



ConocoPhillips Company
4001 Penbrook Street
Odessa, TX 79762

EXPLORATION & PRODUCTION
Permian Basin Business Unit

March 24, 2003

United States Department of the Interior
Bureau of Land Management
Roswell District Office
2909 W. 2nd St.
Roswell, NM 88201

RECEIVED
MARCH 27 2003
OIL & GAS DIVISION
BLM

RE: 2003 Plan of Development/Operations
Grayburg Deep Unit
Contract No.-14-08-001-1602
Eddy County, New Mexico

Gentlemen:

In compliance with Section 10 of the Unit Agreement of the Grayburg Deep Unit, Eddy County, New Mexico, approved by the Acting Director, United States Geological Survey on June 4, 1954, and designated by Contract Number 14-08-001-1602, Phillips Petroleum Company, ConocoPhillips Company effective 01/01/03, as successor to General American Oil Company of Texas respectfully submits for your consideration and approval the following Plan of Development/Operations for the unitized land.

1. Current Status

There are currently 4 wells producing in the unit. Below is a tabulation of 2002 production data from these wells:

TABLE #1: Grayburg Deep Unit Average 2002 Production

WELL NUMBER	COMPLETION DATE	FIELD (RESERVOIR)	AVG 2002 OIL (BOPD)	AVG 2002 GAS (MSCFD Pb = 14.65)	AVG 2002 WATER (BWPD)
#1	10 / 1954	Anderson (Penn)	0.02	32.7	0.01
#10	12 / 1987	Anderson (Penn)	0.06	471.2	0.04
#14	11 / 1997	Sand Tank (Morrow)	4.61	356.5	0.00
#15	11 / 1998	Sand Tank (Morrow)	0.07	0.00	0.00
		2002 Daily Average	4.76	860.4	0.05

A few workover operations were conducted on the Grayburg Deep Unit wells in 2002:

- Grayburg Deep Unit #1 – workovers were conducted on this well (April – May and June-July) to try to increase production rates. The tubing was again found to be plugged with salt and a casing leak was found @ 9,278 – 9,307’. Flo-Chek was pumped into this leaking interval to shut-off water and all former Morrow production intervals were re-perforated. The Morrow was also treated with 8000 gallons of Claysafe 5 acid in late June 2002. The well is now equipped with a production packer. Production rates are slowly increasing.
- Grayburg Deep Unit #10 – swabbing operations were conducted on this well in late November and soap sticks are now being utilized to keep the well unloaded.
- Grayburg Deep Unit #15 – a workover to clean-out formation fill across the Lower Morrow perforations was conducted in April 2002 but was unsuccessful in restoring production.

Please consult the attached graphs of oil production and gas production versus time for the period 12 / 01 through 12 / 02.

2. Future Development / Operations

There are no plans to drill any Grayburg Deep Unit wells in 2003 but ConocoPhillips plans to re-evaluate the area, utilizing new seismic evaluation techniques, to recognize drilling opportunities. Below is a tabulation of the most recent drilling activity within the Grayburg Deep Unit:

Table #2: Recent Grayburg Deep Unit Drilling History

WELL	LEGAL DESCRIPTION	DATE	OUTCOME
Grayburg Deep #13	Sec 23, Twp 17S, Rge 29E	April 1997	Dry Hole
Grayburg Deep #14	Sec 25, Twp 17S, Rge 29E	October 1997	Morrow Gas Well
Grayburg Deep #19	Sec 25, Twp 17S, Rge 29E	May 1998	Dry Hole
Grayburg Deep #15	Sec 30, Twp 17S, Rge 29E	August 1998	Morrow Gas Well

During 2003, Phillips intends to continue to maximize production rates and optimize reserve recovery by monitoring production rates and evaluating economic production enhancement methods. The following production enhancement operations are planned for 2003:

- Grayburg Deep Unit #1 –continue to monitor gas production and perform a sand fracture stimulation operation if rates do not continue to increase.
- Grayburg Deep Unit #14 – sufficient “low pressure” gas pipeline capacity now exists to remove the wellhead compressor on this well. Expect to complete conversion in first quarter of 2003.
- Grayburg Deep Unit #15 – a workover proposal to abandon the Lower and Middle Morrow perforations and add Upper Morrow perforations has been approved and will be conducted in the 2nd quarter of 2003.

3. Modifications

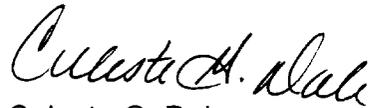
The Plan of Development/Operations may be modified from time to time with the approval of the Bureau of Land Management to meet changing conditions.

4. Attachments

Grayburg Deep Unit – 2002 Gas Production
Grayburg Deep Unit – 2002 Oil Production
Current Unit map.

Please contact me at 915/368-1667, or Linda Hicks at 915/368-1216 if there are any questions regarding this Plan of Development/Operations.

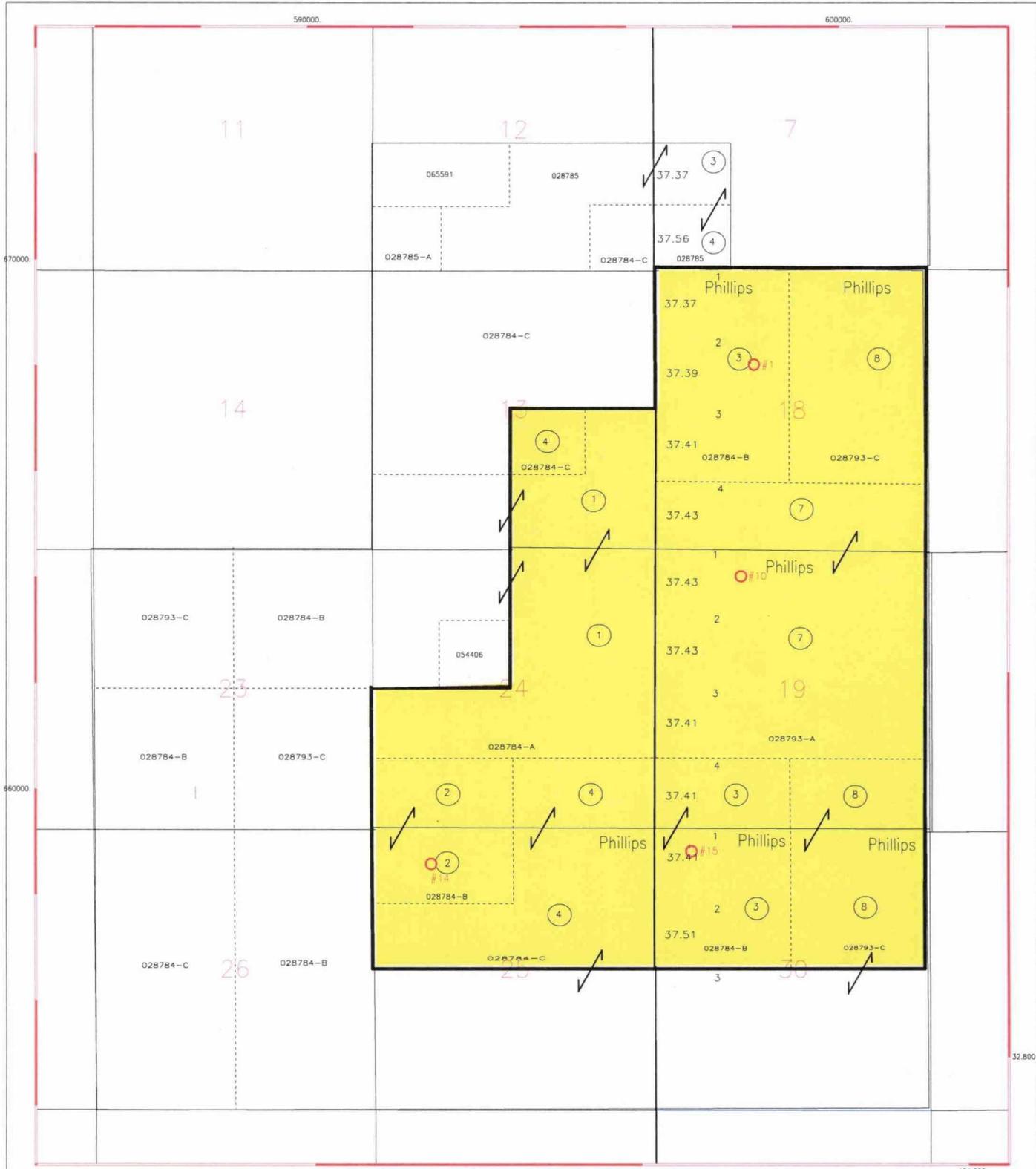
Sincerely,



Celeste G. Dale
Regulatory Affairs

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Working Interest Owners



	Acreage	Percent
Federal Lands	2534.22	100.00%

3/1/78 JOA Boundary

— Unit Area Boundary—as contracted 8/23/00

⑤ Tract Numbers

○ MRRW Wells

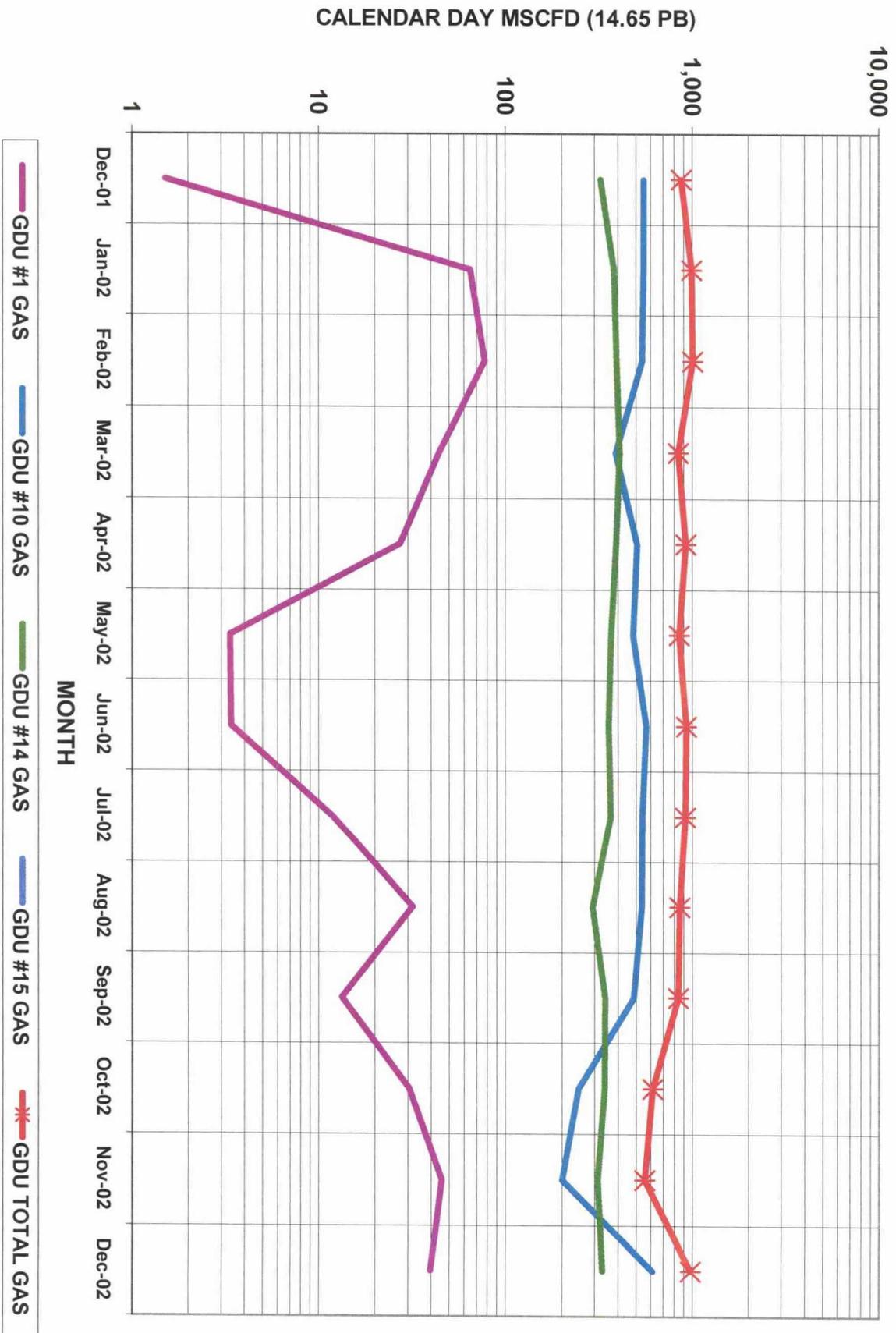


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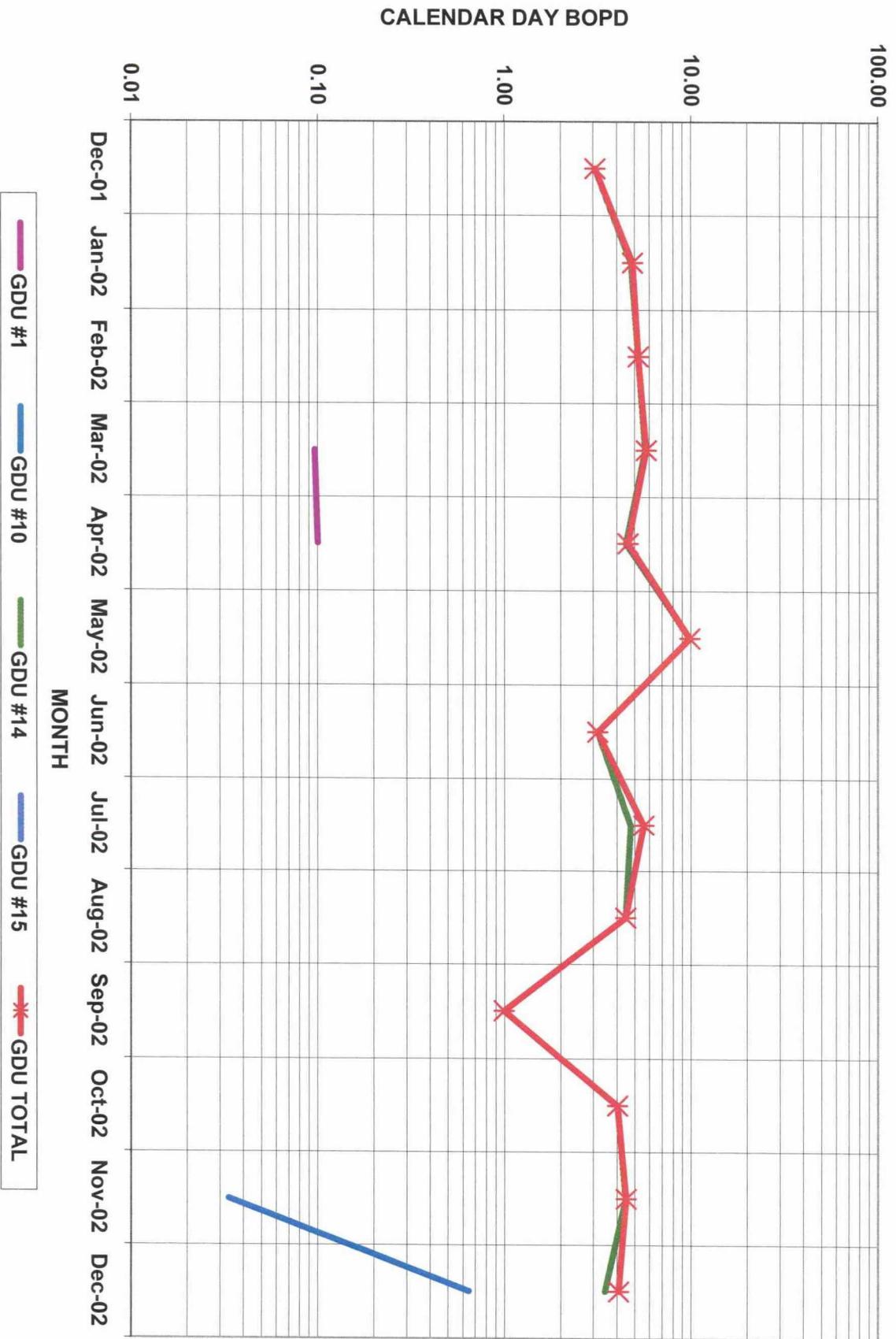


Phillips Petroleum Company		
Grayburg Deep Unit T-17S / R-29 / 30E Eddy County, New Mexico		
Cindy Young		4/2/2003
SOUTHEAST NEW MEXICO	GLOBAL	global.gpl

GRAYBURG DEEP UNIT - 2002 MONTHLY GAS PRODUCTION



GRAYBURG DEEP UNIT - 2002 MONTHLY OIL PRODUCTION



Month	1.0			5			10.0			14.00			15			Totals		
	gas	oil	water	gas	oil	water	gas	oil	water	gas	oil	water	gas	oil	water	gas	oil	water
Dec-01	1.5	0.00	0	14.7	0.02	0.01	14.7	0.06	0.04	322.30	3.07	0	0	0.00	0	874.3	3.1	0.0
Jan-02	64.7	0.10	0	14.7	0.00	0	14.7	0.00	0	381.56	4.77	0	0	0.00	0	997.4	4.9	0.0
Feb-02	77.3	0.00	0	14.7	0.00	0	14.7	0.00	0	393.13	5.21	0	0	0.00	0	1,010.7	5.2	0.0
Mar-02	44.2	0.10	0	14.7	0.00	0	14.7	0.00	0	409.21	5.68	0	0	0.00	0	842.7	5.8	0.0
Apr-02	27.1	0.10	0	14.7	0.00	0	14.7	0.00	0	391.40	4.90	0	0	0.00	0	825.2	4.6	0.0
May-02	3.3	0.00	0	14.7	0.00	0	14.7	0.00	0	367.92	9.87	0	0	0.00	0	853.6	9.5	0.0
Jun-02	3.4	0.00	0	14.7	0.00	0	14.7	0.00	0	356.33	3.17	0	0	0.00	0	927.5	3.2	0.0
Jul-02	11.8	0.00	0	14.7	0.00	0	14.7	0.00	0	364.85	4.74	0	0	0.84	0	917.7	5.6	0.0
Aug-02	31.7	0.00	0	14.7	0.00	0	14.7	0.00	0	292.89	4.45	0	0	0.00	0	859.5	4.5	0.0
Sep-02	13.2	0.00	0	14.7	0.00	0	14.7	0.00	0	342.21	1.00	0	0	0.00	0	839.9	1.0	0.0
Oct-02	30.4	0.00	0	14.7	0.00	0	14.7	0.00	0	338.74	4.03	0	0	0.00	0	615.1	4.0	0.0
Nov-02	45.5	0.00	0	14.7	0.00	0	14.7	0.00	0	311.20	4.47	0	0	0.00	0	557.7	4.5	0.0
Dec-02	39.5	0.00	0.064516	14.7	0.02	0.01	14.7	0.06	0.04	329.28	3.45	0	0	0.00	0	978.4	4.1	0.5
avg	32.7	0.02	0.01	14.7	0.02	0.01	14.7	0.06	0.04	356.54	4.61	0.00	0.00	0.00	0.00	978.4	4.1	0.5

Month	#1			#10			#14			#15		
	gas	oil	water	gas	oil	water	gas	oil	water	gas	oil	water
February	3	1965	0	15	14419.0	3872694.00	31	0.10	63.06	64.678	0	0.00
March	3	1335	0	18	14422.0	3876110.00	31	0.10	43.06	44.16685	0	0.00
April	3	794	0	21	14425.0	3876004.00	30	0.10	26.47	27.14414	0	0.00
May	0	101	0	1	14425.0	3877005.00	31	0.00	3.26	3.341462	0	0.00
June	0	99	0	0	14425.0	3877104.00	30	0.00	3.30	3.384471	0	0.00
July	0	358	0	11	14425.0	3877467.00	31	0.00	11.55	11.84359	0	0.00
August	0	989	0	2	14425.0	3878688.00	31	0.00	12.80	13.2302	0	0.00
September	0	387	0	31	14425.0	3879229.00	30	0.00	25.68	26.43278	0	0.00
October	0	930	0	31	14425.0	3879729.00	31	0.00	44.95	45.48915	0	0.00
November	0	1330	0	30	14425.0	3881058.00	30	0.00	38.52	39.539512	0.064516	0.00
December	0	1135	0	31	30984.0	1846528.00	31	0.00	63.72	65.17258	0	0.00
January	0	16660	0	28	30884.0	1964477.50	31	0.00	52.075	54.02334	0	0.00
February	0	14149	0	28	30884.0	1976043.00	31	0.00	379.61	389.23	0	0.00
March	0	11788	0	28	30884.0	1976043.00	31	0.00	494.60	506.6461	0	0.00
April	0	14820	0	31	30884.0	2005444.00	31	0.00	470.29	482.3285	0	0.00
May	0	14579	0	30	30884.0	2022032.00	30	0.00	553.60	567.7706	0	0.00
June	0	16608	0	31	30884.0	2038405.00	31	0.00	527.58	541.0522	0	0.00
July	0	16354	0	31	30884.0	2038405.00	31	0.00	521.68	535.0309	0	0.00
August	0	16172	0	30	30884.0	2038405.00	30	0.00	472.80	484.8922	0	0.00
September	0	14172	0	31	30884.0	2076184.00	31	0.00	239.81	245.9448	0	0.00
October	0	7434	0	30	30885.0	2082063.00	30	0.03	195.97	200.9229	0.451613	0.00
November	1	5879	0	28	14363	760510	31	0.05	994.39	609.6018	0.451613	0.00
December	20	18426	0	28	14363	771243	31	4.77	372.03	381.5553	0	0.00
January	148	11533	0	28	14363	771243	31	5.21	383.32	393.1334	0	0.00
February	146	10733	0	28	14363	783612	31	5.68	399.00	409.2133	0	0.00
March	176	12389	0	29	14685	792061	30	4.50	381.63	391.4021	0	0.00
April	135	11449	0	29	14820	8005182	31	9.87	358.74	367.9247	0	0.00
May	306	11121	0	31	15126	816605	30	3.17	347.43	356.3287	0	0.00
June	95	10423	0	28	15221	816605	31	3.17	347.43	356.3287	0	0.00
July	147	11028	0	31	15368	827633	31	4.74	355.74	364.848	0	0.00
August	138	8847	0	31	15368	8368480	31	4.45	285.39	292.8922	0	0.00
September	30	10010	0	29	15338	8468490	30	1.00	333.67	342.2076	0	0.00
October	125	10239	0	31	15661	8567239	31	4.03	330.29	338.7449	0	0.00
November	134	9103	0	30	15795	865812	30	3.45	303.43	311.2004	0	0.00
December	107	9953	0	31	235	433005	31	3.45	321.06	329.2824	0	0.00
January	0	0	0	28	235	433005	31	0.00	0.00	0.00	0	0.00
February	0	0	0	28	235	433005	31	0.00	0.00	0.00	0	0.00
March	0	0	0	30	235	433005	31	0.00	0.00	0.00	0	0.00
April	0	1	0	30	235	433006	31	0.00	0.03	0.034187	0	0.00
May	0	0	0	30	235	433006	31	0.00	0.00	0.00	0	0.00
June	0	0	0	30	235	433006	30	0.00	0.00	0.00	0	0.00
July	0	0	0	30	261	433006	31	0.84	0.00	0.00	0	0.00
August	26	0	0	30	261	433006	31	0.00	0.00	0.00	0	0.00
September	0	0	0	30	261	433006	30	0.00	0.00	0.00	0	0.00
October	0	0	0	31	261	433006	31	0.00	0.00	0.00	0	0.00
November	0	0	0	30	261	433006	30	0.00	0.00	0.00	0	0.00



PHILLIPS PETROLEUM COMPANY

RECEIVED 715
SEP 10 2001
OIL AND GAS CONSERVATION DIVISION

September 7, 2001

United States Department of the Interior
Bureau of Land Management
Roswell District Office
P. O. Box 1397
Roswell, NM 88202

SEP 10 2001

RE: 2001 Plan of Development/Operations
Grayburg Deep Unit
Contract No.-14-08-001-1602
Eddy County, New Mexico

Gentlemen:

In compliance with Section 10 of the Unit Agreement of the Grayburg Deep Unit, Eddy County, New Mexico, approved by the Acting Director, United States Geological Survey on June 4, 1954, and designated by Contract Number 14-08-001-1602, Phillips Petroleum Company as successor to General American Oil Company of Texas respectfully submits for your consideration and approval the following Plan of Development/Operations for the unitized land.

