



GREYSTONE ENERGY, INC.

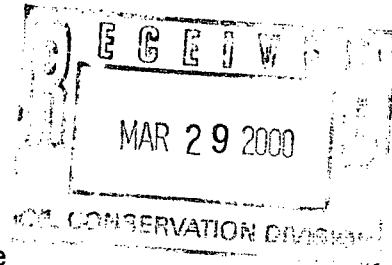
9155 E. Nichols Ave., Suite 350 • Englewood, CO 80112

Bus: 303-925-0542 • Fax: 303-925-0543

0710

March 28, 2000

Ms. Lori Wrotenberry
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505



RE: Administrative Approval to Downhole Commingle
Greystone Energy, Inc.
Champlin No. 1 PC/MV/DK
990' FSL, 990' FWL, Sec.35M, T27N, R4W, N.M.P.M.
Rio Arriba County, New Mexico

Dear Ms. Wrotenberry:

Greystone Energy, Inc. requests approval to downhole commingle the Tapacito Pictured Cliffs, the Blanco Mesaverde, and Basin Dakota pools in the subject well. The well is currently producing as a Pictured Cliffs / Mesaverde dual completion. The Dakota is currently isolated below a plug. Downhole commingling will allow the energy from all the formations to assist in lifting liquids which should increase overall gas production.

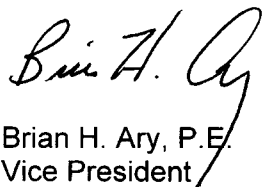
To comply with the New Mexico Oil Conservation Rules, Greystone Energy, Inc. is submitting the following data for your approval of the proposed commingling:

1. Form C-107A – Application for Downhole Commingling
2. Form C-102 – Location Plat showing each spacing unit and dedicated acreage
3. Production Curves for both zones
4. Bottom hole pressure data

The working, overriding and royalty interests are identical in both zones.

If you need any additional information please contact me at 303-925-0542 ext. 222.

Sincerely,


Brian H. Ary, P.E.
Vice President

CC: NMOCD-Aztec, BLM – Farmington, Interest Holders

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
811 South First St., Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410
DISTRICT IV
2040 S. Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

Form C-107-A
Revised August 1999

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Greystone Energy, Inc.

5802 Highway 64, Farmington, NM 87401

Operator

Address

Champlin

1

M - 35 - 27N - 4W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 173252 Property Code 24023 API NO. 30-039-0678400 Federal ☒ State ☐ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Tapacito Pictured Cliffs / 85920	Blanco Mesaverde / 72319	Basin Dakota / 71599
2. Top and Bottom of Pay Section (Perforations)	3,796' - 3,868'	5,559' - 6,136'	7,984' - 8,177'
3. Type of production (Oil or Gas)	GAS	GAS	GAS
4. Method of Production (Flowing or Artificial Lift)	FLOWING	FLOWING	FLOWING
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 410 PSI	a. 550 PSI	a. 810 PSI
	b. (Original) 860 PSI	b. 600 PSI	b. 1216 PSI
6. Oil Gravity (EAPI) or Gas BTU Content	1246	1290	1237
7. Producing or Shut-In?	PRODUCING	PRODUCING	SHUT-IN
Production Marginal? (yes or no) * If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data * If Producing, give date and oil/gas/water rates of recent test (within 60 days)	YES	YES	YES
	Date: Rates:	Date: Rates:	Date: 8/99 Rates: 0.52 BOPD / 30 MCFD
	Date: 3/00 Rates: 0 BOPD / 42 MCFD	Date: 3/00 Rates: 1.1 BOPD / 105 MCFD	Date: Rates:
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Oil: Gas: SEE ATTACHED	Oil: % Gas: %	Oil: Gas:

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☐ Yes ☐ No

11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☒ Yes ☐ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No

13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)

14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). _____

16. ATTACHMENTS:

- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation method or formula.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Brian H. Ary TITLE VICE PRESIDENT DATE 3-28-00

TYPE OR PRINT NAME BRIAN H. ARY TELEPHONE NO. (505) 632 - 8056

Champlin No. 1 PC / MV / DK – Recommended Allocation Method

The Mesaverde in the subject well was completed in November 1999. The Pictured Cliffs and Dakota zones were originally completed in 1963 and have produced as a dual completion since that time.

Prior to the completion of the Mesaverde, the Pictured Cliffs was producing against low line pressure and had a stabilized gas decline rate of 2.16%. The Dakota was also producing against low line pressure and had a gas decline rate of 1.3% and an oil decline rate of 1%.

In order to allocate the production from the proposed commingle, Greystone Energy, Inc. recommends fixing the PC and DK's contributions based on the attached decline curve analysis for a period of 12 months. The PC and DK's fixed contribution from the decline curve analysis is shown below.

