

DATE IN 6/25/97	SUSPENSE 7/15/97	ENGINEER DC	LOGGED KW	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]

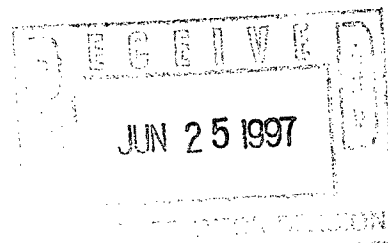
1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[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

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, I, 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

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: Zachry #16E
830'FSL, 830'FEL, Section 33, T-29-N, R-10-W
30-045-24105

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 & GAS COMPANY

PO Box 4289, Farmington, NM 87499

Operator	Address
ZACHRY	16E P, Sec. 33, T29N, R10W San Juan
Lease	Well No. Unit Ltr. - Sec - Twp - Rge County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7654 API NO. 30-045-24105 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		Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	2962' - 3084'		6400' - 6602'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure	(Current) a. 269 Psia @ 3023'	a.	a. 154 Psia @ 6501'
Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Original) b. 1080 Psia @ 3023'	b.	b. 1006 Psia @ 6501'
6. Oil Gravity (°API) or Gas BTU Content	1144		1242
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In and oil/gas/water rates of last production	Date: Rates:	Date: Rates:	Date: Rates:
Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data			
* If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: 4/08/97 Rates: 30 MCFD	Date: Rates:	Date: 4/08/97 Rates: 24 MCFD
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, 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 ☐ 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 06-23-97TYPE OR PRINT NAME Kevin L. Midkiff TELEPHONE NO. (505) 326-9700

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

Section			Lease			Well No.		
SUPRON ENERGY CORPORATION			ZACHRY			16-E		
Oil Letter	Section	Township	Range	County				
P	33	29 NORTH	10 WEST	SAN JUAN				
Well Location Location of Well:								
830 feet from the		SOUTH line and		830 feet from the		EAST line		
Sound Level Elev.		Producing Formation		Post		Dedicated Acres		
5781		CHACRA DAKOTA		WILDCAT BASIN		NE/4 16 E/2 320		

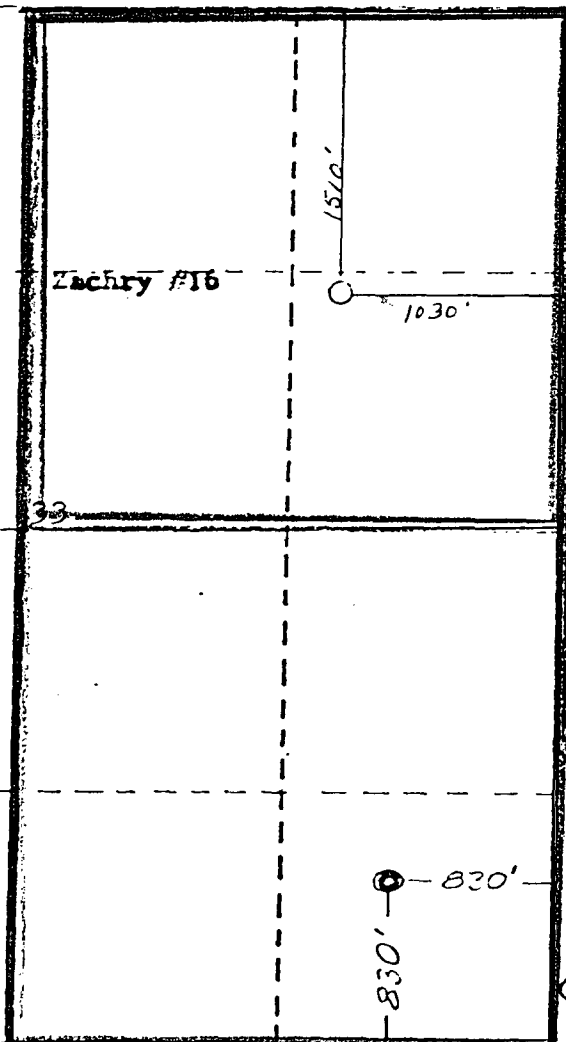
1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is 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, force-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division

— Chacra
— Dakota



CERTIFICATION

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

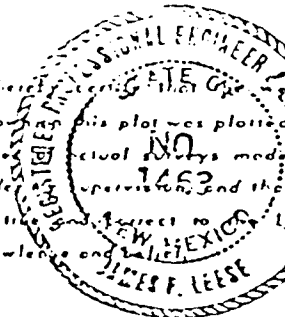
Signature
Rudy D. Motto

Position
Area Superintendent

Company
Supron Energy Corporation

Date
August 20, 1980

I hereby certify that the location shown on this plat was plotted from field notes and 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.