1. Current Status

There are currently 5 wells producing in the unit. Below is a tabulation of 2000 production data from these wells:

TABLE #1: Grayburg Deep Unit Average 2000 Production

WELL NUMBER	COMPLETION DATE	FIELD (RESERVOIR)	AVG 2000 OIL (BOPD)	AVG 2000 GAS (MSCFD) Pb = 14.65)	AVG 2000 WATER (BWPD)
#1	10 / 1954	Anderson (Penn)	1.1	358	0
#5	07 / 1960	Bear Grass Draw (Abo)	6.6	13	26
#10	12 / 1987	Anderson (Penn)	0.1	538	1
#14	11 / 1997	Sand Tank (Morrow)	5.8	428	0
#15	11 / 1998	Sand Tank (Morrow)	0.5	388	0
2000 Daily Average			16.3	1,652	27.0

		1999 Daily Average	18.4	1,912	21.4
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No workover operations were conducted on Grayburg Deep Unit wells during 2000. Please consult the attached graphs of oil production and gas production versus time for the period 12 / 99 through 12 / 00.

2. Future Development / Operations

There are no plans to drill any Grayburg Deep Unit wells in 2001 and Phillips will continue to evaluate new drilling opportunities by evaluating seismic data, production data and drilling activity in the area. Below is a tabulation of the most recent drilling activity within the Grayburg Deep Unit:

Table #2: Recent Grayburg Deep Unit Drilling History

WELL	LEGAL DESCRIPTION	DATE	OUTCOME
Grayburg Deep #13	Sec 23, Twp 17S, Rge 29E	April 1997	Dry Hole
Grayburg Deep #14	Sec 25, Twp 17S, Rge 29E	October 1997	Morrow Gas Well
Grayburg Deep #19	Sec 25, Twp 17S, Rge 29E	May 1998	Dry Hole
Grayburg Deep #15	Sec 30, Twp 17S, Rge 29E	August 1998	Morrow Gas Well

During 2001, Phillips intends to continue to maximize production rates and optimize reserve recovery by monitoring production rates and evaluating economic production enhancement methods. Production maintenance workovers will be performed when required.

3. Modifications

The Plan of Development/Operations may be modified from time to time with the approval of the Bureau of Land Management to meet changing conditions.

4. Attachments

- Grayburg Deep Unit – 2000 Gas Production
- Grayburg Deep Unit – 2000 Oil Production
- Current Unit map.

Please contact Celeste Dale at 915/368-1667 if there are any questions regarding this Plan of Development/Operations.

2001 Plan of Development / Operations
Grayburg Deep Unit

Sincerely,

A handwritten signature in black ink, appearing to read 'L. M. Sanders', written in a cursive style.

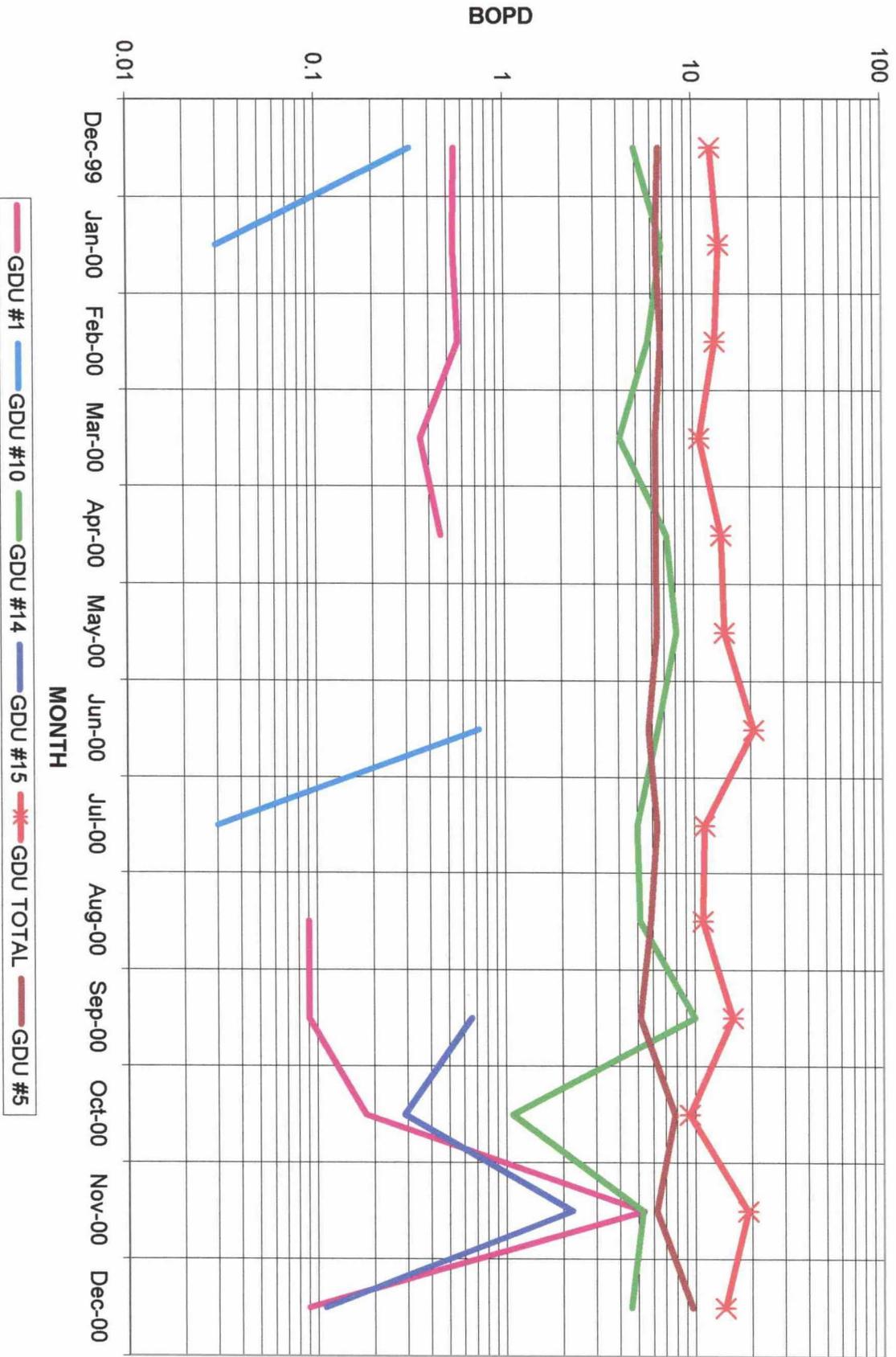
L. M. Sanders
Regulatory Affairs

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

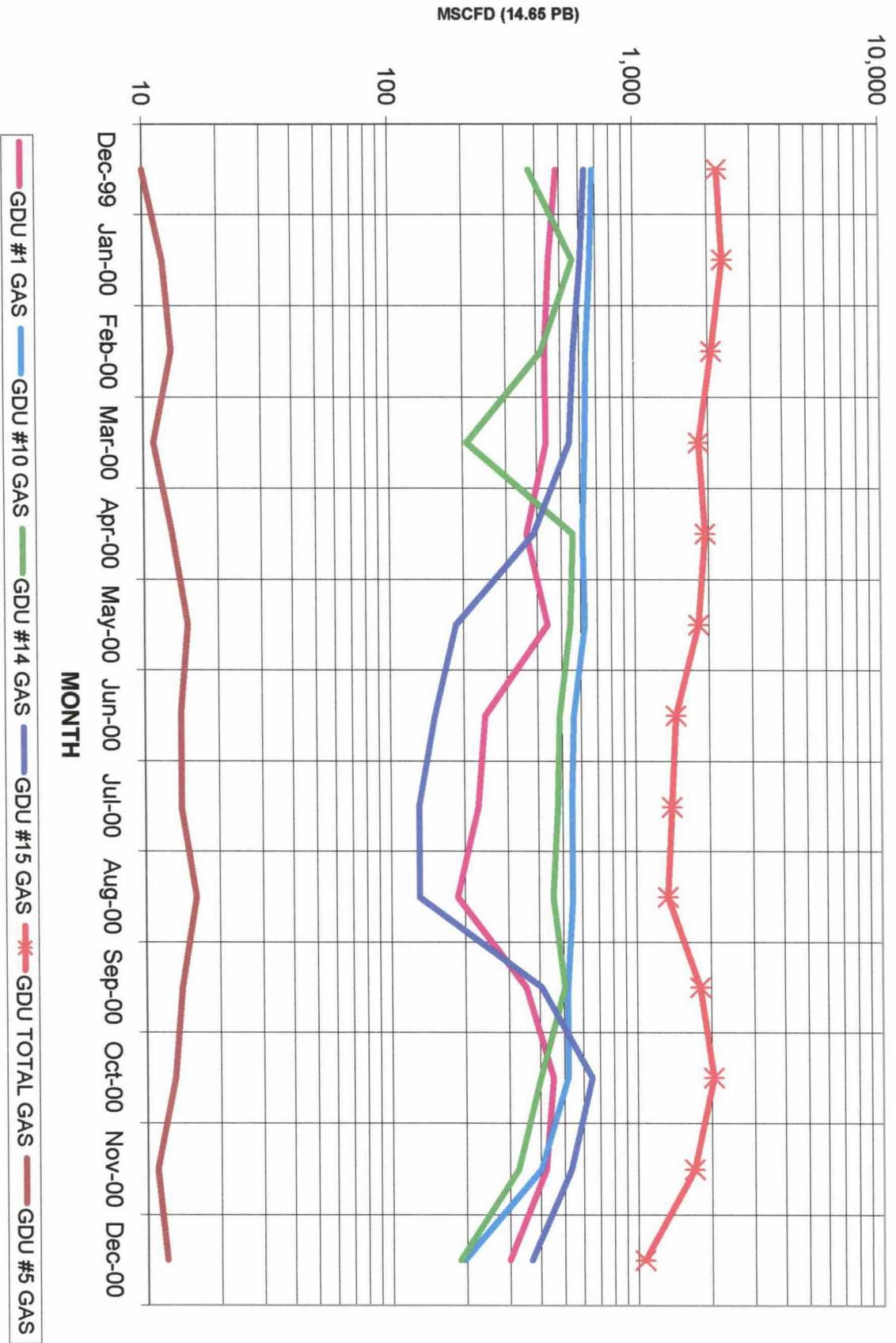
Working Interest Owners

	1				5				10				14				15				totals			
	gas	oil	water		gas	oil	water		gas	oil	water		gas	oil	water		gas	oil	water		gas	oil	water	
Dec-99	486	0.55	0	14.65	10	6.65	24.4	14.65	684	0.32	0	14.65	376	4.94	0	14.65	636	0	0	0	2,192.0	12.5	24.4	
Jan-00	451	0.54	0	14.65	12	6.39	24.4	14.65	665	0.03	0	14.65	563	6.84	0	14.65	609	0	0	0	2,300.0	13.8	24.4	
Feb-00	433	0.57	0	14.65	13	6.76	24.4	14.65	638	0	0	14.65	418	5.79	0	14.65	566	0	0	0	2,068.0	13.1	24.4	
Mar-00	438	0.36	0	14.65	11	6.32	22	14.65	629	0	0	14.65	207	4.1	0	14.65	542	0	0	0	1,827.0	10.8	22.0	
Apr-00	362	0.46	0	14.65	13	6.33	24.4	14.65	611	0	0	14.65	356	7.23	0	14.65	367	0	0	0	1,931.0	14.0	24.4	
May-00	439	0	0	14.65	15	6.42	24.4	14.65	624	0	0	14.65	542	8.13	0	14.65	186	0	0	0	1,806.0	14.6	24.4	
Jun-00	243	5.61	0	14.65	14	5.75	24.4	14.65	559	0.73	0	14.65	489	6.44	0	14.65	152	2.32	0	0	1,457.0	20.9	24.4	
Jul-00	227	0	0	14.65	14	6.36	24.4	14.65	545	0.03	0	14.65	479	5	0	14.65	130	0	0	0	1,395.0	11.4	24.4	
Aug-00	186	0.09	0	14.65	16	5.86	29.3	14.65	549	0	0	14.65	457	5.15	0	14.65	130	0	0	0	1,338.0	11.1	29.3	
Sep-00	351	0.09	0	14.65	14	5.15	30.2	14.65	521	0	0	14.65	505	10.03	0	14.65	408	0.66	0	0	1,799.0	15.9	30.2	
Oct-00	451	0.18	0	14.65	13	7.8	28.3	14.65	517	0	0	14.65	402	1.08	0	14.65	650	0.29	0	0	2,033.0	9.4	28.3	
Nov-00	420	5.33	0	14.65	11	6.24	30.2	14.65	402	0	0	14.65	324	5.28	0	14.65	534	2.23	0	0	1,691.0	19.1	30.2	
Dec-00	298	0.09	0	14.65	12	9.65	30.2	14.65	195	0	0	14.65	188	4.58	0	14.65	367	0.11	0	0	1,060.0	14.4	30.2	
avg	358.25	1.11	0	14.65	13.16667	6.565833	26.38333	14.65	537.9167	0.065833	0	14.65	427.6667	5.804167	0	14.65	388.4167	0.4675	0	0				

GRAYBURG DEEP UNIT - 2000 MONTHLY OIL PRODUCTION



GRAYBURG DEEP UNIT - 2000 MONTHLY GAS PRODUCTION





PHILLIPS PETROLEUM COMPANY

4001 PENBROOK
ODESSA, TEXAS 79762

EXPLORATION AND PRODUCTION
European Profit Center

12-13-99
FEB - 7 2000

February 1, 2000

United States Department of the Interior
Bureau of Land Management
Roswell District Office
P. O. Box 1397
Roswell, NM 88202

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TABLE #1: Grayburg Deep Unit Average 1999 Production

WELL NUMBER	COMPLETION DATE	RESERVOIR	AVG 1999 OIL (BOPD)	AVG 1999 GAS (MSCFD)	AVG 1999 WATER (BWPD)
#1	10 / 1954	Morrow	0.2	265	0
#5	07 / 1960	Abo	7.3	15	21
#10	12 / 1987	Morrow	0.4	343	0
#14	11 / 1997	Morrow	10.4	507	0.4
#15	11 / 1998	Morrow	0.1	782	0
1999 TOTALS			18.4	1,912	21.4

Numerous well operations were conducted on Grayburg Deep Unit gas wells during 1999, resulting in a significant production increase. Below is a listing of the work conducted:

- #1 – well was swabbed in July improving production by over 400 Mscfd. Operation to remove a bridge plug set between Lower and Middle Morrow sandstones in 1965, was unsuccessful.
- #10 – well was fracture stimulated in April and production was restored in July after completing fishing operations to recover collapsed tubing. Gas production was increased by over 700 Mscfd.
- #14 – wellhead compressor was set in September due to onset of liquid loading.
- #15 – well was fracture stimulated in February, improving production by approximately 775 Mscfd.

Please consult the attached graphs of oil production and gas production versus time for the period 12 / 98 through 12 / 99 and make note that the Grayburg Deep Unit gross gas production has been increased by 68% or 883 Mscfd, when comparing year-end figures.

2. Future Development / Operations

There are no plans to drill any Grayburg Deep Unit wells in 2000 and Phillips will continue to evaluate new drilling opportunities by evaluating seismic data, production data and drilling activity in the area. Below is a tabulation of the most recent drilling activity within the Grayburg Deep Unit:

Table #2: Recent Grayburg Deep Unit Drilling History

WELL	LEGAL DESCRIPTION	DATE	OUTCOME
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During 2000, Phillips operationally intends to continue to maximize production rates and optimize reserve recovery by monitoring production rates and evaluating economic production enhancement methods.

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Grayburg Deep Unit – 1999 Gas Production
Grayburg Deep Unit – 1999 Oil Production
Current Unit map.

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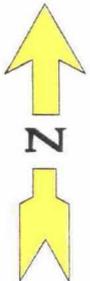
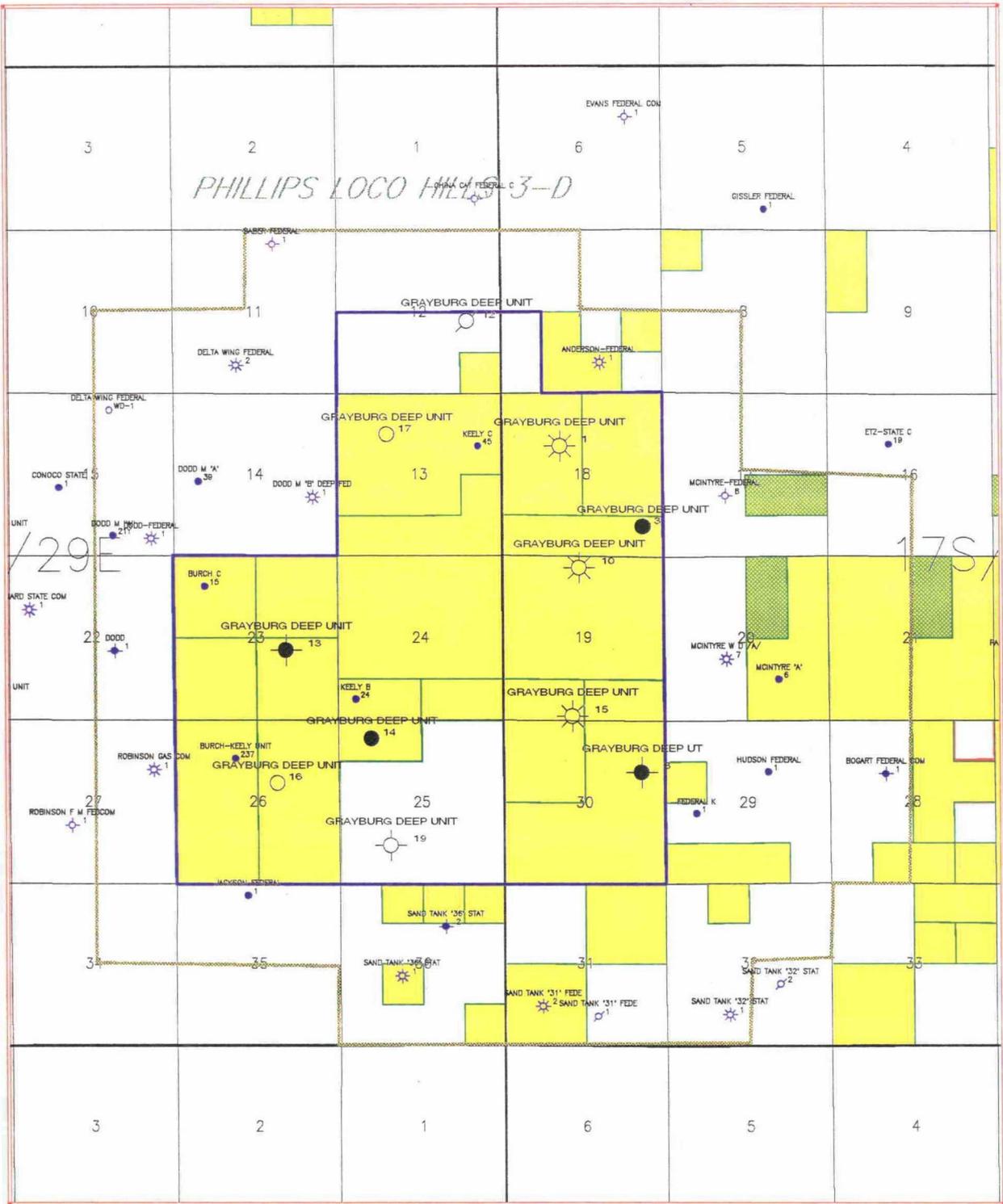
Sincerely,



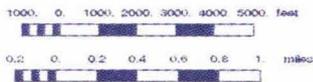
L. M. Sanders
Regulatory Affairs

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Working Interest Owners



Scale 1:60000.