Champlin No. 1 – Pictured Cliffs Fixed Production Allocation

Year	Monthly Oil Allocation (bbls)	Monthly Gas Allocation (mcf)
2000	0	1973
2001	0	1930

Champlin No. 1 – Dakota Fixed Production Allocation

Year	Monthly Oil Allocation (bbls)	Monthly Gas Allocation (mcf)
2000	28	832
2001	28	821

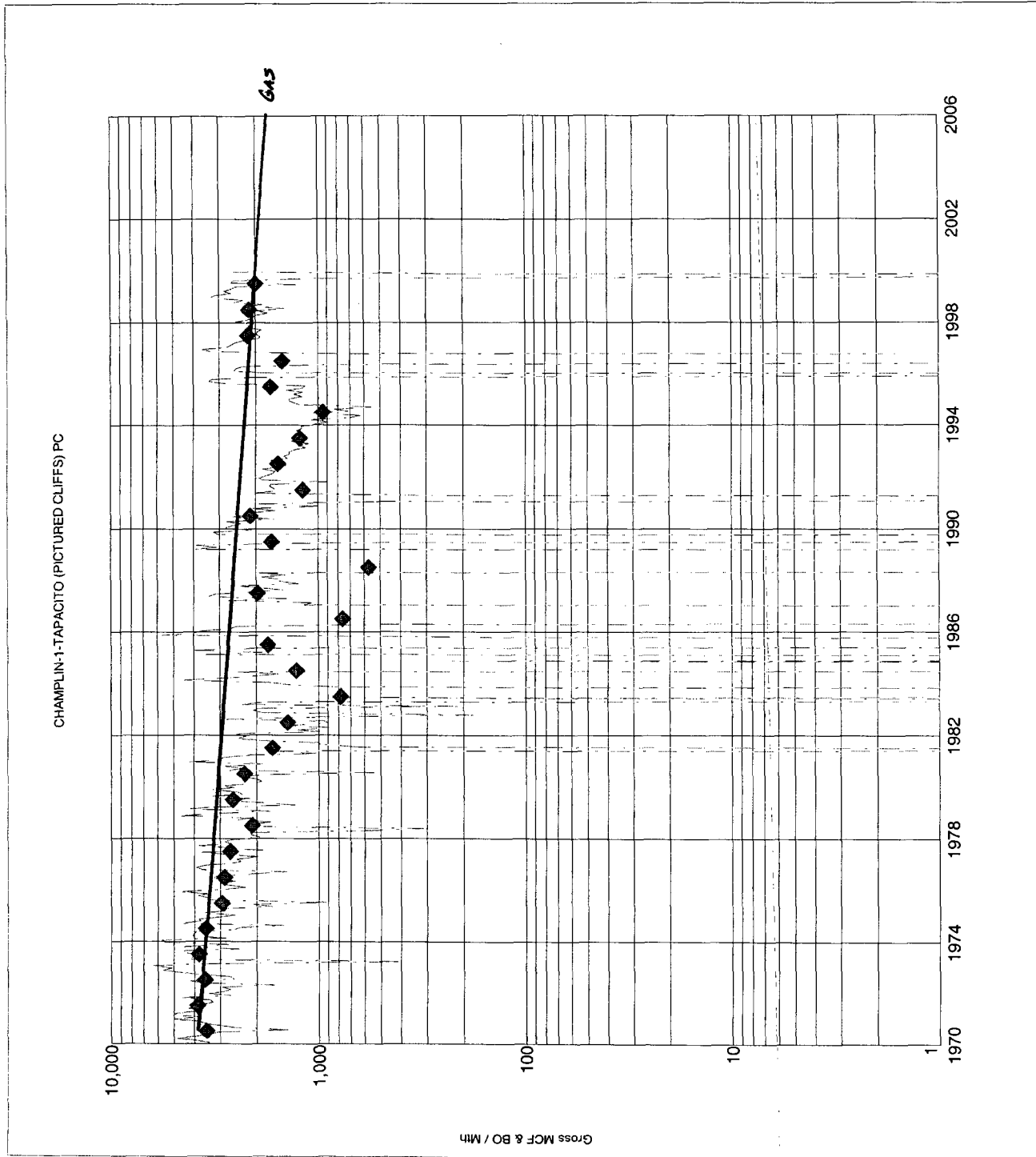
During this period, the production attributable to the Mesaverde zone will be calculated by taking the well's total monthly metered production and subtracting the PC and DK's fixed contribution.

After the initial 12 months, Greystone proposes to review the well's production and set a fixed percentage allocation for each zone for the remainder of the well's life. The fixed allocation percentage will be based on the projected PC and DK production from the attached decline curve analysis and the total well performance for the previous 12 months.