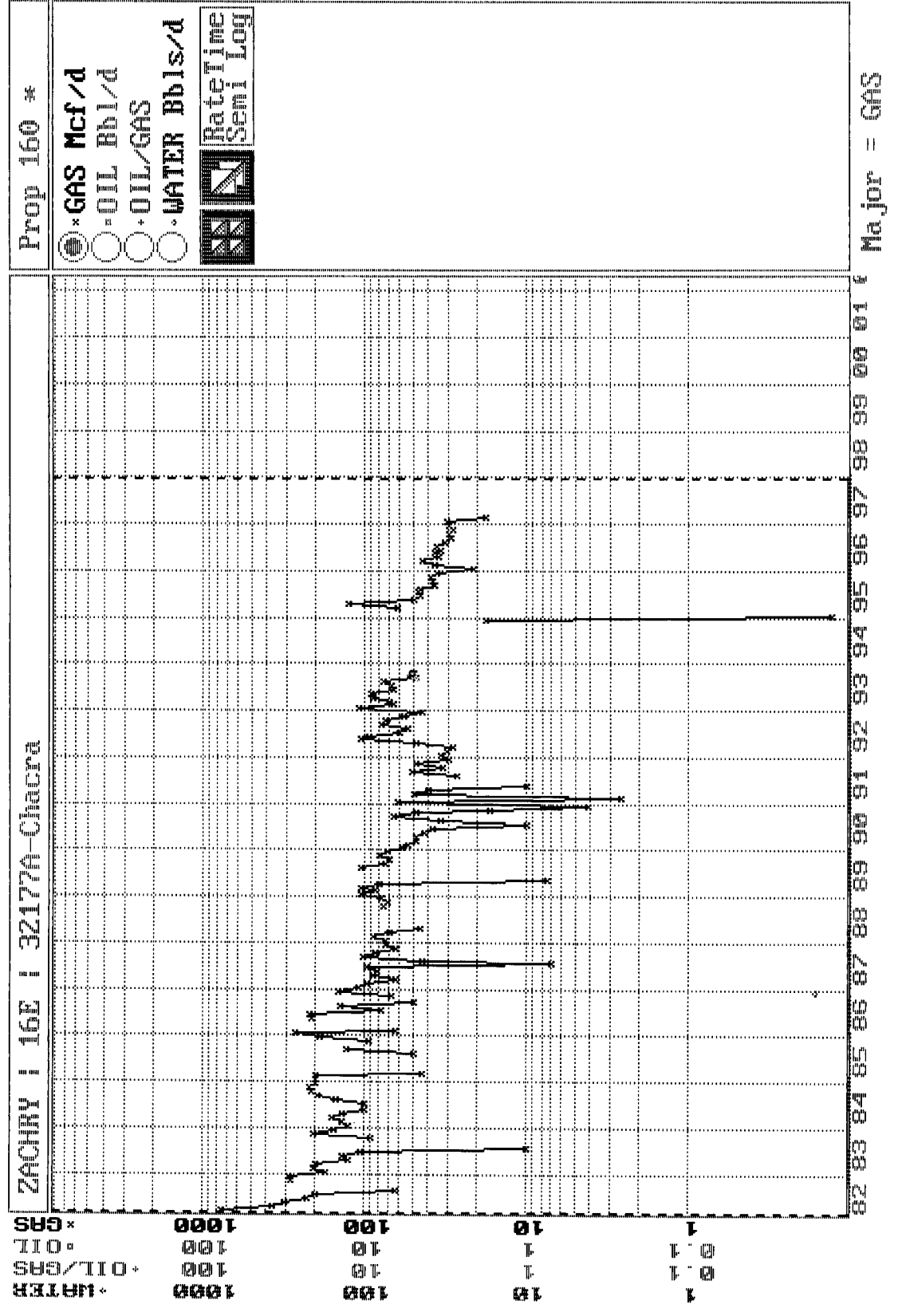
Date Surveyed
February 20, 1980

