

6182

**2003 PLAN OF DEVELOPMENT  
LAGUNA UNIT AREA  
LEA COUNTY, NEW MEXICO**

TO: New Mexico Oil Conservation Division  
Energy, Minerals & Natural Resources  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
Attention: Lori Wrotenbery, Director

Pursuant to the provisions of Section 10 of the Laguna Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-16905), Matador Operating Company, as Unit Operator for the Laguna Deep Unit Area, respectfully submits for approval this 2003 Plan of Development for the Laguna Deep Unit Area for the period ending December 31, 2003.

SUMMARY OF 2002 OPERATIONS

No wells were drilled or recompleted in 2002. Production for 2002 is summarized below:

WELL NAME	PRODUCING INTERVAL	GAS MCF	CONDENSATE BBL	OIL BBL
Laguna Deep #1	Bone Spring	5,106	0	3,819
Laguna Deep #2	Middle Morrow	77,490	0	1,003
Laguna Deep #4	Lower/Middle Morrow	40,641	0	306
Laguna Deep #5	Morrow	DNP	0	DNP

PLAN OF DEVELOPMENT FOR 2003

We plan to drill one to two development wells in 2003 to evaluate the Morrow formation.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 1<sup>st</sup> day of April, 2003.

Sincerely,

MATADOR OPERATING COMPANY



R.F. Burke, Vice President

**COMMISSIONER'S OFFICE**

Phone (505) 827-5760  
Fax (505) 827-5766

**ADMINISTRATION**

Phone (505) 827-5700  
Fax (505) 827-5853

**GENERAL COUNSEL**

Phone (505) 827-5713  
Fax (505) 827-4262

**PUBLIC AFFAIRS**

Phone (505) 827-1245  
Fax (505) 827-5766



**COMMERCIAL RESOURCES**

Phone (505) 827-5724  
Fax (505) 827-6157

**MINERAL RESOURCES**

Phone (505) 827-5744  
Fax (505) 827-4739

**ROYALTY MANAGEMENT**

Phone (505) 827-5772  
Fax (505) 827-4739

**SURFACE RESOURCES**

Phone (505) 827-5793  
Fax (505) 827-5711

**New Mexico State Land Office  
Commissioner of Public Lands  
Ray Powell, M.S., D.V.M.**

June 3, 2002

Matador Petroleum Corporation  
8340 Meadow Road  
Suite 158, Pecan Creek  
Dallas, Texas 75231-3751

Attn: Mr. Brent Robertson

2002 Plan of Development  
Laguna Deep Unit  
Lea County, New Mexico

Dear Mr. Robertson:

The Commissioner of Public Lands has, of this date, approved the above-captioned Plan of Development. Our approval is subject to like approval by all other appropriate agencies.

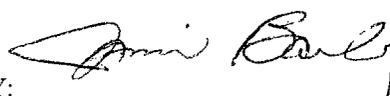
The possibility of drainage by wells outside of the unit area and the need for further development of the unit may exist. You may be contacted at a later date regarding these possibilities.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M.  
COMMISSIONER OF PUBLIC LANDS

BY:

  
JAMI BAILEY, Director  
Oil, Gas and Minerals Division  
(505) 827-5744

RP/JB/cpm  
xc: Reader File

OCD

BLM

**2002 PLAN OF DEVELOPMENT  
LAGUNA UNIT AREA  
LEA COUNTY, NEW MEXICO**

TO: New Mexico Oil Conservation Division  
Energy, Minerals & Natural Resources  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
Attention: Lori Wrotenbery, Director

Pursuant to the provisions of Section 10 of the Laguna Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-16905), Matador Operating Company, as Unit Operator for the Laguna Deep Unit Area, respectfully submits for approval this 2002 Plan of Development for the Laguna Deep Unit Area for the period ending December 31, 2002.

SUMMARY OF 2001 OPERATIONS

No wells were drilled or recompleted in 2001. Production for 2001 is summarized below:

WELL NAME	PRODUCING INTERVAL	GAS MCF	CONDENSATE BBL	OIL BBL
Laguna Deep #1	Bone Spring	5,111	0	4,054
Laguna Deep #2	Middle Morrow	88,002	0	227
Laguna Deep #3	Bone Spring	5,425	0	2,442
Laguna Deep #4	Lower/Middle Morrow	52,476	0	154
Laguna Deep #5	Morrow	86,440	0	24

PLAN OF DEVELOPMENT FOR 2002

We plan to drill one to two development wells to evaluate the Morrow formation.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 1<sup>st</sup> day of April, 2002.

Sincerely,

MATADOR OPERATING COMPANY



R.F. Burke, Vice President

6182

**2001 PLAN OF DEVELOPMENT  
LAGUNA UNIT AREA  
LEA COUNTY, NEW MEXICO**

TO: New Mexico Oil Conservation Division  
Energy, Minerals & Natural Resources  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
Attention: Lori Wrotenbery, Director

Pursuant to the provisions of Section 10 of the Laguna Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-16905), Matador Operating Company, as Unit Operator for the Laguna Deep Unit Area, respectfully submits for approval this 2001 Plan of Development for the Laguna Deep Unit Area for the period ending December 31, 2001.

SUMMARY OF 2000 OPERATIONS

On January 7, 2000, Matador completed the Laguna Deep #5 well, located in Section 35, T-19-S, R-33-E in the Morrow Formation as a gas producer. Sales commenced on January 28, 2000. The Laguna Deep #3 well was recompleted from the Middle Morrow to the Bone Spring Formation on March 29, 2000. Gas and oil sales commenced on May 3, 2000. Production for 2000 is summarized below:

WELL NAME	PRODUCING INTERVAL	GAS MCF	CONDENSATE BBL	OIL BBL
Laguna Deep #1	Bone Spring	839	0	3,802
Laguna Deep #2	Middle Morrow	83,332	0	57
Laguna Deep #3	Bone Spring	7,479	0	2,845
Laguna Deep #4	Lower/Middle Morrow	61,354	0	1,052
Laguna Deep #5	Morrow	177,070	0	2,423

PLAN OF DEVELOPMENT FOR 2001

No additional development activity planned for 2001.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 1<sup>st</sup> day of April, 2001.

Sincerely,

MATADOR OPERATING COMPANY

  
R.F. Burke, Vice President

**2000 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO**

TO: New Mexico Oil Conservation Division  
Energy, Minerals & Natural Resources  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
Attention: Lori Wrotenbery, Director

Pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No.14-08-0001-16905), Matador Operating Company, as Unit Operator for the Laguna Deep Unit Area, respectfully submits for approval this 2000 Plan of Development for the Laguna Deep Unit Area for the period ending December 31, 2000.

**SUMMARY OF 1999 OPERATIONS**

On November 2, 1999, Matador commenced drilling the Laguna Deep #5 well, located in Section 35-T19S-R33E. The rig was released on December 14, 1999 and we are currently completing the well in the Middle Morrow formation. Production for 1999 is summarized below:

WELL NAME	PRODUCING INTERVAL	GAS MCF	CONDENSATE BBL	OIL BBL
Laguna Deep #1	Bone Spring	5,567	0	3,282
Laguna Deep #2	Middle Morrow	79,796	468	0
Laguna Deep #3	Middle Morrow	8,635	8	0
Laguna Deep #4	Lower/Middle Morrow	87,769	1,556	0

**PLAN OF DEVELOPMENT FOR 2000**

We are evaluating recompleting the Laguna Deep #3 well from the Middle Morrow to the Bone Spring formation. No development drilling is planned for 2000.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 1st day of April, 2000.

Sincerely,

MATADOR OPERATING COMPANY

  
R. F. Burke, Vice President

MA

**2000 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO**

TO: New Mexico Oil Conservation Division  
Energy, Minerals & Natural Resources  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
Attention: Lori Wrotenbery, Director

Pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No.14-08-0001-16905), Matador Operating Company, as Unit Operator for the Laguna Deep Unit Area, respectfully submits for approval this 2000 Plan of Development for the Laguna Deep Unit Area for the period ending December 31, 2000.

**SUMMARY OF 1999 OPERATIONS**

On November 2, 1999, Matador commenced drilling the Laguna Deep #5 well, located in Section 35-T19S-R33E. The rig was released on December 14, 1999 and we are currently completing the well in the Middle Morrow formation. Production for 1999 is summarized below:

WELL NAME	PRODUCING INTERVAL	GAS MCF	CONDENSATE BBL	OIL BBL
Laguna Deep #1	Bone Spring	5,567	0	3,282
Laguna Deep #2	Middle Morrow	79,796	468	0
Laguna Deep #3	Middle Morrow	8,635	8	0
Laguna Deep #4	Lower/Middle Morrow	87,769	1,556	0

**PLAN OF DEVELOPMENT FOR 2000**

We are evaluating recompleting the Laguna Deep #3 well from the Middle Morrow to the Bone Spring formation. No development drilling is planned for 2000.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 1st day of April, 2000.

Sincerely,

MATADOR OPERATING COMPANY



R. F. Burke, Vice President

MVA

**1999 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO**

TO: New Mexico Oil Conservation Division  
Energy & Minerals Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
Attention: Lori Wrotenbery, Director

Pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No.14-08-0001-16905), Matador Operating Company, as Unit Operator for the Laguna Deep Unit Area, respectfully submits for approval this 1999 Plan of Development for the Laguna Deep Unit Area for the period ending December 31, 1999.

SUMMARY OF 1998 OPERATIONS

Matador recompleted the Laguna Deep #1 well from the Middle Morrow to the Bone Spring formation. In the Laguna Deep #4 well, we added perforations to the Lower and Middle Morrow Sands. No wells were drilled in 1998. Production for 1998 is summarized below:

WELL NAME	PRODUCING INTERVAL	GAS MCF	CONDENSATE BBL	OIL BBL
Laguna Deep #1	Bone Spring	2496	0	1059
Laguna Deep #2	Middle Morrow	68937	576	0
Laguna Deep #3	Middle Morrow	45048	207	0
Laguna Deep #4	Lower/Middle Morrow	89514	2848	0

PLAN OF DEVELOPMENT FOR 1999

Laguna Deep #2: We are considering recompleting the Laguna Deep #2 well to other Middle Morrow Sands. Laguna Deep #3: We have reperfored existing zones and added new perforations within the Middle Morrow interval for the Laguna Deep #3 well. According to our log analysis and offset comparison, we believe the Laguna Deep #3 well has recompletion potential in the Bone Spring formation. In the event the well becomes uneconomic in the Morrow formation, we anticipate attempting a recompletion to the Bone Spring formation. No development drilling is planned for 1999.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 1st day of April, 1999.

Sincerely,

MATADOR OPERATING COMPANY



R. F. Burke, Vice President

WA

**1999 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO**

TO: New Mexico Oil Conservation Division  
Energy & Minerals Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
Attention: Lori Wrotenbery, Director

Pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No.14-08-0001-16905), Matador Operating Company, as Unit Operator for the Laguna Deep Unit Area, respectfully submits for approval this 1999 Plan of Development for the Laguna Deep Unit Area for the period ending December 31, 1999.

SUMMARY OF 1998 OPERATIONS

Matador recompleted the Laguna Deep #1 well from the Middle Morrow to the Bone Spring formation. In the Laguna Deep #4 well, we added perforations to the Lower and Middle Morrow Sands. No wells were drilled in 1998. Production for 1998 is summarized below:

WELL NAME	PRODUCING INTERVAL	GAS MCF	CONDENSATE BBL	OIL BBL
Laguna Deep #1	Bone Spring	2496	0	1059
Laguna Deep #2	Middle Morrow	68937	576	0
Laguna Deep #3	Middle Morrow	45048	207	0
Laguna Deep #4	Lower/Middle Morrow	89514	2848	0

PLAN OF DEVELOPMENT FOR 1999

Laguna Deep #2: We are considering recompleting the Laguna Deep #2 well to other Middle Morrow Sands. Laguna Deep #3: We have reperforated existing zones and added new perforations within the Middle Morrow interval for the Laguna Deep #3 well. According to our log analysis and offset comparison, we believe the Laguna Deep #3 well has recompletion potential in the Bone Spring formation. In the event the well becomes uneconomic in the Morrow formation, we anticipate attempting a recompletion to the Bone Spring formation. No development drilling is planned for 1999.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 1st day of April, 1999.

Sincerely,

MATADOR OPERATING COMPANY

  
R. F. Burke, Vice President

MA



#6182

COMMERCIAL RESOURCES  
(505)-827-5724

SURFACE RESOURCES  
(505)-827-5793

MINERAL RESOURCES  
(505)-827-5744

ROYALTY  
(505)-827-5772

State of New Mexico  
Commissioner of Public Lands  
Ray Powell, M.S., D.V.M.  
310 Old Santa Fe Trail, P. O. Box 1148  
Santa Fe, New Mexico 87504-1148  
Phone (505)-827-5760, Fax (505)-827-5766

PUBLIC AFFAIRS  
(505)-827-5765

ADMINISTRATIVE MGMT.  
(505)-827-5700

LEGAL  
(505)-827-5715

PLANNING  
(505)-827-5752

January 13, 1999

Matador Petroleum Corporation  
Suite 158, Pecan Creek  
8340 Meadow Road  
Dallas, Texas 75231-3751

Attention: Ms. Mona D. Ables

Re: 1998 Plan of Development  
Laguna Deep Unit Area  
Lea County, New Mexico

Dear Ms. Ables:

Your 1998 Plan of Development for the above-captioned unit has been received and reviewed by this office. The Commissioner of Public Lands has this date approved your 1998 plan of development for the Laguna Deep Unit Area. Our approval is subject to like approval by all other appropriate agencies.

A review of Article 3. Unitized Land and Unitized Substances, of the Laguna Deep Unit, refers to the "unitized land" or "land subject to this agreement" as: All oil and gas in and produced from the hereinabove specified lands committed to this agreement as to all formations at all depths lying beneath the top of the Seven Rivers formation.

Please be advised that we will not approve your next (1999) plan of development for this unit, unless the following concerns are addressed:

- We have reviewed several offsets and are aware of the potential that lies in the Bone Spring interval surrounding the unit area. You are requested to address the further development of the Bone Spring zone for this unit in your 1999 plan of development.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M.  
COMMISSIONER OF PUBLIC LANDS

BY:  
JAMI BAILEY, Director  
Oil, Gas and Minerals Division  
(505) 827-5744  
RP/JB/pm

xc: Reader File      CD-Attention: ~~Mr. David Catanach~~, Ben Stone  
BLM-Roswell Attention: Mr. Armando Lopez

"WE WORK FOR EDUCATION"



COMMERCIAL RESOURCES  
(505)-827-5724

SURFACE RESOURCES  
(505)-827-5795

MINERAL RESOURCES  
(505)-827-5744

ROYALTY  
(505)-827-5772

State of New Mexico  
Commissioner of Public Lands

Ray Powell, M.S., D.V.M.  
310 Old Santa Fe Trail, P. O. Box 1148  
Santa Fe, New Mexico 87504-1148  
Phone (505)-827-5760, Fax (505)-827-5766

PUBLIC AFFAIRS  
(505)-827-5765

ADMINISTRATIVE MGMT.  
(505)-827-5700

LEGAL  
(505)-827-5715

PLANNING  
(505)-827-5752

June 8, 1998

Matador Petroleum Corporation  
8340 Meadow Road  
Suite 158, Pecan Creek  
Dallas, Texas 75231-3751

Attn: Ms. Mona D. Ables

Re: Resignation/Designation of Successor Unit Operator  
Laguna Deep Unit  
Lea County, New Mexico

Dear Ms. Ables:

We are in receipt of your resignation/designation of successor unit operator, wherein Union Oil Company of California has resigned as unit operator of the Laguna Deep Unit and designated Matador Petroleum Corporation as the successor unit operator.

The Commissioner of Public Lands has this date approved the resignation of Union Oil Company of California and the designation of Matador Petroleum Corporation as the successor unit operator of this unit.

This change in operators is effective January 21, 1998. In accordance with this approval, Matador Petroleum Corporation is now responsible for all operations and the reporting of all production from the unit. This approval is subject to like approval by the Bureau of Land Management.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M.  
COMMISSIONER OF PUBLIC LANDS

BY: *Jami Bailey*  
JAMI BAILEY, Director  
Oil, Gas and Minerals Division  
(505) 827-5744

RP/JB/cpm

pc: Reader File

OCD-Roy Johnson

TRD

BLM

UNOCAL

"WE WORK FOR EDUCATION"



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

6182

April 28, 1998

Mona D. Ables  
Matador Petroleum Corporation  
Suite 158, Pecan Creek  
8340 Meadow Road  
Dallas, TX 75231-3751

RE: 1998 Plan of Development  
Laguna Deep Unit Area  
Lea County, New Mexico  
Laguna Prospect

Gentlemen:

The New Mexico Oil Conservation Division is in receipt of your above referenced application which has been approved on this date. Our approval is subject to like approval by the New Mexico State Land Office and the Bureau of Land Management where applicable.

Should you have any questions pertaining to this matter, please contact me at (505) 827-8198.

Sincerely,

Roy E. Johnson  
Senior Petroleum Geologist

REJ:kv

cc: NMSLO  
Bureau of Land Management - Roswell  
Unit File

**MATADOR PETROLEUM CORPORATION**

SUITE 158, PECAN CREEK  
8340 MEADOW ROAD  
DALLAS, TEXAS 75231-3751  
(214) 987-3650  
FAX: (214) 691-1415

APR 15 1998

April 13, 1998

1998 Plan of Development  
Laguna Deep Unit Area  
Lea County, New Mexico  
Laguna Prospect

Oil Conservation Division  
Energy & Minerals Division  
2040 South Pacheco  
Santa Fe, NM 87505  
Attention: Lori Wrotenbury

Gentlemen:

Enclosed for your approval, please find two (2) copies of Matador Operating Company's 1998 Plan of Development for the Laguna Deep Unit Area.

If you need any additional information, please feel free to call.

Sincerely,

*Mona D. Ables*

Mona D. Ables  
(214) 987-7129

**1998 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO**

TO: Oil Conservation Division  
Energy & Minerals Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505  
Attention: Mrs. Lori Wrotenbury, Director

Pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No.14-08-0001-16905), Matador Operating Company, as Unit Operator for the Laguna Deep Unit Area, respectfully submits for approval this 1998 Plan of Development for the Laguna Deep Unit Area for the period ending December 31, 1998.

SUMMARY OF 1997 OPERATIONS

No wells were drilled or recompleted in 1997. Production for 1997 is summarized below:

WELL NAME	PRODUCING INTERVAL	GAS MMCF	CONDENSATE BBL
Laguna Deep #1	Middle Morrow	.362	0
Laguna Deep #2	Middle Morrow	67.309	1016
Laguna Deep #3	Middle Morrow	114.963	423
Laguna Deep #4	Lower/Middle Morrow	69.276	879

PLAN OF DEVELOPMENT FOR 1998

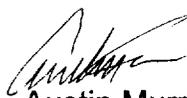
Pending results of evaluation of the uphole potential, we may propose a recompletion attempt for the Laguna Deep #1 well. Additionally, we are evaluating the potential to drill one (1) well to the base of the Morrow formation.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 9<sup>th</sup> day of April, 1998.

Sincerely,

MATADOR OPERATING COMPANY

  
Austin Murr  
Land Manager

**1998 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO**

TO: Oil Conservation Division  
Energy & Minerals Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505  
Attention: Mrs. Lori Wrotenbury, Director

Pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No.14-08-0001-16905), Matador Operating Company, as Unit Operator for the Laguna Deep Unit Area, respectfully submits for approval this 1998 Plan of Development for the Laguna Deep Unit Area for the period ending December 31, 1998.

**SUMMARY OF 1997 OPERATIONS**

No wells were drilled or recompleted in 1997. Production for 1997 is summarized below:

WELL NAME	PRODUCING INTERVAL	GAS MMCF	CONDENSATE BBL
Laguna Deep #1	Middle Morrow	.362	0
Laguna Deep #2	Middle Morrow	67.309	1016
Laguna Deep #3	Middle Morrow	114.963	423
Laguna Deep #4	Lower/Middle Morrow	69.276	879

**PLAN OF DEVELOPMENT FOR 1998**

Pending results of evaluation of the uphole potential, we may propose a recompletion attempt for the Laguna Deep #1 well. Additionally, we are evaluating the potential to drill one (1) well to the base of the Morrow formation.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 9<sup>th</sup> day of April, 1998.

Sincerely,

MATADOR OPERATING COMPANY

  
Austin Murr  
Land Manager

6182



COMMERCIAL RESOURCES  
(505)-827-5724

SURFACE RESOURCES  
(505)-827-5793

MINERAL RESOURCES  
(505)-827-5744

ROYALTY  
(505)-827-5772

State of New Mexico  
Commissioner of Public Lands  
Ray Powell, M.S., D.V.M.  
310 Old Santa Fe Trail, P. O. Box 1148  
Santa Fe, New Mexico 87504-1148  
Phone (505)-827-5760, Fax (505)-827-5766

PUBLIC AFFAIRS  
(505)-827-5765

ADMINISTRATIVE MGMT.  
(505)-827-5700

LEGAL  
(505)-827-5713

PLANNING  
(505)-827-5752

April 8, 1997

Spirit Energy 76  
P.O. Box 3100  
Midland, Texas 79702

Attn: Ms. Linda H. Hicks

Re: 1997 Plan of Development  
Laguna Deep Unit  
Lea County, New Mexico

Dear Ms. Hicks:

The Commissioner of Public Lands has, of this date, approved the above-captioned Plan of Development. Our approval is subject to like approval by all other appropriate agencies.

The possibility of drainage by wells outside of the unit area and the need for further development of the unit may exist. You may be contacted at a later date regarding these possibilities.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M.  
COMMISSIONER OF PUBLIC LANDS

BY:

JAMI BAILEY, Director  
Oil, Gas and Minerals Division  
(505) 827-5744

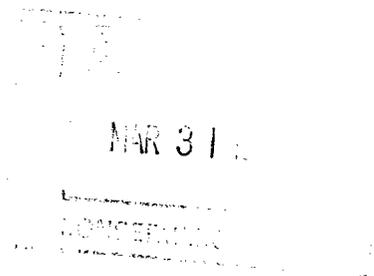
RP/JB/cpm  
cc: Reader File

OCD

BLM



New Name. Same Spirit.  
A Business Unit of Unocal



March 28, 1997

Oil Conservation Division  
Energy & Minerals Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505  
Attn: Mr. William J. LeMay, Director

1997 Plan of Development  
Laguna Deep Unit Area  
Lea County, New Mexico  
Laguna Prospect (7729)

Gentlemen:

Please find enclosed for your approval two (2) copies of Union's 1997 Plan of Development for the Laguna Deep Unit.

Should you have any questions, please let me know.

Sincerely yours,

UNION OIL COMPANY OF CALIFORNIA  
dba Spirit Energy 76

A handwritten signature in cursive script that reads "Linda H. Hicks".

Linda H. Hicks  
Land Advisor/Contracts

LHH/s  
Enclosures

**1997 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO**

TO: Oil Conservation Division  
Energy & Minerals Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505  
Attn: Mr. William J. LeMay, Director

Union Oil Company of California as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-16905), respectfully submits for approval this 1997 Plan of Development for the Laguna Deep Unit Area for the period ending December 31, 1997.

**SUMMARY OF 1996 OPERATIONS**

Added additional perforations in Middle Morrow and stimulated the Laguna Deep Unit #1 well. Also acidized and ran a velocity string in the well. Production for 1996 is summarized below:

<u>WELL NO.</u>	<u>1996 PRODUCTION COMPLETED INTERVAL</u>	<u>MMCF + BC</u>
Laguna Deep #1	Middle Morrow	.257 + 0
Laguna Deep #2	Middle Morrow	63.831 + 1441
Laguna Deep #3	Middle Morrow	122.827 + 618
Laguna Deep #4	Lower/Middle Morrow	73.950 + 1704

**PLAN OF DEVELOPMENT FOR 1997**

It is planned to evaluate and test the Laguna Deep #1 well for uphole potential.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 28th day of March, 1997.

Sincerely,  
UNION OIL COMPANY OF CALIFORNIA



Linda H. Hicks  
Land Advisor/Contracts

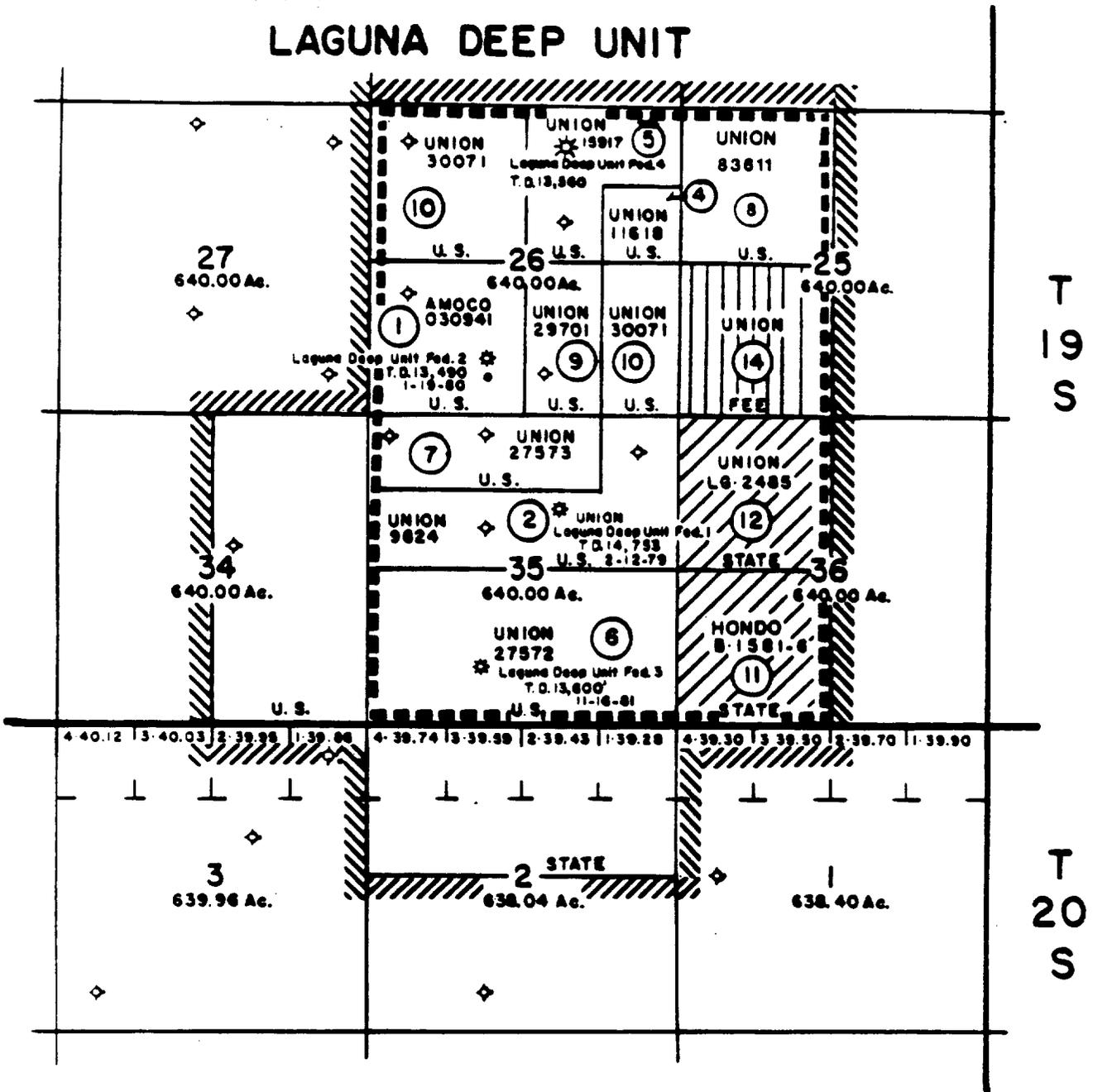
LHH/s

**LAGUNA DEEP UNIT  
2 YEAR PRODUCTION HISTORY  
UNION OIL COMPANY OF CALIFORNIA**

WELL: PROD FORM: STATUS:	LAGUNA DEEP FEDERAL #1 Middle Morrow Producing Gas Well				LAGUNA DEEP FEDERAL #2 Middle Morrow Producing Gas Well				LAGUNA DEEP FEDERAL #3 Middle Morrow Producing Gas Well				LAGUNA DEEP FEDERAL #4 Lower and Middle Morrow Producing Gas Well			
	OIL VOL PROD bbls	GAS VOL PROD Mscf	WAT VOL PROD bbls		OIL VOL PROD bbls	GAS VOL PROD Mscf	WAT VOL PROD bbls		OIL VOL PROD bbls	GAS VOL PROD Mscf	WAT VOL PROD bbls		OIL VOL PROD bbls	GAS VOL PROD Mscf	WAT VOL PROD bbls	
Jan-95	4	2431	0		108	3157	586		99	11488	15		233	6586	1439	
Feb-95	3	1534	0		71	3100	530		68	9599	14		268	7366	1243	
Mar-95	0	5	0		91	2470	690		82	9810	29		266	7956	1513	
Apr-95	14	3786	10		73	2463	452		270	10015	18		238	7246	1268	
May-95	2	1880	0		69	3663	609		70	9444	6		131	7939	1320	
Jun-95	0	0	0		102	4519	782		72	8884	14		201	8019	1729	
Jul-95	0	254	0		102	5162	943		0	9488	3		94	8002	1781	
Aug-95	1	560	0		74	4425	826		90	9414	87		67	7606	1647	
Sep-95	1	332	0		83	5180	859		29	8630	7		46	7505	1728	
Oct-95	4	38	0		61	5605	883		27	8872	9		20	7151	1590	
Nov-95	0	128	0		38	5490	821		42	8937	15		212	7613	1731	
Dec-95	0	94	0		36	5616	840		152	9082	14		128	4454	1158	
<b>ANNUAL</b>	<b>29</b>	<b>11042</b>	<b>10</b>		<b>908</b>	<b>50850</b>	<b>8821</b>		<b>1001</b>	<b>113663</b>	<b>231</b>		<b>1904</b>	<b>87443</b>	<b>18147</b>	
Jan-96	0	50	0		205	5861	924		131	10823	26		164	5658	1390	
Feb-96	0	28	0		97	4828	81		106	9729	20		192	5559	1487	
Mar-96	0	34	0		139	5037	683		99	10300	27		172	6415	1638	
Apr-96	0	69	2		129	5031	542		33	9999	17		186	5819	1407	
May-96	0	22	0		143	5183	1089		24	10264	13		124	6896	1025	
Jun-96	0	0	0		93	5234	979		15	9487	5		148	6077	1098	
Jul-96	0	0	0		97	5312	1000		58	10787	21		144	6344	1154	
Aug-96	0	0	0		146	4993	965		41	10919	23		101	6911	1157	
Sep-96	0	51	0		58	5541	737		3	10737	9		98	6332	1177	
Oct-96	0	0	0		77	5718	615		42	10547	8		198	5345	1088	
Nov-96	0	0	0		144	5726	920		35	9097	11		105	5473	1131	
Dec-96	0	3	0		113	5367	936		31	10138	11		72	7121	1243	
<b>ANNUAL</b>	<b>0</b>	<b>257</b>	<b>2</b>		<b>1441</b>	<b>63831</b>	<b>9471</b>		<b>618</b>	<b>122827</b>	<b>191</b>		<b>1704</b>	<b>73950</b>	<b>14995</b>	

R 33 E

LAGUNA DEEP UNIT



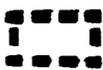
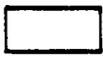
	ORIGINAL UNIT BOUNDARY		
	REVISED UNIT BOUNDARY & PARTICIPATING AREA		
	FEDERAL	1440.00 Ac.	75.00000 %
	STATE	320.00 Ac.	16.66667 %
	FEE	160.00 Ac.	8.33333 %
		<u>1920.00 Ac.</u>	<u>100.00000 %</u>

EXHIBIT "A" - (REVISED)

LAGUNA DEEP UNIT

(AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)

LEA COUNTY, NEW MEXICO



① TRACT NUMBER - EXHIBIT "B"

**Unocal Corporation**  
Oil and Gas Operations  
1004 North Big Spring, Suite 300  
P.O. Box 3100  
Midland, Texas 79702  
Telephone (915) 685-7600

6182



March 28, 1996

Central U.S. Business Unit

*D-unit letter  
Tux 7/4*

Oil Conservation Division  
Energy & Minerals Division  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088  
Attn: Mr. William J. LeMay, Director

1996 Plan of Development  
Laguna Deep Unit Area  
Lea County, New Mexico  
Laguna Prospect (7729)

Gentlemen:

Please find enclosed for your approval two (2) copies of Union's 1996 Plan of Development for the Laguna Deep Unit.

Should you have any questions, please let me know.

Sincerely yours,

UNION OIL COMPANY OF CALIFORNIA

Linda H. Hicks  
Land Advisor/Contracts

LHH/s  
Enclosures

1996 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO

TO: Oil Conservation Division  
Energy & Minerals Division  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088  
Attn: Mr. William J. LeMay, Director

Union Oil Company of California as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-16905), respectfully submits for approval this 1996 Plan of Development for the Laguna Deep Unit Area for the period ending December 31, 1996.

SUMMARY OF 1995 OPERATIONS

No new wells or recompletions in 1995. Production for 1995 is summarized below:

<u>WELL NO.</u>	<u>1995 PRODUCTION COMPLETED INTERVAL</u>	<u>MMCF + BC</u>
Laguna Deep #1	Middle Morrow	11.042 + 29
Laguna Deep #2	Middle Morrow	50.850 + 908
Laguna Deep #3	Middle Morrow	113.663 + 1,001
Laguna Deep #4	Lower/Middle Morrow	87.443 + 1,904

PLAN OF DEVELOPMENT FOR 1996

A stimulation of the Laguna Deep Unit #1 is planned for 1996.

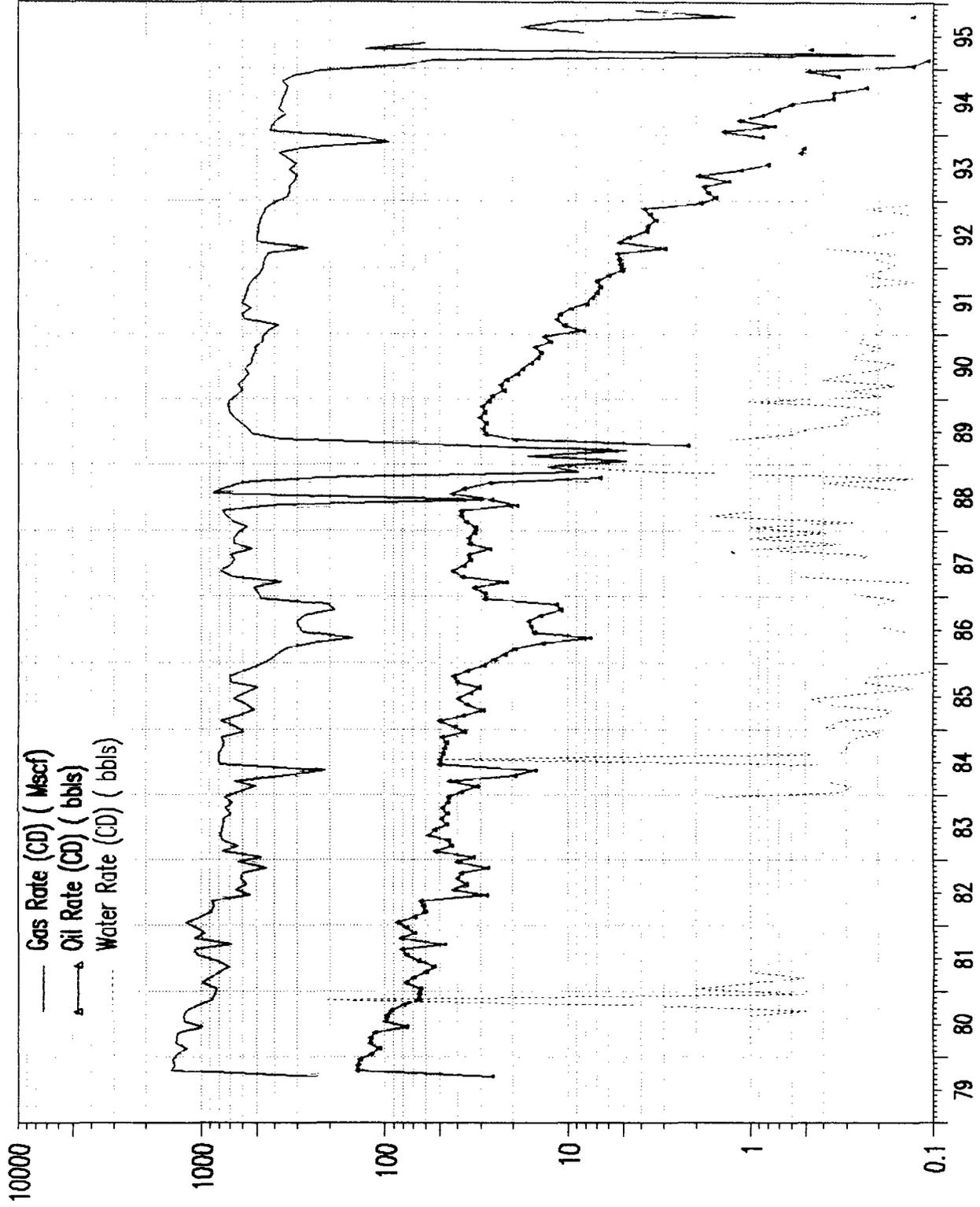
This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 28th day of March, 1996.

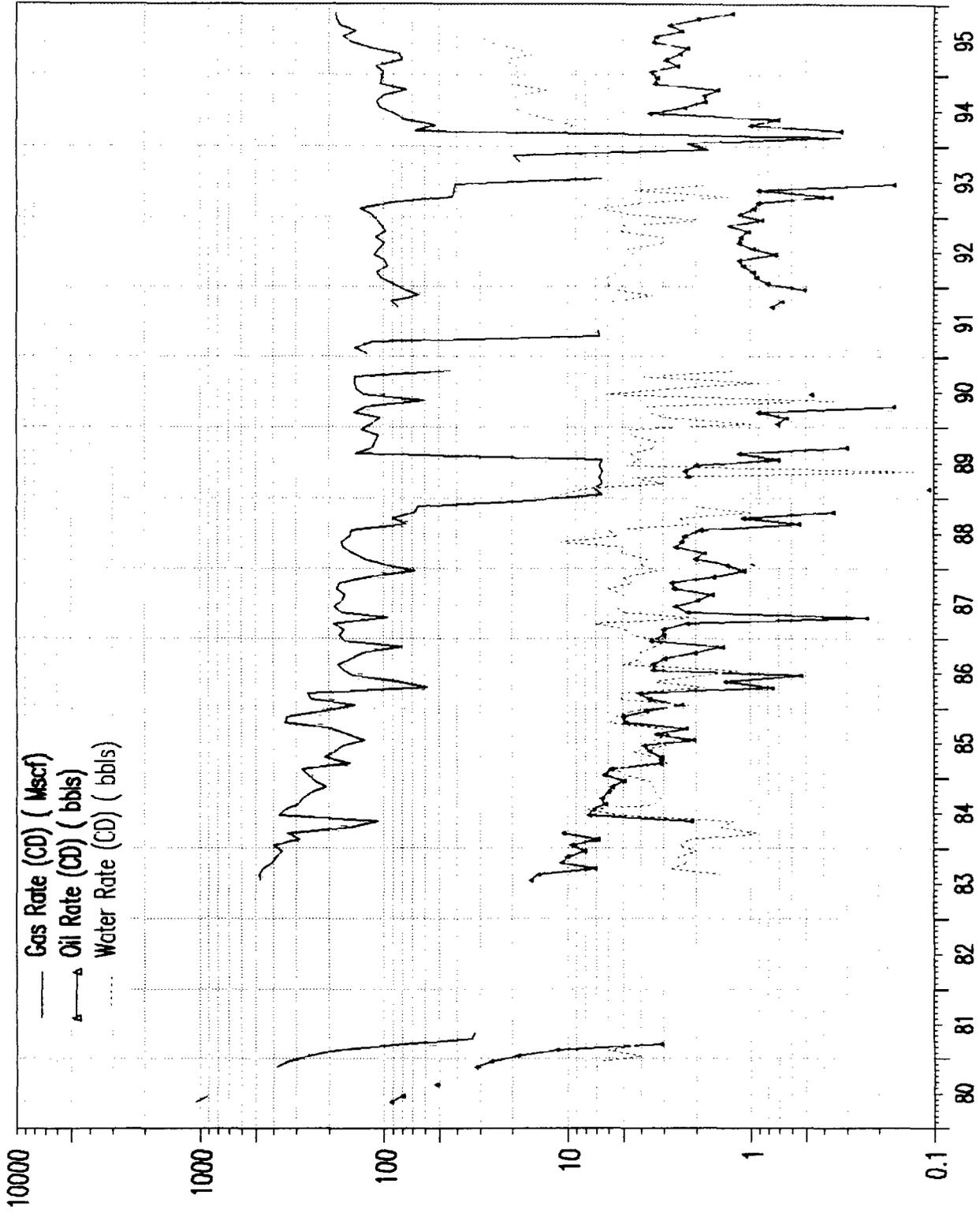
Sincerely,  
UNION OIL COMPANY OF CALIFORNIA  
  
Linda H. Hicks  
Land Advisor/Contracts

LHH/s

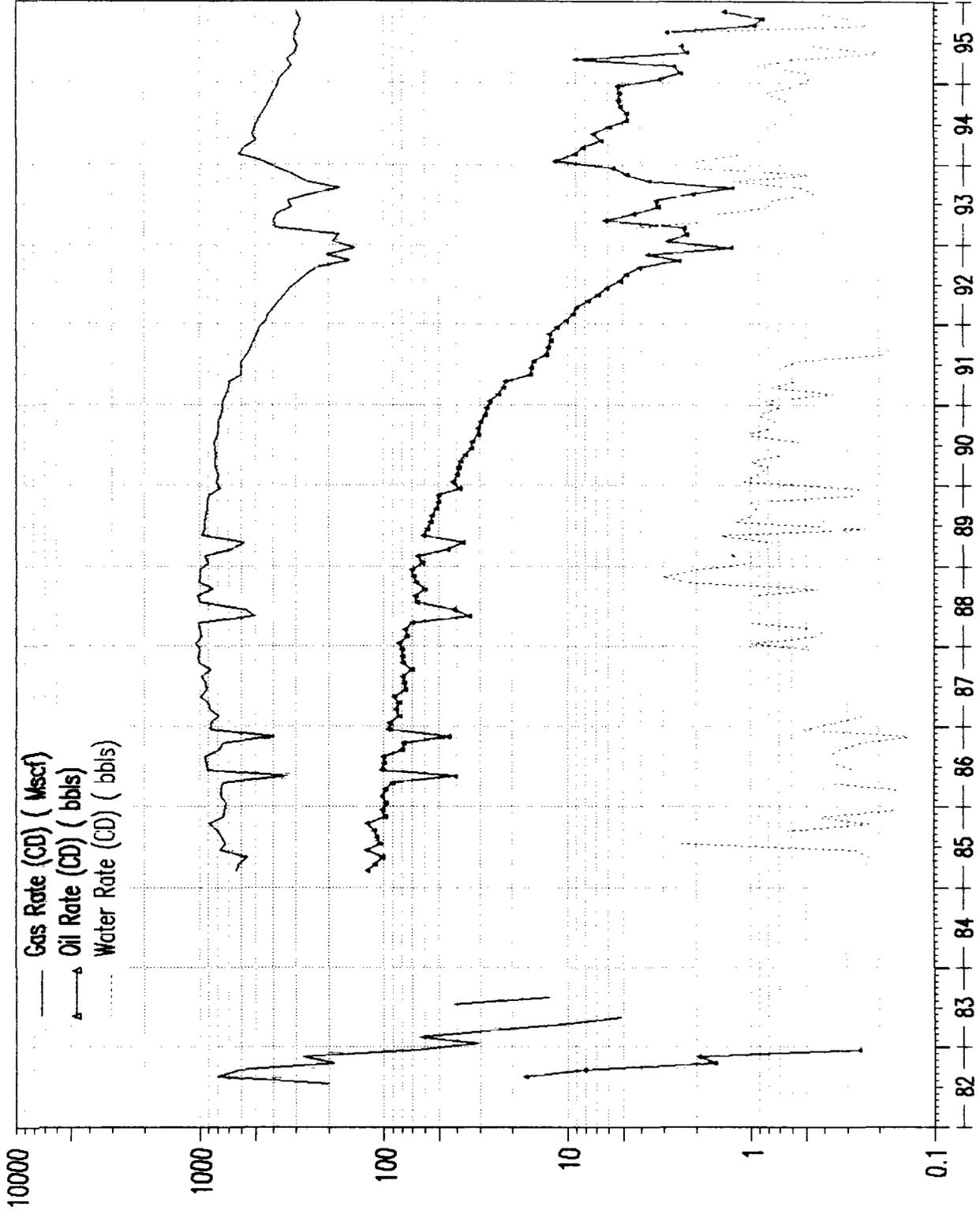
FIELD : GEM MORROW EAST  
LEASE : LAGUNA DEEP FEDERAL #1



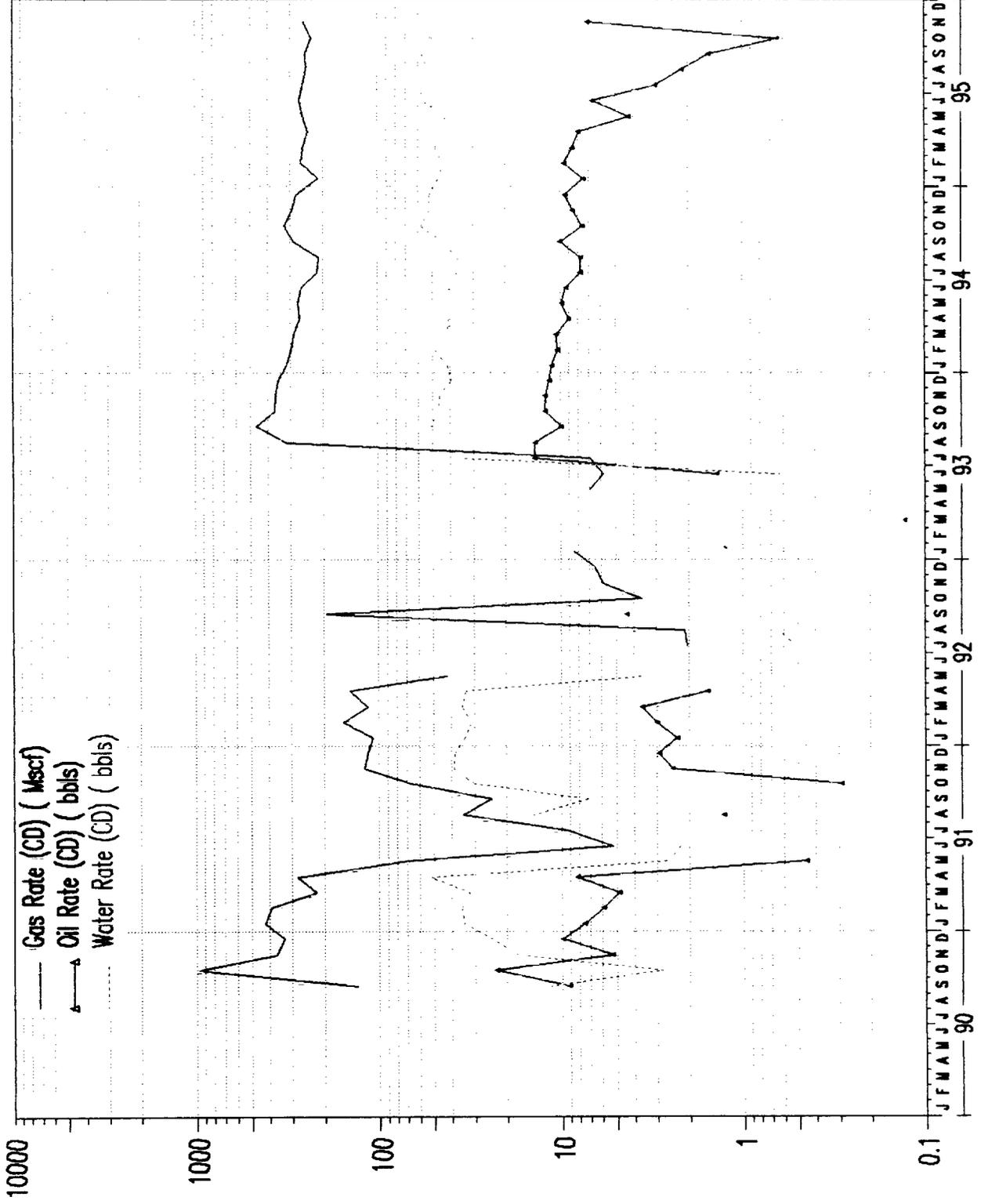
FIELD : GEM MORROW EAST  
LEASE : LAGUNA DEEP FEDERAL #2



FIELD : GEM MORROW EAST  
LEASE : LAGUNA DEEP FEDERAL #3



FIELD : GEM MORROW EAST  
LEASE : LAGUNA DEEP FEDERAL #4







State of New Mexico  
Commissioner of Public Lands

RAY POWELL, M.S., D.V.M.  
COMMISSIONER

310 OLD SANTA FE TRAIL P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

(505) 827-5760  
FAX (505) 827-5766

April 3, 1996

UNOCAL  
Post Office Box 3100  
Midland, Texas 79702

Attn: Ms. Linda H. Hicks

Re: 1996 Plan of Development  
Laguna Deep Unit Unit  
Lea County, New Mexico

Dear Ms. Hicks:

The Commissioner of Public Lands has this date approved the above-captioned Plan of Development. Our approval is subject to like approval by all other appropriate agencies.

