

DATE IN 7/30/98	SUSPENSE 8/19/98	ENGINEER DC	LOGGED BY KV	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

2040 South Pacheco, Santa Fe, NM 87505



2084

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATION FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

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

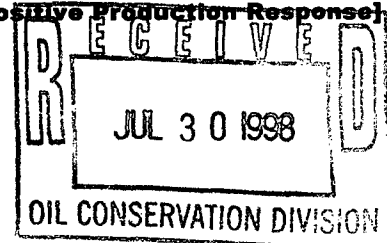
Check One Only for [B] or [C]

[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 - Certification

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 (including API numbers, pool codes, etc.), pertinent information and any required notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name

Signature

Title

Date

BURLINGTON RESOURCES

SAN JUAN DIVISION

July 28, 1998

New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Att: Mr. David Catanach

Re: Downhole Commingling Application
Lively #21E
Unit D, Section 31, T-27-N, R-7-W
Rio Arriba County, New Mexico
30-039-22670

Dear Mr. Catanach:

We have enclosed an amended application for downhole commingling for the Chacra, Mesa Verde and Dakota pools in the referenced well.

This application shows actual bottomhole pressures measured by Tefteller Inc. for the Dakota in this well (521 psi); our original application used offset pressures(1056 psi).

All offset operators are being notified by copy of this application by certified mail. We appreciate your consideration of this amended application.

Sincerely,



Peggy Bradfield
Regulatory/Compliance Administrator

encs.

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 87505-6429

APPLICATION FOR DOWNHOLE COMMINGLING

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

APPROVAL PROCESS :

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator

Address

Lively

21E

D 31-27N-07W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code API NO. 30-039-22670 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	Blanco Mesaverde - 72319	Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	will be supplied upon completion	will be supplied upon completion	6568-6667
3. Type of production (Oil or Gas)	gas	gas	gas
4. Method of Production (Flowing or Artificial Lift)	flowing	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. 499 psi (see attachment)	a. 612 psi (see attachment)	a. 521 psi (see attachment)
	(Original) b. 711 psi (see attachment)	b. 1300 psi (see attachment)	b. 2361 psi (see attachment)
6. Oil Gravity (API) or Gas BTU Content	BTU 1108	BTU 1324	BTU 1300
7. Producing or Shut-In?	shut in	shut in	shut in
Production Marginal? (yes or no)	no	no	yes
* If Shut-In 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 data and oil/gas/water water of recent test (within 60 days)	Date: n/a Rates:	Date: Rates:	Date: n/a Rates:
	Date: n/a Rates:	Date: Rates:	Date: n/a Rates:
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: % Gas: % will be supplied upon completion	Oil: % Gas: % will be supplied upon completion	Oil: % Gas: % will be 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 ☐ 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). Reference Order

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 Wayne Fletcher TITLE: Production Engineer DATE: 07/27/98

TYPE OR PRINT NAME Wayne Fletcher TELEPHONE NO. (505) 326-9871

District I
PO Box 1930, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

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

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form 1
Revised February 21,
Instructions on
Submit to Appropriate District C
State Lease - 4 C
Fee Lease - 3 C

☐ AMENDED REP

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-039-22670		2 Pool Code 82329 72319/71599		3 Pool Name Otero Chacra Blanco Mesaverde/Basin Dakota			
4 Property Code		5 Property Name LIVELY				6 Well Number 21E	
7 OGRID No. 14538		8 Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY				9 Elevation 5990'	