Lease Name: CHAMPLIN (1)
County, ST: RIO ARriba, NM
Location: 27N-4W-35

Field Name:
Operator:

TAPACITO (PICTURED CLIFFS) PC
GREYSTONE ENERGY INC



Oil Curve:

Segment 1: 05/1994 - 04/1996
Start Rate: 0 bbl
End Rate: 0 bbl
Decline: -3.2211
N Factor: 0.000000

Gas Curve:

Segment 1: 10/1970 - 03/2002
Start Rate: 3,772 mcf
End Rate: 1,902 mcf
Decline: 2.1554
N Factor: 0.000000

Water Curve:

Segment 1: 02/1987 - 10/1990
Start Rate: 1 bbl
End Rate: 4 bbl
Decline: < -1000.0000
N Factor: 0.000001

Pressure/Time Graph

Project: C:\WINDOWS\Desktop\Greystone\Greystone\Economic Runs Ptools\BAFeb10.MDB

Date: 8/28/1999

Time: 11:39 AM

Lease Name:

CHAMPLIN (1)

County, ST:

RIO ARRIBA, NM

Location:

27N-4W-35

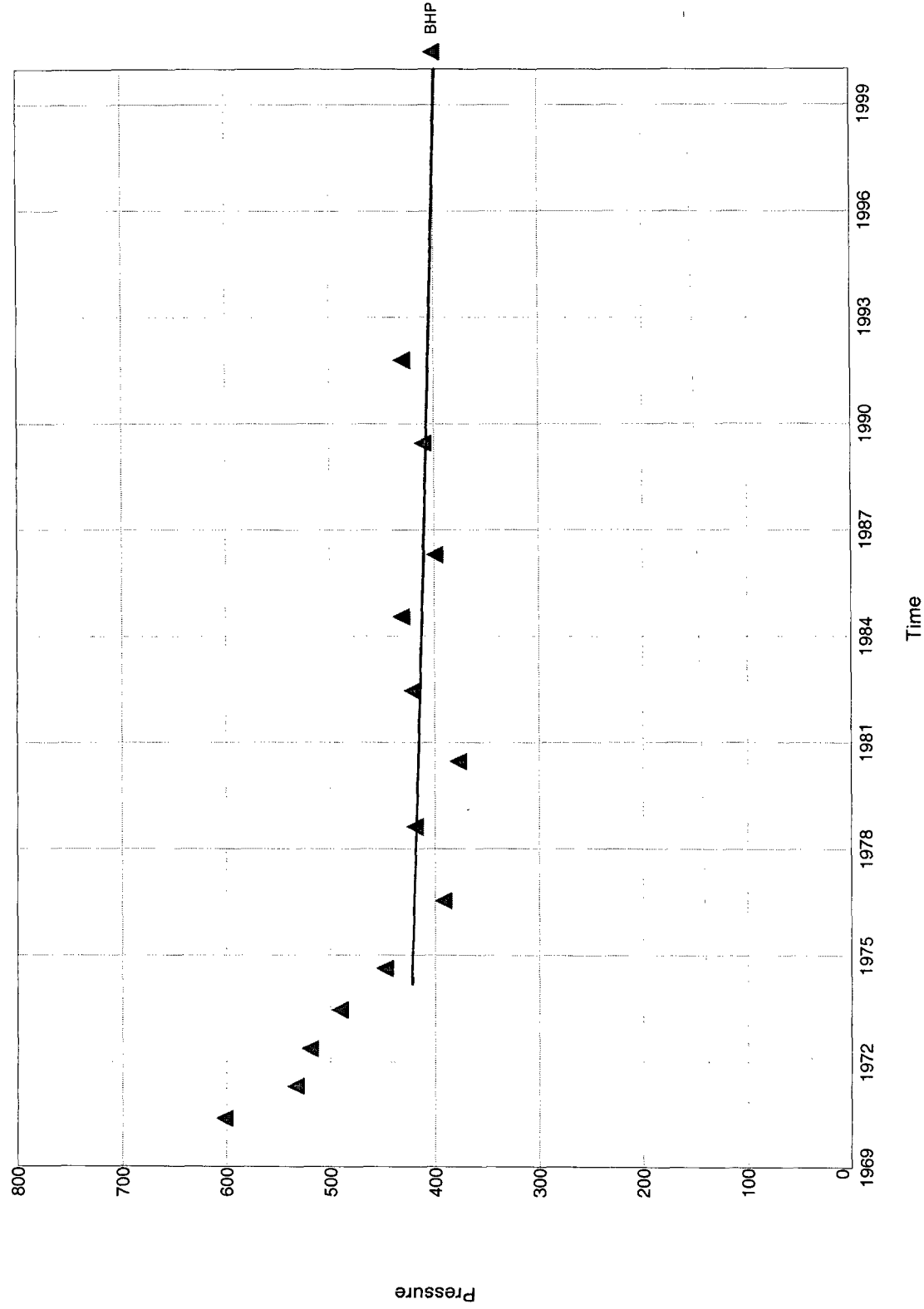
Field Name:

TAPACITO (PICTURED CLIFFS) PC

Operator:

