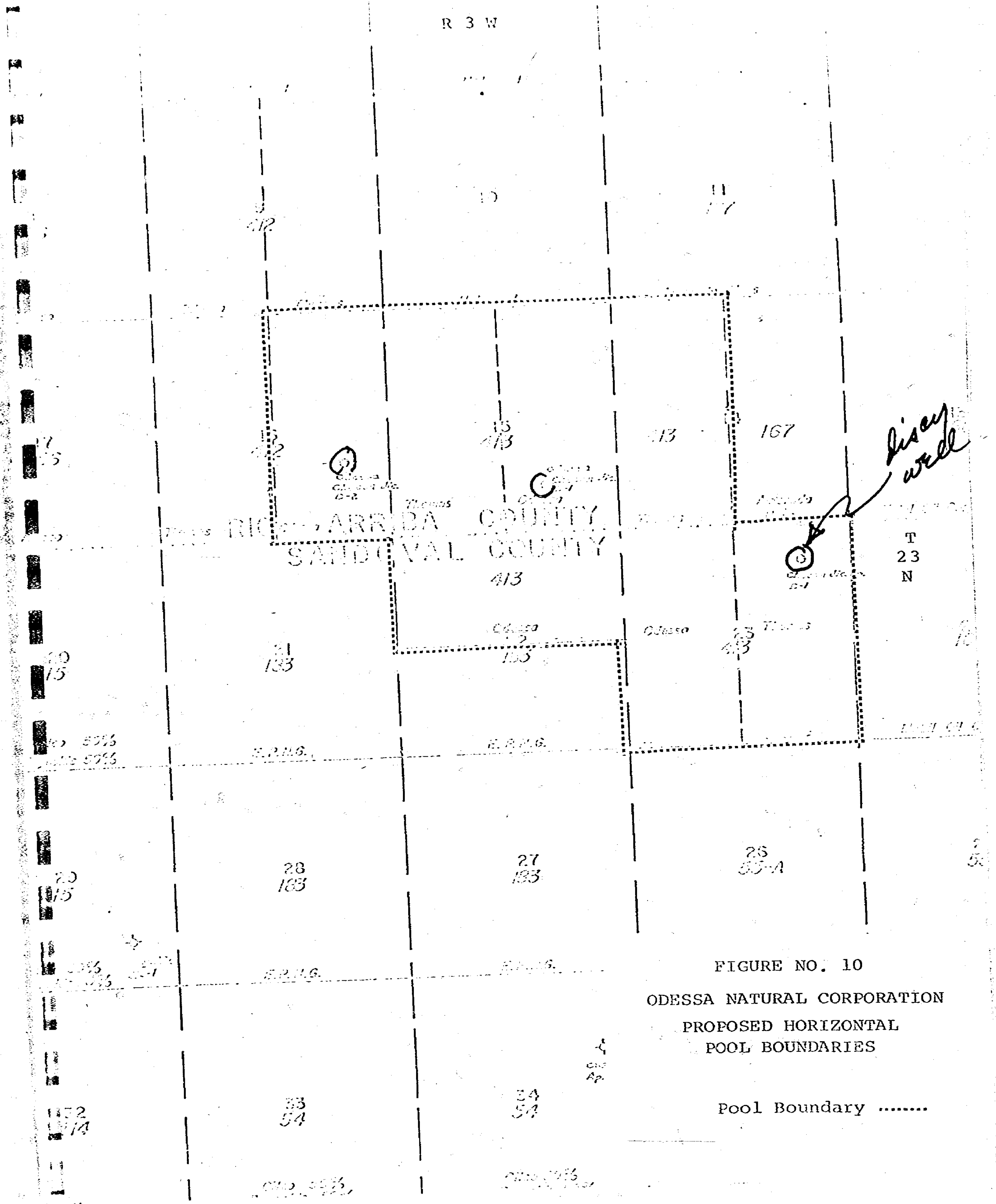

FIGURE NO. 10

ODESSA NATURAL CORPORATION

PROPOSED HORIZONTAL POOL BOUNDARIES

Pool Boundary ....

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
April 20, 1977

EXAMINER HEARING

IN THE MATTER OF:		
Application of Odessa Natural Gas Co. for special pool rules, Rio Arriba County, New Mexico.	)	CASE 5911
Case 5629 being reopened pursuant to the provisions of Order No. R-5192, which order established temporary special pool rules for the Chacon-Dakota Oil Pool, Rio Arriba County, New Mexico.	)	CASE 5629 (Reopened)

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: Owen M. Lopez, Esq.
MONTGOMERY, ANDREWS & HANNAHS
Attorneys at Law
325 Paseo de Peralta
Santa Fe, New Mexico

I N D E X

	Page
EWELL N. WALSH	
Direct Examination by Mr. Lopez	4
Cross Examination by Mr. Stamets	14
Cross Examination by Mr. Kendrick	21

EXHIBIT INDEX

	Offered	Admitted
Applicant's Exhibit One, Map	5	14
Applicant's Exhibit Two, Cross Section	9	14

MR. STAMETS: I believe without objection the Commission will call these next two Cases, 5911 and 5629 and consolidate those for purposes of testimony. Is there any objection to that? We will call both of those cases then.

MS. TESCHENDORF: Case 5911, application of Odessa Natural Gas Company for special pool rules, Rio Arriba County, New Mexico.

Case 5629 in the matter of Case 5629 being reopened pursuant to the provisions of Order No. R-5192, which order established temporary special pool rules for the Chacon-Dakota Oil Pool, Rio Arriba and Sandoval Counties, New Mexico.

MR. STAMETS: Call for appearances in these cases.

MR. LOPEZ: If the Examiner please, my name is Owen Lopez with the law firm of Montgomery, Andrews and Hannahs appearing on behalf of the applicant in Case Number 5911, Odessa Natural Gas Company, and also on behalf of that same company as an interested party in Case 5629.

Also, Mr. Examiner, we will propose to introduce two exhibits with respect to our application in Case 5911. We would also like them to be considered as exhibits in Case 5629 if there is no objection.

MR. STAMETS: These should be marked with both case numbers.

MR. LOPEZ: Right, we will so do.

MR. STAMETS: Are there any other appearances in

these two cases?

MR. MILLER: Gilbert Miller, Amerada Hess, we wish to make a statement.

MR. STAMETS: Any other appearances?

MR. THOMAS: Dave Thomas, independent producer, I would like to make a statement.

MR. STAMETS: Mr. Lopez, you may proceed.

MR. LOPEZ: Thank you, Mr. Examiner.

EWELL N. WALSH

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. LOPEZ:

Q. Would you please state your name, residence, by whom you are employed and in what capacity?

A. My name is Ewell N. Walsh, my residence is 925 East Navajo, Farmington, New Mexico and I'm President of Walsh Engineering and Production Corporation in Farmington, New Mexico.

Q. Are you familiar with the application of Odessa Natural Gas Company in Case 5911 and the Order to show cause of hearing in Case 5629?

A. Yes, I am.

MR. LOPEZ: Are the witness' qualifications acceptable?

MR. STAMETS: They are.

Q (Mr. Lopez continuing.) Mr. Walsh, would you please describe what Odessa Natural seeks with this application in Case 5911?

MR. STAMETS: I don't believe the witness has been sworn in this case.

MR. LOPEZ: No, I don't believe he has.

(THEREUPON, the witness was duly sworn.)

MR. STAMETS: Are the answers to Mr. Lopez' questions to this point the same answers that you gave the first time?

THE WITNESS: Yes, they are.

A. In Case 5911 Odessa Natural Gas Company requests special pool rules in the area that is now currently called Chacon-Dakota Oil Pool. These pool rules are to provide for a hundred and sixty acre spacing or proration unit in what we have determined to be an oil portion of the pool and re-classification of wells in what we call the gas portion of the pool from oil to gas and removal of such gas wells from the oil pool into the Basin-Dakota Gas Pool.

Q (Mr. Lopez continuing.) Now, if you will refer to Exhibit Number One, does this help support the application and will you please describe the exhibit and what it shows?

A. This exhibit basically is for the Township 23 North, Range 3 West and certain portions around that township. On the map are indicated the wells that have been currently

completed in the reservoir and the wells that are proposed to be drilled by the operators. The wells that are completed are the solid dots. The proposed locations are your circles, for the various operators.

Your lines going across the map is what we call a structure map. This structure is as determined on what is called the top of the Graneros formation or the base of the Greenhorn as it appears on the logs that were run in the well at that depth in relation to sea level, therefore, you have varying figures there from plus three fifty down to zero or sea level.

Also on this map you will notice that with each well in the most cases, you have at least two and sometimes three figures. The top figure is the February GOR for the well. The second figure is the API gravity at sixty degrees of the oil or condensate produced. The third figure is the pour point of the oil in terms of the degrees Fahrenheit.

Now, on the left-hand portion there you notice that there are no numeral values. All of these wells had a pour point less than zero. The numeral value that is on the other side on the three wells indicate pour points of twenty degrees Fahrenheit and forty degrees Fahrenheit.

The two wells, the Amerada I-3 located in the southeast quarter of Section 15, I believe, 14, does not have this value nor the Mobil well in the southwest quarter of

Section 13 due to oil samples were not taken on these wells. The gravities are from, based on the run tickets determination, at API degrees of sixty degrees.

Through this grouping of wells you have a line going from the northwest down to the southeast. This is what we have determined and are estimating the position of a fault. As you see the structure lines tend to vary coming into that fault area.

This map has all of the current wells in the area. At the call of the original hearing we only had three wells to work with a year ago. The one is the Thomas D No. 1, an Odessa D No. 1 and the Odessa D No. 2. Those were the three wells that were completed at that time. Right now, including Chace wells that have been completed, there are sixteen wells completed.

We have presented this information concerning the GOR's and the oil like this to indicate that we believe that we have two separate pools at the present time. Further evidence of this would be on the March production in which the wells to your left-hand side of the fault, their GOR's have even increased somemore. The wells, the GOR's on what we call oil wells, are on the right-hand side and are relatively the same, there is not much change.

In addition to the oil analysis, the examination of the gas analysis performed by El Paso Natural Gas Company who

is a purchaser of the gas, there is a difference in the natural gas content, especially in the methane.

On the oil side, all of the wells are pumping. There is one well that is capable of selling gas into a pipeline and that's Odessa's D No. 3 which is located in the northwest quarter of Section 23 of 23 North, 3 West. All of the other wells to the right of the fault are pumping and produce very nominal amounts of gas, in fact, the Mobil well is almost nil. They hardly have enough to run the pumping unit. The Amerada well is practically nil, they don't have too much gas there either.

I would like now to go to Exhibit Number Two.

Q. Before we go to Exhibit Number Two let's describe for the record the specific lands which you propose to have redesignated in the Basin-Dakota Gas Pool and withdrawn from the Chacon-Dakota Oil Pool and which lands you propose to leave on the designation as the Chacon-Dakota Pool.

A. For redesignation into the Basin Dakota Gas Pool I would recommend that all of Section 9, all of Section 15, all of Section 16, the east half of Section 21 and all of Section 22. These, either full sections or three hundred and twenty acres, all have what we call a gas well producing in either half of the section or the half.

Q. Now, with respect to the lands that will remain within the Chacon-Dakota Oil Pool, will you describe those?

A. The land that will remain in the Chacon-Dakota Oil Pool, this would be all of the west half and the southeast quarter of Section 14 and the southwest quarter of Section 13 and the north half of Section 23.

Q. Now, referring to Exhibit Two would you describe it?

A. Exhibit Two, if I may, is a cross section prepared from the logs run on the Odessa Natural D No. 2 and this well is located in the southeast quarter of Section 16. The Odessa D No. 1 located in the southeast quarter of Section 15; the Odessa D No. 3 located in the northwest quarter of Section 23. These are designated from left to right across this exhibit.

The producing intervals for this area we call the Dakota "A" and the Dakota "B" intervals. These are indicated on the logs as "A" or "B" and also the "A" in connection between wells there is cross hatched in red, the "B" in green. The other intervals that are indicated on these logs, the "D" and the "DC", the Dakota "D" in the Odessa D No. 1 was perforated, it was acidized and swabbed back but was determined to be nonproductive. It was almost like a barren reservoir.

The Burro Canyon member of the Dakota is considered to be water bearing, therefore, our main producing horizons are the Dakota "A" and "B".

Throughout this area basically your Greenhorn section

which is in the Odessa D No. 2 is from seventy-two fifty to seventy-three ten. It will be of approximately sixty to sixty-five feet interval. That is pretty well through in this one, in the Odessa D 2 and the Odessa D 3. However, in the Odessa D 1, the middle log of these three, we are missing about twenty feet. This was kind of confusing at the time but at the time the well was drilled and we had essentially only three wells in the pool area. The completion method for these wells is to frac the "B" zone by itself with approximately forty thousand gallons and forty thousand pounds and the "A" zone with approximately eighty thousand gallons and eighty thousand pounds.

After the development of the area and we started seeing our GOR's increase on the left-hand side of that fault and our GOR's remaining relatively the same on the right-hand side especially where structuraly-wise you can be at the same level, we were having a well structurally the same level on the oil side producing oil and pumping and a very low gas-oil ratio over on what we call the gas side we had a high GOR flowing.

With geological work it was determined we had to have a barrier and we had to have a fault in the Odessa D No. 1 as evidenced by this cross section in Exhibit Number Two and this was given as a barrier between what we call the oil side and the gas side. The throw of the fault is sufficient to

give, evidently, as far as we can tell, a complete barrier.

Q. In the event your application is granted to re-designate the wells on the west side of the fault as gas wells and to be placed in a gas pool, is it your opinion that the Basin-Dakota gas rules should apply to these wells and if so, should there be any exceptions to the rules as they now stand?

A. The Basin-Dakota Gas Pool Rules should apply with possibly the one exception which is due to the under-developed area we have here, we have not even outlined what is considered as productive area yet, essentially there has not been a dry hole drilled, would be to, instead of the rule where you can drill within a hundred and thirty feet of a quarter-quarter line within a section, that that should be changed to three hundred and thirty in the event that a well is drilled and comes up maybe like an oil well it still could be an orthodox location.

Q. Do you feel that another exception should be granted with respect to grandfathering in the present locations of these gas well if they are not drilled with standard locations?

A. Yes, for those wells which are currently drilled or locations prepared and approved that are not located as orthodox wells and under the Basin-Dakota gas rules that they should be automatically approved by the rules and regulations for this area.

Q. Now, referring to Case 5629, the order to show cause

case, what is your opinion as to the spacing that should be applied to the oil field or to the area east of the fault line?

A. In my opinion, the area, the proration unit should be assigned a well in what we call the oil portion. It should be a hundred and sixty acres.

Q. What is your reason for reaching that conclusion?

A. Basically right now my main reason is on economics. These wells cost approximately, an average, two hundred and eighty thousand dollars to drill and complete and be put on production.

A volumetric reservoir reserve calculation for the oil side, I calculated approximately eighty-eight thousand barrels of oil under a hundred and sixty acre tract, applying a current value of, excuse me, all of these leases down there have sixteen and two-thirds royalty with the Indian tribe involved and applying the net oil to the working interest would be some seventy-four thousand barrels. Using the current value of ten dollars and sixty-nine cents a barrel, this oil would have a value of seven hundred and eighty-seven thousand dollars. After making allowance for production taxes and operating costs which come to approximately a hundred and seventy-five thousand dollars you have a net income of working interest of six hundred and twelve thousand dollars. This is if you got every drop of oil of that eighty-eight thousand barrels.

