

A

## MANY GATES - ABO POOL

## VOLUMETRIC RESERVE ESTIMATES

OPERATOR	LEASE	WELL	NET PAY <sup>1</sup> (FT)	POROSITY <sup>1</sup> (%)	EST. Sw (%)	EST. F.V.F. (RBO/STBO)	EST. VOLUMETRIC OOIP (STBO/AC)	40 ACRE VOLUMETRIC WELL RESERVES <sup>2</sup> (STBO)	80 ACRE VOLUMETRIC WELL RESERVES <sup>2</sup> (STBO)
Jack Phillips	Isler Federal	1	44	17	35	1.4	26,942	161,652	323,304
Humble Oil & Refining Company	New Mexico "CR" State	1	26	15	35	1.4	14,048	84,288	168,576
AVERAGE			35	16	35	1.4	20,171	121,026	242,052

<sup>1</sup> Based on Log Analysis<sup>2</sup> Based on Recovery of 15% of OOIP

B

MANY GATES - ABO POOL

PRESSURE HISTORY

ISLER FEDERAL #1

<u>DATE</u>	<u>SHUT IN PRESSURE @ -3250 ss (psi)</u>	<u>CUMULATIVE PRODUCTION (BBLs.)</u>
10-16-71	2420	---
5-13-72	1380	8,672
6-03-72	1299	11,122

NEW MEXICO "CR" STATE #1

<u>DATE</u>	<u>SHUT IN PRESSURE @ -3250 ss (psi)</u>	<u>CUMULATIVE PRODUCTION (BBLs.)</u>
5-20-72	2311	---
5-30-72	2224	2,161
7-10-72	2059	5,853

C

MANY GATES - ABO POOL

COMPARISON OF ECONOMICS  
40 ACRE VS. 80 ACRE SPACING  
BASED ON HUMBLE'S NEW MEXICO "CR" STATE #1

	<u>40 ACRE</u>	<u>80 ACRE</u>
Recoverable Oil (M BBLs)	84.3	168.6
Actual Value to Operator @ \$2.15/BO (M \$)	181.2	362.4
Cost to Drill, Complete, & Equip an Average Well (M \$)	164.0	164.0

MANY GATES - ABO POOL  
CHAVES COUNTY, NEW MEXICO

COMPLETION DATA

Operator	Lease	Well No.	Total Depth	Production Casing	Perforations	Stimulation Treatment	Initial Potential	Cum. Production to 8-1-72
Jack L. Phillips	Isler-Federal	1	10,200	4-1/2" Csg. @ 9480' w/750 sks cmt.	7248-57 7263-75 7278-81	9500 gal.	Flow 227 BOPD, 3/8" choke TP 165#, GOR 652, 3-8-72	15,793 bbls. oil
Humble Oil & Refining Co.	N. M. "CR" State	1	9,450	5" Csg. @ 7434' w/1375 sks cmt.	7266-90	6000 gal.	Flow 216 BOPD + 7 BW, 16/64" choke, TP 100#, GOR 1405, 5-25-72	9,421 bbls. oil

BEFORE EVALUATION  
OR CORRECTION  
5  
4789  
Humble  
8-9-72

## MANY GATES - ABO POOL

## RESERVOIR DATA

Formation	Dolomite
Type Structure	Stratigraphic Trap
Porosity (%)	16
Permeability (md)	20
Connate Water Saturation (est. %)	35
Dip of Formation (feet/mile)	100
Oil - Water Contact	Unknown
Average Net Pay (ft)	35
Original Reservoir Pressure (psi)	2420
Reservoir Temperature (°F)	145
Reservoir Datum (ft. subsea)	-3250
Oil Gravity (°API)	43
Oil Viscosity (cp)	.44
Formation Volume Factor (RBO/STBO)	1.40
Solution Gas-Oil Ratio (cu ft/bbl)	690
Gas Gravity (air = 1.0)	.96
No. Wells Producing	2
No. Wells Pumping	2
No. Wells Flowing	0
No. Wells Drilling	0
Spacing of Active Wells (acres/well)	80
Stage of Depletion	Initial
Cumulative Production as of 7/1/72	
Oil (BBLs)	18,194
Gas (MCF)	12,736
Water (BBLs)	1,418

RESERVOIR DATA MANY GATES - ABO POOL NO. 6 4789 Humble 8-9-72
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DOCKET: EXAMINER HEARING - WEDNESDAY - AUGUST 9, 1972