GREYSTONE ENERGY INC

Champlin No. 1 - PC Pressure vs Time



Rate/Time Graph

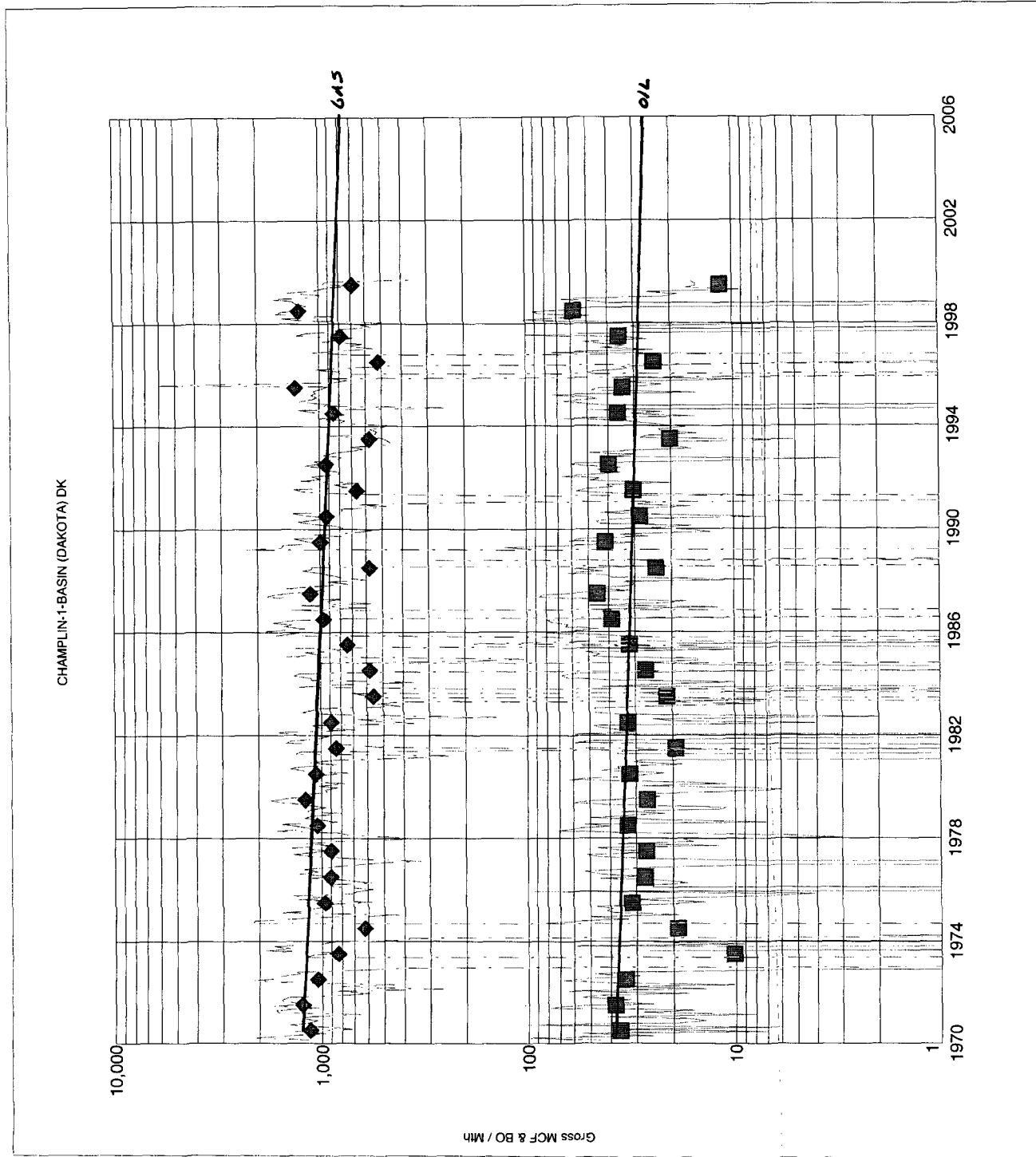
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Date: 8/28/1999
Time: 8:55 AM

Lease Name: CHAMPLIN (1)
County, ST: RIO ARRIBA, NM
Location: 27N-4W-35

Field Name:
Operator:

BASIN (DAKOTA) DK
GREYSTONE ENERGY INC



Oil Curve:

Segment 1: 05/1970 - 01/1995
Start Rate: 38 bbl
End Rate: 29 bbl
Decline: 1.0041
N Factor: 0.000000

Gas Curve:

Segment 1: 07/1970 - 07/1997
Start Rate: 1,231 mcf
End Rate: 865 mcf
Decline: 1.2976
N Factor: 0.000000

Water Curve:

Segment 1: 01/1974 - 10/1997
Start Rate: 15 bbl
End Rate: 3 bbl
Decline: 57.2702
N Factor: 0.000001