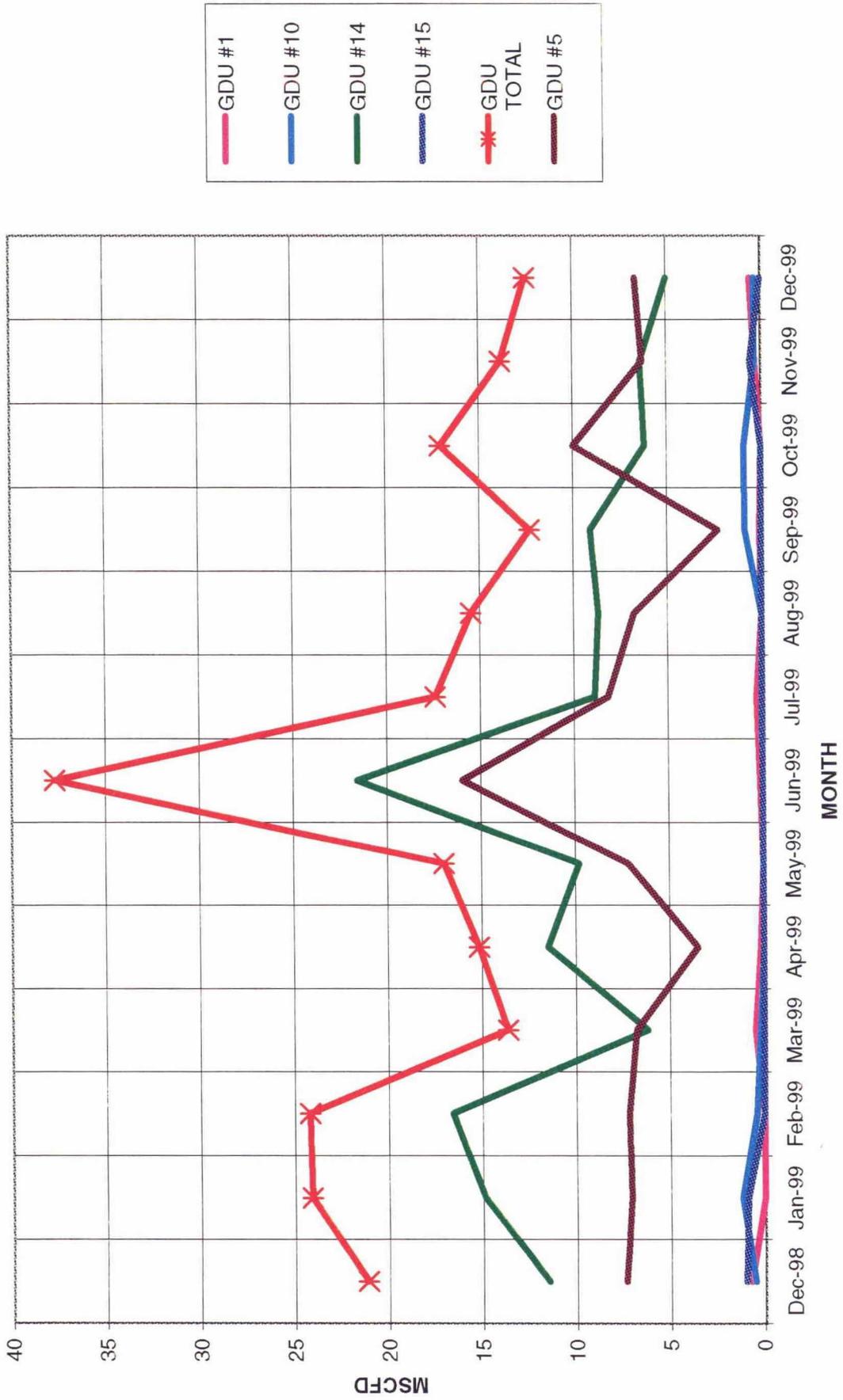


Phillips Petroleum

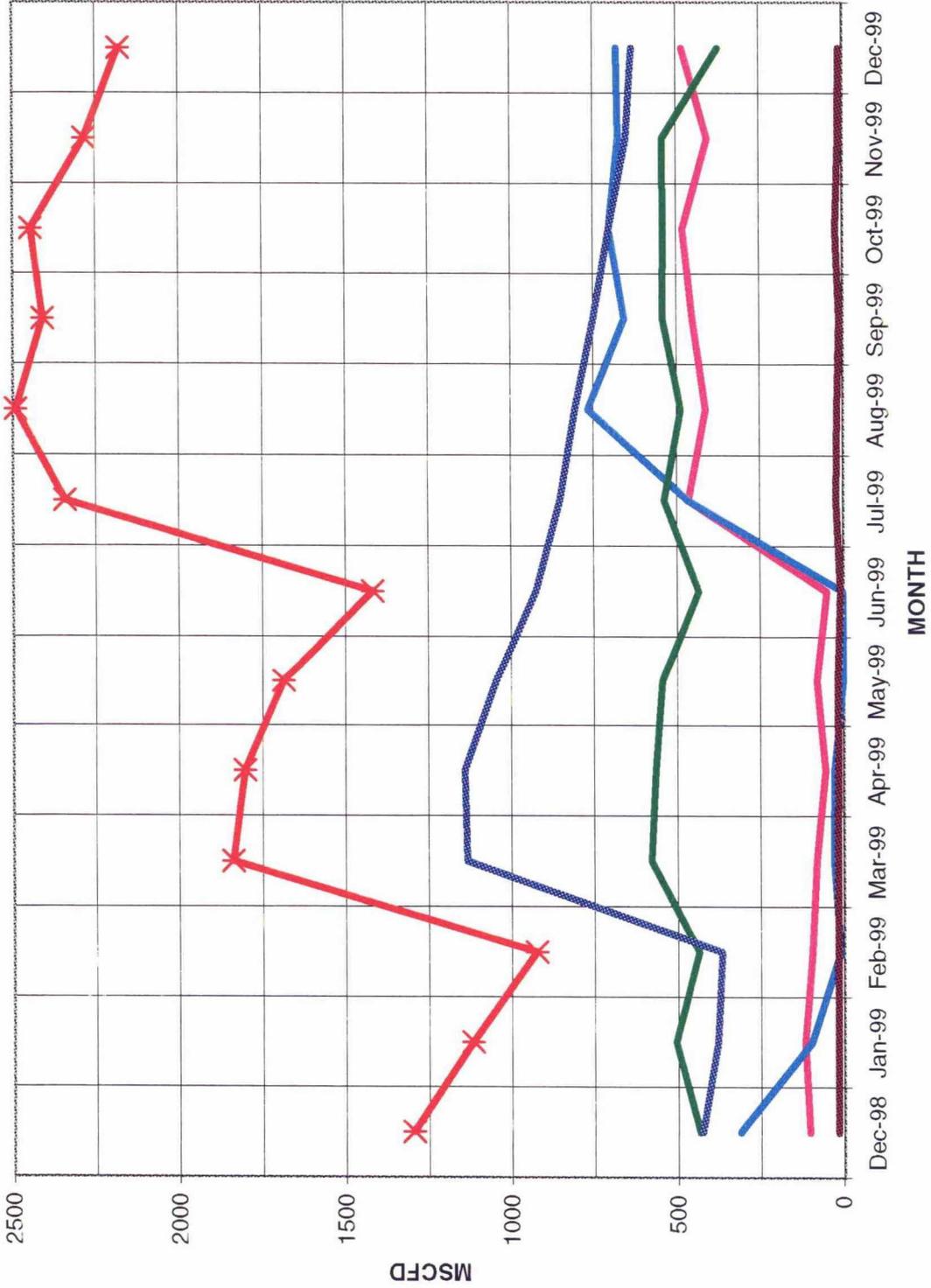
Grayburg Deep Unit
3D Seismic Outline
Eddy County, New Mexico

J Light	Scale 1:60000.	2/2/00
EMPIRE & LOCO HILLS		gbdeep.gpf

GRAYBURG DEEP UNIT - 1999 OIL PRODUCTION



GRAYBURG DEEP UNIT - 1999 GAS PRODUCTION




PHILLIPS PETROLEUM COMPANY

 4001 PENBROOK
 ODESSA, TEXAS 79762

 EXPLORATION AND PRODUCTION
 Permian Profit Center

January 26, 1999

 United States Department of the Interior
 Bureau of Land Management
 Roswell District Office
 P. O. Box 1397
 Roswell, NM 88202

 RE: 1999 Plan of Development/Operations
 Grayburg Deep Unit
 Contract No.-14-08-001-1602
 Eddy County, New Mexico

Gentlemen:

In compliance with Section 10 of the Unit Agreement of the Grayburg Deep Unit, Eddy County, New Mexico, approved by the Acting Director, United States Geological Survey on June 4, 1954, and designated by Contract Number 14-08-001-1602, Phillips Petroleum Company as successor to General American Oil Company of Texas respectfully submits for your consideration and approval the following Plan of Development/Operations for the unitized land.

 1. Current Status

There are currently 5 wells producing in the unit. They are the #1, #5, #10, #14, and #15 wells. The #1, #10, #14, and #15 produce from the Pennsylvanian Morrow sands. Current Production rates are as follows: (all rates are taken from December 1998 tests)

<u>Well</u>	<u>BOPD</u>	<u>BWPD</u>	<u>MCFD</u>
#1	0	0	118
#10	0	0	327
#14	13	1	406
#15	1	0	301

The #5 well produces from the Abo formation and is currently producing an average of 8

BOPD, 25 BWPD, and 17 MCFD. The #15 well was drilled in Aug./Sept. 1998 and completed in the Pennsylvanian Morrow sands in October 1998. The formation was powerperfed and production to the sales line started November 5, 1998.

2. Future Development

Within the Grayburg Deep Unit, the Grayburg Deep #13 was drilled in April 1997 and the Grayburg Deep #14 was drilled in October 1997. The Grayburg Deep #13 was plugged and abandoned. The Grayburg Deep #14 was completed in the Morrow and is currently producing approximately 1 mmcfpd. Enron drilled the Grayburg Deep Unit #19 in May 1998. The well was plugged and abandoned as a dry hole. Phillips then drilled the Grayburg Deep Unit #15 in August 1998 which was completed in the Lower Morrow. There are no plans to drill any further Grayburg Deep Unit wells in 1999, although Phillips continues to evaluate the seismic and production data from the area.

3. Modifications

The Plan of Development/Operations may be modified from time to time with the approval of the Bureau of Land Management to meet changing conditions.

4. Attachments

Current Unit map.

Please contact Celeste Dale at 915/368-1667 if there are any questions regarding this Plan of Development/Operations.

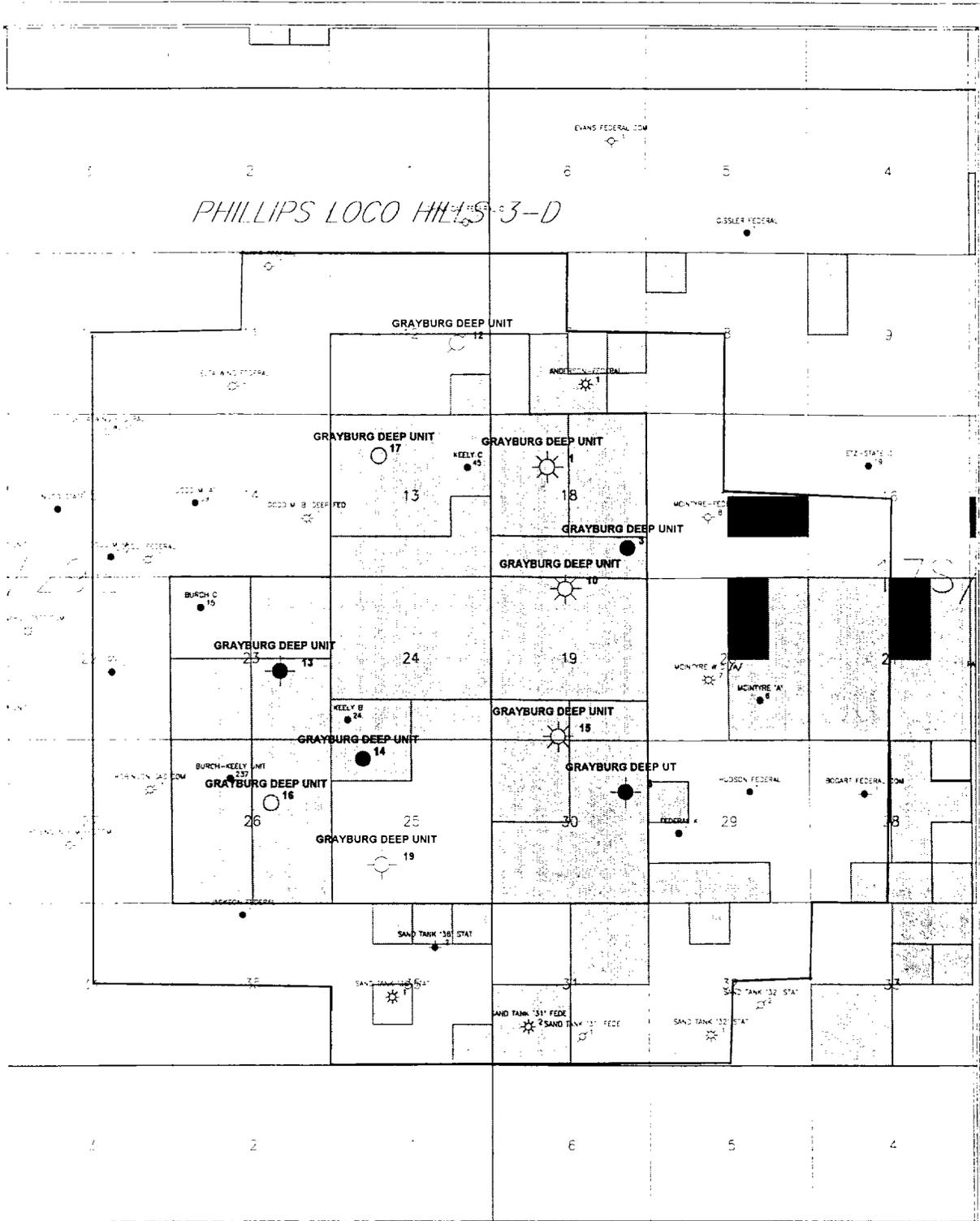
Sincerely,



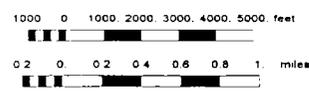
L. M. Sanders
Regulatory Affairs

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Working Interest Owners



Scale 1:60000.



Phillips Petroleum		
Grayburg Deep Unit 3D Seismic Outline Eddy County, New Mexico		
J Light	Scale 1:60000.	1/14/99
EMPIRE & LOCO HILLS		gbdeep.gpf



PHILLIPS PETROLEUM COMPANY

4001 PENBROOK
ODESSA, TEXAS 79762

EXPLORATION AND PRODUCTION
Permian Profit Center

MAR 18 1998

March 16, 1998

United States Department of the Interior
Bureau of Land Management
Roswell District Office
P. O. Box 1397
Roswell, NM 88202

RE: 1998 Plan of Development/Operations
Grayburg Deep Unit
Contract No.-14-08-001-1602
Eddy County, New Mexico

Gentlemen:

In compliance with Section 10 of the Unit Agreement of the Grayburg Deep Unit, Eddy County, New Mexico, approved by the Acting Director, United States Geological Survey on June 4, 1954, and designated by Contract Number 14-08-001-1602, Phillips Petroleum Company as successor to General American Oil Company of Texas respectfully submits for your consideration and approval the following Plan of Development/Operations for the unitized land.

1. Current Status

There are currently 4 wells producing in the unit. They are the #1, #5, #10, and #14 wells. The #1, #10, and #14 produce from the Pennsylvanian Morrow sands. Current Production rates are as follows:

<u>Well</u>	<u>BOPD</u>	<u>BWPD</u>	<u>MCFD</u>
#1	1.1	0.5	513
#10	0.6	0	244
#14	18	2	954

The #5 well produces from the Abo formation and is currently producing an average of 8 BOPD, 22 BWPD, and 16 MCFD. The #14 well was drilled in September 1997 and

completed in the Pennsylvanian Morrow sands in October 1997. The formation was hydraulically fractured with 41,000 pounds of sand and placed on production.

2. Future Development

Within the Grayburg Deep Unit, the Grayburg Deep #13 was drilled in April 1997 and the Grayburg Deep #14 was drilled in October 1997. The Grayburg Deep #13 was plugged and abandoned. The Grayburg Deep #14 was completed in the Morrow and is currently producing approximately 1 mmcfpd. Phillips has staked locations for the Grayburg Deep #15, #16, and #17. AFE's have been prepared by local Phillips geoscientists and sent to Houston for approval. The Grayburg Deep #15 and #16 wells will be balloted to partners. Phillips is planning to drill the Grayburg Deep #15 and #16 in 1998.

3. Modifications

The Plan of Development/Operations may be modified from time to time with the approval of the Bureau of Land Management to meet changing conditions.

4. Attachments

Current Unit map.

Please contact Celeste Dale at 915/368-1667 if there are any questions regarding this Plan of Development/Operations.

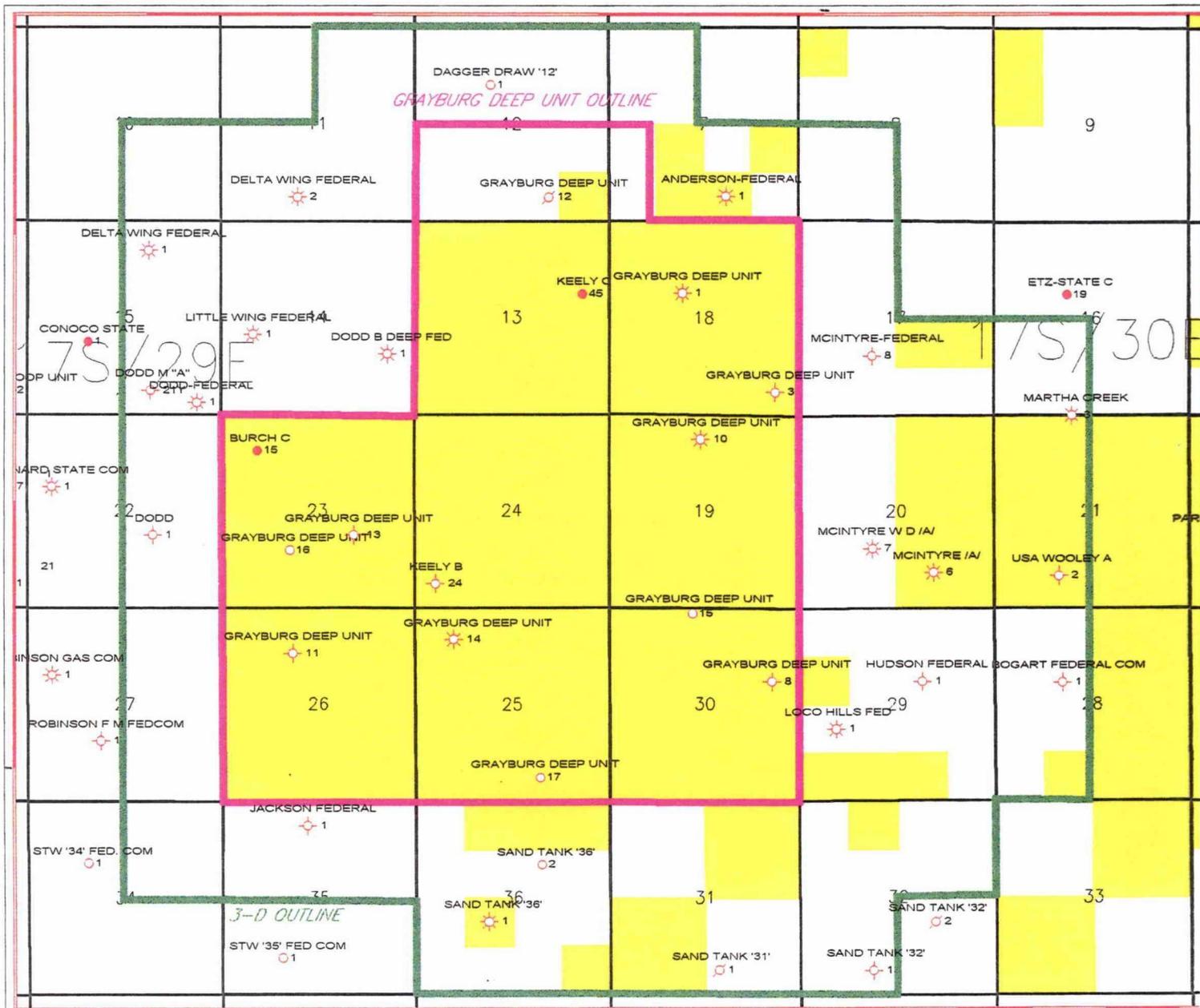
Sincerely,



L. M. Sanders
Regulatory Affairs

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Working Interest Owners



Scale 1:50000.

1000. 0. 10002000300040005000. feet



Phillips Petroleum		
LOCO HILLS - 3D PROSPECT		
J. Ackerman	Scale 1:50000.	03/16/99
	Scale 1:50000.	File: gtopfig.gpt



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

REVISED

EXPLORATION AND PRODUCTION GROUP
Permian Basin Region

March 28, 1995

Re: 1995 Plan of Development/Operations
Grayburg Deep Unit
Contract No. 14-08-001-1602
Eddy County, New Mexico

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Roswell District Office
P.O. Box 1397
Roswell, New Mexico 88202

Attn: **Mr. Tony Ferguson**
Assistant District Manager

Gentlemen:

In reference to your correspondence of January 10, 1995 (3180-06557) and in compliance with Section 10 of the Unit Agreement of the Grayburg Deep Unit, Eddy County, New Mexico, approved by the Acting Director, United States Geological Survey on June 4, 1954, and designated by Contract Number 14-08-001-1602, Phillips Petroleum Company as successor to General American Oil Company of Texas respectfully submits for your consideration and approval the following Plan of Development/Operations for the unitized land.

1. Current Status

There are currently 3 active producing wells in the Unit. Well No. 1 produces an average of .1 BOPD, 0 BWPD, and 250 MCFD from the Pennsylvanian formation. Well No. 5 produces an average of 10 BOPD, 28 BWPD and 14 MCFD from the Abo formation. Well No. 10 produces an average of .5 BOPD, 0 BWPD and 350 MCFD from the Pennsylvanian formation. Approximate accumulated production from Well No. 1 is 16.98 BCF, from #5 is 28,726 BO and Well No. 10 is 1.1 BCF. Well No. 9 was drilled in December 1986 to the Abo formation. The Abo tested dry and the well was temporarily abandoned. In December 1988, the Abo was sealed off with a cement plug and the wellbore given to the Phillips operated Keely C Federal Lease for

REVISED

March 28, 1995

United State Department of the Interior
Bureau of Land Management
Roswell District Office
Roswell New Mexico

-2-

recompletion in the Grayburg San Andres formation.
The well was renamed the Keely C Fed No. 61.
The Keely C Fed lease was sold by Phillips Petroleum
to Marbob Energy Corp effective 11-1-92.

