

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

REC-115

Sundry Notices and Reports on Wells
8:15 AM 3:33

070 FARMINGTON, NM

1. Type of Well
GAS

2. Name of Operator

**BURLINGTON
RESOURCES** OIL & GAS COMPANY

3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Sec., T, R, M

835' FSL, 2495' FEL, Sec. 012, T-28-N, R-5-W, NMPM

5. Lease Number
SF - 079519-A

6. If Indian, All. or
Tribe Name

7. Unit Agreement Name
San Juan 28-5 Unit

8. Well Name & Number
San Juan 28-5 Unit #102E

9. API Well No.
30-039-23855

10. Field and Pool
Blanco MV/Basin DK

11. County and State
Rio Arriba Co, NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission

Type of Action

Notice of Intent

Abandonment

Change of Plans

Subsequent Report

Recompletion

New Construction

Final Abandonment

Plugging Back

Non-Routine Fracturing

Casing Repair

Water Shut off

Altering Casing

Conversion to Injection

Other

13. Describe Proposed or Completed Operations

It is intended to recomplate the subject well in the Mesaverde formation according to the attached procedure and wellbore diagram. The well will then be down-hole commingled. DHC 1815 has been received.

RECEIVED
MAR 24 1998

OIL CON. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct.

Signed [Signature] Title Regulatory Administrator Date 3/16/98
VKH

(This space for Federal or State Office use)

APPROVED BY [Signature] Title _____ Date MAR 20 1998

CONDITION OF APPROVAL, if any:

[Handwritten mark]

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-
Revised February 21, 19
Instructions on b
Submit to Appropriate District Off
State Lease - 4 Cop
Fee Lease - 3 Cop

District II
PO Drawer 00, Artesia, NM 88211-0719

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

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

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

AMENDED REPORT

3/12/98 PM 3:33

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-23855		*Pool Code 72319/71599	*Pool Name Blanco Mesaverde/Basin Dakota
*Property Code 7460	*Property Name SAN JUAN 28-5 UNIT		*Well Number 102E
*GRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		*Elevation 7299'

¹⁰ Surface Location

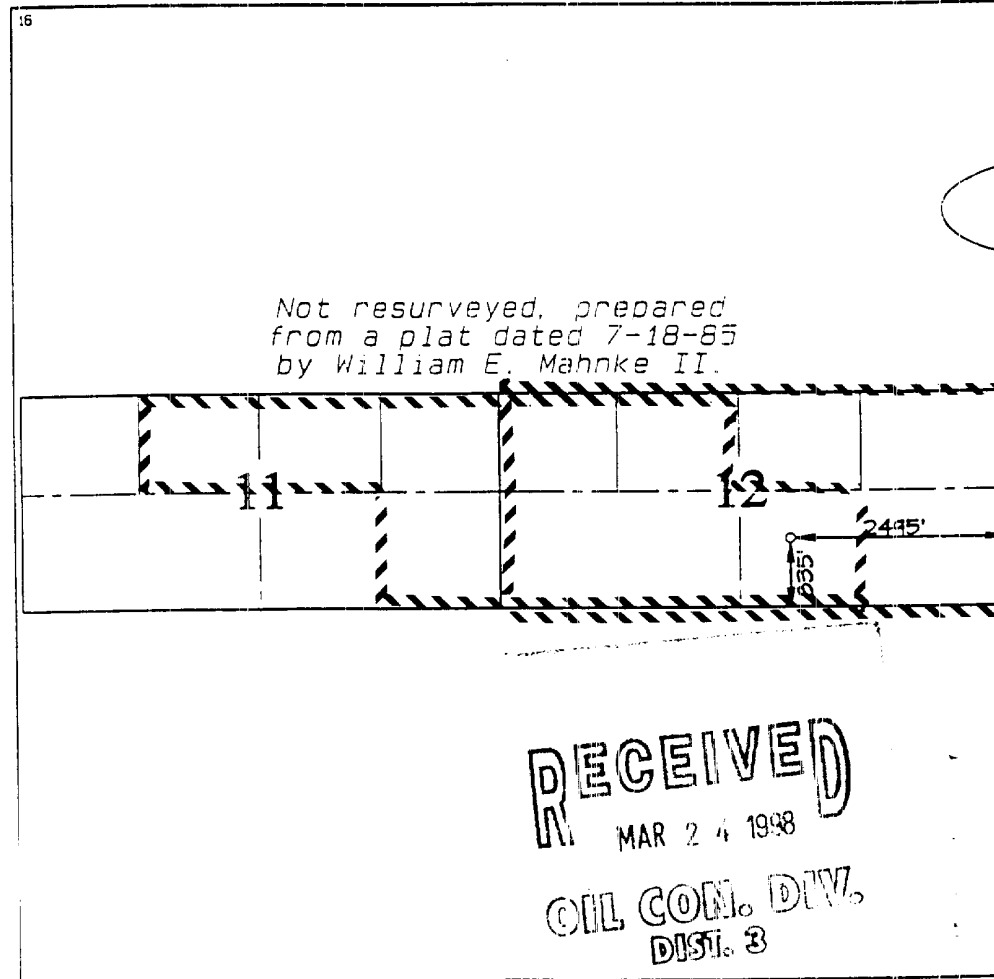
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	12	28N	5W		835	SOUTH	2495	EAST	RIO ARRIB.

