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915 682-1436 OFFICE

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October 4, 1976

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

Re: Proposed Brinninstool Unit
T-23-S, R-33-E,
Lea County, New Mexico

Dear Mr. Porter:

Attached herewith is a copy of Exhibit "B" which should be attached to the Unit Agreement for referenced Unit which is on file in your office. The hearing for this matter was held on September 15, 1976.

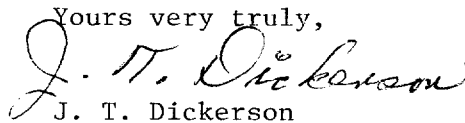
Yours very truly,

J. T. Dickerson

EXHIBIT "B"
SCHEDULE OF LANDS AND LEASES
BRINNINSTOOL UNIT AREA
LEA COUNTY, NEW MEXICO

Tract No.	Description	Number of Acres	Lease Serial No. Expiration Date	Basic Royalty and Percent	Lessee of Record	Interest	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage
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FEDERAL LANDS

TOWNSHIP 23 SOUTH, RANGE 33 East, N.M.P.M.

1.	Sec. 19: All	631.64	LC-068848 HBP	U.S.A. 12.5	Continental Oil Company	All	I. J. Marshall and wife, Claribel Marshall: 1/2 of \$750.00 per acre P. P. out of 3.00%. Pearl O. Pipkin: 1/2 of \$750.00 per acre P. P. out of 3.00%.	Continental Oil Co.: All
1.A.	Sec. 21: All Sec. 28: All	1,280.00	LC-068848 HBP	U.S.A. 12.5	Continental Oil Company	All	I. J. Marshall and wife, Claribel Marshall: 1/2 of \$750.00 per acre P. P. out of 3.00%. Pearl O. Pipkin: 1/2 of \$750.00 per acre P. P. out of 3.00%.	Continental: 33.40816% Am. Quasar 34.86194% Pet. Co. of N. M. Phillips Pet. Co.: 19.31408% El Paso Nat. Gas: 12.41582%
2.	Sec. 29: W/2	320.00	NM-2386 5-31-77	U.S.A. 12.5	El Paso Natural Gas Company	All	Frances Ann Booth Anderson: 2.00 Caroline May Booth Liles: 2.00	Continental: 33.40816% Am. Quasar 34.86194% Pet. Co. of N. M. Phillips Pet. Co.: 19.31408% El Paso Nat. Gas: 12.41582%

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TOWNSHIP 23 SOUTH, RANGE 33 East, N.M.P.M.

FEDERAL LANDS

3.	Sec. 20: All	640.00	NM-2386-A 5-31-77	U.S.A. 12.5	Phillips Petroleum Company	All	Frances Ann Booth Anderson: 1.25 Caroline May Booth Liles: 1.25 Roy G. Barton, Jr.: 2.50(2) Additional ORRI (3)	Continental: 33.40816% Am. Quasar Pet. Co. of N. M.: 34.86194% Phillips Pet. Co.: 19.31408% (1) El Paso Nat. Gas: 12.41582% (1)
4.	Sec. 29: NE/4, N/2 SE/4, SE/4 SE/4	280.00	NM-2386-B 5-31-77	U.S.A. 12.5	Phillips Petroleum Company	All	Frances Ann Booth Anderson: 2.50 Caroline May Booth Liles 2.50	Continental: 33.40816% Am. Quasar 34.86194% Pet. Co. of N. M. Phillips Pet. Co.: 19.31408% El Paso Nat. Gas: 12.41582%
5.	Sec. 29: SW/4 SE/4	40.00	NM-1900 8-31-83	U.S.A. 12.5	American Quasar Petroleum Co. of Mexico	All	Esther R. Smith and husband, Seymour S. Smith: 5.00	Continental: 33.40816% Am. Quasar 34.86194% Pet. Co. of N. M. Phillips Pet. Co.: 19.31408% El Paso Nat. Gas: 12.41582%

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SCHEDULE OF LANDS AND LEASES
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LEA COUNTY, NEW MEXICO

Page 3

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TOWNSHIP 23 SOUTH, RANGE 33 East, N.M.P.M.

FEDERAL LANDS

6.	Sec. 17: W/2 NW/4	80.00	NM-19450 10-31-83	U.S.A. 12.5	American Quasar Petroleum Co. of New Mexico	All	Marie A. Feil and husband K. J. Feil: 5.00	Continental: 33.40816% Am. Quasar 34.86194% Pet. Co. of N. M. Phillips Pet. Co.: 19.31408% El Paso Nat. Gas: 12.41582%
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TOTAL: 3,271.64 Acres Federal Lands, being 56.967% of Unit Area

STATE OF NEW MEXICO LANDS

7.	Sec. 17: S/2,NE/4, E/2 NW/4	560.00	L-136 7-18-77	STATE 12.5	Phillips Petroleum Company	All	None	Continental: 33.40816% Am. Quasar 34.86194% Pet. Co. of N. M. Phillips Pet. Co.: 19.31408% El Paso Nat. Gas: 12.41582%
8.	Sec. 22: N/2	320.00	L-643 2-20-78	STATE 12.5	Phillips Petroleum Company	All	None	Phillips: All
9.	Sec. 22: S/2 Sec. 27: NE/4	480.00	L-4625 6-16-80	STATE 12.5	American Quasar Petroleum Co. of New Mexico	All	None	Am. Quasar: All