10 Surface Location

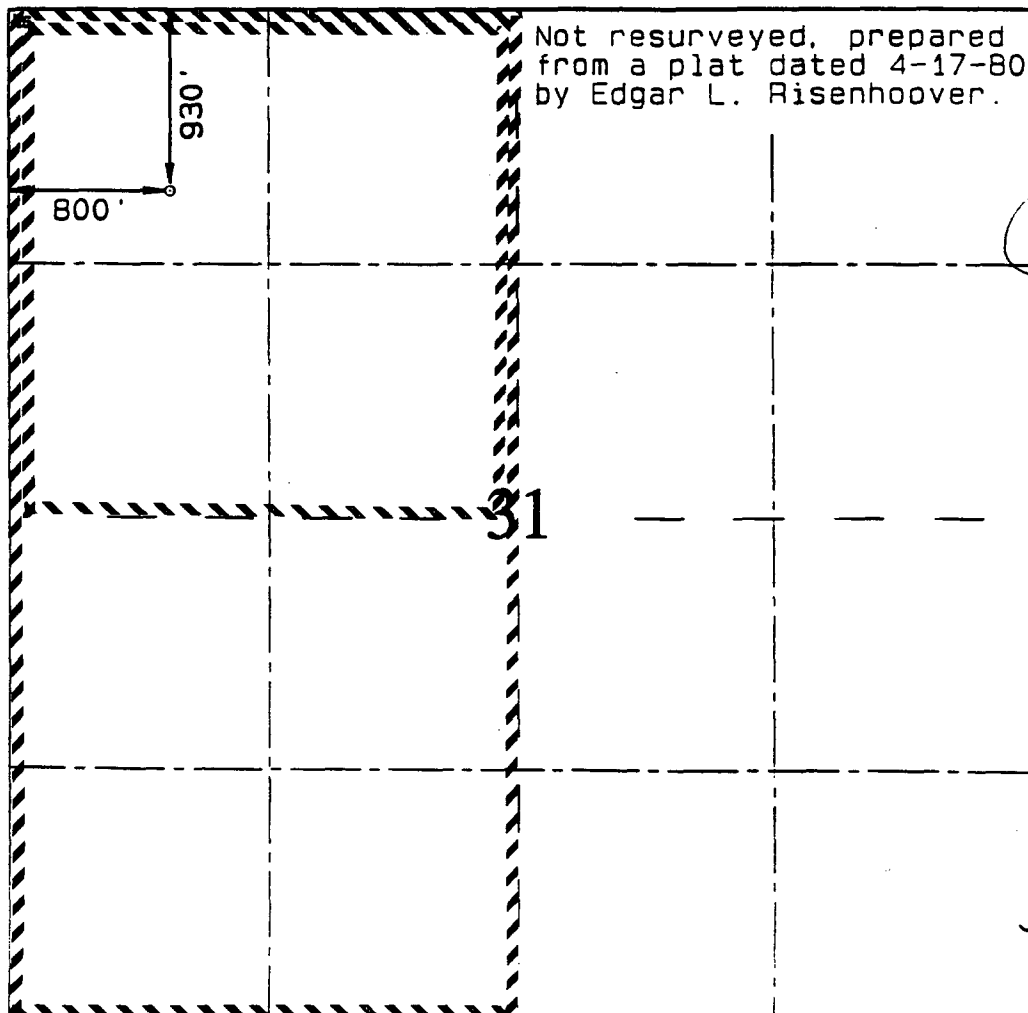
UL or lot no. D	Section 31	Township 27N	Range 7W	Lot Idn	Feet from the 930	North/South line NORTH	Feet from the 800	East/West line WEST	Count RIC ARRI
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11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	Count
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12 Dedicated Acres Cha-160.6 MV-W/321.60, DK-W/321.60	13 Joint or Infill	14 Consolidation Code	15 Order 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



Not resurveyed, prepared
from a plat dated 4-17-80
by Edgar L. Risenhoover.