The possibility of drainage by wells outside of the Unit Area and the need for further development of the unit may exist. You may be contacted at a later date regarding these possibilities.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M.  
COMMISSIONER OF PUBLIC LANDS

BY:   
LARRY KEHOE, Director  
Oil, Gas and Minerals Division  
(505) 827-5744

RP/LK/cpm

cc: Reader File

Commissioner's File

OCD

TRD

BLM

OK  
4-3-95

**1995 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO**

TO: Oil Conservation Division  
Energy & Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 88201-2088

Attn: Mr. William J. LeMay, Director  
Oil & Gas Division

Union Oil Company of California as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-8496), respectfully submits for approval this 1995 Plan of Development for the Laguna Deep Unit Area. This Plan is for the period ending December 31, 1995.

SUMMARY OF 1994 OPERATIONS

Completed workover in Morrow formation in Laguna Deep Unit #2.

Production for 1994 is summarized below.

<u>WELL NO.</u>	<u>COMPLETED INTERVAL</u>	<u>MMCF + BC</u>
Laguna Deep #1	Middle Morrow	129.535 + 221
Laguna Deep #2	Middle Morrow	27.171 + 599
Laguna Deep #3	Middle Morrow	173.893 + 2411
Laguna Deep #4	Lower/Middle Morrow	101.000 + 3388

PLAN OF DEVELOPMENT FOR 1995

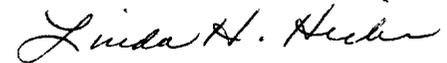
Union has no plans to drill any new wells, but does plan to recomplete Laguna Deep #2 well to Bone Springs formation.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 24th day of March, 1995.

Sincerely,

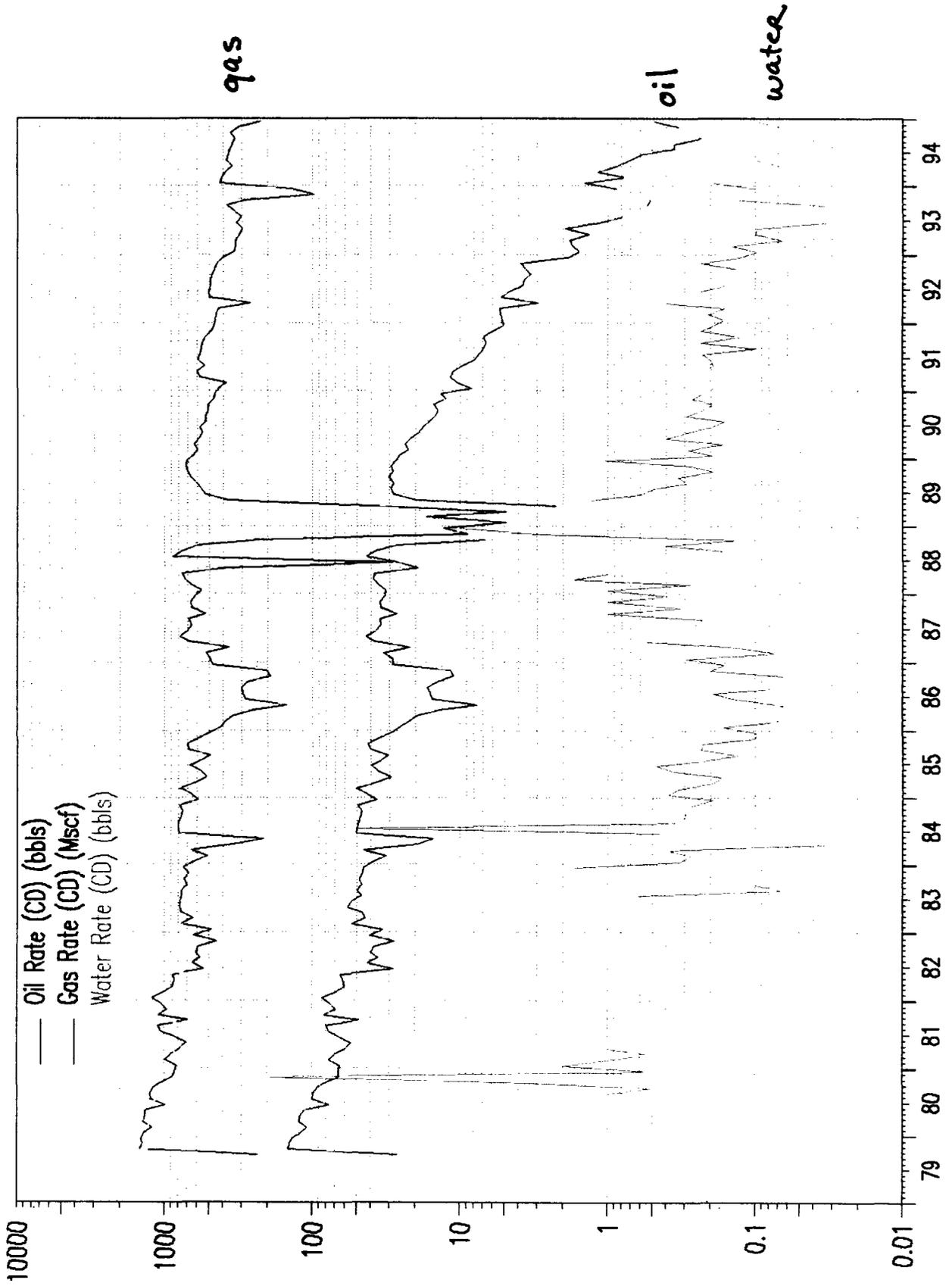
UNION OIL COMPANY OF CALIFORNIA



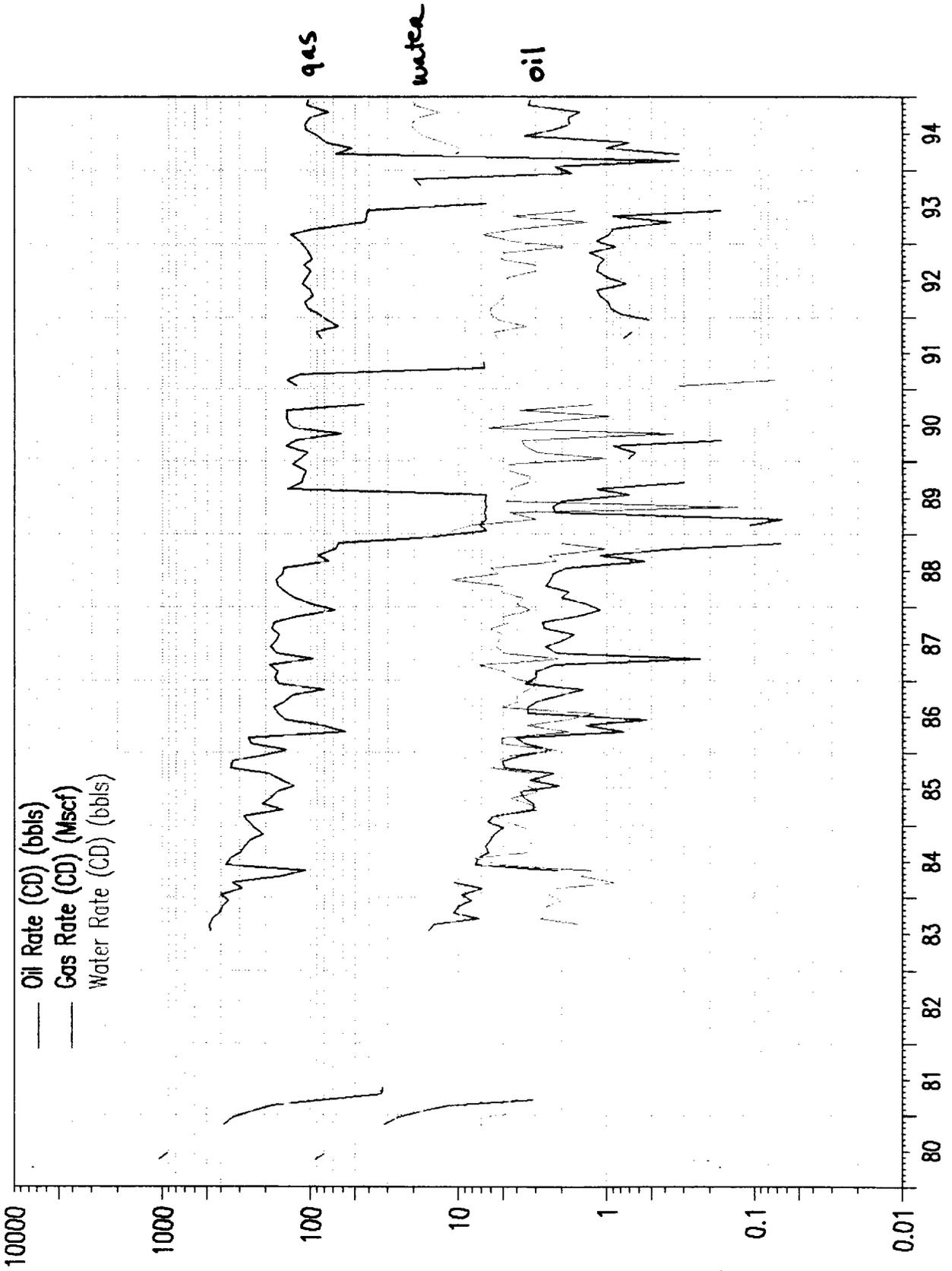
Linda H. Hicks  
Land Advisor/Contracts

LHH/jb  
HICKS/PDLAGUNA

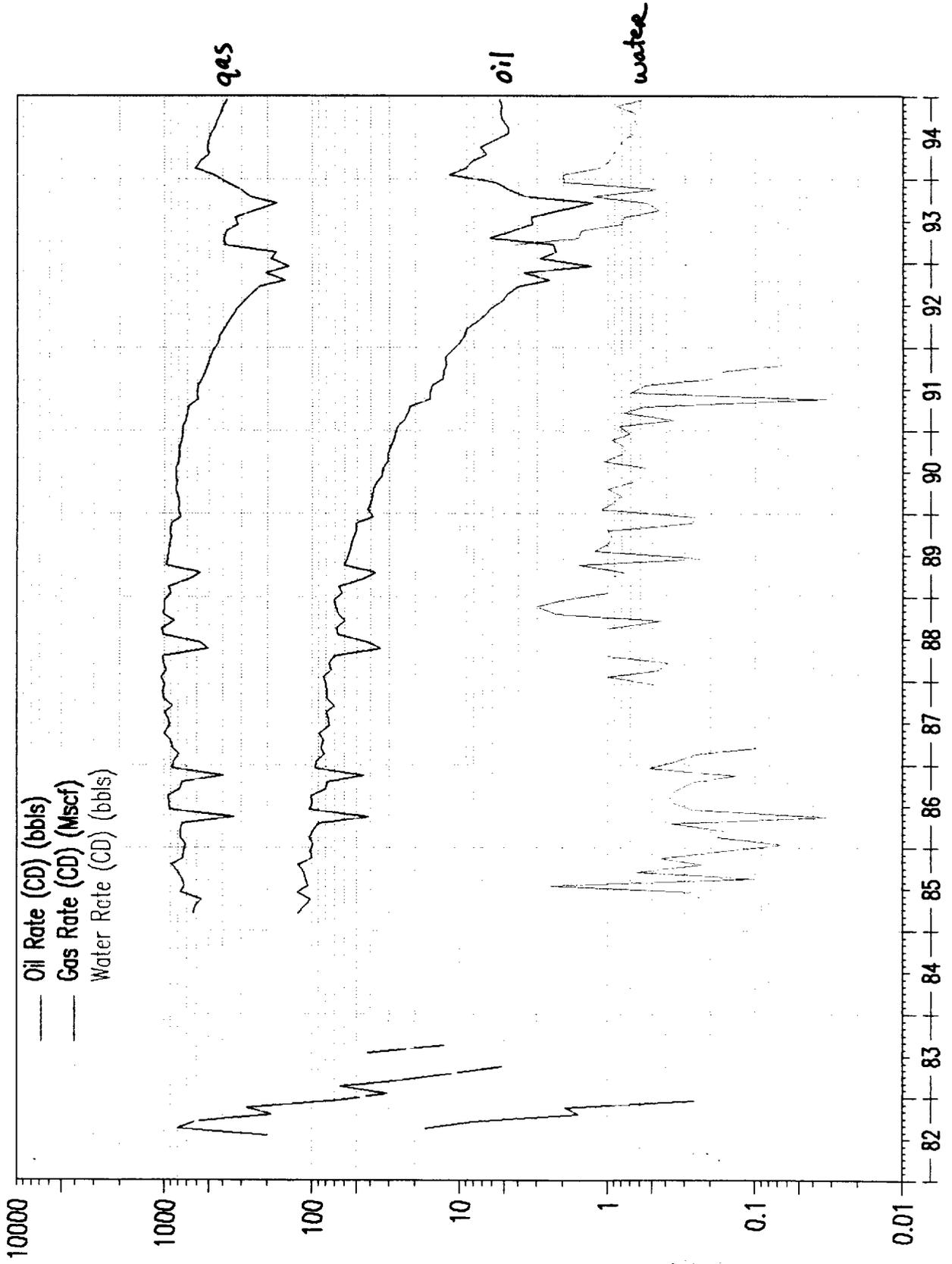
FIELD : GEM MORROW EAST  
LEASE : LAGUNA DEEP FEDERAL #1



FIELD : GEM MORROW EAST  
LEASE : LAGUNA DEEP FEDERAL #2



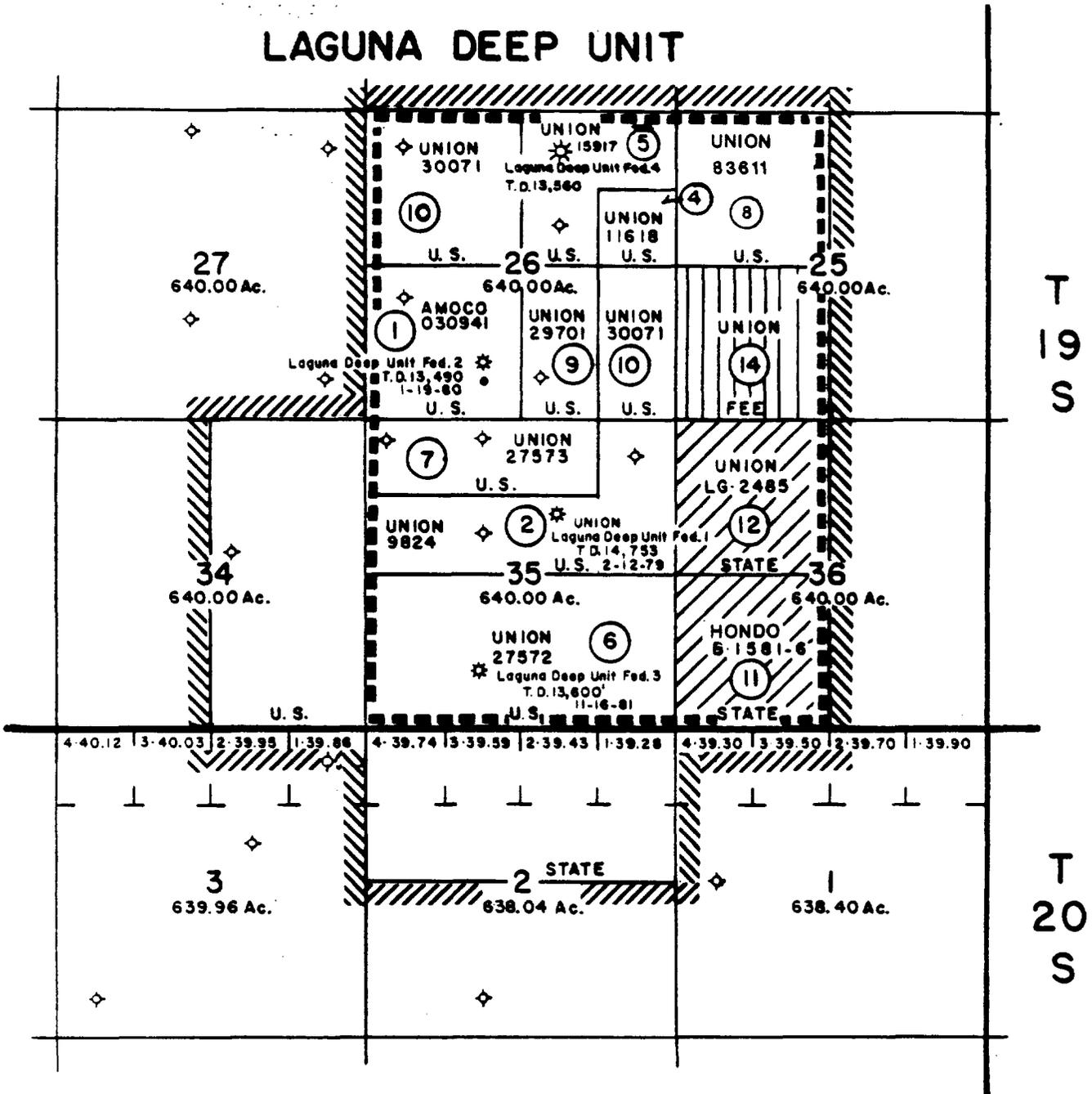
FIELD : GEM MORROW EAST  
LEASE : LAGUNA DEEP FEDERAL #3





R 33 E

LAGUNA DEEP UNIT



T 19 S

T 20 S

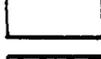
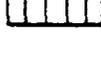
	ORIGINAL UNIT BOUNDARY		
	REVISED UNIT BOUNDARY & PARTICIPATING AREA		
	FEDERAL	1440.00 Ac.	75.00000 %
	STATE	320.00 Ac.	16.66667 %
	FEE	160.00 Ac.	8.33333 %
		<u>1920.00 Ac.</u>	<u>100.00000 %</u>

EXHIBIT "A"-(REVISED)

LAGUNA DEEP UNIT

(AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)

LEA COUNTY, NEW MEXICO



① TRACT NUMBER- EXHIBIT "B"

**Unocal Energy Resources Division**

Unocal Corporation  
1004 North Big Spring, Suite 300  
P.O. Box 3100  
Midland, Texas 79702  
Telephone (915) 685-7600

# 6182



Permian Basin Business Unit

March 31, 1994

MAR 1 1994

Oil Conservation Division  
Energy & Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Attn: Mr. William J. LeMay, Director

1994 Plan of Development  
Laguna Deep Unit Area  
Lea County, New Mexico  
Laguna Deep Prospect (7729)

Gentlemen:

Please find enclosed for your approval two (2) copies of Union's 1994 Plan of Development for the Laguna Deep Unit.

Should you have any questions, please let me know.

Sincerely,

UNION OIL COMPANY OF CALIFORNIA  
dba UNOCAL

A handwritten signature in cursive script that reads "Linda H. Hicks".

Linda H. Hicks  
Land Advisor/Contracts

LHH/jb  
Enclosures

1994 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO

TO: Oil Conservation Division  
Energy & Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 88201-2088

MAR 31 1994

Attn: Mr. William J. LeMay, Director  
Oil & Gas Division

Union Oil Company of California as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-8496), respectfully submits for approval this 1994 Plan of Development for the Laguna Deep Unit Area. This Plan is for the period ending December 31, 1994.

SUMMARY OF 1993 OPERATIONS

Laguna Deep Unit #4 well was perforated in additional Middle Morrow pay.

Production for 1993 is summarized below.

<u>WELL NO.</u>	<u>COMPLETED INTERVAL</u>	<u>MMCF + BC</u>
Laguna Deep #1	Middle Morrow	105.636 + 370
Laguna Deep #2	Middle Morrow	15.440 + 135
Laguna Deep #3	Middle Morrow	108.363 + 1278
Laguna Deep #4	Lower/Middle Morrow	57.863 + 2301

PLAN OF DEVELOPMENT FOR 1994

Union has no plans to drill any new wells, but does plan to perforate additional pay in the Middle Morrow in #2 well.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 31st day of March, 1994.

Sincerely,

UNION OIL COMPANY OF CALIFORNIA



Linda H. Hicks  
Land Advisor/Contracts

DWIGHTS ENERGYDATA, INC.  
 GAS WELL HISTORY  
 NEW MEXICO GAS SOUTHEAST

RUN DATE: 02/04/94  
 Published 1/94  
 (#250,025,19S33E35G00PM )

OPERATOR (#748982)	WELL NAME	WELL #
UNION OIL CO OF CAL	LAGUNA DEEP FEDERAL	000001

LOCATION	STATE	DIST	COUNTY (#025)	LEASE #
35G 19S 33E	NM	002	LEA	59850

API #	FIELD (#8030435)	RESERVOIR
30-025-2588600	GEM EAST (MORROW) PM	MORROW

TOTAL DEPTH	UPPER PERF	LOWER PERF	GAS GATH	LIQ GATH	GAS GRAV	LIQ GRAV	TEMP GRAD	N-FACTOR
14753	13365	13369	LLANO	CONTL	0.67	58.0	0.969	0.926

COMP DATE	1ST PROD DATE	LAST PROD DATE	STATUS DATE	STATUS
7902	7909	9308		ACT

CUM THRU LPD GAS/MCF	GAS CUM SINCE DATE	CUM THRU LPD COND/BBLs	COND CUM SINCE DATE
3180219	FPDAT	183112	FPDAT

\*\*\* MONTHLY PRODUCTION HISTORY \*\*\*

MONTH	GAS MCF	CUM GAS MCF	COND BBLs	CUM COND BBLs	WATER BBLs	DAYS ON
JAN	19893	2563316	803	172577	6	31
FEB	16737	2580053	628	173205	8	28
MAR	19470	2599523	727	173932	5	31
APR	17629	2617152	650	174582	12	30
MAY	17221	2634373	587	175169	9	29
JUN	17273	2651646	534	175703	6	30
JUL	16448	2668094	497	176200	5	31
AUG	16495	2684589	457	176657	9	31
SEP	15312	2699901	421	177078	7	30
OCT	15847	2715748	470	177548	6	31
NOV	13958	2729706	376	177924	8	30
DEC	14343	2744049	419	178343	7	31
1990	200626	2744049	6569	178343	88	
JAN	13318	2757367	258	178601	6	31
FEB	10646	2768013	293	178894	5	28
MAR	18016	2786029	359	179253	0	31
APR	17938	2803967	330	179583	6	30
MAY	16624	2820591	299	179882	6	31
JUN	17842	2838433	237	180119	6	30
JUL	17908	2856341	230	180349	7	31
AUG	17577	2873918	215	180564	3	31
SEP	16731	2890649	199	180763	7	30
OCT	16466	2907115	215	180978	4	31
NOV	14602	2921717	179	181157	7	30
DEC	14476	2936193	157	181314	6	31
1991	192144	2936193	2971	181314	63	
JAN	14181	2950374	161	181475	5	31
FEB	13097	2963471	153	181628	6	29
MAR	13509	2976980	167	181795	5	31
APR	7943	2984923	89	181884	12	16
MAY	15446	3000369	163	182047	0	31
JUN	15016	3015385	139	182186	7	30
JUL	15146	3030531	116	182302	5	24
AUG	15139	3045670	114	182416	0	31
SEP	14394	3060064	100	182516	0	30
OCT	14335	3074399	111	182627	4	31
NOV	13347	3087746	116	182743	7	30
DEC	12538	3100284	58	182801	4	31
1992	164091	3100284	1487	182801	55	
JAN	10555	3110839	48	182849	3	31
FEB	9251	3120090	48	182897	4	28
MAR	10235	3130325	56	182953	2	31
APR	9340	3139665	40	182993	3	30
MAY	10881	3150546	60	183053	3	31
JUN	9878	3160424	34	183087	1	29
JUL	9424	3169848	25	183112	1	31
AUG	10371	3180219	0	183112	0	31
1993	79935	3180219	311	183112	17	



\*\*\* MONTHLY PRODUCTION HISTORY \*\*\*

MONTH	GAS MCF	CUM GAS MCF	COND BBLs	CUM COND BBLs	WATER BBLs	DAYS ON
JAN	3616	553147	22	17794	31	31
FEB	2951	556098	18	17812	81	28
MAR	4532	560630	28	17840	111	31
APR	3740	564370	5	17845	111	30
MAY	1909	566279	0	17845	11	11
JUN	3876	570155	14	17859	187	30
JUL	4413	574568	0	17859	88	31
AUG	4468	579036	0	17859	28	31
SEP	4334	583370	0	17859	116	30
OCT	1341	584711	1	17860	38	13
NOV	0	584711	0	17860	0	0
DEC	0	584711	0	17860	0	0
1990	35180	584711	88	17860	802	
JAN	3828	588539	0	17860	10	31
FEB	4023	592562	0	17860	2	28
MAR	3578	596140	0	17860	0	29
APR	200	596340	0	17860	22	5
MAY	210	596550	0	17860	0	2
JUN	0	596550	0	17860	0	0
JUL	0	596550	0	17860	0	0
AUG	0	596550	0	17860	0	0
SEP	2534	599084	23	17883	163	25
OCT	2823	601907	21	17904	178	31
NOV	1940	603847	0	17904	103	30
DEC	2386	606233	16	17920	169	31
1991	21522	606233	60	17920	647	
JAN	2735	608968	25	17945	187	31
FEB	3005	611973	27	17972	176	29
MAR	3380	615353	30	18002	164	31
APR	2866	618219	33	18035	148	30
MAY	3093	621312	36	18071	143	31
JUN	3378	624690	22	18093	131	30
JUL	3279	627969	30	18123	147	31
AUG	3075	631044	36	18159	93	31
SEP	3300	634344	34	18193	90	30
OCT	3022	637366	32	18225	160	31
NOV	3083	640449	39	18264	148	30
DEC	3372	643821	27	18291	58	31
1992	37588	643821	371	18291	1645	
JAN	3620	647441	36	18327	134	-
FEB	3771	651212	27	18354	191	28
MAR	2851	654063	28	18382	122	31
APR	1274	655337	11	18393	40	14
MAY	1877	657214	28	18421	133	24
JUN	1235	658449	5	18426	48	19
JUL	200	658649	0	18426	0	-
1993	14828	658649	135	18426	668	

DWIGHTS ENERGYDATA, INC.  
 GAS WELL HISTORY  
 NEW MEXICO GAS SOUTHEAST

RUN DATE: 02/04/94  
 Published 1/94  
 (#250,025,19S33E35N00PM )

OPERATOR (#748982)	WELL NAME	WELL #
UNION OIL CO OF CAL	LAGUNA DEEP FEDERAL	000003

LOCATION	STATE	DIST	COUNTY (#025)	LEASE #
35N 19S 33E	NM	002	LEA	90935

API #	FIELD (#8030435)	RESERVOIR
30-025-2715200	GEM EAST (MORROW) PM	MORROW

TOTAL DEPTH	UPPER PERF	LOWER PERF	GAS GATH	LIQ GATH	GAS GRAV	LIQ GRAV	TEMP GRAD	N-FACTOR
13600	12499	13502	LLANO		0.65	51.5	0.969	0.680

COMP DATE	1ST PROD DATE	LAST PROD DATE	STATUS DATE	STATUS
8112	8207	9308		ACT

CUM THRU LPD GAS/MCF	GAS CUM SINCE DATE	CUM THRU LPD COND/BBLs	COND CUM SINCE DATE
2252218	FPDAT	160792	FPDAT

\*\*\* MONTHLY PRODUCTION HISTORY \*\*\*

MONTH	GAS MCF	CUM GAS MCF	COND BBLs	CUM COND BBLs	WATER BBLs	DAYS ON
JAN	25023	1582361	1303	140531	34	31
FEB	22238	1604599	1115	141646	26	28
MAR	25333	1629932	1216	142862	25	31
APR	24904	1654836	1151	144013	30	30
MAY	25445	1680281	1120	145133	21	31
JUN	24894	1705175	1002	146135	0	30
JUL	25824	1730999	1025	147160	17	31
AUG	24901	1755900	955	148115	33	31
SEP	23920	1779820	921	149036	24	30
OCT	24491	1804311	920	149956	23	31
NOV	22974	1827285	847	150803	28	30
DEC	23418	1850703	853	151656	22	31
1990	293365	1850703	12428	151656	283	
JAN	23254	1873957	818	152474	26	31
FEB	20147	1894104	668	153142	10	28
MAR	21599	1915703	696	153838	24	31
APR	20813	1936516	656	154494	17	30
MAY	18440	1954956	493	154987	1	31
JUN	17960	1972916	476	155463	21	30
JUL	18444	1991360	475	155938	17	31
AUG	17290	2008650	404	156342	6	3
SEP	15910	2024560	385	156727	5	30
OCT	15826	2040386	381	157108	2	31
NOV	14708	2055094	375	157483	2	30
DEC	14648	2069742	352	157835	0	31
1991	219039	2069742	6179	157835	131	
JAN	13442	2083184	314	158149	0	29
FEB	12366	2095550	272	158421	0	29
MAR	12318	2107868	278	158699	0	31
APR	11196	2119064	232	158931	6	30
MAY	10683	2129747	210	159141	0	31
JUN	9669	2139416	184	159325	0	30
JUL	8916	2148332	161	159486	0	31
AUG	8096	2156428	148	159634	0	31
SEP	6921	2163349	122	159756	0	30
OCT	4735	2168084	77	159833	0	23
NOV	6128	2174212	110	159943	0	24
DEC	4440	2178652	40	159983	0	31
1992	108910	2178652	2148	159983	6	
JAN	5856	2184508	88	160071	0	31
FEB	4915	2189423	63	160134	0	27
MAR	12049	2201472	72	160206	131	31
APR	11831	2213303	187	160393	47	30
MAY	11478	2224781	135	160528	47	31
JUN	9547	2234328	97	160625	24	29
JUL	10309	2244637	102	160727	24	31
AUG	7581	2252218	65	160792	14	29
1993	73566	2252218	809	160792	287	

DWIGHTS ENERGYDATA, INC.  
 GAS WELL HISTORY  
 NEW MEXICO GAS SOUTHEAST

RUN DATE: 02/04/94  
 Published 1/94  
 (#250,025,19S33E26B00PM )

OPERATOR (#748982)	WELL NAME	WELL #
UNION OIL CO OF CAL	LAGUNA DEEP FEDERAL	000004

LOCATION	STATE	DIST	COUNTY (#025)	LEASE #
26B 19S 33E	NM	002	LEA	93965

API #	FIELD (#8030435)	RESERVOIR
30-025-3069500	GEM EAST (MORROW) PM	MORROW

TOTAL DEPTH	UPPER PERF	LOWER PERF	GAS GATH	LIQ GATH	GAS GRAV	LIQ GRAV	TEMP GRAD	N-FACTOR
			GNM	KOCHO			0.969	

COMP DATE	1ST PROD DATE	LAST PROD DATE	STATUS DATE	STATUS
	9009	9308		ACT

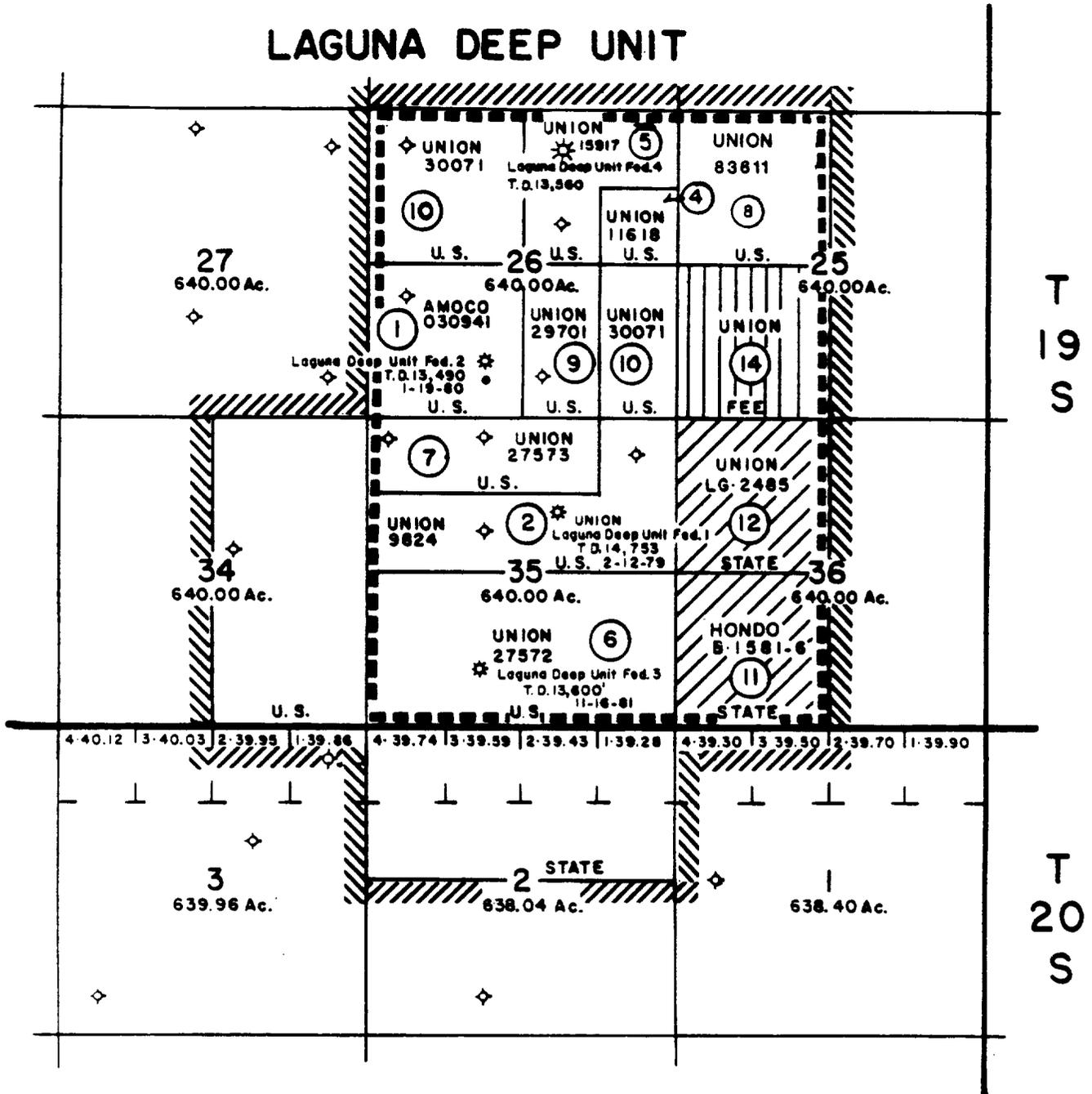
CUM THRU LPD GAS/MCF	GAS CUM SINCE DATE	CUM THRU LPD COND/BBLS	COND CUM SINCE DATE
137301	FPDAT	3701	FPDAT

\*\*\* MONTHLY PRODUCTION HISTORY \*\*\*

MONTH	GAS MCF	CUM GAS MCF	COND BBLs	CUM COND BBLs	WATER BBLs	DAYS ON
SEP	3949	3949	273	273	348	-
OCT	30493	34442	710	983	87	31
NOV	10975	45417	158	1141	523	30
DEC	10222	55639	307	1448	754	28
1990	55639	55639	1448	1448	1712	
JAN	13035	68674	234	1682	1066	28
FEB	10973	79647	166	1848	987	28
MAR	6889	86536	151	1999	998	31
APR	8366	94902	247	2246	1562	30
MAY	2167	97069	14	2260	80	4
JUN	158	97227	0	2260	67	1
JUL	290	97517	0	2260	0	2
AUG	1071	98588	40	2300	443	11
SEP	730	99318	0	2300	214	11
OCT	2080	101398	9	2309	939	23
NOV	3626	105024	74	2383	1170	30
DEC	3570	108594	91	2474	1190	31
1991	52955	108594	1026	2474	8716	
JAN	3341	111935	72	2546	1055	30
FEB	4525	116460	87	2633	905	29
MAR	3585	120045	112	2745	1086	31
APR	4301	124346	47	2792	1010	30
MAY	1318	125664	0	2792	110	6
JUN	0	125664	0	2792	0	0
JUL	63	125727	0	2792	16	2
AUG	65	125792	0	2792	20	2
SEP	64	125856	5	2797	0	2
OCT	113	125969	0	2797	0	31
NOV	177	126146	0	2797	2	2
DEC	201	126347	0	2797	0	2
1992	17753	126347	323	2797	4204	
JAN	263	126610	0	2797	0	-
FEB	2	126612	0	2797	5	2
MAR	0	126612	4	2801	0	6
APR	206	126818	0	2801	0	-
MAY	215	127033	0	2801	0	2
JUN	175	127208	42	2843	19	4
JUL	215	127423	430	3273	1053	31
AUG	9878	137301	428	3701	0	31
1993	10954	137301	904	3701	1077	

R 33 E

LAGUNA DEEP UNIT



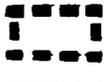
	ORIGINAL UNIT BOUNDARY
	REVISED UNIT BOUNDARY & PARTICIPATING AREA
	FEDERAL 1440.00 Ac. 75.00000 %
	STATE 320.00 Ac. 16.66667 %
	FEE 160.00 Ac. 8.33333 %
	<u>1920.00 Ac. 100.00000 %</u>

EXHIBIT "A" - (REVISED)

LAGUNA DEEP UNIT

(AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)

LEA COUNTY, NEW MEXICO



① TRACT NUMBER-EXHIBIT "B"

REVISED EXHIBIT "B" - LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

TRACT NO.	DESCRIPTION OF LAND	NUMBER OF ACRES	SERIAL NO. & EXPIRATION DATE OF LEASE	BASIC ROYALTY AND OWNERSHIP PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY AND PERCENTAGE	WORKING INTEREST AND PERCENTAGE
	<u>FEDERAL LAND</u>						
1	SEC. 26: SW/4	160.00	NM-030941 HBP	U.S.A. (12.50%)	AMOCO PRODUCTION COMPANY	VIRGINIA WILLIS HESS, PERSONAL REPRESENTATIVE OF THE ESTATE OF EUGENIA W. BATE, DEC'D 1 1/2% OF 8/8 R. M. HESS & VIRGINIA W. HESS, TRUSTEES UNDER AGREEMENT DATED 4/10/72 1% OF 8/8 ELIZABETH W. CHRISTENSEN AND HUSBAND, DON T. CHRISTENSEN 1/2% OF 8/8 WINIFRED T. SEATON 1/2% OF 8/8 JO ANN W. LIGHT & HUSBAND ROBERT S. LIGHT 1/2% OF 8/8	AMOCO PRODUCTION COMPANY - 100%
2	SEC. 35: NE/4 NE/4, S/2 N/2	200.00	NM-9824 7/31/79	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	W. FEICK, JR. & WIFE, JOAN W. FEICK \$750/ACRE PPI OUT OF 5%	UNION OIL COMPANY OF CALIFORNIA - 100%
3	SEC. 26: SE/4 NE/4	40.00	NM-11618 4/30/90	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	CALVIN A. MITCHELL & WIFE, EVELYN MITCHELL 4% LEO POLLACK 1/4% M. A. SCHOFMAN	UNION OIL COMPANY OF CALIFORNIA - 100%
5	SEC. 26: N/2 NE/4, SW/4 NE/4	120.00	NM-15917 6/30/82	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	GWEN P. TAYLOR & HUSBAND, CHARLES G. TAYLOR, AND CARL A. NILSEN & WIFE, GEORGEANNE NILSEN 5%	UNION OIL COMPANY OF CALIFORNIA - 100%

REVISED EXHIBIT "B" - LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

SECTION OF	NUMBER OF ACRES	SERIAL NO. & EXPIRATION DATE OF LEASE	BASIC ROYALTY AND OWNERSHIP PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY AND PERCENTAGE	WORKING INTEREST AND PERCENTAGE
S/2	320.00	NM-27572 5/31/83	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	BAKERSFIELD INVESTMENT TRUST, LUCILLE MILSON, TRUSTEE 2 1/2% BANK OF AMERICA, NT&SA, AS TRUSTEE OF THE CHARLES E. STRANGE 1976 TRUST #1 1 1/2% OF 8/8 C. E. STRANGE & WIFE, SHERRIE R. STRANGE 1% OF 8/8	UNION OIL COMPANY OF CALIFORNIA - 100%
NW/4 NE/4, N/2 NW/4	120.00	NM-27573 11/30/78	U.S.A. (SCHEDULE "B")	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
NW/4	160.00	NM-83611 3/31/95	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
N/2 SE/4	80.00	NM-29701 2/28/82	U.S.A. (SCHEDULE "B")	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
NW/4, E/2 SE/4	240.00	NM-30071 4/30/87	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	CAROL L. TEIGEN & THEODORE H. TEIGEN, JR. 5%	UNION OIL COMPANY OF CALIFORNIA - 100%

FEDERAL TRACTS 1440.00 ACRES OR 75.00000% OF UNIT AREA.

Q STATE LAND

SW/4	160.00	B-1581-6 HBP	STATE OF NEW MEXICO (12.50%)	HONDO OIL & GAS COMPANY	NONE	HONDO OIL & GAS COMPANY
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REVISED EXHIBIT "B" - LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

TRACT NO.	DESCRIPTION OF LAND	NUMBER OF ACRES	SERIAL NO. & EXPIRATION DATE OF LEASE	BASIC ROYALTY AND OWNERSHIP PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY AND PERCENTAGE	WORKING INTEREST AND PERCENTAGE
12	SEC. 36: NW/4	160.00	LG-2485 1/1/85	STATE OF NEW MEXICO (12.50%)	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%

2 STATE TRACTS 320.00 ACRES OR 16.66667% OF UNIT AREA.

PATENTED LAND

14	SEC. 25: SW/4	160.00	12/20/77* 12/20/80*	MARK SMITH & WIFE, ANNIE LORA SMITH; KENNETH MARK SMITH & WIFE, PATSY LOU SMITH; WILLIAM C. SMITH & WIFE, NANCY JEAN SMITH; LORA NELL GLENN & HUSBAND, WILLIAM JEFF GLENN (18.75%)	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
----	---------------	--------	------------------------	---	------------------------------------	------	---

1 PATENTED TRACT 160.00 ACRES OR 8.33333% OF UNIT AREA.

TOTAL: 12 TRACTS 1920.00 ACRES IN ENTIRE UNIT AREA

\*LEASE HAS BEEN RENEWED BY OIL AND GAS LEASE DATED JUNE 4, 1977, RECORDED IN VOL. 304, PAGE 260 OF THE RECORDS OF LEA COUNTY, NEW MEXICO. PRIMARY TERM IS STATED AS BEING 3 YEARS FROM 12/20/77.

**Unocal North American  
Oil & Gas Division**  
Unocal Corporation  
1004 North Big Spring Street, Suite 300  
P.O. Box 3100  
Midland, Texas 79702  
Telephone (915) 684-8231

6182

OIL CONSERVATION DIVISION  
RECEIVED

'93 MAR 24 AM 9 13

**UNOCAL** 

Southwestern Region

March 23, 1993

Oil Conservation Division  
Energy & Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Attn: Mr. William J. LeMay, Director

1993 Plan of Development  
Laguna Deep Unit Area  
Lea County, New Mexico  
Laguna Deep Prospect (7729)

Gentlemen:

Please find enclosed for your approval two (2) copies of Union's 1993 Plan of Development for the Laguna Deep Unit.

Should you have any questions, please let me know.

Sincerely,

UNION OIL COMPANY OF CALIFORNIA  
dba UNOCAL



Linda H. Hicks  
Supervisor of Contracts

LHH/jb  
Enclosures

**1993 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO**

TO: Oil Conservation Division  
Energy & Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 88201-2088

Attn: Mr. William J. LeMay, Director  
Oil & Gas Division

Union Oil Company of California as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-8496), respectfully submits for approval this 1993 Plan of Development for the Laguna Deep Unit Area. This Plan is for the period ending December 31, 1993.

SUMMARY OF 1992 OPERATIONS

There were no new wells or recompletions in 1992.

Production for 1992 is summarized below.

<u>WELL NO.</u>	<u>COMPLETED INTERVAL</u>	<u>1992 PRODUCTION MCFPD + BC</u>	<u>CURRENT RATE MCFPD + BCPD</u>
Laguna Deep #1	Middle Morrow	164.091 + 1487	340 + 1.5
Laguna Deep #2	Middle Morrow	37.588 + 371	116 + 1
Laguna Deep #3	Middle Morrow	108.910 + 2148	189 + 2.8
Laguna Deep #4	Lower/Middle Morrow	17.753 + 323	8.5 + 0

PLAN OF DEVELOPMENT FOR 1993

Union has no plans to drill any new wells. Union does plan to recommend to working interest owners the uphole recompletion of the #3 and #4 wells.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 23rd day of March, 1993.

Sincerely,

UNION OIL COMPANY OF CALIFORNIA

*Linda H. Hicks*

Linda H. Hicks  
Supervisor of Contracts

**1993 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO**

TO: Oil Conservation Division  
Energy & Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 88201-2088

Attn: Mr. William J. LeMay, Director  
Oil & Gas Division

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Submitted this 23rd day of March, 1993.