Pressure/Time Graph

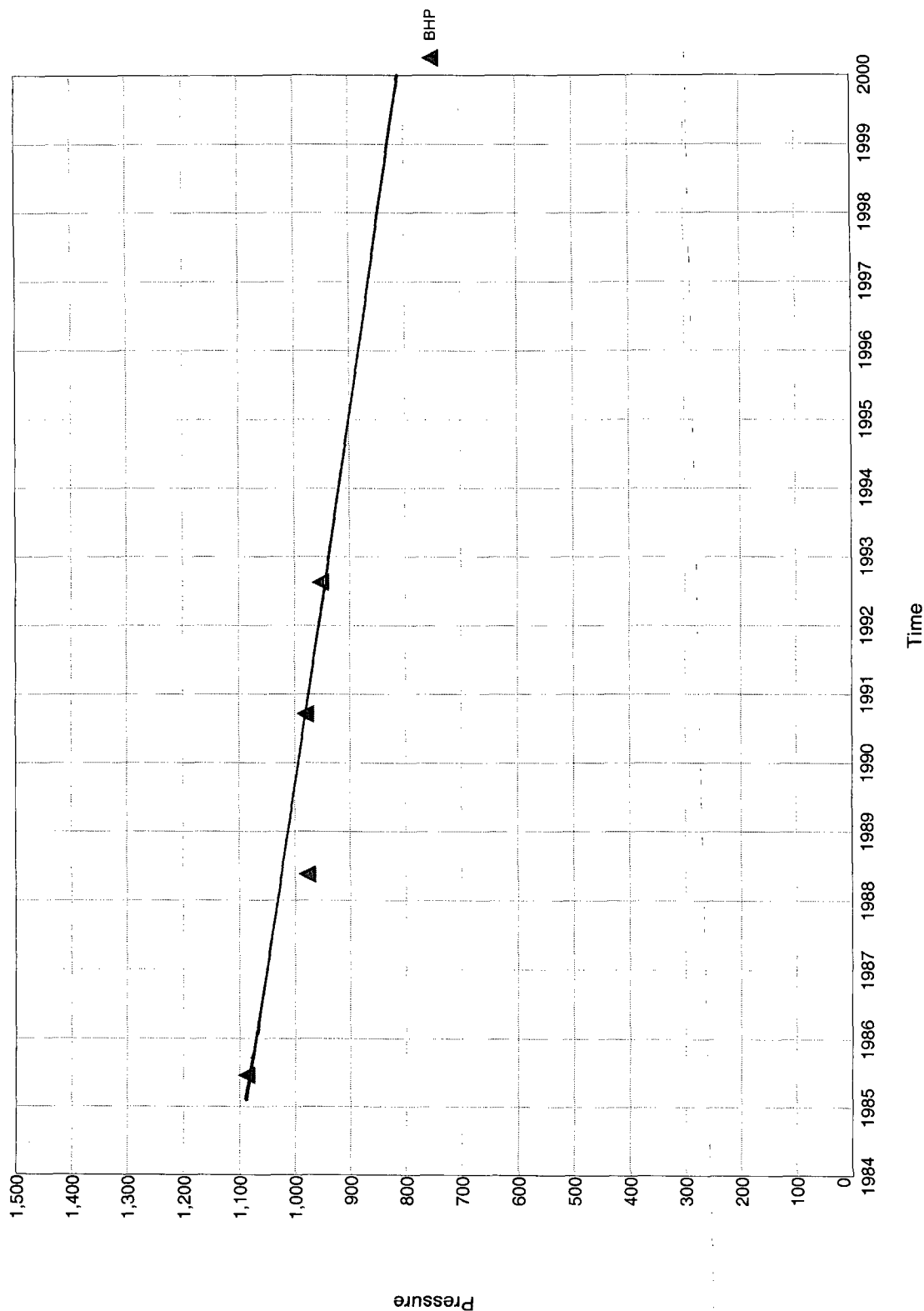
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Date: 8/28/1999
Time: 11:46 AM