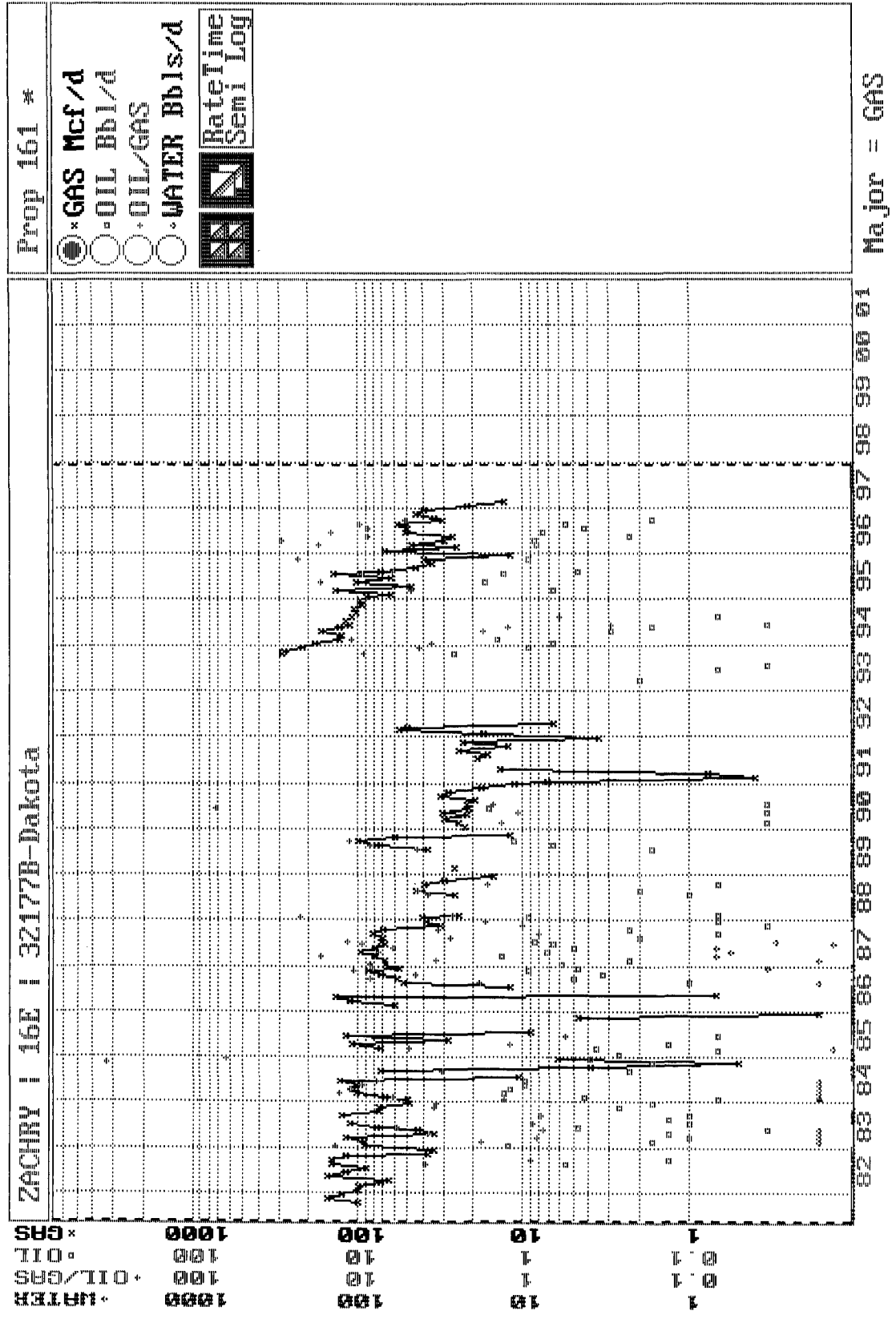
Registered Professional Engineer
for Oil and Gas Surveying