Sincerely,

UNION OIL COMPANY OF CALIFORNIA

*Linda H. Hicks*

Linda H. Hicks  
Supervisor of Contracts

UNION OIL CO OF CAL

LAGUNA DEEP FEDERAL

WELL#4

State	Dist	County	Location
NM(30)	2	025 LEA	26B 19S 33E

API #	Field (#8030435 )	Reservoir
30-025-30695	GEM EAST (MORROW)	MORROW

Month	Oil bbls	Cum Oil bbls	Gas mcf	Cum Gas mcf	Water bbls	No. of Wells
January	72	2546	3341	111935	1055	1
February	87	2633	4525	116460	905	1
March	112	2745	3585	120045	1086	1
April	47	2792	4301	124346	1010	1
May	0	2792	1318	125664	110	1
June	0	2792	0	125664	0	1
July	0	2792	63	125727	16	1
August	0	2792	65	125792	20	1
September	5	2797	64	125856	0	1
October	0	2797	113	125969	0	1
November	0	2797	177	126146	2	1
Total 1992	323	2797	<del>17552</del> 17753	<del>126146</del> 126347	4204	1

UNION OIL CO OF CAL

LAGUNA DEEP FEDERAL

WELL#2

State	Dist	County	Location
NM(30)	2	025 LEA	26N 19S 33E

API #	Field (#8030435 )	Reservoir
30-025-26440	GEM EAST (MORROW)	MORROW

Month	Oil bbls	Cum Oil bbls	Gas mcf	Cum Gas mcf	Water bbls	No. of Wells
January	25	17945	2735	608968	187	1
February	27	17972	3005	611973	176	1
March	30	18002	3380	615353	164	1
April	33	18035	2866	618219	148	1
May	36	18071	3093	621312	143	1
June	22	18093	3378	624690	131	1
July	30	18123	3279	627969	147	1
August	36	18159	3075	631044	93	1
September	34	18193	3300	634344	90	1
October	32	18225	3022	637366	160	1
November	39	18264	3083	640449	148	1
December	27	18291	3372	640449	58	1
Total 1992	371	18291	<del>34216</del> 37588	<del>640449</del> 643821	1645	1

UNION OIL CO OF CAL

LAGUNA DEEP FEDERAL

WELL#1

State	Dist	County	Location
NM(30)	2	025 LEA	35G 19S 33E

API #	Field (#8030435 )	Reservoir
30-025-25886	GEM EAST (MORROW)	PM MORROW

Month	Oil bbls	Cum Oil bbls	Gas mcf	Cum Gas mcf	Water bbls	No. of Wells
January	161	181475	14181	2950374	5	1
February	153	181628	13097	2963471	6	1
March	167	181795	13509	2976980	5	1
April	89	181884	7943	2984923	12	1
May	163	182047	15446	3000369	0	1
June	139	182186	15016	3015385	7	1
July	116	182302	15146	3030531	5	1
August	114	182416	15139	3045670	0	1
September	100	182516	14394	3060064	0	1
October	111	182627	14335	3074399	4	1
November	116	182743	13347	3087746	7	1
December	58	182801	12538	3087746	4	1
Total 1992	1487	182801	<del>151553</del> 164091	<del>3087746</del> 3100284	55	1

UNION OIL CO OF CAL

LAGUNA DEEP FEDERAL

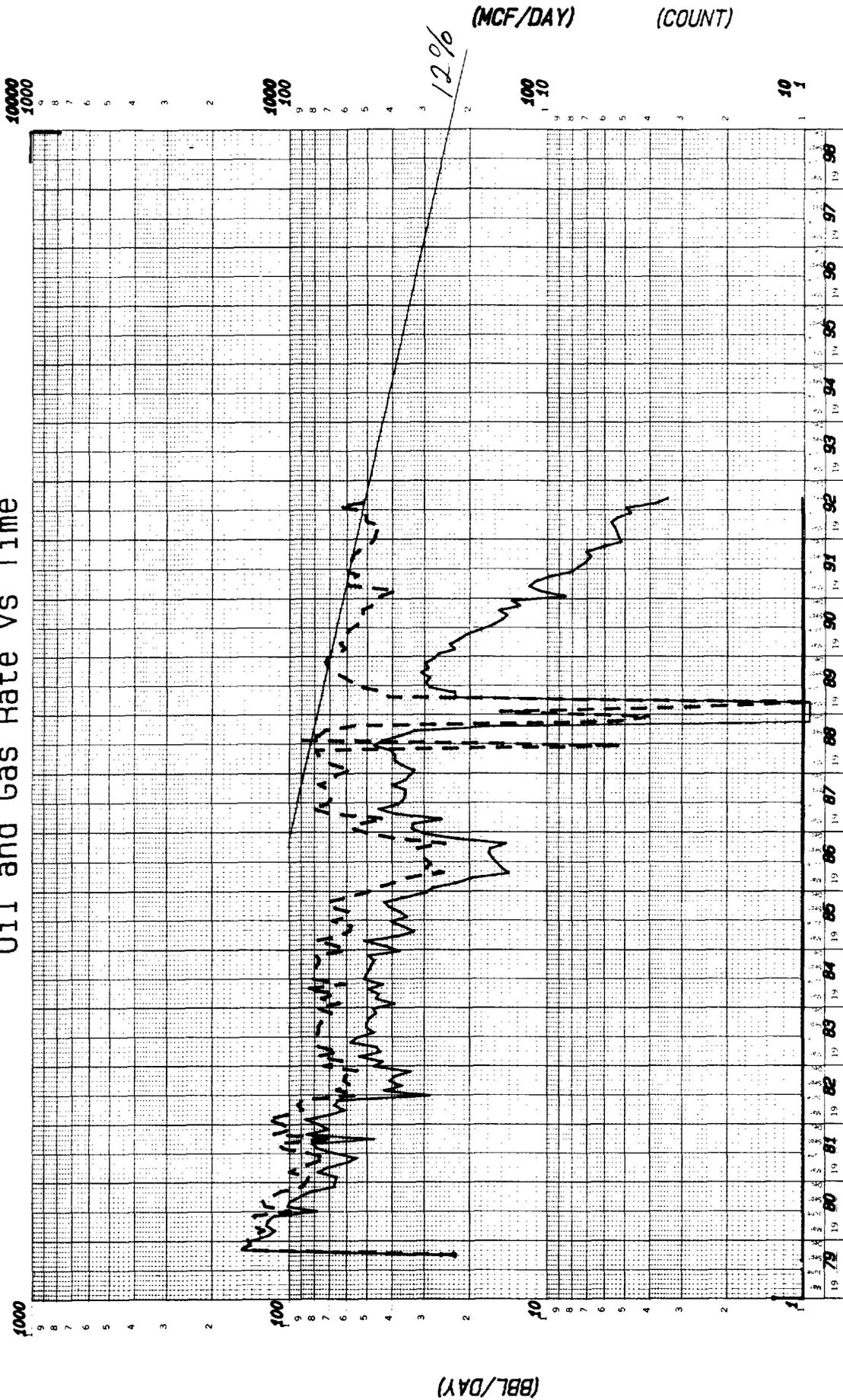
WELL#3

Ident. #	State	Dist	County	Location
19S33E35N00PM	NM(30)	2	025 LEA	35N 19S 33E

API #	Field (#8030435 )	Reservoir
30-025-27152	GEM EAST (MORROW)	MORROW

Month	Oil bbls	Cum Oil bbls	Gas mcf	Cum Gas mcf	Water bbls	No. of Wells
January	314	158149	13442	2083184	0	1
February	272	158421	12366	2095550	0	1
March	278	158699	12318	2107868	0	1
April	232	158931	11196	2119064	6	1
May	210	159141	10683	2129747	0	1
June	184	159325	9669	2139416	0	1
July	161	159486	8916	2148332	0	1
August	148	159634	8096	2156428	0	1
September	122	159756	6921	2163349	0	1
October	77	159833	4735	2168084	0	1
November	110	159943	6128	2174212	0	1
December	40	159983	4440 N/A	2174212	0	1
Total 1992	2148	159983	<del>104470</del> 108910	<del>2174212</del> 2178652	6	1

# Oil and Gas Rate vs Time



**UNOCAL** **76** **ANDREWS DISTRICT**

Lease: LAGUNA DEEP FEDERAL #1  
 Field: GEM EAST (MORROW)  
 County: LEA NM  
 Operator: UNION OIL CO OF CAL  
 Retrieval Code: 250, 025, 19S33E35G00PM

LEGEND	
WELLS	—
OIL	—
GAS	- - -

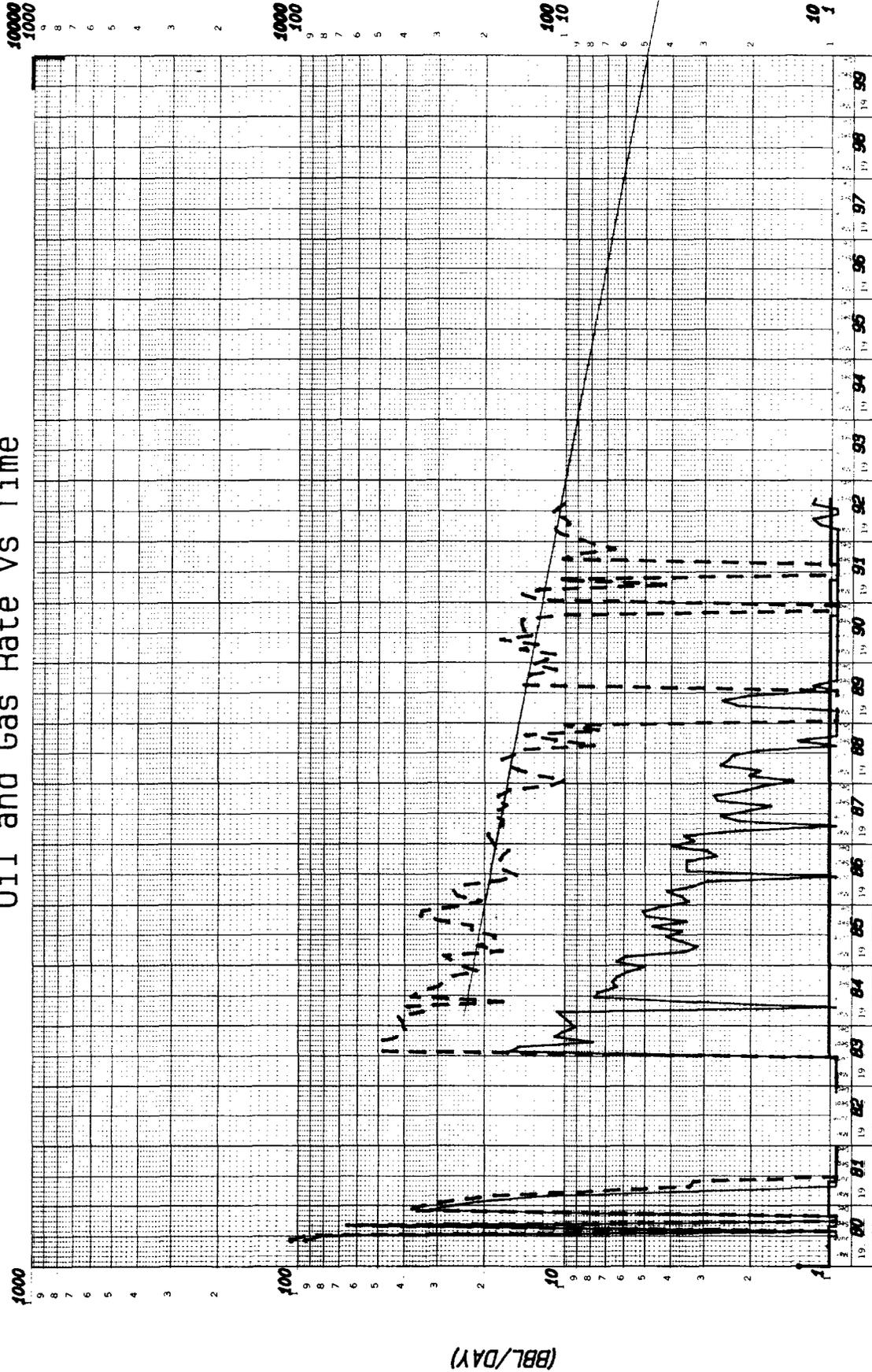
PH

Date: 01-22-93

Cumulative Bo : 182516

Cumulative Mcf: 3060064

# Oil and Gas Rate vs Time

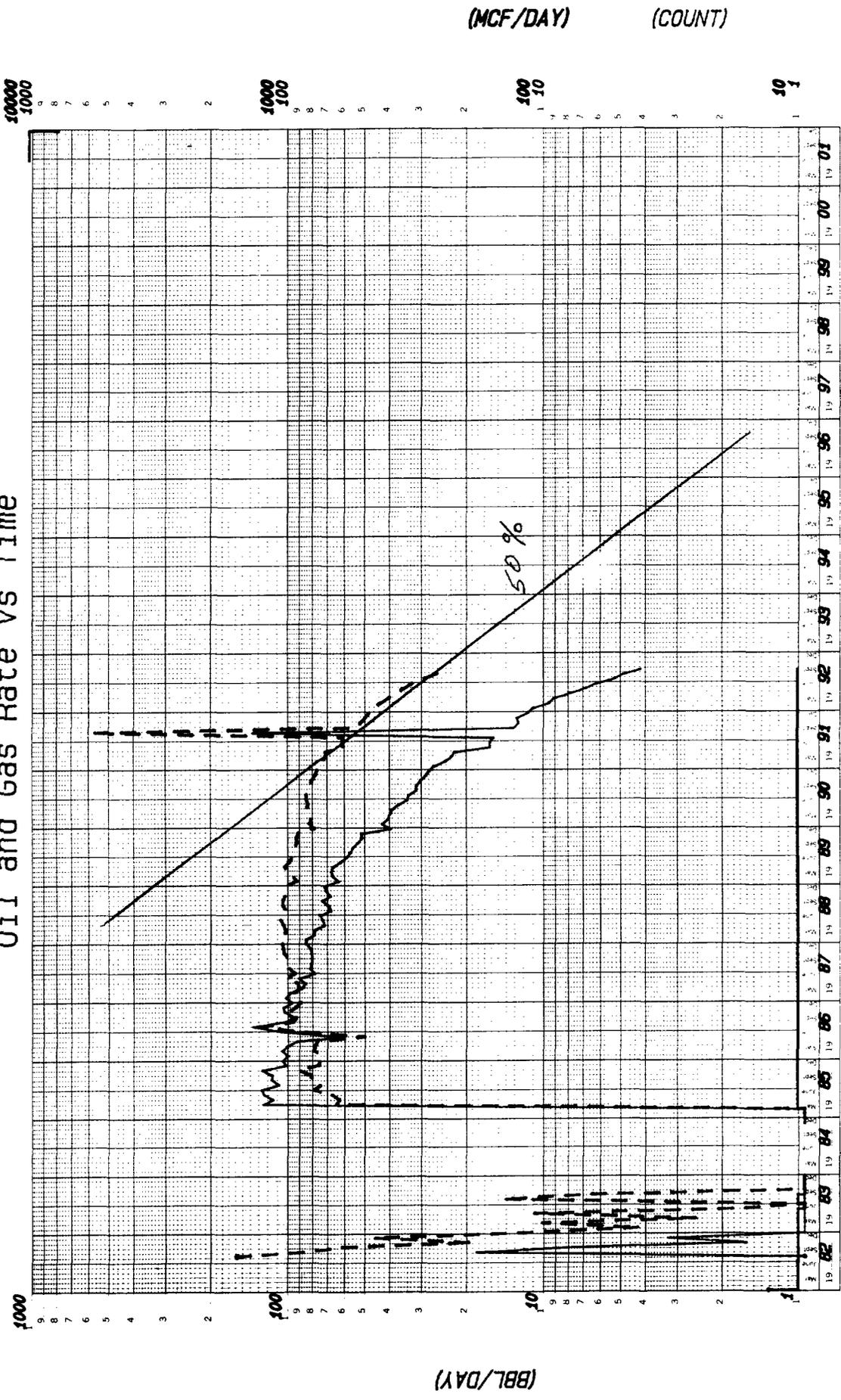


LEGEND	
WELLS	—
OIL	—
GAS	- - -

UNOCAL 75 ANDREWS DISTRICT	
Lease:	LASUNA DEEP FEDERAL # 2
Field:	GEM EAST (MORROW)
County:	LEA NM
Operator:	UNION OIL CO OF CAL
Retrieval Code:	250, 025, 19S33E26N00PM

PM  
 Date: 01-22-93  
 Cumulative Bo : 18193  
 Cumulative Mcf: 634344

# Oil and Gas Rate vs Time



LEGEND	
WELLS	—
OIL	- - -
GAS	· · ·

<b>UNOCAL</b>	<b>ANDREWS DISTRICT</b>
	<b># 3</b>
	Lease: LAGUNA DEEP FEDERAL
	Field: 6EM EAST (MORROW)
	County: LEA NM
Operator: UNION OIL CO OF CAL	
Retrieval Code: 250, 025, 19S33E35N00PM	

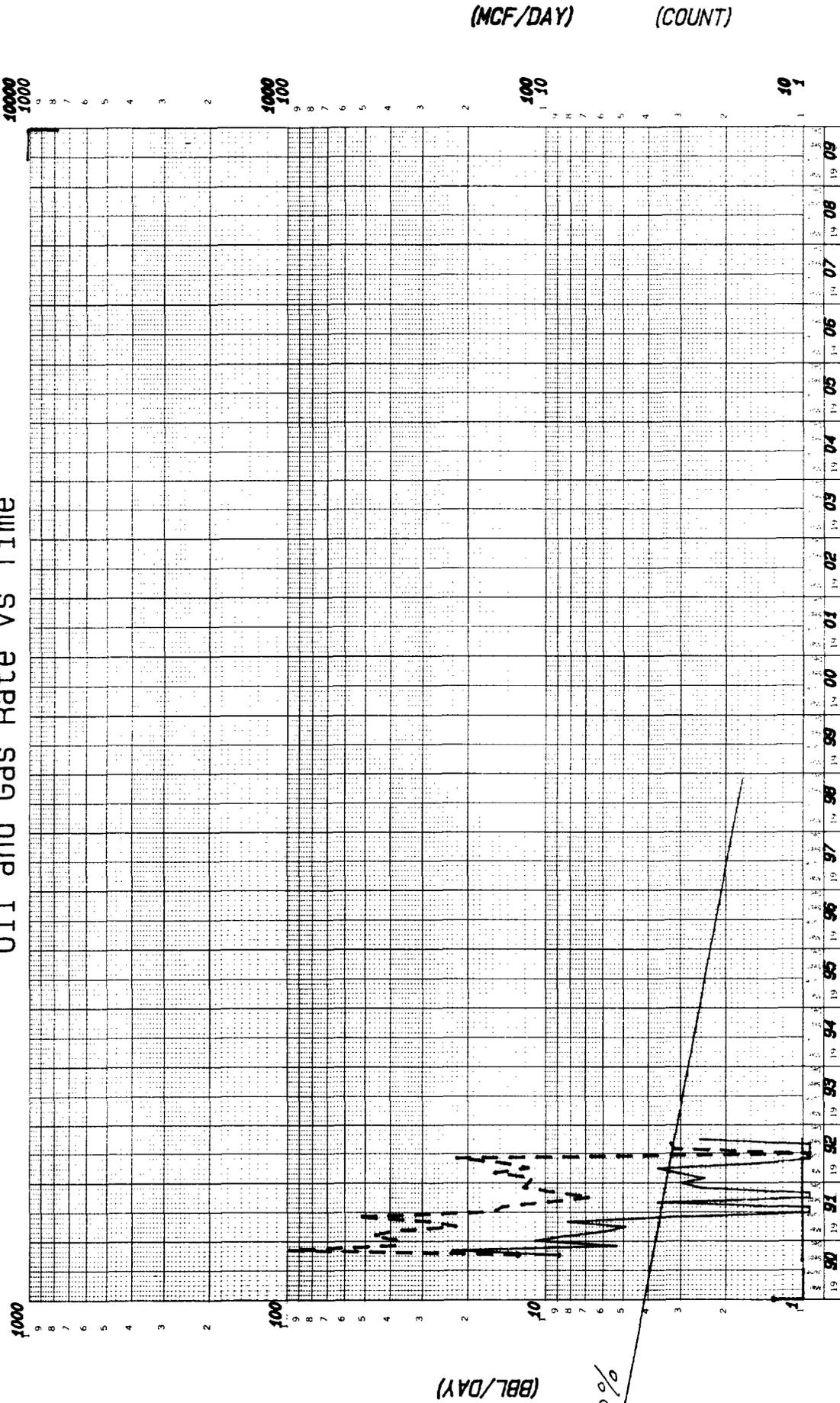
PM

Date: 01-22-93

Cumulative Bo : 168756

Cumulative Mcf: 2163349

# Oil and Gas Rate vs Time



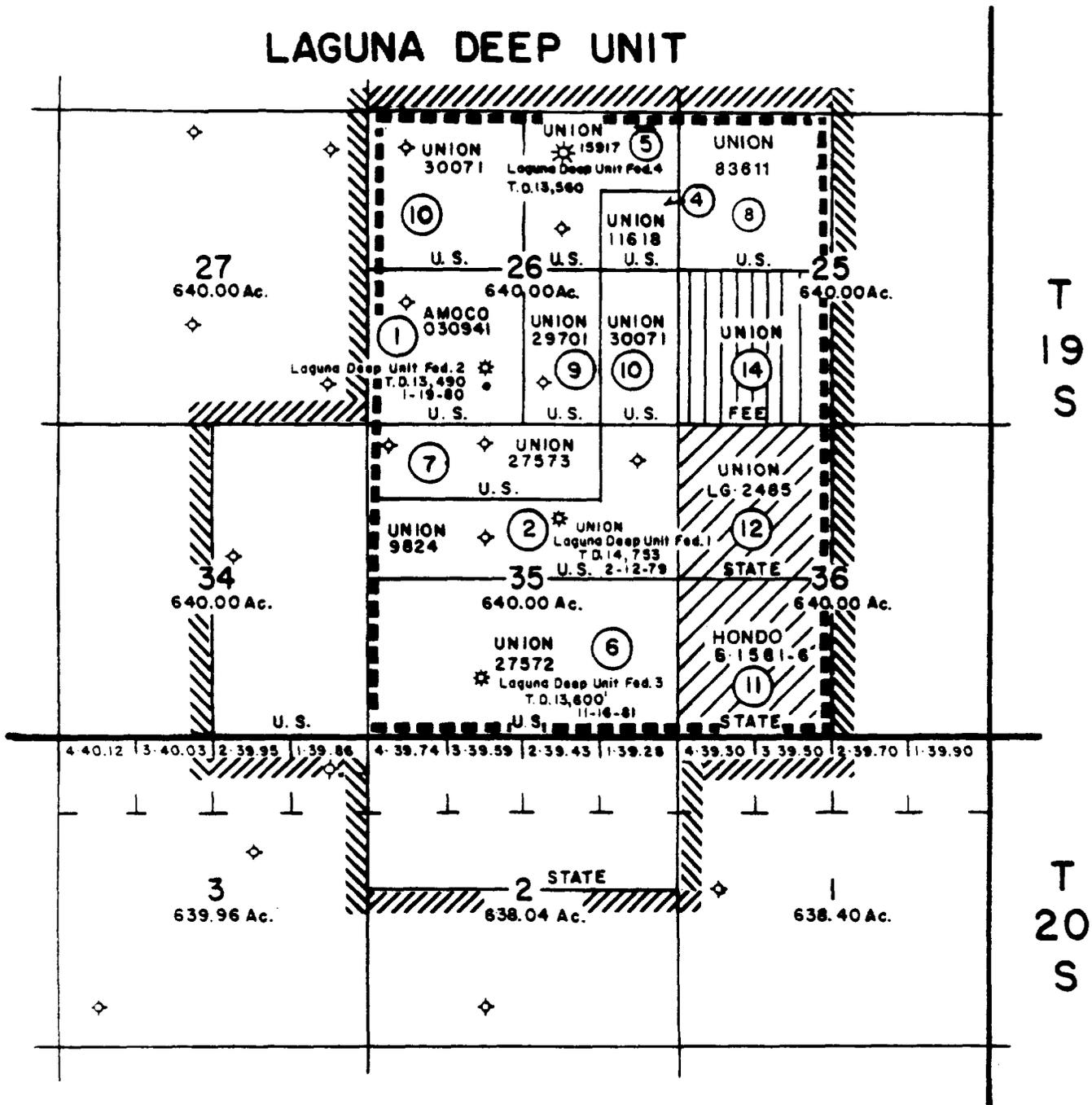
LEGEND	
WELLS	—
OIL	—
GAS	- - -

UNOCAL 	ANDREWS DISTRICT #4
Lease:	LAGUNA DEEP FEDERAL
Field:	6EM EAST (MORROW)
County:	LEA NM
Operator:	UNION OIL CO OF CAL
Retrieval Code:	250, 025, 19533E26800PM

PM  
 Date: 01-22-93  
 Cumulative Bo : 2797  
 Cumulative Mcf: 125856

R 33 E

LAGUNA DEEP UNIT



	ORIGINAL UNIT BOUNDARY		
	REVISED UNIT BOUNDARY & PARTICIPATING AREA		
	FEDERAL	1440.00 Ac.	75.00000 %
	STATE	320.00 Ac.	16.66667 %
	FEE	160.00 Ac.	8.33333 %
		<u>1920.00 Ac.</u>	<u>100.00000 %</u>

EXHIBIT "A" - (REVISED)

LAGUNA DEEP UNIT

(AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)

LEA COUNTY, NEW MEXICO



① TRACT NUMBER - EXHIBIT "B"

REVISED EXHIBIT "B" - LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

TRACT NO.	DESCRIPTION OF LAND	NUMBER OF ACRES	SERIAL NO. & EXPIRATION DATE OF LEASE	BASIC ROYALTY AND OWNERSHIP PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY AND PERCENTAGE	WORKING INTEREST AND PERCENTAGE
<u>FEDERAL LAND</u>							
1	SEC. 26: SW/4	160.00	NM-030941 HBP	U.S.A. (12.50%)	AMOCO PRODUCTION COMPANY	VIRGINIA WILLIS HESS, PERSONAL REPRESENTATIVE OF THE ESTATE OF EUGENIA W. BATE, DEC'D 1 1/2% OF 8/8 R. M. HESS & VIRGINIA W. HESS, TRUSTEES UNDER AGREEMENT DATED 4/10/72 1% OF 8/8 ELIZABETH W. CHRISTENSEN AND HUSBAND, DON T. CHRISTENSEN 1/2% OF 8/8 WINIFRED T. SEATON 1/2% OF 8/8 JO ANN W. LIGHT & HUSBAND ROBERT S. LIGHT 1/2% OF 8/8	AMOCO PRODUCTION COMPANY - 100%
2	SEC. 35: NE/4 NE/4, S/2 N/2	200.00	NM-9824 7/31/79	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	W. FEICK, JR. & WIFE, JOAN W. FEICK \$750/ACRE PPI OUT OF 5%	UNION OIL COMPANY OF CALIFORNIA - 100%
4	SEC. 26: SE/4 NE/4	40.00	NM-11618 4/30/90	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	CALVIN A. MITCHELL & WIFE, EVELYN MITCHELL 4% LEO POLLACK 1/4% M. A. SCHOFMAN	UNION OIL COMPANY OF CALIFORNIA - 100%
5	SEC. 26: N/2 NE/4, SW/4 NE/4	120.00	NM-15917 6/30/82	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	GWEN P. TAYLOR & HUSBAND, CHARLES G. TAYLOR, AND CARL A. NILSEN & WIFE, GEORGEANNE NILSEN 5%	UNION OIL COMPANY OF CALIFORNIA - 100%

REVISED EXHIBIT "B" - LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

<u>SECTION OF</u>	<u>NUMBER OF ACRES</u>	<u>SERIAL NO. &amp; EXPIRATION DATE OF LEASE</u>	<u>BASIC ROYALTY AND OWNERSHIP PERCENTAGE</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING ROYALTY AND PERCENTAGE</u>	<u>WORKING INTEREST AND PERCENTAGE</u>
S/2	320.00	NM-27572 5/31/83	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	BAKERSFIELD INVESTMENT TRUST, LUCILLE WILSON, TRUSTEE 2 1/2% BANK OF AMERICA, NT&SA, AS TRUSTEE OF THE CHARLES E. STRANGE 1976 TRUST #1 1 1/2% OF 8/8 C. E. STRANGE & WIFE, SHERRIE R. STRANGE 1% OF 8/8	UNION OIL COMPANY OF CALIFORNIA - 100%
NW/4 NE/4, N/2 NW/4	120.00	NM-27573 11/30/78	U.S.A. (SCHEDULE "B")	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
NW/4	160.00	NM-83611 3/31/95	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
W/2 SE/4	80.00	NM-29701 2/28/82	U.S.A. (SCHEDULE "B")	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
NW/4, E/2 SE/4	240.00	NM-30071 4/30/87	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	CAROL L. TEIGEN & THEODORE H. TEIGEN, JR. 5%	UNION OIL COMPANY OF CALIFORNIA - 100%

DERAL TRACTS 1440.00 ACRES OR 75.00000% OF UNIT AREA.

D. STATE LAND

SW/4	160.00	B-1581-6 HRP	STATE OF NEW MEXICO (12.50%)	HONDO OIL & GAS COMPANY	NONE	HONDO OIL & GAS COMPANY
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REVISED EXHIBIT "B" - LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

TRACT NO.	DESCRIPTION OF LAND	NUMBER OF ACRES	SERIAL NO. & EXPIRATION DATE OF LEASE	BASIC ROYALTY AND OWNERSHIP PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY AND PERCENTAGE	WORKING INTEREST AND PERCENTAGE
12	SEC. 36: NW/4	160.00	LG-2485 1/1/85	STATE OF NEW MEXICO (12.50%)	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%

2 STATE TRACTS 320.00 ACRES OR 16.66667% OF UNIT AREA.

PATENTED LAND

14	SEC. 25: SW/4	160.00	12/20/77* 12/20/80*	MARK SMITH & WIFE, ANNIE LORA SMITH; KENNETH MARK SMITH & WIFE, PATSY LOU SMITH; WILLIAM C. SMITH & WIFE, NANCY JEAN SMITH; LORA NELL GLENN & HUSBAND, WILLIAM JEFF GLENN (18.75%)	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
----	---------------	--------	------------------------	---	------------------------------------	------	---

1 PATENTED TRACT 160.00 ACRES OR 8.33333% OF UNIT AREA.

TOTAL: 12 TRACTS 1920.00 ACRES IN ENTIRE UNIT AREA

\*LEASE HAS BEEN RENEWED BY OIL AND GAS LEASE DATED JUNE 4, 1977, RECORDED IN VOL. 304, PAGE 260 OF THE RECORDS OF LEA COUNTY, NEW MEXICO. PRIMARY TERM IS STATED AS BEING 3 YEARS FROM 12/20/77.



JIM BACA  
COMMISSIONER

State of New Mexico  
OFFICE OF THE  
Commissioner of Public Lands  
Santa Fe

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

SLO REF NO. OG-1285

April 2, 1993

UNOCAL  
P.O. Box 3100  
Midland, Texas 79702

Attn: Ms. Linda H. Hicks

Re: 1993 Plan of Development  
Laguna Deep Unit  
Lea County, New Mexico

Gentlemen:

The Commissioner of Public Lands has this date approved the above captioned Plan of Development. Our approval is subject to like approval by all other appropriate agencies.

The possibility of drainage by wells outside of the Unit Area and the need for further development of the unit may exist. You will be contacted at a later date regarding these possibilities.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

JIM BACA  
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*  
FLOYD O. PRANDO, Director  
Oil and Gas Division  
(505) 827-5744

JB/FOP/pm  
cc: OCD ✓  
BLM

**Unocal North American  
Oil & Gas Division**  
Unocal Corporation  
1004 North Big Spring Street, Suite 300  
P.O. Box 3100  
Midland, Texas 79702  
Telephone (915) 684-8231

#6182

OIL CONSERVATION DIVISION  
RECEIVED

**UNOCAL** 

'92 MAR 30 AM 9 54

Southwestern Region

March 23, 1992

Oil Conservation Division  
Energy & Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Attn: Mr. William J. LeMay, Director

1992 Plan of Development  
Laguna Deep Unit Area  
Lea County, New Mexico  
Laguna Deep Prospect (7729)

Gentlemen:

Please find enclosed for your approval two (2) copies of Union's 1992 Plan of Development for the Laguna Deep Unit.

Should you have any questions, please let me know.

Sincerely,

UNION OIL COMPANY OF CALIFORNIA  
dba UNOCAL

*Linda H. Hicks*

Linda H. Hicks  
Supervisor of Contracts

LHH/jb  
Enclosures

1992 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO

TO: Oil Conservation Division  
Energy & Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 88201-2088

Attn: Mr. William J. LeMay, Director  
Oil & Gas Division

Union Oil Company of California as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-8496), respectfully submits for approval this 1992 Plan of Development for the Laguna Deep Unit Area. This Plan is for the period ending December 31, 1992.

SUMMARY OF 1991 OPERATIONS

There were no new wells or recompletions in 1991.

Production for 1991 is summarized below.

<u>WELL NO.</u>	<u>COMPLETED INTERVAL</u>	<u>1991 PRODUCTION</u> <u>MCFPD + BC</u>	<u>CURRENT RATE</u> <u>MCFPD + BCPD</u>
Laguna Deep #1	Middle Morrow	192.144 + 2971	467 + 5
Laguna Deep #2	Middle Morrow	21.522 + 60	77 + 1*
Laguna Deep #3	Middle Morrow	219.039 + 6179	473 + 11
Laguna Deep #4	Lower/Middle Morrow	52.955 + 1026	115 + 3

\*SI periodically to build up pressure.

PLAN OF DEVELOPMENT FOR 1992

Union has no plans to drill any new wells or recomplete any existing wells at this time.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 23 day of March, 1992.

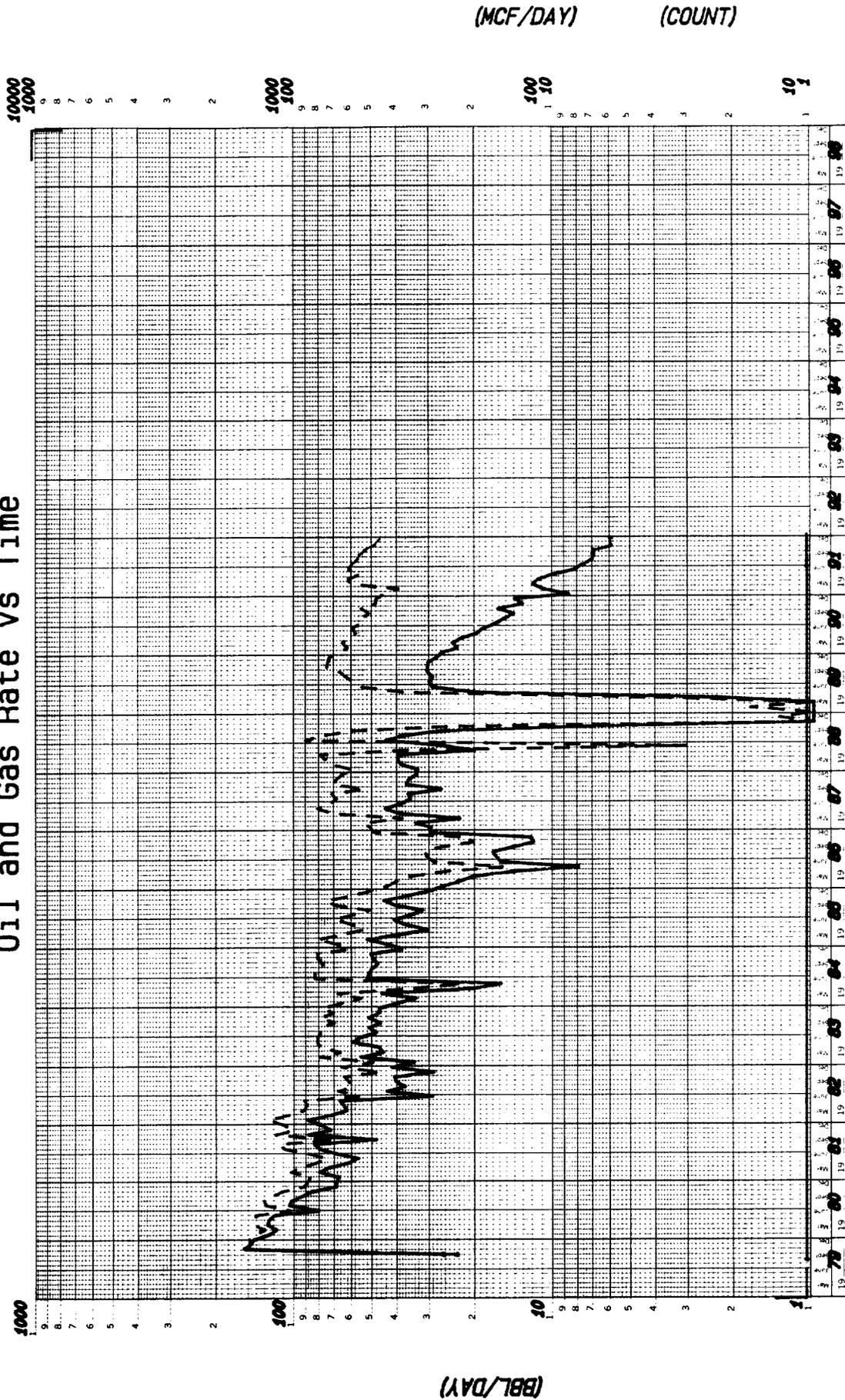
Sincerely,

UNION OIL COMPANY OF CALIFORNIA

*Linda H. Hicks*

Linda H. Hicks  
Supervisor of Contracts

# Oil and Gas Rate vs Time

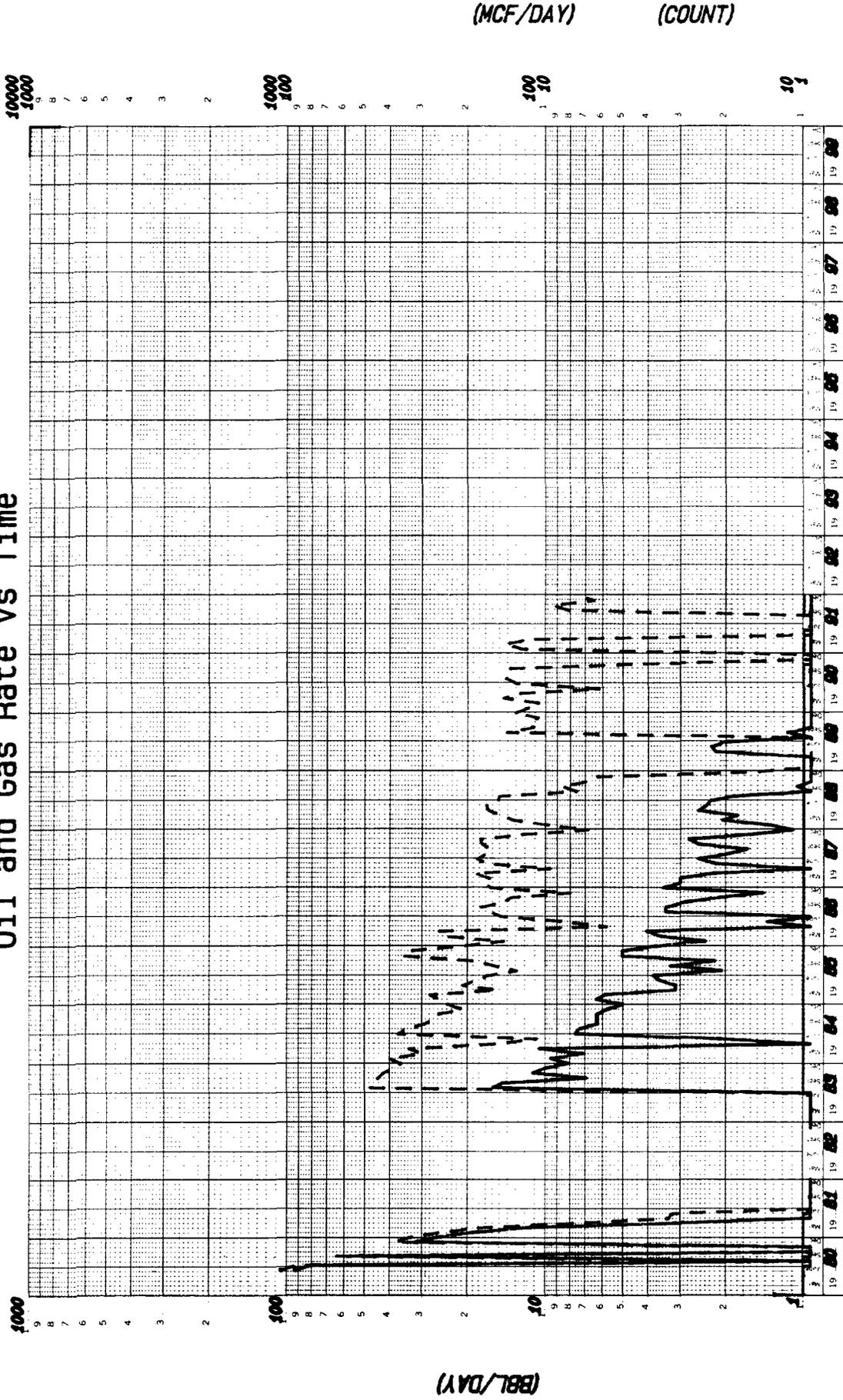


PM  
 Date: 02-14-92  
 Cumulative Bo : 160349  
 Cumulative Mcf: 2656341

<b>UNOCAL</b>	<b>ANDREWS DISTRICT</b>
#1	
Lessee:	LAGUNA DEEP FEDERAL
Field:	GEN EAST (MORRON)
County:	LEA NM
Operator:	UNION OIL CO OF CAL
Retrieval Code:	250, 025, 19S39E35G00PM

LEGEND	
WELLS	—
OIL	- - -
GAS	- · - · -

# Oil and Gas Rate vs Time

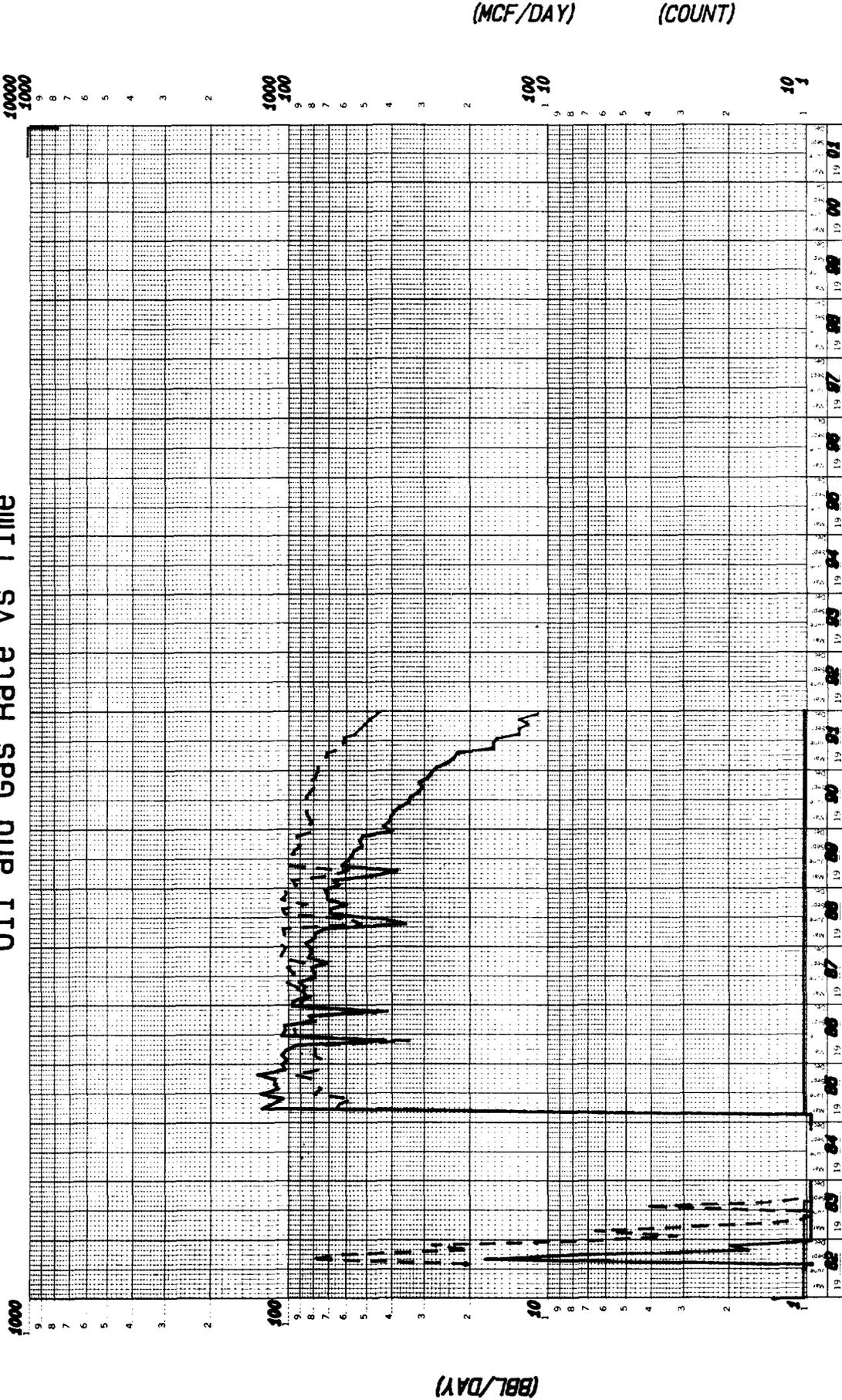


LEGEND	
WELLS	—
OIL	—
GAS	- - -

	ANDREWS DISTRICT
	# 2
Lease:	LAGUNA DEEP FEDERAL
Field:	GEM EAST (MORRON)
County:	LEA NM
Operator:	UNION OIL CO OF CAL
Retrieval Code:	250, 025, 19S39E26N00PH

PH  
 Date: 02-17-92  
 Cumulative Bo : 17920  
 Cumulative Mcf: 606233

# Oil and Gas Rate vs Time



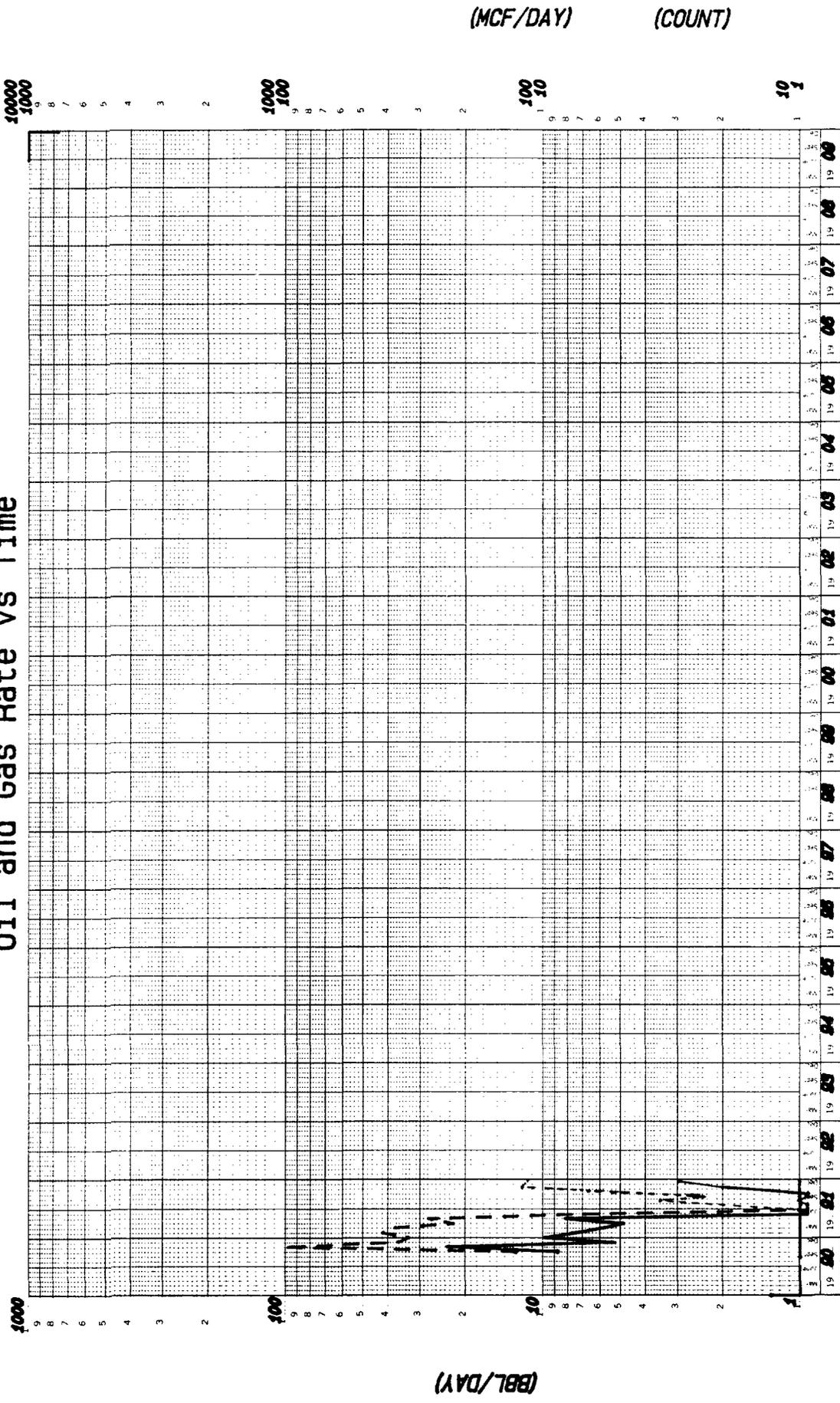
**UNOCAL**  **ANDREWS DISTRICT**

Lease: LAGUNA DEEP FEDERAL # 3  
 Field: GEN EAST (MORRON)  
 County: LEA NM  
 Operator: UNION OIL CO OF CAL  
 Retrieval Code: 250, 025, 19S3E35N00PM

LEGEND	
WELLS	—
OIL	—
GAS	- - -

PH  
 Date: 02-14-92  
 Cumulative Bo : 155938  
 Cumulative Mcf: 1991360

# Oil and Gas Rate vs Time



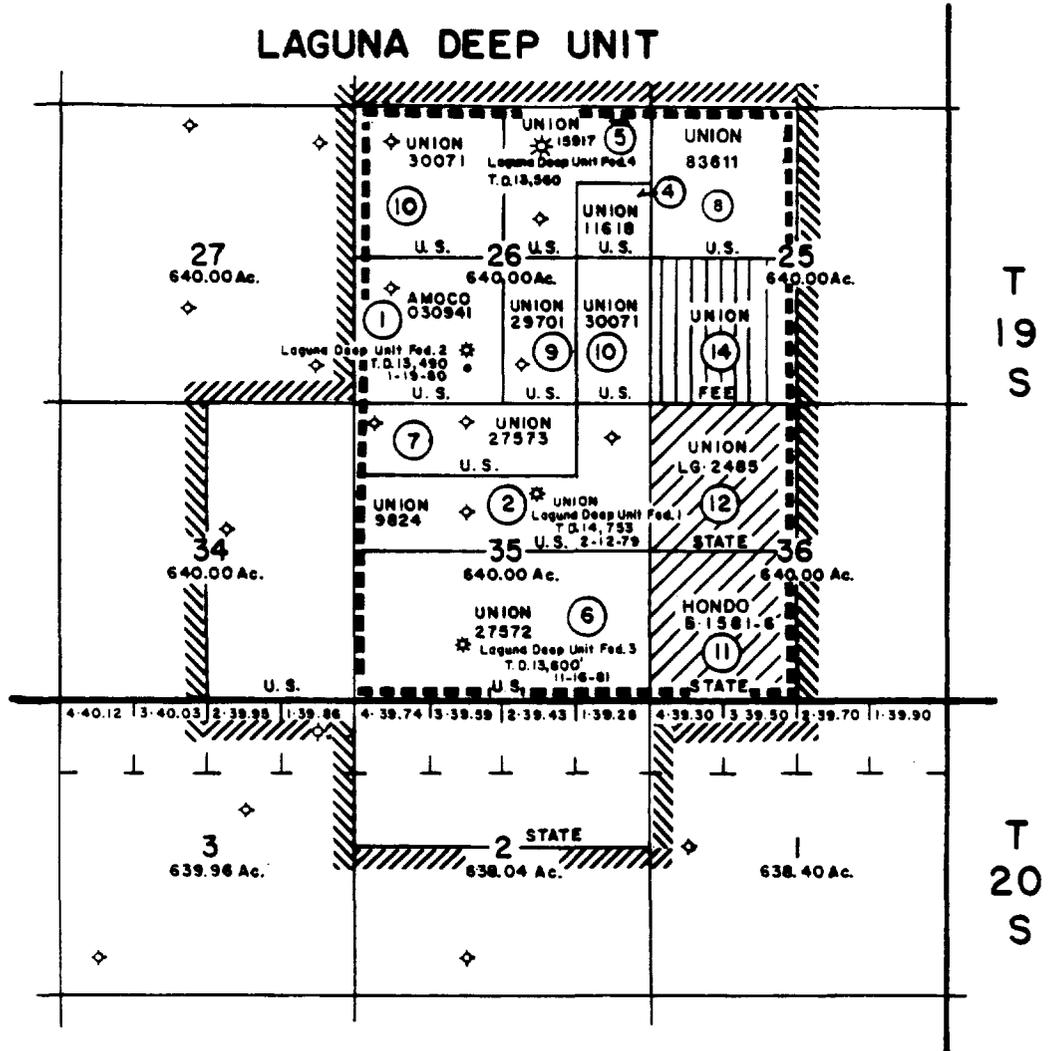
LEGEND	
WELLS	—
OIL	—
GAS	- - -

	ANDREWS DISTRICT
	# 4
Lease:	LAGUNA DEEP FEDERAL
Field:	GEM EAST (MORRON)
County:	LEA NM
Operator:	UNION OIL CO OF CAL
Retrieval Code:	250, 025, 19S33E26B00PH

PH  
 Date: 02-14-92  
 Cumulative Bo : 2260  
 Cumulative Mcf: 97517

R 33 E

LAGUNA DEEP UNIT



	ORIGINAL UNIT BOUNDARY		
	REVISED UNIT BOUNDARY & PARTICIPATING AREA		
	FEDERAL	1440.00 Ac.	75.00000 %
	STATE	320.00 Ac.	16.66667 %
	FEE	160.00 Ac.	8.33333 %
		<u>1920.00 Ac.</u>	<u>100.00000 %</u>

EXHIBIT "A" - (REVISED)  
 LAGUNA DEEP UNIT  
 (AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)  
 LEA COUNTY, NEW MEXICO

0 5000 FEET  
 0 1 MILE  
 ① TRACT NUMBER- EXHIBIT "B"

Unocal North American  
Oil & Gas Division  
Unocal Corporation  
1004 North Big Spring Street, Suite 300  
P.O. Box 3100  
Midland, Texas 79702  
Telephone (915) 684-8231

#6182

OIL CONSERVATION DIVISION  
RECEIVED

**UNOCAL** 76

'91 MAR 5 AM 9 11

OK'd 3-6-91

Southwestern Region

March 1, 1991

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

Attn: Mr. William J. LeMay,  
Director

1991 Plan of Development  
Laguna Deep Unit Area  
Lea County, New Mexico  
Laguna Deep Prospect (7729)

Gentlemen:

Please find enclosed for your approval two copies of Union's  
1991 Plan of Development for the Laguna Deep Unit Area.