Lease Name: CHAMPLIN (1)
County, ST: RIO ARriba, NM
Location: 27N-4W-35

Field Name: BASIN (DAKOTA) DK
Operator: GREYSTONE ENERGY INC

Champlin No. 1 Dakota - Pressure vs Time



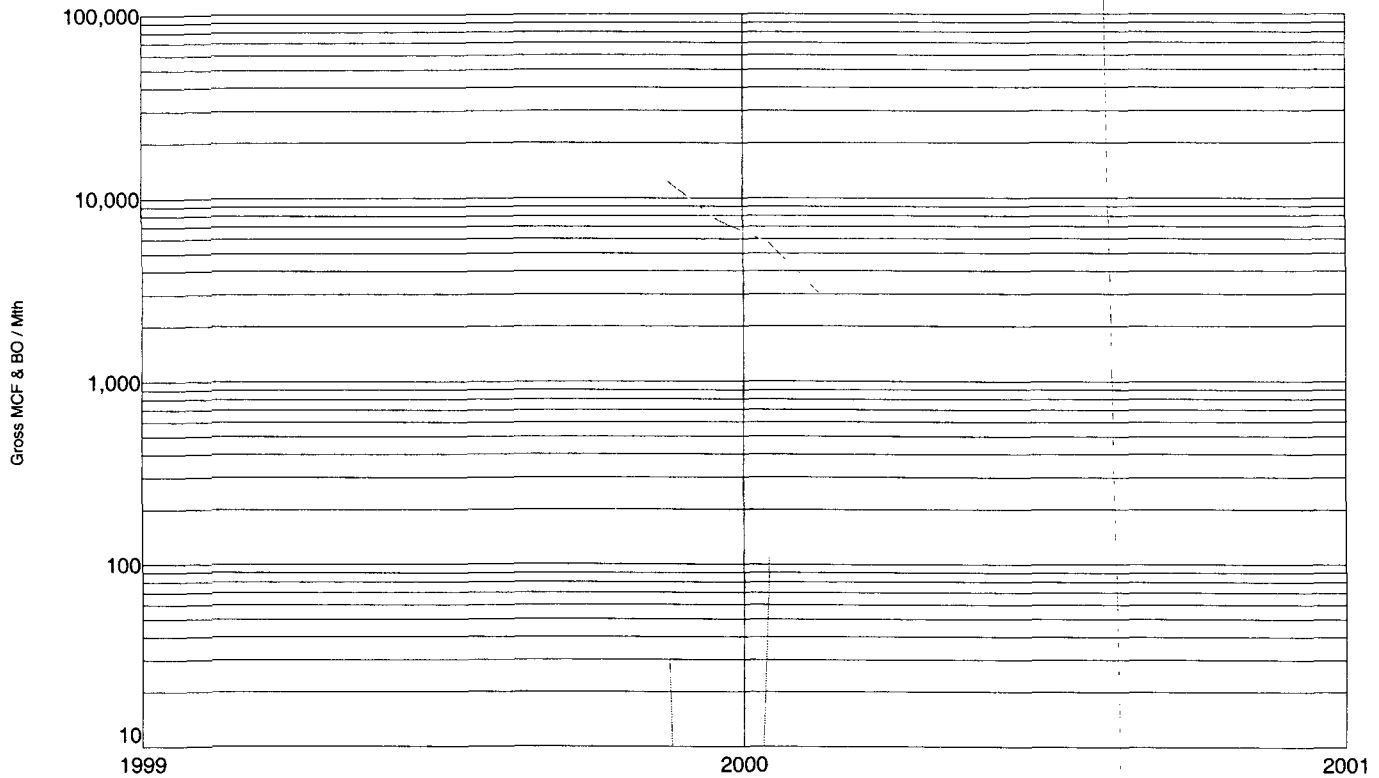
Last Twelve Months Historic Production Report

Project: C:\WINDOWS\Desktop\Greystone\GREYSTON\APRIL 2000 REDET\Bamar10.MDB

Lease Name: CHAMPLIN (1)
 County, ST: RIO ARRIBA, NM
 Location: 0-0-0

Field Name: BLANCO (MESAVERDE) MV
 Operator: GREYSTONE ENERGY INC

Champlin No. 1 - Mesaverde



Date	Well Count	Oil (bbl)	Gas (mcf)	Water (bbl)	Injection (bbl)
Previous		0	0	0	0
03/1999	0	0	0	0	0
04/1999	0	0	0	0	0
05/1999	0	0	0	0	0
06/1999	0	0	0	0	0
07/1999	0	0	0	0	0
08/1999	0	0	0	0	0
09/1999	0	0	0	0	0
10/1999	0	0	0	0	0
11/1999	1	30	12,350	0	0
12/1999	1	0	7,551	0	0
01/2000	1	108	5,746	0	0
02/2000	1	0	3,056	0	0
Total:		137	28,703	0	0