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BRINNINSTOOL UNIT AREA
LEA COUNTY, NEW MEXICO

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TOWNSHIP 23 SOUTH, RANGE 33 East, N.M.P.M.
STATE OF NEW MEXICO LANDS

10.	Sec. 18: All	631.40	L-6386 7-1-81	STATE 12.5	El Paso Natural Gas Company	All	None	Continental: 33.40816% Am. Quasar 34.86194% Pet. Co. of N. M. Phillips Pet. Co.: 19.31408% El Paso Nat. Gas: 12.41582%
11.	Sec. 27: S/2, NW/4	480.00	K-6521 11-15-76	STATE 12.5	American Quasar Petroleum Co. of New Mexico	All	Sol West, III: 6.00 Michael Shearn: 1.50	Am. Quasar: All

TOTAL: 2,471.40 Acres State of New Mexico Lands, being 43.033% of Unit Area

TOTAL: 11 Tracts - 5,743.04 Acres in entire Unit Area

- (1) Phillips and El Paso Natural Gas own an ORRI interest in the American Quasar No. 1 Brinninstool located in the NE/4 of Section 20 until payout of said well, at which time they have the option to convert the ORRI to the W. I. shown.
- (3) Additional ORRI under Tract 3

- (2) This 2.50% ORRI is actually owned as follows:
- Joe N. Gifford 37.5% of 66.59184% of 2%
Bascom L. Mitchell 37.5% of 66.59184% of 2%
C. H. Kimbro 25.0% of 66.59184% of 2%

Roy G. Barton, Jr.	1.20%	John B. Billingsly, Jr.	1/20 of 1%
D. L. Dorland	1/4 of 1%	Robert E. Landreth	1/20 of 1%
Paul F. Zahn	1/5 of 1%	Harmon D. Greene	1/24 of 1%
Cecil L. Brown	1/10 of 1%	Elliott Johnson	1/24 of 1%
Robert P. Byron	1/10 of 1%	James R. Miller	1/24 of 1%
Daniel E. Gonzales	1/10 of 1%	Henry C. Wunsch	1/24 of 1%
E. L. Latham, Jr.	1/10 of 1%	Leo J. Bernard	1/24 of 1%
G. Dee Williamson	1/10 of 1%	Kenneth R. Dean	1/24 of 1%

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION

EXHIBIT NO. 1

CASE NO. 5767

Submitted by Am. Gas Co.

Hearing Date 9-15-76

GEOLOGICAL REPORT

BRINNINSTOOL FEDERAL UNIT

PROPOSED LOCATION

SEC 21 T-23S R-33E

LEA COUNTY, NEW MEXICO

The proposed outline for the Brinninstool Federal Unit covers an area that is prospective for gas from two (2) Middle Morrow sandstones. These porous sandstones are present in both the Pure Oil Company #1 Brinninstool Deep Unit, Section 36, T-23S, R-32E, and the American Quasar #1 Brinninstool, Section 20, T-23S, R-33E. They are not present up-dip in the Shell #1 Bootleg Ridge Unit, Section 36, T-22S, R-32E. The stratigraphic trap, formed by the up-dip pinchout of these sandstones on the flank of a southeasterly plunging anticline, has tested both gas and water.

Water and gas were recovered through perforations (15,468'-15,509') in the Pure Oil Company test. Gas flowed at a rate of 720 MCFGPD and water at a rate of 9.7 barrels per hour from the uppermost Middle Morrow sandstone. The well established a water level for the sandstone unit.

In addition to the sandstones which tested water and gas in the Pure well, the American Quasar well penetrated porous Middle Morrow sandstones stratigraphically lower in the Morrow section (see cross section). The American Quasar well was completed from these sands for a CAOF of 22,700 MCFGPD.

Within the proposed unit, both the Morrow sandstone which tested water and gas in the Pure well and the sandstone which is producing in the American Quasar well should be found water free and gas productive.

The boundary for the unit was established by the ten (10) foot isoporosity line for the uppermost Middle Morrow sandstone and by the probable gas-water contact for that zone.

A test well drilled in Section 21, T-23S, R-33E should encounter the following stratigraphic units at these estimated depths:

<u>Quaternary-Triassic Systems</u>	0-700 feet
<u>Ochoa Series</u>	700-5100 feet
<u>Delaware Mtn. Group</u>	5100-8800 feet
<u>Bone Springs Limestone</u>	8800-11,900 feet
<u>Third Bone Spring Sandstone</u>	11,900-12,200 feet
<u>Wolfcamp Limestone & Shale</u>	12,200-13,450 feet poor potential for production
<u>Canyon Shales</u>	13,450-13,950 feet no potential for production
<u>Strawn Limestone</u>	13,950-14,350 feet poor potential for production
<u>Atoka Limestone</u>	14,350-14,850 feet poor potential for production
<u>Upper Morrow Limestone</u>	14,850-15,200 feet poor potential for production
<u>Middle Morrow Sandstones</u>	15,200-15,650 feet excellent potential for gas production
<u>Lower Morrow Sandstones</u>	15,650-15,750 feet poor potential for production
<u>Chester Shale</u>	15,750-15,800 feet no potential for production proposed total depth 15,800 feet