

DATE IN 6/25/97	SUSPENSE 7/15/97	ENGINEER DC	LOGGED MW	TYPE DHC
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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]

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

[A] Location - Spacing Unit - Directional Drilling

☐ NSL ☐ NSP ☐ DD ☐ SD

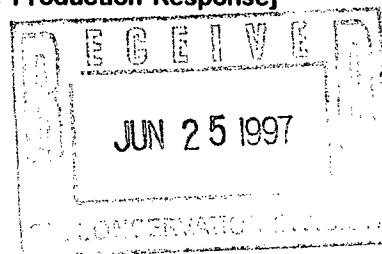
Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement

☒ 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] ☒ 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] ☐ 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.

Peggy Bradfield

Print or Type Name

Signature

Regulatory/Compliance Administrator

Title

Date

6/24/97

# **BURLINGTON RESOURCES**

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SAN JUAN DIVISION

June 24, 1997

SENT FEDERAL EXPRESS

Mr. William LeMay  
New Mexico Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

Re: McClanahan #14E  
1620'FNL, 810'FEL, Section 23, T-28-N, R-10-W  
30-045-23913

Dear Mr. LeMay:

This is a request for administrative approval for downhole commingling the Chacra and Dakota in the subject well.

To comply with the New Mexico Oil Conservation Division rules, Burlington Resources Oil & Gas Company is submitting the following for your approval of this commingling:

1. Form C107A - Application for Downhole Commingling;
2. C-102 plat for each zone showing its spacing unit and acreage dedication;
3. Production curves for Chacra and Dakota;
4. Notification list of offset operators;
5. Shut in wellhead pressure and calculated down hole pressure of surrounding wells;
6. Nine-section plats for the Chacra and Dakota.

Working, overriding and royalty interests are identical in the commingled zones.

We will consult with the Supervisor of the Aztec District Office of the New Mexico Oil Conservation Division to establish an allocation formula.

Please let me know if you require additional data.

Sincerely,



Peggy Bradfield

Regulatory/Compliance Administrator

xc: Bureau of Land Management - hand delivered

## 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

## OIL CONSERVATION DIVISION

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429Form C-107-A  
New 3-12-96

## APPROVAL PROCESS :

☒ Administrative ☐ Hearing

## APPLICATION FOR DOWNHOLE COMMINGLING

## EXISTING WELLBORE

☒ YES ☐ NO

BURLINGTON RESOURCES OIL &amp; GAS COMPANY

PO Box 4289, Farmington, NM 87499

Operator

Address

McCLANAHAN

14E Unit H, Sec. 23, T028N, R10W

San Juan County

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 18577 API NO30-045-23913 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	Otero Chacra - 82329		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	2818' - 2938'		6216' - 6386'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Current) a. 176.6 Psia @ 2878'  (Original) b. 1101.9 Psia @ 2878'	a.  b.	a. 486.2 Psia @ 6449'  b. 1442.6 Psia @ 6449'
6. Oil Gravity ( $^{\circ}$ API) or Gas BTU Content	1142		1137
7. Producing or Shut-In?	Producing		S/I
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In and oil/gas/water rates of last production  <small>Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data</small>	Date: Rates:	Date: Rates:	Date: 5/94 Rates: 2 MCFD
* If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: 6/15/97 Rates: 67 MCFD	Date: Rates:	Date: 5/94 Rates: S/I since 5/94
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Oil: Gas: supplied upon completion	Oil: % Gas: %	Oil: Gas: supplied upon completion

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, attach 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 ☐ No11. 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 ☐ No13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

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

## 16. ATTACHMENTS:

- \* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- \* Production curve for each zone for at least one year. (If not available, attach explanation.)
- \* For zones with no production history, estimated production rates and supporting data.
- \* Data to support allocation method or formula.
- \* Notification list of 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 Kevin L. Midkiff TITLE Operations Engineer DATE 06-23-97

TYPE OR PRINT NAME Kevin L. Midkiff TELEPHONE NO. ( 505) 326-9700

All distances must be from the outer boundaries of the Section.