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	County

² Dedicated Acres MV-S/299.04 DK-310.19	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



RECEIVED
MAR 24 1998
OIL CON. DIV.
DIST. 3

¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Peggy Bradford
Signature
Peggy Bradford
Printed Name
Regulatory Administrator
Title
March 12, 1998
Date

¹⁸ SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this was plotted from field notes of actual surveys made by or under my supervision and that the same is true and correct to the best of my belief.

MARCH 10 1998
Date of Survey
Signature of Surveyor
NEARIC EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR
6887
Certificate Number

San Juan 28-5 Unit #102E
Mesaverde Recompletion Procedure
Unit O, Section 12, T28N, R5W
Lat: 36° - 40.23012' / Long: 107° - 18.51012'

It is intended to recomplete the Mesaverde and commingle it with the Dakota. The Mesaverde interval will be sand fracture stimulated in two stages, Point Lookout/Lower Menefee and Cliffhouse/Upper Menefee, using a total of 120,000 gals 30 lb linear gel and 180,000 lbs 20/40 sand.

1. Inspect location and test rig anchors. Comply with all NMOCD, BLM, Forestry & BR rules and regulations. Dig flowback pit or set flowback tank. Haul to location a 6700', 2-3/8" workstring, 3 jts 2-3/8" N-80 tubing, 2-3/8" X 2-7/8" N-80 crossover, 6600', 2-7/8" N-80 buttress frac string and 10, 400 bbl frac tanks
2. MIRU. Record and report SI pressures on tubing, casing and bradenhead. Lay blowdown line. Blow well down and kill with 2% KCL water as necessary. ND WH and NU BOP with flow tee and stripping head. Test operation of rams. NU blooie line and 2-7/8" relief line. Redress production wellhead as needed.
3. TOOH with 1-1/2" Dakota production string set at \pm 8461' and stand back. Replace bad joints as necessary. Visually inspect tubing, note and report any scale in/on tubing. If an appreciable amount of scale is not ced, contact Jennifer Dobson at 599-4026 to determine if a Dakota acid wash is needed.
4. PU and RIH with a 3-7/8" bit, 4-1/2" (11.6 lb/ft) casing scraper on 2-3/8" workstring hauled to location. Clean out to 6700' with air. TOOH.
5. RU wireline. RIH and set RBP at 6700'. RD wireline. Top RBP with 1 sack of sand down casing. Allow sand to settle.
6. Load hole with 2% KCL water. MIRU logging company. Run GR-CBL-CCL from PBTD to top of cement. Evaluate CBL. Top of good cement must be above 5900' to continue.
7. PU and RIH with 4-1/2" packer on 2-3/8" tubing. Set packer just above RBP. Pressure test RBP to 3600 psi. Pressure test annulus to 1000 psi. Release packer and PUH to 6602'.