2. Future Development

Phillips Petroleum Company will continue current
operations in a responsible and prudent manner.
A 3-D seismic study was conducted and the
Summary of Seismic Interpretation is attached for
your information. A 14,500' Morrow/Atoka well is
planned to be drilled during 1995.

3. Modifications

The Plan of Development/Operations may be modified from
time to time with the approval of the Bureau of Land
Management to meet changing conditions.

4. Attachments

Current Unit map.
Tabulation of previous year's production with decline
curves.
Estimated Isopach of the Morrow sand.

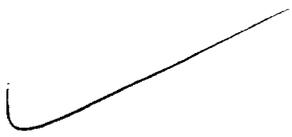
Please contact Joy Maples at (915) 368-1667 if there are any
questions regarding this Plan of Development/Operations.

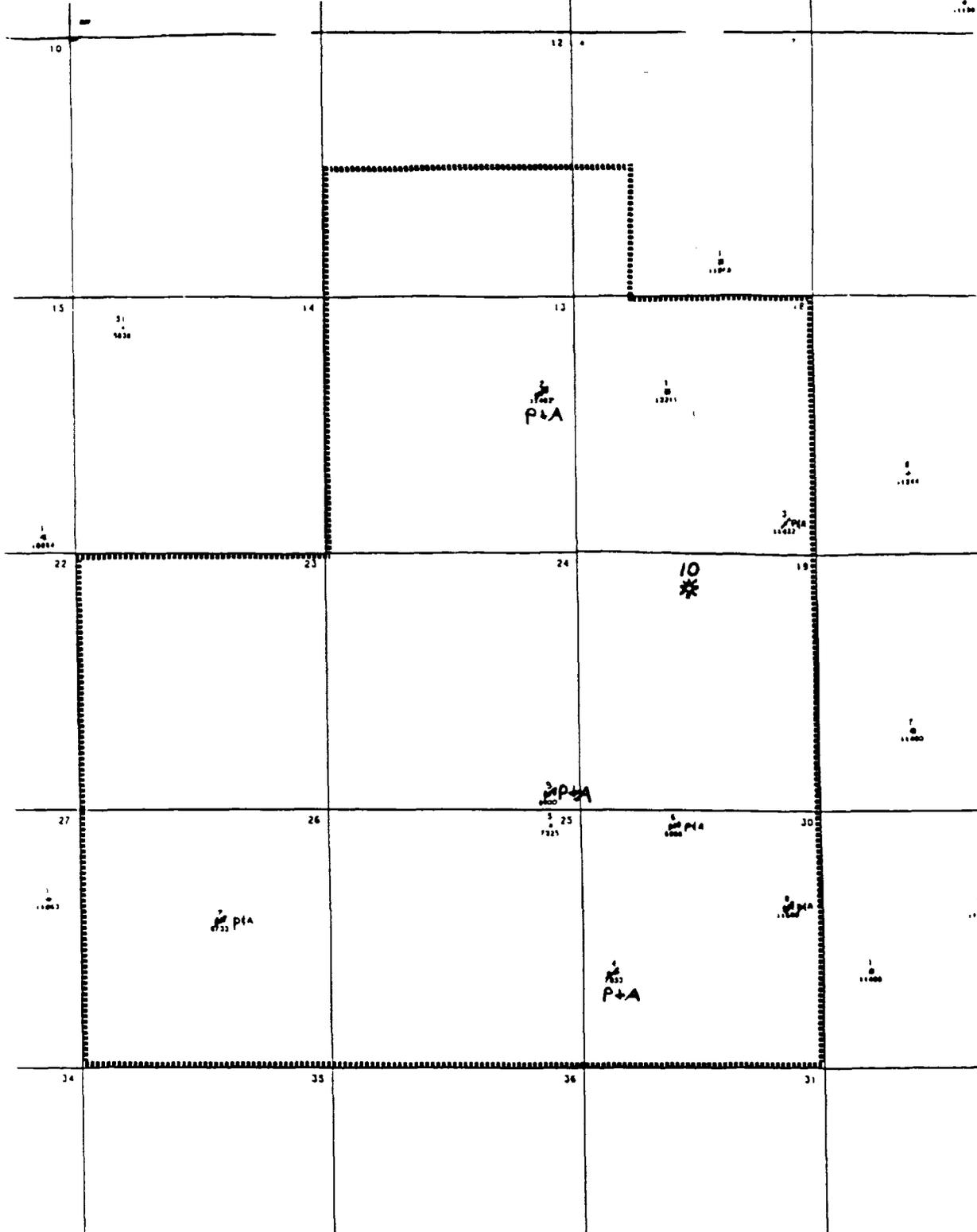
Yours very truly,



L. M. Sanders, Supervisor,
Regulatory Affairs

cc. State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088



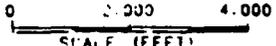


PHILLIPS PETROLEUM




GRAYBURG DEEP UNIT
T-17-S, R-29-E & R-30-E
EDDY COUNTY, NEW MEXICO

BASE MAP
DATE: 2/20/87



SCALE (FEET)

**GRAYBURG DEEP UNIT
EDDY COUNTY, NEW MEXICO
JANUARY 13, 1995**

SUMMARY OF SEISMIC INTERPRETATION

1. Seismic Data Processing

The 3D seismic data volume that contains the Grayburg Deep Unit was processed in Bartlesville Oklahoma by Phillips Petroleum. Final migrated structure and true amplitude 3D data volumes were delivered and loaded to our Landmark workstations in Odessa in October 1994.

2. Seismic Ties to Well Control and Geophysical "Picks"

Wells throughout the 3D survey were digitized and loaded into Landmark's Oracle Data Base. Within the 3D survey, only the Grayburg Deep No. 10 and McIntyre-Federal 8 had sonic logs that were deep and long enough to make correlatable synthetic seismograms. Synthetic seismograms were made on the Landmark application Syntool and tied to the seismic 3D data volume. The following horizons were identified and picked in detail across the volume: Abo, Morrow, Middle Morrow and Mississippian.

3. Morrow Formation Interpretation

The Morrow Formation is the primary target for exploration and was the focus of the interpretation. Time maps were made on the Top Morrow, Middle Morrow and Top Mississippian. The Morrow Formation is divided into three units : the lower unit contains fluvial sands in this part of the Northwest Shelf, the middle unit contains fluvial-deltaic sands, and the upper unit is composed of limestones and shales with very little sand.

The seismic wavelet within the 3D volume at the Morrow depth was extracted and determined to have a wavelength of about 30 milliseconds. With the seismic velocities ranging from 15,000 ft/sec to 16,000 ft/ sec within the Morrow the resolution thickness is about 115 ft for thin beds. The target sands in the Lower and Middle Morrow Formation vary in thickness from 5 to 50 feet, and thus cannot be resolved by the seismic method.

3a. Lower Morrow Interpretation

The primary method of locating the Lower Morrow sands is from mapping the Mississippian Unconformity surface and isochroning the Morrow Formation. The Mississippian Unconformity map shows northwest-southeast trending anticlines and synclines in the northern part of the unit. These structures were produced by

wrench faulting during the Late Mississippian and then slightly rejuvenated in the Early Pennsylvanian. The Early Pennsylvanian Lower Morrow fluvial systems deposited sandstones in the axes of these synclines (paleo-valleys). Illustrating this point is the Grayburg Deep Unit No. 1 which penetrated 18 feet of Lower Morrow sand and has produced over 17 BCF and lies in the axis of a narrow paleo-valley. Conversely, the Grayburg Deep No.10, about one mile to the south is situated on a paleohigh and had only 2 feet of these Lower Morrow sands. The Mississippian Unconformity map shows that the Early Morrow river system most likely flowed to the southwest from Grayburg Deep Unit No. 1 for a mile and then turned southeast and flowed for another one and one-half miles bypassing the Grayburg Deep No. 10 by a one-half mile to the west. The Mississippian map shows that the Morrow sands are confined to rather narrow valleys in the northern half of the Grayburg Unit. In the southern part of the unit, the relief of the anticlines and synclines diminish to a broad southeast dipping surface.

Trapping of the Lower Morrow sands is stratigraphic. At the Grayburg Deep Unit No.1 discovery well, there is no structural closure at the Morrow or Mississippian level. At the Grayburg Deep Unit No.10, there is closure but no lower sands. The gas in the sands is trapped by the lateral and updip pinchout of the sands away from the axis of the valley.

3b. Middle Morrow Interpretation

The Middle Morrow sands are more areal widespread and thicker than the Lower Morrow sands but not as productive. The thickness can range from 5 feet to 50 feet. Although the sand thickness is below seismic resolution thickness, a high amplitude event can be mapped on the 3D data set that correlates with Middle Morrow sands in the wells. This seismic event is an interference product between the reflections of thin sands and the shales. An estimate of their thickness could be inferred from geological/geophysical models. The Middle Morrow sands can also be seen on time slices of the 3D. Although, the Middle Morrow sands are more apparent on the seismic data than the Lower Morrow, they are usually not as productive as the Lower Morrow sands due to their lower porosity.

Mapping of Middle Morrow sands shows them to lie predominantly in the Mississippian lows but not as confined as the Lower Morrow sands. During deposition of the Morrow formation, sea level was rising and the Lower Morrow sands were possibly reworked by this transgression.

3c Morrow Prospects

Leads have been identified from the 3D seismic mapping of the

Mississippian Unconformity, Middle Morrow horizon, and Morrow Isochron. We are planning to make well-log cross-sections through and across the paleo-valleys identified on the 3D seismic in order to hi-grade the leads into prospects. The prospects will then be subjected to economic analysis.

4. Abo Formation Interpretation

Seismic mapping on the Abo Formation is relatively easy on the Northwest Shelf in the northern part of the Grayburg Deep unit. The Abo reflector is a high amplitude reflector that is easily traversed. To the south of the hinge line of the northwest shelf the reflector is less easily mapped because the seismic character becomes very low amplitude. This is probably reflects a change from a shallow water to a deep water depositional facies.

A lead has been mapped on the 3D seismic in the Abo Formation. The exact size and its economical viability will depend on economics and the depth conversion.

5. Further Work

In conjunction with the 3d seismic mapping, detailed well-log correlations of the Morrow and Abo formations will be carried out by the geologist working on this project. In particular, sand correlations in the Lower and Middle Morrow within the identified Morrow paleo-valleys will be looked at in detail as well as the change of depositional facies of the Abo Formation from the reef to forereef environments. This detailed geological work will also reassess tops supplied by a commercial vendor in order to ensure an accurate depth conversion of the seismic data.

M2Y60-02 PRODUCTION HISTORY FOR WELLZONE 5160101 DATE: 02/28/95
 USER: #1HP

PROPERTY: 600209 - GRAYBURG DEEP UNIT WELL: 1 OF 3
 WELL NO: 000001 RESV: PENN

DATE	DAYS OPER	DAYS PROD	ST	CL	TY	RESV	RESV	OIL PRODUCTION	GAS PRODUCTION	WATER PRODUCTION
199401	31	31.00	11	03	2	45009	0.00	9651	0	
199402	28	28.00	11	03	2	45009	5.60	7911	0	
199403	31	31.00	11	03	2	45009	0.00	11354	0	
199404	30	30.00	11	03	2	45009	0.00	10958	0	
199405	31	31.00	11	03	2	45009	0.00	10584	0	
199406	30	26.00	11	03	2	45009	0.00	7358	0	
199407	31	31.00	11	03	2	45009	0.00	8376	0	
199408	31	31.00	11	03	2	45009	0.00	4267	0	
199409	30	30.00	11	03	2	45009	0.00	5141	0	
199410	31	31.00	11	03	2	45009	0.00	10225	0	
199411	30	30.00	11	03	2	45009	0.00	7075	0	
199412	31	31.00	11	03	2	45009	0.00	7349	0	
YEARLY TOTAL							5.60	100249	0	

199501 30 30.00 11 03 2 45009 36.42 7950 0
 YEARLY TOTAL 36.42 7950 0

5160101 SELECTION TOTAL 42.02 108199 0

5160101 LIFE CUMULATIVE 3642.56 1492958 0

P2Y42-R02
10:52:34

PHILLIPS PETROLEUM COMPANY
PHS SELECTION ENGINE
PRODUCTION DETAIL REPORT

DATE: 02/28/95
PAGE: 2

M2Y60-02 PRODUCTION HISTORY FOR WELLZONE 5160201

DATE: 02/28/95
USER: #1HP

PROPERTY: 600209 - GRAYBURG DEEP UNIT
WELL NO: 000005 RESVR: BONE SPRINGS

WELL: 2 OF 3

DATE	DAYS OPER	DAYS PROD	ST	CL	TY	RESVR	PRODUCTION OIL	PRODUCTION GAS	PRODUCTION WATER
199401	31	31.00	24	01	1	45269	366.14	655	856
199402	28	28.00	24	01	1	45269	299.98	532	553
199403	31	31.00	24	01	1	45269	367.81	630	580
199404	30	30.00	24	01	1	45269	329.90	600	469
199405	27	27.00	24	01	1	45269	387.83	427	378
199406	30	30.00	24	01	1	45269	250.67	525	476
199407	31	31.00	24	01	1	45269	338.16	672	880
199408	31	31.00	24	01	1	45269	329.25	601	937
199409	30	30.00	24	01	1	45269	323.44	464	864
199410	31	31.00	24	01	1	45269	337.54	525	865
199411	30	30.00	24	01	1	45269	322.00	419	837
199412	31	31.00	24	01	1	45269	327.41	571	865
YEARLY TOTAL							3980.13	6621	8562

199501 30 30.00 24 01 1 45269
YEARLY TOTAL 353.75 618 816

5160201 SELECTION TOTAL

353.75 618 816
4333.88 7239 9378

5160201 LIFE CUMULATIVE

28467.66 9848 146491

M2Y60-02 PRODUCTION HISTORY FOR WELLZONE 516030: DATE: 02/28/95

PROPERTY: 600245 - GRAYBURG DEEP U#10 WELL: 3 OF 3
 WELL NO: 000010 RESV: PENN USER: #1HP

DATE	DAYS OPER	DAYS PROD	ST	CL	TY	RESV	OIL PRODUCTION	GAS PRODUCTION	WATER PRODUCTION
199401	31	31.00	11	02	3	45009	28.93	13609	0
199402	28	28.00	11	02	3	45009	21.98	12251	0
199403	31	31.00	11	02	3	45009	11.57	12710	0
199404	30	30.00	11	02	3	45009	16.20	11771	0
199405	31	31.00	11	02	3	45009	3.47	11086	0
199406	30	30.00	11	02	3	45009	42.88	12234	0
199407	31	31.00	11	02	3	45009	32.39	10900	0
199408	31	31.00	11	02	3	45009	18.51	10588	0
199409	30	30.00	11	02	3	45009	21.99	10252	0
199410	31	31.00	11	02	3	45009	24.29	10584	0
199411	30	30.00	11	02	3	45009	17.36	10738	0
199412	31	31.00	11	02	3	45009	24.98	10994	0
YEARLY TOTAL							264.55	137717	0