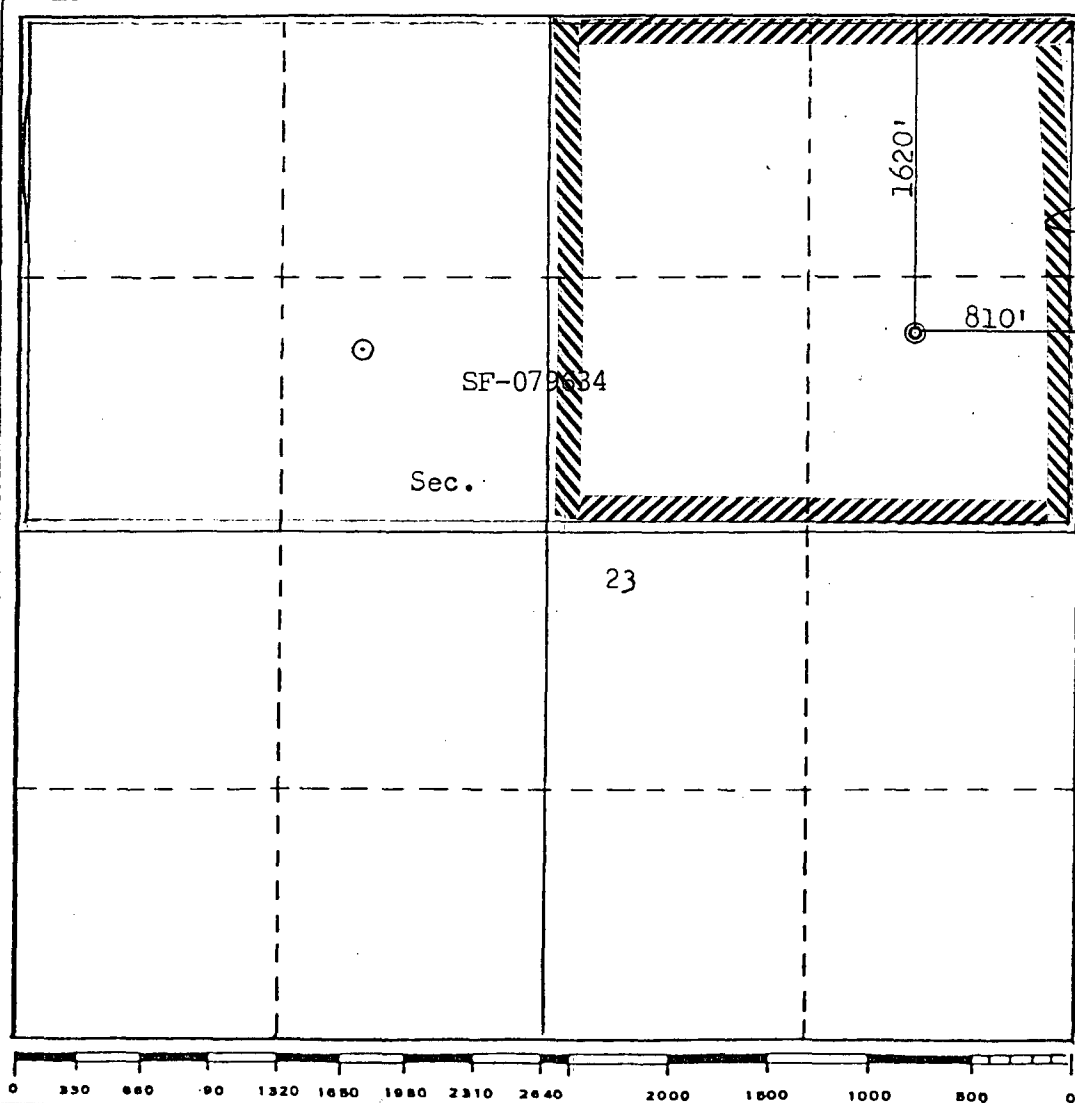
Operator SOUTHLAND ROYALTY COMPANY			Lease McCLANAHAN		Well No. 14-E
Unit Letter H	Section 23	Township 28N	Range 10W	County San Juan	
Actual Footage Location of Well: 1620 feet from the North line and 810 feet from the East line					
Ground Level Elev. 5708	Producing Formation Dakota - Mesa Verde /Ch		Pool Basin - Blanco		Dedicated Acreage: 320 / 160 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