Should you have any questions, please let me know.

Sincerely,

UNION OIL COMPANY OF CALIFORNIA  
dba UNOCAL



Linda H. Hicks  
Supervisor of Contracts

LHH/jb  
Enclosures

1991 PLAN OF DEVELOPMENT  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO

TO: Oil Conservation Division  
Energy and Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Attn: Mr. William J. LeMay  
Director

Union Oil Company of California as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-8496), respectfully submits for approval this 1991 Plan of Development for the Laguna Deep Unit Area. This Plan is for the period ending December 31, 1991.

SUMMARY OF 1990 OPERATIONS

The Laguna Deep Federal Unit #4 well was completed in March 1990 and placed on production in September, 1990.

Production for the year is summarized below.

<u>WELL NO.</u>	<u>COMPLETED INTERVAL</u>	<u>1990 PRODUCTION</u> <u>MMCF + BC</u>	<u>CURRENT RATE</u> <u>MCFPD + BCPD</u>
Laguna Deep #1	Middle Morrow	200.6 + 6,569	465 + 14
Laguna Deep #2	Middle Morrow	35.2 + 87	100 + 0*
Laguna Deep #3	Middle Morrow	293.4 + 12,428	766 + 28
Laguna Deep #4	Lower/Middle Morrow	51.9 + 1,448	366 + 10

\*SI periodically to build up pressure.

PLAN OF DEVELOPMENT FOR 1991

Union has no plans to drill any new wells or recomplete any existing wells at this time.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 1st day of March, 1991.

Sincerely,

UNION OIL COMPANY OF CALIFORNIA

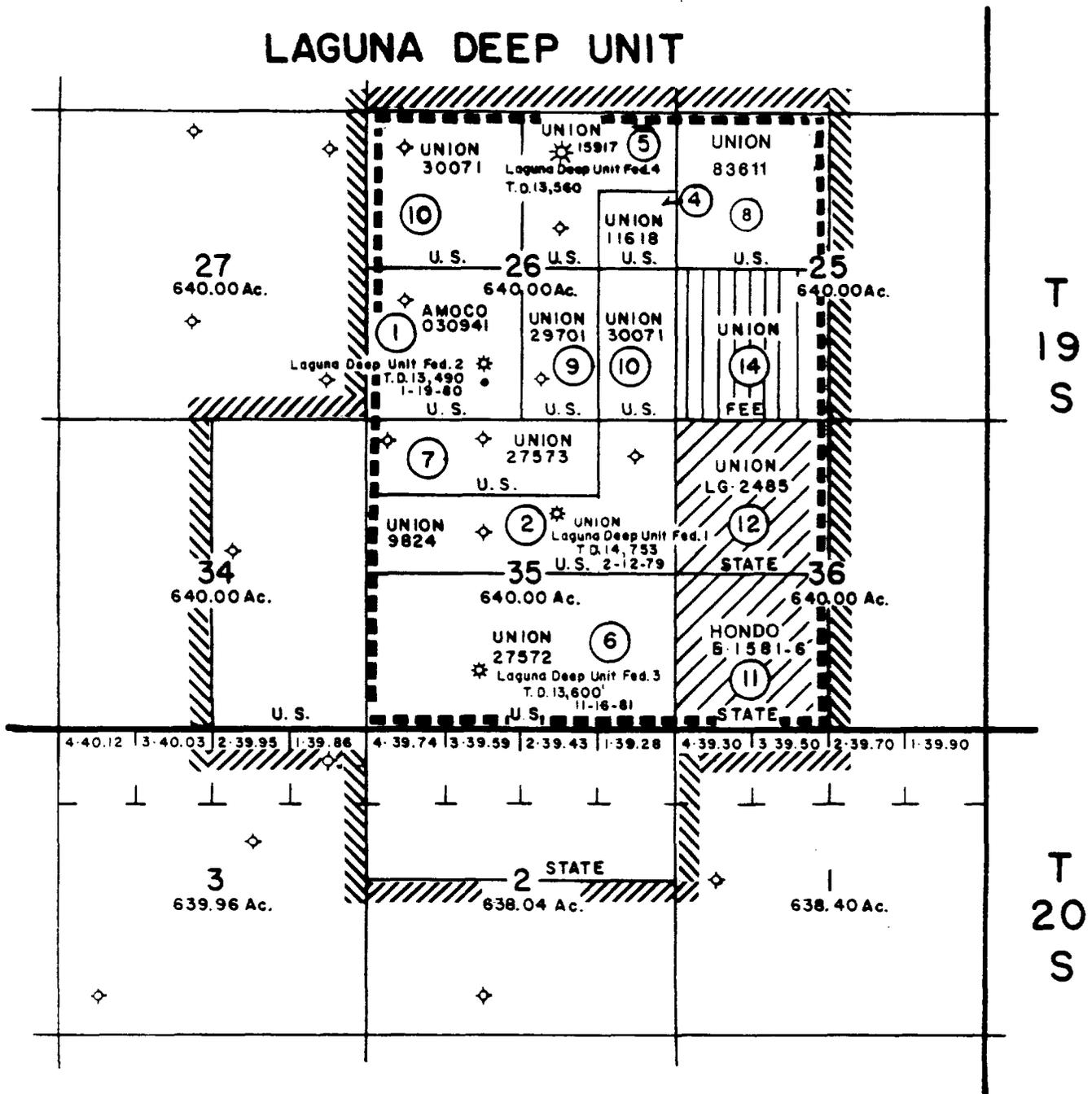
*Linda H. Hicks*

Linda H. Hicks  
Supervisor of Contracts

LHH/jb

R 33 E

LAGUNA DEEP UNIT



	ORIGINAL UNIT BOUNDARY		
	REVISED UNIT BOUNDARY & PARTICIPATING AREA		
	FEDERAL	1440.00 Ac.	75.00000 %
	STATE	320.00 Ac.	16.66667 %
	FEE	160.00 Ac.	8.33333 %
		<u>1920.00 Ac.</u>	<u>100.00000 %</u>

EXHIBIT "A" - (REVISED)

LAGUNA DEEP UNIT

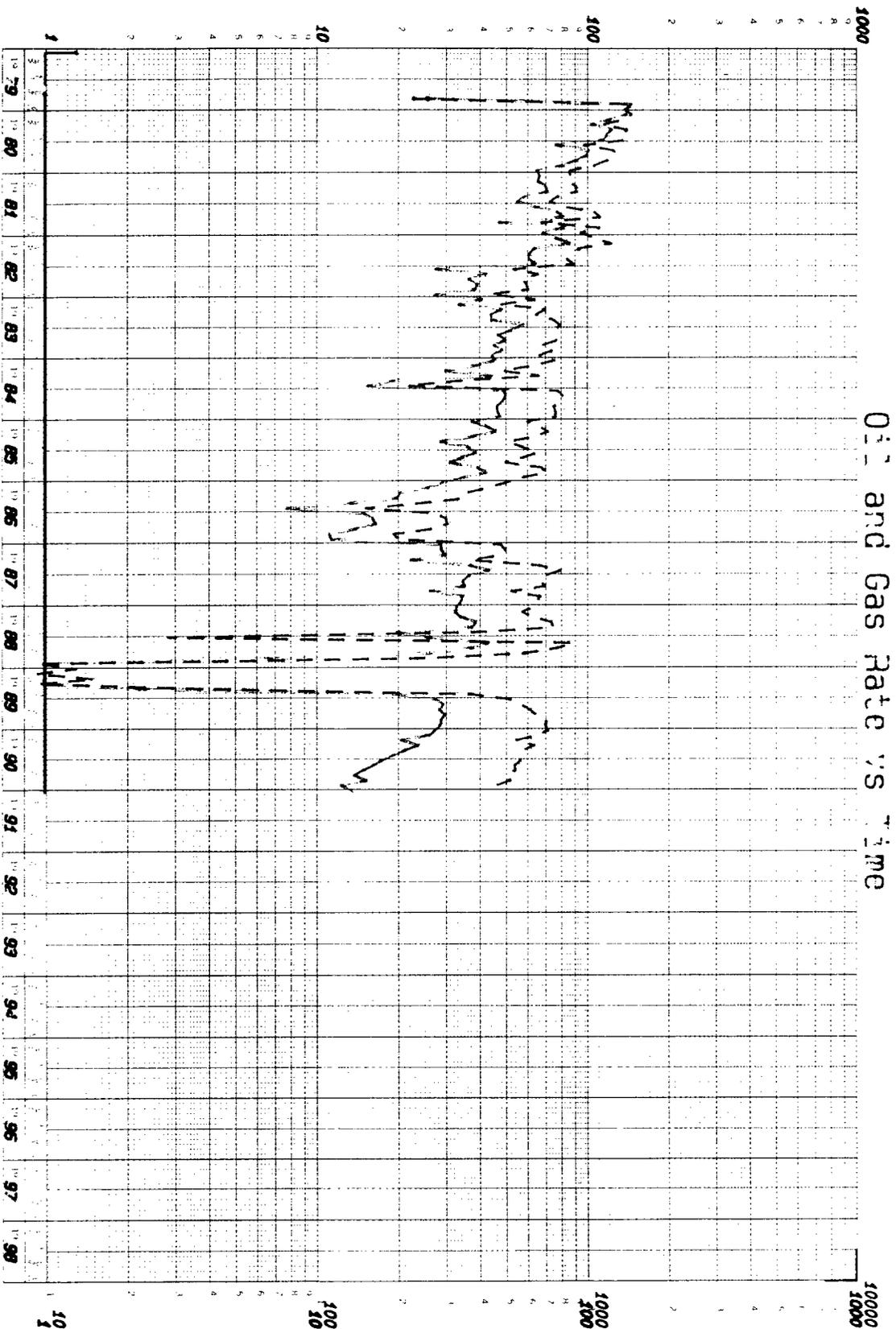
(AS CONTRACTED EFFECTIVE FEBRUARY 9, 1964)

LEA COUNTY, NEW MEXICO



① TRACT NUMBER-EXHIBIT "B"

(BBL/DAY)



Oil and Gas Rate vs Time

LEGEND

WELLS \_\_\_\_\_  
 OIL \_\_\_\_\_  
 GAS \_\_\_\_\_

UNOCAL



MIDLAND DISTRICT

Lease: LASANA DEEP FEDERAL

Field: GEN MORROW, EAST (GAS)

County: LEA NM

Operator: UNION OIL CO OF CAL

Retrieval Code: 250, 025, 1953363690094

PM

Date: 01-28-91

Cumulative Bo : 178343

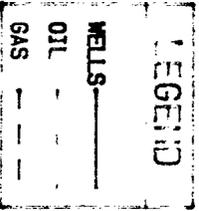
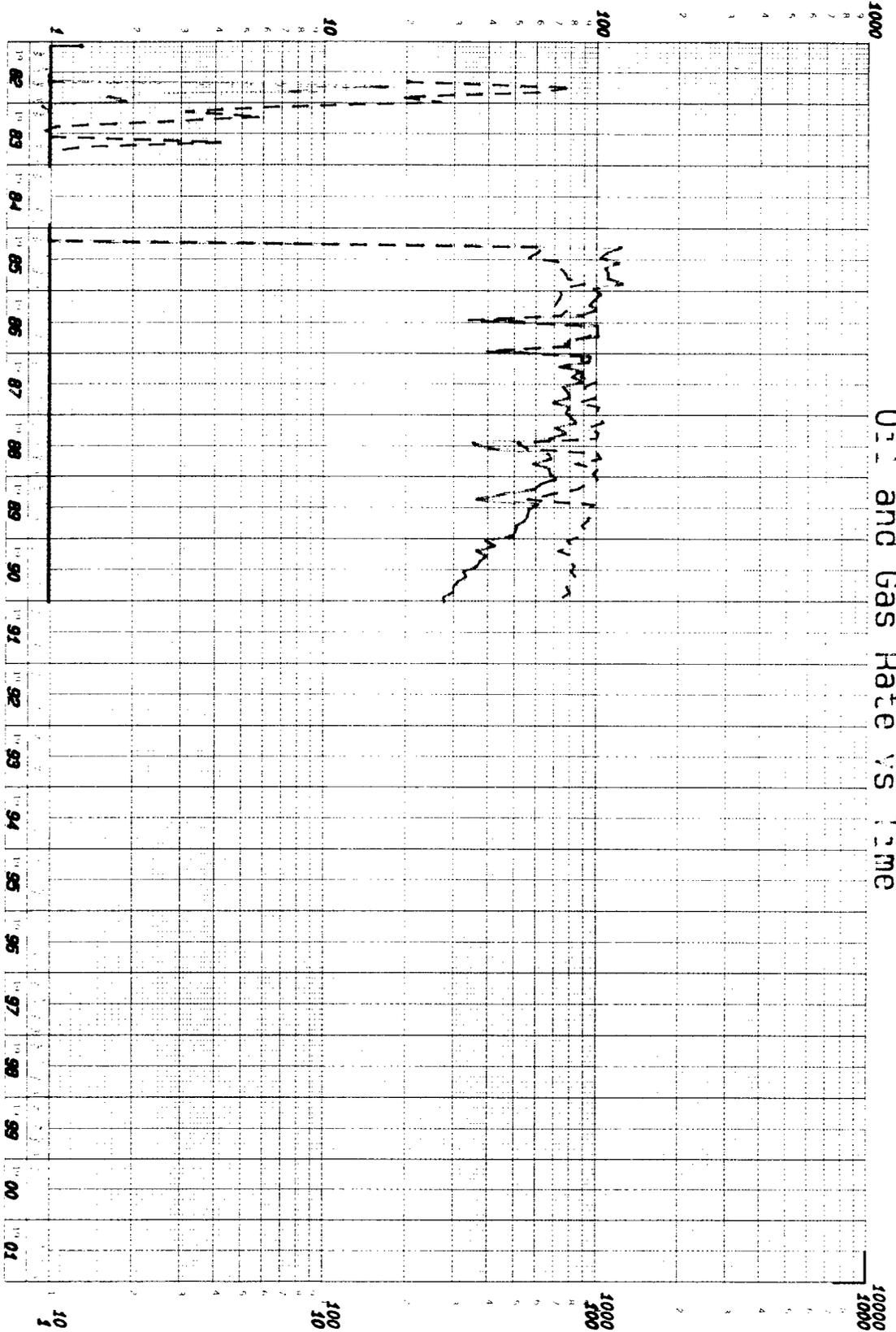
Cumulative Mcf: 2744049

(COUNT)

(MCF/DAY)

(BBL/DAY)

Oil and Gas Rate vs Time



UNOCAL



MIDLAND DISTRICT

Lease: LAGUNA DEEP FEDERAL #3  
 Field: 85W MORROW, EAST (GAS)  
 County: LEA NW  
 Operator: UNION OIL CO OF CAL  
 Retrieval Code: 250, 025, 19833E35N00PW

PW

Cumulative Bo : 151656  
 Cumulative Mcf: 1850703

Date: 01-28-91

(COUNT)

(MCF/DAY)

OIL CONSERVATION DIVISION

'90 SEP 24 AM 9 53

Unocal North American  
Oil & Gas Division  
Unocal Corporation  
1004 North Big Spring Street, Suite 300  
P.O. Box 3100  
Midland, Texas 79702  
Telephone (915) 684-8231

# 6182

**UNOCAL** 76

D-  
UNIT letter  
Tax  
124

Southwestern Region

September 20, 1990

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

Attn: Mr. William J. Lemay  
Director

RE: Laguna Deep Unit  
Lea County, New Mexico  
Union's Laguna Prospect (7729)

Gentlemen:

When this Unit was originally formed, the NW/4 Section 25-19S-33E (Tract 8) was not fully committed and therefore not held by the Unit. Tract 8 was within the boundary of the Morrow Participating Area but never received any tract participation factor. The lease subsequently expired.

The lease was offered for lease by the BLM and Union was the successful bidder. The BLM required that the successful bidder commit the lease to the Laguna Unit. The new lease, issued March 12, 1990 and effective April 1, 1990, is NM-83611. Enclosed please find the following relating to this new lease:

- 1) Ratification and Joinder to Laguna Unit.
- 2) BLM letter dated July 30, 1990.
- 3) BLM letter dated September 12 and two copies of revised Exhibits A, B, and C showing Tract 8 as fully participating as of April 1, 1990.

Please review at your earliest convenience.

Sincerely,

UNION OIL COMPANY OF CALIFORNIA  
dba UNOCAL

*Linda H. Hicks*

Linda H. Hicks  
Supervisor of Contracts

LHH/jb  
Enclosures

RATIFICATION AND JOINDER  
TO THE  
LAGUNA DEEP UNIT AGREEMENT  
DATED February 2, 1978  
(effective June 22, 1978)  
DESIGNATED NO. 14-08-0001-16905

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, certain instruments entitled Unit Agreement for the Development and Operation of the Laguna Deep Unit Area, Lea County, New Mexico, and Unit Operating Agreement, Laguna Deep Unit, Lea County, New Mexico, have been executed by various persons conducting operations with respect to the Laguna Deep Unit, located in Lea County, New Mexico, as more particularly described in said Agreement; and

WHEREAS, the undersigned, on March 20, 1978, did execute the aforesaid Laguna Deep Unit Agreement and Unit Operating Agreement, and agree to be bound by the terms thereof; and

WHEREAS, the undersigned will be the lessee of record in Oil and Gas Lease NM-83611 when said lease is issued; and

WHEREAS, Oil and Gas Lease NM-83611, when issued, will cover lands described as:

Township 19 South, Range 33 East, N.M.P.M., Lea County Mexico  
Section 25: NW/4

which lands are included in the Laguna Deep Unit Area.

NOW, THEREFORE, the undersigned, as lessee of record in Oil and Gas Lease NM-83611, when said lease is issued, does hereby commit said lease to the Laguna Deep Unit Agreement as Tract No. 8 therein, and Union Oil Company of California, as Unit Operator, does hereby consent to said commitment.

This instrument to be effective as of the date of issuance of Oil and Gas Lease NM-83611.

Date: February 5, 1990  
Address: P. O. Box 3100  
Midland, Texas 79702

UNION OIL COMPANY OF CALIFORNIA  
By *John Hansen*  
Attorney-in-Fact

As Lessee of Record and Unit Operator

STATE OF TEXAS )

COUNTY OF MIDLAND )

The foregoing instrument was acknowledged before me this 5th day of February, 1990, by JOHN HANSEN, Attorney-in-Fact of UNION OIL COMPANY OF CALIFORNIA, a California corporation, on behalf of said corporation.

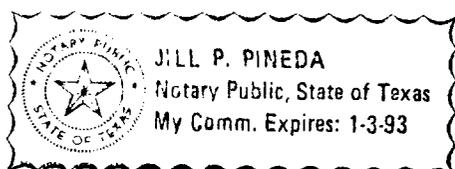
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year above written.

My Commission Expires

1-3-93

*Jill P. Pineda*  
Notary Public

Jill P. Pineda  
Printed Name of Notary





United States Department of the Interior  
BUREAU OF LAND MANAGEMENT

Roswell District Office  
P.O. Box 1397  
Roswell, New Mexico 88202-1397



IN REPLY  
REFER TO:  
3180 (065)

RECEIVED

JUL 31 1990

SOUTHWESTERN REGION LAND

Union Oil Company of California  
Attention: Linda H. Hicks  
P.O. Box 3100  
Midland, Texas 79702

JUL 30 1990

Re: Laguna Deep Unit  
Federal Lease NM-83611

Dear Ms. Hicks:

This office is in receipt of your letter of February 20, 1990, with three copies of ratification and joinder to the Laguna Deep Unit Agreement, Lea County, New Mexico. This ratification and joinder concerns the above referenced lease of which Union Oil Company of California was the successful bidder. Such instrument is dated February 5, 1990, and is executed by Union Oil Company of California as lessee of record and unit operator.

Federal lease NM-83611 was issued March 12, 1990, and was effective as of April 1, 1990. In view of such, this ratification is hereby accepted and fully commits Federal lease NM-83611 to the Laguna Deep Unit Agreement effective as of April 1, 1990.

Please submit exhibits for a revised Morrow Participating Area allocating production to this tract at your earliest convenience.

If you have any questions, please contact the Branch of Fluid Minerals or Jerry Dutchover at (505) 622-9042.

Sincerely,

Joe G. Lara  
Assistant District Manager,  
Minerals



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT

Roswell District Office  
P.O. Box 1397  
Roswell, New Mexico 88202-1397



IN REPLY  
REFER TO:

3180 (065)

Union Oil Company of California  
Attention: Linda H. Hicks  
P.O. Box 3100  
Midland, Texas 79702

Re: Laguna Deep Unit  
Federal Lease NM-83611

SEP 12 1990

RECEIVED

SEP 14 1990

SOUTHWESTERN REGION LAND

Dear Ms. Hicks:

This office is in receipt of your letter of February 20, 1990, with three copies of ratification and joinder to the Laguna Deep Unit Agreement, Lea County, New Mexico. This ratification and joinder concerns the above referenced lease of which Union Oil Company of California was the successful bidder. Such instrument is dated February 5, 1990, and is executed by Union Oil Company of California as lessee of record and unit operator.

Federal lease NM-83611 was issued March 12, 1990, and was effective as of April 1, 1990. In view of such, this ratification is hereby accepted and fully commits Federal lease NM-83611 to the Laguna Deep Unit Agreement effective as of April 1, 1990.

This office is also in receipt of your letter of August 16, 1990, enclosing Revised Exhibits A, B, and C which describe Tract 8 as NM 83611 and as fully participating effective April 1, 1990. These exhibits were requested by this office by letter of July 30, 1990. These documents are hereby accepted for record and approved effective as of April 1, 1990. Please notify all interested principals of this approval.

If you have any questions, please contact the Branch of Fluid Minerals or Jerry Dutchover at (505) 622-9042.

Sincerely,

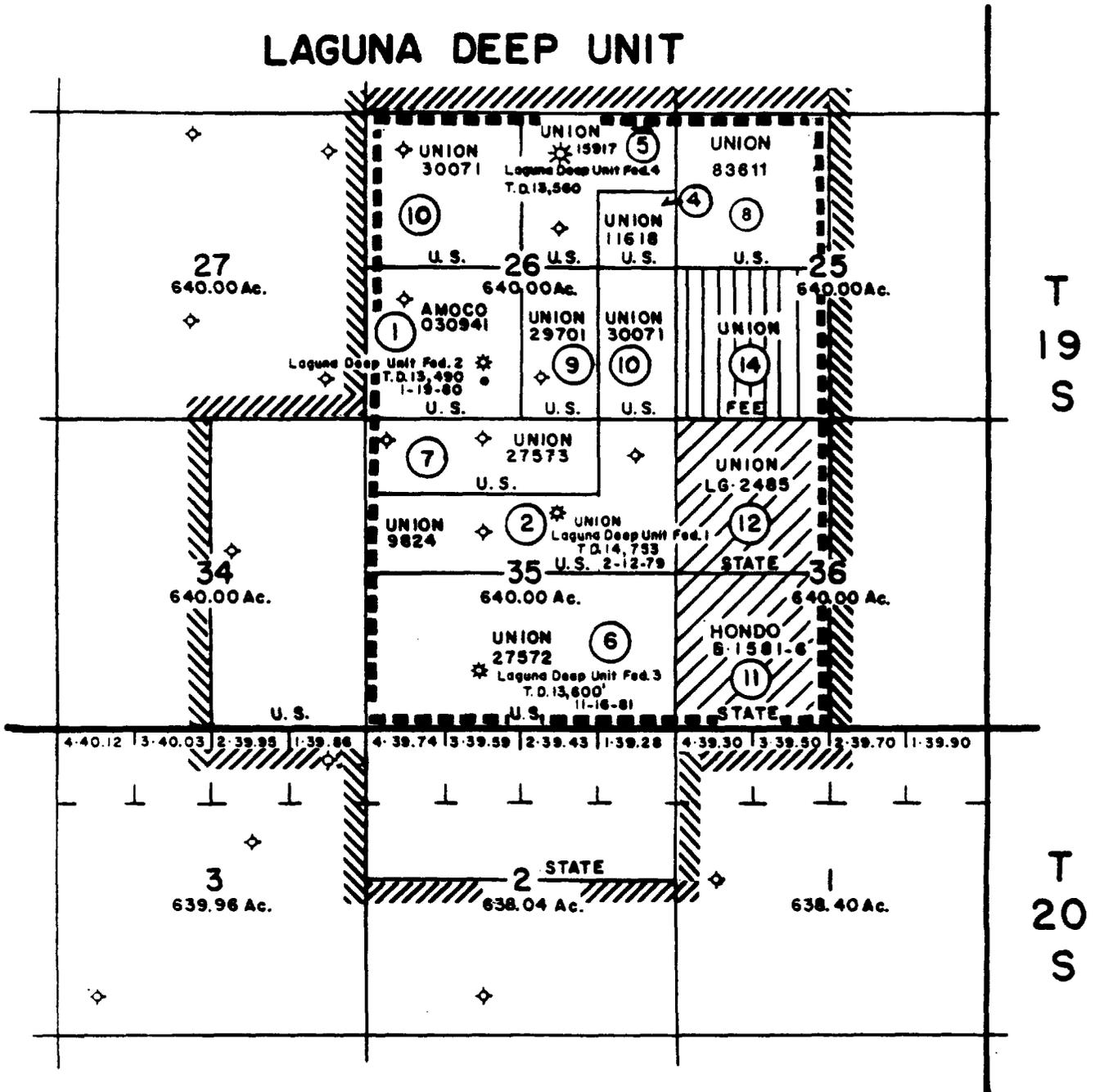
Joe G. Lara  
Assistant District Manager,  
Minerals

1 Enclosure:

1 - Approved copy of revised Exhibits

R 33 E

LAGUNA DEEP UNIT



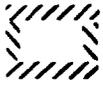
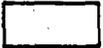
	ORIGINAL UNIT BOUNDARY
	REVISED UNIT BOUNDARY & PARTICIPATING AREA
	FEDERAL 1440.00 Ac. 75.00000 %
	STATE 320.00 Ac. 16.66667 %
	FEE 160.00 Ac. 8.33333 %
	<hr/> 1920.00 Ac. 100.00000 %

EXHIBIT "A" - (REVISED)

LAGUNA DEEP UNIT

(AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)

LEA COUNTY, NEW MEXICO



① TRACT NUMBER-EXHIBIT "B"

REVISED EXHIBIT "B" - LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

<u>TRACT NO.</u>	<u>DESCRIPTION OF LAND</u>	<u>NUMBER OF ACRES</u>	<u>SERIAL NO. &amp; EXPIRATION DATE OF LEASE</u>	<u>BASIC ROYALTY AND OWNERSHIP PERCENTAGE</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING ROYALTY AND PERCENTAGE</u>	<u>WORKING INTEREST AND PERCENTAGE</u>
<u>FEDERAL LAND</u>							
1	SEC. 26: SW/4	160.00	NM-030941 HBP	U.S.A. (12.50%)	AMOCO PRODUCTION COMPANY	VIRGINIA WILLIS HESS, PERSONAL REPRESENTATIVE OF THE ESTATE OF EUGENIA W. BATE, DEC'D 1 1/2% OF 8/8 R. M. HESS & VIRGINIA W. HESS, TRUSTEES UNDER AGREEMENT DATED 4/10/72 1% OF 8/8 ELIZABETH W. CHRISTENSEN AND HUSBAND, DON T. CHRISTENSEN 1/2% OF 8/8 WINIFRED T. SEATON 1/2% OF 8/8 JO ANN W. LIGHT & HUSBAND ROBERT S. LIGHT 1/2% OF 8/8	AMOCO PRODUCTION COMPANY - 100%
2	SEC. 35: NE/4 NE/4, S/2 N/2	200.00	NM-9824 7/31/79	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	W. FEICK, JR. & WIFE, JOAN W. FEICK \$750/ACRE PPI OUT OF 5%	UNION OIL COMPANY OF CALIFORNIA - 100%
4	SEC. 26: SE/4 NE/4	40.00	NM-11618 4/30/90	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	CALVIN A. MITCHELL & WIFE, EVELYN MITCHELL 4% LEO POLLACK 1/4% M. A. SCHOFFMAN	UNION OIL COMPANY OF CALIFORNIA - 100%
5	SEC. 26: N/2 NE/4, SW/4 NE/4	120.00	NM-15917 6/30/82	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	GWEN P. TAYLOR & HUSBAND, CHARLES G. TAYLOR, AND CARL A. NILSEN & WIFE, GEORGEANNE NILSEN 5%	UNION OIL COMPANY OF CALIFORNIA - 100%

REVISED EXHIBIT "B" - LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

<u>TRACT NO.</u>	<u>DESCRIPTION OF LAND</u>	<u>NUMBER OF ACRES</u>	<u>SERIAL NO. &amp; EXPIRATION DATE OF LEASE</u>	<u>BASIC ROYALTY AND OWNERSHIP PERCENTAGE</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING ROYALTY AND PERCENTAGE</u>	<u>WORKING INTEREST AND PERCENTAGE</u>
6	SEC. 35: S/2	320.00	NM-27572 5/31/83	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	BAKERSFIELD INVESTMENT TRUST, LUCILLE WILSON, TRUSTEE 2 1/2% BANK OF AMERICA, NT&SA, AS TRUSTEE OF THE CHARLES E. STRANGE 1976 TRUST #1 1 1/2% OF 8/8 C. E. STRANGE & WIFE, SHERRIE R. STRANGE 1% OF 8/8	UNION OIL COMPANY OF CALIFORNIA - 100%
7	SEC. 35: NW/4 NE/4, N/2 NW/4	120.00	NM-27573 11/30/78	U.S.A. (SCHEDULE "B")	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
8	SEC. 25: NW/4	160.00	NM-83611 3/31/95	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
9	SEC. 26: W/2 SE/4	80.00	NM-29701 2/28/82	U.S.A. (SCHEDULE "B")	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
10	SEC. 26: NW/4, E/2 SE/4	240.00	NM-30071 4/30/87	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	CAROL L. TEIGEN & THEODORE H. TEIGEN, JR. 5%	UNION OIL COMPANY OF CALIFORNIA - 100%
9 FEDERAL TRACTS 1440.00 ACRES OR 75.00000% OF UNIT AREA.							
<u>NEW MEXICO STATE LAND</u>							
11	SEC. 36: SW/4	160.00	B-1581-6 HBP	STATE OF NEW MEXICO (12.50%)	HONDO OIL & GAS COMPANY	NONE	HONDO OIL & GAS COMPANY

REVISED EXHIBIT "B" - LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

TRACT NO.	DESCRIPTION OF LAND	NUMBER OF ACRES	SERIAL NO. & EXPIRATION DATE OF LEASE	BASIC ROYALTY AND OWNERSHIP PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY AND PERCENTAGE	WORKING INTEREST AND PERCENTAGE
12	SEC. 36: NW/4	160.00	LG-2485 1/1/85	STATE OF NEW MEXICO (12.50%)	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%

2 STATE TRACTS 320.00 ACRES OR 16.66667% OF UNIT AREA.

PATENTED LAND

14	SEC. 25: SW/4	160.00	12/20/77* 12/20/80*	MARK SMITH & WIFE, ANNIE LORA SMITH; KENNETH MARK SMITH & WIFE, PATSY LOU SMITH; WILLIAM C. SMITH & WIFE, NANCY JEAN SMITH; LORA NELL GLENN & HUSBAND, WILLIAM JEFF GLENN (18.75%)	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
----	---------------	--------	------------------------	---	------------------------------------	------	---

1 PATENTED TRACT 160.00 ACRES OR 8.33333% OF UNIT AREA.

TOTAL: 12 TRACTS 1920.00 ACRES IN ENTIRE UNIT AREA

\*LEASE HAS BEEN RENEWED BY OIL AND GAS LEASE DATED JUNE 4, 1977, RECORDED IN VOL. 304, PAGE 260 OF THE RECORDS OF LEA COUNTY, NEW MEXICO.  
PRIMARY TERM IS STATED AS BEING 3 YEARS FROM 12/20/77.

EXHIBIT "C"  
 FIRST REVISION MORROW FORMATION  
 PARTICIPATING AREA  
 LAGUNA DEEP UNIT AGREEMENT  
 LEA COUNTY, NEW MEXICO

<u>TRACT NO.</u>	<u>LEASE NO. OR TYPE OF LAND</u>	<u>DESCRIPTION</u>	<u>PARTICIPATING ACRES</u>	<u>PERCENT OF PARTICIPATION</u>	<u>WORKING INTEREST OWNER</u>
		<u>ALL LANDS ARE IN T-19-S, R-33-E, N.M.P.M.</u>			
1	NM-030941 FEDERAL	SEC. 26: SW/4	160.00	8.33333	AMOCO PRODUCTION COMPANY
2	NM-9824 FEDERAL	SEC. 35: NE/4 NE/4, S/2 N/2	200.00	10.41667	UNION OIL COMPANY OF CALIFORNIA
4	NM-11618 FEDERAL	SEC. 26: SE/4 NE/4	40.00	2.08333	UNION OIL COMPANY OF CALIFORNIA
5	NM-15917 FEDERAL	SEC. 26: N/2 NE/4, SW/4 NE/4	120.00	6.25000	UNION OIL COMPANY OF CALIFORNIA
6	NM-27572 FEDERAL	SEC. 35: S/2	320.00	16.66667	UNION OIL COMPANY OF CALIFORNIA
7	NM-27573 FEDERAL	SEC. 35: NW/4 NE/4, N/2 NW/4	120.00	6.25000	UNION OIL COMPANY OF CALIFORNIA
8	NM-83611 FEDERAL	SEC. 25: NW/4	160.00	8.33333	UNION OIL COMPANY OF CALIFORNIA
9	NM-29701 FEDERAL	SEC. 26: W/2 SE/4	80.00	4.16667	UNION OIL COMPANY OF CALIFORNIA
10	NM-30071 FEDERAL	SEC. 26: NW/4, E/2 SE/4	240.00	12.50000	UNION OIL COMPANY OF CALIFORNIA
11	B-1581-6 STATE	SEC. 36: SW/4	160.00	8.33334	HONDO OIL & GAS COMPANY

PARTICIPATING AREA  
LAGUNA DEEP UNIT AGREEMENT  
LEA COUNTY, NEW MEXICO

<u>TRACT NO.</u>	<u>LEASE NO. OR TYPE OF LAND</u>	<u>DESCRIPTION</u>	<u>PARTICIPATING ACRES</u>	<u>PERCENT OF PARTICIPATION</u>	<u>WORKING INTEREST OWNER</u>
		ALL LANDS ARE IN T-19-S, R-33-E, N.M.P.M.			
12	LG-2485 STATE	SEC. 36: NW/4	160.00	8.33333	UNION OIL COMPANY OF CALIFORNIA
14	PATENTED LAND	SEC. 25: SW/4	160.00	8.33333	UNION OIL COMPANY OF CALIFORNIA
		TOTAL	1920.00	100.00000	

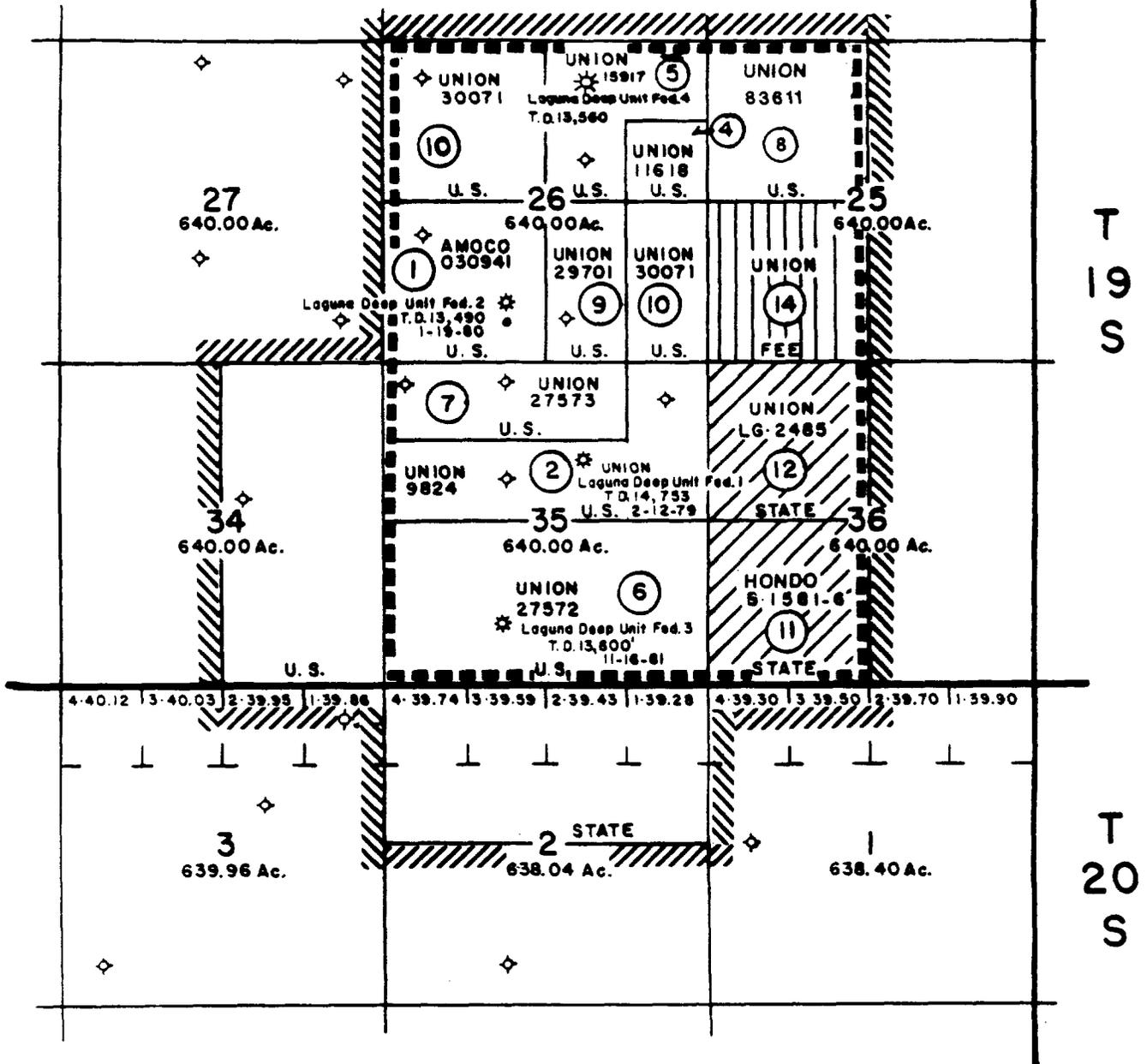
SUMMARY

<u>TYPE LAND</u>	<u>COMMITTED ACRES</u>	<u>PERCENT</u>
FEDERAL	1440.00	75.00000
STATE	320.00	16.66667
PATENTED	160.00	8.33333
	1920.00	100.00000

REVISED EFFECTIVE 4/1/90

R 33 E

LAGUNA DEEP UNIT



	ORIGINAL UNIT BOUNDARY		
	REVISED UNIT BOUNDARY & PARTICIPATING AREA		
	FEDERAL	1440.00 Ac.	75.00000 %
	STATE	320.00 Ac.	16.66667 %
	FEE	160.00 Ac.	8.33333 %
		<u>1920.00 Ac.</u>	<u>100.00000 %</u>

EXHIBIT "A"-(REVISED)

LAGUNA DEEP UNIT

(AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)

LEA COUNTY, NEW MEXICO



① TRACT NUMBER- EXHIBIT "B"

REVISED EXHIBIT "B" - LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

<u>TRACT NO.</u>	<u>DESCRIPTION OF LAND</u>	<u>NUMBER OF ACRES</u>	<u>SERIAL NO. &amp; EXPIRATION DATE OF LEASE</u>	<u>BASIC ROYALTY AND OWNERSHIP PERCENTAGE</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING ROYALTY AND PERCENTAGE</u>	<u>WORKING INTEREST AND PERCENTAGE</u>
<u>FEDERAL LAND</u>							
1	SEC. 26: SW/4	160.00	NM-030941 HBP	U.S.A. (12.50%)	AMOCO PRODUCTION COMPANY	VIRGINIA WILLIS HESS, PERSONAL REPRESENTATIVE OF THE ESTATE OF EUGENIA W. BATE, DEC'D 1 1/2% OF 8/8 R. M. HESS & VIRGINIA W. HESS, TRUSTEES UNDER AGREEMENT DATED 4/10/72 1% OF 8/8 ELIZABETH W. CHRISTENSEN AND HUSBAND, DON T. CHRISTENSEN 1/2% OF 8/8 MINIFRED T. SEATON 1/2% OF 8/8 JO ANN W. LIGHT & HUSBAND ROBERT S. LIGHT 1/2% OF 8/8	AMOCO PRODUCTION COMPANY - 100%
2	SEC. 35: NE/4 NE/4, S/2 N/2	200.00	NM-9824 7/31/79	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	W. FEICK, JR. & WIFE, JOAN W. FEICK \$750/ACRE PPI OUT OF 5%	UNION OIL COMPANY OF CALIFORNIA - 100%
4	SEC. 26: SE/4 NE/4	40.00	NM-11618 4/30/90	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	CALVIN A. MITCHELL & WIFE, EVELYN MITCHELL 4% LEO POLLACK 1/4% M. A. SCHOFMAN	UNION OIL COMPANY OF CALIFORNIA - 100%
5	SEC. 26: N/2 NE/4, SW/4 NE/4	120.00	NM-15917 6/30/82	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	GWEN P. TAYLOR & HUSBAND, CHARLES G. TAYLOR, AND CARL A. NILSEN & WIFE, GEORGEANNE NILSEN 5%	UNION OIL COMPANY OF CALIFORNIA - 100%

REVISED EXHIBIT "B" - LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

<u>TRACT NO.</u>	<u>DESCRIPTION OF LAND</u>	<u>NUMBER OF ACRES</u>	<u>SERIAL NO. &amp; EXPIRATION DATE OF LEASE</u>	<u>BASIC ROYALTY AND OWNERSHIP PERCENTAGE</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING ROYALTY AND PERCENTAGE</u>	<u>WORKING INTEREST AND PERCENTAGE</u>
6	SEC. 35: S/2	320.00	NM-27572 5/31/83	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	BAKERSFIELD INVESTMENT TRUST, LUCILLE WILSON, TRUSTEE 2 1/2% BANK OF AMERICA, NT&SA, AS TRUSTEE OF THE CHARLES E. STRANGE 1976 TRUST #1 1 1/2% OF 8/8 C. E. STRANGE & WIFE, SHERRIE R. STRANGE 1% OF 8/8	UNION OIL COMPANY OF CALIFORNIA - 100%
7	SEC. 35: NW/4 NE/4, N/2 NW/4	120.00	NM-27573 11/30/78	U.S.A. (SCHEDULE "B")	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
8	SEC. 25: NW/4	160.00	NM-83611 3/31/95	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
9	SEC. 26: W/2 SE/4	80.00	NM-29701 2/28/82	U.S.A. (SCHEDULE "B")	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
10	SEC. 26: NW/4, E/2 SE/4	240.00	NM-30071 4/30/87	U.S.A. (12.50%)	UNION OIL COMPANY OF CALIFORNIA	CAROL L. TEIGEN & THEODORE H. TEIGEN, JR. 5%	UNION OIL COMPANY OF CALIFORNIA - 100%
9 FEDERAL TRACTS 1440.00 ACRES OR 75.00000% OF UNIT AREA.							
<u>NEW MEXICO STATE LAND</u>							
11	SEC. 36: SW/4	160.00	B-1581-6 HBP	STATE OF NEW MEXICO (12.50%)	HONDO OIL & GAS COMPANY	NONE	HONDO OIL & GAS COMPANY

REVISED EXHIBIT "B" - LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

<u>TRACT NO.</u>	<u>DESCRIPTION OF LAND</u>	<u>NUMBER OF ACRES</u>	<u>SERIAL NO. &amp; EXPIRATION DATE OF LEASE</u>	<u>BASIC ROYALTY AND OWNERSHIP PERCENTAGE</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING ROYALTY AND PERCENTAGE</u>	<u>WORKING INTEREST AND PERCENTAGE</u>
12	SEC. 36: NW/4	160.00	LG-2485 1/1/85	STATE OF NEW MEXICO (12.50%)	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%

2 STATE TRACTS 320.00 ACRES OR 16.66667% OF UNIT AREA.

PATENTED LAND

14	SEC. 25: SW/4	160.00	12/20/77* 12/20/80*	MARK SMITH & WIFE, ANNIE LORA SMITH; KENNETH MARK SMITH & WIFE, PATSY LOU SMITH; WILLIAM C. SMITH & WIFE, NANCY JEAN SMITH; LORA NELL GLENN & HUSBAND, WILLIAM JEFF GLENN (18.75%)	UNION OIL COMPANY OF CALIFORNIA	NONE	UNION OIL COMPANY OF CALIFORNIA - 100%
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1 PATENTED TRACT 160.00 ACRES OR 8.33333% OF UNIT AREA.