199501 30 30.00 11 02 3 45009 24.46 10574 0
 YEARLY TOTAL 24.46 10574 0

516030: SELECTION TOTAL 289.01 148291 0

516030: LIFE CUMULATIVE 1955.09 1037750 42

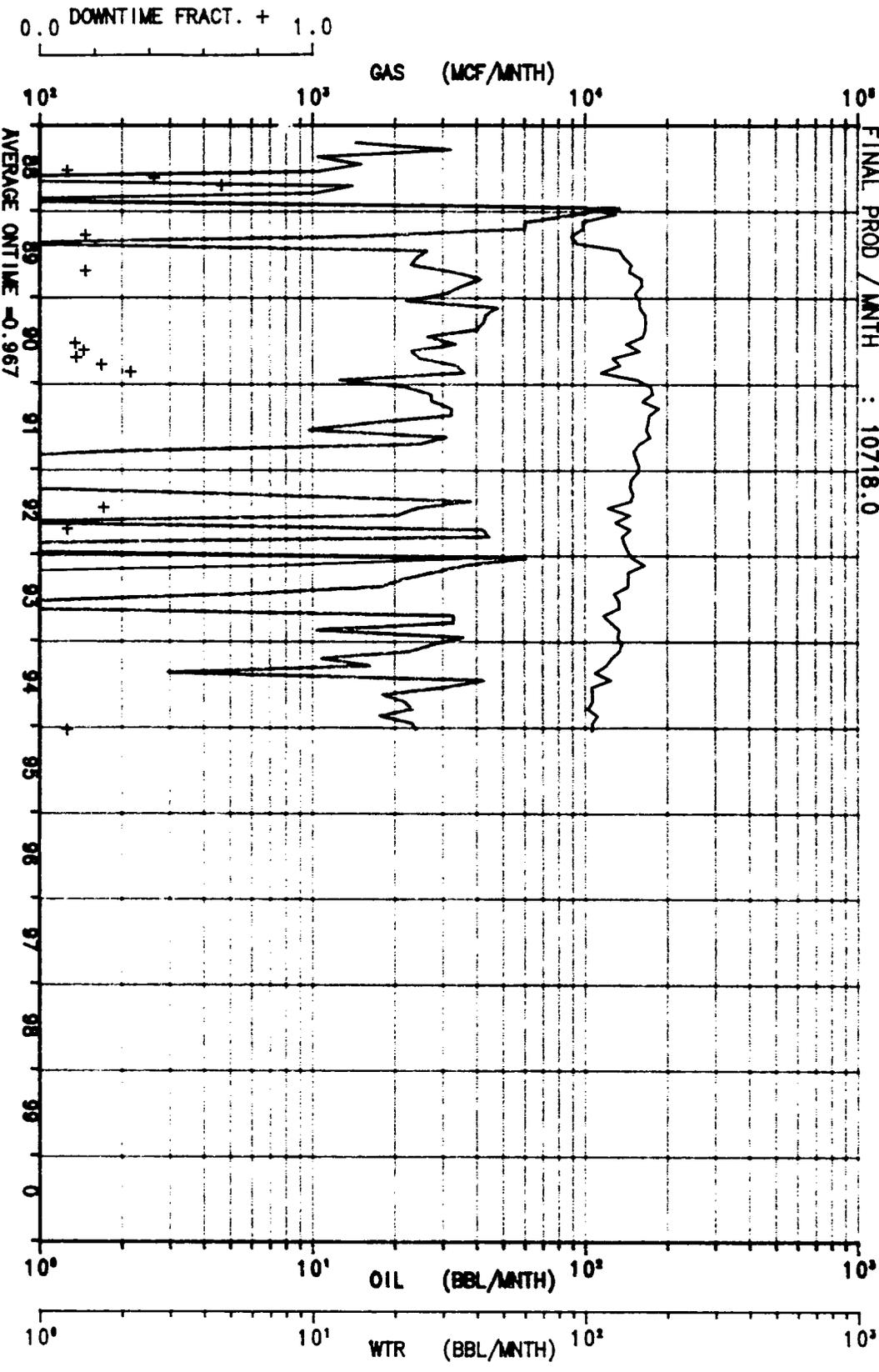
3/88-1/95

Current Cums

INITIAL PROD / MNTH : 1440.4
REMAINING LIFE : 6.92

1038. MCF GAS
1924. BBL OIL
42. BBL WTR

CUM PRODUCTN-MUNITS : 1038.
FINAL PROD / MNTH : 10718.0



LEASE- 600245 : GRAYBURG DEEP U#10
RESVR- 009 : ANDERSON
WELL - 000010 PHS WELL PRODUCTION

5160301
ZONE-600245009000010 5160301
API-30015257960000

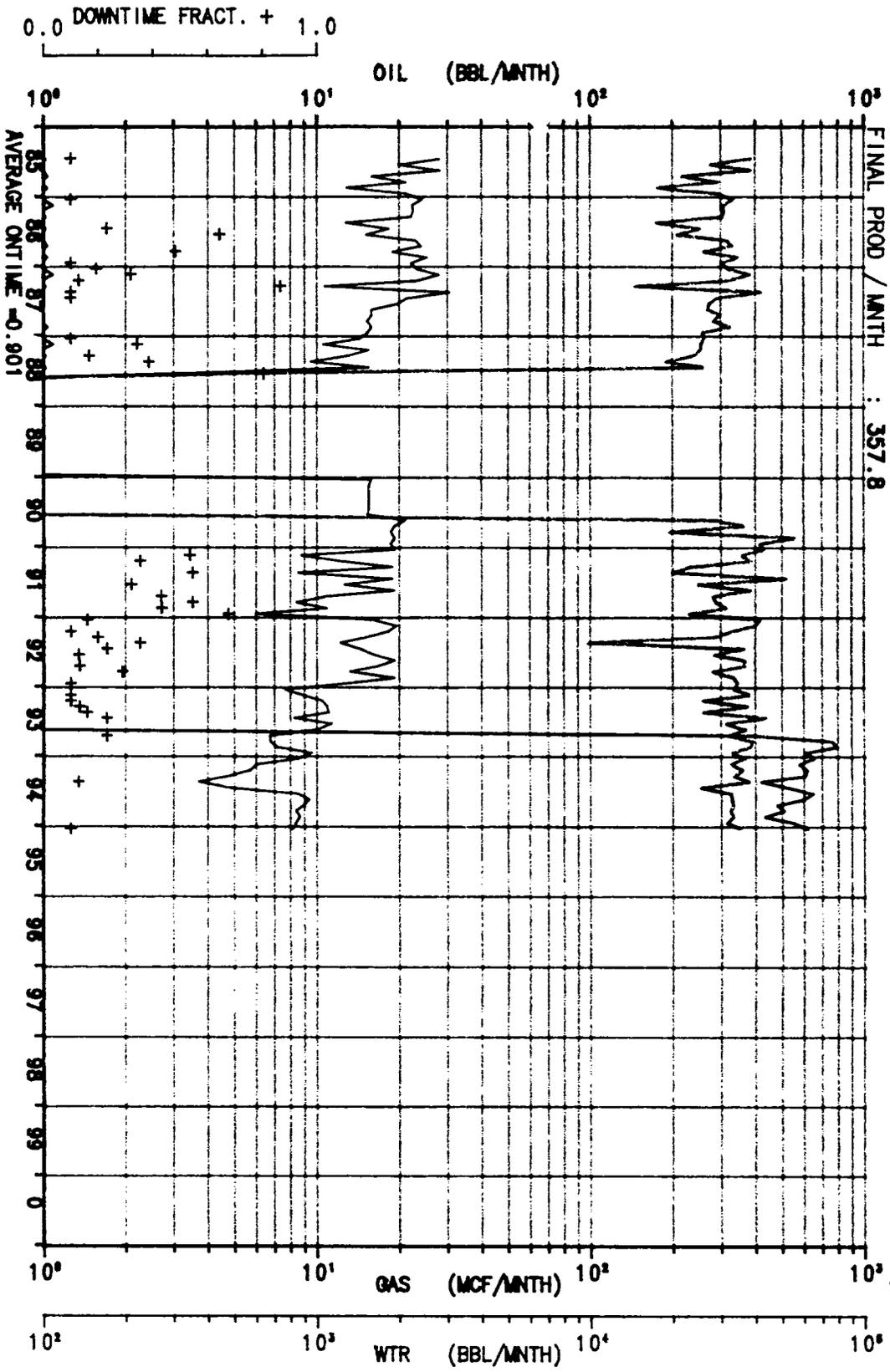
6/85-1/95

Current Cums

INITIAL PROD / MNTH : 396.3
REMAINING LIFE : 9.67

28433. BBL OIL
9848. MCF GAS
146487. BBL WTR

CUM PRODUCTION : 28433.
FINAL PROD / MNTH : 357.8



AVERAGE ONTIME = 0.901

LEASE- 600209 : GRAYBURG DEEP UNIT
RESVR- 269 : WILDCAT
WELL - 000005 PHS WELL PRODUCTION
BONE SPRINGS

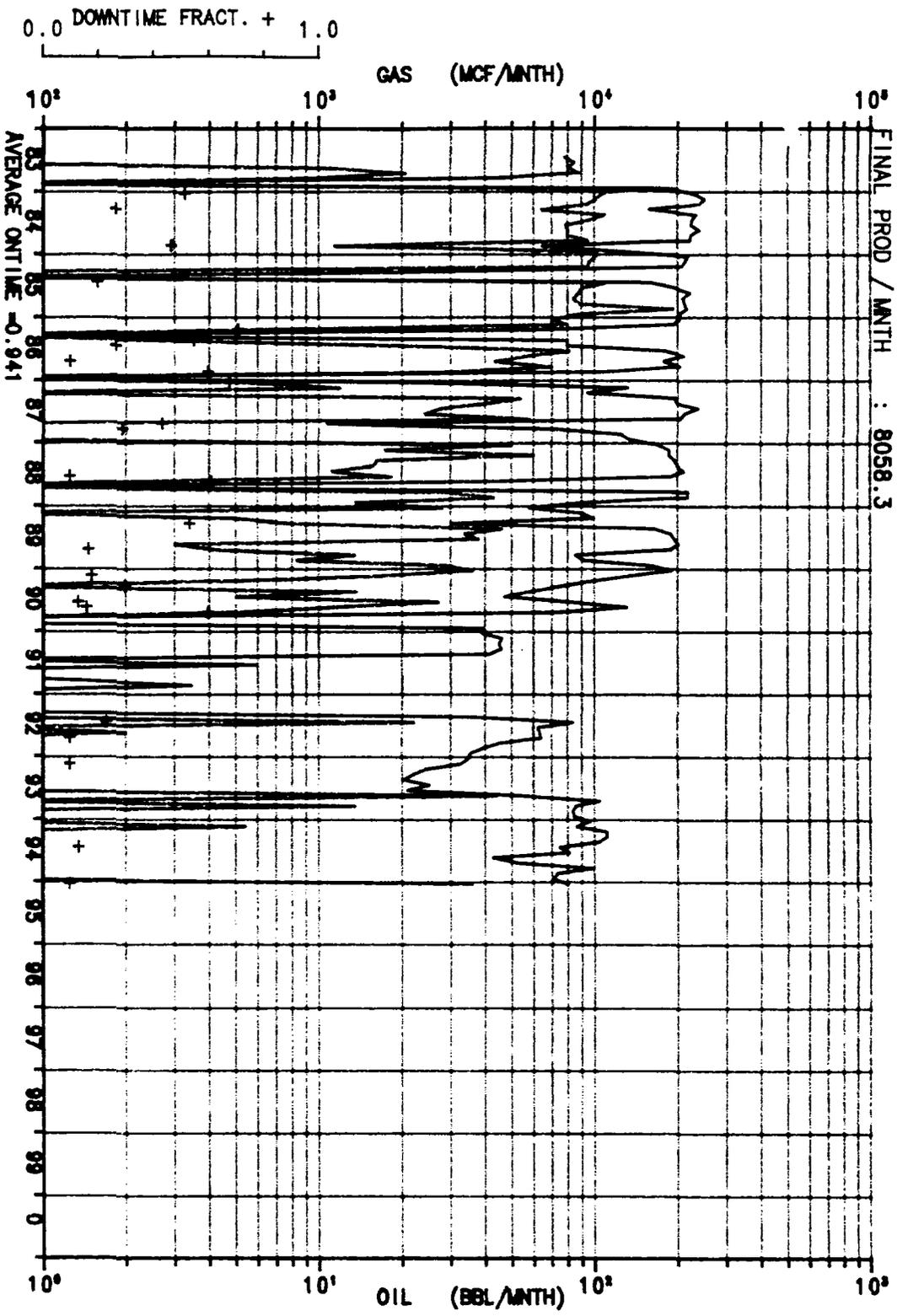
5160201
ZONE-600209269000005 5160201
API-30015030830000

6/83-1/95

INITIAL PROD / MONTH : 7826.2
REMAINING LIFE : 11.67

Current Cums
1493. MMCF GAS
3625. BBL OIL

CUM PRODUCTN-MUNITS : 1493.
FINAL PROD / MONTH : 8058.3



AVERAGE ONTIME = 0.941

LEASE- 600209 : GRAYBURG DEEP UNIT
RESVR- 009 : ANDERSON
WELL - 000001 PHS WELL PRODUCTION
PENN

5160101
ZONE-600209009000001 5160101
API-30015041870000



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

EXPLORATION AND PRODUCTION GROUP
Permian Basin Region

January 30, 1995

Re: 1995 Plan of Development/Operations
Grayburg Deep Unit
Contract No. 14-08-001-1602
Eddy County, New Mexico

UNITED STATES DEPARTMENT OF THE INTERIOR

Bureau of Land Management

Roswell District Office

P.O. Box 1397

Roswell, New Mexico 88202

Attn: **Mr. Tony Ferguson**
Assistant District Manager

Gentlemen:

In reference to your correspondence of January 10, 1995 (3180-06557) and in compliance with Section 10 of the Unit Agreement of the Grayburg Deep Unit, Eddy County, New Mexico, approved by the Acting Director, United States Geological Survey on June 4, 1954, and designated by Contract Number 14-08-001-1602, Phillips Petroleum Company as successor to General American Oil Company of Texas respectfully submits for your consideration and approval the following Plan of Development/Operations for the unitized land.

1. Current Status

There are currently 3 active producing wells in the Unit. Well No. 1 produces an average of .1 BOPD, 0 BWPD, and 250 MCFD from the Pennsylvanian formation. Well No. 5 produces an average of 10 BOPD, 28 BWPD and 14 MCFD from the Abo formation. Well No. 10 produces an average of .5 BOPD, 0 BWPD and 350 MCFD from the Pennsylvanian formation.

Well No. 9 was drilled in December 1986 to the Abo formation. The Abo tested dry and the well was temporarily abandoned. In December 1988, the Abo was sealed off with a cement plug and the wellbore given to the Phillips operated Keely C Federal Lease for

January 30, 1995

United State Department of the Interior
Bureau of Land Management
Roswell District Office
Roswell New Mexico

-2-

recompletion in the Grayburg San Andres formation.
The well was renamed the Keely C Fed No. 61.
The Keely C Fed lease was sold by Phillips Petroleum
to Marbob Energy Corp effective 11-1-92.

2. Future Development

Phillips Petroleum Company will continue current operations in a responsible and prudent manner. A 3-D seismic study was conducted and the Summary of Seismic Interpretation is attached for your information. There are no immediate plans to drill additional wells. However, there are prospects that will be further studied and drilled based upon the economic analysis.

3. Modifications

The Plan of Development/Operations may be modified from time to time with the approval of the Bureau of Land Management to meet changing conditions.

4. Attachments

Current Unit map.

Please contact Joy Maples at (915) 368-1667 if there are any questions regarding this Plan of Development/Operations.

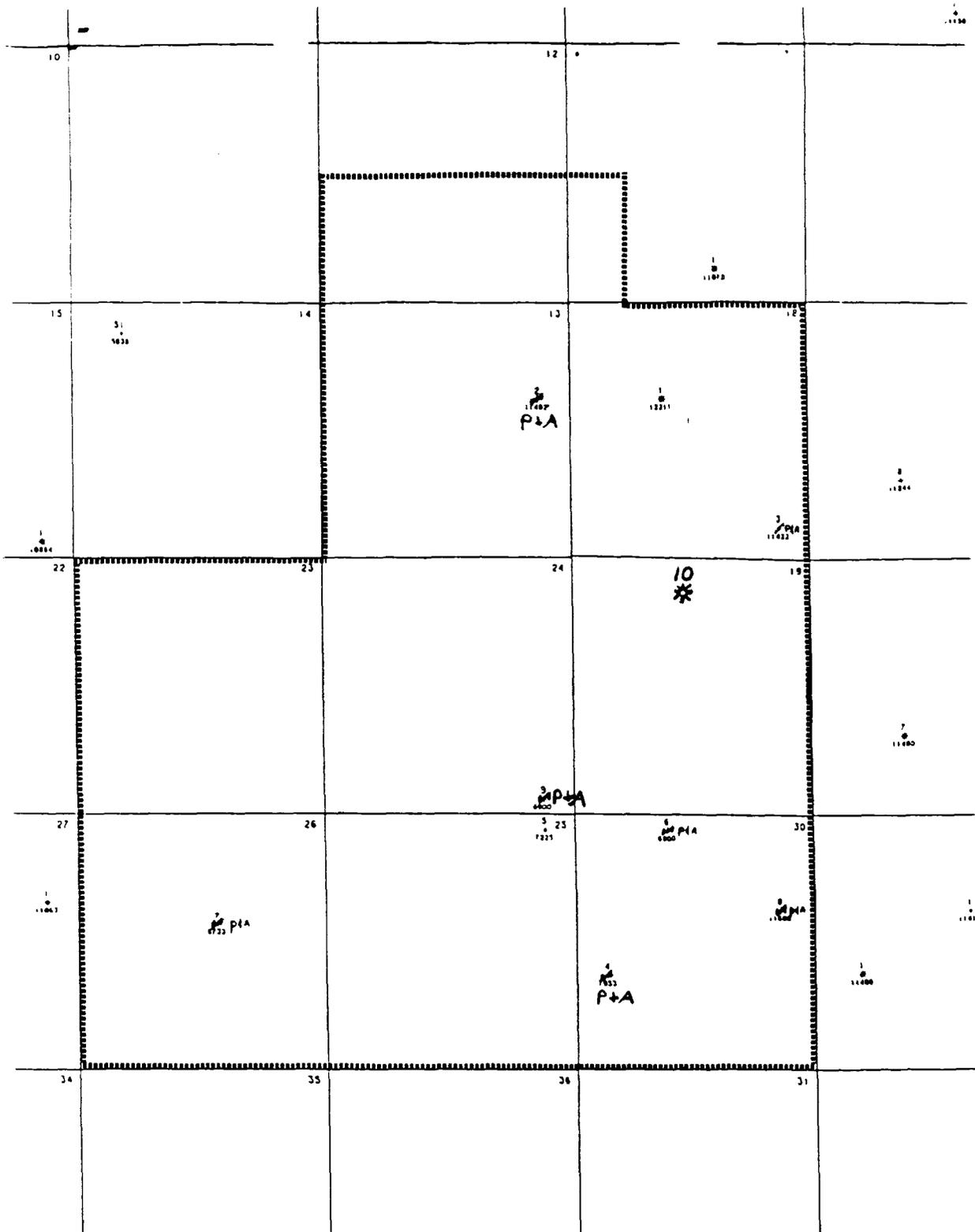
Yours very truly,



L. M. Sanders, Supervisor,
Regulatory Affairs

cc. State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Working Interest Owners




PHILLIPS PETROLEUM


GRAYBURG DEEP UNIT
 T-17-S, R-29-E & R-30-E
 EDDY COUNTY, NEW MEXICO

BASE MAP
 DATE: 2/20/87

0 2,000 4,000
 SCALE (FEET)

**GRAYBURG DEEP UNIT
EDDY COUNTY, NEW MEXICO
JANUARY 13, 1995**

SUMMARY OF SEISMIC INTERPRETATION

1. Seismic Data Processing

The 3D seismic data volume that contains the Grayburg Deep Unit was processed in Bartlesville Oklahoma by Phillips Petroleum. Final migrated structure and true amplitude 3D data volumes were delivered and loaded to our Landmark workstations in Odessa in October 1994.

2. Seismic Ties to Well Control and Geophysical "Picks"

Wells throughout the 3D survey were digitized and loaded into Landmark's Oracle Data Base. Within the 3D survey, only the Grayburg Deep No. 10 and McIntyre-Federal 8 had sonic logs that were deep and long enough to make correlatable synthetic seismograms. Synthetic seismograms were made on the Landmark application Syntool and tied to the seismic 3D data volume. The following horizons were identified and picked in detail across the volume: Abo, Morrow, Middle Morrow and Mississippian.

3. Morrow Formation Interpretation

The Morrow Formation is the primary target for exploration and was the focus of the interpretation. Time maps were made on the Top Morrow, Middle Morrow and Top Mississippian. The Morrow Formation is divided into three units : the lower unit contains fluvial sands in this part of the Northwest Shelf, the middle unit contains fluvial-deltaic sands, and the upper unit is composed of limestones and shales with very little sand.

The seismic wavelet within the 3D volume at the Morrow depth was extracted and determined to have a wavelength of about 30 milliseconds. With the seismic velocities ranging from 15,000 ft/sec to 16,000 ft/ sec within the Morrow the resolution thickness is about 115 ft for thin beds. The target sands in the Lower and Middle Morrow Formation vary in thickness from 5 to 50 feet, and thus cannot be resolved by the seismic method.

3a. Lower Morrow Interpretation

The primary method of locating the Lower Morrow sands is from mapping the Mississippian Unconformity surface and isochroning the Morrow Formation. The Mississippian Unconformity map shows northwest-southeast trending anticlines and synclines in the northern part of the unit. These structures were produced by

wrench faulting during the Late Mississippian and then slightly rejuvenated in the Early Pennsylvanian. The Early Pennsylvanian Lower Morrow fluvial systems deposited sandstones in the axes of these synclines (paleo-valleys). Illustrating this point is the Grayburg Deep Unit No. 1 which penetrated 18 feet of Lower Morrow sand and has produced over 17 BCF and lies in the axis of a narrow paleo-valley. Conversely, the Grayburg Deep No.10, about one mile to the south is situated on a paleohigh and had only 2 feet of these Lower Morrow sands. The Mississippian Unconformity map shows that the Early Morrow river system most likely flowed to the southwest from Grayburg Deep Unit No. 1 for a mile and then turned southeast and flowed for another one and one-half miles bypassing the Grayburg Deep No. 10 by a one-half mile to the west. The Mississippian map shows that the Morrow sands are confined to rather narrow valleys in the northern half of the Grayburg Unit. In the southern part of the unit, the relief of the anticlines and synclines diminish to a broad southeast dipping surface.

Trapping of the Lower Morrow sands is stratigraphic. At the Grayburg Deep Unit No.1 discovery well, there is no structural closure at the Morrow or Mississippian level. At the Grayburg Deep Unit No.10, there is closure but no lower sands. The gas in the sands is trapped by the lateral and updip pinchout of the sands away from the axis of the valley.

3b. Middle Morrow Interpretation

The Middle Morrow sands are more areal widespread and thicker than the Lower Morrow sands but not as productive. The thickness can range from 5 feet to 50 feet. Although the sand thickness is below seismic resolution thickness, a high amplitude event can be mapped on the 3D data set that correlates with Middle Morrow sands in the wells. This seismic event is an interference product between the reflections of thin sands and the shales. An estimate of their thickness could be inferred from geological/geophysical models. The Middle Morrow sands can also be seen on time slices of the 3D. Although, the Middle Morrow sands are more apparent on the seismic data than the Lower Morrow, they are usually not as productive as the Lower Morrow sands due to their lower porosity.

Mapping of Middle Morrow sands shows them to lie predominantly in the Mississippian lows but not as confined as the Lower Morrow sands. During deposition of the Morrow formation, sea level was rising and the Lower Morrow sands were possibly reworked by this transgression.

3c Morrow Prospects

Leads have been identified from the 3D seismic mapping of the

Mississippian Unconformity, Middle Morrow horizon, and Morrow Isochron. We are planning to make well-log cross-sections through and across the paleo-valleys identified on the 3D seismic in order to hi-grade the leads into prospects. The prospects will then be subjected to economic analysis.

4. Abo Formation Interpretation

Seismic mapping on the Abo Formation is relatively easy on the Northwest Shelf in the northern part of the Grayburg Deep unit. The Abo reflector is a high amplitude reflector that is easily traversed. To the south of the hinge line of the northwest shelf the reflector is less easily mapped because the seismic character becomes very low amplitude. This is probably reflects a change from a shallow water to a deep water depositional facies.

A lead has been mapped on the 3D seismic in the Abo Formation. The exact size and its economical viability will depend on economics and the depth conversion.

5. Further Work

In conjunction with the 3d seismic mapping, detailed well-log correlations of the Morrow and Abo formations will be carried out by the geologist working on this project. In particular, sand correlations in the Lower and Middle Morrow within the identified Morrow paleo-valleys will be looked at in detail as well as the change of depositional facies of the Abo Formation from the reef to forereef environments. This detailed geological work will also reassess tops supplied by a commercial vendor in order to ensure an accurate depth conversion of the seismic data.



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

EXPLORATION AND PRODUCTION GROUP
Permian Basin Region

January 6, 1994

715

RECEIVED
DIVISION
JAN 9 1994

**Re: 1994 Plan of Development/Operations
Grayburg Deep Unit
Contract No. 14-08-001-1602
EDDY COUNTY, NEW MEXICO**

United States Department of the Interior
Bureau of Land Management
Roswell District Office
P. O. Box 1397
Roswell, New Mexico 88202

Attention: Mr. Tony Ferguson
Assistant District Manager

Gentlemen:

In reference to your correspondence of December 1993 (3180-065) and in compliance with Section 10 of the Unit Agreement of the Grayburg Deep Unit, Eddy County, New Mexico, approved by the Acting Director, United States Geological Survey on June 4, 1954, and designated by Contract Number 14-08-001-1602, Phillips Petroleum Company as successor to General American Oil Company of Texas respectfully submits for your consideration and approval the following Plan of Development/Operations for the unitized land.

1. Current Status

There are currently 3 active producing wells in the Unit. Well No. 1 produces an average of .1 BOPD, .0 BWPD and 270 MCFD from the Pennsylvanian. Well No. 5 produces an average of 15 BOPD, 25 BWPD and 26 MCFD from the Abo Formation. Well No. 10 produces an average of 3 BOPD, .5 BWPD, and 103 MCFD from the Pennsylvanian.

Well No. 9 was drilled in December 1986 to the Abo Formation. The Abo tested dry and the well was temporarily abandoned. In December 1988, the Abo was sealed off with a cement plug and the wellbore given to the Phillips-operated Keely "C" Federal Lease for recompletion in the Grayburg-San Andres Formation. The well was renamed the Keely "C" Fed. No. 61.

United States Department of the Interior
Bureau of Land Management
Roswell District Office
Roswell, New Mexico

-2-

January 6, 1994

2. Future Development

Phillips Petroleum Company will continue current operations in a responsible and prudent manner. A 3-D seismic study is planned in the near future. Ballots for this study have been submitted to parties of interest.

3. Modifications

This Plan of Development/Operations may be modified from time to time with the approval of the Bureau of Land Management to meet changing conditions.

4. Attachments

Current Unit map.

Please contact me at (915) 368-1488 or Joy Maples at (915) 368-1667 if there are any questions regarding this Plan of Development/Operations.