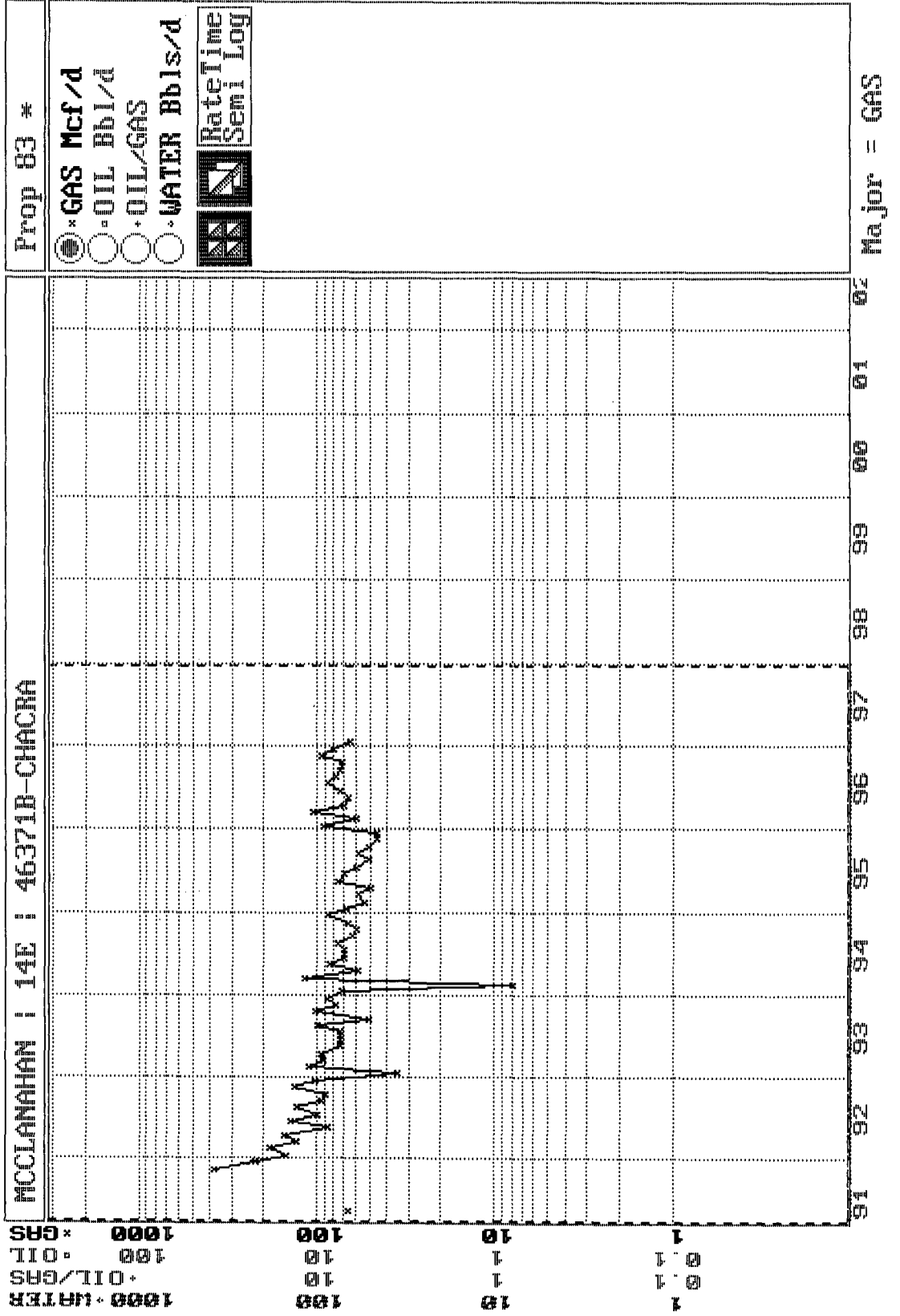
CERTIFICATION

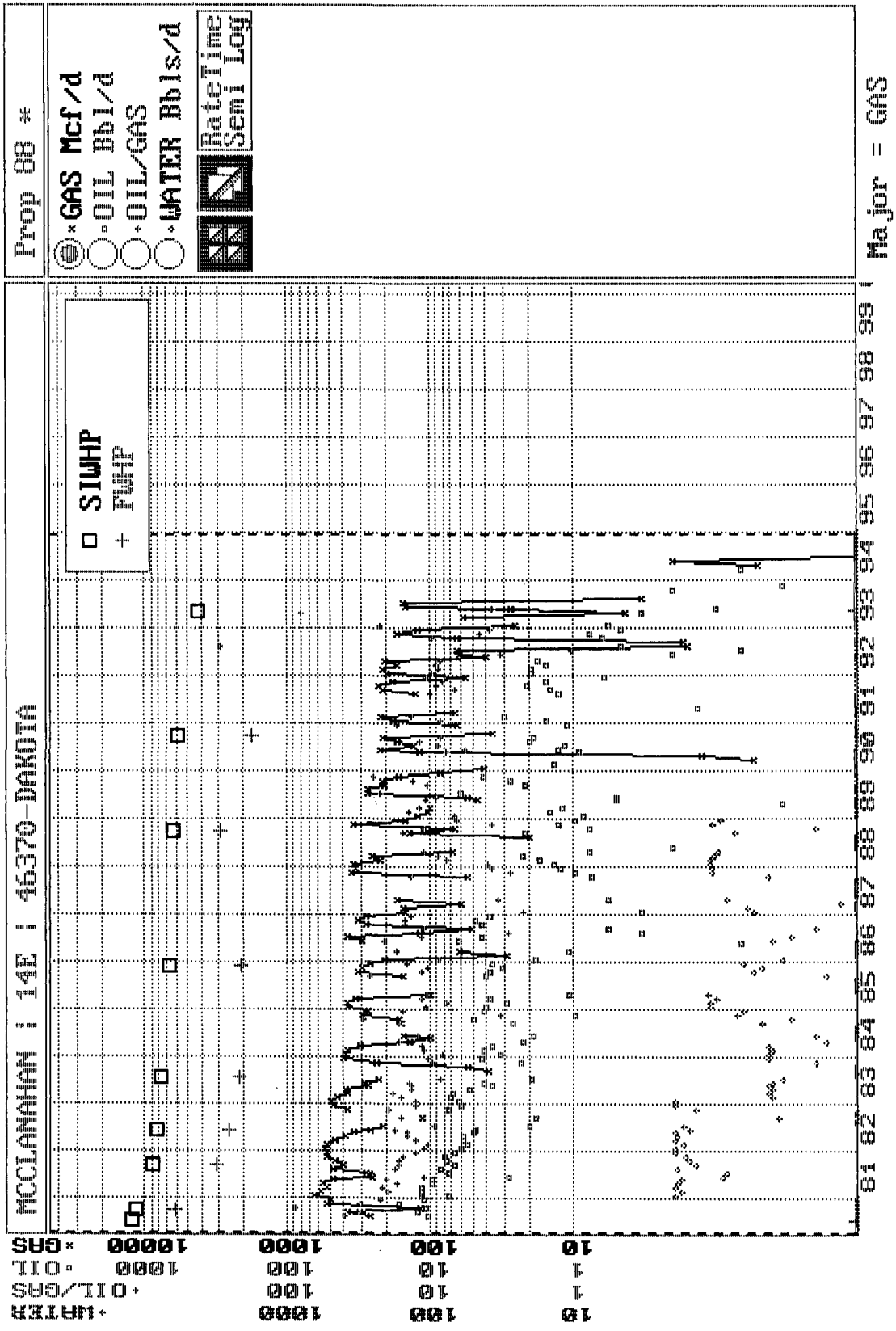
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name \_\_\_\_\_  
District Production Manager  
Position \_\_\_\_\_  
Southland Royalty Company  
Company \_\_\_\_\_  
October 24, 1979  
Date

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 knowledge and belief.