Well for that much, if you are going to earn that

much income and you are going to take two hundred and eighty thousand dollars, essentially you are getting a two point two return, rate of return on your money, but even appling a further factor of bringing that to a present discounted income which is some three hundred and thirty-seven thousand dollars you only have a rate of return of one point two. In addition to that at this present time with the newness of the field and the knowledge we have I believe the well should drain a hundred and sixty acres. This formation is tight as we know Dakota formations. However, through visual observations of cores that have been obtained in these producing intervals there is a natural fracturing, therefore, this has given us our pipeline to produce through and with this knowledge I would say that I believe a hundred and sixty acre proration unit is a satisfactory proration unit for the oil wells.

Q. Do you have an opinion as to what the yardstick measure is with respect to the minimal economic return a reasonably prudent operator would have to expect before he drilled such a well?

A. The minimum for this type of a well would be approximately four to one.

Q. Do you believe it is economically feasible to develop this pool on forty acre spacing?

A. No.

Q. Do you believe it is economically feasible to develop

a pool on eighty acre spacing?

A. No, I do not.

Q. Are there other oil pools in the vicinity presently on one hundred and sixty proration spacing?

A. Yes, the Lindrith-Gallup-Dakota West Oil Pool is a hundred and sixty acre proration unit. The Lindrith-Gallup-Dakota South Oil Pool also has a hundred and sixty acre proration unit and these two pools lie within eight to ten miles of that area.

Q. Were Exhibits One and Two prepared by you or under your supervision?

A. They were.

MR. LOPEZ: I would like to introduce Exhibits One and Two.

MR. STAMETS: These Exhibits will be admitted.

(THEREUPON, applicant's Exhibits One and Two were admitted into evidence.)

Q. (Mr. Lopez continuing.) Mr. Walsh, if our application is granted and the order to show cause is denied, in your opinion would this prevent waste and protect correlative rights?

A. Yes, sir.

MR. LOPEZ: I have nothing further of this witness.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Walsh, in looking at your Exhibit Number One it

would appear that all of the development up to this time would fit into a hundred and sixty acre spacing pattern pretty well, it doesn't look like there are any wells, any situations where we would have two wells completed on a hundred and sixty, is that correct?

A. No, there are no two wells on a one sixty. However, the development on what we call the gas side, we believe that three hundred and twenty acres at the present time is the proper spacing or whatever you want to call it to be developed on there.

Q. In talking about the gas side, you know our statewide rules define a gas well in an oil pool of having a GOR of one hundred thousand to one?

A. Yes, sir.

Q. And on your gas side here I see a range of four thousand seven hundred and thirty to like thirty-one thousand four hundred. I also see some interesting variations. In Sections 21 and 22 you have a couple of relatively low gas-oil ratio wells and you move up north of that and you run across four higher gas-oil ratio wells, including the highest. If you continue further north then you drop back down. Here's one with a GOR of seventy-seven hundred and then on back up to thirteen thousand and then further north yet to twenty-five thousand. There doesn't seem to be any uniformity in these gas-oil ratios on the gas side.

A. The reason for the nonuniformity is due virtually to the time of production. Many of these wells have only been on production three months. The wells you are seeing with the higher gas-oil ratios, essentially the Odessa D 1 and D-2. They have been on production for a year. The other wells, as I said, varied in time. I can give you figures if you desire on a relative to time basis that will indicate that on the gas side your GOR's increase fairly rapidly up to where the higher ones are indicated. Now, it is only a matter of time here that the GOR's are not as high.

Q. For instance how about the Odessa Natural D 5, how long has that been on production?

A. It has been on three months and the GOR for March which we just got the information yesterday, we couldn't put on the map, with eighty-four hundred.

Q. That's a significant increase?

A. It is.

Q. Do they appear to increase to this twenty to thirty thousand level and stabilize at that point or do those decrease?

A. In one case, the Odessa D 2, in February went from thirty-one thousand four hundred and now it's forty-one thousand eighty-eight in March. There seems to be a general increase but somewhat -- once they reach the thirty thousand figure the increase is not as rapid as before.

The increase in GOR is due to your oil production

declining and the gas production is relatively level. It will decline some, yes, from the first flush period but it is mainly due to declining oil production.

Q. Do you have any figures available there on the current rate of oil production on these wells?

A. Yes, sir.

Q. Could you read those off to me so I could mark them on this Exhibit Number One here?

A. I'll take Odessa's wells first. Odessa D No. 1 located in the southeast of Section 16 for March was four hundred and one barrels and thirteen million, seven hundred and sixty gas. Odessa D No. 2 located in the southeast of 15 in March was three hundred and fifty-five barrels of oil, gas was fourteen million eight hundred and sixty-six. Odessa D No. 3 located in the northwest of Section 23, this is a pumping well, the oil production was sixteen hundred and twenty-eight barrels, gas production was two thousand eight hundred and seventy-seven MCF or two million eight hundred and seventy-seven, either way. Odessa's E No. 4 which is located in the northwest quarter of Section 22, March production three hundred and sixty-two barrels of oil, gas twelve million and seventeen, twelve thousand and seventeen MCF. Odessa's D No. 5 which is located in the southwest quarter of Section 22, the oil production was fifteen hundred and three barrels in March and the gas was twelve million, seven hundred and forty. Odessa's D No. 6

which is located in the southwest quarter of Section 21, the oil production eight hundred and fifty, gas production sixteen million six hundred and thirty-one. Odessa's D No. 8 located in the northwest quarter of Section 9, oil production of twelve hundred and forty barrels, gas production thirty million four hundred and seventy-five.

Q. Now, has that well just been on a short period of time?

A. March would be its third month.

Q. That is a similar situation to what you have on the D 5?

A. Yes.

Q. Except it has apparently much better producing characteristics?

A. It does especially in relation to gas.

Q. Okay.

A. For the Dave M. Thomas, Junior wells, his D 1 located in the northeast of Section 23, March was four hundred and seventy-seven barrels and your gas with that one would be approximately two hundred and fifty MCF, only that is a pumping oil well and no gas connection. The Thomas D No. 2 located in the northwest of Section 14, this is also a pumping oil well, very little gas, the oil production is eleven hundred and five barrels, therefore, it would have gas production by GOR around seven hundred thousand for the month, seven hundred

MCF. Dave Thomas's D No. 3, located in the northwest of Section 14, March production sixteen hundred and twenty-eight barrels of oil, gas seventeen million two hundred and ninety-seven. Thomas D No. 4 located in the southeast of Section 9, oil production thirteen hundred and thirty-five barrels, gas sixteen million three hundred and seventy-two. Dave Thomas D No. 5 located in the northwest quarter of Section 16, oil production of fifteen hundred and three barrels, gas production sixteen million two hundred and eighty-six.

Q. You don't have the production for the Amerada and Mobil?

A. No, I do not have currently.

Q. Those would be reflected in the Commission's records?

A. They would. The two Chace wells, the 115 in the northeast quarter of Section 20 was just recently completed. It is currently being cleaned up for test and it hasn't cleaned up sufficiently to attempt any measure of gas on it right at this time. The Chace 542 located in the northwest quarter of Section 34 was also just recently completed and my information this morning from the first day of the test where the well was making some forty-six barrels of oil and possibly five hundred MCF of gas per day which would give it a GOR of about ten thousand to one.

Q. Now, in some pools we have rules which permit reclassification of oil wells to gas wells based on achievement

of a particular gas-oil ratio level. If a well came in on a pool at a GOR of five thousand then it would be classified as an oil well and once it achieved twenty thousand, twenty-five thousand, thirty thousand, it would be reclassified a gas well. Is that type of reclassification applicable to this pool, would that be a good rule or would there be problems with that?

A. I don't believe there would be problems, in fact I believe if this was adopted as part of the rules and regulations for this area, say for the oil pool side, that any well after they attained twenty-five thousand to one should be reclassified into the Basin-Dakota gas pool.

Q. Would that be a good rule for both sides of this thing?

A. Yes.

Q. That would assure that if this fault wandered around a little bit we wouldn't just arbitrarily put a well on the gas side although it turned out to be an oil well?

A. Well, we hope that wouldn't happen but the rule could apply to both sides.

Q. So at this point if I can summarize what you have testified to, if the applicant, Odessa in this case, were granted a hundred and sixty acre oil well spacing and if the pool rules were changed to provide that any well that was produced with a gas-oil ratio -- which has a gas-oil ratio on test of twenty-five thousand to one or greater would be

reclassified as a gas well and would automatically go into the Basin-Dakota gas pool that this would be a satisfactory order for the applicant?

A. Yes, it would.

Q. Now, we haven't had any testimony here today indicating the ability of a well to actually drain a hundred and sixty acres, we haven't had any pressure data, any inference tests or this sort of thing.

A. No, as I previously stated, this is a relatively new field and like we have only had wells on production for two or three months. With that, a temporary one year for the hundred and sixty acre proration unit for oil and the three hundred and twenty -- or the Basin-Dakota gas wells for the gas side would be satisfactory.

MR. STAMETS: Any other questions of the witness?

MR. KENDRICK: Yes, sir.

CROSS EXAMINATION

BY MR. KENDRICK:

Q. Mr. Walsh, do you have any idea where in or what side of the fault line the three wells to the south edge of the Exhibit One should be placed, the Bonanza Well, the Chace Well and the Northwest Exploration Well?

A. I don't believe you can place them on either one side or the other. As we have indicated there we have only carried

that fault for a very short distance. The fault is only in evidence in the Odessa D No. 1. We have not seen the evidence in any of the other wells. It must be a very high angle fault so we are not trying to extend it out of reason.

Q. Okay. Do you have any reason to believe that the wells you refer to in the gas area on the west side of the fault are separated from the Basin-Dakota wells or the Basin-Dakota gas pool further to the west?

A. Reason to believe that they are separated?

Q. Right.

A. Yes, I do by virtue of additional drilling that has been performed between the two pools which in most cases are nonproductive.

MR. KENDRICK: I believe that's all of the questions.

MR. STAMETS: Any other questions of the witness? He may be excused.

(THEREUPON, the witness was excused.)

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

MR. MILLER: Gilbert Miller with Amerada Hess.

Amerada Hess would like to support the request of Odessa Natural Gas for special field rules specifying one hundred and sixty acre spacing for the Chacon-Dakota Oil Pool and we believe that the recommended oil spacing will encourage earlier delineation of the pool and will prevent waste and provide for the protection of correlative rights.

MR. STAMETS: Mr. Thomas?

MR. THOMAS: Yes, sir. Mr. Walsh has indicated that I operate five wells and we have made an expensive independent study from Odessa and we have essentially the same picture and I would also like to recommend that Odessa's request be granted and that we have a hundred and sixty acre spacing on the oil side and the three twenty or as you have set forth the twenty-five thousand to one would certainly fit our situation on the gas side.

MR. STAMETS: Anything further in this case? We will take the case under advisement.

REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5911 & 5629 heard by me on 4-20 1977.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

May 25, 1977

Re: CASE NO. 5629
ORDER NO. R-5192-A

Mr. Owen Lopez
Montgomery, Federici,
Andrews & Hannahs
Attorneys at Law
Post Office Box 2307
Santa Fe, New Mexico

Applicant:

OCC (Odessa Natural Corporation)

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC x

Other Gilbert Miller, David Thomas

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 5629
Order No. R-5192-A

IN THE MATTER OF CASE 5629 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-5192, WHICH ORDER ESTABLISHED SPECIAL RULES AND REGULATIONS FOR THE CHACON-DAKOTA OIL POOL, RIO ARRIBA AND SANDOVAL COUNTIES, NEW MEXICO, INCLUDING A PROVISION FOR 80-ACRE PRORATION UNITS.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 20, 1977, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 24th day of May, 1977, the Commission, a quorum being present, having considered the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

That this case should be dismissed.

IT IS THEREFORE ORDERED:

That Case No. 5629 is hereby dismissed.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E

dr/

Mobil Oil Corporation

THREE GREENWAY PLAZA EAST - SUITE 800
HOUSTON, TEXAS 77046

April 15, 1977

Mr. Joe Ramey
New Mexico Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

re: Case No. 5629
Order No. R-5192
Chacon-Dakota Oil Pool

Dear Mr. Ramey:

It is our understanding that Odessa Natural Corporation plans to submit testimony recommending 160 acre spacing for oil wells and 320 acre spacing for gas wells at the hearing you have set for April 20, 1977, for the subject Case No. 5629.

Mobil Oil Corporation has only one producing well in the Chacon-Dakota Oil Pool. It is our Jicarilla 'M' #1 which was only completed 2-4-77 (pumping) so we do not have much performance information.

In view of our lack of reservoir and performance information, and the indication of other operators desiring to develop on wider spacing, it appears prudent to do so. Necessary drilling can be accomplished at a later date, but unnecessary wells are a waste of resources.

Mobil Oil Corporation recommends 160 acre spacing for oil wells and 320 acre spacing for gas wells at this time. Should the Commission or an operator wish to consider closer spacing or rule changes, a hearing can be called.

Yours very truly,

J. A. Morris
Regulatory Engineering
Supervisor

JAM/csg
cc: Field Operators (5)

Docket No. 13-77

Dockets Nos. 15-77 and 16-77 are tentatively set for hearing on May 11 and May 25, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 20, 1977

9 A.M. OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

ALLOWABLE: (1) Consideration of the allowable production of gas for May, 1977, from seventeen prorated pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico.

(2) Consideration of the allowable production of gas for May, 1977, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 5872: (Reopened)

In the matter of Case 5872 being reopened pursuant to the provisions of Order No. R-5373 which order suspended Rules 15(A) and 15(B) of the General Rules for Prorated Gas Pools as promulgated by Order No. R-1670, as amended, to permit overproduced wells to continue to produce gas during the present severe weather conditions without danger of being shut in for overproduction. All interested parties may appear and show cause why said suspension should not rescinded. Also to be considered will be the matter of final disposition of overproduction accrued during the period of suspension of Rules 15(A) and 15(B), and what, if any, special consideration should be given to underproduction accrued to gas wells during the period of suspension of said rules.

CASE 5888: (Continued from March 23, 1977, Examiner Hearing)

Application of Dalport Oil Corporation for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its A. L. Christmas Well No. 3 to be drilled 330 feet from the South line and 2310 feet from the East line of Section 25, Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

CASE 5901: Application of Gulf Oil Corporation for a non-standard proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 400-acre non-standard gas proration unit comprising the SE/4 of Section 8, and the E/2 NW/4 and NE/4 of Section 17, Township 20 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to applicant's Theodore Anderson Wells Nos. 1 and 4, located at unorthodox locations in Unit O of said Section 8 and Unit B of said Section 17, respectively.

CASE 5902: Application of Amoco Production Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Apple Draw Unit Area comprising 3840 acres, more or less, of Federal, State, and Fee lands in Township 25 South, Range 27 East, Eddy County, New Mexico.