Sincerely,

PHILLIPS PETROLEUM COMPANY



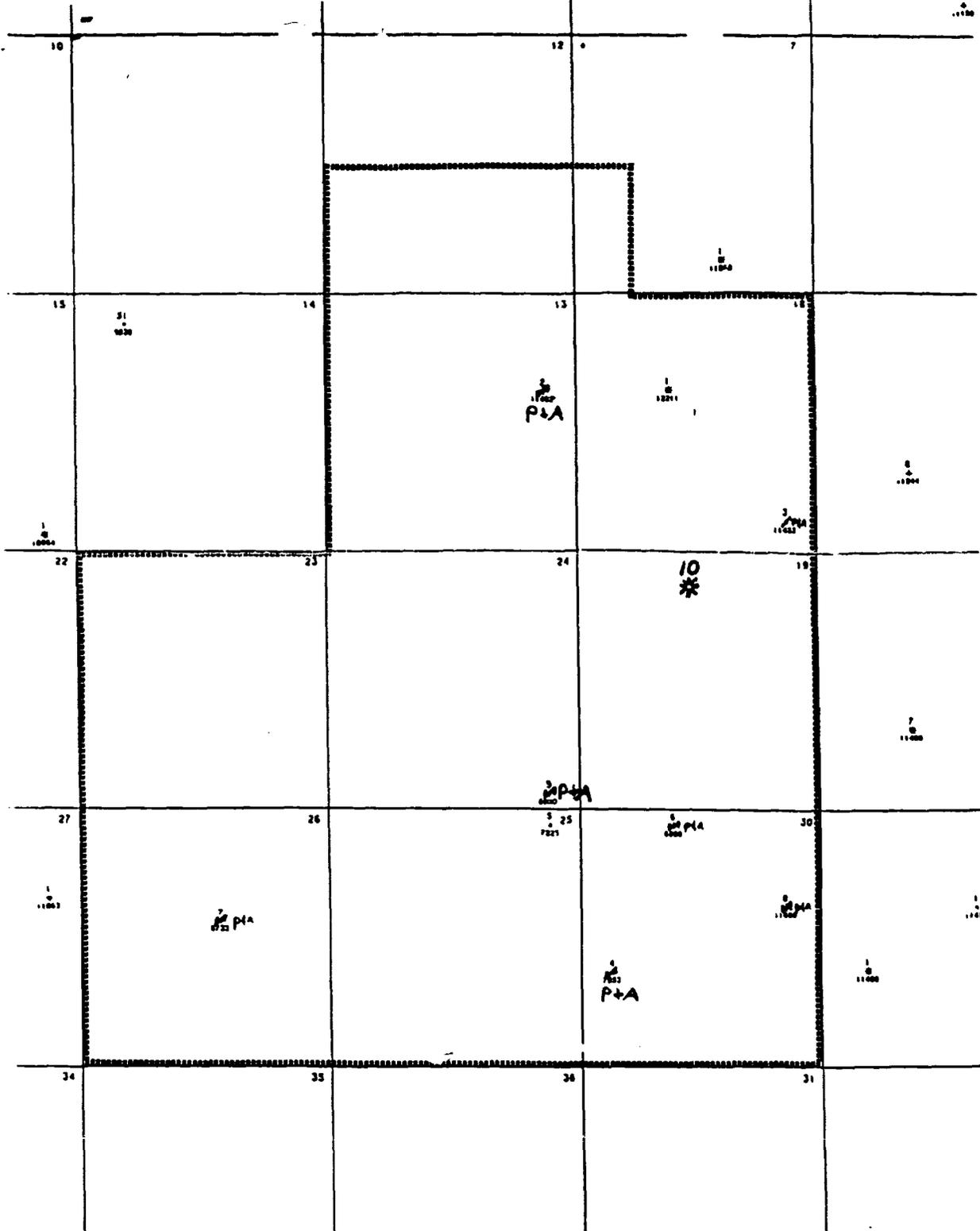
L. M. Sanders, Supervisor
Regulatory Affairs

LMS:JM:ehg
Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Working Interest Owners

RegPro:JMapl:GDUPInDv.94



PHILLIPS PETROLEUM

GRAYBURG DEEP UNIT
T-17-S, R-29-E & R-30-E
EDDY COUNTY, NEW MEXICO

BASE MAP
 DATE: 2/20/87

0 2,000 4,000

 SCALE (FEET)



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

EXPLORATION AND PRODUCTION GROUP
Permian Basin Area

March 16, 1994

**RE: Grayburg Deep Unit
Requested Information
Contract No. 14-08-001-1602
Eddy County, New Mexico**

United States Department of the Interior
Bureau of Land Management, Roswell District Office
P. O. Box 1397
Roswell, New Mexico 88202

Attention: Tony Ferguson
Assistant District Manager,
Minerals

Gentlemen:

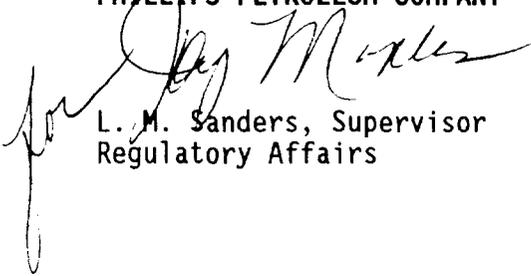
In reference to your correspondence of March, 1994 (3180-06557), Phillips Petroleum Company as successor to General American Oil Company of Texas respectfully submits for your review the following information as to the status of the commercial wells in the captioned unit which are entitled to a participating area.

Phillips plans to start shooting the 3-D on April 15 and finish May 15. Processing will be completed by August 30th. Dawson does not have a permit for the State of New Mexico yet. If we do not get a permit from them in a timely manner, the shoot will be delayed by eight months because of seismic crew availability.

Please contact me at (915) 368-1488, or Glenn W. Lanoue at (915) 368-1522, if there are any questions regarding this letter or the information attached hereto.

Sincerely,

PHILLIPS PETROLEUM COMPANY


L. M. Sanders, Supervisor
Regulatory Affairs


LMS:GWL:1sw/misc0131.reg

Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Working Interest Owners

715



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

March 6, 1991

EXPLORATION AND PRODUCTION GROUP
Permian Basin Region

1991 Plan of Development/Operations
Grayburg Deep Unit
Contract No. 14-08-001-1602
Eddy County, New Mexico

United States Department of the Interior
Bureau of Land Management
Roswell District Office
P.O. Box 1397
Roswell, New Mexico 88202

Attn: Mr. Francis R. Cherry, Jr.
District Manager

In reference to your correspondence of January, 1991 (3180-065) and in compliance with Section 10 of the Unit Agreement of the Grayburg Deep Unit, Eddy County, New Mexico, approved by the Acting Director, United States Geological Survey on June 4, 1954 and designated by contract number 14-08-001-1602, Phillips Petroleum Company as successor to General American Oil Company of Texas respectfully submits for your consideration and approval the following Plan of Development/Operations for the unitized land.

1. Current Status

There are currently 3 active producing wells in the Unit. Well No. 1 produced an average of .3 BOPD, 0 BWPD and 350 MCFD from the Pennsylvanian during 1990. Well No. 5 produced an average of 12 BOPD, 250 BWPD and 0 MCFD from the Abo Formation during 1990. Well No. 10 produced an average of 1 BOPD, 0 BWPD, and 530 MCFD from the Pennsylvanian during 1990.

Well No. 9 was drilled in December 1986 to the Abo Formation. The Abo tested dry and the well was temporarily abandoned. In December, 1988 the Abo was sealed off with a cement plug and the wellbore given to the Phillips-operated Keely "C" Federal Lease for recompletion in the Grayburg-San Andres Formation. The well was renamed the Keely "C" Fed. No. 61.

2. Future Development

The Grayburg Deep Unit No. 11, a Pennsylvanian/Abo development prospect, is forecasted to be drilled in the 3rd quarter of 1991. The proposed location is 1500' FSL & 1550' FWL, Section 19, T-17-S, R-30-E.

The Grayburg Deep Unit No. 12-1, a Pennsylvanian development

prospect, is forecasted to be drilled in the 4th quarter of 1991. The proposed location is 1980' FSL & 1980' FEL, Section 12, T-17-S, R-29-E. Phillips plans to drill this well following Pacific Enterprises' drilling of a Pennsylvanian prospect in the S/2 of Section 1 or N/2 of Section 12, T-17-S, R-29-E, Eddy County, New Mexico.

3. Modifications

This Plan of Development/Operations may be modified from time to time with the approval of the Bureau of Land Management to meet changing conditions.

4. Attachments

A current Unit map and decline curves for each active well.

Please contact me at (915) 368-1488 or Jeff Hargrove at (915) 368-1308 if there are any questions regarding this Plan of Development/Operations.

Sincerely,



L. M. Sanders, Supervisor
Regulation and Proration

LMS/JSH

Attachments

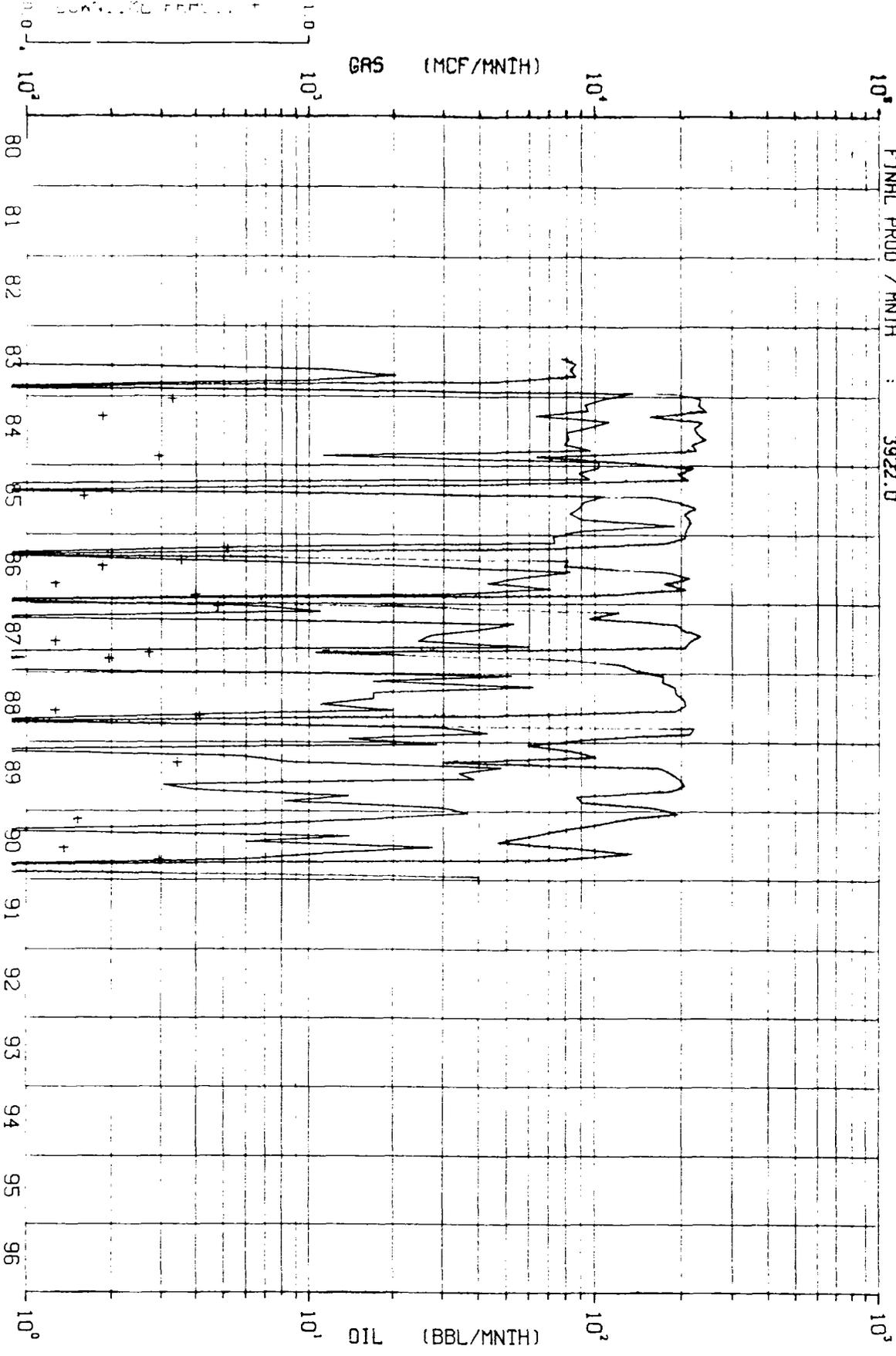
cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Sant Fe, New Mexico 87504-2088

Working Interest Owners

6 /83-1 /91

INITIAL PROD / MNTH : 7719.0
REMAINING LIFE : 7.67

CUM PRODCTN-MUNITS : 1264.
FINAL PROD / MNTH : 3922.0

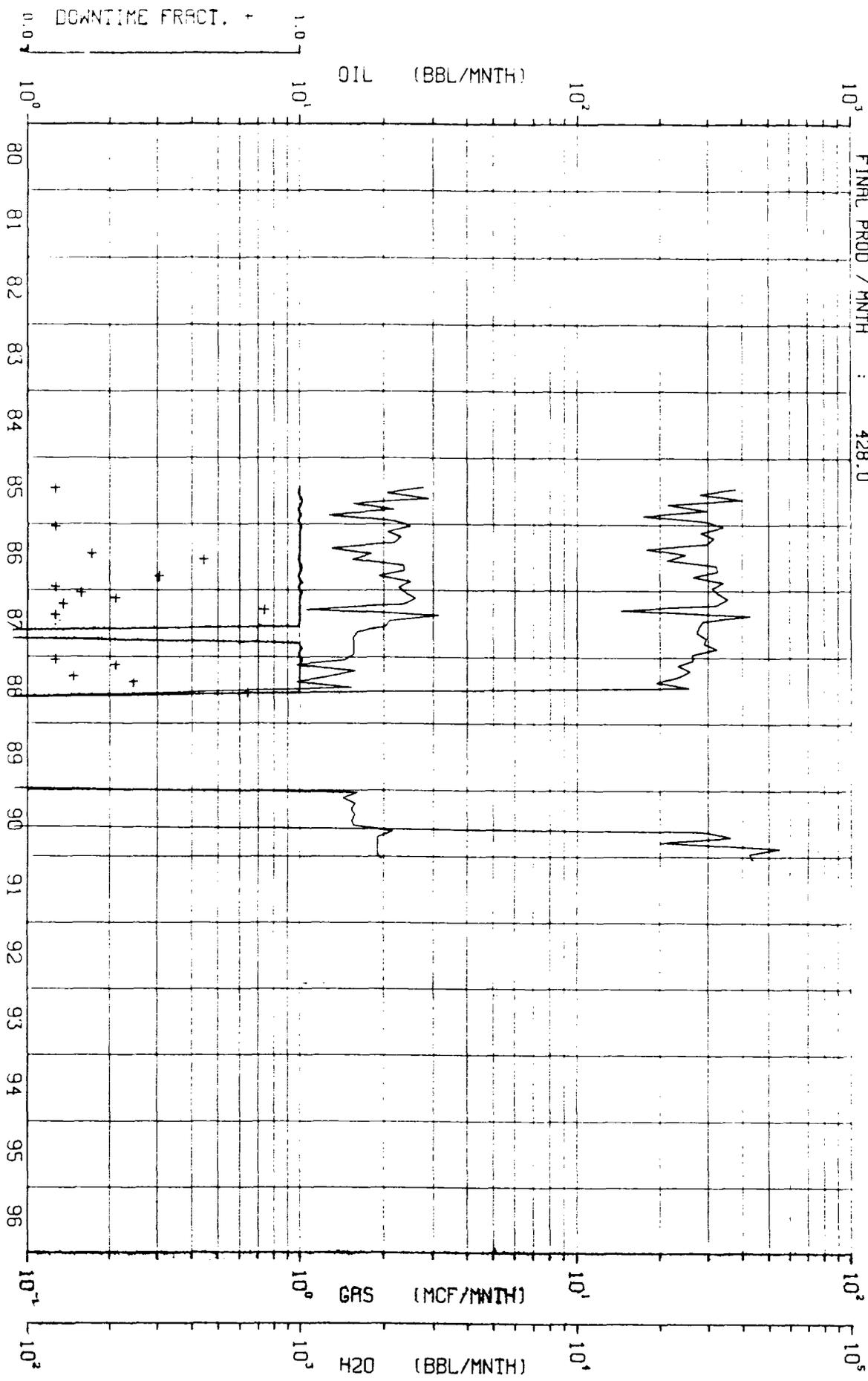


LEASE - 600209 : GRBG DEEP UNIT
RESVR - 009 : PENN
WELL - 00001

PPROD
SINGLE WELL 600209 009 00001
NM 45, CL- NC, PM- NF, CT- S

6 /85-1 /91

INITIAL PROD / MNTH : 390.9
REMAINING LIFE : 5.67
CUM PRODUCTION : 12720.
FINAL PROD / MNTH : 428.0



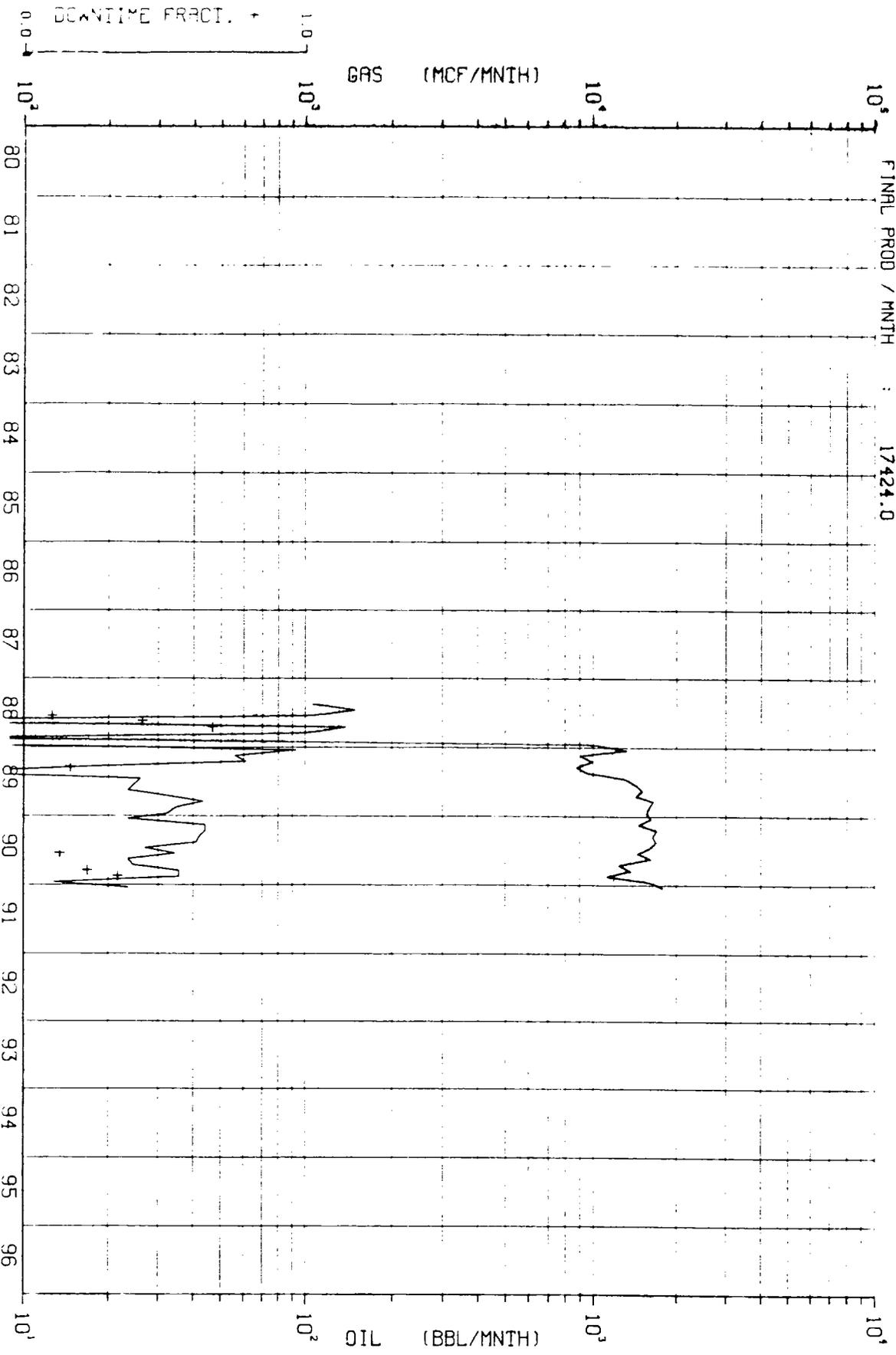
LERSE- 600209 : GRBG DEEP UNIT
RESVR : 269 : RBO
WELL - 00005

PPROD
SINGLE WELL 600209 269 00005
NM 46, CL- 0 , PM- PM , CT- S

5 / 88 - 1 / 91

INITIAL PROD / MNTH : 1064.0
REMAINING LIFE : 2.75

CUM PRODUCTION : 0.00
FINNL PROD / MNTH : 368900.
17424.0



LEASE- 600245 : GRBG DEEP U #10
RESVR- 009 : PENN
WELL - 00010

PPROD
SINGLE WELL 600245 009 00010
NM 45, CL- NC, PM- PM, CT- S



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

EXPLORATION AND PRODUCTION GROUP January 25, 1988
Permian Basin Region

715

1988 Plan of Development/Operations
Grayburg Deep Unit
Contract No. 14-08-001-1602
Eddy County, New Mexico

United States Department of the Interior
Bureau of Land Management
Roswell District Office
P. O. Box 1397
Roswell, New Mexico 88201

Attn: Mr. Francis R. Cherry, Jr.
District Manager

In compliance with Section 10 of the Unit Agreement of the Grayburg Deep Unit, Eddy County, New Mexico, approved by the Acting Director, United States Geological Survey on June 4, 1954 and designated by contract number 14-08-001-1602, Phillips Petroleum Company as successor to General American Oil Company of Texas respectfully submits for your consideration and approval the following Plan of Development/Operations for the unitized land.

1. Current Status:

There are currently two active producing wells on the Unit. Well No. 1 averaged 0.7 BOPD, 454 MCFD, and 0 BWPD production from the Pennsylvanian during 1987. Well No. 5 produced an average of 9.8 BOPD, 0 MCFD, and 66.7 BWPD from the Abo Formation during 1987.

Temporarily abandoned Well No. 4 was permanently plugged in the unitized interval and the well was recompleted in the Grayburg/San Andres formation above 3500'; the well was renamed Burch "C" Federal No. 39.

Well No. 9 was drilled in December, 1986 to the Abo formation. The well has not tested commercial production from the Abo and log analysis indicates there are no recompletion zones in the unitized interval (below 5000').

2. Future Operations:

Partner approval to abandon the unitized interval in Well No. 9 is being solicited. When approval is received, the well will be recompleted in the Grayburg/San Andres formation above the unitized interval.

Based on initial testing, Well No. 10 will be completed in the Morrow formation. Seismic data will be analyzed to determine if additional Morrow development drilling is warranted.

1988 Plan of Development/Operations
Grayburg Deep Unit
Contract No. 14-08-001-1602
Eddy County, New Mexico
January 25, 1988
Page 2

3. Modifications:

This Plan of Operation may be modified from time to time with the approval of the Bureau of Land Management to meet changing conditions.

4. Attachments:

A current Unit map, individual well decline curves, and a composite Unit decline curve are attached. Also attached is a copy of the 1987 Plan of Development/Operations.

Please contact me at (915) 367-1488 or John Currie at (915) 367-1342 if there are any questions regarding this Plan of Operation.