Date Surveyed \_\_\_\_\_  
October 24, 1979  
Registered Professional Engineer  
and State and Surveyor  
Fred B. Kerr Jr.  
Certificate No. \_\_\_\_\_  
3837  
B. KERR, JR.





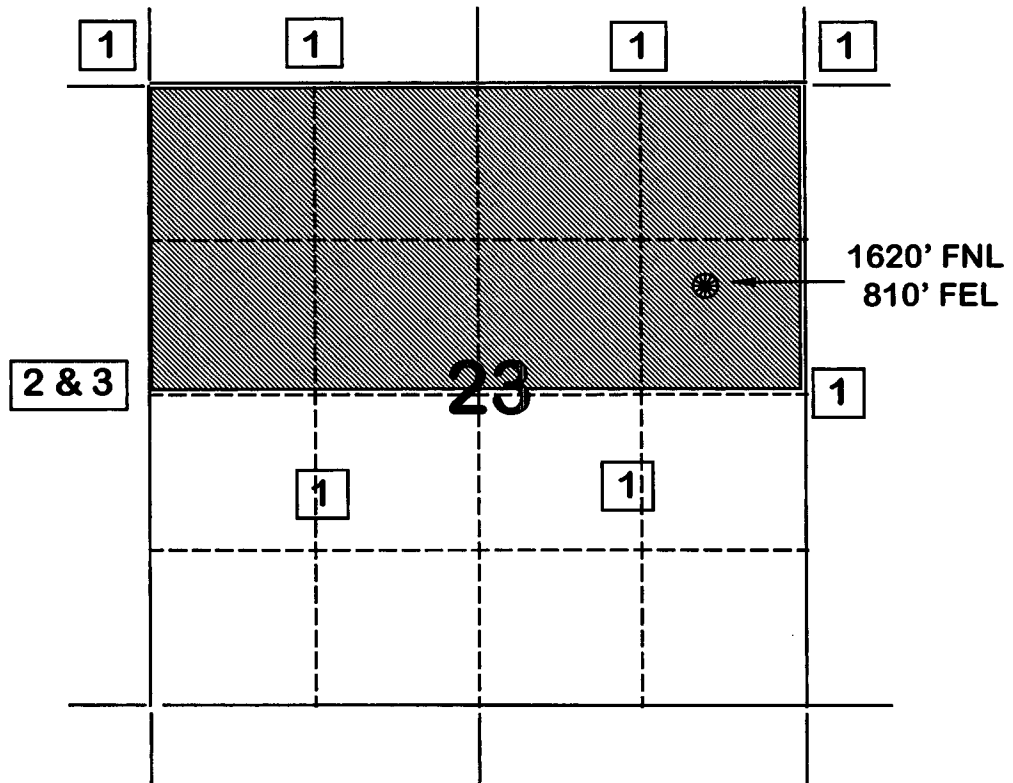
***BURLINGTON RESOURCES OIL AND GAS COMPANY***

**McClanahan #14E**

**OFFSET OPERATOR \ OWNER PLAT**

**Chacra (NE/4)/Dakota (N/2) Formations Commingle Well**

**Township 28 North, Range 10 West**



- 1) Burlington Resources Oil and Gas Company
- 2) Universal Resources Company  
1331 17th Street, Suite 300  
Denver, CO 80202
- 3) Amoco Production Company  
Attn: Bruce Zimney  
P.O. Box 800  
Denver, CO 80201

**McClanahan #14E**  
**Bottom Hole Pressures**  
**Flowing and Static BHP**  
**Cullender and Smith Method**  
Version 1.0 3/13/94