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

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The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 4785: Application of Gulf Oil Corporation for rededication of acreage and a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the consolidation of a 40-acre non-standard proration unit comprising the SE/4 NW/4 of Section 28 and an 80-acre non-standard proration unit comprising the W/2 NE/4 of Section 28; Township 21 South, Range 37 East, Blinbry Gas Pool, Lea County, New Mexico, to form a 120-acre non-standard proration unit. Applicant also seeks permission to produce the allowable assigned to said 120-acre unit from its Eunice King Wells Nos. 5 and 9 located, respectively, in Units F and G of said Section 28 in any proportion.
- CASE 4786: Application of Highland Production Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation in the open-hole interval from 4378 feet to 4418 feet in its Russell Federal Well No. 6 located in Unit K of Section 20, Township 26 South, Range 32 East, East Mason-Delaware Pool, Lea County, New Mexico.
- CASE 4787: Application of Superior Oil Company for an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a gas well to test the Morrow and other formations at an unorthodox location 660 feet from the North line and 990 feet from the West line of Section 5, Township 23 South, Range 27 East, South Carlsbad Field, Eddy County, New Mexico, with the N/2 of said Section 5 to be dedicated to the well.
- CASE 4788: Application of Murphy H. Baxter for an unorthodox well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a producing well approximately in the center of the SW/4 of Section 18, Township 17 South, Range 33 East, Maljamar (Grayburg-San Andres) Pool, Lea County, New Mexico. Said well to be within the area of a waterflood project approved by Order No. R-2156.
- CASE 4789: Application of Humble Oil & Refining Company for special pool rules, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules for the Many Gates-Abo Pool, Chaves County, New Mexico, including provisions for 80-acre spacing units and wells to be located in the approximate center of the NE/4 or SW/4 of each quarter section.
- CASE 4790: Application of The Petroleum Corporation for special pool rules and a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules

(Case 4790 continued from Page 1)

for the Dublin-Ellenburger Gas Pool, Lea County, New Mexico, including a provision for 640-acre spacing units. Applicant further seeks approval of a 480-acre non-standard unit in said pool comprising the S/2, S/2 of NE/4 and E/2 NW/4 of Section 12, Township 26 South, Range 37 East, to be dedicated to its Tenneco Federal Well No. 1 located in Unit N of said Section 12.

CASE 4791: Application of Monsanto Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Burton Flat Deep Unit Area comprising 5,808 acres, more or less, of Federal, State, and Fee lands in Township 20 South, Range 28 East, and Township 21 South, Range 27 East, Eddy County, New Mexico.

CASE 4792: Application of David Fasken for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Walker Draw Unit Area comprising 7,040 acres, more or less, of Federal, State, and Fee lands in Sections 8, 9, 10, 15, 16, 17, 20, 21, 22, 28, and 29, Township 23 South, Range 23 East, Eddy County, New Mexico.

CASE 4793: Application of Tenneco Oil Company for a pressure maintenance project and unorthodox locations, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in the South Hospah-Lower Sand Pool by the injection of water and gas into the Lower Hospah formation through three wells located at orthodox and unorthodox locations in Section 12, Township 17 North, Range 9 West, McKinley County, New Mexico.

Applicant further seeks a procedure whereby additional injection wells and expansion of the project area may be approved without the necessity of notice and hearing.

CASE 4794: Application of Green & Michaelson Producing Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the Devonian formation underlying the N/2 of Section 2, Township 19 South, Range 23 East, Eddy County, New Mexico, to be dedicated to a wildcat Devonian well to be drilled at a standard location in the NE/4 of said Section 2.

Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4760: (Readvertised)

Application of Anadarko Production Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to institute a waterflood project by the injection of water into the

# HUMBLE OIL & REFINING COMPANY

MIDLAND, TEXAS 79701

PRODUCTION DEPARTMENT  
MIDCONTINENT DIVISION  
L. H. BYRD  
MANAGER

July 5, 1972

POST OFFICE BOX 1600

Re: Rules Hearing  
Many Gates Abo Pool  
Chaves County, New Mexico

New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

*Case 4789*

Attention: Mr. A. L. Porter, Jr.

Gentlemen:

We respectfully request an examiner hearing be scheduled to consider Humble Oil & Refining Company's application for special rules and regulations for the Many Gates Abo Oil Pool located in Sections 31 and 32 of T-9-S, R-30-E, Chaves County, New Mexico.

Humble will request the Commission to establish 80-acre spacing units with wells to be located in the NE/4 or SW/4 of a governmental quarter-section. A standard proration unit would be assigned an 80-acre proportional factor of 3.33 for allowable purposes.

Jack Phillips discovered this field with the completion of his Federal Isler No. 1 in the NE/4 of NE/4 of Section 31. Humble operates the only other well in the pool, the New Mexico "CR" State No. 1 located in the SW/4 of NW/4 of Section 32. Other interested parties in the area are AMOCO, Getty and Mission and a copy of this letter has been furnished each of these operators.

Your early scheduling of this hearing will be appreciated.

Yours very truly,

  
L. H. BYRD

DOCKET NUMBER

HNR/rs

(See Attached Sheet for  
Distribution of Copies)

Date 7-27-72

*+ Send docket to  
Mr. Humble*



Copies to:

New Mexico Oil Conservation Commission  
P. O. Box 1980  
Hobbs, New Mexico 88240

AMOCO Production Company  
P. O. Box 3092  
Houston, Texas 77001

Getty Oil Company  
P. O. Box 1231  
Midland, Texas 79701

Mission Corporation  
P. O. Box 1231  
Midland, Texas 79701

Jack Phillips  
P. O. Drawer 392  
Gladewater, Texas 75647