Pressure/Time Graph

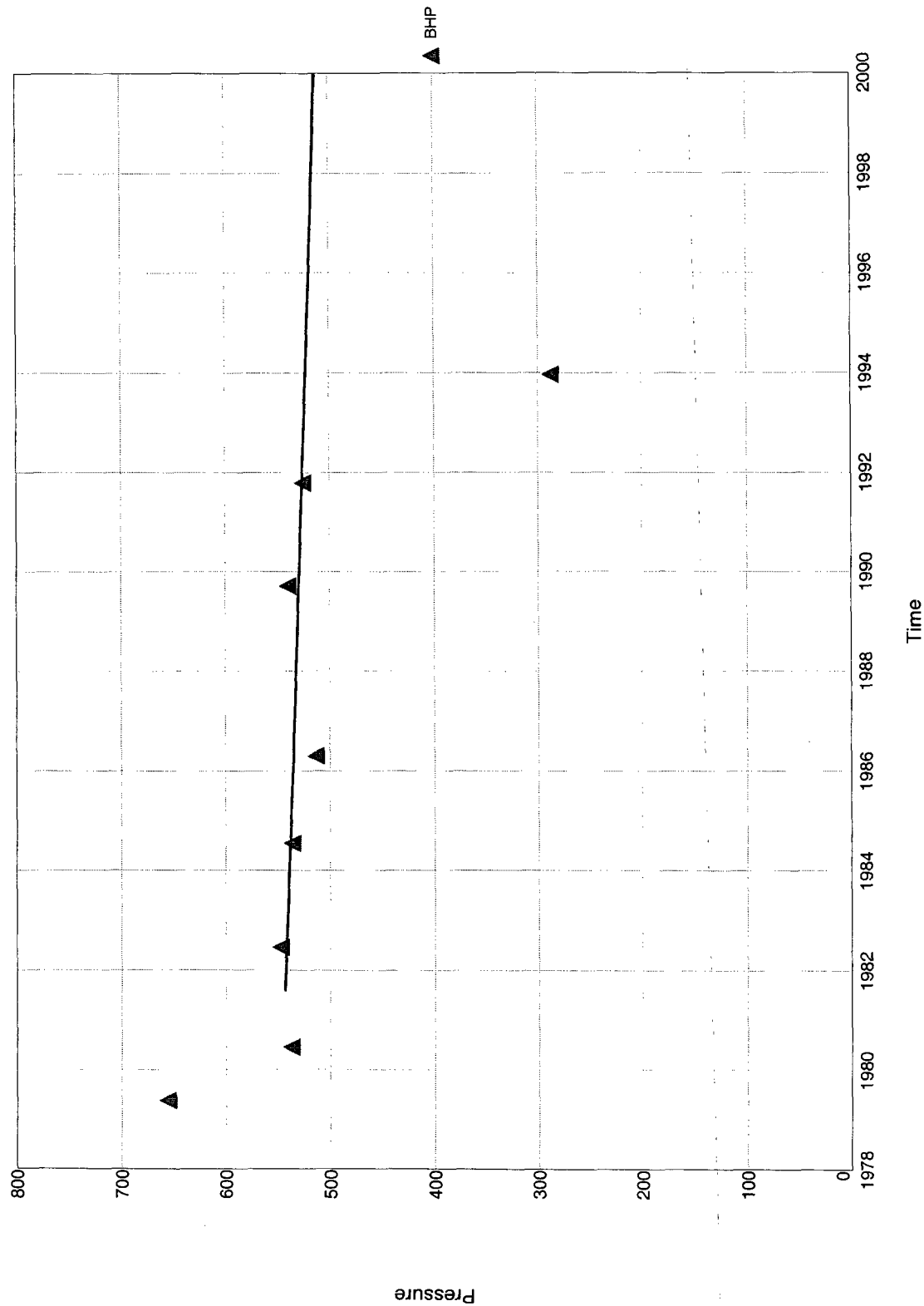
Project: C:\WINDOWS\Desktop\Greystone\GREYSTON\APRIL 2000 REDET\Bamar10.MDB

Date: 8/28/1999
Time: 9:07 AM

Lease Name: CHAMPLIN (2A)
County, ST: RIO ARriba, NM
Location: 27N-4W-35

Field Name: BLANCO (MESAVERDE) MV
Operator: GREYSTONE ENERGY INC

Champlin No. 2A Mesaverde - Offset to Champlin 1 Mesaverde



Well Location and Acreage Dedication Plat

Section A.

Date November 14, 1962

Operator CONSOLIDATED OIL & GAS, INC. Lease Champlin
 Well No. 1 Unit Letter M Section 35 Township 27 NORTH Range 4 WEST NMPM
 Located 990 Feet From the SOUTH Line, 990 Feet From the WEST Line
 County RIO ARriba G. L. Elevation 6991.0 Dedicated Acreage 160 Acres
 Name of Producing Formation Pictured Cliffs Pool Tapicito

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?
 Yes X No _____
2. If the answer to question one is "no", have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes _____ No _____. If answer is "yes", Type of Consolidation.
3. If the answer to question two is "no", list all the owners and their respective interests below:

OwnerLand Description

Section B.

Note: All distances must be from outer boundaries of section.

This is to certify that the information
 in Section A above is true and complete
 to the best of my knowledge and belief.

Consolidated Oil & Gas, Inc.

(Operator)