17 OPERATOR CERTIFICATE

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

Peggy Bradfield
Signature

Peggy Bradfield
Printed Name

Regulatory Administrator
Title

5-20-98
Date

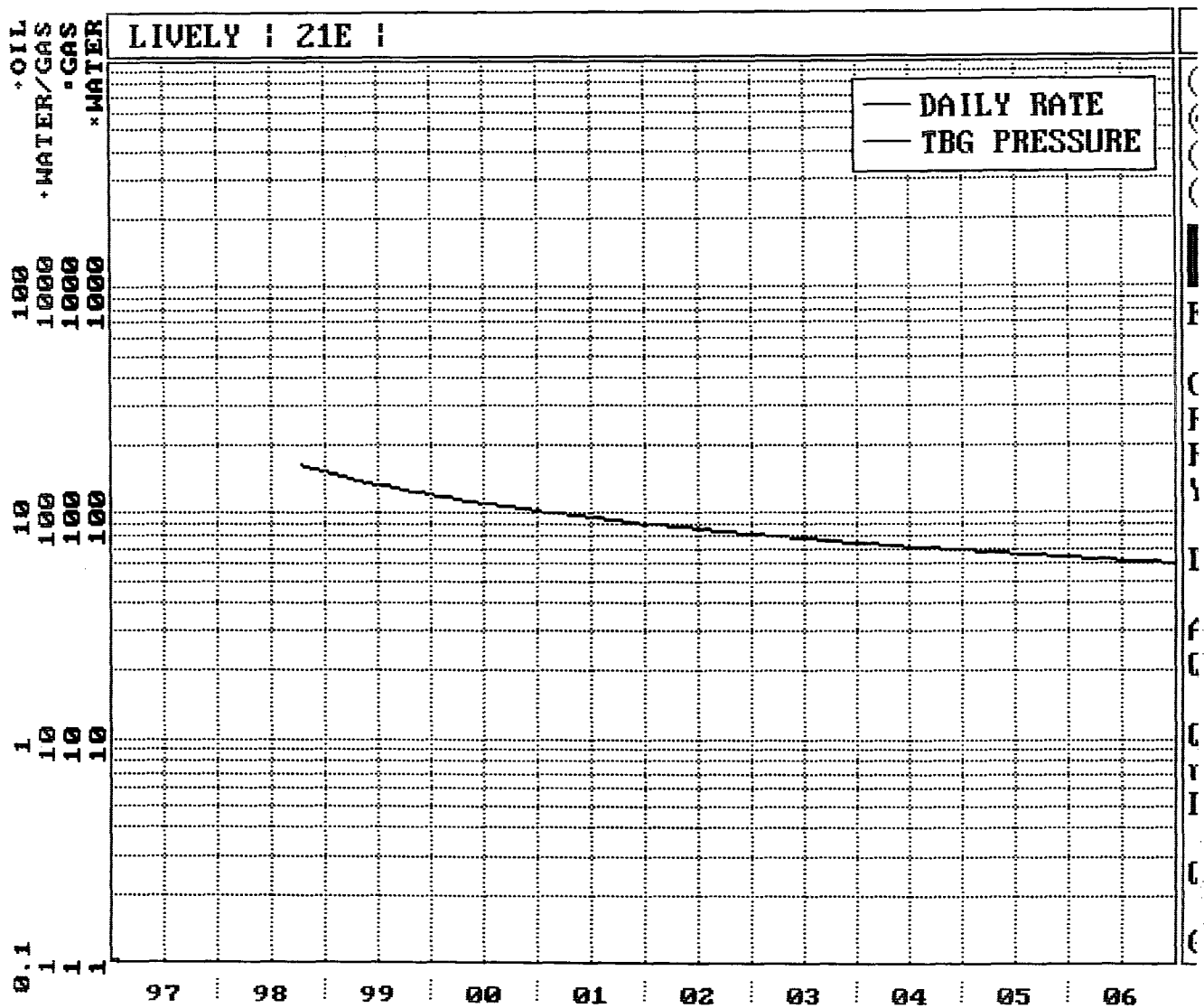
18 SURVEYOR CERTIFICATE

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made or under my supervision, and that the same is true and correct to the best of my belief.