CASE 5903: Application of Maddox Energy Corporation for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a gas well to be drilled at a point 2310 feet from the South line and 1650 feet from the West line of Section 9, Township 18 South, Range 26 East, Atoka-Pennsylvanian Gas Pool, Eddy County, New Mexico.

CASE 5639: (Reopened)

In the matter of Case 5639 being reopened pursuant to the provisions of Order No. R-5173, which order established temporary special pool rules for the South Maljamar-Strawn Pool, Lea County, New Mexico. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 5904: (This Case will be continued to the May 11, 1977, Examiner Hearing)

Application of Palmer Oil & Gas Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Fruitland and Pictured Cliffs formations underlying the NE/4 and/or SE/4 of Section 20, Township 32 North, Range 6 West, San Juan County, New Mexico, and in the Mesaverde and Dakota formations underlying the E/2 of said Section 20, the above-described lands to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5905: (This Case will be continued to the May 11, 1977, Examiner Hearing)

Application of Palmer Oil & Gas Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Mesaverde and Dakota formations underlying the W/2 SE/4 and the E/2 SW/4 of Section 3, and the NW/4 of Section 10, and all mineral interests in the Pictured Cliffs and Fruitland formations underlying the NW/4 of Section 10, all in Township 31 North, Range 7 West, San Juan County, New Mexico, to be dedicated to a well to be drilled 1800 feet from the North line and 850 feet from the West line of said Section 10. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5906: (This Case will be continued to the May 11, 1977, Examiner Hearing)

Application of Palmer Oil & Gas Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Mesaverde and Dakota formations underlying the W/2 SW/4 of Section 2, the E/2 SE/4 of Section 3, and the NE/4 of Section 10, all in Township 31 North, Range 7 West, San Juan County, New Mexico, to be dedicated to a well to be drilled 1525 feet from the North line and 1850 feet from the East line of said Section 10. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5907: Application of Dome Petroleum Corporation for a special depth bracket allowable, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a special depth bracket allowable of 750 barrels of oil per day for the Papers Wash-Entrada Oil Pool, McKinley County, New Mexico.

CASE 5908: Application of Dome Petroleum Corporation for a special depth bracket allowable, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a special depth bracket allowable of 750 barrels of oil per day for the Ojo Encino-Entrada Oil Pool, McKinley County, New Mexico.

CASE 5909: Application of Dome Petroleum Corporation for pool creation and special depth bracket allowable, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the Snake Eyes-Entrada Oil Pool in Section 20, Township 21 North, Range 8 West, San Juan County, New Mexico, and the establishment of a special depth bracket allowable of 750 barrels of oil per day for said pool.

CASE 5910: Application of Yates Petroleum Corporation for gas pool creations and downhole commingling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of three Pennsylvanian gas pools in Townships 17 and 18 South, Ranges 24, 25, and 26 East, Eddy County, New Mexico, including the Richard Knob- and East Eagle Creek-Lower Penn Gas Pools with provisions in each for commingling Strawn, Atoka, and Morrow production in the wellbores of wells drilled therein, and the Eagle Creek Permo-Penn Gas Pool with provision for commingling Wolfcamp, Cisco, Canyon, and Strawn production in the wellbores of wells drilled therein.

CASE 5893: (Continued from April 6, 1977, Examiner Hearing)

Application of Chace Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Ballard-Pictured Cliffs and South Lindrith Gallup-Dakota production in the wellbore of its Jicarilla 70 Well No. 3 located in Unit C of Section 33, Township 24 North, Range 4 West, Rio Arriba County, New Mexico. In the alternative, applicant seeks authority to commingle said production at the surface without prior measurement and waiver of the gas-oil ratio test requirement.

CASE 5911: Application of Odessa Natural Gas Company for special pool rules, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the adoption of special pool rules for the Chacon-Dakota Oil Pool, Rio Arriba County, New Mexico, to provide for 160-acre spacing for oil wells and for reclassification of wells from oil to gas and the removal of such gas wells to the Basin-Dakota Pool.

CASE 5629: (Recpened)

In the matter of Case 5629 being reopened pursuant to the provisions of Order No. R-5192, which order established temporary special pool rules for the Chacon-Dakota Oil Pool, Rio Arriba and Sandoval Counties, New Mexico. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 5889: (Continued & Readvertised)

Application of Saturn Oil Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests down to and including the Abo formation underlying the NE/4 SE/4 of Section 11, Township 23 South, Range 37 East, Lea County, New Mexico, to be dedicated to its Lineberry Well No. 1 located in Unit I of said Section; and underlying the NW/4 SE/4 of said Section 11 to be dedicated to its Lineberry Well No. 2 located in Unit J of said Section. In the event re-entry into either well is unsuccessful, applicant proposes to drill a replacement well at a standard location on its tracts. Also to be considered will be the costs of recompletion or drilling and completing said wells and the allocation of the costs thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the wells and a charge for risk involved in recompletion or drilling of said wells.

PETROLEUM ENGINEERING
RESERVOIR STUDIES
EVALUATIONS
GEOLOGICAL STUDIES

EWELL N. WALSH, P.E.
President

WALSH
ENGINEERING & PRODUCTION
CORPORATION
EXECUTIVE BLDG. - 413 W. MAIN
P. O. BOX 254
FARMINGTON, NEW MEXICO
87401

LEASE MANAGEMENT
CONTRACT PUMPING
DRILLING SUPERVISION
WORKOVER SUPERVISION

TELEPHONE 325-8203

January 19, 1977

Mr. Joe D. Ramey, Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Ref: Case No. 5629
Order No. R-5192
Chacon Dakota Pool
Rio Arriba and Sandoval
Counties, New Mexico

Dear Mr. Ramey:

As per the above-referred-to order the case shall be reopened at an examiner hearing in April, 1977.

It is requested, on behalf of Odessa Natural Corporation and Dave M. Thomas, Jr., that the hearing for the case be on the April 20, 1977, docket.

The reason for requesting the April 20, 1977 date is as follows:

1. Previous committments of personnel prior to and after the week of April 18, 1977.

2. Additional time to obtain production information, for March, 1977, and utilize information for the hearing.

Your consideration and cooperation in this matter would be appreciated.

Very truly yours,

Ewell N. Walsh, P. E.
President

ENW:lt
cc:Odessa Natural Corp.
Dave M. Thomas, Jr.
Al Kendricks, NMOCC, Aztec, N.M.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 5629
Order No. R-5192

APPLICATION OF ODESSA NATURAL
CORPORATION FOR POOL CREATION,
ASSIGNMENT OF A DISCOVERY ALLOWABLE,
AND SPECIAL POOL RULES, RIO ARRIBA
AND SANDOVAL COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 18, 1976, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 30th day of March, 1976, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Odessa Natural Corporation, is the owner and operator of two wells capable of producing oil from the Dakota formation, said wells being the Odessa Chacon Jicarilla "D" Well No. 1, located in Unit O of Section 15 and the Odessa Chacon Jicarilla "D" Well No. 2, located in Unit I of Section 16, all in Township 23 North, Range 3 West, NMPM, Rio Arriba County, New Mexico.

(3) That said wells are apparently completed in and capable of producing from the same common source of supply in the Dakota formation as the Dave M. Thomas Chacon Jicarilla Apache "D" Well No. 1, located in Unit A of Section 23, Township 23 North, Range 3 West, NMPM, Sandoval County, New Mexico.

(4) That the applicant seeks the creation of a new oil pool for the above-described three wells, the assignment of an oil discovery allowable to the discovery well, the aforesaid Dave M. Thomas Chacon Jicarilla Apache "D" Well No. 1, and the promulgation of special pool rules, including a provision for 320-acre oil spacing and proration units.

(5) That the aforesaid Thomas well on September 4, 1974, apparently discovered a new Dakota common source of supply through perforations from 7,315 feet to 7,345 feet. That said common source of supply should be designated the Chacon-Dakota Oil Pool with vertical limits comprising the interval from the base of the Greenhorn Limestone found at a depth of 7,280 feet on the log of the discovery well to the top of the Burro Canyon formation found at a depth of 7,586 feet on said log; and that the horizontal limits of said pool should comprise the following lands:

TOWNSHIP 23 NORTH, RANGE 3 WEST, NMPM
Section 15: S/2
Section 16: SE/4
Section 22: NE/4
Section 23: N/2

(6) That the discovery well for said pool has declined in productivity and is classified as a marginal well, and that portion of the application requesting the assignment of an oil discovery allowable to said well has become moot and should be dismissed.

(7) That the applicant has failed to establish that one oil well in the Dakota formation in the subject area can efficiently and economically drain and develop 320 acres and the application for 320-acre spacing and proration units should be denied.

(8) That the Dakota formation in the subject area does appear to be more permeable than the Dakota formation in some other areas, and pending further study, temporary 80-acre spacing and proration units should be approved.

(9) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(10) That an administrative procedure should be established whereby the Secretary-Director could approve the transfer of allowables from a shut-in well to a producing well on the same lease during authorized pressure interference tests.

(11) That this case should be reopened at an examiner hearing in April, 1977, at which time the operators in the subject pool should be prepared to appear and show cause why the Chacon-Dakota Oil Pool should not be developed on 40-acre spacing units.

(12) That entry of an order embodying the above findings will not cause but will prevent waste, will protect correlative rights, and should be effected.

IT IS THEREFORE ORDERED:

(1) That a new pool is hereby created, classified as an oil pool for Dakota production and designated the Chacon-Dakota Oil Pool with vertical limits comprising the interval from the base of the Greenhorn Limestone found at a depth of 7,280 feet on the log of the discovery well, the Dave M. Thomas Jicarilla Apache "D" Well No. 1, located in Unit A of Section 23, Township 23 North, Range 3 West, NMPM, Sandoval County, New Mexico, to the top of the Burro Canyon formation found at a depth of 7,586 feet on said log, and with horizontal limits comprising the following lands:

TOWNSHIP 23 NORTH, RANGE 3 WEST, NMPM
Section 15: S/2
Section 16: SE/4
in Rio Arriba County, New Mexico

Section 22: NE/4
Section 23: N/2
in Sandoval County, New Mexico

(2) That temporary Special Rules and Regulations for the Chacon-Dakota Oil Pool, Rio Arriba and Sandoval Counties, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
CHACON-DAKOTA OIL POOL

RULE 1. Each well completed or recompleted in the Chacon-Dakota Oil Pool or projected to the Dakota formation as an oil well within one mile thereof, and not nearer to or within the limits of another designated Dakota oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental quarter section; provided however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered

or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well shall be located no closer than 330 feet to the outer boundary of the unit and no closer than 660 feet to another well capable of producing from the Dakota formation.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

RULE 6. Top unit allowable for a standard proration unit (79 through 81 acres) shall be based on a depth bracket allowable of 267 barrels per day, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the Chacon Dakota Oil Pool or in the Dakota formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Aztec District Office of the Commission in writing of the name and location of the well on or before May 1, 1976.

(2) That the Secretary-Director of the Commission is hereby authorized to approve the transfer of allowables from wells shut in for the purpose of pressure interference tests, to other wells on the same lease for production therefrom, provided however, such tests shall not exceed 90 days, but may be extended for good cause shown.

(3) That, pursuant to Paragraph A. of Section 65-3-14.5, NMSA 1953, contained in Chapter 271, Laws of 1969, existing wells in the Chacon-Dakota Oil Pool shall have dedicated thereto 80 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 65-3-14.5, existing wells may have non-standard spacing or proration units established by the Commission and dedicated thereto.

Failure to file new Forms C-102 with the Commission dedicating 80 acres to a well or to obtain a non-standard unit approved by the Commission within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the Chacon-Dakota Oil Pool or in the Dakota formation within one mile thereof shall receive no more than one-half of a standard allowable for the pool.

(4) That this case shall be reopened at an examiner hearing in April, 1977, at which time the operators in the subject pool should be prepared to appear and show cause why the Chacon-Dakota Oil Pool should not be developed on 40-acre spacing units.

(5) That that portion of the application relating to the assignment of an oil discovery allowable to the discovery well for the Chacon-Dakota Oil Pool is hereby dismissed.

(6) That that portion of the application relating to the establishment of 320-acre spacing and proration units is hereby denied.

(7) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

dr/

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 18, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of Odessa Natural Corporation for pool creation, assignment of a discovery allowable and special pool rules, Rio Arriba and Sandoval Counties, New Mexico.

CASE 5629

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: William F. Carr, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: Sumner G. Buell, Esq.
MONTGOMERY, FEDERICI, ANDREWS, HANNAHS & BUELL
Attorneys at Law
350 East Palace Avenue
Santa Fe, New Mexico

I N D E X

	Page
EWELL N. WALSH	3
Direct Examination by Mr. Buell	3
Cross Examination by Mr. Nutter	9

EXHIBIT INDEX

	Page
Applicant's Exhibit No. One, Booklet	9

MR. NUTTER: We will call Case Number 5629.

MR. CARR: Case 5629, application of Odessa Natural Corporation for pool creation, assignment of a discovery allowable and special pool rules, Rio Arriba and Sandoval Counties, New Mexico.

MR. BUELL: Mr. Examiner, I'm Sumner Buell of Montgomery, Federici, Andrews, Hannahs and Buell appearing on behalf of the applicant and we will have one witness.

(THEREUPON, the witness was duly sworn.)

EWELL N. WALSH

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BUELL:

Q. Would you state your name, please?

A. Ewell N. Walsh.

Q. Mr. Walsh, by whom are you employed, where and in what capacity?

A. I'm employed by Walsh Engineering and Production Corporation as a petroleum engineer consultant.

Q. And where are your offices?

A. In Farmington, New Mexico.

Q. And you are a consulting engineer to the Applicant

in this case?

A. Yes, I am.

Q. Have you previously testified before the Commission or one of its Examiners and had your qualifications accepted and made a matter of record?

A. Yes, I have.

Q. Are you personally familiar with what is sought in this Case 5629?

A. Yes, I am.

MR. BUELL: Are the witness's qualifications acceptable?

MR. NUTTER: Yes, they are.

Q. (Mr. Buell continuing.) Referring you to what has been marked for identification as Applicant's Exhibit Number One, would you briefly explain what is contained in this exhibit?

A. In this exhibit, which is a booklet, is the information concerning the discovery wells for this area, taken under concern, information concerning the subsequent development wells, recommended pool boundaries, vertical and horizontal, and recommended special pool rules.

Q. Referring you to what has been identified in the exhibit as Figure Number Ten, which is the last page, would you explain what this shows?

A. This is a copy of the portion of the area under concern

which indicates within the dashed lines the proposed horizontal pool boundaries for this Dakota oil pool. This is located in Township 23 North, Range 3 West.

Q. And also shown on this exhibit are the wells involved?

A. Yes, there are three wells currently completed in this are, the discovery well which is the Dave M. Thomas, Jr. Chacon Jicarilla Apache "D" No. 1 located in the northeast quarter of Section 23. The subsequent development wells which are Odessa Natural Corporation Chacon Jicarilla "D" 1 in the southeast quarter of Section 15, the Chacon Jicarilla "D" 2 in the southeast quarter of Section 16.

Q. Referring you back to page one of the exhibit, which covers the discovery well and the information on that well, would you just briefly outline the nature of the discovery well and what you found, how it is completed?