Lower Menefee & Point Lookout:

8. Spot 160 gals of 15% HCL across Lower Menefee and Point Lookout perf interval from 6402 to 6602'. TOOH.

All acid on this well to contain the following additives per 1000 gals.

2 gal	HAI-81M	Corrosion inhibitor
5 gal	FE-1A	Iron Control
5 gal	FE-2A	Iron Control
1 gal	SSO-2'	Surfactant
1 gal	ClaSta XP	Clay control

9. RU wireline. Perforate Lower Menefee and Point Lookout as follows using select fire HSC guns loaded with Owens HSC-3125 302T 10 gram charges (Av. perf diameter - 0.29", Av. pen. -16.64" in concrete). Be sure to perforate from top down (24 holes total).

6402', 6404', 6440', 6444', 6448', 6452', 6456', 6460', 6464', 6496', 6498', 6500',
 6509', 6518', 6520', 6522', 6555', 6570', 6573', 6580', 6582', 6595', 6597', 6602'

RDMO wireline company.

10. Fill all ten 400 bbl frac tanks with 2% KCL water. Filter all water to 25 microns if brought from sources with known solids contamination. Filtration is not necessary for city water. Eight tanks (four per frac stage) are for gel and two tanks (one per frac stage) are for breakdown and flush.
11. TIH with 4-1/2" packer, tubing tester, 3 jts 2-3/8" N-80 tubing, 2-3/8" X 2-7/8" N-80 crossover, and remaining 2-7/8", 6.5 lb/ft N-80 buttress frac string. Set packer at 6200'. Pressure test surface lines to 7500 psi. Close tubing tester and test frac string to 6500 psi.
12. RU stimulation company. Hold 500 psi on annulus. Breakdown and attempt to balloff Lower Menefee and Point Lookout perforations with 1500 gals 15% HCL and 100% excess RCN 7/8" 1.3 specific gravity perf balls to 3600 psi. Use same additives as in Step 8. Lower packer to 6610' to knock off perf balls. Reset packer at 6300'.
13. RU stimulation company. Hold a tailgate safety meeting. **Maximum surface treating pressure is 6500 psi.** Hold 500 psi on annulus, behind packer, and monitor during the job. Fracture stimulate Lower Menefee and Point Lookout with 90,000 lbs 20/40 Arizona sand in 60,000 gals 30 lb linear gel at **30 BPM**. Sand is to be tagged with 3 radioactive tracers. Average surface treating pressure will be 4900 psi. Estimated tubing friction pressure will be 3833 psi. Treat per the following schedule:

Stage	Water (gals)	Sand Volume (lbs)
Pad	15,000	
1.0 ppg	10,000	10,000
2.0 ppg	25,000	50,000
3.0 ppg	10,000	30,000
Flush (slickwater)	1,550	
Totals	61,550	90,000

Slow rate during flush. If well is on vacuum near end of frac job, cut flush as necessary to avoid overflushing.

Frac with the following additives per 1000 gals frac fluid. **Gel will be mixed on the fly.**

- | | | |
|-----------|--------|-------------------|
| * 7.5 gal | LGC-8 | Gel |
| * 1 gal | SSO-21 | Surfactant |
| * 0.18 lb | BE-6 | Biocide |
| * 0.4 lb | SP | Oxidizing Breaker |
| * 0.2 lb | GBW-3 | Enzyme Breaker |

RDMO stimulation company.

14. Open well through choke manifold and monitor flow. Flow at 20 BPH or less, if sand is observed. **Take pitot gauges when possible.** When pressures allow, release packer and TOOH.

15. RU wireline. Run a gauge ring to 6380' to insure a RBP can be set at 6370'. RD wireline. If fill is above 6370'. TIH with 3-7/8" bit on 2-3/8" workstring and CO.