<b>Dakota</b>		<b>Chacra</b>	
<u><b>DK-Current</b></u>		<u><b>Chacra-Current</b></u>	
GAS GRAVITY	0.655	GAS GRAVITY	0.66
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.4	%N2	0.57
%CO2	0.24	%CO2	0.24
%H2S	0	%H2S	0
DIAMETER (IN)	1.5	DIAMETER (IN)	1.5
DEPTH (FT)	6301	DEPTH (FT)	2878
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	152	BOTTOMHOLE TEMPERATURE (DEG F)	101
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	420	SURFACE PRESSURE (PSIA)	165
BOTTOMHOLE PRESSURE (PSIA)	486.2	BOTTOMHOLE PRESSURE (PSIA)	176.6
<u><b>DK-Original</b></u>		<u><b>Chacra-Original</b></u>	
GAS GRAVITY	0.655	GAS GRAVITY	0.66
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.4	%N2	0.57
%CO2	0.24	%CO2	0.24
%H2S	0	%H2S	0
DIAMETER (IN)	1.5	DIAMETER (IN)	1.5
DEPTH (FT)	6301	DEPTH (FT)	2878
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	152	BOTTOMHOLE TEMPERATURE (DEG F)	101
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1223	SURFACE PRESSURE (PSIA)	1018
BOTTOMHOLE PRESSURE (PSIA)	1442.6	BOTTOMHOLE PRESSURE (PSIA)	1101.9

3/25/97: Chacra 24 hour SICP: 165#.



DAKOTA

Organize Data ScreenGraph Economics Report Plot Utility Quit  
Browsing: MCCLANAHAN | 14E | 46370-1 **DAKOTA** Property No.: 88  
Table(T): TEST/M,P,H,E,T,Z,C,A,O,D,N,1,2,3,B,U,S Rec: 1/9/585  
Item: 2/4/33 Name: DATE Type: Date Len: 8/32/203

--DATE--	TIME-	---CUM GAS--	M SIWHP
		Mcf	Psi
07/01/80		0	1223.0
10/01/80		23237	1140.0
09/16/81		183704	885.0
06/09/82		307048	839.0
07/24/83		419475	784.0
12/04/85		582051	677.0
09/28/88		714451	632.0
10/03/90		809585	586.0
05/05/93	00005	895086	420.0

F1=Help F3=PrvPro F5=PrvTbl F7=Calcu F9=Utils Alt+TableLtr=Change Table  
F2=Jump F4=NxtPro F6=NxtTbl F8=Print F10=Exit Shift+<- ->=Fast Tbl R & L

FDG055M4 S004  
START OF DATA  
DP NO: 46370\_  
MCCLANAHAN

WELL PRODUCTION 8/8'S VOLUME

06/17/97 10:51:05

*DAKOTA*

DATE: 970615 (YYMMDD FORMAT)  
14E SCROLL FORWARD BY DATE: \_

S	E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-		
L	PRODUCED	ON	(BOPD	BOPM)	(MCFD	MCFM)	(BWPD	BWPM)
-	06/15/97	0.0	0.00	0.00	0	0	0.00	0.00
-	06/14/97	0.0	0.00	0.00	0	0	0.00	0.00
-	06/13/97	0.0	0.00	0.00	0	0	0.00	0.00
-	06/12/97	0.0	0.00	0.00	0	0	0.00	0.00
-	06/11/97	0.0	0.00	0.00	0	0	0.00	0.00
-	06/10/97	0.0	0.00	0.00	0	0	0.00	0.00
-	06/09/97	0.0	0.00	0.00	0	0	0.00	0.00
-	06/08/97	0.0	0.00	0.00	0	0	0.00	0.00
-	06/07/97	0.0	0.00	0.00	0	0	0.00	0.00
-	06/06/97	0.0	0.00	0.00	0	0	0.00	0.00
-	06/05/97	0.0	0.00	0.00	0	0	0.00	0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF12=MAIN MENU PF6=NRI PF10=BROWSE MENU PF11=INQ/UPDATE MENU  
B MY JOB ENTER=BACKWARDS LU #6 PF24=HELP