A. This is the Dave M. Thomas, Jr. Chacon Jicarilla Apache "D" No. 1. This well was drilled through the Dakota formation. The tops of the formations are indicated on that page. Also on Figure One in your back pocket is a copy of the log. The tops are also marked. The well was completed and ready for production in September 4th, 1974. This is completed essentially only in what we call our Dakota "A" zone in this area. The initial potential for the well was ninety-five barrels of oil per day, fifty-five MCF of gas per day with a GOR of five hundred and seventy-nine cubic feet

of gas per barrel of oil.

Q. What are the producing intervals in this well, in footage?

A. The present producing intervals are from perforations in the Dakota "A" zone from seventy-three hundred and fifteen feet to seventy-three hundred and twenty-five feet, seventy-three hundred and thirty-eight feet to seventy-three hundred and forty-five feet.

Q. Referring you now to page three of Exhibit One, again would you briefly outline the more salient points concerning the information on the subsequent development well?

A. On the subsequent development wells, the two Odessa wells, previously referred to, were completed in both the Dakota "A" and the Dakota "B" zones. One well, the Chacon Jicarilla "D" 1, a completion attempt was made in the Dakota "B", however, it was determined that zone was non-productive or void of any hydrocarbons, therefore, those perforations were not left open.

Q. In referring you to page six, you have here recommended pool boundaries both vertically and horizontally?

A. Yes, I have.

Q. What are the recommended vertical limits of this pool?

A. The recommended vertical limits of this pool, if you please refer to Figure One, which is a copy of the log of

the Dave M. Thomas, Jr. Chacon Jicarilla Apache "D" No. 1.

MR. NUTTER: Is that the one that is Keyes and Thomas?

A. Keyes and Thomas, yes. There was an operator name change there.

It is recommended that the vertical pool boundaries be established, starting at the base of the Greenhorn formation or top of the Granerous shale interval at seventy-two hundred and eighty feet and subsequently down four hundred feet from that point. This interval has been used by the Oil Conservation Commission before in establishing the vertical pool boundaries for the Dakota pool.

Q. (Mr. Buell continuing.) And you have also recommended horizontal limits. Are those horizontal limits set out there on page six without detailing them?

A. Yes, they are and are also indicted in Figure Ten.

Q. You have some recommended special pool rules for this pool as shown on page seven of Exhibit One?

A. On both page seven and eight, items (a) through (i).

Q. Now, Mr. Walsh, is there some feature of this that is particularly unique as to these special pool rules?

A. Yes, one feature is item (d) which we are recommending for a temporary two-year period only, that the standard proration unit or unit for the well be established as three hundred and twenty acres and that the three hundred

and twenty acres can be either the north half or south half of the section, or the east half or the west half of the section.

Q. Why is it that you feel that three hundred and twenty acres as a temporary measure is necessary?

A. This is a new oil pool in relation and in comparison to the other Dakota oil pools in the area, the West Lindrith Gallup Dakota and the South Lindrith Gallup Dakota. The initial information we are obtaining from these wells indicate that this area is going to be more productive, highly productive, than these two. We will need additional information from the reservoir and from production to be able to establish a pattern, not a pattern, but the density of drilling for the future. We just don't want to see a dense drilling pattern and then find out that we could have gotten by with less or denser.

Q. Is there any other item in the special pool rules that is somewhat unique?

A. Yes, there is an item (h) on page eight and this is that the Secretary-Director of the Commission be authorized to grant without notice of hearing, the conducting of interference tests with transfer of allowables from a shut in well to a producing well on the same lease.

Q. Do you have a recommended name for this pool?

A. Yes, we would like to recommend that this oil pool

be named the Chacon, that's C-h-a-c-o-n, Dakota oil pool.

Q. And is it your opinion that the granting of this application would prevent waste and protect correlative rights?

A. Yes, it is.

Q. Was Exhibit One prepared by you or under your supervision?

A. Yes, it was.

MR. BUELL: We move the introduction of Exhibit One.

MR. NUTTER: Exhibit One will be admitted into evidence.

(THEREUPON, Applicant Exhibit One was admitted into evidence.)

MR. BUELL: I have nothing further, Mr. Examiner.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Walsh, isn't it a fairly well known fact that the Dakota formation is just barely draining three hundred and twenty acres, if at all, and isn't it also a fairly well known fact that most reservoirs are less permeable to the flow of oil than they are to gas?

A. In answer to your first part, I would say, yes, in the other areas of the Dakota production this is true. However, I believe we are possibly coming into an area of Dakota production that has better reservoir characteristics and

conditions to give better production and the answer to your last part, yes. In the formations, like the Dakotas, the movement of fluid is slow.

Q. Now, this Thomas well has been on production for a couple of years, hasn't it?

A. It was in September of 1974.

Q. So it would be about a year and a half?

A. A year and a half, right.

Q. How much oil has that well produced?

A. Approximately twelve thousand barrels.

Q. Do you have any original pressure and any current bottom-hole pressure on that well?

A. On that well --

Q. Now, its IP was ninety-five barrels of oil per day, what will it make now?

A. Currently, Mr. Nutter, under pump, with a pump, about forty-five barrels a day. However, there is an indication that the pump is not pumping to capacity, it seems to be carrying a fluid level within the well.

Q. How about these other two wells, how much do they make?

A. The two Odessa wells are currently shut in, Mr. Nutter, waiting on gas line connection for the gas. They did not wish to vent the gas.

Q. And what was their IP on original completion?

Okay, I found it. The first one is a hundred and forty-two barrels?

A. Right, on page four there and that was for the "D" No. 1 and the "D" No. 2 was a hundred and twenty barrels of oil per day.

Q. How much oil have they made to date, before they were shut in?

A. Their production would be in the neighborhood of approximately a thousand barrels.

Q. So there is no pressure information available on them either, I guess?

A. On the "D" No. 2 we have been taking pressures and we plan to continue to take pressures during shut in to establish reservoir pressures, for the two zones that are open in the wells.

Q. Does the Thomas well have a casinghead gas connection?

A. No, sir, its current gas production is about twenty-three MCF per day. Originally it was some fifty-five. It was not sufficient gas to justify a gas company laying a gas line for it. It has been approved as an exception to the no-flare order.

Q. But Odessa is planning to get a casinghead gas connection for their wells?

A. Oh, yes, definitely. One thing there is a proposed workover program of the Dave M. Thomas well to open what we

call the B zone. This in completion of the Odessa wells indicated to have possibly sufficient gas to be able to flow the Thomas well, rather than have to pump it then.

Q. Now, the application was for this pool creation and the promulgation of pool rules, also for the assignment of a discovery allowable to the discovery well, but you have sought here in your pool rules an allowable equal to seven hundred and forty-seven barrels of oil per day and the discovery allowable would be assigned on top of that, is there any chance that this Thomas well can make a discovery allowable?

A. No, sir, we have not even covered that in this portion of the hearing because we think that is a matter after the fact now.

Q. Okay. It's probably not necessary?

A. It's not necessary, that's true.

MR. NUTTER: Are there any further questions of Mr. Walsh? He may be excused.

(THEREUPON, the witness was excused.)

MR. NUTTER: Do you have anything further, Mr. Buell?

MR. BUELL: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case 5629?

MR. THOMAS: Mr. Nutter, I am Dave Thomas of Farmington, New Mexico and I have consulted with Mr. Walsh and with Odessa Natural on their field rules and applications

and I do concur completely with them.

MR. NUTTER: Thank you.

MR. THOMAS: Thank you, sir.

MR. NUTTER: Does anyone else have anything to offer in this case? We will take the case under advisement.

REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5229, heard by me on 2/18, 1972.

....., Examiner
New Mexico Oil Conservation Commission

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

Re: CASE NO. 5629
ORDER NO. R-5192

Mr. Sumner Buell
Montgomery, Federici, Andrews,
Hannahs & Buell
Attorneys at Law
Post Office Box 2307
Santa Fe, New Mexico

Applicant:

Odessa Natural Corporation

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC
Aztec OCC x

Other Dave Thomas

Case No. 5629
[illegible] NATURAL CORPORATION
OIL CREATION
and
[illegible] POOL RULES
Rio Arriba and Sandoval Counties,
New Mexico
February 18, 1976

I N D E X

		Page No.
DISCOVERY WELL		
	Dave M. Thomas, Jr. Chacon Jicarilla Apache No. 1	1
SUBSEQUENT WELLS		
	Odessa Natural Corporation	3
	Chacon Jicarilla "D" No. 1	4
	Chacon Jicarilla "D" No. 2	6
RECOMMENDED POOL BOUNDARIES		7
RECOMMENDED SPECIAL POOL RULES		
FIGURES		
	MAP OF AREA	Back Pocket
	Dave M. Thomas, Jr. Chacon Jicarilla Apache No. 1	Back Pocket
1	Induction Electrolog	
2	Initial GOR	
3	Latest GOR	
4	Gas Analysis	
	Odessa Natural Corporation	
	Chacon Jicarilla "D" No. 1	Back Pocket
5	Induction Electric Log	
6	Initial GOR Test	
	Chacon Jicarilla "D" No. 2	Back Pocket
7	Induction Electric Log	
8	Initial GOR Test	
9	Gas Analysis	
10	PROPOSED HORIZONTAL POOL BOUNDARIES	

PETROLEUM ENGINEERING
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EVALUATIONS
GEOLOGICAL STUDIES

IWELL N. WALSH, P.E.
President

WALSH
ENGINEERING & PRODUCTION
CORPORATION
EXECUTIVE BLDG. - 413 W. MAIN
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FARMINGTON, NEW MEXICO
87401

LEASE MANAGEMENT
CONTRACT PUMPING
DRILLING SUPERVISION
WORKOVER SUPERVISION

TELEPHONE 325-8203

DISCOVERY WELL

The discovery well for the proposed new oil pool was:

Dave M. Thomas, Jr.
Chacon Jicarilla Apache "D", No. 1
875'FNL, 1140'FEL, Section 23-T23N-R3W
Sandoval County, New Mexico

Refer to Map of Area.

The well was originally drilled with Keesee and Thomas as operator. On February 13, 1975, the operator was changed to Dave M. Thomas, Jr.

The original acreage dedication was 320 acres in the W/2 Section 23-T23N-R3W, however, after completion as an oil well, the acreage dedication was changed to 40 acres in the NE/4NE/4, Section 23-T23N-R3W, on September 13, 1974.

The well was drilled as a wildcat gas well. After completion as an oil well, the unorthodox wildcat oil well location was approved by the New Mexico Oil Conservation Commission in Order No. R-4886.

Figure No. 1 is a copy of a portion of the Induction Electrolog, of the subject well, indicating the tops of formations and perforations.

Top of Formations:

Greenhorn	7215'
Graneros (Base of Greenhorn)	7280'
Dakota "A"	7303'
Dakota "B"	7418'
Dakota "C"	Not present
Dakota "D"	7510'
Burro Canyon	7586'

Four and one-half (4½") inch production casing was set at 7545'. A cementing stage collar is at 3298'. Calculated top of cement, 1st stage - 5900', 2nd stage ' 2550' (Protect Pictured Cliffs Formation).

Perforations

Dakota "A"	7315'-7325'
	7338'-7345'

Perforations were sandwater fraced with 61,000 gals. water and 60,000 lbs. sand.

Due to low gas production it was necessary to install pumping equipment to produce the oil. The pump seating nipple is at 7285'.

Figure No. 2 and 3 are copies of the initial and subsequent GOR Tests. The Initial Potential for the well was - 95 BOPD, 55 MCFPD, GOR - 579 cubic feet gas per barrel oil, on September 4, 1974.

The current assigned allowable is 81 BOPD.

The current producing rate for the well is 30 BOPD and 23 MCFPD.

The gravity of the oil being produced is 47 ^{o}API at 60^{o}F.

Due to the low volume of gas, at a separator pressure of approximately 35 psig, being produced, an application for Exception to No-Flare Rule 306 was submitted to the New Mexico Oil Conservation Commission and approved as NFO Permit No. E-3-120, January 15, 1976.

Figure No. 4 is a copy of the Gas Analysis of the gas produced by the well.

Due to problems with hole conditions a porosity log was not run. From information on other wells in the area, it is estimated that the reservoir properties are:

Dakota "A" Zone
- Porosity - 8 to 11%
- Water Saturation - 40 to 50%

Dakota "B" Zone
- Porosity - 7 to 9%
- Water Saturation - 40 to 50%

It is proposed to workover the well to perforate and sandwater fracture the Dakota "B" Zone, 7425' to 7435'. During

the completion of the Odessa Natural Corporation wells Chacon Jicarilla "D" No. 1 and 2 in Sections 15 and 16-T23N-R3W, it was determined that the Dakota "B" Zone could produce sufficient natural gas to produce the well on a flowing basis instead of pumping.

SUBSEQUENT DEVELOPMENT WELLS

ODESSA NATURAL CORPORATION
CHACON JICARILLA "D", NO. 1

1. Location:
   1020'FSL, 1720'FEL, Section 15-T23N-R3W
   Rio Arriba County, New Mexico

2. Tops of Formations. Figure No. 5

Greenhorn	7203'
Graneros (Base of Greenhorn)	7230'
Dakota "A"	7250'
Dakota "B"	7364'
Dakota "C"	Not Present
Dakota "D"	7455'
Burro Canyon	7530'

NOTE: Corrected depth on log. It was determined that the original Induction-Electric Log recorded the formations 21' shallower than actual depth. Unless stated all depths refer to original recorded depths.

3. Perforations

7456'-7468' - Broke down and cleaned up with acid. Swab test indicated no oil, no gas and no water. Set permanent cast iron bridge plug at 7444'.

7366'-7371' and 7376'-7380' - Broke down and cleaned up with acid. Swab test indicated show of gas and oil, no water. Sandwater frac with 47,110 gals water and 40,000 lbs sand. After cleanup - 1,200 MCFPD with spray of oil and frac water.

7248'-7251', 7259'-7266', 7274'-7279' and 7285'-7290' - Sandwater frac with 84,700 gals water and 80,000 lbs. sand. After cleanup 2,600 MCFPD with heavy spray oil and frac water.

4. Initial Potential

Figure No. 6 is a copy of the initial GOR Test. The Initial Potential Test for the well was 142 BOPD, 1,385 MCFPD, GOR - 9753 cubic feet of gas per barrel of oil. Date of Initial Potential test was January 25, 1976

5. Current Production

The well is shut in while waiting for the gas purchasing company to install a gas line for gathering the gas.

ODESSA NATURAL CORPORATION
CHACON JICARILLA "D", NO. 2

1. Location

1777'FSL, 980'FEL, Section 16-T23N-R3W
Rio Arriba County, New Mexico

2. Tops of Formations, Figure No. 7.

Greenhorn	7245'
Graneros (Base of Greenhorn)	7310'
Dakota "A"	7330'
Dakota "B"	7444'
Dakota "C"	Not Present
Dakota "D"	7537'
Burro Canyon	7620'

NOTE: Corrected depth on Log. It was determined that the original Induction Electric Log recorded the formations 26' shallower than actual depth. Unless stated all depths refer to original recorded depths.