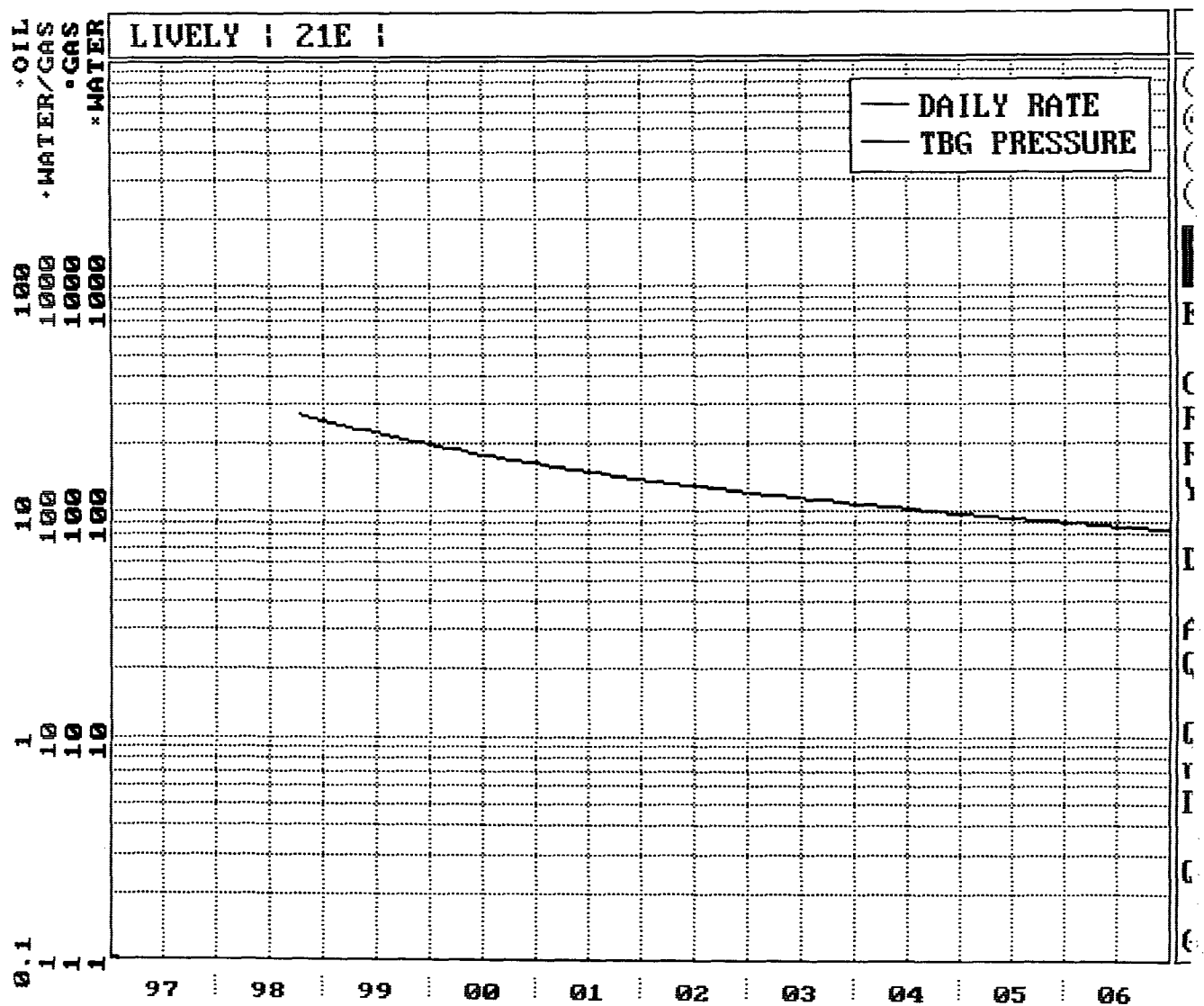
MAY 18 1998
Date of Survey
Signature of Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR
Certificate Number