Signature
James P. Leese

Certificate No.
1463

2400 2200 2000 1800 1600 1400 1200 1000 800 600 400 200 0





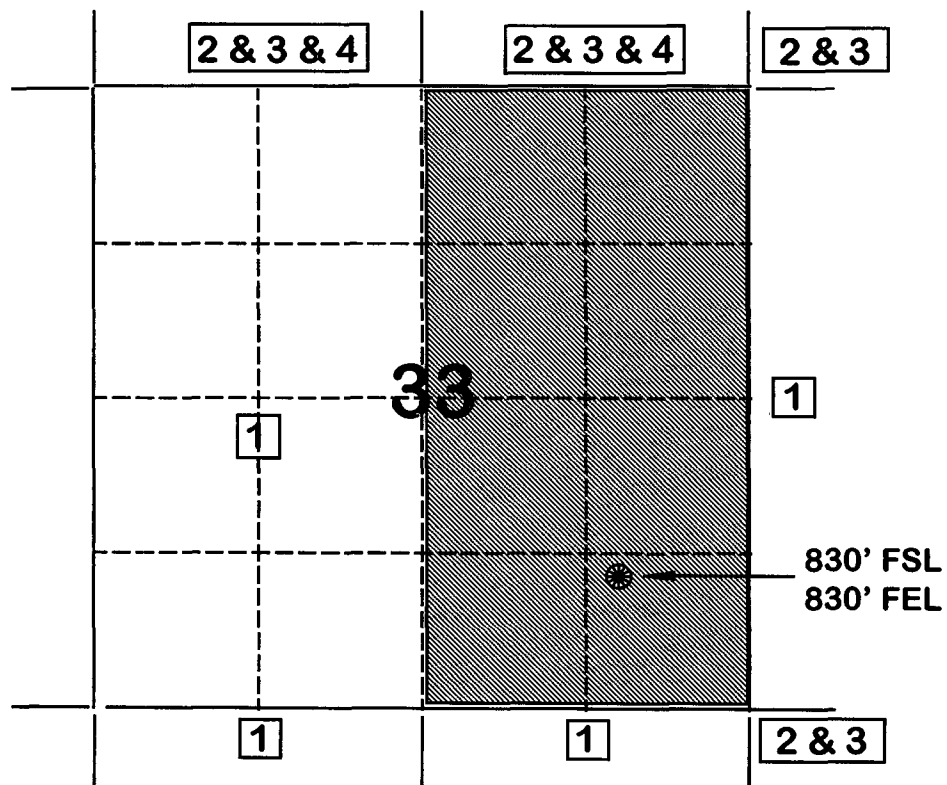
Major = GAS

BURLINGTON RESOURCES OIL AND GAS COMPANY

**Zachry #16E
OFFSET OPERATOR \ OWNER PLAT**

Chacra (SE/4)/Dakota (E/2) Formations Commingle Well

Township 29 North, Range 10 West



- 1) Burlington Resources Oil and Gas Company
- 2) Amoco Production Company
Attn: Bruce Zimney
P.O. Box 800
Denver, CO 80201
- 3) S G Interest
811 Dallas, Suite 1605
Houston, TX 77002
- 4) Norman L. Gilbreath
P.O. Box 208
Aztec, NM 87410

ZACHRY 16E
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method
Version 1.0 3/13/94

Chacra		Dakota	
<u>CH-Current</u>		<u>DK-Current</u>	
GAS GRAVITY	0.66	GAS GRAVITY	0.749
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.26	%N2	0.41
%CO2	0.25	%CO2	1.81
%H2S	0	%H2S	0
DIAMETER (IN)	4.5	DIAMETER (IN)	2.375
DEPTH (FT)	3023	DEPTH (FT)	6501
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	101	BOTTOMHOLE TEMPERATURE (DEG F)	147
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	250	SURFACE PRESSURE (PSIA)	130
BOTTOMHOLE PRESSURE (PSIA)	268.8	BOTTOMHOLE PRESSURE (PSIA)	153.5
<u>CH-Original</u>		<u>DK-Original</u>	
GAS GRAVITY	0.66	GAS GRAVITY	0.749
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.26	%N2	0.41
%CO2	0.25	%CO2	1.81
%H2S	0	%H2S	0
DIAMETER (IN)	4.5	DIAMETER (IN)	2.375
DEPTH (FT)	3023	DEPTH (FT)	6501
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	101	BOTTOMHOLE TEMPERATURE (DEG F)	149
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	994	SURFACE PRESSURE (PSIA)	831
BOTTOMHOLE PRESSURE (PSIA)	1080.0	BOTTOMHOLE PRESSURE (PSIA)	1005.7

Organize Data ScreenGraph Economics Report Plot Utility Quit
 Editing: ZACHRY | 16E | 32177A-1 CHACRA Property No.: 166
 Table(T): TEST/M,P,H,T,Z,C,A,O,D,1,2,3,B,U,S Rec: 1/6/1075
 Item: 2/3/33 Name: DATE Type: Date Len: 8/27/203