3. Perforations

7446'-7456'	Broke down and cleaned up with acid. Swab test indicated show of gas, no oil, no water. Sandwater frac with 45,000 gals water and 40,000 pounds of sand. After cleanup - 1,000 to 2,000 MCFPD with heavy spray of oil and frac water.
7330'-7333' 7338'-7358'	Sandwater frac with 84,900 gals. water and 80,000 lbs. sand. Did not test after frac.

4. Initial Potential

Figure No. 8 is a copy of the initial GOR Test. The Initial Potential Test for the well was 120 BOPD, 1,064 MCFPD, GOR - 8870 cubic feet of gas per barrel of oil. Date of Initial Potential Test was January 12, 1976.

5. Gas Analysis

Figure No. 9 is a copy of the Gas Analysis of the gas produced by the well.

6. Current Production

The well is shut in while waiting for the gas purchasing company to install a gas line for gathering the gas.

RECOMMENDED POOL BOUNDARIES

VERTICAL

Refer to Figure No. 1, Induction Electrolog of Dave M. Thomas, Jr., Chacon Jicarilla Apache "D", No. 1.

The vertical boundary of the pool to include the interval commencing at the base of the Greenhorn formation, or top of the Graneros Shale, 7280', to such point 400 feet below the base of the Greenhorn formation. This interval has been previously used by the New Mexico Oil and Gas Conservation Commission in establishing the vertical boundaries of the Dakota formation for purposes of establishing a pool.

HORIZONTAL

The initial horizontal boundaries of the pool to include as follows, refer to Figure No. 10.

Township 23 N-Range 3 West

Rio Arriba County,
Section 14; W/2
Section 15; All
Section 16; E/2

Sandoval County,
Section 22; N/2
Section 23; All

Chaveo - Dibollo Oil Pool

RECOMMENDED SPECIAL POOL RULES

A. Each well completed or recompleted in the Oil Pool shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

B. Each well shall be located on a standard unit containing 320 acres, more or less, substantially in the form of a rectangle, which is a one-half section being a legal subdivision of the United States Public Land Surveys. The standard unit, 320 acres, can be either the North Half or South Half or can be East Half or West Half of a section being a legal subdivision of the United States Public Land Surveys.

C. The Secretary-Director of the Commission may grant an exception to the requirements of Rule B without notice and hearing when an application has been filed for a non-standard unit consisting of less than 320 acres or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

D. Each well shall be located no nearer than 330 feet to the outer boundary of the proration unit or to any governmental quarter-quarter section line nor nearer than 660 feet to the nearest well drilling to or capable of producing from the same pool.

E. The Secretary-Director may grant an exception to the requirements of Rule D without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators having offsetting leases within 1320' to the proposed location shall be notified of the application by registered or certified mail, and

the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

F. A standard proration unit (316 through 324 acres) shall be assigned an allowable of 747 barrels oil per day, and in the event there is more than one well on a 320-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 320 acres.

NOTE: The 747 barrels oil per day allowable is bases upon the following:

320-acre proration unit.	
First 40 acres	187 BOPD
80 BOPD for each additional 40 acres - 7 times 80 = 560 BOPD.	560 BOPD
Total	747 BOPD

G. That the limiting gas-oil ratio for the Oil Pool shall be 2,000 cubic feet of gas per barrel of oil produced.

✓H. The Secretary-Director of the Commission be authorized to grant, without notice and hearing, the conducting of interference tests with transfer of allowable from a shut in well to producing wells within the same lease.

I. The Special Pool Rules and Regulations would be considered temporary for a period not to exceed two years.

The recommendations for establishing the proposed pool boundaries and special rules will have no adverse effect on correlative rights.

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO TESTS

Revised 1-1-65

Operator	Pool	County
Keesee & Thomas	Undesignated Dakota	Sandoval

Address	TYPE OF TEST - (X)	Scheduled ☐	Completion ☒	Special ☐
P. O. Box 2026, Farmington, New Mexico 87401				

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS - OIL RATIO CU.FT./BBL
Chacon Jicarilla Apache "D"	1	A	23	23N	3W	9-26-74	F	2"	30	--	24	0	43	81	31	383

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

for: Keesee & Thomas

Ewell N. Walsh, P.E., President
Walsh Engr. & Prod. Corp.
(Title)

October 1, 1974
(Date)

Figure No. 2.

NEW MEXICO OIL CONSERVATION COMMISSION

GAS – OIL RATIO TESTS

C-116

Revised 1-1-65

Operator: Dave M. Thomas, Jr.

Pool: Undesignated Dakota

County: Sandoval

Address: P. O. Box 2026, Farmington, New Mexico 87401

TYPE OF TEST – (X): Scheduled ☐ Completion ☐ Special X

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT. BBL.
Chacon Jicarilla Apache "D"	1	A	23	23N	3W	1-10-76	P	2"	35	81	24	-0-	47	30	23	767

TEST FOR INFORMATION PURPOSES ONLY.

COPY OF TEST WAS NOT SENT TO NMOCC.

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

(Title)

(Date)

FIGURE NO. 3

Form 23-111T (Rev. 5-62)

EL PASO NATURAL GAS COMPANY
SAN JUAN LABORATORY

FRACTIONAL DISTILLATION ANALYSIS [ ] GAS CHROMATOGRAPHY ANALYSIS [ ]

Date of Run 1-22-76 Analysis No. VF 28390

Sample From [illegible] Date Secured 1-13-76
Dave M. Thomas, Jr.

Sample Marked Chacon Jicarilla Apache D-1 Secured By A.N.

COMPONENT	MOL. %	G.P.M.	LIQ. VOL. %
Carbon Dioxide	0.83		
Hydrogen Sulfide			
Nitrogen	2.55		
Methane	60.93		
Ethane	16.71		
Propane	13.67	3.752	
I-Butane	1.30	0.424	
N-Butane	2.75	0.864	
I-Pentane	0.51	0.186	
N-Pentane	0.40	0.144	
Hexane	0.35	0.152	
TOTALS	100.00	5.524	

Run By Ross Checked By James

Remarks

R L Ahrens
H. L. Holder
R. Ullrich
R. E. Johnson
R. B. Herr
M. E. Blakely, Jr.
R. E. Lemon
Don Adams
Walch Engineering (1)
P.O. Box 254
Farmington, New Mexico

HEATING VALUE
B.T.U. PER CU. FT.

Dry Basis, 14.696 lbs./sq. in., 60° F.
Calculated from % Composition 1441

Colorimeter

SULPHUR CONTENT
GRAINS PER 100 CU. FT.

14.7 lbs./sq. in., 60° F.
Hydrogen Sulfide

Mercaptans

SPECIFIC GRAVITY

14.696 lbs./sq. in., 60° F.
Calculated from % Composition 0.871

Calculated from % Liquid

VAPOR PRESSURE

PSIA at 100° F.
Calculated from Mole %

Column/s Used
AE & MS

Calculation By
NGPA

Carbon Dioxide
NGPA

Hydrogen Sulfide
Not Run

LOCATION AND WELL DATA

Sec. 15 T. 23 N. R. 3 W.
County
Sandoval
State
New Mexico
Formation

Bomb Pressure
59 @ 60° (FIGURE No. 4)

NEW MEXICO OIL CONSERVATION COMMISSION
GAS - OIL RATIO TESTS

C-116
Revised 1-1-65

Operator: Odessa Natural Corporation | Pool: Undesignated Dakota | County: Rio Arriba

Address | TYPE OF TEST - (X) | Scheduled ☐ | Completion ☐ | Special ☐

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS - OIL RATIO CU.FT./BBL.
Chacon Jicarilla "D"	1	O	15	23N	3W	1-25-76	F	3/4	1050	--	24	-0-	491	142	1,385	9753

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

For: Odessa Natural Corp.

Ewell N. Walsh, Registered P. E., Pres.
Walsh Engr. & Prod. Corp.
(Title)

February 2, 1976
(Date)

Figure No. 6

NEW MEXICO OIL CONSERVATION COMMISSION
GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator: Odessa Natural Corporation | Pool: Undesignated Dakota | County: Rio Arriba

Address: P. O. Box 3908, Odessa Texas 79760 | TYPE OF TEST – (X) Scheduled ☐ Completion ☒ Special ☐

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT/BBL.
Chacon Jicarilla "D"	2	I	16	23N	3W	1-12-76	F	3/4"	150	None	24	0	45.1	120	1,064	8867

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

For Odessa Natural Corp.

Dwell N. Walsh, Pres.
Walsh Engineering & Prod. Corporation (Title)
Jan. 14, 1976 (Date)

Figure No. 3

FRACTIONAL DISTILLATION ANALYSIS [ ]

GAS CHROMATOGRAPHY ANALYSIS [ ]

Date of Run 1-22-76 Analysis No. VF 28389

Sample From Odessa Natural Corp. Date Secured 1-13-76

Sample Marked Chacon Jicarilla D #2 Secured By AN

COMPONENT	MOL. %	G.P.M.	LIQ. VOL. %
Carbon Dioxide	0.48		
Hydrogen Sulfide			
Nitrogen	0.78		
Methane	73.78		
Ethane	14.51		
Propane	7.08	1.943	
I-Butane	1.19	0.388	
N-Butane	2.11	0.663	
I-Pentane	0.74	0.270	
N-Pentane	0.60	0.216	
Hexane	0.73	0.317	
TOTALS	100.00	3.799	

Run By Ross Checked By James

HEATING VALUE
B.T.U. PER CU. FT.

Dry Basis, 14.696 lbs./sq. in., 60° F.
Calculated from % Composition 1358

Calorimeter

SULPHUR CONTENT
GRAINS PER 100 CU. FT.

14.7 lbs./sq. in., 60° F.
Hydrogen Sulfide Not Run

Mercaptans

SPECIFIC GRAVITY

14.696 lbs./sq. in., 60° F.
Calculated from % Composition 0.793

Calculated from % Liquid

VAPOR PRESSURE

PSIA at 100° F.
Calculated from Mole.%

Column/s Used
AE & MS

Calculation By
NGPA

Carbon Dioxide
NGPA

Hydrogen Sulfide
Not Run

Remarks

R L Ahrens
H. L. Holder
R. Ullrich
R. E. Johnson
R. B. Herr
M. E. Blakely, Jr.
R. F. Lenon
Don Adams
Walch Engineering (1)
P.O. Box 254
Farmington, New Mexico
File

LOCATION AND WELL DATA

Sec. 16 T. 23 N. R. 3 W.
County Sandoval
State New Mexico
Formation
Bomb Pressure 72 @ 60°F (FIGURE NO. 9)

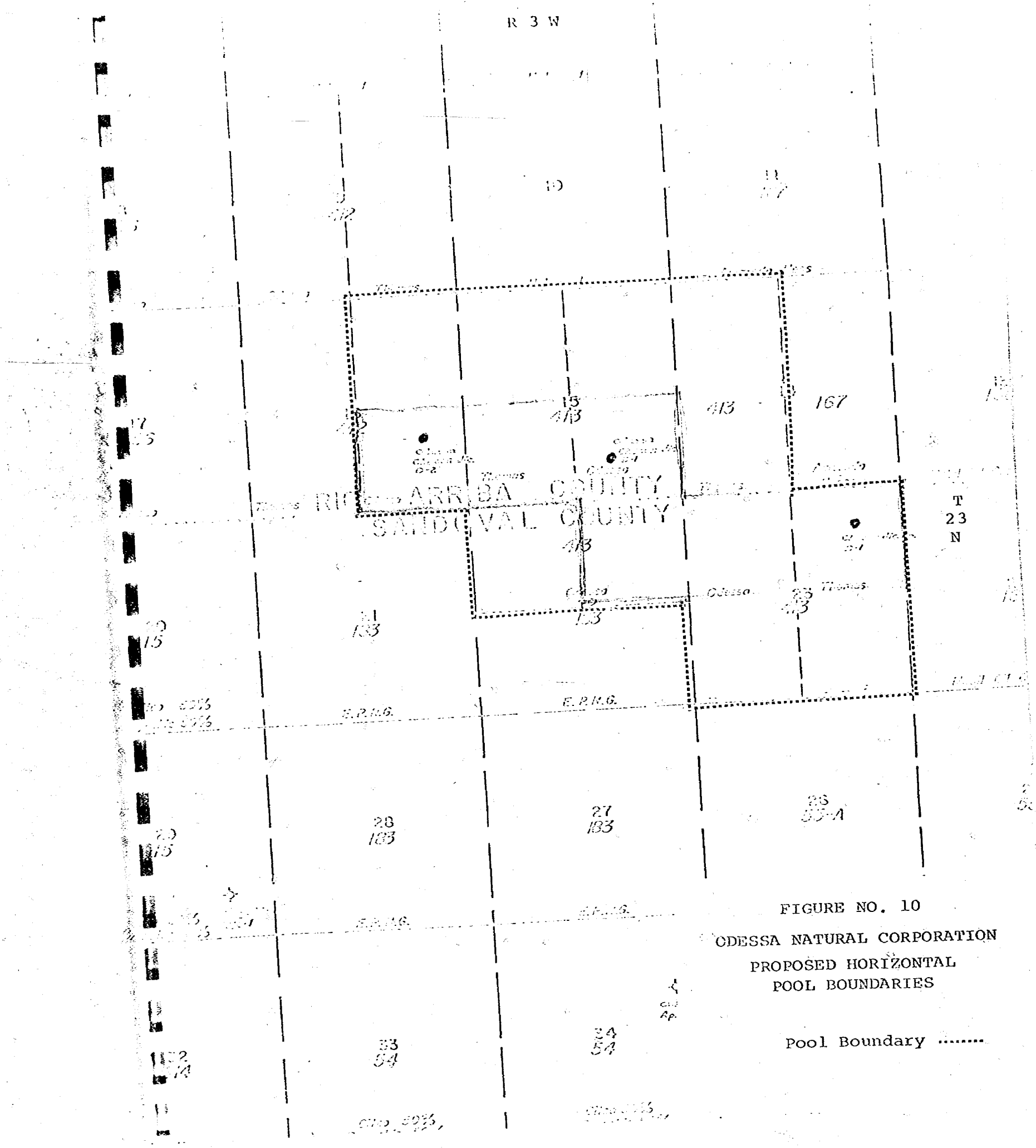


FIGURE NO. 10

ODESSA NATURAL CORPORATION

PROPOSED HORIZONTAL
POOL BOUNDARIES

Pool Boundary .....