TOTAL: 12 TRACTS 1920.00 ACRES IN ENTIRE UNIT AREA

\*LEASE HAS BEEN RENEWED BY OIL AND GAS LEASE DATED JUNE 4, 1977, RECORDED IN VOL. 304, PAGE 260 OF THE RECORDS OF LEA COUNTY, NEW MEXICO.  
PRIMARY TERM IS STATED AS BEING 3 YEARS FROM 12/20/77.

EXHIBIT "C"  
 FIRST REVISION MORROW FORMATION  
 PARTICIPATING AREA  
 LAGUNA DEEP UNIT AGREEMENT  
 LEA COUNTY, NEW MEXICO

<u>TRACT NO.</u>	<u>LEASE NO. OR TYPE OF LAND</u>	<u>DESCRIPTION</u>	<u>PARTICIPATING ACRES</u>	<u>PERCENT OF PARTICIPATION</u>	<u>WORKING INTEREST OWNER</u>
		<u>ALL LANDS ARE IN T-19-S, R-33-E, N.M.P.M.</u>			
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4	NM-11618 FEDERAL	SEC. 26: SE/4 NE/4	40.00	2.08333	UNION OIL COMPANY OF CALIFORNIA
5	NM-15917 FEDERAL	SEC. 26: N/2 NE/4, SW/4 NE/4	120.00	6.25000	UNION OIL COMPANY OF CALIFORNIA
6	NM-27572 FEDERAL	SEC. 35: S/2	320.00	16.66667	UNION OIL COMPANY OF CALIFORNIA
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8	NM-83611 FEDERAL	SEC. 25: NW/4	160.00	8.33333	UNION OIL COMPANY OF CALIFORNIA
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10	NM-30071 FEDERAL	SEC. 26: NW/4, E/2 SE/4	240.00	12.50000	UNION OIL COMPANY OF CALIFORNIA
11	B-1581-6 STATE	SEC. 36: SW/4	160.00	8.33334	HONDO OIL & GAS COMPANY

PARTICIPATING AREA  
LAGUNA DEEP UNIT AGREEMENT  
LEA COUNTY, NEW MEXICO

<u>TRACT NO.</u>	<u>LEASE NO. OR TYPE OF LAND</u>	<u>DESCRIPTION</u>	<u>PARTICIPATING ACRES</u>	<u>PERCENT OF PARTICIPATION</u>	<u>WORKING INTEREST OWNER</u>
		<u>ALL LANDS ARE IN T-19-S, R-33-E, N.M.P.M.</u>			
12	LG-2485 STATE	SEC. 36: NW/4	160.00	8.33333	UNION OIL COMPANY OF CALIFORNIA
14	PATENTED LAND	SEC. 25: SW/4	160.00	8.33333	UNION OIL COMPANY OF CALIFORNIA
		TOTAL	1920.00	100.00000	

SUMMARY

<u>TYPE LAND</u>	<u>COMMITTED ACRES</u>	<u>PERCENT</u>
FEDERAL	1440.00	75.00000
STATE	320.00	16.66667
PATENTED	160.00	8.33333
	1920.00	100.00000

REVISED EFFECTIVE 4/1/90

Unocal North American  
Oil & Gas Division  
Unocal Corporation  
1004 North Big Spring Street, Suite 300  
P O Box 3100  
Midland, Texas 79702  
Telephone (915) 684-8231

RECEIVED  
MAR 10 AM 8 46



March 15, 1990

Southwestern Region



Bureau of Land Management  
Roswell District Office  
P. O. Box 1397  
Roswell, New Mexico 88201-1397

Attn: Francis R. Cherry  
District Manager

Re: 1990 Plan of Development  
Laguna Deep Unit Area  
Lea County, New Mexico  
Laguna Prospect (7729)

Gentlemen:

Please find enclosed for your approval two copies of Union's  
1990 Plan of Development for the Laguna Deep Unit Area

Should you have any questions, please let me know.

Sincerely yours,

Union Oil Company of California

Linda H. Hicks  
Supervisor of Contracts

LHH:jpp

Enclosures

Plan of Development  
1990-1992

MAR 16 1990

1990 PLAN OF DEVELOPMENT AND OPERATION  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO

TO: Bureau of Land Management  
Roswell District Office  
P. O. Box 1397  
Roswell, New Mexico 88201-1397

Attn: Francis R. Cherry  
District Manager

Union Oil Company of California as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978, (No. 14-08-001-16905), respectfully submits for approval this 1990 Plan of Development and Operation for the Laguna Deep Unit Area for the period ending December 31, 1990.

SUMMARY OF 1989 OPERATIONS:

The Laguna Deep Federal Unit #4 well was spudded October 17, 1989 in Section 26-19S-33E.

The Laguna Deep Unit Well No. 1 was successfully recompleted in the Middle Morrow in May, 1989.

Production for the year is summarized below.

<u>Well No.</u>	<u>Completed Interval</u>	<u>1989 Production</u> <u>MMCF + BC</u>	<u>Current Test</u> <u>MCF/D + BC/D</u>
Laguna Deep #1	Middle Morrow	149.8 + 6,799	682 + 30
Laguna Deep #2	Middle Morrow	18.6 + 269	87 + 0
Laguna Deep #3	Middle Morrow	314.9 + 19,157	888 + 51

PLAN OF DEVELOPMENT FOR 1990

Union plans to finish the completion of the Laguna Deep Unit Well No. 4 by the end of March. A recompletion of the Laguna Deep Unit Well No. 2 in the Middle Morrow is also planned for this year.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 15 day of March, 1990.

Sincerely yours,

Union Oil Company of California  
dba Unocal

*Linda H. Hicks*  
Linda H. Hicks  
Supervisor of Contracts

Laguna Deep Federal #1

	<u>Condensate</u> <u>(Bbls)</u>	<u>Gas</u> <u>(MCF)</u>
<u>1988</u>		
Jan.	995	17543
Feb.	1041	19387
Mar.	1193	22606
Apr.	1150	22955
May	595	11671
June	788	868
July	1331	27124
Aug.	1147	23482
Sept.	805	17874
Oct.	208	7194
Nov.	--	264
Dec.	--	397
<u>1989</u>		
Jan.	--	150
Feb.	--	466
Mar.	--	150
Apr.	67	1228
May	607	11378
June	843	15834
July	901	17456
Aug.	868	18814
Sept.	911	19869
Oct.	883	21632
Nov.	879	21440
Dec.	840	21464

Laguna Deep Unit Federal #2

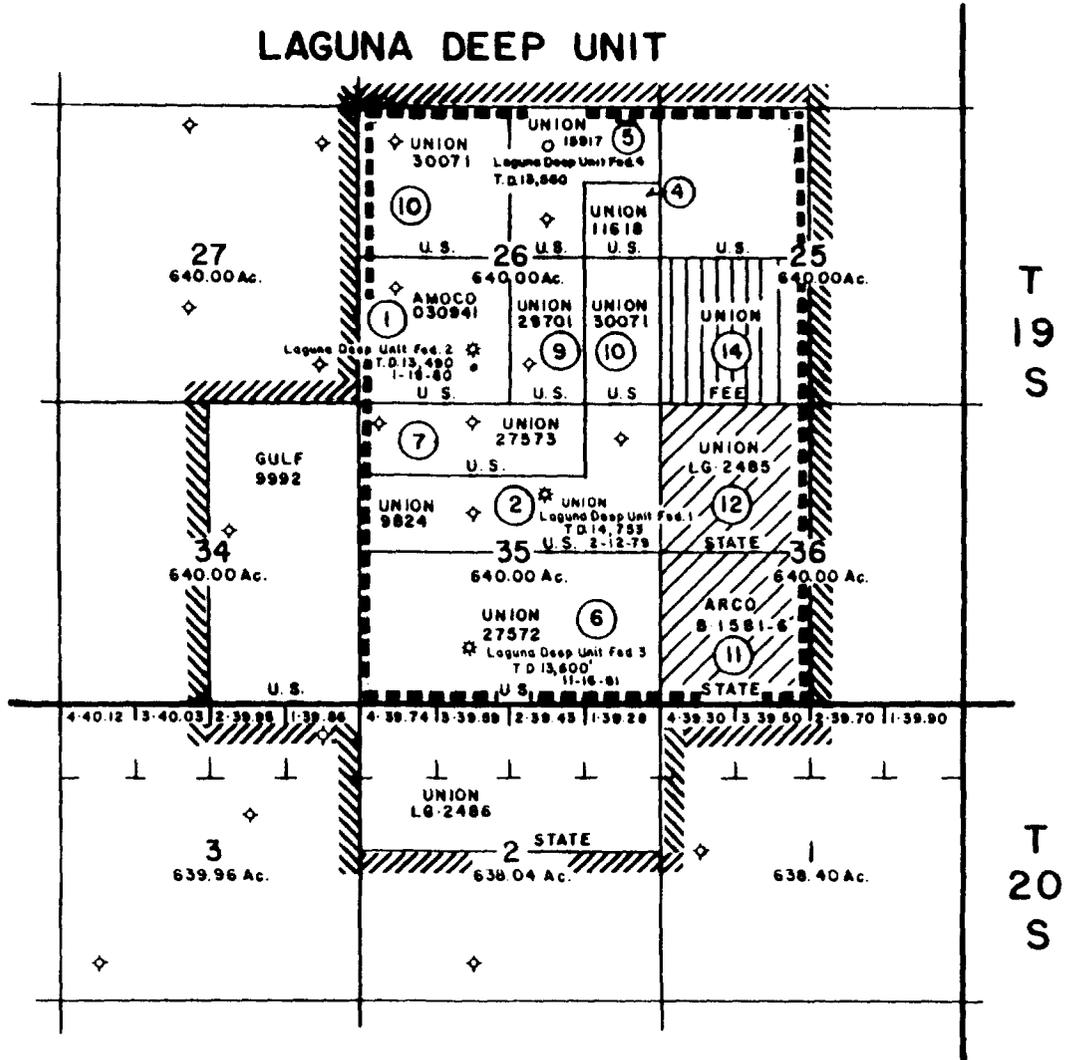
	<u>Condensate</u> <u>(Bbls)</u>	<u>Gas</u> <u>(MCF)</u>
<u>1988</u>		
Jan.	42	3047
Feb.	58	3727
Mar.	56	4601
Apr.	77	4987
May	74	5280
June	69	4585
July	58	4676
Aug.	17	2350
Sept.	33	2681
Oct.	11	2093
Nov.	2	1948
Dec.	--	495
<u>1989</u>		
Jan.	--	200
Feb.	3	200
Mar.	2	200
Apr.	66	200
May	71	200
June	60	200
July	22	0
Aug.	36	4402
Sept.	9	3444
Oct.	0	3465
Nov.	0	3200
Dec.	0	2918

### Laguna Deep Unit Federal #3

	<u>Condensate</u> <u>(Bbls)</u>	<u>Gas</u> <u>(MCF)</u>
<u>1988</u>		
Jan.	2590	32609
Feb.	2173	28330
Mar.	2375	31190
Apr.	2120	30710
May	1072	15745
June	1253	17103
July	2059	31087
Aug.	2108	31918
Sept.	1802	25714
Oct.	2072	31240
Nov.	2084	29878
Dec.	2194	31029
<u>1989</u>		
Jan.	1923	28067
Feb.	1835	26327
Mar.	1396	20859
Apr.	1111	17201
May	1888	30054
June	1735	28335
July	1727	29109
Aug.	1693	28712
Sept.	1569	27169
Oct.	1559	28215
Nov.	1518	26884
Dec.	1203	24038

R 33 E

LAGUNA DEEP UNIT

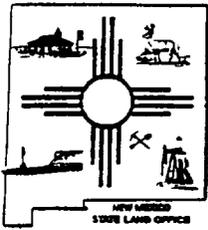


	ORIGINAL UNIT BOUNDARY
	REVISED UNIT BOUNDARY & PARTICIPATING AREA
	FEDERAL 1440.00 Ac. 75.00000 %
	STATE 320.00 Ac. 16.66667 %
	FEE 160.00 Ac. 8.33333 %
	1920.00 Ac. 100.00000 %

EXHIBIT "A" - (REVISED)  
 LAGUNA DEEP UNIT  
 (AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)  
 LEA COUNTY, NEW MEXICO



① TRACT NUMBER-EXHIBIT "B"



State of New Mexico  
Commissioner of Public Lands

#6182

W. R. Humphries  
COMMISSIONER

April 2, 1990

Advisory Board

George Clark  
Chairman

Kristin Conniff  
Vice Chairman

Melvin Cordova

Joe Kelly

Robert Portillos

Nancy Lynch Vigil

Rex Wilson

UNOCAL Corporation  
P.O. Box 3100  
Midland, Texas 79702

ATTN: Ms. Linda Hicks

RE: ~~UNOCAL UNIT~~  
Lea County, New Mexico  
1990 Plan of Development

Gentlemen:

The Commissioner of Public Lands has this date approved the 1990 Plan of Development for the Laguna Deep Unit. Our approval is subject to like approval by all other appropriate agencies.

The possibility of drainage by wells outside of the Unit Area and the need for further development of the Unit may exist. You will be contacted at a later date regarding these possibilities.

Enclosed is an approved copy of the 1990 Plan of Development for your files. If we may be of further help, please do not hesitate to contact Susan Howarth at (505) 827-5791.

Very truly yours,

W.R. HUMPHRIES,  
COMMISSIONER OF PUBLIC LANDS

BY:

FLOYD O. PRANDO, Director  
Oil and Gas Division  
(505) 827-5749

cc: OCD - Santa Fe, New Mexico  
BLM  
Unit Correspondence File  
Unit P.O.D. File

WRH/FOP/SMH

Unocal North American  
Oil & Gas Division  
Unocal Corporation  
1004 North Big Spring Street, Suite 300  
P.O. Box 3100  
Midland, Texas 79702  
Telephone (915) 684-8231

**UNOCAL** 

Southwestern Region

3-23-90  
D-Unit letter  
Thx  
Ry

March 15, 1990

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

Attn: Mr. William J. LeMay,  
Director

Re: 1990 Plan of Development  
~~Laguna Deep Unit Area~~  
Lea County, New Mexico  
Laguna Prospect (7729)

Gentlemen:

Please find enclosed for your approval two copies of Union's  
1990 Plan of Development for the Laguna Deep Unit Area.

Should you have any questions, please let me know.

Sincerely yours,

Union Oil Company of California



Linda H. Hicks  
Supervisor of Contracts

LHH:jpp

Enclosures

1990 PLAN OF DEVELOPMENT AND OPERATION  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO

TO: Oil Conservation Division  
Energy and Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Attn: Mr. William J. LeMay,  
Director

Union Oil Company of California as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978, (No. 14-08-001-16905), respectfully submits for approval this 1990 Plan of Development and Operation for the Laguna Deep Unit Area for the period ending December 31, 1990.

SUMMARY OF 1989 OPERATIONS:

The Laguna Deep Federal Unit #4 well was spudded October 17, 1989 in Section 26-19S-33E.

The Laguna Deep Unit Well No. 1 was successfully recompleted in the Middle Morrow in May, 1989.

Production for the year is summarized below.

<u>Well No.</u>	<u>Completed Interval</u>	<u>1989 Production</u> MMCF + BC	<u>Current Test</u> MCF/D + BC/D
Laguna Deep #1	Middle Morrow	149.8 + 6,799	682 + 30
Laguna Deep #2	Middle Morrow	18.6 + 269	87 + 0
Laguna Deep #3	Middle Morrow	314.9 + 19,157	888 + 51

PLAN OF DEVELOPMENT FOR 1990

Union plans to finish the completion of the Laguna Deep Unit Well No. 4 by the end of March. A recompletion of the Laguna Deep Unit Well No. 2 in the Middle Morrow is also planned for this year.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 15 day of March, 1990.

Sincerely yours,

Union Oil Company of California  
dba Unocal

*Linda H. Hicks*

Linda H. Hicks  
Supervisor of Contracts

LHH:jpp

Laguna Deep Federal #1

	<u>Condensate</u> <u>(Bbls)</u>	<u>Gas</u> <u>(MCF)</u>
<u>1988</u>		
Jan.	995	17543
Feb.	1041	19387
Mar.	1193	22606
Apr.	1150	22955
May	595	11671
June	788	868
July	1331	27124
Aug.	1147	23482
Sept.	805	17874
Oct.	208	7194
Nov.	--	264
Dec.	--	397
<u>1989</u>		
Jan.	--	150
Feb.	--	466
Mar.	--	150
Apr.	67	1228
May	607	11378
June	843	15834
July	901	17456
Aug.	868	18814
Sept.	911	19869
Oct.	883	21632
Nov.	879	21440
Dec.	840	21464

Laguna Deep Unit Federal #2

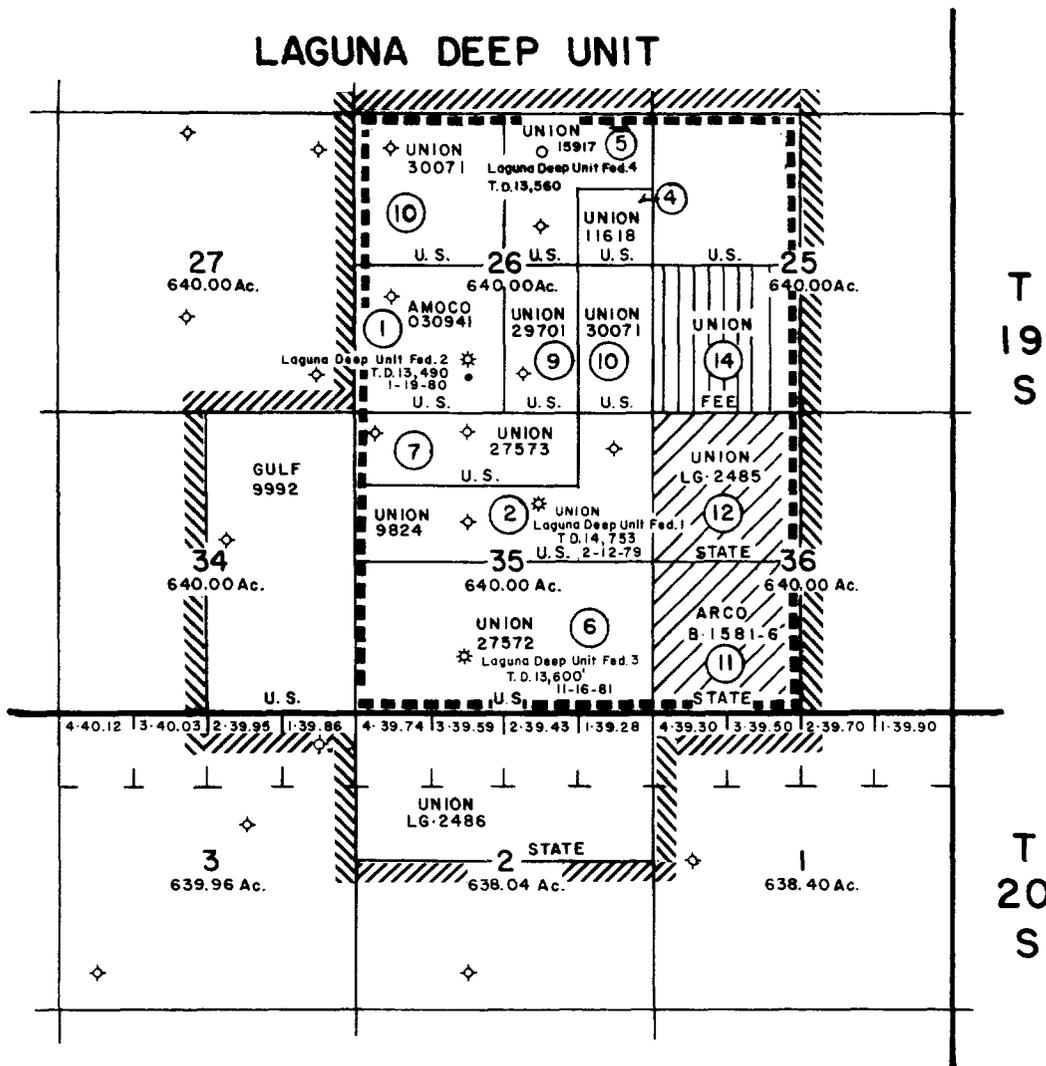
	<u>Condensate</u> <u>(Bbls)</u>	<u>Gas</u> <u>(MCF)</u>
<u>1988</u>		
Jan.	42	3047
Feb.	58	3727
Mar.	56	4601
Apr.	77	4987
May	74	5280
June	69	4585
July	58	4676
Aug.	17	2350
Sept.	33	2681
Oct.	11	2093
Nov.	2	1948
Dec.	--	495
<u>1989</u>		
Jan.	--	200
Feb.	3	200
Mar.	2	200
Apr.	66	200
May	71	200
June	60	200
July	22	0
Aug.	36	4402
Sept.	9	3444
Oct.	0	3465
Nov.	0	3200
Dec.	0	2918

Laguna Deep Unit Federal #3

	<u>Condensate</u> <u>(Bbls)</u>	<u>Gas</u> <u>(MCF)</u>
<u>1988</u>		
Jan.	2590	32609
Feb.	2173	28330
Mar.	2375	31190
Apr.	2120	30710
May	1072	15745
June	1253	17103
July	2059	31087
Aug.	2108	31918
Sept.	1802	25714
Oct.	2072	31240
Nov.	2084	29878
Dec.	2194	31029
<u>1989</u>		
Jan.	1923	28067
Feb.	1835	26327
Mar.	1396	20859
Apr.	1111	17201
May	1888	30054
June	1735	28335
July	1727	29109
Aug.	1693	28712
Sept.	1569	27169
Oct.	1559	28215
Nov.	1518	26884
Dec.	1203	24038

R 33 E

LAGUNA DEEP UNIT



T 19 S

T 20 S

	ORIGINAL UNIT BOUNDARY		
	REVISED UNIT BOUNDARY & PARTICIPATING AREA		
	FEDERAL	1440.00 Ac.	75.00000 %
	STATE	320.00 Ac.	16.66667 %
	FEE	160.00 Ac.	8.33333 %
		<u>1920.00 Ac.</u>	<u>100.00000 %</u>

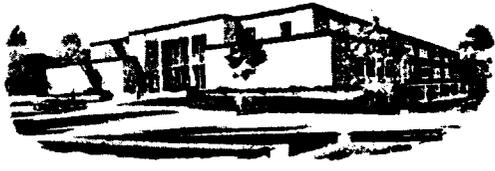
EXHIBIT "A" - (REVISED)  
 LAGUNA DEEP UNIT  
 (AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)  
 LEA COUNTY, NEW MEXICO



① TRACT NUMBER-EXHIBIT "B"

OCP

State of New Mexico



OCD

W.R. HUMPHRIES  
COMMISSIONER

Commissioner of Public Lands

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

September 22, 1989

Unocal Oil and Gas Division  
Unocal Corporation  
P.O. Box 671  
Midland, TX 79702

#6182

ATTN: Linda H. Hicks  
  
RE: Laguna Deep Unit  
Lea County, New Mexico  
1989 Plan of Development - First Amendment

Gentlemen:

The Commissioner of Public Lands has this date approved the First Amendment to your 1989 Plan of Development. Our approval is subject to like approval by all other appropriate agencies.

Enclosed is an approved copy for your files. If we may be of further help, please do not hesitate to contact Susan Howarth at (505) 827-5791.

Very truly yours,

W.R. HUMPHRIES  
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*  
FLOYD O. PRANDO, Director  
Oil and Gas Division  
(505) 827-5749

cc: OCD - Santa Fe, New Mexico  
BLM  
Unit Correspondence File  
Unit P.O.D. File

WRH/FOP/SMH

Unocal Oil & Gas Division  
Unocal Corporation  
1004 North Big Spring Street, P.O. Box 671  
Midland, Texas 79702  
Telephone (915) 682-9731

D-  
9-20-89  
Unit letter  
TK  
R

**UNOCAL** 76

Midland District  
Central Region

September 19, 1989

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

Attn: Mr. William J. LeMay,  
Director

Amended 1989 Plan of Development  
Laguna Deep Unit  
Laguna Prospect (7729)  
Lea County, New Mexico

Gentlemen:

Please find enclosed for your approval two copies of Union's Amended 1989 Plan of Development and Operation for the Laguna Deep Unit, necessitated by our recent plan to drill the Laguna Deep Unit #4 well. We would appreciate your expediting your approval as we plan to spud the Laguna Deep Unit #4 well on or about October 6, 1989.

Should you have any questions, please let me know.

Sincerely yours,

Union Oil Company of California

*Linda H. Hicks*

Linda H. Hicks  
Landman

LHH:jpp

Enclosures

AMENDED  
1989 PLAN OF DEVELOPMENT AND OPERATIONS  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO

TO: Oil Conservation Division  
Energy and Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Attn: Mr. William J. LeMay,  
Director

Union Oil Company of California as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-16905) respectfully submits for approval this Amended 1989 Plan of Development and Operation for the Laguna Deep Unit Area for the period ending December 31, 1989.

SUMMARY OF 1988 OPERATIONS

No new wells were drilled in 1988. Production for the past year is summarized in the table below.

Well No.	Completed Interval	1988 Production			Current Test	
		MMCF	+	BC	MCFD	+ BCPD
Laguna Deep 1	Lower Morrow	171.365	+	9,253	515	+ 38
Laguna Deep 2	Middle Morrow	40.470	+	497	134	+ 0
Laguna Deep 3	Middle Morrow	336.553	+	23,902	1080	+ 70

PLAN OF DEVELOPMENT FOR 1989

The Laguna Deep Unit Well #1 was recompleted in the Middle Morrow on April 28, 1989 with perforations at 13,000-13,016 feet. The well is currently producing 515 MCFPD plus 38 barrels of condensate per day.

Union is planning to spud a 13,600 foot Morrow well, the Laguna Deep Unit Well #4, located 660' FNL & 1980' FEL Section 26-19S-33E, on or about October 6, 1989.

This plan may be modified or supplemented from time to time with the approval needed, when necessary to meet changed conditions or to protect the interest of all parties in the Unit Agreement.

Submitted this 19 day of September, 1989.

Sincerely yours,

Union Oil Company of California  
dba UNOCAL

*Linda H. Hicks*

Linda H. Hicks  
Landman



AMENDED  
1989 PLAN OF DEVELOPMENT AND OPERATIONS  
LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO

TO: Oil Conservation Division  
Energy and Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Attn: Mr. William J. LeMay,  
Director

Union Oil Company of California as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-16905) respectfully submits for approval this Amended 1989 Plan of Development and Operation for the Laguna Deep Unit Area for the period ending December 31, 1989.

SUMMARY OF 1988 OPERATIONS

No new wells were drilled in 1988. Production for the past year is summarized in the table below.

Well No.	Completed Interval	1988 Production			Current Test	
		MMCF	+	BC	MCFD	+ BCPD
Laguna Deep 1	Lower Morrow	171.365	+	9,253	515	+ 38
Laguna Deep 2	Middle Morrow	40.470	+	497	134	+ 0
Laguna Deep 3	Middle Morrow	336.553	+	23,902	1080	+ 70

PLAN OF DEVELOPMENT FOR 1989

The Laguna Deep Unit Well #1 was recompleted in the Middle Morrow on April 28, 1989 with perforations at 13,000-13,016 feet. The well is currently producing 515 MCFPD plus 38 barrels of condensate per day.

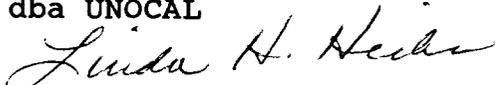
Union is planning to spud a 13,600 foot Morrow well, the Laguna Deep Unit Well #4, located 660' FNL & 1980' FEL Section 26-19S-33E, on or about October 6, 1989.

This plan may be modified or supplemented from time to time with the approval needed, when necessary to meet changed conditions or to protect the interest of all parties in the Unit Agreement.

Submitted this 19 day of September, 1989.

Sincerely yours,

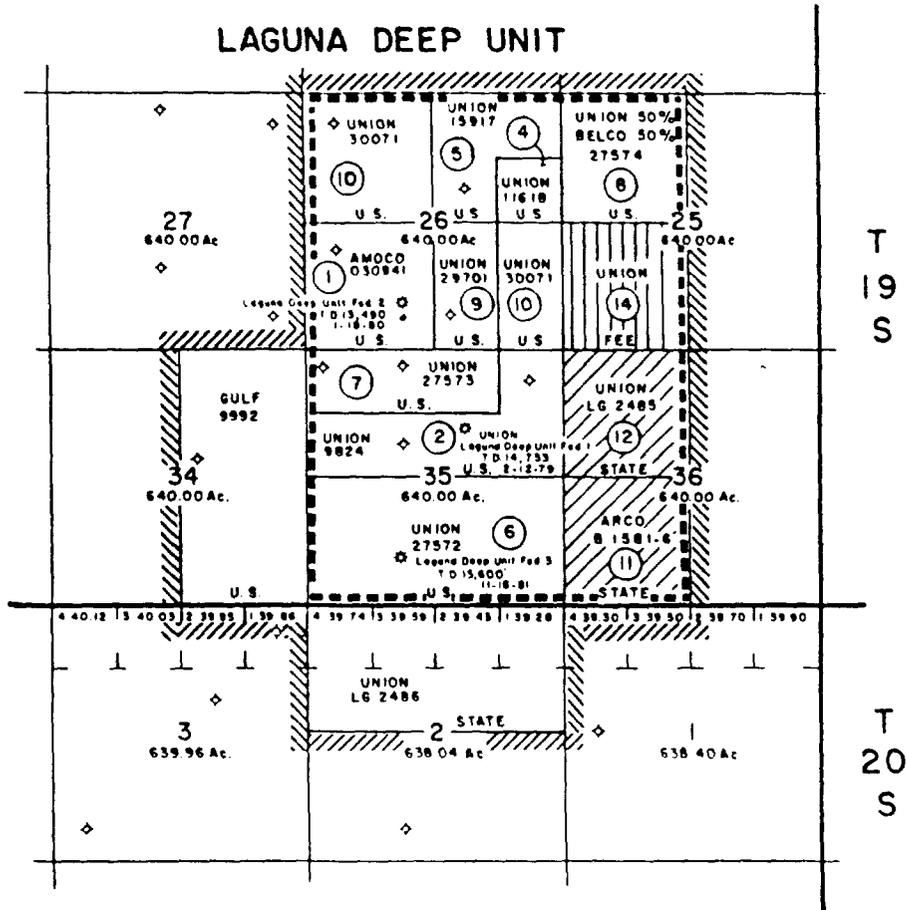
Union Oil Company of California  
dba UNOCAL

  
Linda H. Hicks  
Landman

LHH:jpp

R 33 E

LAGUNA DEEP UNIT



	ORIGINAL UNIT BOUNDARY		
	REVISED UNIT BOUNDARY & PARTICIPATING AREA		
	FEDERAL	1440.00 Ac	75.00000 %
	STATE	320.00 Ac	16.66667 %
	FEE	160.00 Ac	8.33333 %
		<u>1920.00 Ac</u>	<u>100.00000 %</u>

EXHIBIT "A" - (REVISED)  
 LAGUNA DEEP UNIT  
 (AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)  
 LEA COUNTY, NEW MEXICO



State of New Mexico



W.R. HUMPHRIES  
COMMISSIONER

Commissioner of Public Lands

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

SLO REF NO. OG-1016

February 7, 1989

#6182

Unocal Oil and Gas Division  
Attn: Ms. Linda H. Hicks  
P. O. Box 671  
Midland, Texas 79702

Re: 1989 Plan of Development  
Laguna Deep Unit  
Lea County, New Mexico

Gentlemen:

The Commissioner of Public Lands has this date approved the above captioned Plan of Development.

Our approval is subject to like approval by all other appropriate agencies.

Enclosed is an approved copy for your files.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES  
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*  
FLOYD O. PRANDO, Director  
Oil and Gas Division  
(505) 827-5744

cc: OCD  
BLM

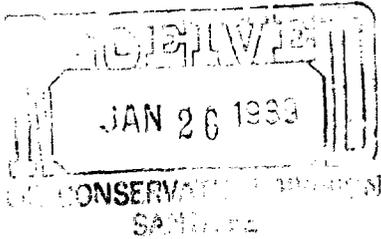
Unocal Oil & Gas Division  
Unocal Corporation  
1004 North Big Spring Street, P.O. Box 671  
Midland, Texas 79702  
Telephone (915) 682-9731

**UNOCAL** 76

*D. T. Fletcher  
Unit letter  
Tux  
Ry*

Midland District  
Central Region

January 23, 1989



Oil Conservation Division  
Energy and Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. William J. LeMay  
Director

1989 Plan of Development  
Laguna Deep Unit  
Laguna Prospect (7729)  
Lea County, New Mexico

**Gentlemen:**

Please find enclosed for your approval two copies of Union's 1989 Plan of Development and Operation for the Laguna Deep Unit. Inasmuch as we plan some reworking on the Laguna #1 as soon as possible, we would appreciate your expediting the approval of our Plan.

Should you have any questions, please let me know.

Sincerely,

Union Oil Company of California

*Linda H. Hicks*

Linda H. Hicks  
Landman

LHH:jpp

Enclosures (2)

*OK  
1-30-89*

1989 Plan of Development and Operations  
for  
Laguna Deep Unit Area  
Lea County, New Mexico

TO: Oil Conservation Division  
Energy and Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501  
Attn: Mr. William J. LeMay  
Director

Union Oil Company of California as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978, (No. 14-08-001-16905), respectfully submits for approval this 1989 Plan of Development and Operation for the Laguna Deep Unit Area, for the period ending December 31, 1989.

Summary of 1988 Operations

No new wells were drilled in 1988. Production for the past year is summarized in the table below.

Well No.	Completed Interval	1988 Production			Current Test MCFD + BCPD
		MMCF	+	BC	
Laguna Deep 1	Lower Morrow	171.365	+	9,253	Shut-in
Laguna Deep 2	Middle Morrow	40.470	+	497	134 + 0
Laguna Deep 3	Middle Morrow	336.553	+	23,902	1080 + 70

Plan of Development for 1989:

Union has no current plans to drill any new wells in the Unit in 1989. However, the Laguna Deep Unit Well #1 ceased to produce as of 12/25/88 and Union is planning to recomplete the well in the Middle Morrow zone as soon as possible.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Sincerely yours,

Union Oil Company of California

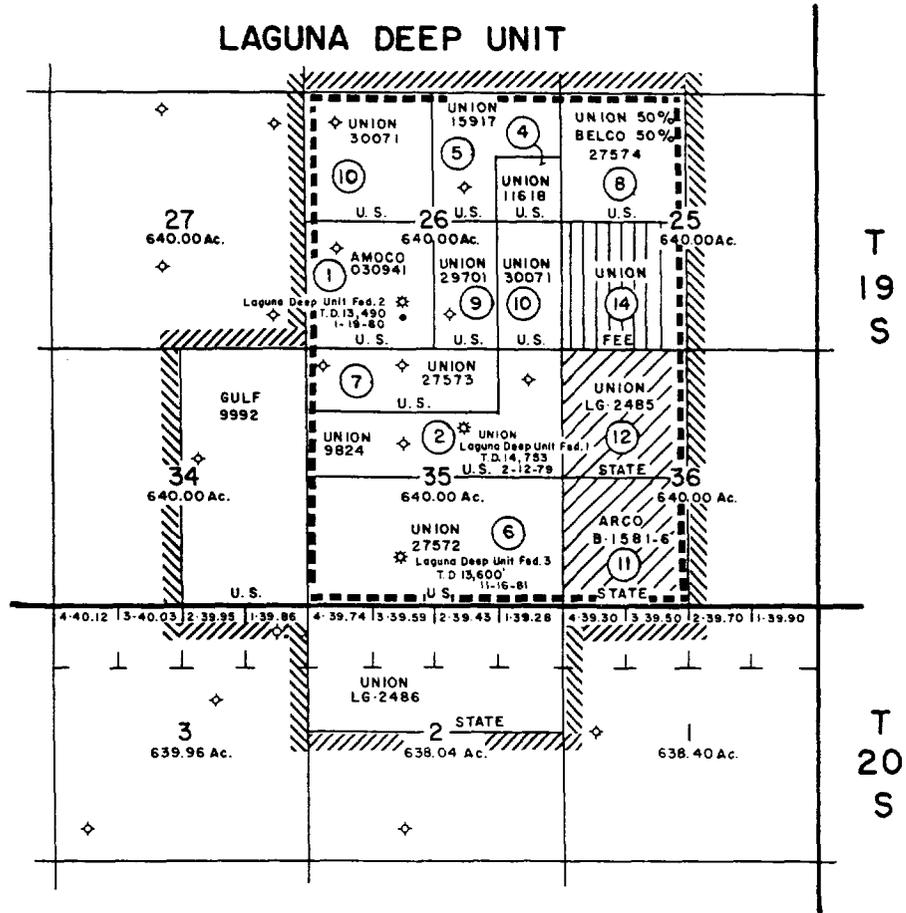
  
Hugh H. Herndon  
District Land Manager

LHH:jp

Submitted this 23 of January, 1989.

R 33 E

LAGUNA DEEP UNIT



	ORIGINAL UNIT BOUNDARY
	REVISED UNIT BOUNDARY & PARTICIPATING AREA
	FEDERAL 1440.00 Ac. 75.00000 %
	STATE 320.00 Ac. 16.66667 %
	FEE 160.00 Ac. 8.33333 %
	<hr/> 1920.00 Ac. 100.00000 %

EXHIBIT "A"-(REVISED)  
 LAGUNA DEEP UNIT  
 (AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)  
 LEA COUNTY, NEW MEXICO

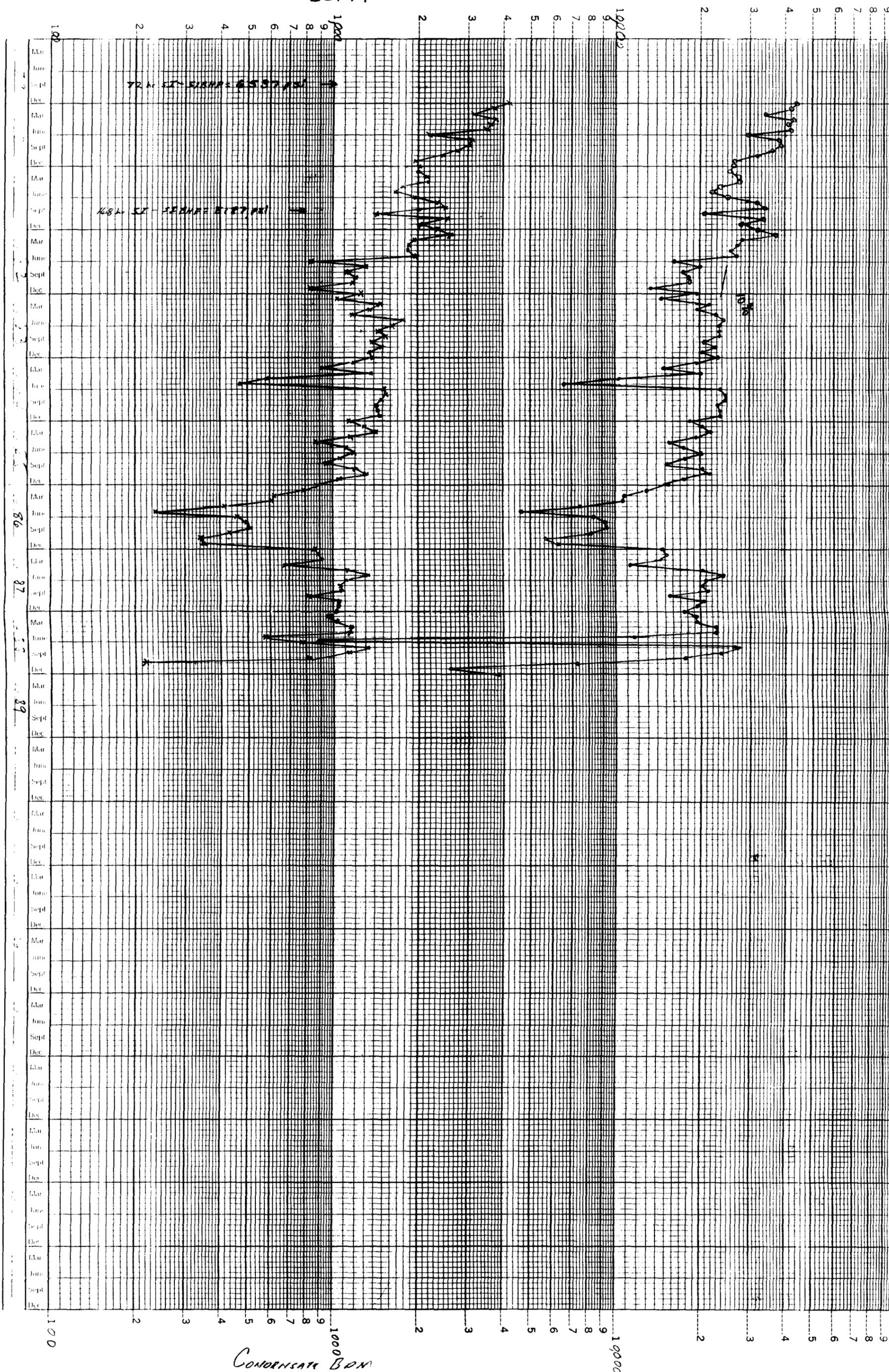


① TRACT NUMBER-EXHIBIT "B"

MCFPM 0-0  
BCPM X-X

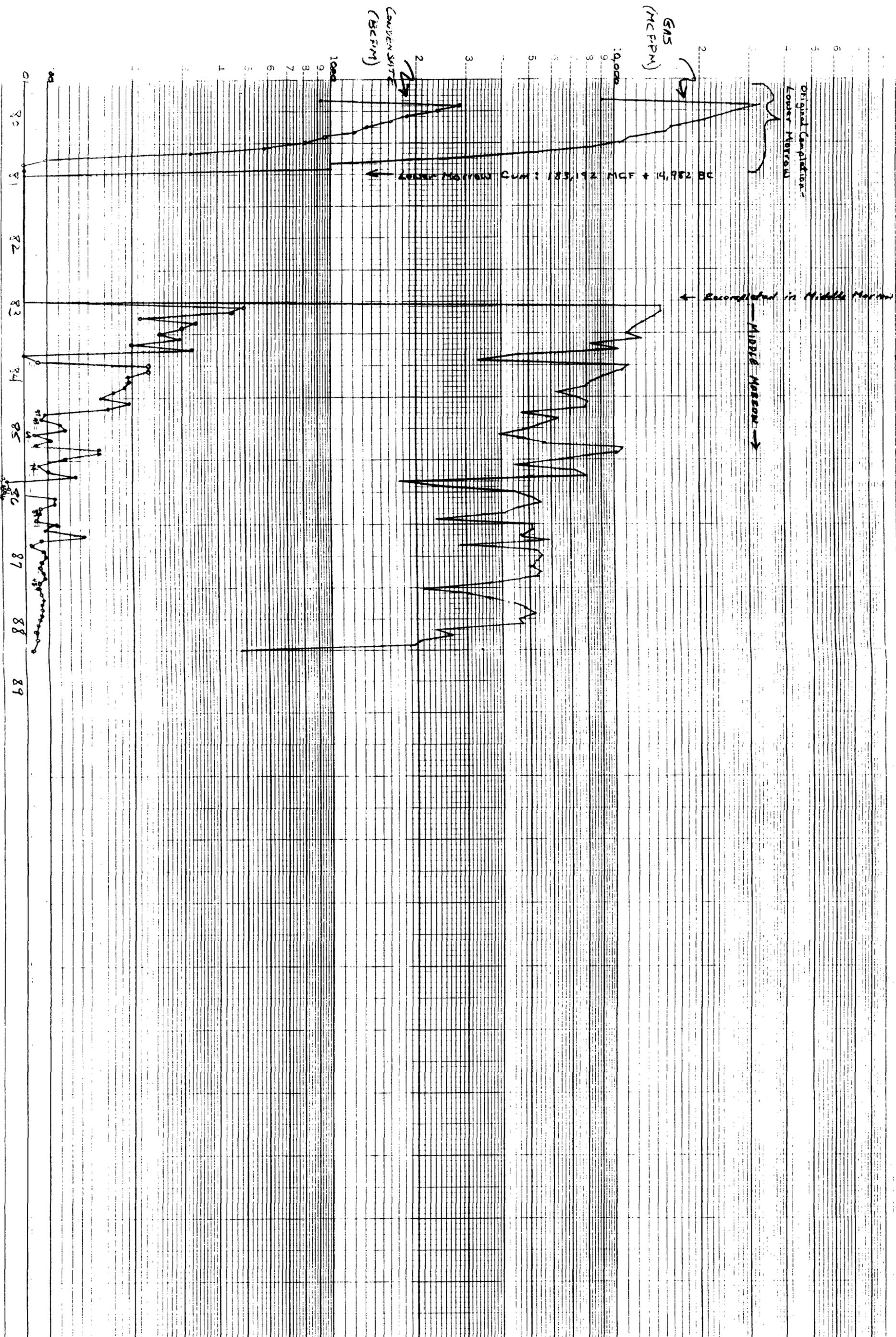
LAGUNA DEEP UNIT FEDERAL NO. 1

East Gem (Morrow)

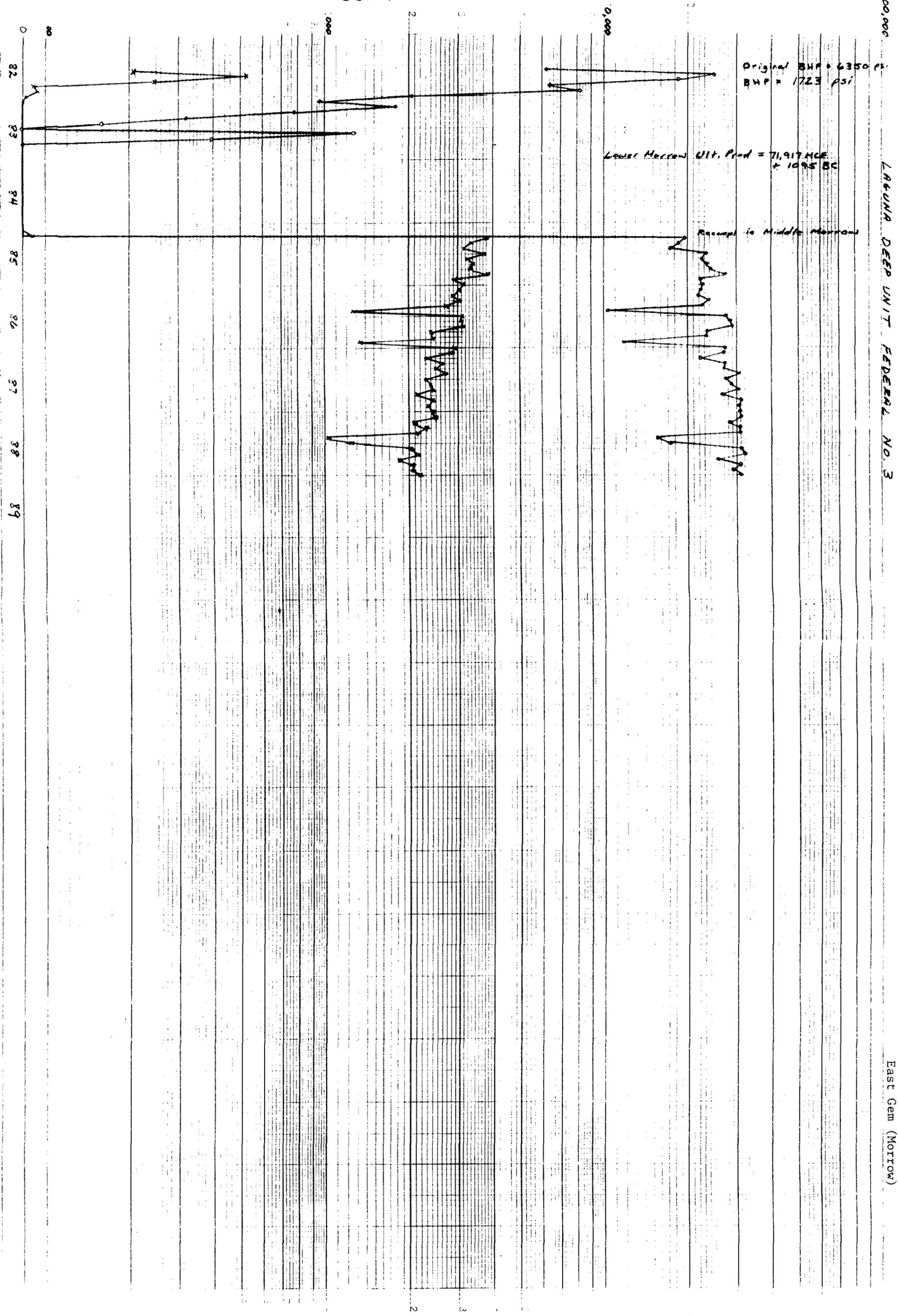


LAGUNA DEEP UNIT FEDERAL NO. 2

LHCUNT NO. 2



MCFPM ○○  
BCPM ××



Unocal Oil & Gas Division  
Unocal Corporation  
500 North Mariefeld, P.O. Box 671  
Midland, Texas 79702  
Telephone (915) 682-9731

6182  
~~6182~~

**UNOCAL** 76

March 1, 1988

Midland District

Oil Conservation Division  
Energy and Minerals Division  
P.O. Box 2088  
Santa Fe, New Mexico 87501  
Attn: Mr. William J. LeMay  
Director

1988 Plan of Development  
Laguna Deep Unit  
Lea County, New Mexico  
Laguna Prospect (7729)

Gentlemen:

Please find enclosed for your approval two copies of Union's 1988 Plan of Development and Operation for the Laguna Deep Unit.