Cliffhouse & Upper Menefee:

16. PU and RIH with 4-1/2" RBP, packer and 2-3/8" workstring. Set RBP at 6370'. Set packer just above RBP and pressure test to 3600 psi. Release packer and PUH to 6332'.
17. Spot 180 gals 15% HCL across Cliffhouse and Upper Menefee perf interval from 6118' to 6332'. TOOH.

All acid on this well to contain the following additives per 1000 gals.

2 gal	HAI-81M	Corrosion inhibitor
5 gal	FE-1A	Iron Control
5 gal	FE-2A	Iron Control
1 gal	SSO-21	Surfactant
1 gal	ClaSta XP	Clay control

18. Top RBP with 1 sack of sand down casing. Allow sand to settle
19. RU wireline. Perforate Cliffhouse and Upper Menefee as follows using select fire HSC guns loaded with Owens HSC-3125 302T 10 gram charges (Av perf diameter - 0.29", Av. pen. -16.64" in concrete). Be sure to perforate from top down (22 holes total).

**6118', 6120', 6124', 6126', 6128', 6138', 6140', 6155', 6160', 6162', 6166',
6185', 6194', 6218', 6222', 6234', 6236', 6238', 6260', 6262', 6330', 6332'**

RDMO wireline company.

20. Be sure there is enough water in four tanks for gel and one tank for breakdown and flush.
21. TIH with 4-1/2" packer, tubing tester, 3 jts 2-3/8" N-80 tubing, 2-3/8" X 2-7/8" N-80 crossover, and remaining 2-7/8", 6.5 lb/ft N-80 butress frac string. Set packer at 5900'. Pressure test surface lines to 7500 psi. Close tubing tester and pressure test frac string to 6500 psi.
22. RU stimulation company. Hold 500 psi on annulus. Breakdown and attempt to balloff Cliffhouse and Upper Menefee perforations with 1500 gals 15% HCL and 100% excess RCN 7/8" 1.3 specific gravity perf balls to 3600 psi. Use same additives as in Step 17. Lower packer to 6340' to knock off perf balls. Reset packer at 6000'.
23. RU stimulation company. Hold a tailgate safety meeting. **Maximum surface treating pressure is 6500 psi.** Hold 500 psi on annulus behind packer and monitor during the job. Fracture stimulate the Cliffhouse and Upper Menefee with 90,000 lbs 20/40 Arizona sand in 60,000 gals 30 lb linear gel at **30 BPM**. Sand is to be tagged with 3 radioactive tracers. Average treating pressure will be approximately 4800 psi. Estimated tubing friction pressure will be 3651 psi. Treat per the following schedule:

Stage	Water (gals)	Sand Volume (lbs)
Pad	15,000	
1.0 ppg	10,000	10,000
2.0 ppg	25,000	50,000
3.0 ppg	10,000	30,000
Flush	1,500	
Totals	61,500	90,000

Slow rate during flush. If well is on vacuum near end of frac job, cut flush as necessary to avoid overflushing.

Frac with the following additives per 1000 gals frac fluid. **Gel will be mixed on the fly.**


- * 7.5 gal LGC-8 Gel
- * 1 gal SSO-21 Surfactant
- * 0.18 lb BE-6 Biocide
- * 0.4 lb SP Oxidizing Breaker
- * 0.2 lb GBW-3 Enzyme Breaker

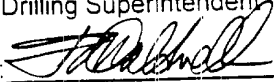
RDMO stimulation company.