Fig. 5

INDUCTION ELECTRIC LOG

COMPANY DESSER NATURAL CORPORATION

WELL CHACON JICARILLA 1-P

FIELD WILDCAT

COUNTY RIO ARRIBA STATE NEW MEXICO

Location 1020' FSL
1720' FEL

Sec. 15 Twp 23N Rge 3W

Other Services:
COMP. NVL

Permanent Datum GROUND LEVEL Elev. 7342'
Log Measured From KELLY BUSHING 12 Ft. Above Perm. Datum
Drilling Measured From KELLY BUSHING

Elev.: K.B. 7354'
D.F. —
G.L. 7342'

Date	10-31-75			
Run No.	ONE			
Depth—Driller	7650'			
Depth—Welex	7651'			
Btm. Log Inter.	7645'			
Top Log Inter.	3496'			
Casing—Driller	9⅝" @ 374'	@	@	@
Casing—Welex	—			
Bit Size	7⅞"			
Type Fluid in Hole	CHEM GEL			
Dens. | Visc.	9.2 | 130			
pH | Fluid Loss	10 | 6 ml	| ml	| ml	| ml
Source of Sample	CIRCULATED			
R_m @ Meas. Temp.	2.10 @ 72 °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	1.50 @ 62 °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	1.92 @ 69 °F	@ °F	@ °F	@ °F
Source R_{mf} R_{mc}	FLOWLINE	|	|	|
R_m @ BHT	0.92 @ 173 °F	@ °F	@ °F	@ °F
Time Since Circ.	24 hrs.			
Max. Rec. Temp.	173 °F @ 7692'	°F @	°F @	°F @
Equip. | Location	2-P Navajo	|	|	|
Recorded By	M. C. THOMPSON			
Witnessed By	M. L. MOSS			

Fold Here

Service Ticket No. [illegible] Remarks: * TOOL RUN THROUGH DRILL PIPE

Change in Mud Type or Additional Samples		
Date | Sample No.	1	1
Depth—Driller	SAME	
Type Fluid in Hole		
	AS	
Dens. | Visc.	1	1
ph | Fluid Loss	ABOVE ml	1
Source of Sample		
R_m @ Meas. Temp.	2.12 @ 72 °F	@ °F
R_{mf} @ Meas. Temp.	1.80 @ 62 °F	@ °F
R_{mc} @ Meas. Temp.	1.92 @ 67 °F	@ °F
Source: R_{mf} | R_{mc}	FANN Mud Kit	1
R_m @ BHT	0.83 @ 183 °F	@ °F
R_{mf} BHT	0.61 @ 183 °F	@ °F
R_{mc} BHT	0.70 @ 183 °F	@ °F

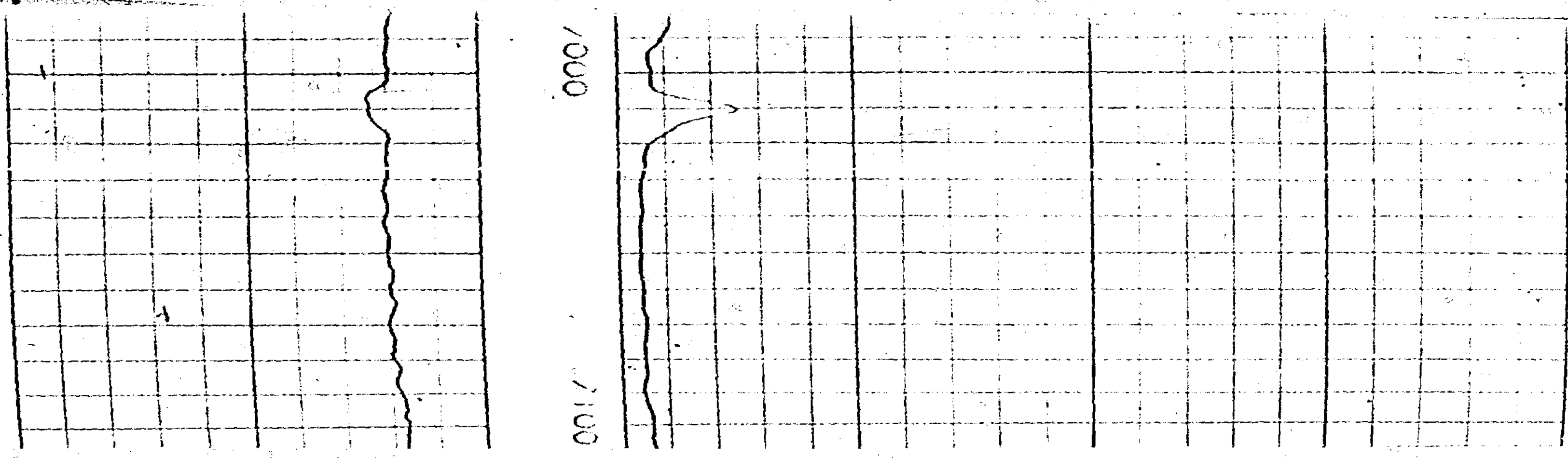
SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

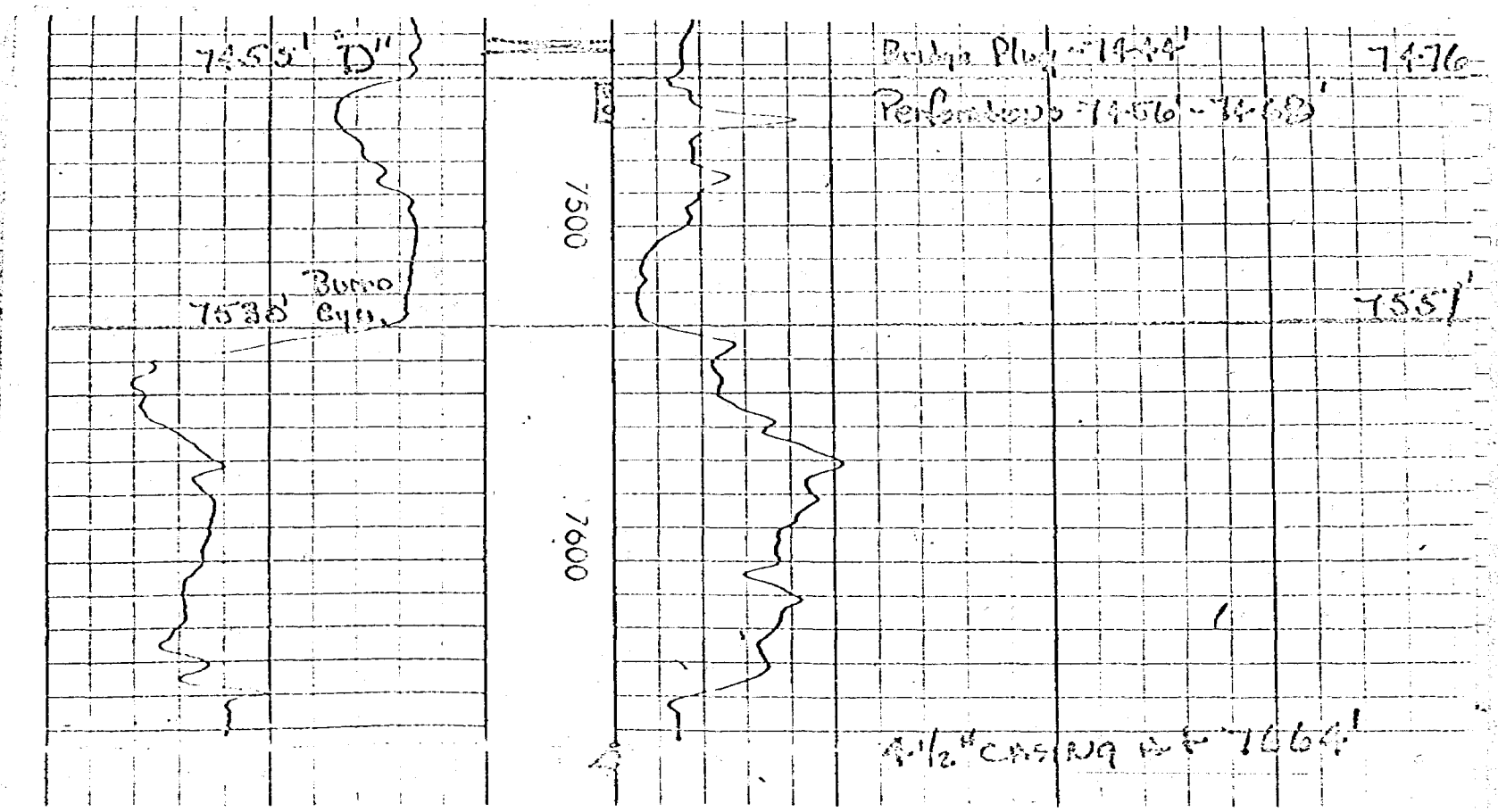
EQUIPMENT DATA

Run No.	Tool Type and No.	Pad Type	Tool Position	Other
ONE	14928-16657	—	FREE*	

Welex does not guarantee the accuracy of any interpretation of log data, conversion of log data to physical rock parameters, or recommendations which may be given by Welex personnel or which may appear on the log or in any other form. Any user of such data, interpretations, conversions, or recommendations agrees that Welex is not responsible, except where due to gross negligence or wilful misconduct, for any loss, damages, or expenses resulting from the use thereof.




Greenhorn 7182'
Graneros 7230'
Dakota 7250' "A"
7364' "B"
7200
7300
7400
7203
7251'
7271'
Perforations 7248-7251'
7259-7266'
7274'-7279'
7288'-7290'
7385
Perforations 7366'-7371'
7376-7380'


7456' "D"
7538' Bunn
Bridge Plug - 7449'
Perforations - 7456' - 7468'
7555'
4-1/2" Casing @ 7664'
7500
7600
7700

WELEX

ELECTRIC LOG

Fig. 7

COMPANY ODESSA NATURAL CORPORATION

WELL CHACON JICARILLA #2 "D" #2

FIELD WILDCAT

COUNTY RIO ARRIBA STATE NEW MEXICO

COMPANY
WELL FIELD PRINT
FIELD
County
State

Location

Sec. 16 Twp 23N Rge 3W

Other Services:
G/R A.V.L.

Permanent Datum GROUND LEVEL Elev. 7378'
Log Measured From KELLY BUSHING 12 Ft. Above Perm. Datum
Drilling Measured From KELLY BUSHING

Elev.: K.B. 7390'
D.F. —
G.L. 7378'

Date	11-22-75			
Run No.	ONE			
Depth—Driller	7738'			
Depth—Welex	7721'			
Btm. Log Inter.	7715'			
Top Log Inter.	3568'			
Casing—Driller	8 5/8" @ 331'	@	@	@
Casing—Welex	3568			
Bit Size	7 7/8"			
Type Fluid in Hole	WATER BASE MUD			
Dens. | Visc.	9.2 | 188	|	|	|
pH | Fluid Loss	10.0 | 6.2 ml	| ml	| ml	| ml
Source of Sample	CIRCULATED			
R_m @ Meas. Temp.	1.96 @ 100°F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	1.82 @ 80°F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	2.65 @ 80°F	@ °F	@ °F	@ °F
Source R_{mf} R_{mc}	FARN MUD KIT	|	|	|
R_m @ BHT	1.61 @ 124°F	@ °F	@ °F	@ °F
Time Since Circ.	5 HRS.			
Max. Rec. Temp.	124°F @ T.D.	°F @	°F @	°F @
Equip. | Location	9695 | FARMINGTON	|	|	|
Recorded By	J. K. LEEPER			
Witnessed By	MR. D. THOMAS			

LAHOH - - - AA .05845

Fold Here

Service Ticket No. WL114591 Remarks: X-log Run Through Drill Pipe Set at 3500'

Change in Mud Type or Additional Samples		
Date / Sample No.	1	1
Depth--Driller	U	
Type Fluid in Hole	D	
Dens. / Visc.	1	1
ph / Fluid Loss	9.0 3ml	1
Source of Sample	CIRC	
R_m @ Meas. Temp.	@ °F	@ °F
R_{mf} @ Meas. Temp.	@ °F	@ °F
R_{mc} @ Meas. Temp.	@ °F	@ °F
Source: R_{mf} / R_{mc}	1	1
R_m @ BHT	1.01 @ 184°F	@ °F
R_{mf} BHT	.79 @ 184°F	@ °F
R_{mc} BHT	.89 @ 184°F	@ °F