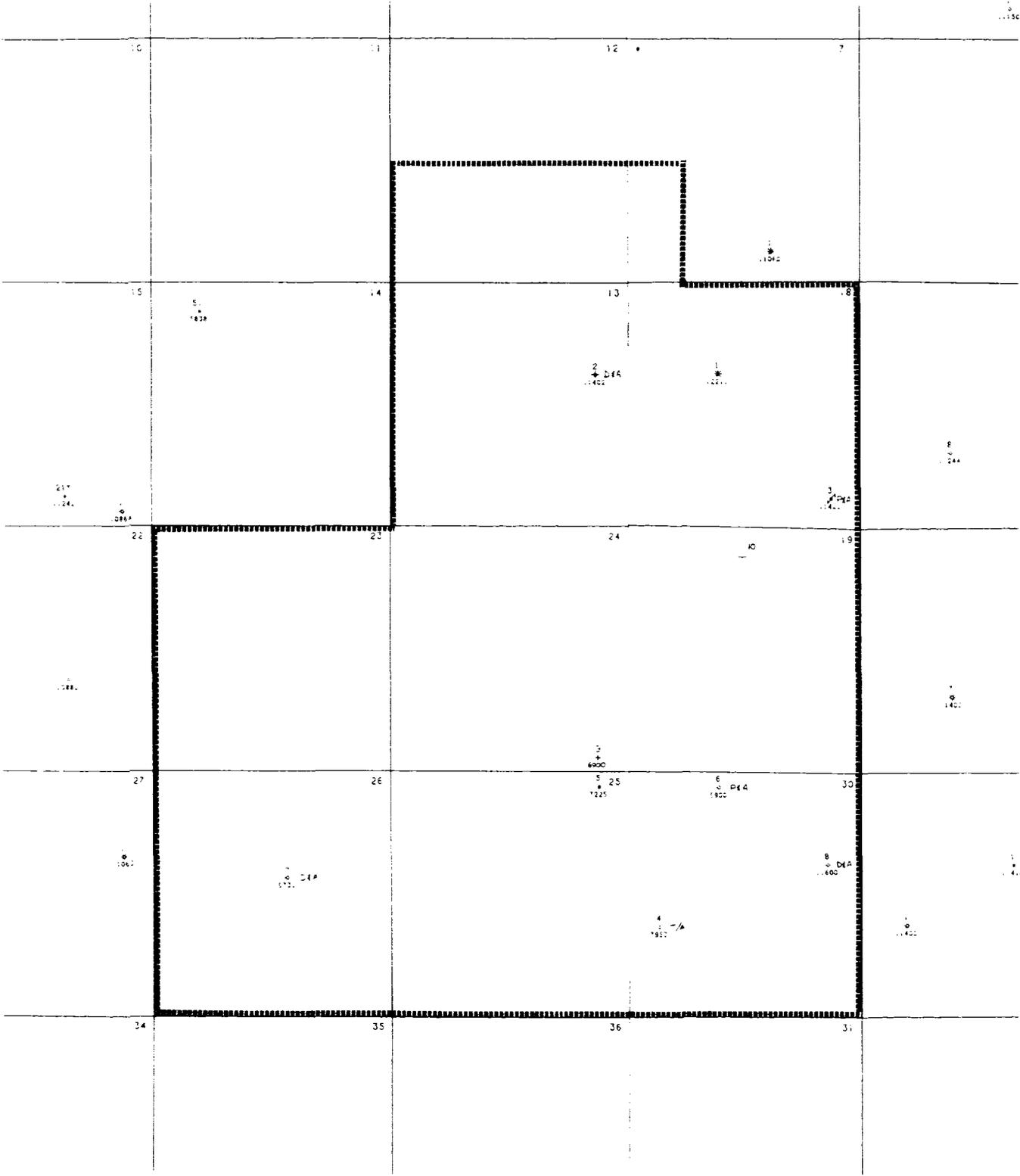
Very truly yours,



L. M. Sanders, Supervisor
Regulation and Proration

LMS/JCC/sdb
REG/PRO8/plan2

Attachment



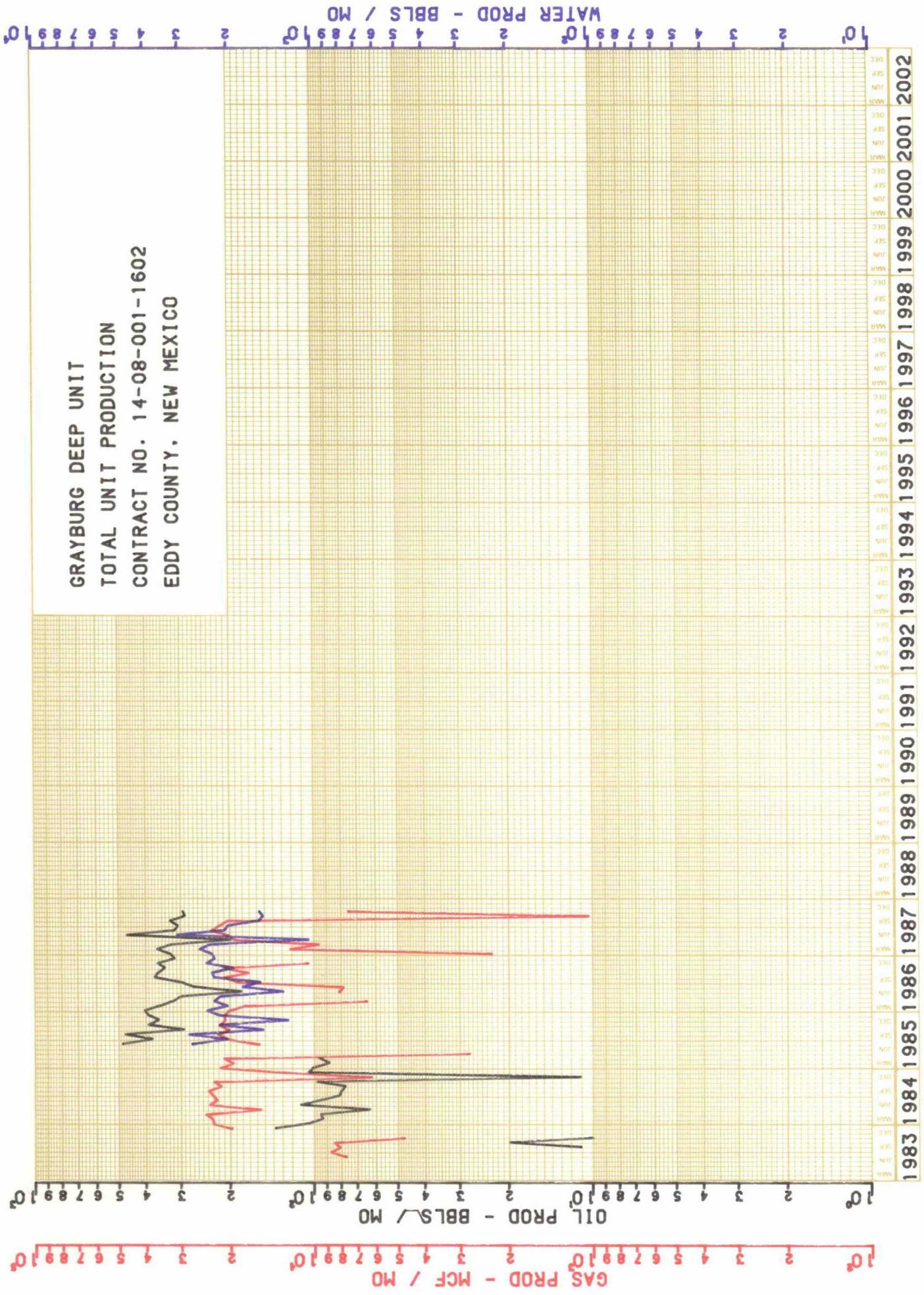
PHILLIPS PETROLEUM

GRAYBURG DEEP UNIT
T-17-S, R-29-E & R-30-E
EDDY COUNTY, NEW MEXICO

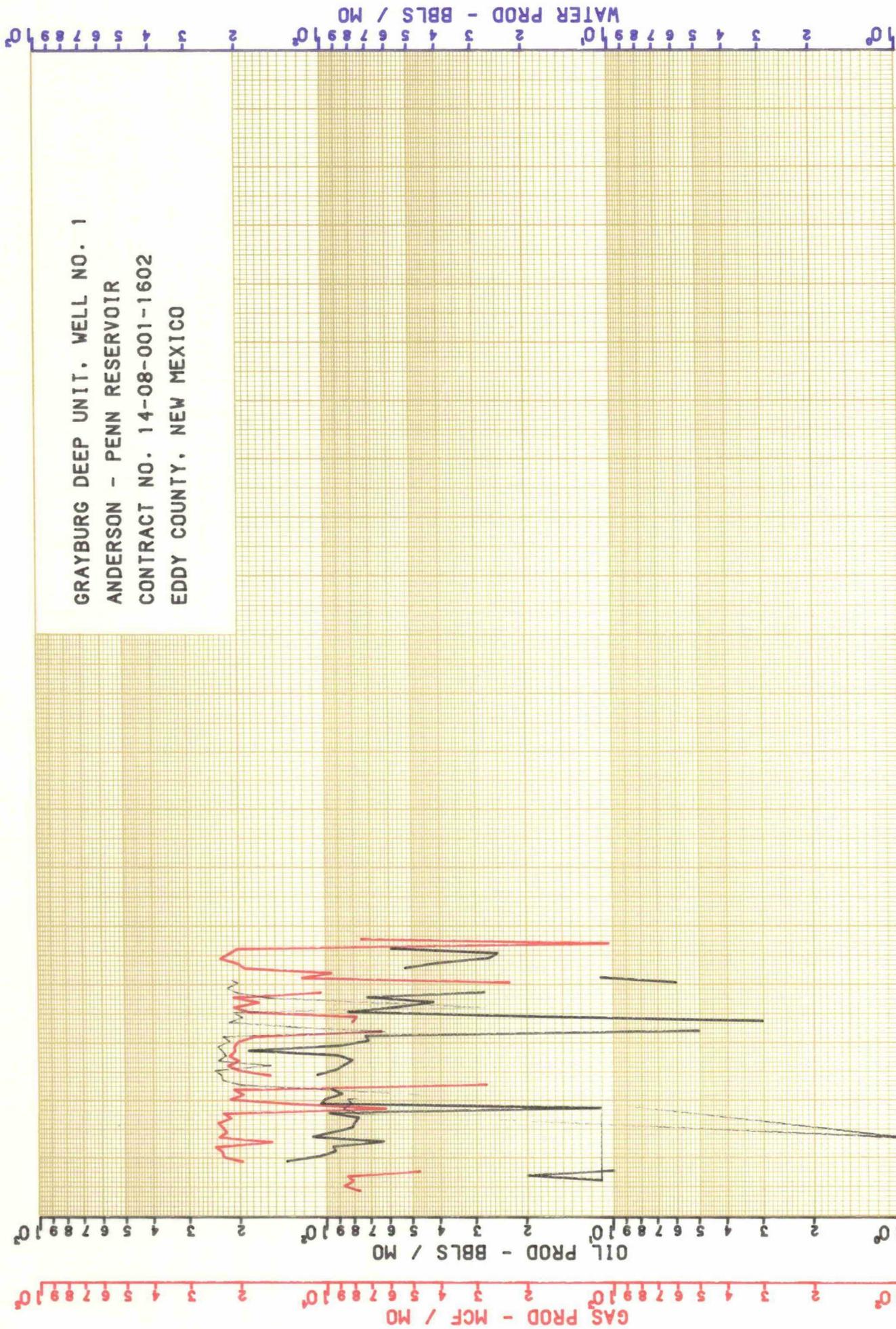
BASE MAP
DATE: 2/20/87

0 2,000 4,000
SCALE (FEET)

GRAYBURG DEEP UNIT
 TOTAL UNIT PRODUCTION
 CONTRACT NO. 14-08-001-1602
 EDDY COUNTY, NEW MEXICO



GRAYBURG DEEP UNIT, WELL NO. 1
 ANDERSON - PENN RESERVOIR
 CONTRACT NO. 14-08-001-1602
 EDDY COUNTY, NEW MEXICO



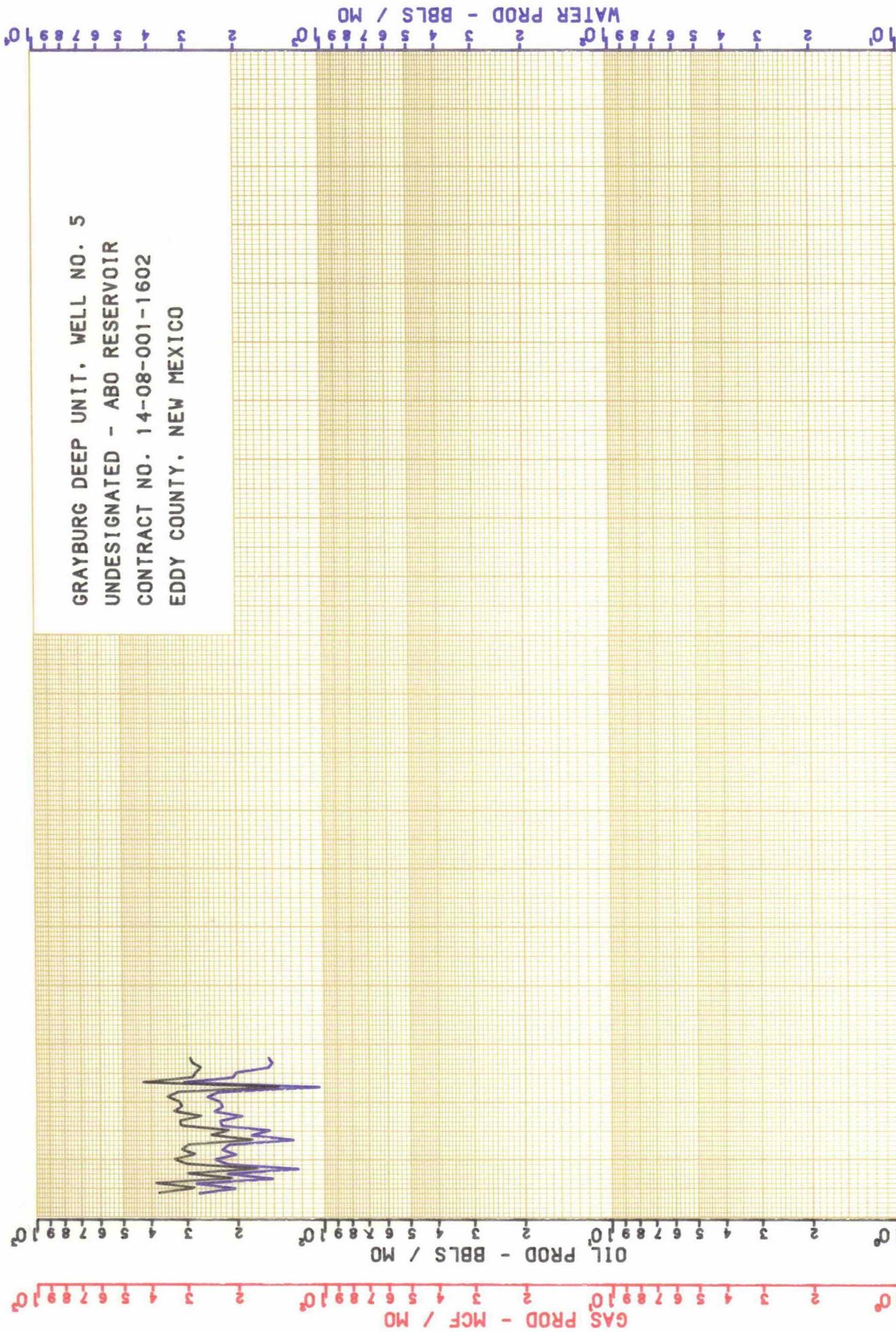
1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002

GAS PROD - MCF / MO

OIL PROD - BLS / MO

WATER PROD - BLS / MO

GRAYBURG DEEP UNIT, WELL NO. 5
 UNDESIGNATED - ABO RESERVOIR
 CONTRACT NO. 14-08-001-1602
 EDDY COUNTY, NEW MEXICO



1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004

GAS PROD - MCF / MO

OIL PROD - BBLS / MO

WATER PROD - BBLS / MO



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

March 5, 1987

EXPLORATION AND PRODUCTION GROUP

1987 Plan of Development/Operations
Grayburg Deep Unit
Contract No. 14-08-001-1602
Eddy County, New Mexico

United States Department of the Interior
Bureau of Land Management
Roswell District Office
P. O. Box 1397
Roswell, New Mexico 88201

Attn: Mr. Francis R. Cherry, Jr.
District Manager

In reference to your correspondence of January, 1987 (3180-065) and in compliance with Section 10 of the Unit Agreement of the Grayburg Deep Unit, Eddy County, New Mexico, approved by the Acting Director, United States Geological Survey on June 4, 1954 and designated by contract number 14-08-001-1602, Phillips Petroleum Company as successor to General American Oil Company of Texas respectfully submits for your consideration and approval the following Plan of Development/Operations for the unitized land.

1. Current Status:

There are currently 2 active producing wells on the Unit. Well No. 1 averaged 1.2 BOPD, 358 MCFD, and 0 BWPD production from the Pennsylvanian during 1986. Well No. 5 produced an average of 9.4 BOPD, 0 MCFD, and 68.4 BWPD from the Abo Formation during 1986.

Temporarily abandoned well No. 6 was permanently plugged and abandoned in November, 1986. Partner approval to permanently abandon the unitized interval in Well No. 4 was received in January, 1987. The unitized interval has been plugged and the well is being recompleted in the Grayburg/San Andres formation above 3500'; the well will be renamed Burch "C" Federal No. 39.

Well No. 9 was drilled in December, 1986 and is currently testing in the Abo Formation.

2. Future Operations:

Test results from Well No. 9 will be analyzed and seismic data will be reprocessed to help determine if there is additional Abo Formation development drilling potential. A Pennsylvanian Morrow gas prospect is also under evaluation for possible drilling during 1987.

3. Modifications:

This Plan of Operation may be modified from time to time with the approval of the Bureau of Land Management to meet changing conditions.

4. Attachments:

A current Unit map, individual well decline curves, and a composite Unit decline curve are attached. Also attached is a copy of the 1986 Plan of Development/Operations.

Please contact me at (915) 367-1488 or John Currie at (195) 367-1342 if there are any questions regarding this Plan of Operation.

Very Truly Yours,



L. M. Sanders, Supervisor
Regulation and Proration

LMS/000/es
REG4.1/Cherryb

Attachment

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Working Interest Owners

bcc:

~~_____~~
Kent Crawford
D. L. Rockey
G. R. Smith

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION



#715

March 25, 1987

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2085
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Phillips Petroleum Company
4001 Penbrook
Odessa, Texas 79762

Attention: L. M. Sanders, Supervisor

Re: 1987 Plan of Development
Grayburg Deep Unit
Eddy County, New Mexico

Gentlemen:

The above-referenced submittal has been approved by the New Mexico Oil Conservation Division effective this date. Such approval is contingent upon like approval by the New Mexico Commissioner of Public Lands and the Bureau of Land Management.

Sincerely,

ROY E. JOHNSON,
Senior Petroleum Geologist

REJ/dr

cc: Commissioner of Public Lands - Santa Fe
Bureau of Land Management - Albuquerque



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

March 5, 1987

EXPLORATION AND PRODUCTION GROUP

1987 Plan of Development/Operations
Grayburg Deep Unit
Contract No. 14-08-001-1602
Eddy County, New Mexico

United States Department of the Interior
Bureau of Land Management
Roswell District Office
P. O. Box 1397
Roswell, New Mexico 88201

Attn: Mr. Francis R. Cherry, Jr.
District Manager

In reference to your correspondence of January, 1987 (3180-065) and in compliance with Section 10 of the Unit Agreement of the Grayburg Deep Unit, Eddy County, New Mexico, approved by the Acting Director, United States Geological Survey on June 4, 1954 and designated by contract number 14-08-001-1602, Phillips Petroleum Company as successor to General American Oil Company of Texas respectfully submits for your consideration and approval the following Plan of Development/Operations for the unitized land.

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3. Modifications:

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4. Attachments:

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Please contact me at (915) 367-1488 or John Currie at (195) 367-1342 if there are any questions regarding this Plan of Operation.

Very Truly Yours,



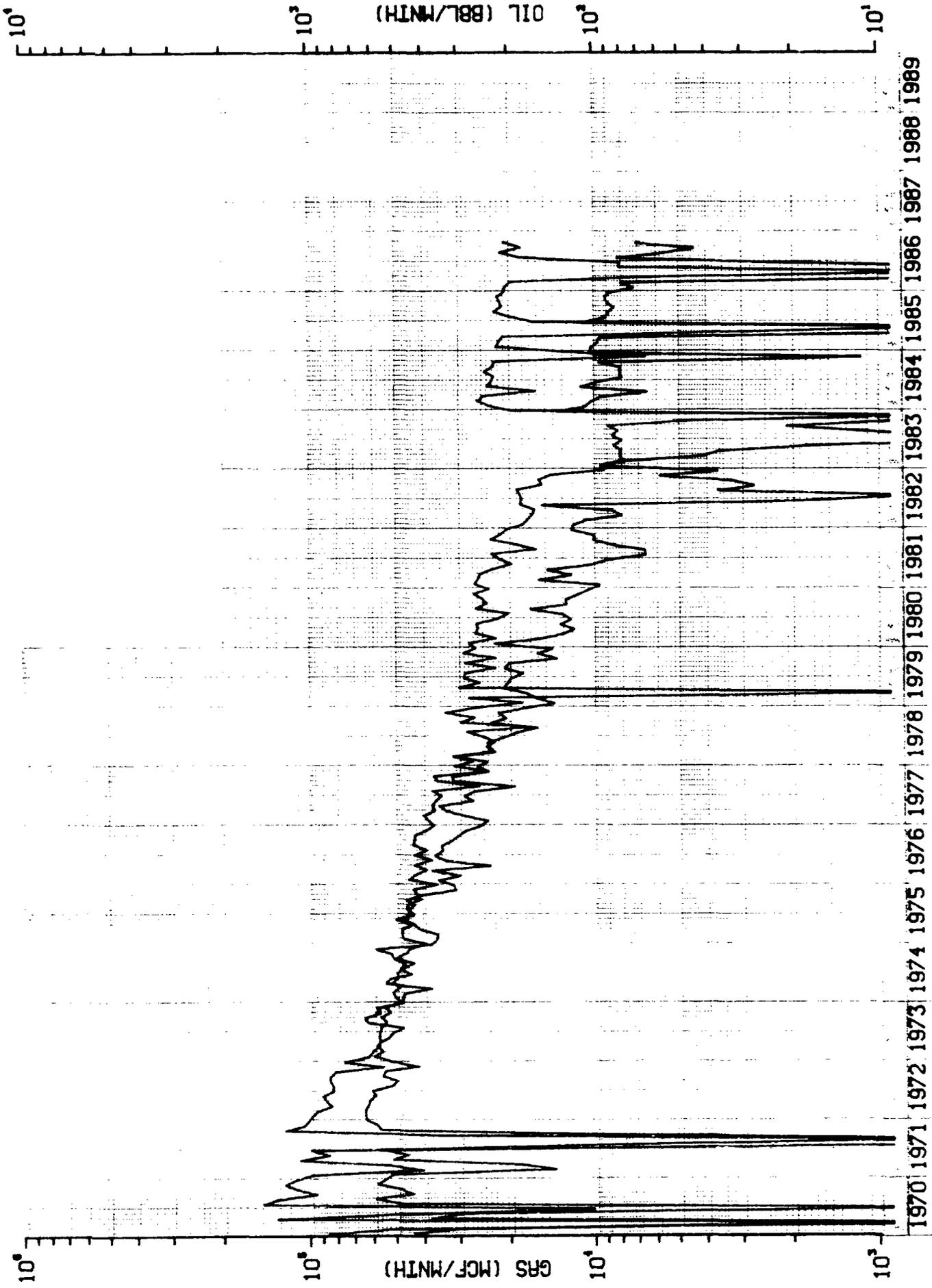
L. M. Sanders, Supervisor
Regulation and Proration