24. Open well through choke manifold and monitor flow. Flow at 20 BPH or less, if sand is observed. **Take pitot gauges when possible.** When pressures allow, release packer and TOOH. LD packer, 2-3/8" N-80 tubing, 2-3/8" X 2-7/8" crossover and 2-7/8" N-80 tubing.
25. Run a junk basket to recover as many balls as possible. TIH with 4-1/2" RBP retrieving head on 2-3/8" tubing and circulate sand off RBP isolating the Upper Menefee and Lower Menefee at 6370'. Monitor gas and water returns. **Take pitot gauges when possible.** When well is sufficiently clean, retrieve RBP at 6370'. TOOH.
26. Run a junk basket to recover as many balls as possible. TIH with 4-1/2" RBP retrieving head on 2-3/8" tubing and circulate sand off RBP used to isolate Dakota at 6700'. **Take pitot gauges when possible.** When well is sufficiently clean, run Mesaverde only 3 hour production test through separator using a back pressure of 275 psi. This is necessary for NMOCDC commingling regulations. When test is complete, retrieve RBP at 6700' and TOOH. LD 2-3/8" workstring.
27. RU Pro-Technics. Run After-Frac log from 6700-6000'. RD Pro-Technics.
28. TIH with 2-1/4" bit on the 1-1/2" production string. CO Dakota perms to PBSD (~8690') with air. TOOH.
29. TIH with an expendable check, one 1-1/2" joint, standard SN and remaining 1-1/2" tubing. Broach tubing while running in hole. CO with air/mist to PBSD again, if necessary. Land tubing at 8461'. ND BOP. NU WH. Pump off expendable check. RDMO. Contact Production Operations for well tie-in.

San Juan 28-4 Unit #102E
1998 Discretionary Mesaverde Recompletion

Recommended: 
Production Engineer

Approved:  12/31/97
Drilling Superintendent

Approved:  12/17/97
Team Leader

VENDORS:

Fracturing:	Halliburton	324-3500
RA Tag:	Pro-Technics	326-7133

Jennifer Dobson	599-4026 (work)	564-3244 (home)	324-2461 (pager)
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San Juan 28-5 Unit #102E
Pertinent Data Sheet
Lat: 36° - 40.23012'/Long: 107° - 18.51012'

General Well Information:

Location: 835 FSL, 2495 FEL, Unit O, Section 12, T28N, R5W, Rio Arriba County, NM.

Federal Lease #: SF-079519A DP #: TBA
Property #: 007973100 GWI/NRI: 82.86/50.59

Current Field: Basin Dakota Completed: 11/6/85
Spud: 9/9/85 KB Elevation: 7313'
GL Elevation: 7299' PBTD: 8690'
TD: 8702'

Casing Record:

Hole Size	Csg Size	Weight	Grade	Depth Set	Cmt Vol	Cmt Top
12-1/4"	9-5/8"	32.3 lb/ft	H-40	351'	290	Circ. to sur.
8-3/4"	7"	20 lb/ft	J-55	0-4001'	195 sx	2300' (TS)
		23 lb/ft	N-80	4001-4612'		
6-1/4"	4-1/2"	11.6 lb/ft	N-80	0-8589'	335 sx	3900' (TS)
3-7/8"	2-7/8"	6.4 lb/ft	J-55	8475-8702'	25 sx	8475' (est.)

Tubing Record:

Tubing Size	Weight	Grade	Depth Set	Number of Jts
1-1/2"	2.9 lb/ft	J-55	8430'	268
SN			8431'	1
1-1/2"	2.9 lb/ft	J-55	8461'	1

Formation Tops:

Ojo Alamo: 3623' Mesaverde: 6084' Gallup: 7477'
Kirtland: 3774' Menefee: 6143' Greenhorn: 8417'
Pictured Cliffs: 4274' Point Lookout: 6437' Dakota: 8597'

Logging Record:

Schlumberger Cyberlook Log (9/18/85), Schlumberger Formation Density and Sidewall Neutron Log (8/18/95), Schlumberger Formation Density and Compensated Neutron Log (8/14/95), Schlumberger Induction Log (9/14/85 & 9/18/85) and Petro Wireline Gamma Ray and Casing Collar Log (10/7/85).

Completion:

Perforated the Dakota at 8597-8607' and 8652-8657' (2 SPF) in 100 gals 15% HCL. Frac'd the entire zone with 52,644 gals water and 15,000 lbs 40/60 sand.

Workover History:

None.

Production History:

Currently the Dakota produces approximately 150 MCFD.

Pipeline: El Paso Natural Gas

San Juan 28-5 Unit #102E

Unit O, Section 12, T28N, R5W
 Lat: 36°-40.23012' / Long: 107°-18.51012'
 Rio Arriba County, NM

Current Schematic

Proposed Schematic