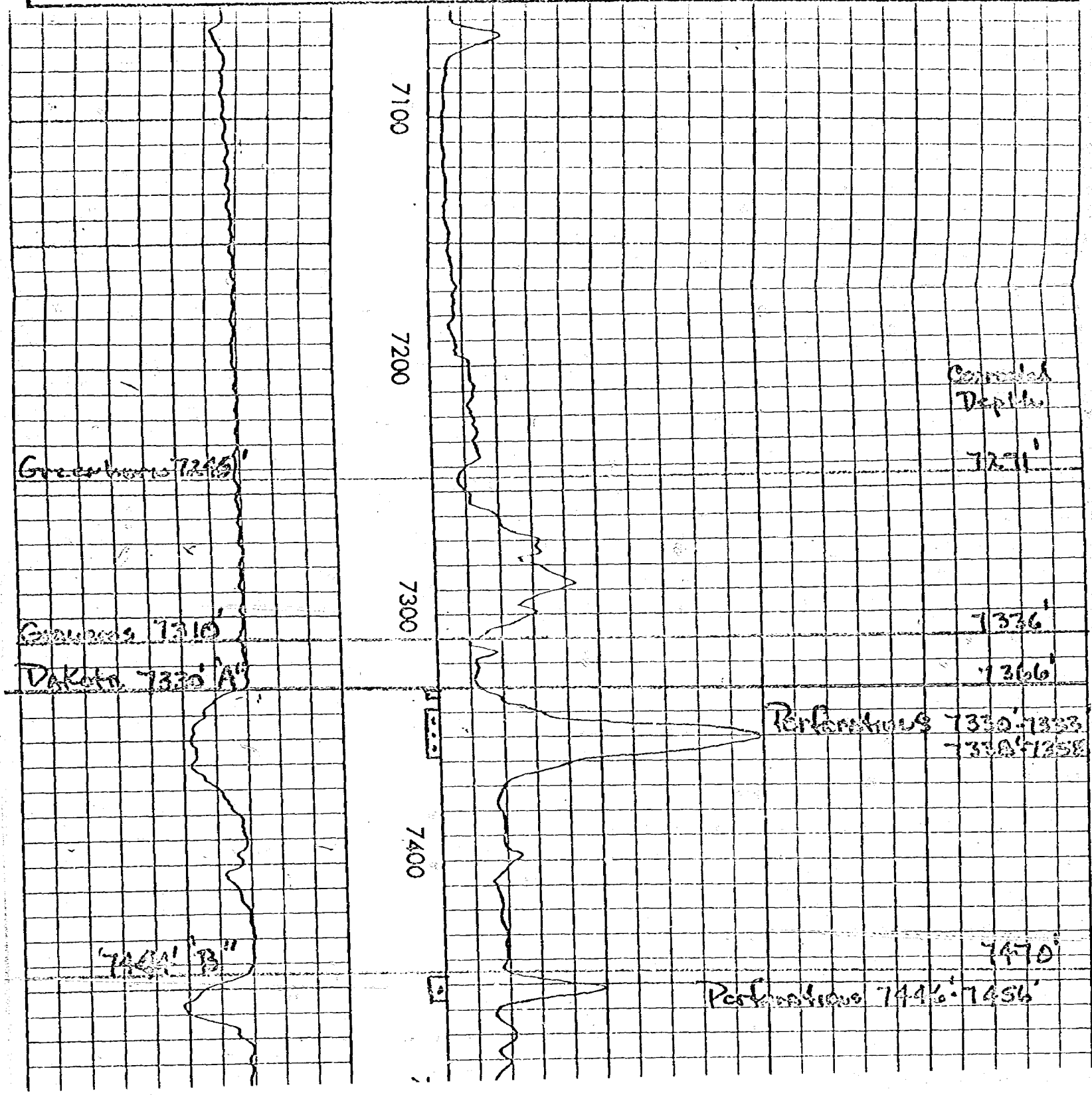
SCALE CHANGES

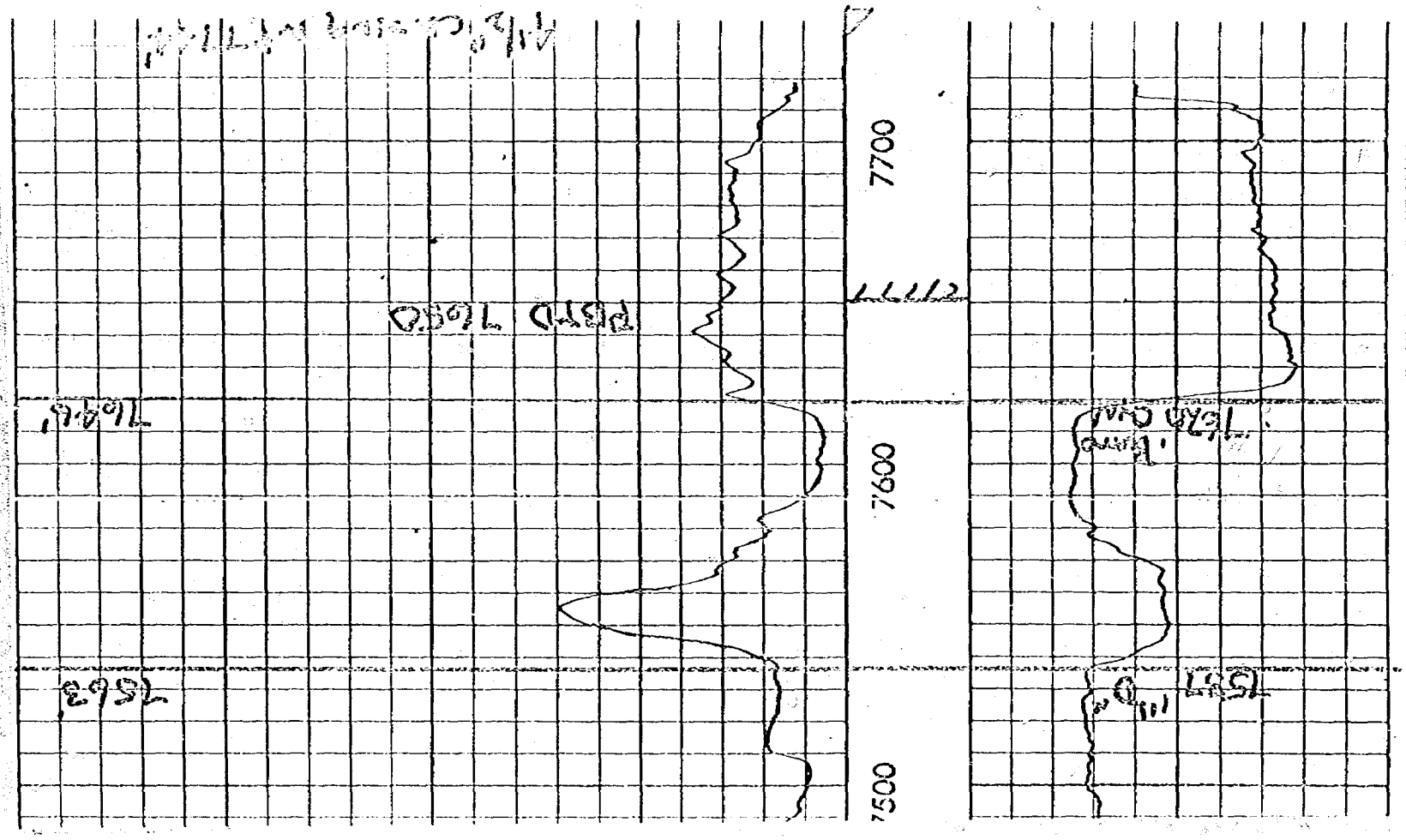
Type Log	Depth	Scale Up Hole	Scale Down Hole

EQUIPMENT DATA

Run No.	Tool Type and No.	Pad Type	Tool Position	Other
ONE	M42B-16087	—	FREE	X

Welex does not guarantee the accuracy of any interpretation of log data, conversion of log data to physical rock parameters, or recommendations which may b given by Welex personnel or which may appear on the log or in any other form. Any user of such data, interpretations, conversions, or recommendations agrees thc Welex is not responsible, except where due to gross negligence or wilful misconduct, for any loss, damages, or expenses resulting from the use thereof.




7700
7600
7500

Dockets Nos. 8-76 and 9-76 are tentatively set for hearing on March 3 and March 17, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 18, 1976

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

ALLOWABLE: (1) Consideration of the allowable production of gas for March, 1976, from seventeen prorated pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico.

(2) Consideration of the allowable production of gas for March, 1976, from five prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

(3) Consideration of purchaser's nominations for the one-year period beginning April 1, 1976, for both of the above areas.

CASE 5627: Application of J. R. Cone for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval to commingle Blinebry and Drinkard oil and gas production in the wellbore of his Eubanks Well No. 3, located in Unit K of Section 14, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 5628: Application of Texaco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval to commingle Blinebry, Drinkard, and Brunson-Ellenburger production in the wellbore of its A. H. Blinebry Federal Well No. 3, located in Unit E of Section 31, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 5629: Application of Odessa Natural Corporation for pool creation, assignment of a discovery allowable and special pool rules, Rio Arriba and Sandoval Counties, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for the production of oil from the Dakota formation in Township 23 North, Range 3 West, Rio Arriba and Sandoval Counties, New Mexico, and the promulgation of special pool rules for said pool, including a provision for 320-acre spacing. Applicant further seeks the assignment of an oil discovery allowable to the discovery well for the pool being the Dave M. Thomas Chacon Jicarilla Apache "D" Well No. 1, located in Unit A of Section 23, Township 23 North, Range 3 West, Sandoval County, New Mexico.

CASE 5098: (Reopened)

In the matter of Case 5098 being reopened pursuant to the provisions of Order No. R-4682, which order established special rules for the Red Tank-Morrow Gas Pool, Lea County, New Mexico, including a provision for 640-acre spacing. All interested parties may appear and show cause why said pool should not be developed on 320-acre spacing.

CASE 5630: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the contraction of the Double L-Queen Associated Pool by the deletion of certain lands on the east side thereof and the concurrent extension of the Vest Ranch-Queen Pool to include said lands. Further, to consider the reclassification of said Vest Ranch-Queen Pool and the promulgation of special pool rules therefor similar to those rules previously adopted for the Double L-Queen Associated Pool. Also to consider redesignation of the Vest Ranch Queen Pool as the Vest Ranch Queen Associated Pool.

The Double L-Queen Associated Pool would be contracted by the deletion of the following-described lands:

TOWNSHIP 14 SOUTH, RANGE 30 EAST, NMPM

Section 31: E/2 SE/4
Section 32: All
Section 33: SW/4

TOWNSHIP 15 SOUTH, RANGE 30 EAST, NMPM

Section 4: W/2
Section 5: All
Section 6: SE/4
Section 7: NE/4
Section 8: All
Section 9: W/2
Section 16: NW/4
Section 17: N/2

The Vest Ranch Associated Queen Pool would be extended by the addition of the following-described lands:

TOWNSHIP 14 SOUTH, RANGE 30 EAST, NMPM

Section 28: SW/4
Section 29: SE/4
Section 32: E/2
Section 33: W/2 and SE/4

TOWNSHIP 15 SOUTH, RANGE 30 EAST, NMPM

Section 4: W/2
Section 5: All
Section 8: N/2 and SE/4
Section 16: NW/4 and NW/4 SW/4
Section 17: N/2

Dockets Nos. 8-76 and 9-76 are tentatively set for hearing on March 3 and March 17, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - TUESDAY - FEBRUARY 24, 1976
OIL CONSERVATION COMMISSION - 9 A.M. - MORGAN HALL
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 5571: (De Novo) (Continued from January 21, 1976 Commission Hearing)

Application of Robert G. Cox for amendment of Order No. R-4561, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks amendment of Order No. R-4561, which order permitted the directional drilling of applicant's Federal "EA" Well No. 1, located 330 feet from the North and West lines of Section 12, Township 18 South, Range 27 East, Empire-Abo Pool, Eddy County, New Mexico, in such a manner as to be bottomed within 100 feet of the surface location. Applicant seeks the amendment of said order to permit bottoming of the subject well approximately 58 feet from the North line and 8 feet from the West line of said Section 12 and to permit vertification of said downhole location by single-shot directional surveys made concurrently with the drilling of said well.

Upon application of Robert G. Cox, this case will be heard De Novo pursuant to the provisions of Rule 1220.

Case 5629

ODESSA NATURAL CORPORATION
P O BOX 3908
ODESSA TEXAS 79760
915 • 337-2811

January 21, 1976

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088
Santa Fe, New Mexico 87501

ATTENTION: Mr. Joe D. Ramey, Director

Gentlemen:

Odessa Natural Corporation hereby submits in triplicate its application for the creation of a new oil pool in Sections 9, 14, 15, 16, 22 and 23 in Township 23 North, Range 3 West, Rio Arriba and Sandoval Counties, New Mexico. The discovery well for this new common source of supply is the Dave M. Thomas, Operator, Chacon Jicarilla Apache "D" No. 1 Well located in Unit A of Section 23, Township 23 North, Range 3 West. This well was completed in the Dakota formation between the depths of 7,315' to 7,345' from the surface. On September 7, 1974, the discovery well was completed with a potential of 95 barrels of oil per day and 55 Mcf of gas per day with a gas-oil ratio of 579:1. Odessa Natural Corporation has since completed two offset oil wells confirming the existence of this Dakota oil pool.

Applicant hereby requests that the Commission issue an Order (1) approving special pool rules for this unnamed Dakota oil pool; (2) setting the boundaries both horizonal and vertical for said pool; (3) granting 320-acre spacing and proration units for each oil well; and (4) granting a discovery and regular monthly allowable with due consideration being given to the depth and spacing factors.

We hereby request that this matter be heard at the regular Commission hearing in Santa Fe on February 18, 1976. Copies of this application have been sent to Mr. Dave M. Thomas, who is the only other known operator in this pool.

Yours very truly,

ODESSA NATURAL CORPORATION

By Roland L. Hamblin
Roland L. Hamblin, Attorney

RLH:eh

cc: Mr. Dave M. Thomas
P. O. Box 2026
Farmington, New Mexico 87401

DOCKET MAILED
Date 2/6/76

Case 5629

ODESSA NATURAL CORPORATION
P O BOX 3008
ODESSA, TEXAS 79760
915 • 337-0911

January 21, 1976

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088
Santa Fe, New Mexico 87501

ATTENTION: Mr. Joe D. Ramey, Director

Gentlemen:

Odessa Natural Corporation hereby submits in triplicate its application for the creation of a new oil pool in Sections 9, 14, 15, 16, 22 and 23 in Township 23 North, Range 3 West, Rio Arriba and Sandoval Counties, New Mexico. The discovery well for this new common source of supply is the Dave M. Thomas, Operator, Chacon Jicarilla Apache "D" No. 1 Well located in Unit A of Section 23, Township 23 North, Range 3 West. This well was completed in the Dakota formation between the depths of 7,315' to 7,345' from the surface. On September 7, 1974, the discovery well was completed with a potential of 95 barrels of oil per day and 55 Mcf of gas per day with a gas-oil ratio of 579:1. Odessa Natural Corporation has since completed two offset oil wells confirming the existence of this Dakota oil pool.

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Yours very truly,

ODESSA NATURAL CORPORATION

By Roland L. Hamblin
Roland L. Hamblin, Attorney

PLH:eh

cc: Mr. Dave M. Thomas
P. O. Box 2026
Farmington, New Mexico 87401

Case 5629

ODESSA NATURAL CORPORATION
P. O. BOX 3068
ODESSA, TEXAS 79760
915-337-2811

January 21, 1976

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088
Santa Fe, New Mexico 87501

ATTENTION: Mr. Joe D. Ramey, Director

Gentlemen:

Odessa Natural Corporation hereby submits in triplicate its application for the creation of a new oil pool in Sections 9, 14, 15, 16, 22 and 23 in Township 23 North, Range 3 West, Rio Arriba and Sandoval Counties, New Mexico. The discovery well for this new common source of supply is the Dave M. Thomas, Operator, Chacon Jicarilla Apache "D" No. 1 Well located in Unit A of Section 23, Township 23 North, Range 3 West. This well was completed in the Dakota formation between the depths of 7,315' to 7,345' from the surface. On September 7, 1974, the discovery well was completed with a potential of 95 barrels of oil per day and 55 Mcf of gas per day with a gas-oil ratio of 579:1. Odessa Natural Corporation has since completed two offset oil wells confirming the existence of this Dakota oil pool.

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We hereby request that this matter be heard at the regular Commission hearing in Santa Fe on February 18, 1976. Copies of this application have been sent to Mr. Dave M. Thomas, who is the only other known operator in this pool.

Yours very truly,

ODESSA NATURAL CORPORATION

By Roland L. Hamblin
Roland L. Hamblin, Attorney

RLH:eh

cc: Mr. Dave M. Thomas
P. O. Box 2026
Farmington, New Mexico 87401

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 18, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of Odessa Natural Corporation for pool creation, assignment of a discovery allowable and special pool rules, Rio Arriba and Sandoval Counties, New Mexico.

CASE 5629

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

APPEARANCES

For the New Mexico Oil Conservation Commission: William F. Carr, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: Sumner G. Buell, Esq.
MONTGOMERY, FEDERICI, ANDREWS, HANNAHS & BUELL
Attorneys at Law
350 East Palace Avenue
Santa Fe, New Mexico

I N D E X

	Page
EWELL N. WALSH	
Direct Examination by Mr. Buell	3
Cross Examination by Mr. Nutter	9

EXHIBIT INDEX

	Page
Applicant's Exhibit No. One, Booklet	9

MR. NUTTER: We will call Case Number 5629.

MR. CARR: Case 5629, application of Odessa Natural Corporation for pool creation, assignment of a discovery allowable and special pool rules, Rio Arriba and Sandoval Counties, New Mexico.

MR. BUELL: Mr. Examiner, I'm Sumner Buell of Montgomery, Federici, Andrews, Hannahs and Buell appearing on behalf of the applicant and we will have one witness.

(THEREUPON, the witness was duly sworn.)

EWELL N. WALSH

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BUELL:

Q. Would you state your name, please?

A. Ewell N. Walsh.

Q. Mr. Walsh, by whom are you employed, where and in what capacity?

A. I'm employed by Walsh Engineering and Production Corporation as a petroleum engineer consultant.

Q. And where are your offices?

A. In Farmington, New Mexico.

Q. And you are a consulting engineer to the Applicant

in this case?

A. Yes, I am.

Q. Have you previously testified before the Commission or one of its Examiners and had your qualifications accepted and made a matter of record?

A. Yes, I have.

Q. Are you personally familiar with what is sought in this Case 5629?

A. Yes, I am.

MR. BUELL: Are the witness's qualifications acceptable?

