

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

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

790' FSL, 1450' FEL, Sec. 16, T-28-N, R-5-W, NMPM

5. Lease Number
SF-080516

6. If Indian, All. or
Tribe Name

7. Unit Agreement Name

San Juan 28-5 Unit

8. Well Name & Number

San Juan 28-5 U #84E

9. API Well No.

30-039-23836

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. A down hole commingle order will be applied for.

RECEIVED
MAR 3 1 1997

OIL COOL. DIV.
ENR. 6

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

Signed [Signature] (SCWPUD) Title Regulatory Administrator Date 3/19/97

(This space for Federal or State Office use)

APPROVED BY _____ Title _____ Date MAR 24 1997

CONDITION OF APPROVAL, if any:

NMOCD

District I
PO Box 1980, 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 C-1
Revised February 21, 19
Instructions on b
Submit to Appropriate District Off
State Lease - 4 Cop
Fee Lease - 3 Cop

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-039-23836	72319/71599	Blanco Mesaverde/Basin Dakota
Property Code	Property Name	Well Number
7460	San Juan 28-5 Unit	84E
OGRID No.	Operator Name	Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY	6575'

10 Surface Location


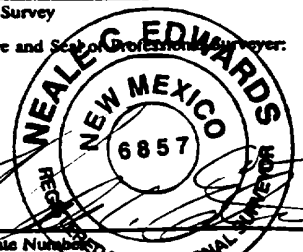
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	16	28-N	5-W		790	South	1450	East	R.A.

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

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
MV-S/320 DK-E/320			

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	17 OPERATOR CERTIFICATION
Not resurveyed, prepared from a plat by William E. Mahrkey dated 7-11-85.	I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.
RECEIVED MAR 3 1 1997 OIL CON. DIV. DIST. 3	 Signature Peggy Bradfield Printed Name Regulatory Administrator Title 3-19-97 Date
	18 SURVEYOR CERTIFICATION
	I hereby certify that the well location shown on this plat 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.
	3/17/97 Date of Survey
	Signature and Seal of Professional Surveyor: 
	Certificate Number

Burlington Resources - Mesaverde Initial Completion
Lat-Long: 36° 39' 22"- 107° 21' 36"

General Well Data:

Well Name: San Juan 28-5 Unit #84E
Location: Unit O, Section 16, T28N, R05W, 790' FSL, 1450' FEL
County, State: Rio Arriba County, New Mexico
Field: Blanco Mesaverde
Formation: Mesaverde

Project Objective:

Recomplete Mesaverde PUD in existing Dakota wellbore. Commingle Mesaverde with Dakota production. Current Dakota production is 228 MCFD. Anticipated initial Mesaverde production 854 MCFD.

Equipment and Material Requirements:

Deliver the following equipment to location:

1. 8100' of 2-3/8" 4.7# J-55 tubing
2. Sixteen (16) - 400 bbls frac tanks to be spotted and filled w/ 2% KCL
3. 4-1/2" wellhead isolation tool (2 jts of 2-7/8 6.5# J-55 tubing and 4-1/2" packer)
4. 3-7/8" bit/mill
5. Six 3-1/8" drill collars

Below are materials required for fracture stimulations:

	<u>Mesaverde</u>	
1. Fluid Type	Slickwater	
2. Stages	Two	
3. Acid Volume	65	bbls
4. Fluid Volume 2% KCL	4847	bbls
5. Sand Type	Arizona	
6. Sand Size	20/40	
7. Sand Volume	200,000	#'s

Fill frac tanks w/ 3# biocide/tank & 2% KCL water. Put one load of fresh water in each tank before adding 20% concentrated KCL water. Set Location proppant container and fill with sand. Contact Production Engineering and discuss stimulation water source and quality. Run fluid tests on water. