

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

- [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
[DD-Directional Drilling] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

1768

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Directional Drilling
[] NSL [] NSP [] DD [] SD

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NOV 2 1997

Check One Only for [B] and [C]

- [B] Commingling - Storage - Measurement
[X] DHC [] CTB [] PLC [] PC [] OLS [] OLM
[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
[] WFX [] PMX [] SWD [] IPI [] EOR [] PPR

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or [] Does Not Apply

- [A] [] Working, Royalty or Overriding Royalty Interest Owners
[B] [X] Offset Operators, Leaseholders or Surface Owner
[C] [] Application is One Which Requires Published Legal Notice
[D] [] Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
[E] [X] For all of the above, Proof of Notification or Publication is Attached, and/or,
[F] [] Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Robin S. McCarley
Print or Type Name

Robin S. McCarley
Signature

Tech. Admn.
Title

11/19/97
Date



Arch Petroleum Inc.

November 19, 1997

State of New Mexico
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505-6429

Re: Manda Lease, Well #1
Unit N, Section 21-T22S, R37E
Lea County, New Mexico

Gentlemen:

Your administrative approval is requested for an exception to Rule 303-C to permit down-hole commingling of the Blinebry and Drinkard production in the subject well.

Please find enclosed all pertinent data regarding this application as outlined in Rule No. 303-C.

Sincerely,

Robin S. McCarley
Technical Administrator

Enclosures

cc: State of New Mexico
Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88240-1980

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
811 South First St., Artesia, NM 88210-2835

DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107-A
New 3-12-96

OIL CONSERVATION DIVISION

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

APPROVAL PROCESS:

Administrative Hearing

EXISTING WELLBORE

YES NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Arch Petroleum Inc. Address 10 Desta Dr. Suite 420E, Midland, Texas 79705

Lease Manda Well No. 1 Unit Ltr. - Sec - Twp - Rge N, 21, 22S, 37E County Lea County, NM

OGRID NO. 000962 Property Code 15930 API NO. 30-025-25438 Spacing Unit Lease Types: (check 1 or more)
Federal State (and/or) Fee

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	(06660) Blinebry		(19190) Drinkard
2. Top and Bottom of Pay Section (Perforations)	5471-5889		6435-6568
3. Type of production (Oil or Gas)	Oil		Oil
4. Method of Production (Flowing or Artificial Lift)	Artificial Lift		Artificial Lift
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 800	a.	a. 1000
	b. (Original)	b.	b.
6. Oil Gravity (°API) or Gas BTU Content	37.6		35.2
7. Producing or Shut-in?	Producing		Shut-in
Production Marginal? (yes or no)	Yes		Yes
* If Shut-in, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data * If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: 07/28/97 Rates: 8 BO 74 MCF 55BW
	Date: 09/26/97 Rates: 7 BO 59 MCF 52BW	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 54 % Gas: 44 %	Oil: % Gas: %	Oil: 46 % Gas: 56 %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones? Yes No
If not, have all working, overriding, and royalty interests been notified by certified mail? Yes No
Have all offset operators been given written notice of the proposed downhole commingling? Yes No
11. Will cross-flow occur? Yes No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. Yes No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other? Yes No
13. Will the value of production be decreased by commingling? Yes No (If Yes, attach explanation)
14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. Yes No
15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). DHC-677

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

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

SIGNATURE Robin S. McCarley TITLE Tech. Admn. DATE 11/19/97

TYPE OR PRINT NAME Robin S. McCarley TELEPHONE NO. (915) 685-1961

ARCH PETROLEUM INC.
Manda Lease, Well #1
Blinebry & Drinkard
Lea County, New Mexico

Approval is requested for an exception to Rule 303-C to permit down-hole commingling of the Blinebry and Drinkard production in the subject well.

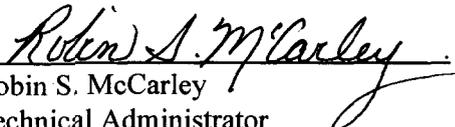
These zones are currently being down-hole commingled in our Lea ACL State #1 under Administrative Order DHC-677.

Currently, production from the Blinebry is being pumped into a tank and a Retrievable Bridge Plug is set at 6200'.

The fluids show no evidence of incompatibility; therefore, down-hole commingling is not expected to result in reservoir damage. Ownership in the two pools is common and correlative rights will not be violated.

Should secondary recovery operations become practical in the future, the two zones could be separated without damaging either reservoir.

Offset operators have been notified of the intent to down-hole commingle the subject well by letter dated November 19, 1997.


Robin S. McCarley
Technical Administrator

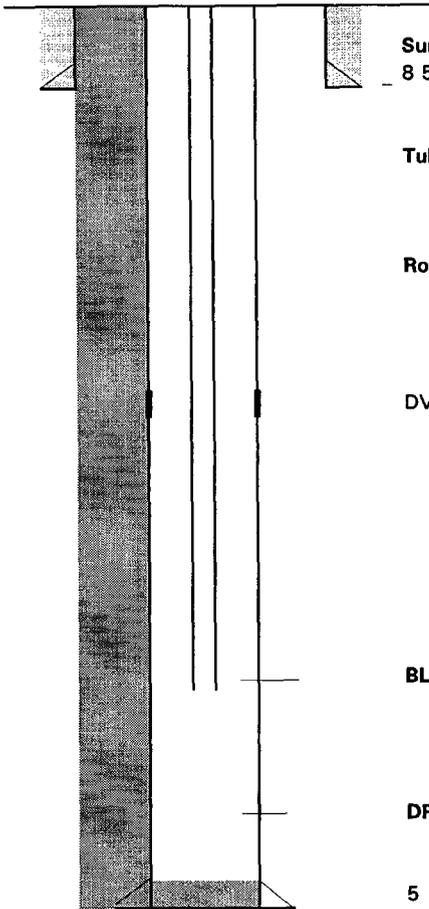
WELLBORE DIAGRAM

WELL : MANDA # 1
FIELD: BLINBRY & DRINKARD
SPUDDED:
COMPLETION DATE: 3-16-77
API # :

LOCATION: SEC 21-22S-37E
860' FSL & 1830' FWL OF SEC.
LEA CO., NM
PRODUCING ZONE : BLINBRY
KB = 3764
GL = 3748

DATA:

PROPOSED COMPLETION



Surface Casing :
8 5/8" @ 1168' RKB W/ 450 SX, CMT CIRC

Tubing String :
2 3/8

Rods & Pump data :

DV TOOL @ 2620', CMT W/ 1200 SX

BLINBRY PERFS 5471-5889 OA

DRINKARD PERFS 6435-6568 OA

5 1/2" 15.5# K-55 @ 6700' RKB W/ 925 SX, CMT CIRC

PBTD 6660
TD = 6700'

PUMPING UNIT:

CHRONO:

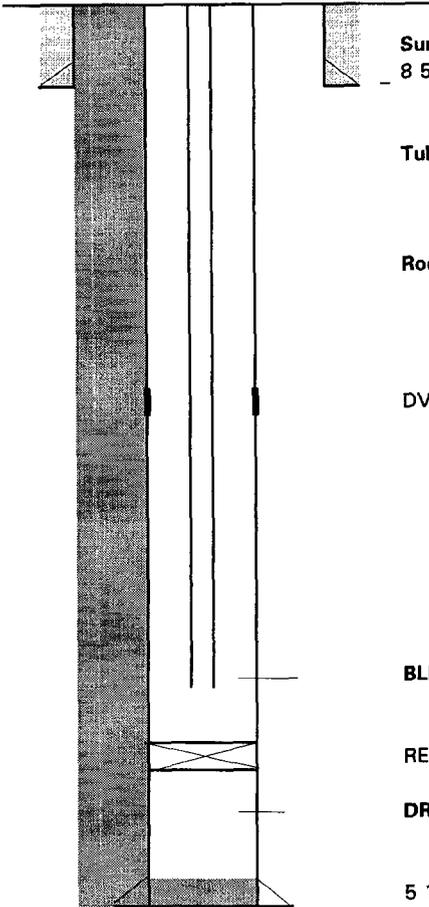
- 3-77 PERF DRINKARD 6566-68, 22-24, 6477-79, & 35-37 W/ 2JSPF. ACD W/ 1850 GLS 15% NE & BALLS
FRAC W/ 28 M GALS W/ 30M # 20/40 SN. IPP 67 BOPD X 12 BWPD
- 5-94 DUMP 1000 GALS 15% NEFE
- 11-94 ACD W/ 10M GALS 65 Q CO2 15% HCL FOAM IN 4 STAGES W/ BALLS
PRIOR: 5 X 10 X 0 AFTER: 10 X 40 X 23
- 1-97 SET RBP 2 6200'. PERF BLINBRY 5471, 83, 91, 5501, 18, 38, 61, 77, 5602, 09, 22, 29, 64, 76, 87,
5699, 5717, 33, 46, 59, 70, 5807, 21, 28, 40, 62, 71, & 89 W/ 2JSPF (56 HOLES)
ACD W/ PPI TOOL W/ 3000 GALS 15% NEFE. FRAC W/ 40 M GALS X 141 M # 16/30 SN @ 36BPM
IPP 28 BOPD X 72 BWPD X 45 MCFD

WELLBORE DIAGRAM

WELL : MANDA # 1
FIELD: BLINBRY & DRINKARD
SPUDED:
COMPLETION DATE: 3-16-77
API # :

LOCATION: SEC 21-22S-37E
860' FSL & 1830' FWL OF SEC.
LEA CO., NM
PRODUCING ZONE : BLINBRY
KB = 3764
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Surface Casing :
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DV TOOL @ 2620', CMT W/ 1200 SX

BLINBRY PERFS 5471-5889 OA

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DRINKARD PERFS 6435-6568 OA

5 1/2" 15.5# K-55 @ 6700' RKB W/ 925 SX, CMT CIRC

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PUMPING UNIT:

CHRONO:

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District I
PO Box 1980, Hobbs, NM 88241-1980

District II
811 South First, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1API Number 30-025-25438		2Pool Code 19190		3Pool Name Drinkard	
4Property Code 15930		5Property Name Manda			6Well Number 1
7OGRID No. 000962		8Operator Name Arch Petroleum Inc.			9Elevation 3347

10Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West Line	County
N	21	22S	37E		860	South	1830	West	Lea

11Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West Line	County

12Dedicated Acres 40.00	13Joint or Infill	14Consolidation Code	15Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16					<p>17OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i></p> <p><i>Robin S. McCarley</i></p> <p>Signature Robin S. McCarley</p> <p>Printed Name Technical Administrator</p> <p>Title 11-18-97</p> <p>Date</p>
					<p>18SURVEYOR CERTIFICATION</p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p>_____ Date of Survey</p> <p>_____ Signature and Seal of Professional Surveyer:</p> <p>_____ Certificate Number</p>

District I
PO Box 1980, Hobbs, NM 88241-1980

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811 South First, Artesia, NM 88210

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AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-25438		² Pool Code 06660		³ Pool Name Blinebry	
⁴ Property Code 15930	⁵ Property Name Manda			⁶ Well Number 1	
⁷ OGRID No. 000962	⁸ Operator Name Arch Petroleum Inc.			⁹ Elevation 3347	

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West Line	County
N	21	22S	37E		860	South	1830	West	Lea

¹¹Bottom Hole Location If Different From Surface

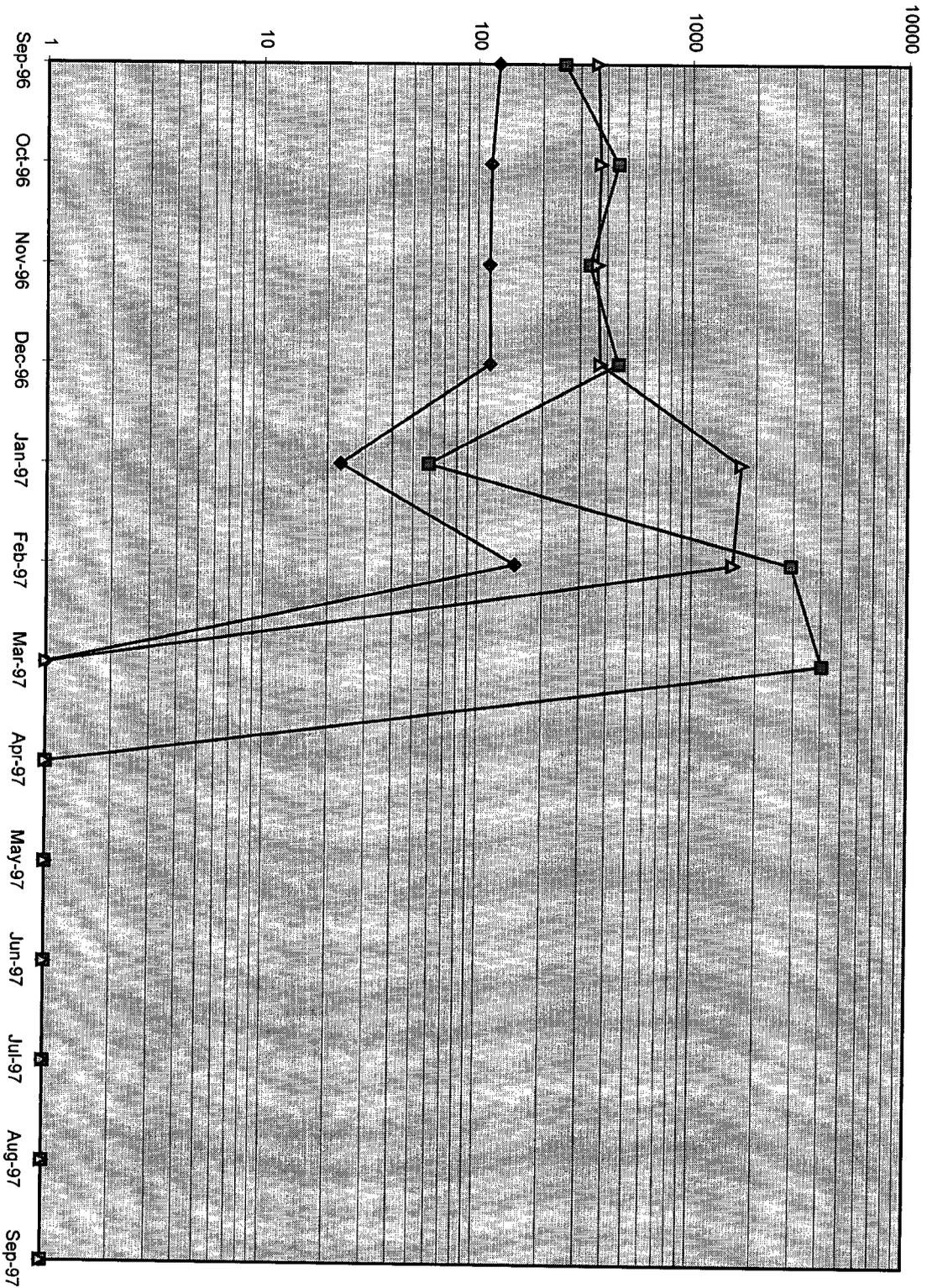
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West Line	County

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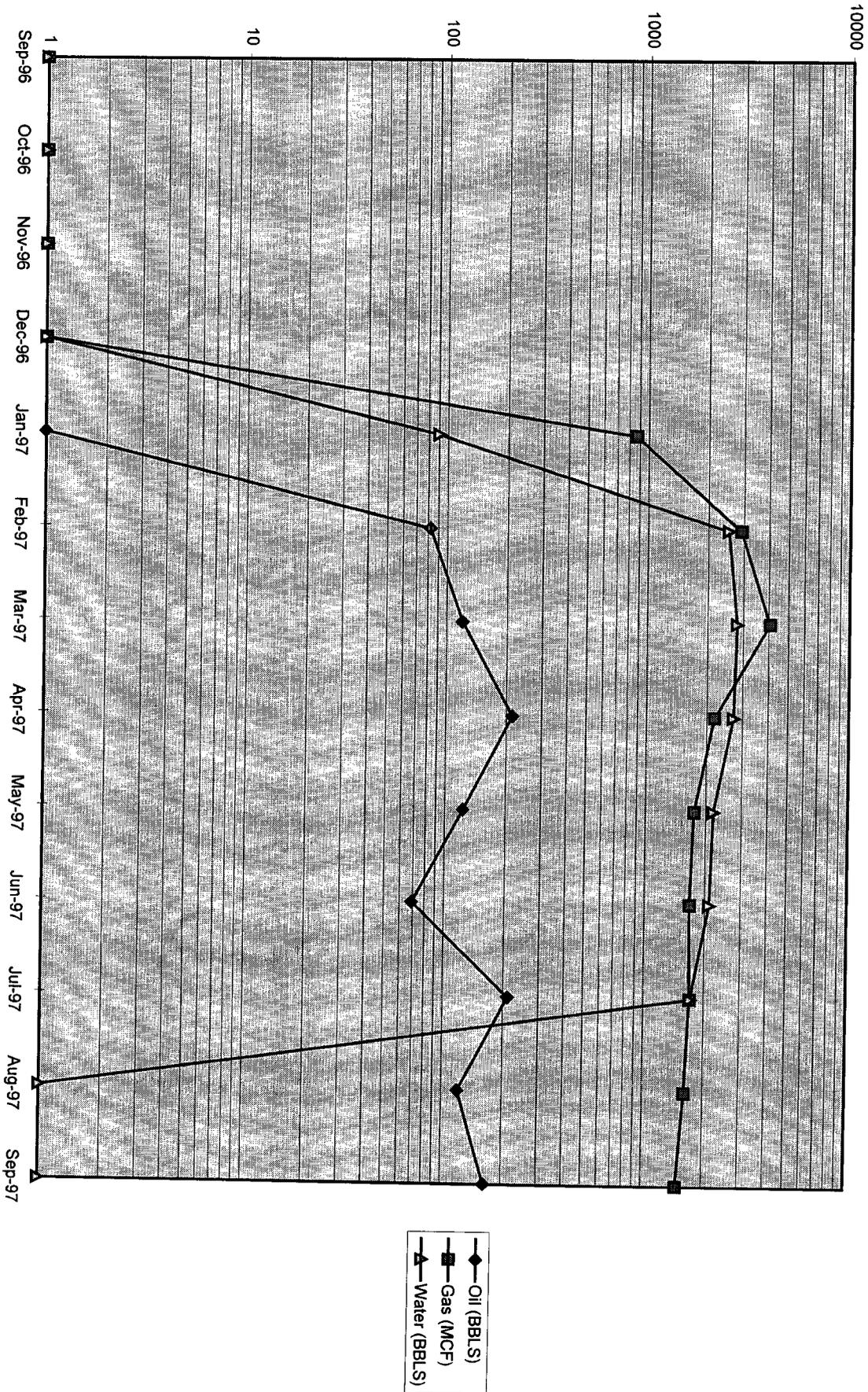
¹⁶ 	¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i> Signature Robin S. McCarley Printed Name Technical Administrator Title 11-18-97 Date
	¹⁸ SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i> Date of Survey Signature and Seal of Professional Surveyer:
	Certificate Number

MANDA #1 - DRINKARD PRODUCTION



◆ Oil (BBL/S)
 ■ Gas (MCF)
 ▲ Water (BBL/S)

MANDA #1 - BLINEBRY PRODUCTION



Arch Petroleum Inc.

**Manda Lease, Well #1
Lea County, New Mexico**

Offset Operators



Arch Petroleum



Anardarko Petroleum Corporation
P. O. Box 2497
Midland, Texas 79702



Arch Petroleum Inc.

November 19, 1997

Re: DHC - Manda #1
Unit N, Sec. 21, T22S, R37E
Lea County, New Mexico

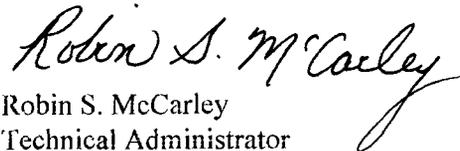
To: All Offset Operators

We are enclosing our application to down-hole commingle the production from the Blinebry and Drinkard zones in the above well.

We have previously obtained permission to down-hole commingle these same zones in our Lea ACL State #1 under DHC-677

If you have any questions, please call me at (915) 685-1961.

Sincerely,



Robin S. McCarley
Technical Administrator

Enclosures

DHC-1768



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

11/24/97

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

GOVERNOR

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

- MC _____
- DHC X _____
- NSL _____
- NSP _____
- SWD _____
- WFX _____
- PMX _____

Gentlemen:

I have examined the application for the:

<u>Arch Petroleum Inc</u>	<u>Manda</u>	<u>#1-N-21-225-37e</u>
Operator	Lease & Well No. Unit	S-T-R

and my recommendations are as follows:

Yours very truly,

Chris Williams

Chris Williams
Supervisor, District 1

/ed