LMS/JCC/cs
REG4.1/Cherryb

Attachment

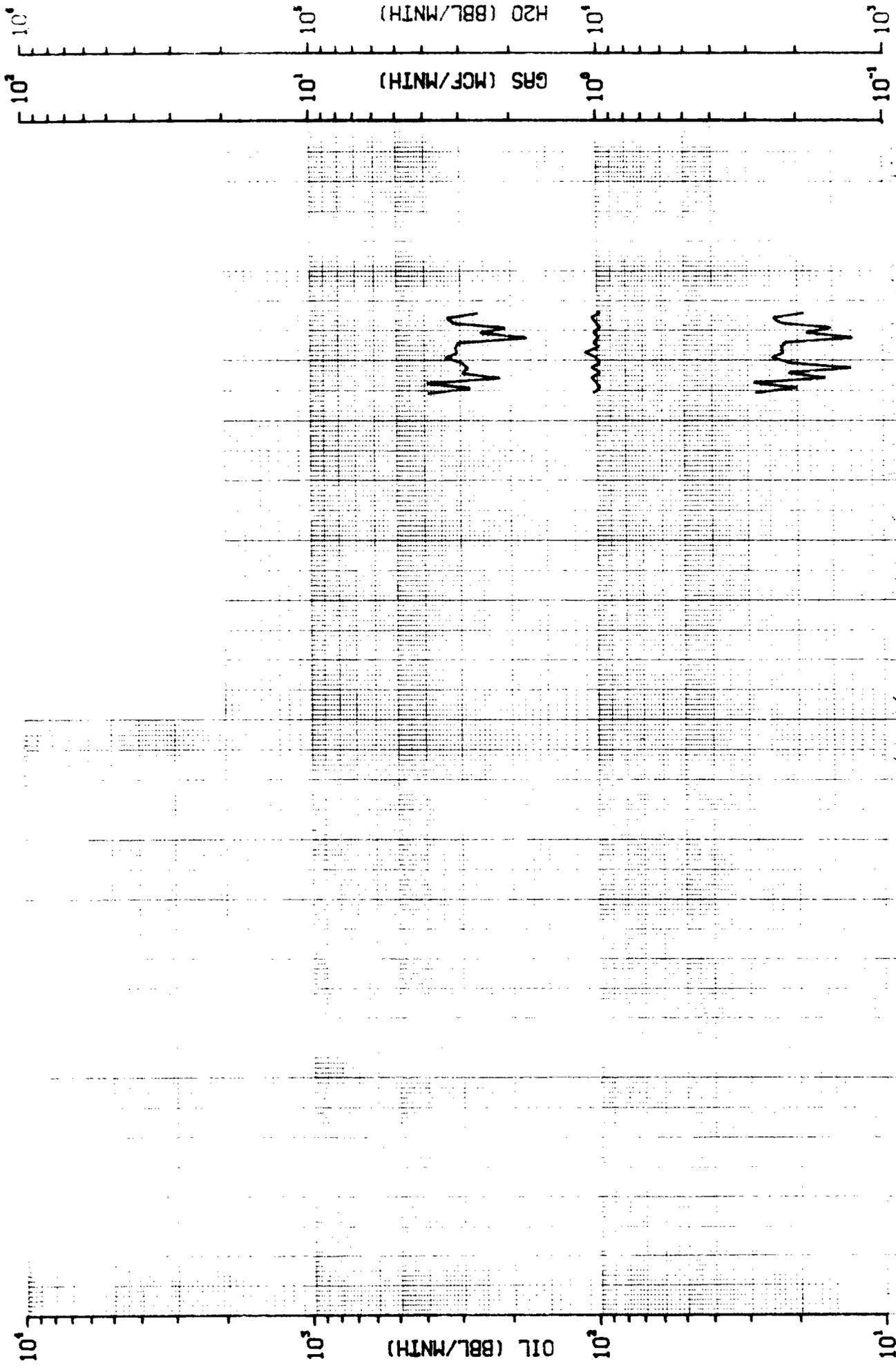
cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Working Interest Owners



LEASE- 546 : GRAYBURG DEEP UNIT
 RESVR- 2 :
 WELL - 000001

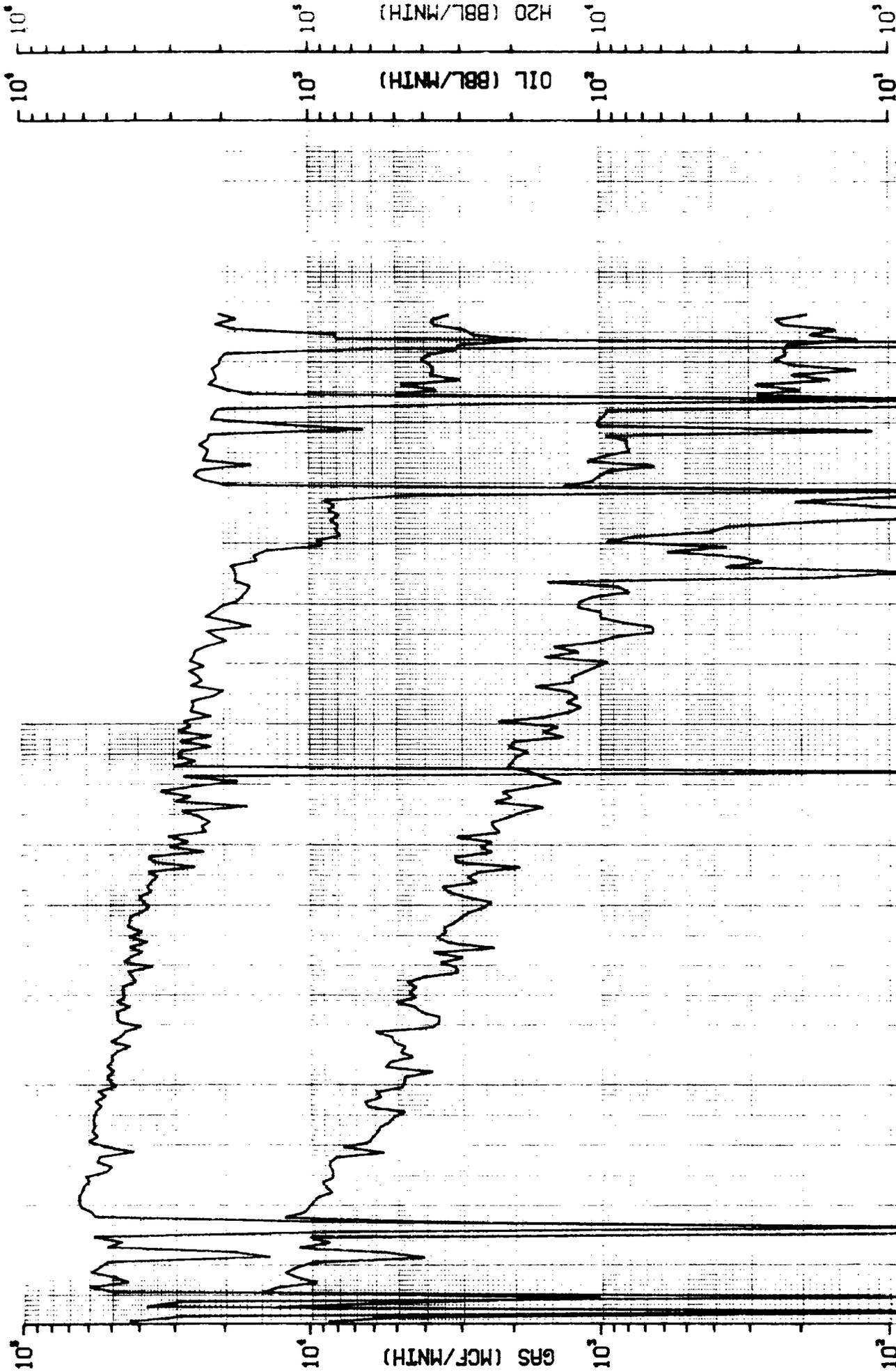
DWIGHTS
 WELL 250 015 17S30E18F00PN
 DWIGHT ID-25001517S30E18F00PN



1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

LEASE- 31 : GRAYBURG DEEP UNIT
 RESVR- 2 :
 DWIGHT ID-15001517S29E25A00AB

DWIGHTS
 WELL 150 015 17S29E25A00AB
 DWIGHT ID-15001517S29E25A00AB



1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

LEASE-
RESVR-

GRAYBURG DEEP UNIT
TOTAL UNIT PRODUCTION

DWIGHTS
COMPOSITE OF TOTAL , 2 WELLS



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

April 16, 1986

EXPLORATION AND PRODUCTION GROUP
Permian Basin Region

Plan of Operation
Grayburg Deep Unit
Contract No. 14-08-001-1602
Eddy County, New Mexico

United States Department of the Interior
Bureau of Land Management
Roswell District Office
P. O. Box 1397
Roswell, New Mexico 88201

Attn: Mr. Francis R. Cherry
District Manager

In reference to your correspondence of February 10, 1986 and in compliance with Section 10 of the Unit Agreement of the Grayburg Deep Unit, Eddy County, New Mexico, approved by the Acting Director, United States Geological Survey on June 4, 1954 and designated by contract number 14-08-001-1602, Phillips Petroleum Company as successor to General American Oil Company of Texas respectfully submits for your consideration and approval the following Plan of Operation for the unitized land.

1. Current Status:

There are currently 2 active producing wells and 2 temporarily abandoned wells on the Unit. Well No. 1 averaged 2.8 BOPD, 568 MCFD, and 0 BWPD production from the Pennsylvanian during 1985. Well No. 5 was reactivated in June, 1985 and has produced an average of 9.6 BOPD, 0 MCFD, and 70.3 BWPD from the Abo Formation.

2. Future Operations:

Phillips Petroleum Company recently completed 42 miles of seismic survey line across the Unit Area. The seismic data will be analyzed during 1986 to determine future development drilling potential. In addition, the two temporarily abandoned wells are under evaluation for possible reactivation.

3. Modifications:

This Plan of Operation may be modified from time to time with the approval of the Bureau of Land Management to meet changing conditions.

Please contact me at (915) 367-1488 or John Currie (915) 367-1342 if there are any questions regarding this Plan of Operation.

Very truly yours,

L. M. Sanders, Supervisor
Regulation and Proration

LMS/sdb
REG3/plan

GENERAL AMERICAN OIL COMPANY OF TEXAS

MEADOWS BUILDING

DALLAS, TEXAS

April 3, 1958

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Attention: R. L. Stamets

Re: Grayburg Deep Unit
Eddy County, New Mexico

Gentlemen:

Thank you for your letter of March 31, 1958, in reply to our letters of the past months. We are enclosing herewith a copy of Change in Unit Operator for the captioned Unit, which has been approved by the U. S. Geological Survey.

We trust we will be notified as soon as this instrument has been processed and approved.

Yours very truly,


L. E. Dooley
Land Department

LED:alw
Enclosure

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

March 31, 1958

C
O
P
Y

General American Oil Company of Texas
Meadows Building
Dallas 6, Texas

Attention: Mr. L. E. Dooley

Re: Grayburg Deep Unit
Eddy County, New Mexico

Gentlemen:

Referring to your letters of August 14, September 9, and November 26, 1957, in which you requested whether or not we had received sufficient copies of the Change in Unit Operator for this Unit, we have checked through our files and have been unable to find any copies. If you will re-submit this notice we will be glad to process it.

Very truly yours,

R. L. STAMETS
Geologist

RLS/ga

GENERAL AMERICAN OIL COMPANY OF TEXAS

MEADOWS BUILDING

DALLAS, TEXAS

November 26, 1957

New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Re: Grayburg Deep Unit
Eddy County, New Mexico

Gentlemen:

Please refer to our letters to you of August 14 and September 9, 1957, in which we requested your advice as to whether you had received sufficient copies of the Change in Unit Operator to this Company which, we believe, has been filed for your approval.

Please advise if this instrument is in the process of being approved by your department.

Yours very truly,


L. E. Dooley
Land Department

LED:nal

GENERAL AMERICAN OIL COMPANY OF TEXAS

MAINTENANCE OFFICE OCC
1957 SEP 11 AM 9:04

MEADOWS BUILDING

DALLAS, TEXAS

September 9, 1957

New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Re: Grayburg Deep Unit
Eddy County, New Mexico

Gentlemen:

Please refer to our letter to you of August 14, 1957, in which we inquired whether or not you had received copies of the Change in Unit Operator under the captioned Unit, executed by Great Western Drilling Company, Wilshire Oil Company of Texas, and this company, in which we are designated Operator of this Unit.

We have received no reply to our letter and would appreciate your advising us if this instrument is in the process of being approved by your department or if additional copies of same are requested by you for approval.

Yours very truly,


L. E. Dooley
Land Department

LED:nal

MAIN OFFICE 600

GENERAL AMERICAN OIL COMPANY OF TEXAS

MEADOWS BUILDING

1957 AUG 16 AM 8:20

DALLAS 6, TEXAS

August 14, 1957

New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Re: Grayburg Deep Unit
Eddy County, New Mexico

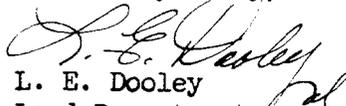
Gentlemen:

On June 24, 1957, we forwarded to the U. S. Geological Survey in Roswell, New Mexico, original and seven copies of Change in Unit Operator under the captioned Unit, executed by Great Western Drilling Company, Wilshire Oil Company of Texas, and General American Oil Company of Texas, designating this company as Operator of said Unit.

It was our understanding that upon their approval of this Change in Unit Operator, the U. S. Geological Survey would then send the original and as many copies as necessary to your office for your approval. On August 1, 1957, we received four copies of this instrument bearing the approval of the U. S. Geological Survey.

Please advise if your office has received sufficient copies of said instrument for approval by the State of New Mexico, and if not, we shall be happy to furnish additional copies on request.

Yours very truly,


L. E. Dooley
Land Department

al

CHANGE IN UNIT OPERATOR
GRAYBURG DEEP UNIT AREA
COUNTY OF EDDY
STATE OF NEW MEXICO

No. 14-08-001-1602

This indenture dated as of the 1 day of May, 1957, by and between GREAT WESTERN DRILLING COMPANY, a Texas corporation, of Midland, Texas, hereinafter designated as "First Party", and GENERAL AMERICAN OIL COMPANY OF TEXAS, a Delaware corporation, of Dallas, Texas, hereinafter designated as "Second Party".

WITNESSETH:

WHEREAS, under the provisions of the Act of February 25, 1920 (41 Stat. 437, 30 U.S.C. Secs. 181, et seq.) as amended, the Secretary of the Interior on the 4th day of June, 1954, approved a unit agreement for the Grayburg Deep Unit Area wherein First Party is designated as unit operator; and

WHEREAS, the First Party desires to transfer, assign, release and quitclaim, and the Second Party desires to assume all the rights, duties and obligations of unit operator under the unit agreement subject to the approval of 75% of the working interest owners owning oil and gas leases committed to said unit agreement.

NOW, THEREFORE, in consideration of the premises hereinbefore set forth, First Party does hereby transfer, assign, release and quitclaim unto Second Party all of First Party's rights, duties and obligations as unit operator under said unit agreement; and

Second Party hereby accepts this assignment and hereby covenants and agrees to fulfill the duties and assume the obligations of unit operator under and pursuant to all the terms of said unit agreement to the full extent set forth in this assignment, effective upon approval of this indenture by the Commissioner of Public Lands of the State of New Mexico and the Director of the United States Geological Survey, said unit agreement being hereby incorporated herein by reference and made a part hereof as fully and effectively as though said unit agreement were expressly set forth in this instrument.

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the date hereinabove set forth.

ATTEST:

[Signature]
Assistant Secretary

GREAT WESTERN DRILLING COMPANY

By: [Signature]
President

ATTEST:

[Signature]

GENERAL AMERICAL OIL COMPANY OF TEXAS

By: [Signature]
VICE PRESIDENT

APPROVAL OF WORKING INTEREST OWNER

The foregoing change in unit operator is hereby approved and agreed to by the undersigned, being the owner of working interests under oil and gas leases committed to the Grayburg Deep Unit Agreement.

ATTEST:

[Signature]
SECRETARY

WILSHIRE OIL COMPANY OF TEXAS

By: [Signature]
VICE-PRESIDENT

Date Approved JUL 25 1957

[Signature]
Director, U. S. Geological Survey

STATE OF TEXAS

SS.

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me this 9th day of May, 1957 by R. C. TUCKER, President of GREAT WESTERN DRILLING COMPANY, a Texas corporation, on behalf of said corporation.

My Commission Expires:

W. H. Barnes
Notary Public

STATE OF TEXAS

SS.

COUNTY OF Dallas

The foregoing instrument was acknowledged before me this 20th day of June, 1957 by W. F. BARNES, VICE President of GENERAL AMERICAN OIL COMPANY OF TEXAS, a Delaware corporation, on behalf of said corporation.

My Commission Expires:

Barbara Wren
Notary Public

STATE OF TEXAS

SS.

COUNTY OF Midland

The foregoing instrument was acknowledged before me this 20th day of May, 1957 by J. H. Lake, President of WILSHIRE OIL COMPANY OF TEXAS, a Delaware corporation, on behalf of said corporation.

My Commission Expires:

Larene Foster
Notary Public

CERTIFICATE OF APPROVAL BY
COMMISSIONER OF PUBLIC LANDS
OF THE STATE OF NEW MEXICO

I hereby approve the foregoing indenture designating the General American Oil Company of Texas as unit operator under the unit agreement for the Grayburg Deep Unit Area this the _____ day of _____, 1957.

Commissioner of Public Lands

CERTIFICATE OF APPROVAL BY
DIRECTOR OF THE UNITED STATES
GEOLOGICAL SURVEY

I hereby approve the foregoing indenture designating the General American Oil Company of Texas as unit operator under the unit agreement for the Grayburg Deep Unit Area this the 25th day of July, 1957.

Arthur C. Baker

Director of the United States
Geological Survey

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF CON-
SIDERING:

CASE NO. 715
ORDER NO. R-506

THE APPLICATION OF GENERAL AMERICAN
OIL COMPANY OF TEXAS FOR AN ORDER
APPROVING A PROPOSED UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION OF THE
GRAYBURG DEEP UNIT AREA, CONSISTING OF
5,484.17 ACRES, MORE OR LESS, SITUATED IN
TOWNSHIP 17 SOUTH, RANGE 29 EAST AND
TOWNSHIP 17 SOUTH, RANGE 30 EAST, NMPM.,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a. m., June 16, 1954, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 7th day of July, 1954, the Commission having before it for consideration the testimony adduced at the hearing of said case 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 proposed unit plan will in principle tend to promote the conservation of oil and gas and the prevention of waste.

IT IS THEREFORE ORDERED:

That the order herein shall be known as the:

"GRAYBURG DEEP UNIT AGREEMENT ORDER"

SECTION 1. (a) That the project herein shall be known as the Grayburg Deep Unit Agreement and shall hereafter be referred to as the "Project".

(b) That the plan by which the Project shall be operated shall be embraced in the form of a unit agreement for the development and operation of the Grayburg Deep Unit Area referred to in the Petitioner's petition and filed with said petition and such plan shall be known as the Grayburg Deep Unit Agreement Plan.

SECTION 2. That the Grayburg Deep Unit Agreement shall be, and is hereby approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval of said agreement shall not be considered as waiving or relinquishing in any manner any rights, duties, or obligations which are now or may hereafter be vested in the New Mexico Oil Conservation Commission by law relative to the supervision and control of operations for

exploration and development of any lands committed to said Grayburg Deep Unit Agreement or relative to the production of oil or gas therefrom.

SECTION 3. (a) That the Unit Area shall be:

NEW MEXICO PRINCIPAL MERIDIAN

Township 17 South, Range 29 East

Section 12: S/2

Section 13: All

Section 23: All

Section 24: All

Section 25: All

Section 26: All

Township 17 South, Range 30 East

Section 7: W/2 SW/4

Section 18: All

Section 19: All

Section 30: All

containing 5484.17 acres, more or less.

(b) The Unit Area may be enlarged or contracted as provided in said Plan.

SECTION 4. That the unit operator shall file with the Commission an executed original or executed counterpart thereof of the Grayburg Deep Unit Agreement not later than 30 days after the effective date thereof.

SECTION 5. That any party owning rights in the unitized substances who does not commit such rights to said Unit Agreement before the effective date thereof may thereafter become a party thereto by subscribing to such agreement or a counterpart thereof. The Unit Operator shall file with the Commission within 30 days an original or any such counterpart.

SECTION 6. That this order shall become effective on the first day of the calendar month next following the approval of the Director of the United States Geological Survey and shall terminate ipso facto in the termination of said Unit Agreement. The last Unit Operator shall immediately notify the Commission in writing of such termination.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



EDWIN L. MECHEM, Chairman



E. S. WALKER, Member



R. R. SPURRIER, Secretary and Member

S E A L

MAIN OFFICE OCC
FOSTER MORRELL
PETROLEUM CONSULTANT
NICKSON HOTEL BUILDING
ROSWELL, NEW MEXICO

1954 JUN 28 AM 8:19

June 28, 1954

Mr. R. R. Spurrier
New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Re: Grayburg Deep Unit Agreement
Eddy County, New Mexico

Dear Mr. Spurrier:

In behalf of Great Western Drilling Company, Unit Operator, I am forwarding herewith for your files an executed counterpart of the Unit Agreement for the Development and Operation of the Grayburg Deep Unit Area, Eddy County, New Mexico. The unit agreement was approved by Thomas B. Nolan, Acting Director, United States Geological Survey on June 4, 1954, and designated contract No. 14-08-001-1602. The agreement is effective as of the date of such approval.

The unit area embraces 5484.17 acres, more or less, of Federal Oil and Gas Leases in T. 17 S., Rs. 29 and 30 E., NMPM.

The executed counterpart of the Unit Agreement is being furnished you in accordance with my testimony presented at the hearing before the Commission in Case 715 on June 16, 1954.

Very truly yours,

Foster Morrell
Foster Morrell

FM/fbp
Encl.

cc: Great Western Drilling Company
Midland, Texas

Wilshire Oil Company of Texas
Midland, Texas

General American Oil Company of Texas
Dallas, Texas

(10-2)