W. H. Sullivan

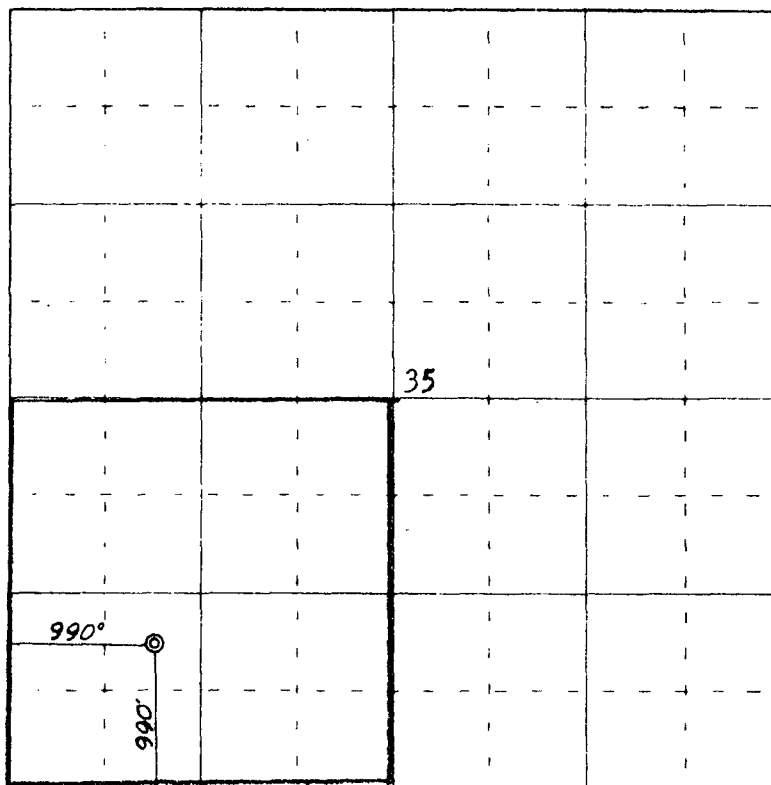
(Representative)

4150 E. Mexico Avenue

(Address)

Denver 22, Colorado

Ref. GLO Plat Dated 3 Feb. 1884



0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

Scale 4 inches equal 1 mile

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed 31 July 1962

James P. [Signature]
 Registered Professional Geologist and Land Surveyor

NEW MEXICO OIL CONSERVATION COMMISSION

Well Location and Acreage Dedication Plat

Section A.

Date November 14, 1962

Operator CONSOLIDATED OIL & GAS, INC. Lease Champlin
 Well No. 1 Unit Letter M Section 35 Township 27 NORTH Range 4 WEST NMPM
 Located 990 Feet From the SOUTH Line, 990 Feet From the WEST Line
 County RIO ARriba G. L. Elevation 6991.0 Dedicated Acreage 320 Acres
 Name of Producing Formation Dakota Pool Basin

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?
 Yes X No _____
2. If the answer to question one is "no", have the interests of all the owners been consolidated by communization agreement or otherwise? Yes _____ No _____. If answer is "yes", Type of Consolidation.
3. If the answer to question two is "no", list all the owners and their respective interests below:

OwnerLand Description

Section B.

Note: All distances must be from outer boundaries of section.

This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

Consolidated Oil & Gas, Inc.

(Operator)

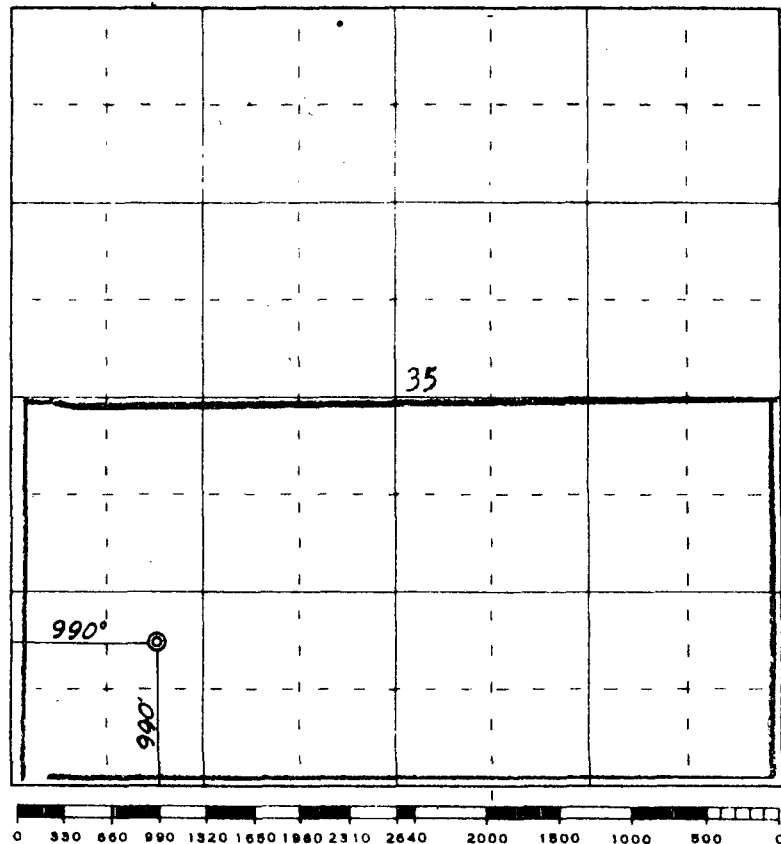
(Representative)

4150 E. Mexico Avenue

(Address)

Denver 22, Colorado

Ref. GLO Plat Dated 8 Feb. 1884



Scale 4 inches equal 1 mile

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed 31 July 1962

RECEIVED
 NOV 18 1962
 OIL CON. COM.
 DIST. 3

James P. [Signature]