--DATE--	---CUM GAS--	M SIWHP
	Mcf	Psi
05/27/81	0	994.0
04/17/82	34451	771.0
04/17/83	97802	579.0
04/04/84	136151	520.0
07/13/93	372135	245.0
04/17/97	403112	250.0

F1=Help F3=PrvProp F5=PrvTbl F7=InsRcd F9=Utils Alt+TableLtr=Change Table
 F2=Jump F4=NxtProp F6=NxtTbl F8=DelRcd F10=Exit Shift+<- ->=Fast Tbl R & L

Organize Data ScreenGraph Economics Report Plot Utility Quit
 Editing: ZACHRY | 16E | 32177B-1 DAKOTA Property No.: 167
 Table(T): TEST/M,P,H,T,Z,C,A,O,D,1,2,3,B,U,S Rec: 1/8/1075
 Item: 2/3/33 Name: DATE Type: Date Len: 8/27/203

--DATE--	---CUM GAS--	M SIWHP
	Mcf	Psi
06/03/81	0	831.0
01/17/82	14615	690.0
04/25/82	21819	641.0
04/17/83	57762	586.0
07/03/85	105151	543.0
08/17/88	154485	489.0
07/11/93	184181	268.0
04/17/97	294227	130.0

F1=Help F3=PrvProp F5=PrvTbl F7=InsRcd F9=Utils Alt+TableLtr=Change Table
 F2=Jump F4=NxtProp F6=NxtTbl F8=DelRcd F10=Exit Shift+<- ->=Fast Tbl R & L

FDG055M4 S017
START OF DATA
DP NO: 32177A CHACRA
ZACHRY
S

WELL PRODUCTION 8/8'S VOLUME

04/10/97 10:25:18

DATE: 970408 (YYMMDD FORMAT)
SCROLL FORWARD BY DATE: _

16E

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-
L	PRODUCED	ON	(BOPD	BOPM) (MCFD	MCFM) (BWPD
					BWPM)
-	04/08/97	24.0	0.00	0.00	30 240 0.00 0.00
-	04/07/97	24.0	0.00	0.00	30 210 0.00 0.00
-	04/06/97	24.0	0.00	0.00	30 180 0.00 0.00
-	04/05/97	24.0	0.00	0.00	30 150 0.00 0.00
-	04/04/97	24.0	0.00	0.00	30 120 0.00 0.00
-	04/03/97	24.0	0.00	0.00	30 90 0.00 0.00
-	04/02/97	24.0	0.00	0.00	30 60 0.00 0.00
-	04/01/97	24.0	0.00	0.00	30 30 0.00 0.00
-	03/31/97	24.0	0.00	0.00	30 954 0.00 0.00
-	03/30/97	24.0	0.00	0.00	30 924 0.00 0.00
-	03/29/97	24.0	0.00	0.00	30 894 0.00 0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF6=NRI PF10=BROWSE MENU PF11=INQ/UPDATE MENU
PF12=MAIN MENU ENTER=BACKWARDS PF24=HELP
B MY JOB LU #19

FDG055M4 S017
START OF DATA
DP NO: 32177B DAKOTA
ZACHRY
S

WELL PRODUCTION 8/8'S VOLUME

04/10/97 10:25:39

DATE: 970408 (YYMMDD FORMAT)
SCROLL FORWARD BY DATE: _

16E

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-
L	PRODUCED	ON	(BOPD	BOPM) (MCFD	MCFM) (BWPD
					BWPM)
-	04/08/97	24.0	0.00	0.00	24 192 0.00 0.00
-	04/07/97	24.0	0.00	0.00	24 168 0.00 0.00
-	04/06/97	24.0	0.00	0.00	24 144 0.00 0.00
-	04/05/97	24.0	0.00	0.00	24 120 0.00 0.00
-	04/04/97	24.0	0.00	0.00	24 96 0.00 0.00
-	04/03/97	24.0	0.00	0.00	24 72 0.00 0.00
-	04/02/97	24.0	0.00	0.00	24 48 0.00 0.00
-	04/01/97	24.0	0.00	0.00	24 24 0.00 0.00
-	03/31/97	24.0	0.00	0.00	24 736 0.00 0.00
-	03/30/97	24.0	0.00	0.00	24 712 0.00 0.00
-	03/29/97	24.0	0.00	0.00	24 688 0.00 0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF6=NRI PF10=BROWSE MENU PF11=INQ/UPDATE MENU
PF12=MAIN MENU ENTER=BACKWARDS PF24=HELP
B MY JOB LU #19