Should you have any questions, please let me know.

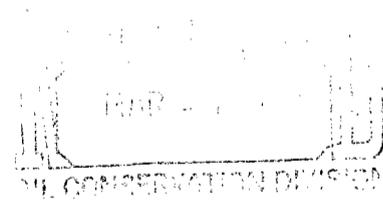
Sincerely yours,

UNION OIL COMPANY OF CALIFORNIA

*Linda H. Hicks*

Linda H. Hicks  
Landman

LHH/s  
Enclosures



1988 Plan of Development and Operations  
for  
Laguna Deep Unit Area  
Lea County, New Mexico

To: Oil Conservation Division  
Energy and Minerals Division  
P.O. Box 2088  
Santa Fe, New Mexico 87501  
Attn: Mr. William J. LeMay  
Director

Union Oil Company of California, as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978, (No. 14-08-001-16905), respectfully submits for approval this 1988 Plan of Development and Operation for the Laguna Deep Unit Area, for the period ending December 31, 1988.

Summary of 1987 Operations:

No new wells were drilled in 1987. Production for the past year is summarized in the table below.

Well No.	Completed Interval	1987 Production			Current Test MCFD + BCPD
		MMCF	+	BC	
Laguna Deep 1	Lower Morrow	224.6	+	12,132	661 + 35
Laguna Deep 2	Middle Morrow	56.4	+	806	174 + 3
Laguna Deep 3	Middle Morrow	340.9	+	29,731	1024 + 79

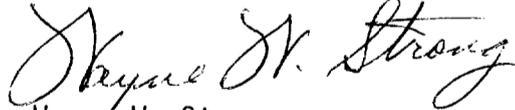
Plan of Development for 1988:

Union has no plans to drill any new wells in the Unit in 1987.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Sincerely yours,

UNION OIL COMPANY OF CALIFORNIA

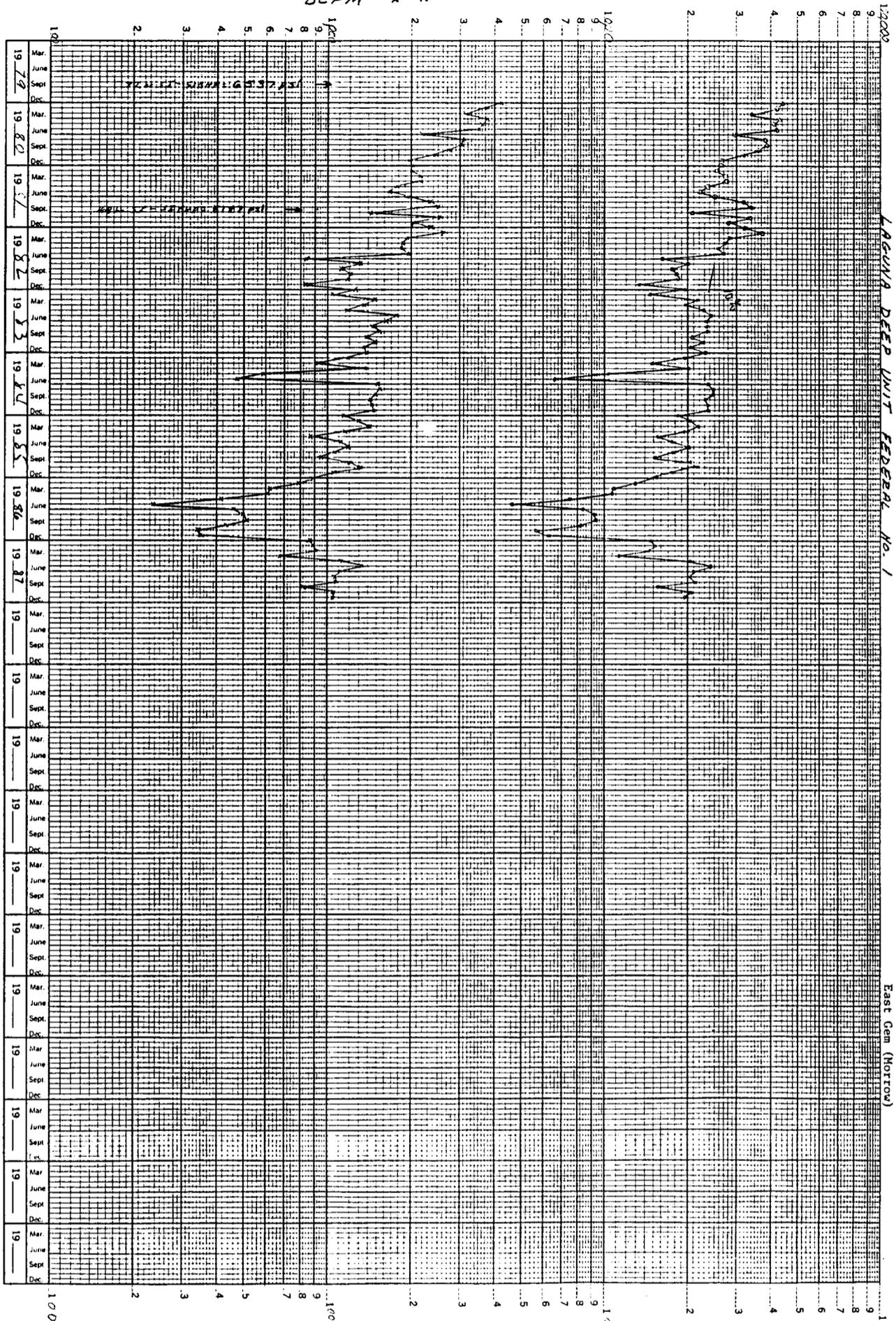


Wayne W. Strong  
District Land Manager

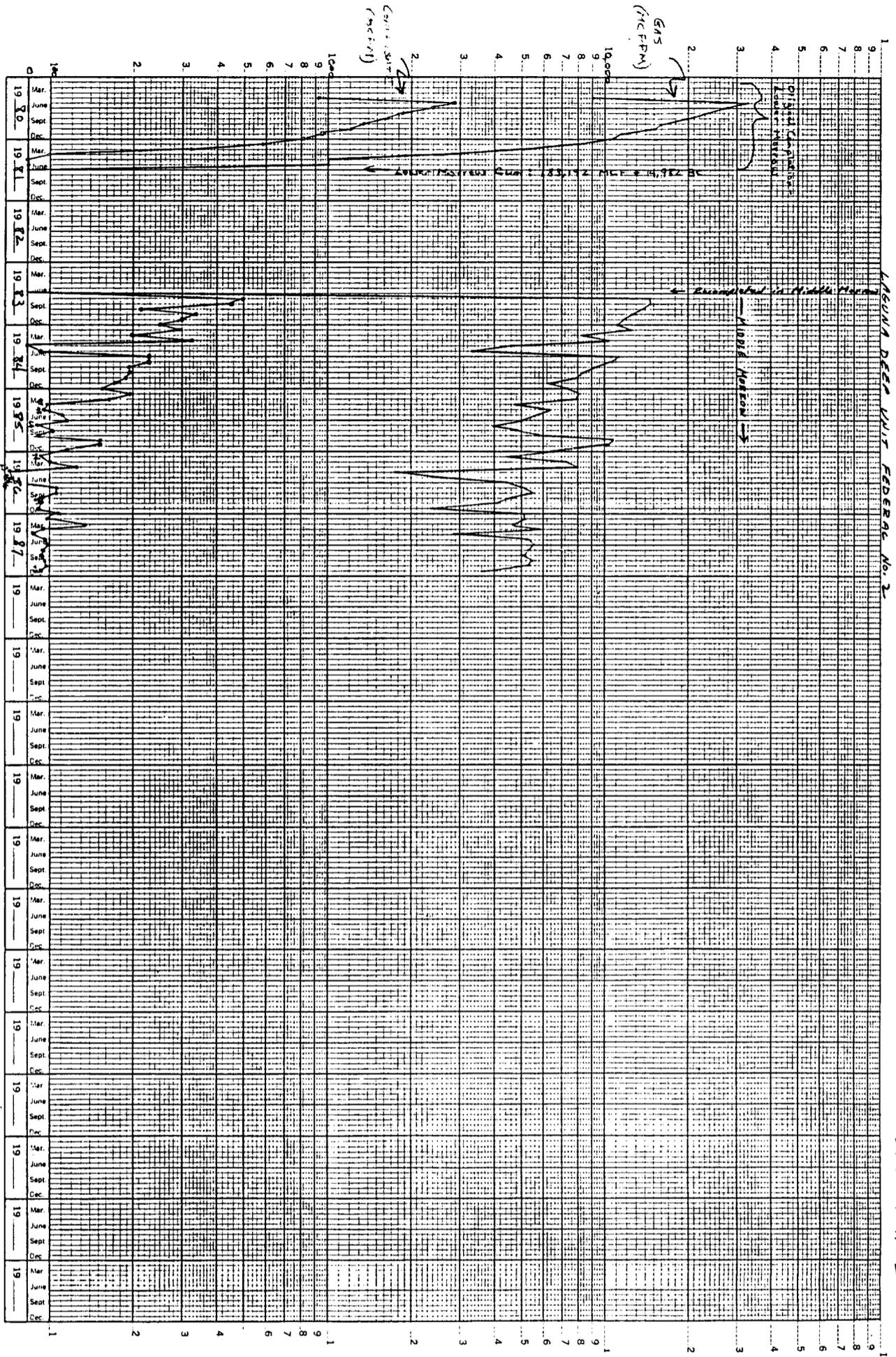
WWS:lh

Submitted this 1 day of March, 1988.

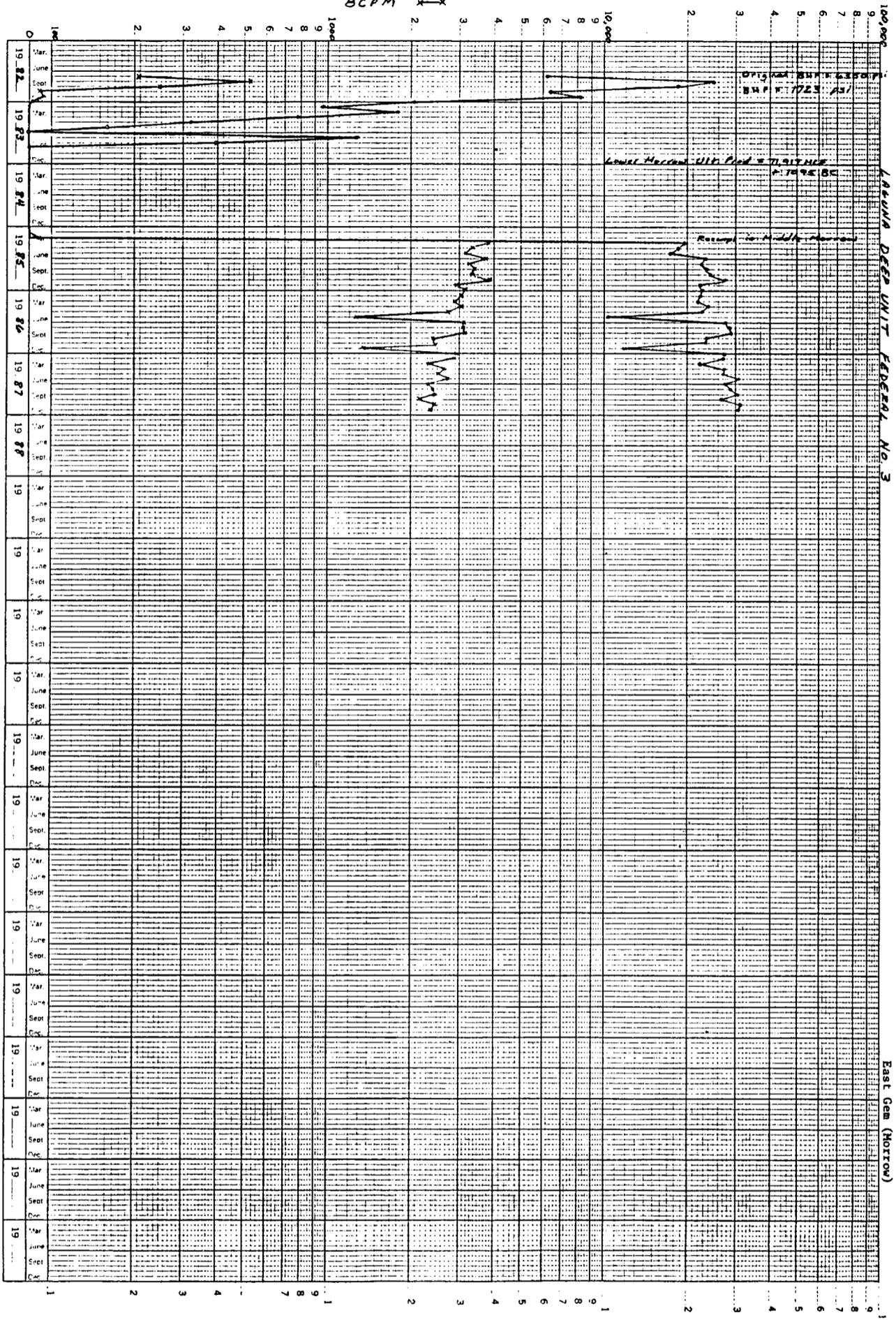
MCFPM 0  
BCPM X



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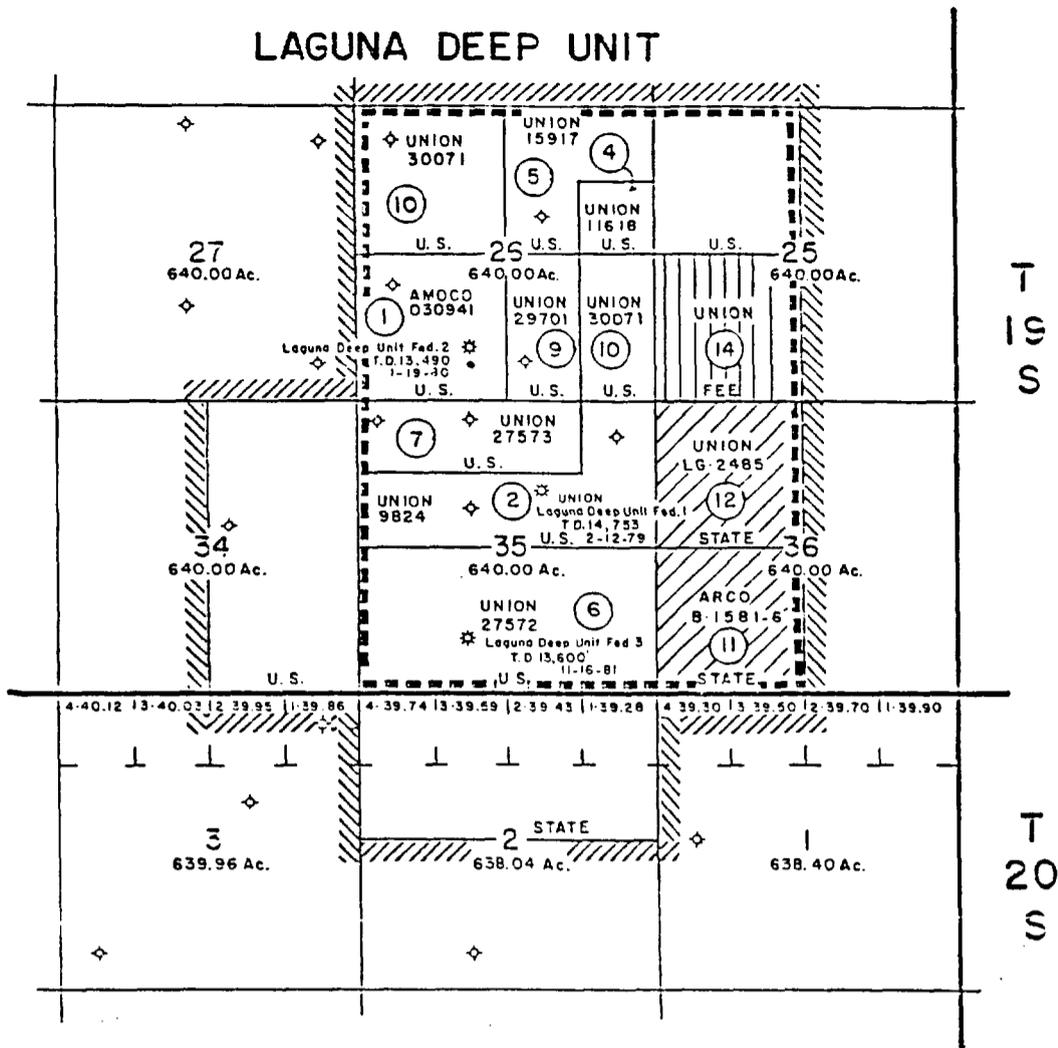


MCFPM  $\circ$   
BCPM  $\times$



East Gen (Harrow)

LAGUNA DEEP UNIT



	ORIGINAL UNIT BOUNDARY
	REVISED UNIT BOUNDARY & PARTICIPATING AREA
	FEDERAL 1440.00 Ac. 75.00000 %
	STATE 320.00 Ac. 16.66667 %
	FEE 160.00 Ac. 8.33333 %
	1920.00 Ac. 100.00000 %

EXHIBIT "A" - (REVISED)

LAGUNA DEEP UNIT

(AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)

LEA COUNTY, NEW MEXICO



① TRACT NUMBER-EXHIBIT "E"



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS  
GOVERNOR

March 7, 1988

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800

Unocal  
P. O. Box 671  
Midland, Texas 79702

Attention: Linda H. Hicks

Re: 1988 Plan of Development  
Laguna Deep Unit  
Lea County, New Mexico  
Laguna Prospect (7729)

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

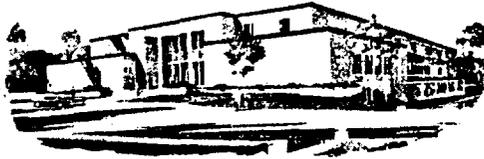
REJ/dr

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

# State of New Mexico



W.R. HUMPHRIES  
COMMISSIONER



## Commissioner of Public Lands

SLO REF NO OG-713

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

March 24, 1988

Unocal Oil & Gas Division  
Attn: Ms. Linda H. Hicks  
P. O. Box 671  
Midland, Texas 79702

Re: 1988 Plan of Development  
Laguna Deep Unit  
Lea County, New Mexico

Gentlemen:

The Commissioner of Public Lands has this date approved your 1988 Plan of Development for the above captioned unit area.

Our approval is subject to like approval by all other appropriate agencies.

Enclosed is an approved copy for your files.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES  
COMMISSIONER OF PUBLIC LANDS

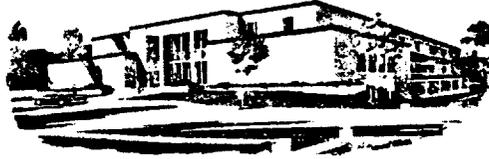
BY:

*Floyd O. Prando*  
FLOYD O. PRANDO, Director  
Oil and Gas Division  
(505) 827-5744

WRH/FOP/pm  
encls.  
cc: OCD  
BLM

State of New Mexico

#6182



SLO REF NO. OG-87

W.R. HUMPHRIES  
COMMISSIONER

Commissioner of Public Lands

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

April 29, 1987

Unocal Oil and Gas Division  
ATTENTION: Ms. Linda Hicks  
P. O. Box 671  
Midland, Texas 79702

Re: 1987 Plan of Development  
Laguna Deep Unit  
Lea County, New Mexico

Gentlemen:

The Commissioner of Public Lands has this date approved your 1987 Plan of Development for the Laguna Deep Unit Area, Lea County, New Mexico. Such plan calls for the drilling of no wells.

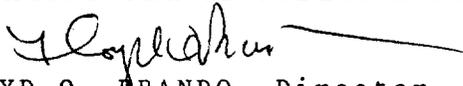
Our approval is subject to like approval by the New Mexico Oil Conservation Division and the Bureau of Land Management.

Enclosed is an approved copy for your files.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES  
COMMISSIONER OF PUBLIC LANDS

BY:   
FLOYD O. FRANDO, Director  
Oil and Gas Division  
(505) 827-5744

WRH/FOP/pm  
encls.

cc: OCD-Santa Fe, New Mexico  
BLM-Roswell, New Mexico Attn: Mr. Armando Lopez

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION



GARREY CARRUTHERS  
GOVERNOR

March 4, 1987

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-5800

#7729

Unocal  
P. O. Box 671  
Midland, Texas 79702

Attention: Linda H. Hicks

Re: 1987 Plan of Development  
Laguna Deep Unit  
Lea County, New Mexico  
Laguna Prospect (7729)

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,

A handwritten signature in cursive script, appearing to read "Roy E. Johnson".

ROY E. JOHNSON,  
Senior Petroleum Geologist

REJ/dr

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

**Unocal Oil & Gas Division**  
Unocal Corporation  
500 North Marienfeld, P.O. Box 671  
Midland, Texas 79702  
Telephone (915) 682-9731

**UNOCAL** 

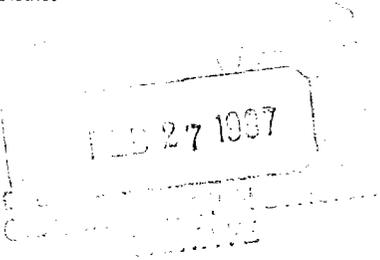
February 23, 1987

Oil Conservation Division  
Energy and Minerals Division  
P.O. Box 2088  
Santa Fe, New Mexico 87501

ATTN: William J. LeMay

1987 Plan of Development  
Laguna Deep Unit  
Lea County, New Mexico  
Laguna Prospect (7729)

Midland District



Gentlemen:

Please find enclosed two (2) copies of Union's 1987 Plan of Development and Operation for the Laguna Deep Unit. We respectfully request your approval of same.

Yours truly,

UNION OIL COMPANY OF CALIFORNIA

*Linda H. Hicks*

Linda H. Hicks  
Landman

D-  
Unit letters  
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Ry

---

1987 Plan of Development and Operation

for

Laguna Deep Unit Area

Lea County, New Mexico

TO: Oil Conservation Division  
Energy and Minerals Division  
P.O. Box 2088  
Santa Fe, New Mexico 87501  
ATTN: William J. LeMay  
Director

UNION OIL COMPANY OF CALIFORNIA, as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978, (No. 14-08-0001-16905), respectfully submits for approval this 1987 Plan of Development and Operation for the Laguna Deep Unit Area. This plan is for the period ending December 31, 1987.

Summary of 1986 Operations:

No new wells were drilled in the Unit in 1986.

Well No. 1, a Lower Morrow producer, produced 108.5 MMCF and 6135 BC in 1986 and currently tests 490 MCPD + 29 BCPD. Well No. 2 is completed in the Middle Morrow and produced 55.3 MMCF and 898 BC in 1986. The well currently tests 181 MCPD + 3 BCPD. Well No. 3 is completed in the Middle Morrow and produced 31,400 BO and 272.1 MMCF in 1986. The well currently tests 94 BOPD + 876 MCPD.

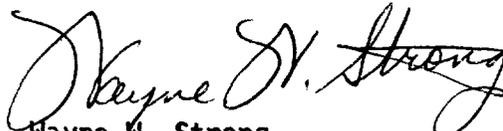
Plan of Development and Operations for 1987:

Union has no plans to drill any new wells in the Unit in 1987.

This plan may be modified or supplemented from time to time with the approval needed, when necessary, to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Sincerely yours,

UNION OIL COMPANY OF CALIFORNIA



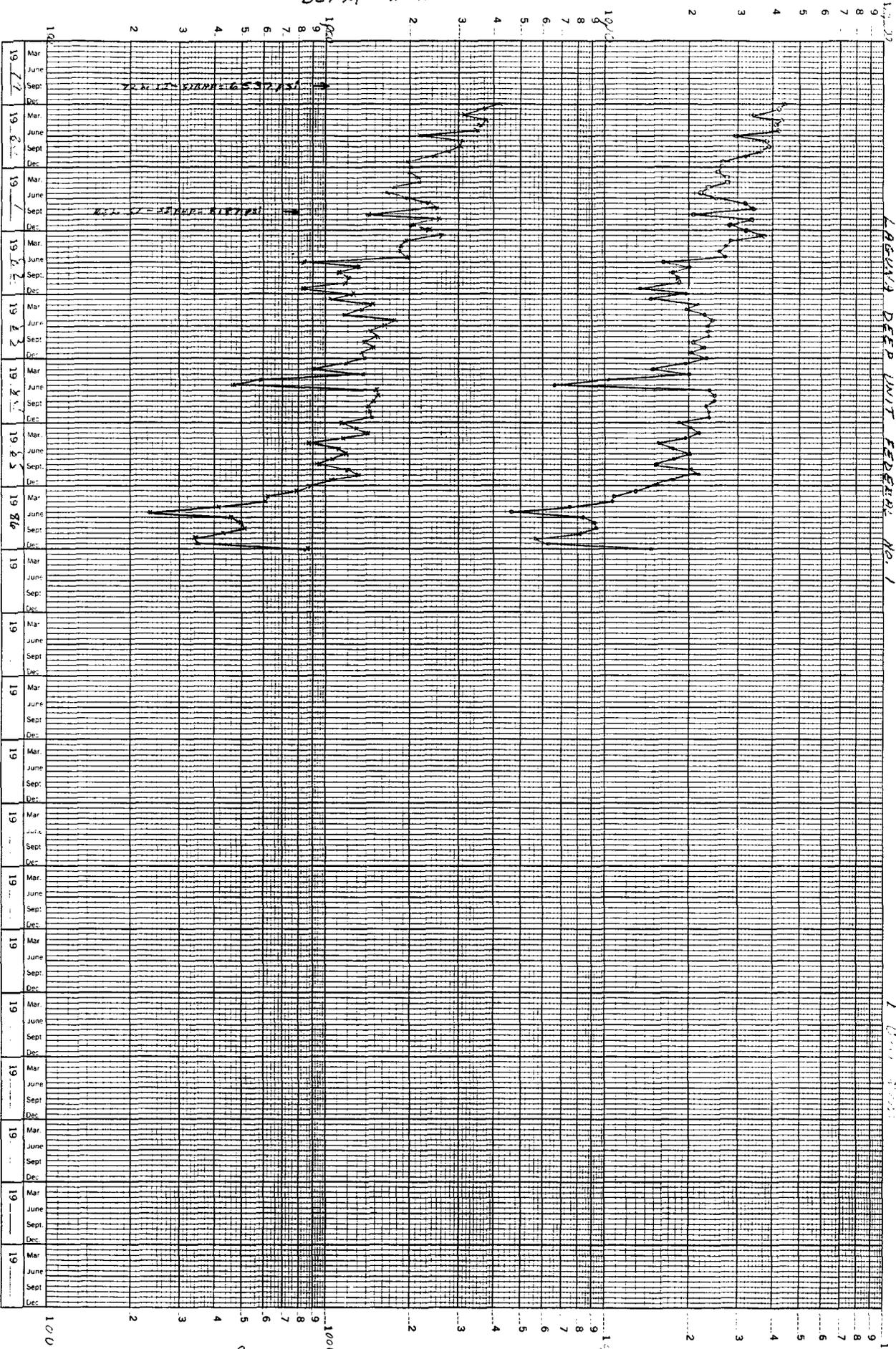
Wayne W. Strong  
District Land Manager

WWS:lh

Submitted this 18 day of February, 1987.

MCFPM 0  
BCPM X X

LAGUNA DEEP UNIT FEDERAL NO. 1



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CONDENSATE S.P.M. X X

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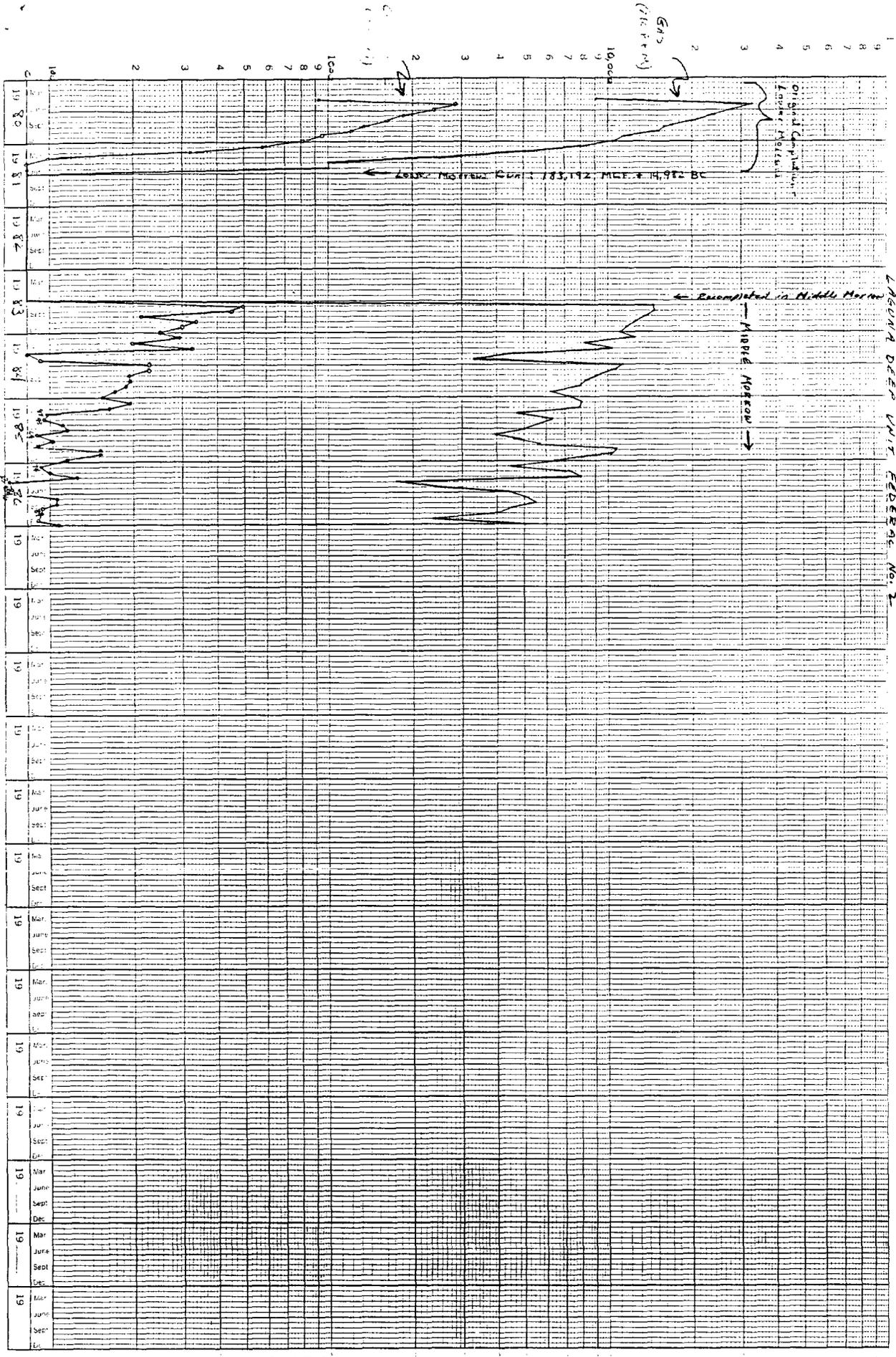
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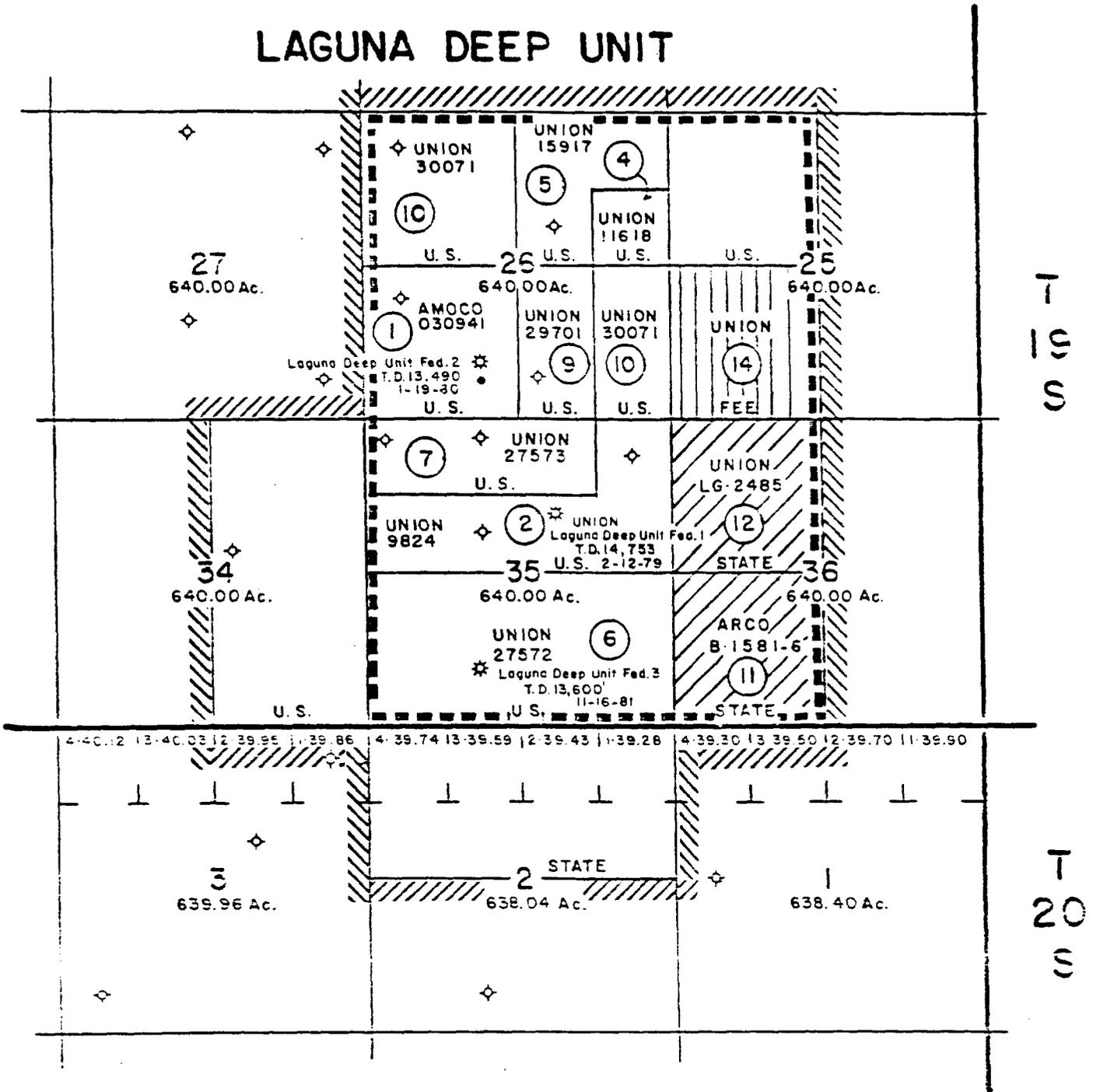
LHCUWH DEEP UNIT FEEDEE No. 2

SEM, EAST MEXICO  
LHCUWH No. 2



R 33 E

LAGUNA DEEP UNIT



	ORIGINAL UNIT BOUNDARY		
	REVISED UNIT BOUNDARY & PARTICIPATING AREA		
	FEDERAL	1440.00 Ac.	75.00000 %
	STATE	320.00 Ac.	16.66667 %
	FEE	160.00 Ac.	8.33333 %
		<u>1920.00 Ac.</u>	<u>100.00000 %</u>

EXHIBIT "A" - (REVISED)

LAGUNA DEEP UNIT

(AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)

LEA COUNTY, NEW MEXICO



① TRACT NUMBER-EXHIBIT "E"

State of New Mexico

# 6182



JIM BACA  
COMMISSIONER

## Commissioner of Public Lands

May 2, 1985

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148  
Express Mail Delivery User  
310 Old Santa Fe Trail  
Santa Fe, New Mexico 87501

Union Oil Company of California  
P. O. Box 671  
Midland, Texas 79702

Re: Laguna Deep Unit  
1985 Plan of Development  
Lea County, New Mexico

ATTENTION: Mr. Larry Murphy

Gentlemen:

The Commissioner of Public Lands has this date approved your 1985 Plan of Development for the Laguna Deep Unit Area, Lea County, New Mexico. Such plan calls for no new drilling in 1985 and the possible recompletion of the Laguna Deep Well No. 3 in the Middle Morrow formation. Our approval is subject to like approval by the New Mexico Oil Conservation Division and the Bureau of Land Management.

Enclosed is an approved copy for your files.

Very truly yours,

JIM BACA  
COMMISSIONER OF PUBLIC LANDS

BY: *Ray D. Graham*  
RAY D. GRAHAM, Director  
Oil and Gas Division  
AC 505/827-5744

JB/RDG/pm  
encls.

cc: OCD-Santa Fe, New Mexico  
BLM-Albuquerque, New Mexico  
BLM-Roswell, New Mexico

Attn: Fluids Branch  
Attn: Mr. Armando Lopez



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
P. O. Box 1397  
Roswell, New Mexico 88201

IN REPLY  
REFER TO:

14-08-0001-16905  
3180 (060)

March 19, 1985

Union Oil Company of California  
Attention: Robert V. Lockhart  
500 North Marienfeld  
Midland, Texas 79702

RE: 1985 Plan of Development  
Laguna Deep Unit  
Lea County, New Mexico

Gentlemen:

We are in receipt of your letter dated March 1, 1985 which describes your 1985 Plan of Development for the Laguna Deep Unit, Lea County, New Mexico.

Such plan proposing no new drilling in 1985 and recompletion of the LD Unit No. 3 well in the middle Morrow is approved effective January 1, 1985.

Sincerely yours,

B/T. Kreager

Acting District Manager

cc:

Commissioner of Public Lands, Santa Fe

NMOCD, Santa Fe

NMSO, Micrographics (943B)



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
OIL CONSERVATION DIVISION

TONY ANAYA  
GOVERNOR

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-5800

March 4, 1985

#6182

Union Oil Company of California  
P.O. Box 671  
Midland, Texas 79701

Attention: Larry Murphy

Re: Laguna Deep Unit  
1985 Plan of Development  
Laguna Prospect (7729)  
Lea County, New Mexico

Dear Mr. Murphy:

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,

A handwritten signature in cursive script, appearing to read "Roy E. Johnson".

ROY E. JOHNSON  
Senior Petroleum Geologist

REJ/dp

cc: Commissioner of Public Lands - Santa Fe  
Bureau of Land Management - Albuquerque  
OCD District Office - Hobbs

Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731



Robert V. Lockhart  
District Land Manager  
Midland District

March 1, 1985

Oil Conservation Division  
Energy and Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Dick Stamets, Director

Dear Mr. Stamets:

Laguna Deep Unit  
1985 Plan of Development  
Laguna Prospect (7729)  
Lea County, New Mexico

Please find enclosed two (2) copies of Union's Plan of Development for the Laguna Deep Unit. We respectfully request your approval of same.

Should you have any questions, please do not hesitate to contact me.

Yours truly,

UNION OIL COMPANY OF CALIFORNIA

  
Larry Murphy  
Landman

JLM:dah

Enclosures

1985 PLAN OF DEVELOPMENT AND OPERATION

FOR

Laguna Deep Unit Area  
Lea County, New Mexico

---

Oil Conservation Division  
Energy and Minerals Division  
TO: Attn: Mr. Dick Stamets  
P. O. Box 2088  
Santa Fe, NM 87501

UNION OIL COMPANY OF CALIFORNIA, as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978, (No. 14-08-0001-16905), respectfully submits for approval this 1985 Plan of Development and Operation for the Laguna Deep Unit Area. This plan is for the period ending December 31, 1985.

SUMMARY OF 1984 OPERATIONS:

No new wells were drilled within the Unit in 1984. Well No. 1, a Lower Morrow producer, produced 233,267 MCF and 14,540 BC during 1984 and is currently producing 592 MCFPD and 37 BCPD. Well No. 2, which was plugged back from the Lower Morrow and recompleted in the Middle Morrow in 1983, produced 99,895 MCF and 2248 BC during 1984 and is currently producing 238 MCFPD and 5 BCPD. Well No. 3 did not produce in 1984.

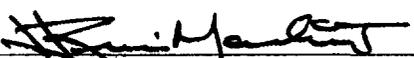
PLAN OF DEVELOPMENT AND OPERATIONS FOR 1985:

Union has no plans to drill any new wells in the Unit in 1985. Based on the successful recompletion of Well No. 2 in 1983, Union has solicited and obtained partner approval to perform a similar Middle Morrow recompletion of Well No. 3 in 1985.

This Plan may be modified or supplemented from time to time with the necessary approval needed, when necessary to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

SUBMITTED this 1st day of March, 1985.

UNION OIL COMPANY OF CALIFORNIA

By:   
H. Rene Moulipet  
District Land Manager (Acting)

1985 PLAN OF DEVELOPMENT AND OPERATION

FOR

Laguna Deep Unit Area  
Lea County, New Mexico

---

TO: Oil Conservation Division  
Energy and Minerals Division  
Attn: Mr. Dick Stamets  
P. O. Box 2088  
Santa Fe, NM 87501

UNION OIL COMPANY OF CALIFORNIA, as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for Development and Operation of the Laguna Deep Unit Area, dated June 22, 1978, (No. 14-08-0001-16905), respectfully submits for approval this 1985 Plan of Development and Operation for the Laguna Deep Unit Area. This plan is for the period ending December 31, 1985.

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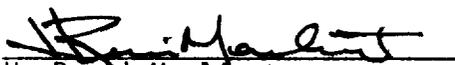
PLAN OF DEVELOPMENT AND OPERATIONS FOR 1985:

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This Plan may be modified or supplemented from time to time with the necessary approval needed, when necessary to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

SUBMITTED this 1st day of March, 1985.

UNION OIL COMPANY OF CALIFORNIA

By:   
H. Rene Mouliquet  
District Land Manager (Acting)



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
OIL CONSERVATION DIVISION

TONY ANAYA  
GOVERNOR

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-5800

November 5, 1984

Union Oil Company of  
California  
P.O. Box 671  
Midland, Texas 79702

Attention: Robert V. Lockhart

Re: Laguna Deep Unit  
No. 14-08-0001-16905  
Lea County, New Mexico  
Automatic Contraction  
to Laguna Deep Unit  
Morrow Participating Area  
Effective February 9, 1984

Dear Mr. Lockhart:

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,

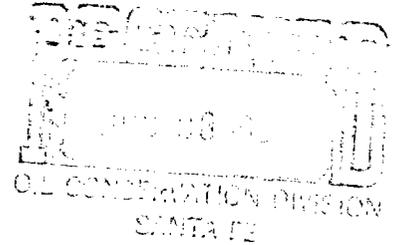
ROY E. JOHNSON  
Senior Petroleum Geologist

REJ/dp

cc: Commissioner of Public Lands - Santa Fe  
Bureau of Land Management - Albuquerque  
OCD District Office - Hobbs

Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731



#6182

Robert V. Lockhart  
District Land Manager  
Midland District

May 31, 1984

Oil Conservation Division  
Energy and Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

*Unit letter*

Gentlemen:

Laguna Deep Unit  
No. 14-08-0001-16905  
Lea County, New Mexico  
Automatic Contraction  
to Laguna Deep Unit  
Morrow Participating Area  
Effective February 9, 1984

Pursuant to Subsection 2(e) of the Laguna Deep Unit Agreement, Union Oil Company of California as Unit Operator submits for your approval, the following description of lands eliminated from said Agreement as a result of the automatic contraction of the unit, effective as of February 9, 1984:

<u>Township 19 South, Range 33 East</u>	<u>Acres</u>	
Section 34: E/2:	320.00	Federal
 <u>Township 20 South, Range 33 East</u>		
Section 2: N/2	318.04	State
	<u>638.04</u>	

Attached and also submitted for your approval are revised Exhibits "A" and "B" for the Laguna Deep Unit, as contracted.

Applicant respectfully requests approval of the elimination, effective as of February 9, 1984, of the above described lands from the Laguna Deep Unit Agreement, and also requests approval of the attached revised Exhibits "A" and "B" for the Laguna Deep Unit as contracted.

May 31, 1984  
Laguna Deep Unit  
No. 14-08-0001-16905  
Lea County, New Mexico  
Page 2 of 2

Upon receipt of such approval, we shall send appropriate notification of the foregoing to all other parties in interest as required by Subsection 2(e) of the Unit Agreement.

UNION OIL COMPANY OF CALIFORNIA

By: Robert V. Lockhart *by*  
Robert V. Lockhart  
District Land Manager *LH*

Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731



May 31, 1984

Robert V. Lockhart

District Land Manager  
Midland District

Oil Conservation Division  
Energy and Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Gentlemen:

Laguna Deep Unit  
No. 14-08-0001-16905  
Lea County, New Mexico  
Automatic Contraction  
to Laguna Deep Unit  
Morrow Participating Area  
Effective February 9, 1984

Pursuant to Subsection 2(e) of the Laguna Deep Unit Agreement, Union Oil Company of California as Unit Operator submits for your approval, the following description of lands eliminated from said Agreement as a result of the automatic contraction of the unit, effective as of February 9, 1984:

<u>Township 19 South, Range 33 East</u>	<u>Acres</u>	
Section 34: E/2:	320.00	Federal
<u>Township 20 South, Range 33 East</u>		
Section 2: N/2	318.04	State
	<u>638.04</u>	

Attached and also submitted for your approval are revised Exhibits "A" and "B" for the Laguna Deep Unit, as contracted.

Applicant respectfully requests approval of the elimination, effective as of February 9, 1984, of the above described lands from the Laguna Deep Unit Agreement, and also requests approval of the attached revised Exhibits "A" and "B" for the Laguna Deep Unit as contracted.