Lively #21E
Expected Production Curve
Chacra



Lively #21E
Expected Production Curve
Blanco Mesaverde




```

Page No.: 1
Print Time: Thu May 07 09:36:25 1998
Property ID: 11801
Property Name: BROOKHAVEN COM | 7A | 34572B-1
Table Name: K:\ARIES\RR99PDP\TEST.DBF

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--DATE-- M SIWHP
.....rrPsi.....
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--DATE-- M SIWHP
.....rrPsi.....
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06/17/86	657.0	-original
08/03/89	552.0	
09/29/90	518.0	
06/22/91	462.0	-current

Lively #21E

Chacra Offset

Lively #21E
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method
Version 1.0 3/13/94

Chacra		Mesaverde	
<u>CH-Current</u>		<u>MV-Current</u>	
GAS GRAVITY	0.651	GAS GRAVITY	0.782
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.13	%N2	0.64
%CO2	1.35	%CO2	0.44
%H2S	0	%H2S	0
DIAMETER (IN)	1.25	DIAMETER (IN)	2
DEPTH (FT)	3276	DEPTH (FT)	5390
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	137	BOTTOMHOLE TEMPERATURE (DEG F)	137
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	462	SURFACE PRESSURE (PSIA)	522
BOTTOMHOLE PRESSURE (PSIA)	499.0	BOTTOMHOLE PRESSURE (PSIA)	612.0
<u>CH-Original</u>		<u>MV-Original</u>	
GAS GRAVITY	0.651	GAS GRAVITY	0.782
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.13	%N2	0.64
%CO2	1.35	%CO2	0.44
%H2S	0	%H2S	0
DIAMETER (IN)	1.25	DIAMETER (IN)	2
DEPTH (FT)	3276	DEPTH (FT)	5390
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	137	BOTTOMHOLE TEMPERATURE (DEG F)	137
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	657	SURFACE PRESSURE (PSIA)	1084
BOTTOMHOLE PRESSURE (PSIA)	711.2	BOTTOMHOLE PRESSURE (PSIA)	1299.8

Company: Burlington Resources
Well: Lively #21-E
Field: Dakota Formation
Engineer:
Gauge Type: Amerada
Gauge Range: 0-3000
Gauge Depth: 6140 ft
Serial No.: 44537

County: Rio Arriba
State: New Mexico
Date: 06/24/1998
Well Type:
Test Type: Static Gradient
Status: Shut-In
File Name: 31970-1

Tubing: 2 3/8" TO 6555
Tubing: TO
Casing: TO
Perfs.:

Oil Level
H2O Level

Shut-in BHP 521 @ 6140 ft Shut-in BHT 0 F @ 0 ft
Shut-in WHP 426 Shut-in WHT 0 F

[Tefteller Incorporated]

#	MD	TVD	PRESSURE	PSI/ft
1	0	0	426.00	
2	2000	2000	452.00	0.013
3	4000	4000	481.00	0.014
4	6100	6100	519.00	0.018
5	6140	6140	521.00	0.050

set down @ 6150'.

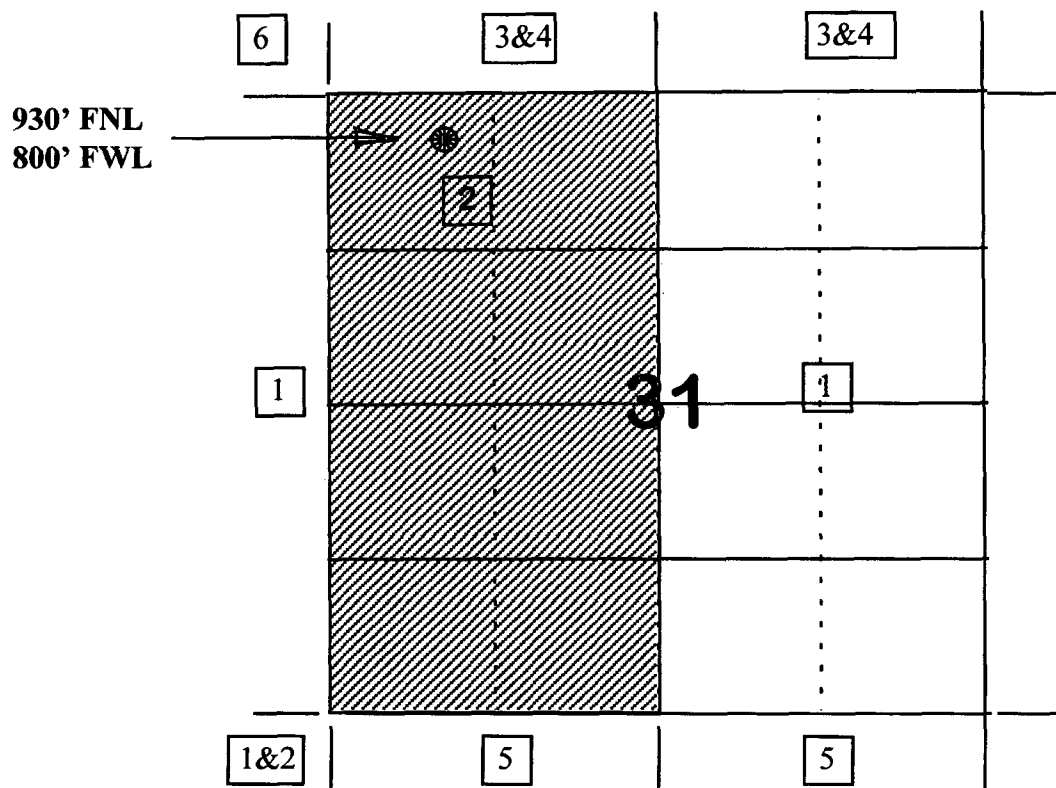
BURLINGTON RESOURCES OIL AND GAS COMPANY

Lively #21E

OFFSET OPERATOR/OWNER PLAT

Dakota (W/2) / Chacra (NW/4) / Mesaverde (W/2) Formations Commingle Well

Township 27 North, Range 7 West



- 1) Burlington Resources
- 2) Lively Exploration Co.
c/o Allied Bank Tower at
Four Oaks Place
Attn: Ms. Bennie Lee Reed
1300 Post Oak Blvd., Ste. 1900
Houston, TX 77056
- 3) Conoco Inc.
Attn: Donna Shuey
10 Desta Drive, Ste. 100W
Midland, TX 79705

- 4) Amoco Production Co.
Attn: Bruce Zimney
P.O. Box 800
1670 Broadway
Denver, CO 80201
- 5) DEPCO, Inc.
10000 Petroleum Building
Denver, CO 80202
- 6) Western Gas Resources
12200 N. Pecos Street
Denver, CO 80234

Lively #21E

27N-07W-31D