FDG055M4 S004  
START OF DATA  
DP NO: 46371b  
MCCLANAHAN

WELL PRODUCTION 8/8'S VOLUME

06/17/97 10:51:15

*CHACRA*

DATE: 970615 (YYMMDD FORMAT)  
14E SCROLL FORWARD BY DATE: \_

S	E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-		
L	PRODUCED	ON	(BOPD	BOPM)	(MCFD	MCFM)	(BWPD	BWPM)
-	06/15/97	24.0	0.00	0.00	67	1010	0.00	0.00
-	06/14/97	24.0	0.00	0.00	67	943	0.00	0.00
-	06/13/97	24.0	0.00	0.00	67	876	0.00	0.00
-	06/12/97	24.0	0.00	0.00	67	809	0.00	0.00
-	06/11/97	24.0	0.00	0.00	70	742	0.00	0.00
-	06/10/97	24.0	0.00	0.00	70	672	0.00	0.00
-	06/09/97	24.0	0.00	0.00	70	602	0.00	0.00
-	06/08/97	24.0	0.00	0.00	70	532	0.00	0.00
-	06/07/97	24.0	0.00	0.00	70	462	0.00	0.00
-	06/06/97	24.0	0.00	0.00	70	392	0.00	0.00
-	06/05/97	24.0	0.00	0.00	70	322	0.00	0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF12=MAIN MENU PF6=NRI PF10=BROWSE MENU PF11=INQ/UPDATE MENU  
B MY JOB ENTER=BACKWARDS LU #6 PF24=HELP

✱24 ZACHRY ✱35 ZACHRY ✱10-E CAIN ✱24 CAIN ✱16 CAIN 15 ✱36 CAIN ✱41-E CAIN	✱25 ZACHRY ✱11 ✱55 ZACHRY ✱56 ZACHRY ✱41 CAIN-D ✱5 CAIN ✱19-E MC CLANAHAN ✱22 MCCLANAHAN ✱19-E MC CLANAHAN ✱20-E MC CLANAHAN 14 ✱550 MC CLANAHAN ✱551 MC CLANAHAN ✱552 MCCLANAHAN-D	✱56 ZACHRY ✱19-E ZACHRY ✱54 ZACHRY ✱41 ZACHRY ✱5 MCCLANAHAN ✱2 MCCLANAHAN ✱5-Y MCCLANAHAN ✱20-E MC CLANAHAN 13 ✱50 MCCLANAHAN ✱2 MCCLANAHAN ✱20 MCCLANAHAN-D	✱3 REID ✱26 REID ✱15 REID ✱16 REID
✱1-E DAVIDSON GAS COM ODAVIDSON H #500 ✱1 KUTZ FEDERAL 22 ✱1 TURNER KUTZ ✱1-E KUTZ	✱1 KUTZ FEDERAL ✱1 MCCLANAHAN 23 ✱2 MCCLANAHAN-A ✱3 MCCLANAHAN-A ✱2-E MCCLANAHAN-A	✱14E ✱16-E MCCLANAHAN ✱51 MC CLANAHAN 24 ✱2 SULLIVAN ✱16 MCCLANAHAN-D ✱17-E MCCLANAHAN ✱8 MCCLANAHAN	✱17 MCCLANAHAN-D ✱51 MC CLANAHAN ✱17 REID ✱17-E MCCLANAHAN ✱8 MCCLANAHAN
✱2 KUTZ DEER TEST C ✱1 KUTZ-FEDERAL C ✱1 KUTZ-FEDERAL C ODAVIDSON 502 27 ✱1-E KUTZ DEER TEST C ✱1-E KUTZ DEER TEST C	✱1 GOVT KUTZ ✱5 OMLER ✱15 OMLER-A ✱1 OMLER-A ✱1 OMLER-A 26 ✱1 OMLER-A ✱7 OMLER ✱8 OMLER-A ✱3-E OMLER-A	✱17 OMLER-A ✱6 OMLER X ✱7 OMLER ✱6 OMLER ✱5-E OMLER-A ✱5 OMLER-A 25 ✱500 OMLER ✱8 OMLER-A ✱5 OMLER-A ✱1-E OMLER-A	✱4 OMLER-A ✱4 OMLER-A ✱5 OMLER-A ✱5 OMLER-A ✱5 OMLER-A ✱5 OMLER-A ✱5 OMLER-A ✱5 OMLER-A

McClanahan 14E  
 Sec23H T28N R10W  
 Mesaverde/Dakota