May 31, 1984  
Laguna Deep Unit  
No. 14-08-0001-16905  
Lea County, New Mexico  
Page 2 of 2

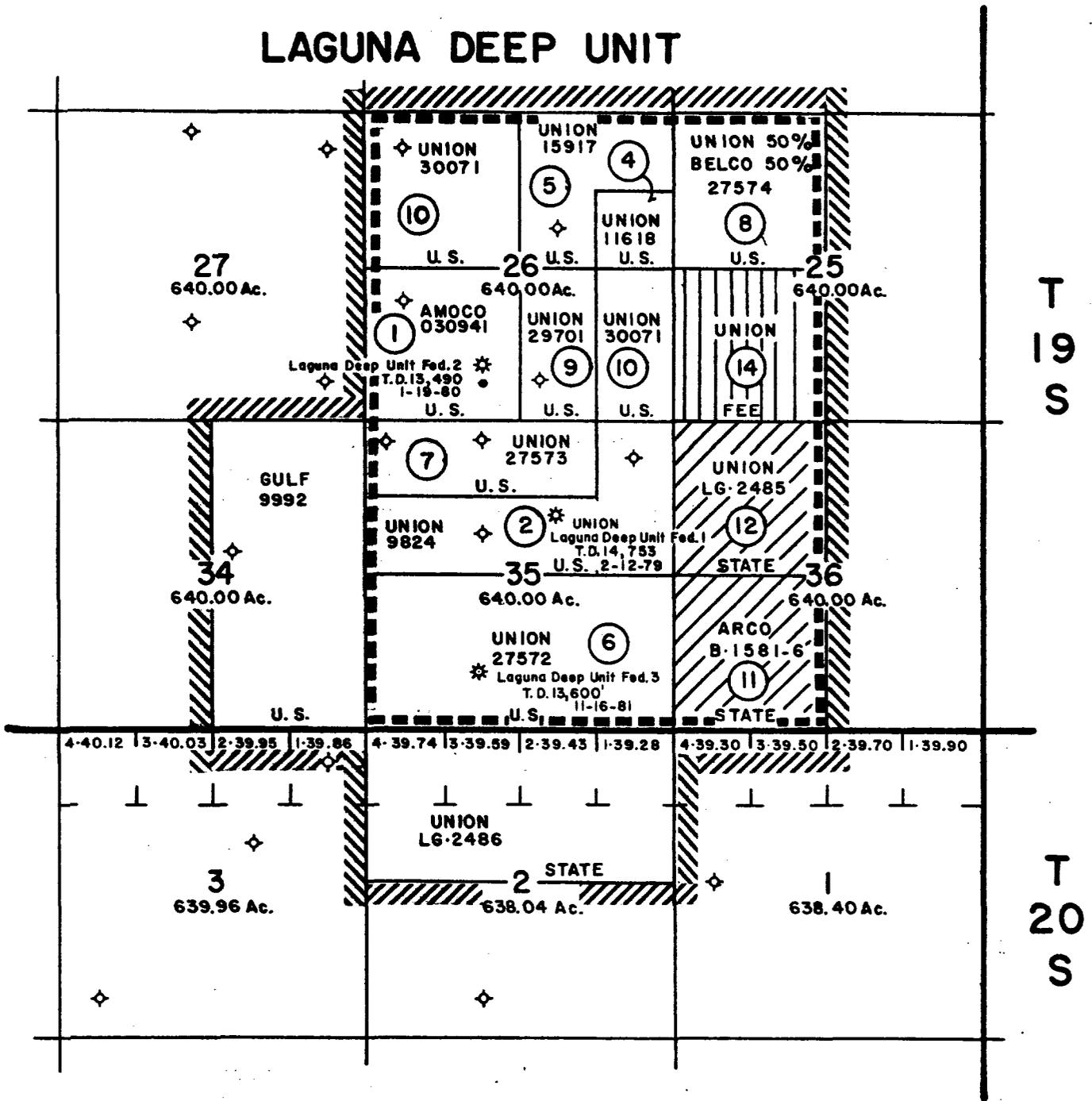
Upon receipt of such approval, we shall send appropriate notification of the foregoing to all other parties in interest as required by Subsection 2(e) of the Unit Agreement.

UNION OIL COMPANY OF CALIFORNIA

By: Robert V. Lockhart by LHA  
Robert V. Lockhart  
District Land Manager

R 33 E

LAGUNA DEEP UNIT



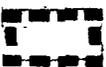
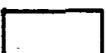
	ORIGINAL UNIT BOUNDARY		
	REVISED UNIT BOUNDARY & PARTICIPATING AREA		
	FEDERAL	1440.00 Ac.	75.00000 %
	STATE	320.00 Ac.	16.66667 %
	FEE	160.00 Ac.	8.33333 %
		<u>1920.00 Ac.</u>	<u>100.00000 %</u>

EXHIBIT "A" - (REVISED)

LAGUNA DEEP UNIT

(AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)

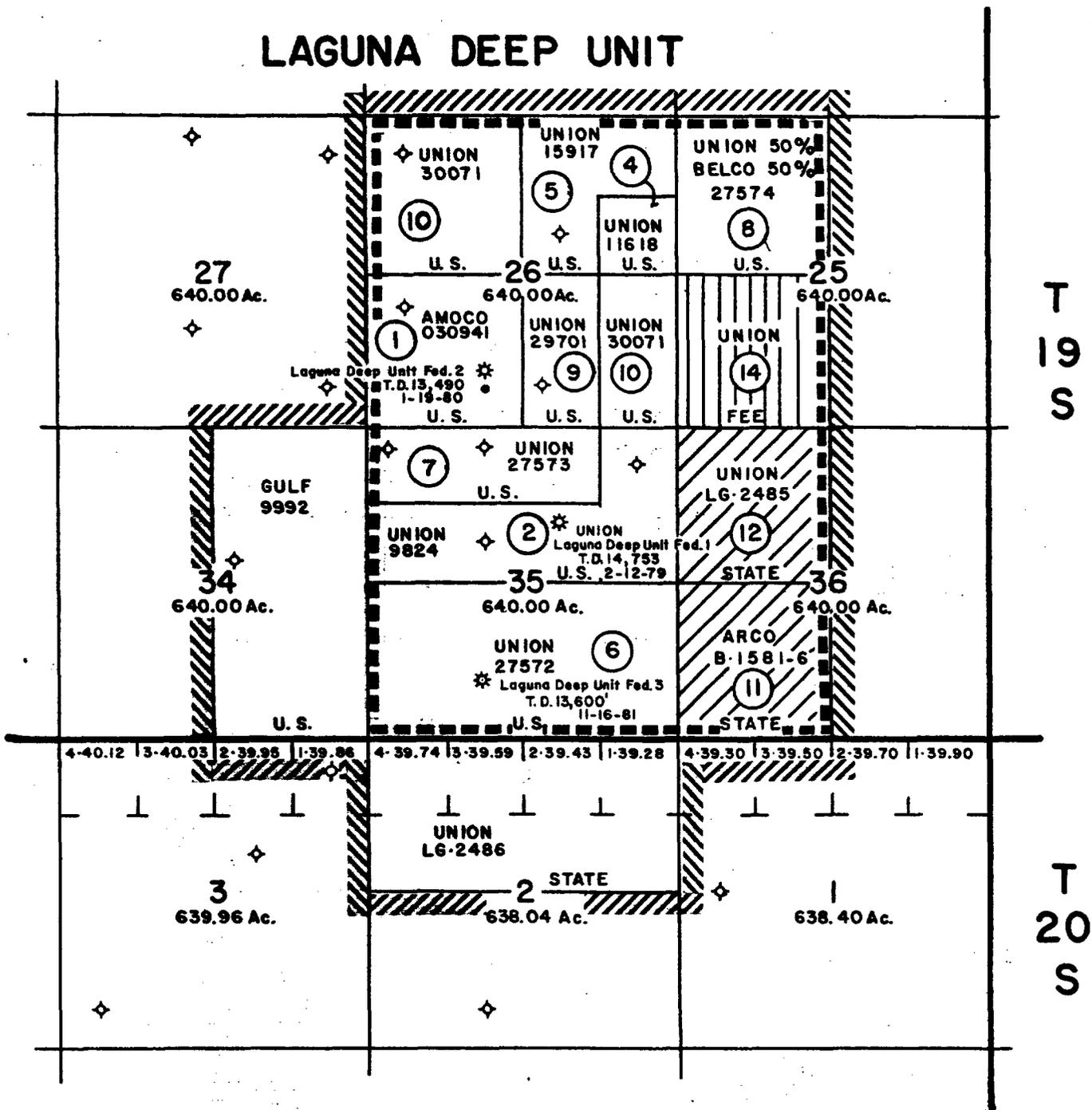
LEA COUNTY, NEW MEXICO



① TRACT NUMBER-EXHIBIT "B"

R 33 E

LAGUNA DEEP UNIT



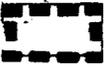
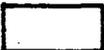
	ORIGINAL UNIT BOUNDARY		
	REVISED UNIT BOUNDARY & PARTICIPATING AREA		
	FEDERAL	1440.00 Ac.	75.00000 %
	STATE	320.00 Ac.	16.66667 %
	FEE	160.00 Ac.	8.33333 %
		<u>1920.00 Ac.</u>	<u>100.00000 %</u>

EXHIBIT "A" - (REVISED)

LAGUNA DEEP UNIT

(AS CONTRACTED EFFECTIVE FEBRUARY 9, 1984)

LEA COUNTY, NEW MEXICO



① TRACT NUMBER- EXHIBIT "B"

REVISED EXHIBIT B -- LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19 & 20-S, R-33-E AS CONTRACTED EFFECTIVE 2/9/84

Tract No.	Description of Land	Number of Acres	Ser. No. & Exp. Date of Lease	Basic Royalty and Ownership Percentage	Lessee of Record	Overriding Royalty and Percentage	Working Interest and Percentage
1	FEDERAL LAND T-19-S, R-33-E Sec. 26: SW/4	160.00	NM-030941 HBP	U.S.A. (12.50%)	Amoco Production Company	Virginia Willis Hess, Personal Representative of the Estate of Eugenia W. Bate, Deceased 1 1/2% of 8/8 R.M. Hess & Virginia W. Hess, Trustees Under Agreement dated 4/10/72 1% of 8/8 Elizabeth W. Christensen and husband, Don T. Christensen 1/2% of 8/8 Winifred T. Seaton 1/2% of 8/8 Jo Ann W. Light & husband Robert S. Light 1/2% of 8/8	Amoco Production Company - 100%
2	Sec. 35: NE/4NE/4, S/2N/2	200.00	NM-9824 7/31/79	U.S.A. (12.50%)	Union Oil Company of California	W. Felck, Jr. & wife, Joan M. Felck \$750 p/a PPI out of 5%	Union Oil Co. of California 100%
3	T-19-S, R-33-E Sec. 26: SE/4NE/4	40.00	NM-11618 4/30/80	U.S.A. (12.50%)	Union Oil Company of California	Calvin A. Mitchell and wife, Evelyn Mitchell 4% Leo Pollack 1/4% M. A. Schofman 3/4%	Union Oil Co. of California 100%
4	Sec. 26: N/2NE/4, SW/4NE/4	120.00	NM-15917 6/30/82	U.S.A. (12.50%)	Union Oil Company of California	Gwen P. Taylor & husband, Charles G. Taylor, and Carl A. Nilsen & wife, Georjeanne Nilsen 5%	Union Oil Co. of California 100%

REVISED EXHIBIT B -- LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19 & 20-S, R-33-E AS CONTRACTED EFFECTIVE 2/9/84

Tract No.	Description of Land	Number of Acres	Ser. No. & Exp. Date of Lease	Basic Royalty and Ownership Percentage	Lessee of Record	Overriding Royalty and Percentage	Working Interest and Percentage
6	Sec. 35: S/2	320.00	NM-27572 5/31/83	U.S.A. (12.50%)	Union Oil Company of California	Bakersfield Investment Trust, Lucille Wilson, Trustee 2 1/2% Bank of America, NT&SA, as Trustee of the Charles E. Strange 1976 Trust #1 1 1/2% of 8/8 C. E. Strange & wife, Sherrile R. Strange 1% of 8/8	Union Oil Co. of California - 100%
7	Sec. 35: NW/4NE/4, N/2NW/4	120.00	NM-27573 11/30/78	U.S.A. (Schedule "B")	Union Oil Company of California	None	Union Oil Co. of California 100%
8	Sec. 25: NW/4	160.00	NM-27574 5/31/85	U.S.A. (12.50%)	Belco Petroleum Corporation - 50% Union Oil Company of California-50%	Herbert A. Settles & wife, Beatrice C. Settles 5%	Belco Petroleum Corp. - 50%; Union Oil Co. of California - 50%
9	T-19-S, R-33-E Sec. 26: W/2SE/4	80.00	NM-29701 2/28/82	U.S.A. (Schedule "B")	Union Oil Company of California	None	Union Oil Co. of California 100%
10	Sec. 26: NW/4, E/2SE/4	240.00	NM-30071 4/30/87	U.S.A. (12.50%)	Union Oil Company of California	Carol L. Teigen & Theodore H. Teigen, Jr. 5%	Union Oil Co. of California-100%
9 FEDERAL TRACTS 1,440.00 ACRES OR 75.000000% OF UNIT AREA.							
NEW MEXICO STATE LAND							
11	T-19-S, R-33-E Sec. 36: SW/4	160.00	B-1581-6 HBP	State of New Mexico (12.50%)	Atlantic Richfield Company	None	Atlantic Richfield Company- 100%

REVISED EXHIBIT B -- LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19 & 20-S, R-33-E AS CONTRACTED EFFECTIVE 2/9/84

Tract No.	Description of Land	Number of Acres	Ser. No. & Exp. Date of Lease	Basic Royalty and Ownership Percentage	Lessee of Record	Overriding Royalty and Percentage	Working Interest and Percentage
12	Sec. 36: NW/4	160.00	LG-2485 1/1/85	State of New Mexico (12.50%)	Union Oil Company of California	None	Union Oil Co. of California - 100%

2 STATE TRACTS 320.00 ACRES OR 16.66667% OF UNIT AREA.

PATENTED LAND

14	T-19-S, R-33-E Sec. 25: SW/4	160.00	12/20/77* 12/20/80*	Mark Smith & wife, Annie Lora Smith; Kenneth Mark Smith & wife, Patsy Lou Smith; William C. Smith & wife, Nancy Jean Smith; Lora Nell Glenn & husband, William Jeff Glenn (18.75%)	Union Oil Company of California	None	Union Oil Co. of California - 100%
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1 PATENTED TRACT 160.00 ACRES OR 8.33333% OF UNIT AREA.

TOTAL: 14 TRACTS 2,558.04 ACRES IN ENTIRE UNIT AREA.

\*Lease has been renewed by Oil & Gas Lease dated June 4, 1977, recorded in Vol 304, Page 260, of the Records of Lea County, New Mexico. Primary term is stated as being 3 years from 12/20/77.

REVISED EXHIBIT B -- LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19 & 20-S, R-33-E AS CONTRACTED EFFECTIVE 2/9/84

Tract No.	Description of Land	Number of Acres	Ser. No. & Exp. Date of Lease	Basic Royalty and Ownership Percentage	Lessee of Record	Overriding Royalty and Percentage	Working Interest and Percentage
FEDERAL LAND							
T-19-S, R-33-E		160.00	NM-030941	U.S.A. (12.50%)	Amoco Production Company	Virginia Willis Hess, Personal Representative of the Estate of Eugenia W. Bate, Deceased 1 1/2% of 8/8 R.M. Hess & Virginia W. Hess, Trustees Under Agreement dated 4/10/72 1% of 8/8 Elizabeth W. Christensen and husband, Don T. Christensen 1/2% of 8/8 Winifred T. Seaton 1/2% of 8/8 Jo Ann W. Light & husband Robert S. Light 1/2% of 8/8	Amoco Production Company - 100%
Sec. 26: SW/4			HBP				
2	Sec. 35: NE/4NE/4, S/2N/2	200.00	NM-9824 7/31/79	U.S.A. (12.50%)	Union Oil Company of California	W. Felck, Jr. & wife, Joan M. Felck \$750 p/a PPI out of 5%	Union Oil Co. of California 100%
3	T-19-S, R-33-E	40.00	NM-11618 4/30/80	U.S.A. (12.50%)	Union Oil Company of California	Calvin A. Mitchell and wife, Evelyn Mitchell 4% Leo Pollack 1/4% M. A. Schofman 3/4%	Union Oil Co. of California 100%
4	Sec. 26: N/2NE/4, SW/4NE/4	120.00	NM-15917 6/30/82	U.S.A. (12.50%)	Union Oil Company of California	Gwen P. Taylor & husband, Charles G. Taylor, and Carl A. Nilsen & wife, Georgetanne Nilsen 5%	Union Oil Co. of California 100%

REVISED EXHIBIT B -- LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19 & 20-S, R-33-E AS CONTRACTED EFFECTIVE 2/9/84

Tract No.	Description of Land	Number of Acres	Ser. No. & Exp. Date of Lease	Basic Royalty and Ownership Percentage	Lessee of Record	Overriding Royalty and Percentage	Working Interest and Percentage
6	Sec. 35: S/2	320.00	NM-27572 5/31/83	U.S.A. (12.50%)	Union Oil Company of California	Bakersfield Investment Trust, Lucille Wilson, Trustee 2 1/2% Bank of America, NT&SA, as Trustee of the Charles E. Strange 1976 Trust #1 1 1/2% of 8/8 C. E. Strange & wife, Sherrie R. Strange 1% of 8/8	Union Oil Co. of California - 100%
7	Sec. 35: NW/4NE/4, N/2NW/4	120.00	NM-27573 11/30/78	U.S.A. (Schedule "B")	Union Oil Company of California	None	Union Oil Co. of California 100%
8	Sec. 25: NW/4	160.00	NM-27574 5/31/85	U.S.A. (12.50%)	Belco Petroleum Corporation - 50% Union Oil Company of California-50%	Herbert A. Settles & wife, Beatrice C. Settles 5%	Belco Petroleum Corp. - 50%; Union Oil Co. of California - 50%
9	T-19-S, R-33-E Sec. 26: W/2SE/4	80.00	NM-29701 2/28/82	U.S.A. (Schedule "B")	Union Oil Company of California	None	Union Oil Co. of California 100%
10	Sec. 26: NW/4, E/2SE/4	240.00	NM-30071 4/30/87	U.S.A. (12.50%)	Union Oil Company of California	Carol L. Teigen & Theodore H. Teigen, Jr. 5%	Union Oil Co. of California-100%
9 FEDERAL TRACTS 1,440.00 ACRES OR 75.00000% OF UNIT AREA.							
NEW MEXICO STATE LAND							
11	T-19-S, R-33-E Sec. 36: SW/4	160.00	B-1581-6 HBP	State of New Mexico (12.50%)	Atlantic Richfield Company	None	Atlantic Richfield Company- 100%

REVISED EXHIBIT B -- LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19 & 20-S, R-33-E AS CONTRACTED EFFECTIVE 2/9/84

Tract No.	Description of Land	Number of Acres	Ser. No. & Exp. Date of Lease	Basic Royalty and Ownership Percentage	Lessee of Record	Overriding Royalty and Percentage	Working Interest and Percentage
12	Sec. 36: NW/4	160.00	LG-2485 1/1/85	State of New Mexico (12.50%)	Union Oil Company of California	None	Union Oil Co. of California 100%
2 STATE TRACTS 320.00 ACRES OR 16.66667% OF UNIT AREA.							
PATENTED LAND							
14	T-19-S, R-33-E Sec. 25: SW/4	160.00	12/20/77* 12/20/80*	Mark Smith & wife, Annie Lora Smith; Kenneth Mark Smith & wife, Patsy Lou Smith; William C. Smith & wife, Nancy Jean Smith; Lora Neil Glenn & husband, William Jeff Glenn (18.75%)	Union Oil Company of California	None	Union Oil Co. of California 100%
1 PATENTED TRACT 160.00 ACRES OR 8.33333% OF UNIT AREA.							
TOTAL: 14 TRACTS 2,558.04 ACRES IN ENTIRE UNIT AREA.							

\*Lease has been renewed by Oil & Gas Lease dated June 4, 1977, recorded in Vol 304, Page 260, of the Records of Lea County, New Mexico.  
Primary term is stated as being 3 years from 12/20/77.

Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731



Robert V. Lockhart  
District Land Manager  
Midland District

August 7, 1984

#6182

Oil Conservation Division  
Energy and Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Gentlemen:

Laguna Deep Unit  
No. 14-08-0001-16905  
Automatic Contraction to Laguna  
Deep Unit Morrow Participating  
Area Effective February 9, 1984  
Lea County, New Mexico

By letter dated May 31, 1984, Union sent you revised Exhibits "A" and "B" for the Laguna Deep Unit, as contracted, and requested approval of the elimination of certain lands.

It has come to my attention that there were certain errors in Exhibit "B". Please find enclosed a corrected Exhibit "B", which now agrees with Exhibit "A". Please destroy the other copies of Exhibit "B" provided to you earlier.

Please forgive this inconvenience to you.

Sincerely,

UNION OIL COMPANY OF CALIFORNIA

A handwritten signature in cursive script that reads "Linda H. Hicks".

Linda H. Hicks  
Landman

xc: Working Interest Owners  
Jim Rose - Region

Enclosure

LHH:njd

REVISED EXHIBIT B -- LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

Tract No.	Description of Land	Number of Acres	Ser. No. & Exp. Date of Lease	Basic Royalty and Ownership Percentage	Lessee of Record	Overriding Royalty and Percentage	Working Interest and Percentage
1	FEDERAL LAND T-19-S, R-33-E Sec. 26: SW/4	160.00	NM-030941 HBP	U.S.A. (12.50%)	Amoco Production Company	Virginia Willis Hess, Personal Representative of the Estate of Eugenia W. Bate, Deceased 1 1/2% of 8/8 R.M. Hess & Virginia W. Hess, Trustees Under Agreement dated 4/10/72 1% of 8/8 Elizabeth W. Christensen and husband, Don T. Christensen 1/2% of 8/8 Winifred T. Seaton 1/2% of 8/8 Jo Ann W. Light & husband Robert S. Light 1/2% of 8/8	Amoco Production Company - 100%
2	Sec. 35: NE/4NE/4, S/2N/2	200.00	NM-9824 7/31/79	U.S.A. (12.50%)	Union Oil Company of California	W. Felck, Jr. & wife, Joan M. Felck \$750 p/a PPI out of 5%	Union Oil Co. of California- 100%
4	Sec. 26: SE/4NE/4	40.00	NM-11618 4/30/80	U.S.A. (12.50%)	Union Oil Company of California	Calvin A. Mitchell and wife, Evelyn Mitchell 4% Leo Pollack 1/4% M. A. Schofman 3/4%	Union Oil Co. of California - 100%
5	Sec. 26: N/2NE/4, SW/4NE/4	120.00	NM-15917 6/30/82	U.S.A. (12.50%)	Union Oil Company of California	Gwen P. Taylor & husband, Charles G. Taylor, and Carl A. Nilsen & wife, Georgaanne Nilsen 5%	Union Oil Co. of California - 100%

Tract No.	Description of Land	Number of Acres	Sec. No. & Exp. Date of Lease	Basic Royalty and Ownership Percentage	Lessee of Record	Overriding Royalty and Percentage	Working Interest and Percentage
6	Sec. 35: S/2	320.00	NM-27572 5/31/83	U.S.A. (12.50%)	Union Oil Company of California	Bakersfield Investment Trust, Lucille Wilson, Trustee 2 1/2% Bank of America, NT&SA, as Trustee of the Charles E. Strange 1976 Trust #1 1 1/2% of 8/8 C. E. Strange & wife, Sherrle R. Strange 1% of 8/8	Union Oil Co. of California - 100%
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8	Sec. 25: NW/4	160.00	NM-27574 5/31/85	U.S.A. (12.50%)	Belco Petroleum Corporation - 50% Union Oil Company of California-50%	Herbert A. Settles & wife, Beatrice C. Settles 5%	Belco Petroleum Corp. - 50%; Union Oil Co. of California - 50%
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9 FEDERAL TRACTS 1,440.00 ACRES OR 75.000000% OF UNIT AREA.							
NEW MEXICO STATE LAND							
11	Sec. 36: SW/4	160.00	B-1581-6 HBP	State of New Mexico (12.50%)	Atlantic Richfield Company	None	Atlantic Richfield Company- 100%

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2 STATE TRACTS 320.00 ACRES OR 16.66667% OF UNIT AREA.

PATENTED LAND

14	Sec. 25: SW/4	160.00	12/20/77* 12/20/80*	Mark Smith & wife, Annie Lora Smith; Kenneth Mark Smith & wife, Patsy Lou Smith; William C. Smith & wife, Nancy Jean Smith; Lora Nell Glenn & husband, William Jeff Glenn (18.75%)	Union Oil Company of California	None	Union Oil Co. of California - 100%
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1 PATENTED TRACT 160.00 ACRES OR 8.33333% OF UNIT AREA.

TOTAL: 12 TRACTS 1,920.00 ACRES IN ENTIRE UNIT AREA

\*Lease has been renewed by Oil & Gas Lease dated June 4, 1977, recorded in Vol 304, Page 260, of the Records of Lea County, New Mexico. Primary term is stated as being 3 years from 12/20/77.

REVISED EXHIBIT B -- LAGUNA DEEP UNIT, LEA COUNTY, NEW MEXICO, T-19-S, R-33-E - AS CONTRACTED EFFECTIVE 2/9/84

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11	Sec. 36: SW/4	160.00	B-1581-6 HBP	State of New Mexico (12.50%)	Atlantic Richfield Company	None	Atlantic Richfield Company- 100%

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PATENTED LAND

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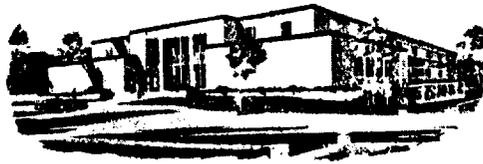
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TOTAL: 12 TRACTS 1,920.00 ACRES IN ENTIRE UNIT AREA

\*Lease has been renewed by Oil & Gas Lease dated June 4, 1977, recorded in Vol 304, Page 260, of the Records of Lea County, New Mexico.  
Primary term is stated as being 3 years from 12/20/77.

State of New Mexico

#6182



JIM BACA  
COMMISSIONER

Commissioner of Public Lands

April 17, 1984

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148  
Express Mail Delivery Used  
310 Old Santa Fe Trail  
Santa Fe, New Mexico 87501

Union Oil Company of California  
500 North Marienfeld  
P. O. Box 671  
Midland, Texas 79702

Re: 1984 Plan of Development  
Laguna Deep Unit  
Lea County, New Mexico

ATTENTION: Mr. H. Rene' Moulinet

Gentlemen:

The Commissioner of Public Lands has this date approved your 1984 Plan of Development for the Laguna Deep Unit, Lea County, New Mexico. Such plan based on the apparent successful recompletion of the Unit Well No. 2, proposes to evaluate the Unit Well No. 3 for a similar recompletion from the Lower Morrow to the Middle Morrow. Our approval is subject to like approval by the New Mexico Oil Conservation Division and the Bureau of Land Management.

Enclosed is an approved copy for your files.

Very truly yours,

JIM BACA  
COMMISSIONER OF PUBLIC LANDS

BY:  
RAY D. GRAHAM, Director  
Oil and Gas Division  
AC 505/827-5744

JB/RDG/pm  
encls.  
cc:

OCD-Santa Fe, New Mexico  
BIM-Albuquerque, New Mexico  
BLM-Roswell, New Mexico



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Roswell District Office

P. O. Box 1397

Roswell, New Mexico 88201

IN REPLY  
REFER TO:

Laguna Deep Unit

April 9, 1984

Union Oil Company of California  
Attention: Mr. H. Rene' Moulinet  
500 North Marienfeld  
P.O. Box 671  
Midland, TX 79702

Gentlemen:

Enclosed are two approved copies of your 1984 Plan of Development and Operation for the Laguna Deep Unit Area, Lea County, New Mexico, covering the period beginning January 1, 1984 and ending December 31, 1984. This plan, proposing that based upon the apparent successful recompletion of Unit Well No. 2, Unit Well No. 3 will be evaluated for a similar recompletion from the Lower Morrow to the Middle Morrow during 1984, was approved this date, subject to like approval by the New Mexico Commissioner of Public Lands and the New Mexico Oil Conservation Division.

Sincerely yours,

District Manager

Enclosures: (2)

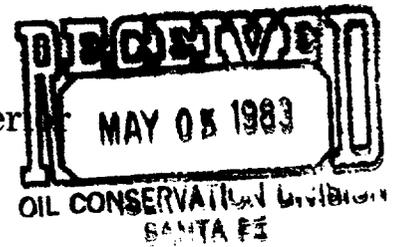
cc: NMOCD, Santa Fe



IN REPLY  
REFER TO:

United States Department of the Interior

MINERALS MANAGEMENT SERVICE  
SOUTH CENTRAL REGION  
505 MARQUETTE AVENUE, N.W., SUITE 815  
ALBUQUERQUE, NEW MEXICO 87102



*Case  
6182*

MAY 1983

Union Oil Company of California  
Attention: H. Rene' Moulinet  
P. O. Box 671  
Midland, Texas 79702

Gentlemen:

Two approved copies of your 1983 plan of development for the Laguna Deep unit area, Lea County, New Mexico are enclosed. Such plan, proposing to recomplete the Laguna Deep Unit well No. 2 in the Middle Morrow was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

Sincerely yours,

(CHIEF, S&D.) JAMES W. SHELTON

Assistant District Manager  
for Minerals

Enclosures

cc:  
Comm of Pub Lands, Santa Fe  
NMOCD, Santa Fe ✓

# State of New Mexico



JIM BACA  
COMMISSIONER

## Commissioner of Public Lands

April 4, 1983

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

Union Oil Company of California  
P. O. Box 671  
Midland, Texas 79702

*Case  
6182*

Re: 1983 Plan of Development  
Laguna Deep Unit  
Lea County, New Mexico

ATTENTION: H. Rene' Moulinet

Gentlemen:

The Commissioner of Public Lands has this date approved your 1983 Plan of Development for the **Laguna Deep Unit**, Lea County, New Mexico. Such plan proposes that the Well No. 2, which is located in the SW/4 of Section 26, be recompleted in the Middle Morrow and this work will be used to evaluate the potential for other Laguna recompletions and additional drilling. Our approval is subject to like approval by the New Mexico Oil Conservation Division and the Bureau of Land Management.

Enclosed is an approved copy for your files.

Your filing fee in the amount of Three (\$3.00) Dollars has been received.

Very truly yours,

JIM BACA  
COMMISSIONER OF PUBLIC LANDS

BY:  
RAY D. GRAHAM, Director  
Oil and Gas Division  
AC 505/827-5744

JB/RDG/pm  
encls.

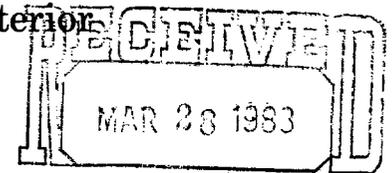
cc: OCD-Santa Fe, New Mexico  
BLM-Albuquerque, New Mexico



IN REPLY  
REFER TO:

United States Department of the Interior

MINERALS MANAGEMENT SERVICE  
SOUTH CENTRAL REGION  
505 MARQUETTE AVENUE, N.W., SUITE 815  
ALBUQUERQUE, NEW MEXICO 87102



OIL CONSERVATION DIVISION  
SANTA FE

MAR 25 1983

Exxon Company, U.S.A.  
Attention: Richard D. Sorenson  
P. O. Box 1600  
Midland, Texas 79702

Gentlemen:

Based on the new information that was submitted on November 16, 1982, we concur that the ~~Laguna Grande Unit~~ well No. 3 is capable of producing unitized substances in paying quantities. Therefore, your application requesting approval of the initial participating area for the Laguna Grande Unit Agreement, Eddy County, New Mexico, No. 14-08-0001-14272, was approved on this date. Under the terms in section 11 of the unit agreement the initial participating area is effective as of January 16, 1981.

The initial participating area is 320.00 acres described as the E $\frac{1}{2}$  section 29, T. 23 S., R. 29 E., N.M.P.M. This participating area is based on the data that was submitted by letter of December 27, 1982.

As explained in our letter of October 18, 1982, the automatic elimination clause was due to become effective on March 27, 1981, but was delayed pending the determination on this well. The Laguna Grande Unit Agreement, No. 14-08-0001-14272, Eddy County, New Mexico, is hereby contracted to include only those lands within the initial Atoka Participating Area. This contraction will be effective as of March 27, 1981. You are requested to submit revised Exhibits "A" and "B" describing the lands eliminated from the unit.

Sincerely yours,

(ORIG. SGD.) JAMES W. SHELTON

FOR Gene F. Daniel  
Deputy Minerals Manager  
Oil and Gas

cc:  
BLM, Santa Fe  
➤ NMOCD, Santa Fe  
Comm. of Public Lands



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
OIL CONSERVATION DIVISION

March 31, 1983

TONEY ANAYA  
GOVERNOR

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-5800

*6182*

Union Oil Co. of California  
P.O. Box 671  
Midland, Texas 79702

Attention: Mr. Rene Moulinet

Re: Laguna Deep Unit  
1983 Plan of Development  
Lea County, NM

Dear Mr. Moulinet:

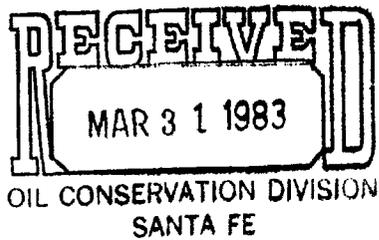
The above referenced submittal has been approved by the New Mexico Oil Conservation Division effective this date. Such approval is contingent upon like approval by the New Mexico Commissioner of Public Lands and the United States Minerals Management Service.

Sincerely,

ROY E. JOHNSON  
Petroleum Geologist

REJ/dp

cc: Commissioner of Public Lands - Santa Fe  
Minerals Management Service - Albuquerque  
OCD District Office -Hobbs



Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731



Certified

March 24, 1983

Robert V. Lockhart  
District Land Manager  
Midland District

Oil Conservation Division  
Energy and Minerals Department  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Joe D. Ramey, Director

Gentlemen:

Laguna Deep Unit  
T-19 and 20-S, R-33-E, N.M.P.M.  
Case No. 6182 - Order No. R-5684  
Lea County, New Mexico

Enclosed for your review please find two (2) copies of Union Oil Company of California's "1983 Plan of Development and Operation for Laguna Deep Unit Area".

Union, as Operator, respectfully requests your consideration and approval of this plan. Should you have any additional questions, please contact the undersigned.

Sincerely yours,

UNION OIL COMPANY OF CALIFORNIA

H. Rene' Moulinet  
Senior Landman

HRM:dh

Enclosure

1983 PLAN OF DEVELOPMENT AND OPERATION

FOR

LAGUNA DEEP UNIT AREA

LEA COUNTY, NEW MEXICO

TO: Oil Conservation Division  
Energy and Minerals Department  
P.O. Box 2088  
Santa Fe, New Mexico 87501

UNION OIL COMPANY OF CALIFORNIA, as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-16905), respectfully submits for approval this 1983 Plan of Development and Operation for the Laguna Deep Unit Area. This plan is for the period ending December 31, 1983.

SUMMARY OF 1982 OPERATIONS

No new wells were drilled within the Unit in 1982. Well No. 3, however, was placed on pipeline on July 25th. The well initially produced at a rate of 1853 MCFPD plus 60 BCPD with an initial bottom hole pressure of 6355 psi, but production declined off dramatically. In October 1982, a pressure build-up survey indicated that bottom hole pressure had dropped to 1723 psi. At year's end, No. 3 was averaging 273 MCFPD plus 2 BCPD. Laguna No. 1 is currently producing Lower Morrow gas at a rate of 444 MCFPD plus 28 BCPD. Laguna No. 2, also a Lower Morrow producer, has been shut-in since May 1981.

PLAN OF DEVELOPMENT AND OPERATIONS FOR 1983

Union has proposed to our partners that Well No. 2, which is located in the southwest quarter of Section 26, be recompleted in the Middle Morrow. This work should be performed during the first or second quarter of 1983. Well No. 2 is currently completed in the Lower Morrow and was shut-in in May 1981 due to gas depletion and liquid loading. This work will be used to evaluate the potential for other Laguna recompletions and additional drilling.

Our Plan may be modified or supplemented from time to time with the necessary approval needed, when necessary to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 24 day of March, 1983.

UNION OIL COMPANY OF CALIFORNIA

By: Robert V. Lockhart

District Land Manager

1983 PLAN OF DEVELOPMENT AND OPERATION

FOR

LAGUNA DEEP UNIT AREA

LEA COUNTY, NEW MEXICO

TO: Oil Conservation Division  
Energy and Minerals Department  
P.O. Box 2088  
Santa Fe, New Mexico 87501

UNION OIL COMPANY OF CALIFORNIA, as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-16905), respectfully submits for approval this 1983 Plan of Development and Operation for the Laguna Deep Unit Area. This plan is for the period ending December 31, 1983.

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PLAN OF DEVELOPMENT AND OPERATIONS FOR 1983

Union has proposed to our partners that Well No. 2, which is located in the southwest quarter of Section 26, be recompleted in the Middle Morrow. This work should be performed during the first or second quarter of 1983. Well No. 2 is currently completed in the Lower Morrow and was shut-in in May 1981 due to gas depletion and liquid loading. This work will be used to evaluate the potential for other Laguna recompletions and additional drilling.

Our Plan may be modified or supplemented from time to time with the necessary approval needed, when necessary to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 24 day of March, 1983.

UNION OIL COMPANY OF CALIFORNIA

By: Robert V. Lockhart  
District Land Manager

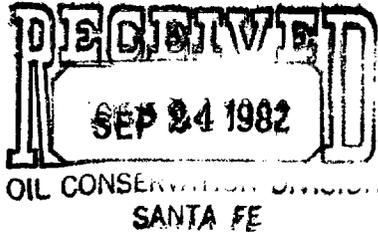
Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731



Robert V. Lockhart  
District Land Manager  
Midland District

September 20, 1982



Oil Conservation Division  
Energy & Minerals Department  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Joe Ramey, Director

Gentlemen:

Case No. 6182, Order No. R-5684  
Laguna Deep Unit  
Lea County, New Mexico

Pursuant to the referenced unit agreement, any well drilled on federal lands must be approved as a Unit Well by the Minerals Management Service.

Enclosed you will find a copy of Union's request that Laguna Deep Unit Well #3 be declared a Unit Well, along with the approval of same by the Minerals Management Service.

Should you have any questions, please advise.

Sincerely,

UNION OIL COMPANY OF CALIFORNIA

A handwritten signature in cursive script that reads "Linda Hicks".

Linda Hicks  
Landman

LHH:dh

Enclosures



IN REPLY  
REFER TO:

# United States Department of the Interior

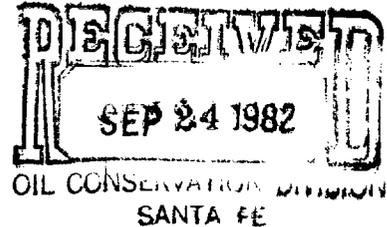
MINERALS MANAGEMENT SERVICE  
SOUTH CENTRAL REGION  
505 MARQUETTE AVENUE, N.W., SUITE 815  
ALBUQUERQUE, NEW MEXICO 87102

RECEIVED

SEP 16 1982

MIDLAND DISTRICT LAND

SEP 18 1982



Union Oil Company of California  
Attention: Robert V. Lockhart  
P. O. Box 671  
Midland, Texas 79702

Gentlemen:

On February 17, 1982, we received a request for a Unit Well Determination on the Laguna Deep Unit Well No. 3, Lea County, New Mexico. Engineering and economic data was submitted with the request to aid in determining if the well is capable of producing unitized substances in paying quantities as defined in the unit agreement.

The Laguna Deep Unit Well No. 3 is located in the SW $\frac{1}{4}$  section 35, T. 19 S., R. 33 E., N.M.P.M., Lea County, New Mexico. The well was completed in the Morrow formation in the intervals between 13,472-480 and 13,499-502 feet.

After reviewing all the data that was submitted, we concur that the Laguna Deep Unit Well No. 3 is capable of producing unitized substances in paying quantities.

The well is located in the current Morrow Participating Area and therefore, no revision to the participating area is necessary. You are requested to furnish all interested principals with evidence of this determination.

Sincerely yours,

*Gene F. Daniel*  
for Gene F. Daniel  
Deputy Minerals Manager  
Oil and Gas

Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731

RECEIVED  
FEB 27 1982  
ALB, NM



Robert V. Lockhart  
District Land Manager  
Midland District

February 11, 1982

RECEIVED  
SEP 24 1982  
OIL CONSERVATION DIVISION  
SANTA FE

United States Department of the Interior  
Minerals Management Service  
South Central Region  
P.O. Box 26124  
Albuquerque, New Mexico 87125

Attn: Mr. Joe Lara  
Agreements/Units Supervisor

Gentlemen:

Request for Unit Well Determination  
Laguna Deep Unit Well No. 3  
Lea County, New Mexico

Pursuant to the 1981 Plan of Development and Operation for the Laguna Deep Unit, Union Oil Company of California drilled the Laguna Deep Unit Federal No. 3 well located 990' FSL & 1980'FWL, Section 35, T-19-S, R-33-E, Lea County. The well was drilled to a total depth of 13,600'. The Morrow Sand intervals between 13,472-480 and 13,499-502 were perforated on December 21, 1981. On December 22, 1981, the well was tested (4-pt. test) on a 24-hr. rate at the 4th point for 3168 MDFGPD on 16/64" choke at 3940 psi flowing tubing pressure + 28.7 barrels of condensate at the 4th point for 1-3/4 hours. The well is currently shut-in waiting on a gas contract. Union, as Operator of the Laguna Deep Unit, respectfully requests this well be validated as a unit well.

In support of our request, we enclose the following in triplicate:

- 1) A brief drilling history of the Laguna Deep Unit Well No. 3
- 2) A gas analysis
- 3) Volumetric calculations for gas in place for the zone of completion, as well as four (4) additional intervals, not perforated, which are believed to be productive
- 4) A development Well Analysis form, which shows the economics of the subject well, using reserves for only the current zone of completion

United States Department of the Interior  
Mr. Joe Lara  
Request for Unit Well Determination  
Laguna Deep Unit Well No. 3  
Lea County, New Mexico  

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Page -2-

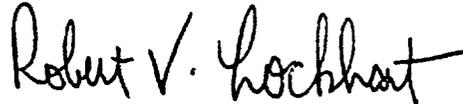
- 5) Copies of the CNL-FOC logs and Dual Laterlog which indicate, in red, the current zone of completion and proposed zones of completion
- 6) A map of the area showing subject well and surrounding acreage

We believe the engineering data demonstrates Morrow gas and condensate reserves sufficient to produce in paying quantities and allow recovery of all costs of drilling, completing, and producing operations, with a reasonable profit, as defined in Section 9 of the Unit Agreement.

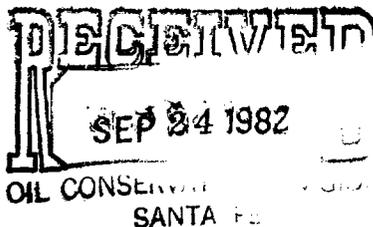
If you require any additional information, please contact the undersigned.  
Thank you for your cooperation.

Very truly yours,

UNION OIL COMPANY OF CALIFORNIA

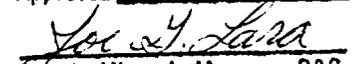


Robert V. Lockhart  
District Land Manager



RVL:gjl

Enclosures

Approved SEP 18 1982  
  
Deputy Minerals Manager, O&G  
South Central Region



# United States Department of the Interior

RECEIVED

SEP 15 1980

OIL CONSERVATION DIVISION  
SANTA FE

GEOLOGICAL SURVEY

South Central Region

P. O. Box 26124

Albuquerque, New Mexico 87125

11 SEP 1980

6182

Union Oil Company of California  
Attention: Robert V. Lockhart  
P. O. Box 671  
Midland, Texas 79702

Gentlemen:

Your application of July 21, 1980 requesting approval of the first revision of the Morrow participating area, Laguna Deep Unit Agreement, Lea County, New Mexico, No. 14-08-0001-16905, was approved on this date by the Deputy Conservation Manager for Oil and Gas, SCR, U. S. Geological Survey, Conservation Division, effective January 1, 1980.

The first revision adds 1,280.00 acres described as the W $\frac{1}{2}$  sec. 25, all sec. 26, W $\frac{1}{2}$  sec. 36, T. 19 S., R. 33 E., N.M.P.M., Lea County, New Mexico, which enlarges the total participating area to 1,920.00 acres. This revision is based upon the information contributed by unit well No. 2 located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 19 S., R 33 E., tested on January 19, 1980 for a stabilized flow rate of 2,028 MCFGPD and 108 barrels of condensate from the Morrow formation at a depth of 13,381 to 13,390 feet.

Copies of the approved application are being distributed to the appropriate Federal offices and one approved copy is enclosed. You are requested to furnish the State of New Mexico and other interested parties with appropriate evidence of this approval.

Sincerely yours,

(ORIG. SGD.) JACK WILLOCK

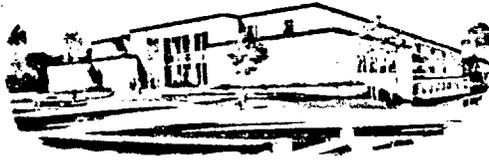
FOR Gene F. Daniel  
Acting Deputy Conservation  
Manager, Oil and Gas

Enclosure

cc:

NMOCD, Santa Fe (ltr only)

# State of New Mexico



## Commissioner of Public Lands

May 4, 1982

ALEX J. ARMIJO  
COMMISSIONER

P. O. BOX 1148  
SANTA FE, NEW MEXICO 87501  
87504-1148

Union Oil Company of California  
P. O. Box 671  
Midland, Texas 79702

Re: Laguna Deep Unit  
1982 Plan of Development  
Lea County, New Mexico

ATTENTION: Ms. Linda H. Hicks

6/82

Gentlemen:

The Commissioner of Public Lands has this date approved your 1982 Plan of Development for the Laguna Deep Unit, Lea County, New Mexico. Such plan proposes to monitor the production performance of well No. 3 in an effort to determine the feasibility of future drilling at offset locations and watch the progress of a well being drilled outside the unit boundary. Our approval is subject to like approval by the New Mexico Oil Conservation Division and the United States Minerals Management Service.

Enclosed is one approved copy for your files.

Your filing fee in the amount of Three (\$3.00) Dollars has been received.

Very truly yours,

ALEX J. ARMIJO  
COMMISSIONER OF PUBLIC LANDS

BY:  
FLOYD O. PRANDO, Assistant Director  
Oil and Gas Division  
AC 505/827-2748

AJA/FOP/pm  
encls.

cc: OCD-Santa Fe, New Mexico  
USMMS-Albuquerque, New Mexico  
Administration

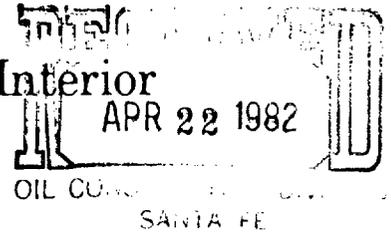


United States Department of the Interior

OFFICE OF THE SECRETARY

Minerals Management Service  
South Central Region

P. O. Box 26124  
Albuquerque, New Mexico 87125



APR 22 1982

Union Oil Company of California  
Attention: Linda H. Hicks  
P. O. Box 671  
Midland, Texas 79702

6182

Gentlemen:

Two approved copies of your 1982 plan of development for the Laguna Deep unit area, Lea County, New Mexico, are enclosed. Such plan, proposing to monitor the production performance of well No. 3 to determine the feasibility of future drilling at offset locations, was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

Sincerely yours,

(ORIG. SCD) [Signature]

FOR Gene F. Daniel  
Deputy Minerals Manager  
Oil and Gas

Enclosures

cc:  
Comm. of Public Lands, Santa Fe  
NMOCD, Santa Fe

Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731



6182

Robert V. Lockhart  
District Land Manager  
Midland District

April 7, 1982

Commissioner of Public Lands  
P. O. Box 1148  
Santa Fe, New Mexico 87501

Attention: Ray D. Graham, Director  
Oil and Gas Division

Gentlemen:

Laguna Deep Unit  
1982 Plan of Development  
Lea County, New Mexico

In response to your letter dated March 24, 1982, please be advised that Union has furnished your office our proposed 1982 Plan of Development for the Laguna Deep Unit.

Enclosed please find a plat showing the location of the Laguna #1, #2, and #3 wells. The #3 well is currently shut-in waiting on a pipeline connection. The 1981 production figures for #1 and #2 wells are attached.

Should you require any further information, please advise.