MR. NUTTER: Yes, they are.

Q. (Mr. Buell continuing.) Referring you to what has been marked for identification as Applicant's Exhibit Number One, would you briefly explain what is contained in this exhibit?

A. In this exhibit, which is a booklet, is the information concerning the discovery wells for this area, taken under concern, information concerning the subsequent development wells, recommended pool boundaries, vertical and horizontal, and recommended special pool rules.

Q. Referring you to what has been identified in the exhibit as Figure Number Ten, which is the last page, would you explain what this shows?

A. This is a copy of the portion of the area under concern

which indicates within the dashed lines the proposed horizontal pool boundaries for this Dakota oil pool. This is located in Township 23 North, Range 3 West.

Q. And also shown on this exhibit are the wells involved?

A. Yes, there are three wells currently completed in this are, the discovery well which is the Dave M. Thomas, Jr. Chacon Jicarilla Apache "D" No. 1 located in the northeast quarter of Section 23. The subsequent development wells which are Odessa Natural Corporation Chacon Jicarilla "D" 1 in the southeast quarter of Section 15, the Chacon Jicarilla "D" 2 in the southeast quarter of Section 16.

Q. Referring you back to page one of the exhibit, which covers the discovery well and the information on that well, would you just briefly outline the nature of the discovery well and what you found, how it is completed?

A. This is the Dave M. Thomas, Jr. Chacon Jicarilla Apache "D" No. 1. This well was drilled through the Dakota formation. The tops of the formations are indicated on that page. Also on Figure One in your back pocket is a copy of the log. The tops are also marked. The well was completed and ready for production in September 4th, 1974. This is completed essentially only in what we call our Dakota "A" zone in this area. The initial potential for the well was ninety-five barrels of oil per day, fifty-five MCF of gas per day with a GOR of five hundred and seventy-nine cubic feet

of gas per barrel of oil.

Q. What are the producing intervals in this well, in footage?

A. The present producing intervals are from perforations in the Dakota "A" zone from seventy-three hundred and fifteen feet to seventy-three hundred and twenty-five feet, seventy-three hundred and thirty-eight feet to seventy-three hundred and forty-five feet.

Q. Referring you now to page three of Exhibit One, again would you briefly outline the more salient points concerning the information on the subsequent development well?

A. On the subsequent development wells, the two Odessa wells, previously referred to, were completed in both the Dakota "A" and the Dakota "B" zones. One well, the Chacon Jicarilla "D" 1, a completion attempt was made in the Dakota "B", however, it was determined that zone was non-productive or void of any hydrocarbons, therefore, those perforations were not left open.

Q. In referring you to page six, you have here recommended pool boundaries both vertically and horizontally?

A. Yes, I have.

Q. What are the recommended vertical limits of this pool?

A. The recommended vertical limits of this pool, if you please refer to Figure One, which is a copy of the log of

the Dave M. Thomas, Jr. Chacon Jicarilla Apache "D" No. 1.

MR. NUTTER: Is that the one that is Keyes and Thomas?

A. Keyes and Thomas, yes. There was an operator name change there.

It is recommended that the vertical pool boundaries be established, starting at the base of the Greenhorn formation or top of the Granerous shale interval at seventy-two hundred and eighty feet and subsequently down four hundred feet from that point. This interval has been used by the Oil Conservation Commission before in establishing the vertical pool boundaries for the Dakota pool.

Q. (Mr. Buell continuing.) And you have also recommended horizontal limits. Are those horizontal limits set out there on page six without detailing them?

A. Yes, they are and are also indicted in Figure Ten.

Q. You have some recommended special pool rules for this pool as shown on page seven of Exhibit One?

A. On both page seven and eight, items (a) through (i).

Q. Now, Mr. Walsh, is there some feature of this that is particularly unique as to these special pool rules?

A. Yes, one feature is item (d) which we are recommending for a temporary two-year period only, that the standard proration unit or unit for the well be established as three hundred and twenty acres and that the three hundred

and twenty acres can be either the north half or south half of the section, or the east half or the west half of the section.

Q. Why is it that you feel that three hundred and twenty acres as a temporary measure is necessary?

A. This is a new oil pool in relation and in comparison to the other Dakota oil pools in the area, the West Lindrith Gallup Dakota and the South Lindrith Gallup Dakota. The initial information we are obtaining from these wells indicate that this area is going to be more productive, highly productive, than these two. We will need additional information from the reservoir and from production to be able to establish a pattern, not a pattern, but the density of drilling for the future. We just don't want to see a dense drilling pattern and then find out that we could have gotten by with less ~~or~~ denser.

Q. Is there any other item in the special pool rules that is somewhat unique?

A. Yes, there is an item (h) on page eight and this is that the Secretary-Director of the Commission be authorized to grant without notice of hearing, the conducting of interference tests with transfer of allowables from a shut in well to a producing well on the same lease.

Q. Do you have a recommended name for this pool?

A. Yes, we would like to recommend that this oil pool

be named the Chacon, that's C-h-a-c-o-n, Dakota oil pool.

Q. And is it your opinion that the granting of this application would prevent waste and protect correlative rights?

A. Yes, it is.

Q. Was Exhibit One prepared by you or under your supervision?

A. Yes, it was.

MR. BUELL: We move the introduction of Exhibit One.

MR. NUTTER: Exhibit One will be admitted into evidence.

(THEREUPON, Applicant Exhibit One was admitted into evidence.)

MR. BUELL: I have nothing further, Mr. Examiner.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Walsh, isn't it a fairly well known fact that the Dakota gas formation is just barely draining three hundred and twenty acres, if at all, and isn't it also a fairly well known fact that most reservoirs are less permeable to the flow of oil than they are to gas?

A. In answer to your first part, I would say, yes, in the other areas of the Dakota production this is true. However, I believe we are possibly coming into an area of Dakota production that has better reservoir characteristics and

conditions to give better production and the answer to your last part, yes. In the formations, like the Dakotas, the movement of fluid is slow.

Q. Now, this Thomas well has been on production for a couple of years, hasn't it?

A. It was in September of 1974.

Q. So it would be about a year and a half?

A. A year and a half, right.

Q. How much oil has that well produced?

A. Approximately twelve thousand barrels.

Q. Do you have any original pressure and any current bottom-hole pressure on that well?

A. On that well --

Q. Now, its IP was ninety-five barrels of oil per day, what will it make now?

A. Currently, Mr. Nutter, under pump, with a pump, about forty-five barrels a day. However, there is an indication that the pump is not pumping to capacity, it seems to be carrying a fluid level within the well.

Q. How about these other two wells, how much do they make?

A. The two Odessa wells are currently shut in, Mr. Nutter, waiting on gas line connection for the gas. They did not wish to vent the gas.

Q. And what was their IP on original completion?

Okay, I found it. The first one is a hundred and forty-two barrels?

A. Right, on page four there and that was for the "D" No. 1 and the "D" No. 2 was a hundred and twenty barrels of oil per day.

Q. How much oil have they made to date, before they were shut in?

A. Their production would be in the neighborhood of approximately a thousand barrels.

Q. So there is no pressure information available on them either, I guess?

A. On the "D" No. 2 we have been taking pressures and we plan to continue to take pressures during shut in to establish reservoir pressures, for the two zones that are open in the wells.

Q. Does the Thomas well have a casinghead gas connection?

A. No, sir, its current gas production is about twenty-three MCF per day. Originally it was some fifty-five. It was not sufficient gas to justify a gas company laying a gas line for it. It has been approved as an exception to the no-flare order.

Q. But Odessa is planning to get a casinghead gas connection for their wells?

A. Oh, yes, definitely. One thing there is a proposed workover program of the Dave M. Thomas well to open what we

call the B zone. This in completion of the Odessa wells indicated to have possibly sufficient gas to be able to flow the Thomas well, rather than have to pump it then.

Q. Now, the application was for this pool creation and the promulgation of pool rules, also for the assignment of a discovery allowable to the discovery well, but you have sought here in your pool rules an allowable equal to seven hundred and forty-seven barrels of oil per day and the discovery allowable would be assigned on top of that, is there any chance that this Thomas well can make a discovery allowable?

A. No, sir, we have not even covered that in this portion of the hearing because we think that is a matter after the fact now.

Q. Okay. It's probably not necessary?

A. It's not necessary, that's true.

MR. NUTTER: Are there any further questions of Mr. Walsh? He may be excused.

(THEREUPON, the witness was excused.)

MR. NUTTER: Do you have anything further, Mr. Buell?

MR. BUELL: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case 5629?

MR. THOMAS: Mr. Nutter, I am Dave Thomas of Farmington, New Mexico and I have consulted with Mr. Walsh and with Odessa Natural on their field rules and applications

and I do concur completely with them.

MR. NUTTER: Thank you.

MR. THOMAS: Thank you, sir.

MR. NUTTER: Does anyone else have anything to offer in this case? We will take the case under advisement.

REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5729, heard by me on 2/18, 1976.

New Mexico Oil Conservation Commission, Examiner

DRAFT

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 5629

Order No. R- 5192

APPLICATION OF ODESSA NATURAL CORPORATION FOR POOL CREATION, ASSIGNMENT OF A DISCOVERY ALLOWABLE, AND SPECIAL POOL RULES, RIO ARRIBA AND SANDOVAL COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 18, 1976, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of March, 1976, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Odessa Natural Corporation, is the owner and operator of two wells capable of producing oil from the Dakota formation, said wells being the Odessa Chacon Jicarilla "D" Well No. 1, located in Unit O of Section 15 and the Odessa Chacon Jicarilla "D" Well No. 2, located in Unit I of Section 16, all in Township 23 North, Range 3 West, NMPM, Rio Arriba County, New Mexico.

(3) That said wells are apparently completed in and capable of producing from the same common source of supply in the Dakota formation as the Dave M. Thomas Chacon Jicarilla Apache "D" Well No. 1, located in Unit A of Section 23, Township 23 North, Range 3 West, NMPM, Sandoval County New Mexico.

(4) That the applicant seeks the creation of a new oil pool for the above-described three wells, the assignment of an oil discovery allowable to the discovery well, the aforesaid Dave M. Thomas Chacon Jicarilla Apache "D" Well No. 1, and the promulgation of special pool rules, including a provision for 320-acre oil spacing and proration units.

(5) That the aforesaid Thomas well, on September 4, 1974, apparently discovered a new Dakota common source of supply through perforations from 7,315 feet to 7,345 feet. That said common source of supply should be designated the Chacon-Dakota Oil Pool with vertical limits comprising the ~~producing~~ interval from the base of the Greenhorn Limestone ~~down through the Graneros~~ found at a depth of 7,280 feet on the log of the Discovery well to the top of the Burro Canyon formation found at a depth of 7586 feet on said log; and that the horizontal limits of said pool should comprise the following lands.

TOWNSHIP 23 NORTH, RANGE 3 WEST, NMPM

Section 15: S/2
Section 16: SE/4
Section 22: NE/4
Section 23: N/2

(6) That the discovery well for said pool has declined in productivity and is classified as a marginal well, and

that portion of the application re-questing the assignment of an oil discovery allowable to said well ~~it~~ has become moot and should be dismissed.

(7) That the applicant has failed to establish that one oil well in the Dakota formation in the subject area can efficiently and economically drain and develop 320 acres ~~[illegible] the Dakota formation [illegible] in this area [illegible]~~ and the application for 320-acre spacing and proration units ~~for~~ should be denied.

(8) That the ~~applicant did show that the~~ Dakota formation in the subject area does appear to be more permeable than the Dakota formation in some other areas and pending further study, temporarily 80-acre spacing and proration units should be approved.

(9) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(10) That an administrative procedure should be established whereby the Secretary-Director could approve the transfer of allowables from a shut-in well to a producing well on the same lease during authorized pressure interference tests.

(11) That this case should be reopened at an examiner hearing in April 1977, at which time the operators in the subject pool should be prepared to appear and show cause why the Chacon-Dakota Oil Pool should not be developed on 40-acre spacing units.

(12) That entry of an order embodying the above findings will not cause but will prevent waste, will protect correlative rights, and should be effected.

IT IS THEREFORE ORDERED:

is hereby created,

(1) That a new pool, classified as an oil pool for Dakota production and designated the Chacon-Dakota Oil Pool with vertical limits comprising the interval from the base of the Greenhorn Limestone at a depth of 7280 feet found on the log of the discovery well, the Dave M. Thomas Jicarilla Apache "D" Well No. 1, located in Unit A of Section 23, Township 23 North, Range 3 West, NMPM, Sandoval County, New Mexico, to the top of the Burro Canyon formation found at a depth of 7586 feet on said log, and with horizontal limits comprising the following lands:

RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental quarter section; provided however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well shall be located ~~within 150 feet of~~ no closer than 330 feet to the outer boundary of the unit and no closer than 660 feet to another well capable of producing from the Dakota formation.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

RULE 6. Top unit allowable for a standard proration unit (79 through 81 acres) shall be based on a depth bracket allowable of 267 barrels per day, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the Chacon-Dakota Oil Pool or in the Dakota formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Aztec District Office of the Commission in writing of the name and location of the well on or before May 1, 1976.

(2) That the Secretary-Director of the Commission is hereby authorized to approve the transfer of allowables from wells shut-in for the purpose of pressure interference tests, to other wells on the same lease for production therefrom, provided however, such tests shall not exceed 90 days, but may be extended for good cause shown.

(3) That, pursuant to Paragraph A. of Section 65-3-14.5, NMSA 1953, contained in Chapter 271, Laws of 1969, existing wells in the Chacon-Dakota Oil Pool shall have dedicated thereto 80 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 65-3-14.5, existing wells may have non-standard spacing or proration units established by the Commission and dedicated thereto.

Failure to file new Forms C-102 with the Commission dedicating 80 acres to a well or to obtain a non-standard unit approved by the Commission within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the Chacon-Dakota Oil Pool or in the Dakota formation within one mile thereof shall receive no more than one-half of a standard allowable for the pool.

(4) That this case shall be reopened at an examiner hearing in April, 1977, at which time the operators in the subject pool should be prepared to appear and show cause why the ~~West Knowles Drinkard~~ Chacon-Dakota Oil Pool should not be developed on 40-acre spacing units.

(5) That that portion of the application relating to the assignment of an oil discovery allowable to the discovery well for the Chacon-Dakota Oil Pool is hereby dismissed.

(6) That that portion of the application relating to the establishment of 320-acre spacing and proration units is hereby denied.

(7) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DRAFT

dr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 5629

Order No. R- 5192-A

IN THE MATTER OF CASE 5629 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-5192, WHICH ORDER ESTABLISHED SPECIAL RULES AND REGULATIONS FOR THE CHACON-DAKOTA OIL POOL, RIO ARRIBA AND SANDOVAL COUNTIES, NEW MEXICO, INCLUDING A PROVISION FOR 80-ACRE PRORATION UNITS.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 20, 1977, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this _____ day of May, 1977, the Commission, a quorum being present, having considered the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

~~That~~ That this case should be dismissed.

~~That the applicant's request for dismissal should be granted~~.

IT IS THEREFORE ORDERED:

That Case No. 5629 is hereby dismissed.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.