Sincerely yours,

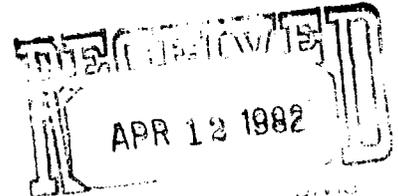
UNION OIL COMPANY OF CALIFORNIA

Linda H. Hicks  
Landman

LHH:njd

Enclosures

xc: Minerals Management Service (14-08-0001-16905)  
Oil Conservation Division (Case No. 6182 - Order No. R-5684) ✓

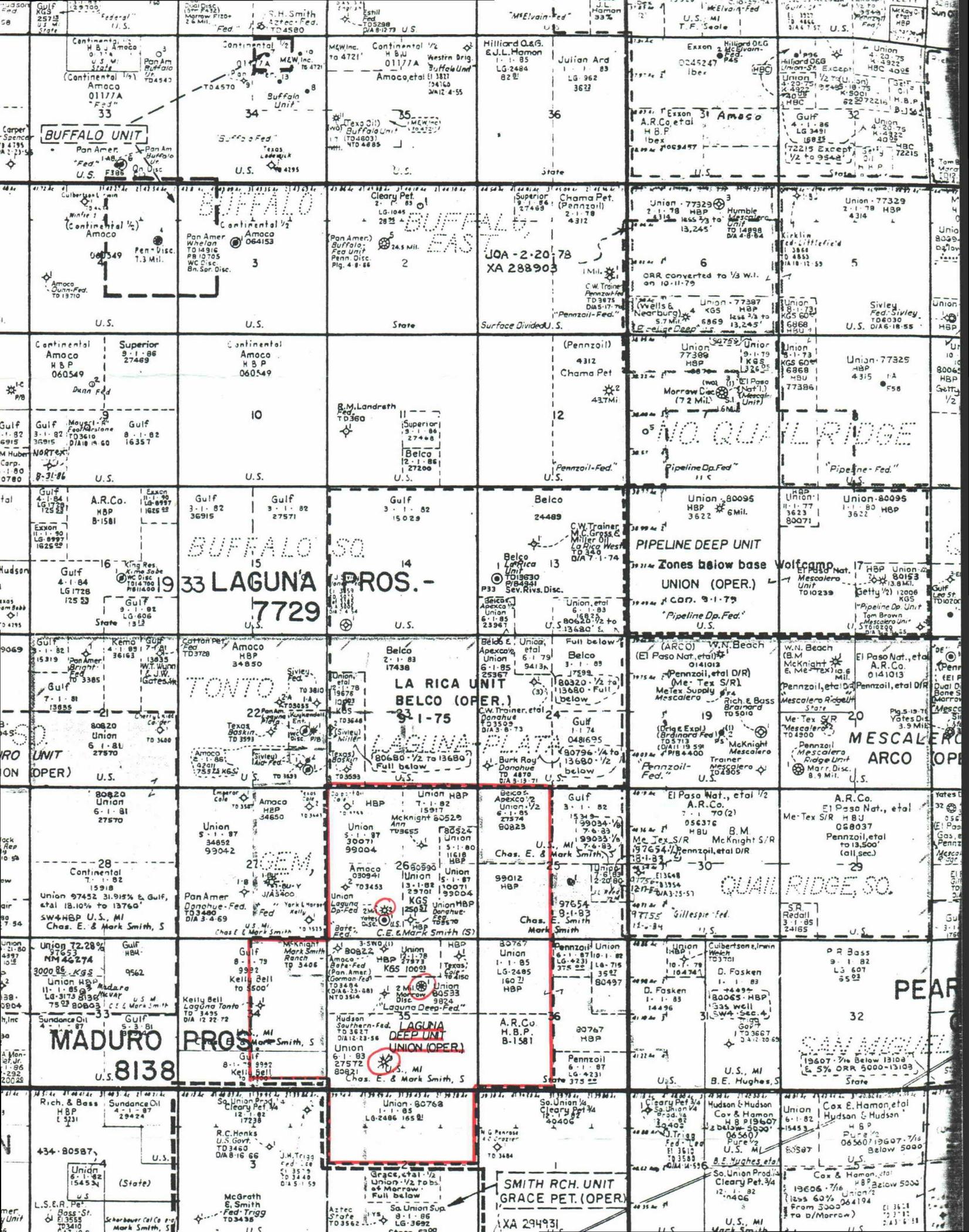


SANTA FE

Laguna Deep Unit

1981 Morrow Production

	<u>Laguna #1</u>		<u>Laguna #2</u>	
	<u>Cond.-Bbls</u>	<u>/ Gas-MCF</u>	<u>Cond.-Bbls</u>	<u>/ Gas-MCF</u>
January	1997	25600	583	7946
February	2147	27622	323	5058
March	2174	27769	97	2434
April	1787	23644	-0-	1000
May	1678	22084	-0-	1000
June	1962	25076	-0-	-0-
July	2369	32344	-0-	-0-
August	2502	34080	-0-	-0-
September	1429	20619	-0-	-0-
October	2542	33943	-0-	-0-
November	2084	28914	-0-	-0-
December	<u>2347</u>	<u>32685</u>	<u>-0-</u>	<u>-0-</u>
	25018	334380	1003	17438



**BUFFALO UNIT**

**BUFFALO**

**BUFFALO EAST**

**BUFFALO SO**

**33 LAGUNA PROS. - 7729**

**TONTO**

**LA RICA UNIT BELCO (OPER.) 31-75**

**MADURO PROS. 8138**

**LAGUNA DEEP UNIT (UNION OPER.)**

**SMITH RCH. UNIT GRACE UNIT (OPER.)**

**PIPELINE DEEP UNIT**

**UNION (OPER.)**

**QUAIL RIDGE, SO.**

**MESCALERO ARCO UNIT**

**PEARL**



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

April 19, 1982

BRUCE KING  
GOVERNOR

LARRY KEHOE  
SECRETARY

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-2434

Union Oil Company of Calif.  
P. O. Box 671  
Midland, Texas 79702

Attention: Linda H. Hicks

Re: 1982 Plan of Development  
for Laguna Deep Unit, Lea  
County, New Mexico

Dear Ms. Hicks:

The New Mexico Oil Conservation Division has this date approved your 1982 Plan of Development for the Laguna Deep Unit, Lea County, New Mexico. Our approval is subject to like approval by the Minerals Management Service and the Commissioner of Public Lands of the State of New Mexico.

Sincerely,

W. PERRY PEARCE  
General Counsel

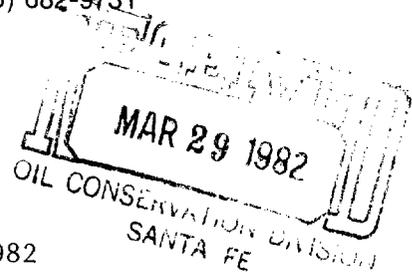
WPP/dr

cc: Minerals Management Service - Albuquerque  
Commissioner of Public Lands - Santa Fe

6182

Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731



Robert V. Lockhart  
District Land Manager  
Midland District

March 26, 1982

Oil Conservation Division  
Energy and Minerals Department  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Mr. Joe D. Ramey, Director

Gentlemen:

Laguna Deep Unit  
T-19 and 20-S, R-33-E, N.M.P.M.  
Case No. 6182 - Order No. R-5684  
Lea County, New Mexico

Enclosed for your review please find 2 (two) copies of Union Oil Company of California's "1982 Plan of Development and Operation for Laguna Deep Unit Area".

Union, as Operator, respectfully requests your consideration and approval of this plan. Should you have any additional questions, please contact the undersigned.

Sincerely yours,

UNION OIL COMPANY OF CALIFORNIA

A handwritten signature in cursive script that reads "Linda H. Hicks".

Linda H. Hicks  
Landman

LHH:njd  
Enclosures

1982 PLAN OF DEVELOPMENT AND OPERATION

FOR

LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO



TO: Oil Conservation Division  
Energy and Minerals Department  
P. O. Box 2088  
Santa Fe, New Mexico 87501

UNION OIL COMPANY OF CALIFORNIA, as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-16905), respectfully submits for approval this 1982 Plan of Development and Operation for the Laguna Deep Unit Area. This plan is for the period ending December 31, 1982.

SUMMARY OF 1981 OPERATIONS

The Laguna Deep Unit No. 3 Well, located 990' FSL and 1980' FWL Section 35, T-19-S, R-33-E, was spudded August 30, 1981, and reached a total depth of 13,600' on November 16, 1981. The well was completed in the Lower Morrow through perforations between 13,472 - 13,502 feet on December 21, 1981. On December 22, the well was tested (4 pt. test) on a 24-hour rate at the 4th pt. for 3,168 MCFGPD on 16/64" choke at 3940 psi flowing tubing pressure plus 28.7 barrels of condensate at the 4th pt. for 1 3/4 hours. The calculated absolute open flow from the completion test was 8,088 MCFGPD. The well is currently shut-in, waiting on a gas contract and pipeline connection.

By letter dated February 11, 1982, Union submitted to the Minerals Management Service a request that the Laguna Deep Unit No. 3 Well be validated as a Unit well. To date, our request has not yet been approved.

Union is currently in the process of determining if an enlargement of the current Morrow Participating Area is justified.

PLAN OF DEVELOPMENT AND OPERATIONS FOR 1982

Well No. 3 will be placed on production upon completion of a pipeline sales connection. The production performance of Well No. 3 will be monitored in an effort to determine the feasibility of future drilling at offset locations.

Also, Union is presently drilling a well in the NW/4SE/4 Section 25-19S-33E, just outside the Laguna Unit Area to the east. We will be watching the progress of this well also to determine possible offset locations within the Laguna Deep

Unit Area.

Well No. 2 is currently a marginal producer. An engineering evaluation is in progress to evaluate workover or recompletion potential for the well.

Our Plan may be modified or supplemented from time to time with the necessary approval needed, when necessary to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 8 day of March, 1982.

UNION OIL COMPANY OF CALIFORNIA

BY: Robert V. Lockhart  
District Land Manager

1982 PLAN OF DEVELOPMENT AND OPERATION

FOR

LAGUNA DEEP UNIT AREA  
LEA COUNTY, NEW MEXICO

6/82

TO: Oil Conservation Division  
Energy and Minerals Department  
P. O. Box 2088  
Santa Fe, New Mexico 87501

UNION OIL COMPANY OF CALIFORNIA, as Unit Operator for the Laguna Deep Unit Area, pursuant to the provisions of Section 10 of the Unit Agreement for development and Operation of the Laguna Deep Unit Area, dated June 22, 1978 (No. 14-08-0001-16905), respectfully submits for approval this 1982 Plan of Development and Operation for the Laguna Deep Unit Area. This plan is for the period ending December 31, 1982.

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PLAN OF DEVELOPMENT AND OPERATIONS FOR 1982

Well No. 3 will be placed on production upon completion of a pipeline sales connection. The production performance of Well No. 3 will be monitored in an effort to determine the feasibility of future drilling at offset locations.

Also, Union is presently drilling a well in the NW/4SE/4 Section 25-19S-33E, just outside the Laguna Unit Area to the east. We will be watching the progress of this well also to determine possible offset locations within the Laguna Deep

Unit Area.

Well No. 2 is currently a marginal producer. An engineering evaluation is in progress to evaluate workover or recompletion potential for the well.

Our Plan may be modified or supplemented from time to time with the necessary approval needed, when necessary to meet changed conditions or to protect the interest of all parties to the Unit Agreement.

Submitted this 8 day of March, 1982.

UNION OIL COMPANY OF CALIFORNIA

BY: Robert V. Heckhart  
District Land Manager

*approved  
4/9/82  
W/P*



# United States Department of the Interior

GEOLOGICAL SURVEY  
South Central Region  
P. O. Box 26124  
Albuquerque, New Mexico 87125

07 MAY 1981

6182

Union Oil Company of California  
Attention: Linda H. Hicks  
P. O. Box 671  
Midland, Texas 79702

Gentlemen:

The Consent to Ratification and Joinder to the Laguna Deep Unit Agreement by Amoco Production Company, submitted to this office with your transmittal letter of April 15, 1981 is accepted for record purposes. Two signed copies are enclosed.

Sincerely yours,

(ORIG. SGD.) ARMANDO A. LOPEZ

FOR  
Gene F. Daniel  
Deputy Conservation Manager  
Oil and Gas

Enclosures

cc:  
NMOCD, Santa Fe

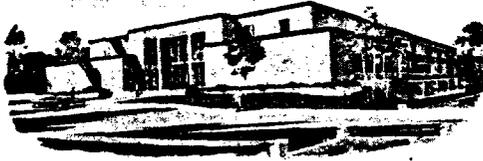
OIL CONSERVATION DIVISION  
MAY 11 1981  
RECEIVED

State of New Mexico

RECEIVED

SEP 05 1980

MIDLAND DISTRICT LAND



Commissioner of Public Lands

ALEX J. ARMIJO  
COMMISSIONER

September 2, 1980

P. O. BOX 1148  
SANTA FE, NEW MEXICO 87501

*ph*

6182

Union Oil Company of California  
P. O. Box 671  
Midland, Texas 79702

Re: Laguna Deep Unit  
Lea County, New Mexico  
FIRST REVISION TO PARTICIPATING  
AREA-MORROW FORMATION

ATTENTION: Ms. Linda H. Hicks

Gentlemen:

The Commissioner of Public Lands has this date approved the First Revision to the Participating Area, Morrow Formation, for the Laguna Deep Unit, Lea County, New Mexico. Such revision constitutes the following lands:

Township 19 South, Range 33 East, N.M.P.M.

Section 25: W/2  
Section 26: All  
Section 36: W/2

Containing 1,280.00 acres, more or less

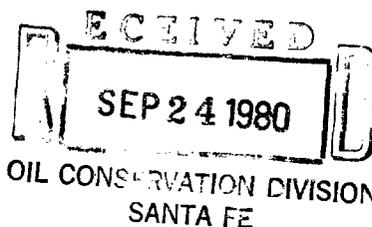
Our approval is subject to like approval by the United States Geological Survey.

Enclosed is one approved copy for your files.

Very truly yours,

ALEX J. ARMIJO  
COMMISSIONER OF PUBLIC LANDS

BY: *Ray D. Graham*  
RAY D. GRAHAM, Director  
Oil and Gas Division  
AC 505-827-2748



*2 maps we sent to State were returned - gave to Moffitt 9-9*

*Copy John Hansen/Region  
W.I. Owen  
AJA/RDG/s  
encls.*

cc:

OCD-Santa Fe, New Mexico  
USGS-Roswell, New Mexico  
USGS-Albuquerque, New Mexico

Laguna Deep Unit Area  
Lea County, New Mexico

Application for  
approval of the  
first revision of  
the participating  
area of the  
Morrow formation

State of New Mexico  
Commissioner of Public Lands  
P. O. Box 1148  
Santa Fe, New Mexico 87501

Attn: Mr. Ray D. Graham

Union Oil Company of California, as unit operator for the Laguna Deep Unit Agreement, approved by the Commissioner of Public Lands on June 14, 1978 and by the Regional Conservation Manager of the U.S. Geological Survey, effective June 22, 1978, pursuant to the provisions of section 11 thereof, respectfully submits for your approval the selection of the following described land to constitute the first revision of the participating area for the Morrow producing zone or formation, to wit:

Township 19 South, Range 33 East, N.M.P.M.  
Section 25: W/2  
Section 26: All  
Section 36: W/2  
Containing 1,280.00 acres, more or less

In support of this application the following numbered items are attached hereto and made a part hereof:

- (1) An ownership map marked Exhibit "A" showing thereon the boundary of the unit area, the participating area as heretofore established, and the boundary of the proposed revision herein.
- (2) A schedule showing the lands entitled to participation in the unitized substances produced from the Morrow formation, with the percentages of participation of each lease or tract indicated thereon.

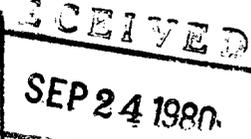
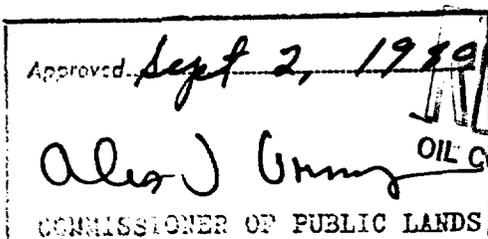
Applicant is submitting separately in triplicate a geological report with accompanying maps supporting and justifying the proposed selection of the first revision of the participating area.

This proposed first revision of the participating area is predicated upon the knowledge and information first obtained upon completion in paying quantities under the terms of the unit agreement on January 19, 1980, of the Laguna Deep Unit Well No. 2 in SE/4 SW/4, Section 26, T-19-S, R-33-E, with an initial test stabilized flow rate of 2028 MCFGPD plus 108 barrels of condensate and a CAOF 2365 MCFGPD with a gas-liquid hydrocarbon ratio of 18,778 CF/barrel from the Morrow formation at a depth of 13,381 to 13,390 feet. The well went on stream April 22, 1980 and during the remainder of the month produced an average of 1010 MCFGPD plus 103 barrels condensate per day. Although this well is not yet a unit well, by letter dated March 10, 1980, a request has been submitted to the U.S.G.S. that the Laguna Deep Unit Well No. 2 be validated as a unit well. The effective date of this first revision shall be January 1, 1980, pursuant to section 11 of the unit agreement.

Consequently, applicant respectfully requests your approval of the herein above selection of lands to constitute the first revision of the participating area to be effective January 1, 1980.

Dated this 21 day of July, 1980.

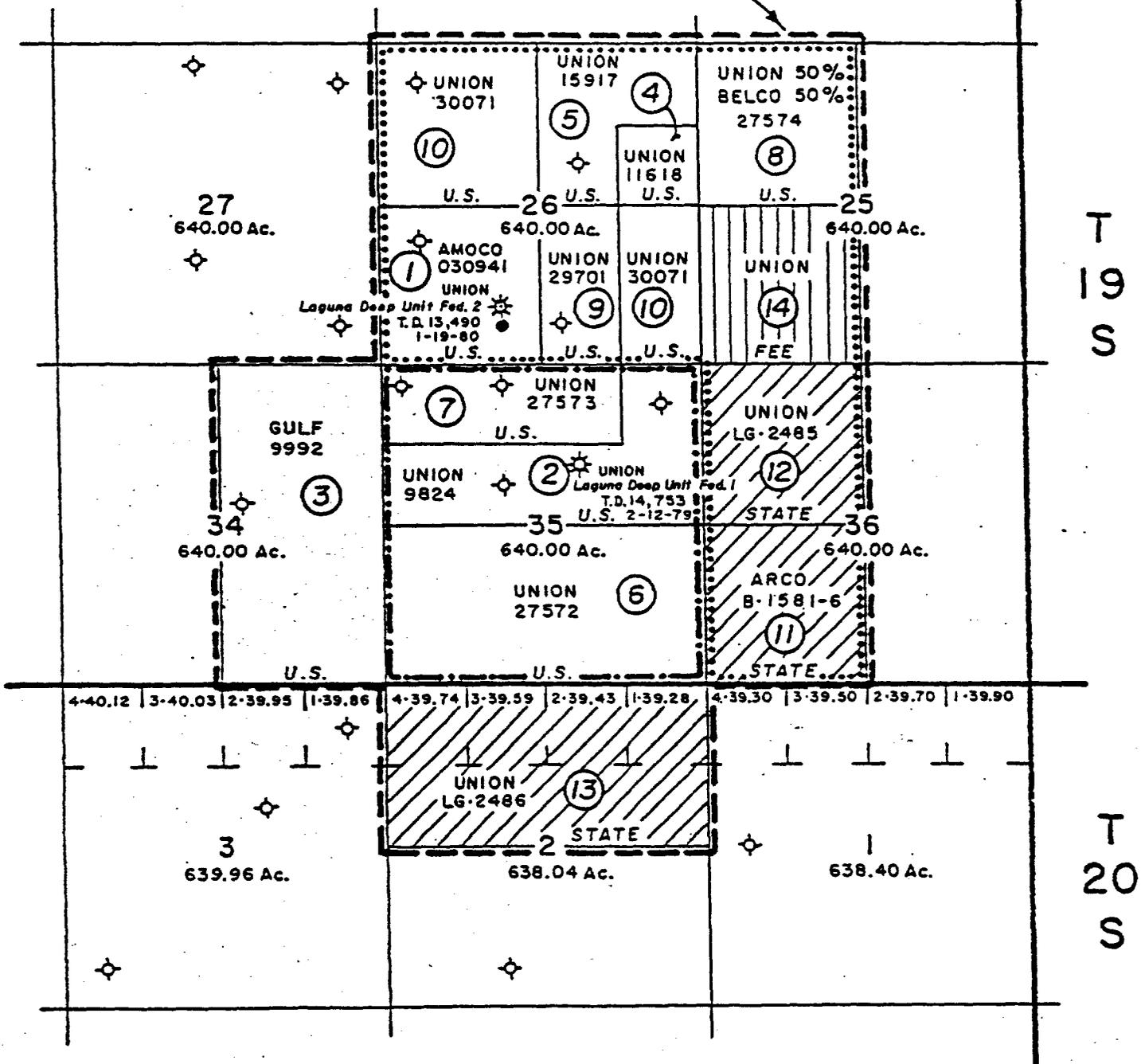
UNION OIL COMPANY OF CALIFORNIA



by: Robert V. Lockhart  
Robert V. Lockhart  
District Land Manager

R 33 E

LAGUNA DEEP UNIT



	PROPOSED PARTICIPATING AREA-LAGUNA DEEP UNIT FED No. 2
	EXISTING PARTICIPATING AREA-LAGUNA DEEP UNIT FED. No. 1, 2-1-79
	FEDERAL 1760.00 Ac. 68.80268%
	STATE 638.04 Ac. 24.94253%
	FEE 160.00 Ac. 6.25479%
	<u>2558.04 Ac. 100.00000%</u>

EXHIBIT "A"  
LAGUNA DEEP UNIT  
LEA COUNTY, NEW MEXICO



① TRACT NUMBER - EXHIBIT "B"

Exhibit "B"  
 First Revision Morrow Formation  
 Participating Area  
 Laguna Deep Unit Agreement  
 Lea County, New Mexico

Tract No.	Lease No. or Type of Land	Description	Participating Acres	Percent of Participation	Working Interest Owner
All lands are in T-19-S, R-33-E, N.M.P.M.					
1	NM-030941 Federal	Sec. 26: SW/4	160.00	9.09091	AMOCO
2	NM-9824 Federal	Sec. 35: NE/4 NE/4, S/2 N/2	200.00	11.36364	Union Oil Co. of California
4	NM-11618 Federal	Sec. 26: SE/4 NE/4	40.00	2.27272	Union Oil Co. of California
5	NM-15917 Federal	Sec. 26: N/2 NE/4, SW/4 NE/4	120.00	6.81818	Union Oil Co. of California
6	NM-27572 Federal	Sec. 35: S/2	320.00	18.18182	Union Oil Co. of California
7	NM-27573 Federal	Sec. 35: NW/4 NE/4, N/2 NW/4	120.00	6.81818	Union Oil Co. of California
8	NM-27574 Federal	Sec. 25: NW/4	160.00	-0-	Union Oil Co. of California (50%) Belco Petroleum Corporation (50%)
9	NM-29701 Federal	Sec. 26: W/2 SE/4	80.00	4.54546	Union Oil Co. of California
10	NM-30071 Federal	Sec. 26: NW/4, E/2 SE/4	240.00	13.63636	Union Oil Co. of California

First Revision Morrow Formation  
 Participating Area  
 Laguna Deep Unit Agreement  
 Lea County, New Mexico

Tract No.	Lease No. or Type of Land	Description	Participating Acres	Percent of Participation	Working Interest Owner
11	B-1581-6 State	T-19-S, R-33-E N.M.P.M. Sec. 36: SW/4	160.00	9.09091	Atlantic Richfield
12	IG-2485 State	Sec. 36: NW/4	160.00	9.09091	Union Oil Co. of California
14	Patented Land	Sec. 25: SW/4	160.00	9.09091	Union Oil Co. of California
	TOTAL		1,920.00	100.000000%	

SUMMARY

TYPE LAND	COMMITTED ACRES	NON-COMMITTED ACRES	PERCENT
Federal	1,280.00	160.00	72.72727
State	320.00	-0-	18.18181
Patented	160.00	-0-	9.09091
TOTAL	1,760.00	160.00	100.00000

LAGUNA DEEP UNIT  
LEA COUNTY, NEW MEXICO

Participating area for production from the Laguna Deep Unit Federal Well No. 2 from the Morrow formation, East Gem Morrow Gas Pool, Lea County, New Mexico.

GEOLOGICAL REPORT

The Union Oil Company of California No. 2 Laguna Deep Unit Federal well in Unit N, 990 feet from the south line and 1980 feet from the west line of Section 26, Township 19 south, Range 33 east, Lea County, New Mexico, was drilled to a total depth of 13,490 feet in the lower Morrow section of the Pennsylvanian. The subject well was completed January 19, 1980 from the Morrow formation for CAOF 2365 MCF gas per day with a gas-liquid hydrocarbon ratio of 18,778 CF per barrel.

Formation tops on subject well are as follows (elevation 3491' G.L.):

Rustler	1,329'
Salt	1,500'
Yates	3,053'
Capitan	3,472'
Delaware	5,324'
Bone Spring	7,974'
Wolfcamp	10,808'
Cisco	11,748'
Canyon	11,950'
Strawn	12,054'
Atoka	12,308'
Morrow	12,782'
Lower Morrow	13,338'

Gas production in the No. 2 Laguna Deep Federal well is from perforations 13,381 to 13,390 feet in a lower Morrow sand. The accumulation appears to be controlled both by structure and stratigraphy.

The reservoir rock is about 10 feet thick and a white, coarse-grained quartz sand with about 40% gray shale. Porosity calculations from wireline logs range up to 14 percent. Shut in bottom-hole pressure

RECEIVED  
JUL 28 10 31 AM '80  
STATE LAND OFFICE  
SANTA FE, N.M.

is 6,180 psi at 13,386 feet.

The Laguna Deep Unit Federal Well No. 2 ran 15 feet low to the Laguna Deep Unit Federal Well No. 1 located approximately 1/2 mile to the southeast. The subject well is located on the northwest flank of the Laguna structure.

Ralph L. Hawks, Jr.  
Ralph L. Hawks, Jr.  
Geologist  
Union Oil Company of California

RECEIVED  
JUL 28 10 31 AM '80  
STATE LAND OFFICE  
SANTA FE, N. M.

Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731



Robert V. Lockhart  
District Land Manager  
Midland District

January 13, 1981

Oil Conservation Division  
Energy and Minerals Department  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Joe D. Ramey, Director

Gentlemen:

Case No. 6182  
Order No. R-5684  
Laguna Deep Unit  
Lea County, New Mexico

In connection with the captioned unit, please find enclosed for your approval and file the following "Royalty and Overriding Royalty Interest Owner" Ratification and Joinder:

L. W. Curtis, Trustee - Tract 5

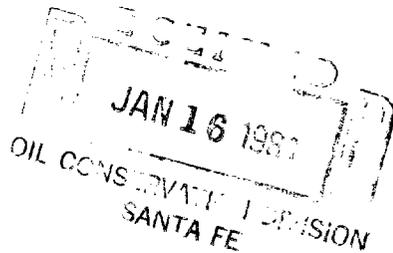
Also find enclosed Union Oil Company of California's consent to joinder forms.

Sincerely yours,

UNION OIL COMPANY OF CALIFORNIA

Linda H. Hicks  
Landman

LHH:cs  
Encl. 2



CONSENT, RATIFICATION AND JOINDER OF  
LAGUNA DEEP UNIT AGREEMENT  
LEA COUNTY, NEW MEXICO

(Royalty and Overriding Royalty Interest Owner)

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, a certain instrument entitled UNIT AGREEMENT FOR THE DEVELOPMENT AND OPERATION OF THE LAGUNA DEEP UNIT AREA, LEA COUNTY, NEW MEXICO, has been executed as of the 2nd day of February, 1978, by various persons conducting operations with respect to the Laguna Deep Unit Area, located in Lea County, New Mexico, as more particularly described in said Agreement; and

WHEREAS, the Unit Agreement, by Exhibit "A", shows on a map the boundary lines of the Unit Area and the Tracts therein and, by Exhibit "B", describes each Tract within the Unit Area; and

WHEREAS, the Unit Agreement provides that a person may become a party thereto by signing an instrument agreeing to be bound by the provisions thereof; and

WHEREAS, the undersigned (whether one or more) is, or claims to be, the owner of a royalty and/or overriding royalty interest in one or more of the Tracts described in Exhibit "B" of the Unit Agreement.

NOW, THEREFORE, the undersigned (whether one or more), for and in consideration of the premises and the benefits anticipated to accrue under said agreement, does hereby agree to become a party to and to be bound by the provisions of the said Unit Agreement, and the undersigned does hereby agree that the parties to said agreement are those persons signing the originals of said instruments, counterparts thereof, or other instruments agreeing to be bound by the provisions thereof. The undersigned does also hereby acknowledge receipt of a true copy of the said Unit Agreement.

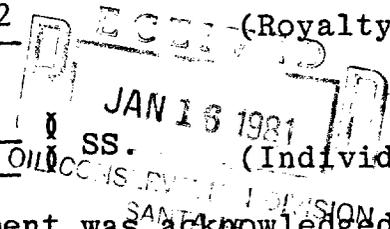
IN WITNESS WHEREOF, the undersigned has executed this instrument on the date set forth opposite the undersigned's signature.

Date: 12/17/1980

Address: 1121 Fidelity Plaza

Oklahoma City, Oklahoma 73102

STATE OF OKLAHOMA  
COUNTY OF OKLAHOMA



L. W. Curtis  
L. W. Curtis, Trustee of Marcia N. Laughlin Trust;  
Trustee of Anne N. Kelley Trust; Trustee of  
Lawrence M. Nilsen Trust

(Royalty or Overriding Royalty OWNER)

The foregoing instrument was acknowledged before me this 17th day of December, 19 80, by L. W. Curtis, Trustee

My Commission expires: 3/2/1981

E. L. Hodson  
Notary Public

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_  
SS. (Corporate)

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_, of \_\_\_\_\_, a \_\_\_\_\_ corporation, on behalf of said corporation.

My Commission expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

CONSENT TO RATIFICATION AND JOINDER TO THE  
LAGUNA DEEP UNIT AGREEMENT  
DATED FEBRUARY 2, 1978  
DESIGNATED NO. 14-08-0001-16905  
LEA COUNTY, NEW MEXICO

THE UNDERSIGNED WORKING INTEREST OWNER IN THE LAGUNA DEEP UNIT AGREEMENT AND  
THE UNIT OPERATING AGREEMENT, HEREBY CONSENTS TO THE JOINDER OF THE OVERRIDING  
ROYALTY INTEREST OF L. W. CURTIS, TRUSTEE OF MARCIA N. LAUGHLIN TRUST; TRUSTEE OF  
ANNE N. KELLEY TRUST; TRUSTEE OF LAWRENCE M. NILSEN TRUST, IN TRACT NO. 5 DESCRIBED  
AS:

Township 19 South, Range 33 East

Section 26: N/2 NE/4, SW/4 NE/4

TO SAID UNIT AGREEMENT.

UNION OIL COMPANY OF CALIFORNIA

Date: 1-9-81

By John Hansen *ck*  
Attorney-in-Fact

Address: P. O. Box 3100  
Midland, Texas 79702

WORKING INTEREST OWNER

STATE OF TEXAS,        X  
                              X    ss.  
COUNTY OF MIDLAND.   X

The foregoing instrument was acknowledged before me this 9<sup>th</sup> day  
of January, 1981, by JOHN HANSEN,  
Attorney-in-Fact of UNION OIL COMPANY OF CALIFORNIA, a California Corporation,  
on behalf of said corporation.

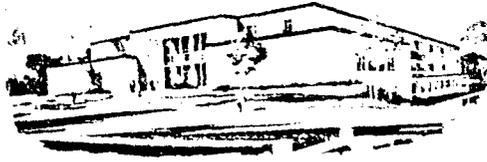
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official  
seal the day and year above written.

My Commission Expires:

11-30-84

JAN 18 1981  
Notary Public  
MAVIS JONES  
Notary Public  
Midland Co. Texas  
OIL CONSERVATION DIVISION  
SANTA FE

State of New Mexico



Commissioner of Public Lands

April 22, 1981

P. O. BOX 1148  
SANTA FE, NEW MEXICO 87501

ALEX J. ARMIJO  
COMMISSIONER

Union Oil Company of California  
P. O. Box 671  
Midland, Texas 79702

6182

Re: Laguna Deep Unit  
Lea County, New Mexico

ATTENTION: Linda H. Hicks

Gentlemen:

We are in receipt of "Royalty and Overriding Royalty Interest Owner" ratification and joinder under Tract 1, executed by Elizabeth Mendez (aka Elizabeth Christensen Mendez), also Amoco's consent to the joinder.

The Commissioner of Public Lands has this date approved the above mentioned ratification and joinder and we have this date filed them in the unit file.

We are retaining all copies for our files.

Very truly yours,

ALEX J. ARMIJO  
COMMISSIONER OF PUBLIC LANDS

BY:

FLOYD O. PRANDO, Assistant  
Director- Oil & Gas Division  
AC 505-827-2748

AJA/FOP/s  
cc:

OCD-Santa Fe, New Mexico  
USGS-Roswell, New Mexico  
USGS-Albuquerque, New Mexico

Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731



Robert V. Lockhart

District Land Manager  
Midland District

April 15, 1981

Oil Conservation Division  
Energy and Minerals Department  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Joe D. Ramey, Director

Gentlemen:

Case No. 6182  
Order No. R-5684  
Laguna Deep Unit  
Lea County, New Mexico

In connection with the captioned unit, please find enclosed for your approval and file the following "Royalty and Overriding Royalty Interest Owner" Ratification and Joinder:

Elizabeth Mendez (aka Elizabeth Christensen Mendez) - Tract 1

Also find enclosed Amoco Production Company's consent to joinder forms.

Sincerely yours,

UNION OIL COMPANY OF CALIFORNIA

A handwritten signature in cursive script that reads "Linda H. Hicks".

Linda H. Hicks  
Landman

LHH:cs  
Encl. 2



CONSENT, RATIFICATION AND JOINDER OF  
LAGUNA DEEP UNIT AGREEMENT  
LEA COUNTY, NEW MEXICO

(Royalty and Overriding Royalty Interest Owner)

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, a certain instrument entitled UNIT AGREEMENT FOR THE DEVELOPMENT AND OPERATION OF THE LAGUNA DEEP UNIT AREA, LEA COUNTY, NEW MEXICO, has been executed as of the 2nd day of February, 1978, by various persons conducting operations with respect to the Laguna Deep Unit Area, located in Lea County, New Mexico, as more particularly described in said Agreement; and

WHEREAS, the Unit Agreement, by Exhibit "A", shows on a map the boundary lines of the Unit Area and the tracts therein and, by Exhibit "B", described each Tract within the Unit Area; and

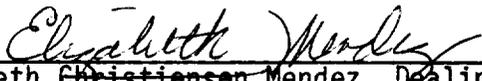
WHEREAS, the Unit Agreement provides that a person may become a party thereto by signing an instrument agreeing to be bound by the provisions thereof; and

WHEREAS, the undersigned (whether one or more) is, or claims to be, the owner of a royalty and/or overriding royalty interest in one or more of the Tracts described in Exhibit "B" of the Unit Agreement.

NOW, THEREFORE, the undersigned (where one or more), for and in consideration of the premises and the benefits anticipated to accrue under said agreement, does hereby agree to become a party to and to be bound by the provisions of the said Unit Agreement, and the undersigned does hereby agree that the parties to said agreement are those persons signing the originals of said instruments, counterparts thereof, or other instruments agreeing to be bound by the provisions thereof. The undersigned does also hereby acknowledge receipt of a true copy of the said Unit Agreement.

IN WITNESS WHEREOF, the undersigned has executed this instrument on the date set forth opposite the undersigned's signature.

✓ Date: March 16, 1981

  
Elizabeth Christensen Mendez, Dealing  
With Her Sole And Separate Property

Address: 11705 T...

CONSENT TO RATIFICATION AND JOINDER TO THE  
LAGUNA DEEP UNIT AGREEMENT  
DATED FEBRUARY 2, 1978  
DESIGNATED NO. 14-08-0001-16905  
LEA COUNTY, NEW MEXICO

The undersigned working interest owner in the Laguna Deep Unit Agreement and the Unit Operating Agreement, hereby consents to the joinder of the overriding royalty interests of Elizabeth Mendez, in Tract No. 1, described as:

Township 19 South, Range 33 East

Section 26: SW/4

to said Unit Agreement:

AMOCO PRODUCTION COMPANY

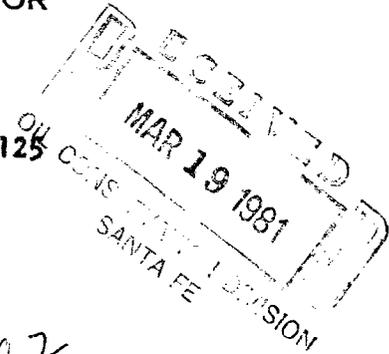
Date: 4-2-81

By C. N. Menninger  
Attorney-in-Fact  
C. N. MENNINGER  
Address: P. O. Box 3092



IN REPLY REFER TO:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
South Central Region  
P. O. Box 26124  
Albuquerque, New Mexico 87125



17 MAR 1981

6182

Union Oil Company of California  
Attention: Linda H. Hicks  
P. O. Box 671  
Midland, Texas 79702

Gentlemen:

Three approved copies of your 1981 plan of development for the Laguna Deep unit area, Lea County, New Mexico, are enclosed. Such plan, proposing the drilling of a third Morrow well in the SW $\frac{1}{4}$  of section 35, T. 19 S., R. 33 E., N.M.P.M., Lea County, New Mexico, was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

Sincerely yours,

ORIGINAL SIGNED BY:

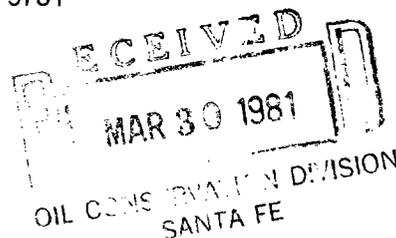
Gene F. Daniel  
Deputy Conservation Manager  
Oil and Gas

Enclosures 3

cc:  
NMOCD, Santa Fe  
Comm. Public Lands, Santa Fe

Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731



Robert V. Lockhart  
District Land Manager  
Midland District

March 24, 1981

6182

Oil Conservation Division  
Energy and Minerals Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Joe Ramey, Director

Gentlemen:

Laguna Deep Unit  
Lea County, New Mexico

Please find enclosed for your file a copy of a letter dated March 17, 1981 from the U.S.G.S. approving Union's 1981 Plan of Development for the Laguna Deep Unit.

If we can be of further service, please advise.

Sincerely yours,

UNION OIL COMPANY OF CALIFORNIA

A handwritten signature in cursive script that reads "Linda H. Hicks".

Linda H. Hicks  
Landman

LHH:cs  
Encl. 1

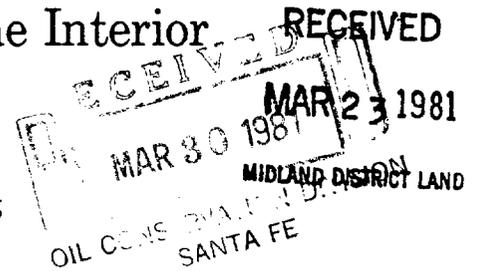


United States Department of the Interior

GEOLOGICAL SURVEY

South Central Region  
P. O. Box 26124  
Albuquerque, New Mexico 87125

17 MAR 1981



Union Oil Company of California  
Attention: Linda H. Hicks  
P. O. Box 671  
Midland, Texas 79702

Gentlemen:

Three approved copies of your 1981 plan of development for the Laguna Deep unit area, Lea County, New Mexico, are enclosed. Such plan, proposing the drilling of a third Morrow well in the SW $\frac{1}{4}$  of section 35, T. 19 S., R. 33 E., N.M.P.M., Lea County, New Mexico, was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

Sincerely yours,

*Gene F. Daniel*  
Gene F. Daniel  
Deputy Conservation Manager  
Oil and Gas

Enclosures 3

*cc to WI owner 3-23-81  
John Heuser  
OCD  
Comm. of Public Lands*



# United States Department of the Interior

GEOLOGICAL SURVEY  
South Central Region  
P. O. Box 26124  
Albuquerque, New Mexico 87125

03 APR 1981

6182

Union Oil Company of California  
Attention: Linda H. Hicks  
P. O. Box 671  
Midland, Texas 79702

Gentlemen:

The Consent to Ratification and Joinder to the Laguna Deep Unit Agreement by Union Oil Company of California, submitted to this office with your transmittal letter of December 23, 1980 is accepted for record purposes. Two accepted copies are enclosed.

Sincerely yours,

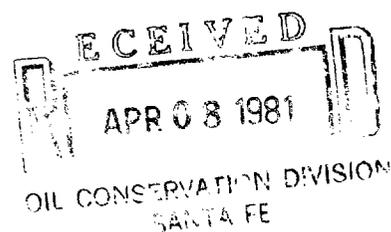
*ORIGINAL SIGNED BY:*

Gene F. Daniel  
Deputy Conservation Manager  
Oil and Gas

Enclosures

cc:

NMOCD, Santa Fe





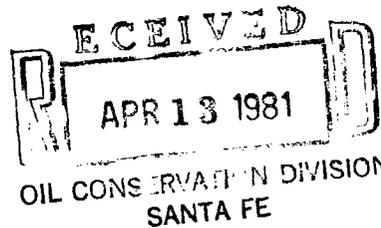
IN REPLY REFER TO:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
South Central Region  
P. O. Box 26124  
Albuquerque, New Mexico 87125

10 APR 1981

6182

Union Oil Company of California  
Attention: Linda H. Hicks  
P. O. Box 671  
Midland, Texas 79702



Gentlemen:

The Consent to Ratification and Joinder to the Laguna Deep Unit Agreement by Amoco Production Company, submitted to this office with your transmittal letter of January 8, 1981, is accepted for record purposes. Two accepted copies are enclosed.

Sincerely yours,

(ORIG. SGD.) ARMANDO A. LOPEZ

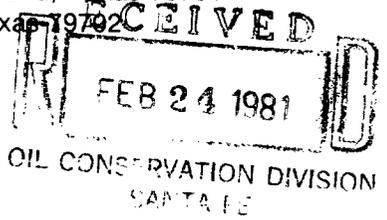
FOR Gene F. Daniel  
Deputy Conservation Manager  
Oil and Gas

Enclosures

cc:  
NMOCD, Santa Fe (ltr only)  
Commissioner of Public Lands, Santa Fe (ltr only)  
DS, Roswell (w/enclosure)

Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731



Robert V. Lockhart  
District Land Manager  
Midland District

February 13, 1981

Oil Conservation Division  
Energy and Minerals Department  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. Joe D. Ramey, Director

Gentlemen:

Case No. 6182  
Order No. R-5684  
Laguna Deep Unit  
Lea County, New Mexico

In connection with the captioned unit, please find enclosed for your approval and file the following "Royalty and Overriding Royalty Interest Owner" Ratification and Joinder:

Mary Spencer - Tract 1.

Also find enclosed Amoco Production Company's consent to joinder forms.

Sincerely yours,

UNION OIL COMPANY OF CALIFORNIA

*Linda H. Hicks*  
Linda H. Hicks  
Landman

LHH:cs  
Encl. 2

CONSENT TO RATIFICATION AND JOINDER TO THE  
LAGUNA DEEP UNIT AGREEMENT  
DATED FEBRUARY 2, 1978  
DESIGNATED NO. 14-08-0001-16905  
LEA COUNTY, NEW MEXICO



The undersigned working interest owner in the Laguna Deep Unit Agreement and the Unit Operating Agreement, hereby consents to the joinder of the overriding royalty interests of Mary Spencer, in Tract No. 1, described as:

Township 19 South, Range 33 East

Section 26: SW/4

to said Unit Agreement:

AMOCO PRODUCTION COMPANY

Date: 2-6-81

By *C. N. Menninger*  
C. N. MENNINGER Attorney-in-Fact

Address: P. O. Box 3092

Houston, Texas 77001

WORKING INTEREST OWNER

STATE OF TEXAS

COUNTY OF HARRIS

ss.

The foregoing instrument was acknowledged before me this 6th day  
of February, 1981, by C. N. Menninger,  
Attorney-in-Fact of AMOCO PRODUCTION COMPANY, a Delaware corpora-  
tion, on behalf of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official  
seal the day and year above written.

My Commission expires:

11-2-81

*Shirley B. Barnes*  
Notary Public  
SHIRLEY B. BARNES  
Notary Public in Harris County, Texas  
My Commission Expires 11-2-81

CONSENT, RATIFICATION AND JOINDER OF  
LAGUNA DEEP UNIT AGREEMENT  
LEA COUNTY, NEW MEXICO

(Royalty and Overriding Royalty Interest Owner)

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, a certain instrument entitled UNIT AGREEMENT FOR THE DEVELOPMENT AND OPERATION OF THE LAGUNA DEEP UNIT AREA, LEA COUNTY, NEW MEXICO, has been executed as of the 2nd day of February, 1978, by various persons conducting operations with respect to the Laguna Deep Unit Area, located in Lea County, New Mexico, as more particularly described in said Agreement; and

WHEREAS, the Unit Agreement, by Exhibit "A", shows on a map the boundary lines of the Unit Area and the tracts therein and, by Exhibit "B", describes each Tract within the Unit Area; and

WHEREAS, the Unit Agreement provides that a person may become a party thereto by signing an instrument agreeing to be bound by the provisions thereof; and

WHEREAS, the undersigned (whether one or more) is, or claims to be, the owner of a royalty and/or overriding royalty interest in one or more of the Tracts described in Exhibit "B" of the Unit Agreement.

NOW, THEREFORE, the undersigned (whether one or more), for and in consideration of the premises and the benefits anticipated to accrue under said agreement, does hereby agree to become a party to and to be bound by the provisions of the said Unit Agreement, and the undersigned does hereby agree that the parties to said agreement are those persons signing the originals of said instruments, counterparts thereof, or other instruments agreeing to be bound by the provisions thereof. The undersigned does also hereby acknowledge receipt of a true copy of the said Unit Agreement.

IN WITNESS WHEREOF, the undersigned has executed this instrument on the date set forth opposite the undersigned's signature.

Date: 1-28-81  
2-28-81

Address: P.O. Box 9401

Mary Spencer  
Mary Spencer

# State of New Mexico



## Commissioner of Public Lands

March 2, 1981

P. O. BOX 1148  
SANTA FE, NEW MEXICO 87501

ALEX J. ARMIJO  
COMMISSIONER

Union Oil Company of California  
P. O. Box 671  
Midland, Texas 79702

6182

Re: Laguna Deep Unit  
Lea County, New Mexico  
1981 PLAN OF DEVELOPMENT AND  
OPERATION

ATTENTION: Linda H. Hicks

Gentlemen:

The Commissioner of Public Lands has this date approved your 1981 Plan of Development and Operation for the Laguna Deep Unit, Lea County, New Mexico. Such plan proposes the drilling of well No. 3 in 1981 since it was not drilled in 1980. Our approval is subject to like approval by the United States Geological Survey and the New Mexico Oil Conservation Division.

Enclosed is one copy of the Plan for your files.

The Three (\$3.00) Dollar filing fee has been received.

Very truly yours,

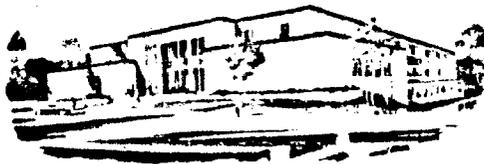
ALEX J. ARMIJO  
COMMISSIONER OF PUBLIC LANDS

BY:  
RAY D. GRAHAM, Director  
Oil and Gas Division

AJA/RDG/s  
encls.  
cc:

OCD-Santa Fe, New Mexico  
USGS-Albuquerque, New Mexico  
USGS-Roswell, New Mexico

# State of New Mexico



ALEX J. ARMIJO  
COMMISSIONER

## Commissioner of Public Lands

March 2, 1981

P. O. BOX 1148  
SANTA FE, NEW MEXICO 87501

6182

Union Oil Company of California  
500 North Mariefeld  
Midland, Texas 79701

Re: Laguna Deep Unit  
Lea County, New Mexico  
RATIFICATION AND JOINDER

ATTENTION: Richard R. Oelze

Gentlemen:

We are in receipt of "Royalty and Overriding Royalty Interest Owner" Ratification and joinder under Tract 1, executed by Mary Spencer, also, Amoco Production Company's consent to the joinder.

The Commissioner of Public Lands has this date approved the above mentioned ratification and joinder and we have this date filed them in our unit file.

We are retaining all copies for our files.

Very truly yours,

ALEX J. ARMIJO  
COMMISSIONER OF PUBLIC LANDS

BY:

RAY D. GRAHAM, Director  
Oil and Gas Division  
AC 505-827-2748

AJA/RDG/s  
cc:

OCD-Santa Fe, New Mexico  
USGS-Roswell, New Mexico  
USGS-ALBUQUERQUE, New Mexico

Union Oil and Gas Division: Central Region

Union Oil Company of California  
500 North Marienfeld, Midland, Texas 79701  
P.O. Box 671, Midland, Texas 79702  
Telephone (915) 682-9731



6182

Robert V. Lockhart  
District Land Manager  
Midland District

August 19, 1980

United States Geological Survey  
P. O. Box 1857  
Roswell, New Mexico 88201

Attn: Mr. Ray Noble

Gentlemen:

Revised Participating Area  
Laguna Deep Unit  
Lea County, New Mexico

In connection with our application for approval of the first revision of the Laguna Deep Unit participating area for the Morrow formation, please find enclosed the isopach maps you requested of the middle and lower Morrow sands, in triplicate. Please distribute as required. We are also sending a copy to the Commissioner of Public Lands and the Oil Conservation Division.

Should you need any further information, please do not hesitate to call.

Very truly yours,

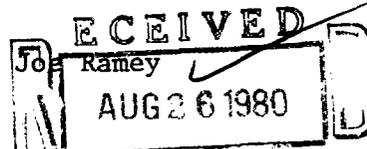
UNION OIL COMPANY OF CALIFORNIA

Linda H. Hicks  
Landman

LHH:cs

Encl.

cc: Oil Conservation Division - Attn: Mr. Joe Ramey  
Case No. 6182  
Order No. R-5684



Commissioner of Public Lands - Attn: Mr. Armando Lopez  
Mr. Armando Lopez (Letter Only)  
P. O. Box 26124  
Albuquerque, New Mexico 87125

OIL CONSERVATION DIVISION  
SANTA FE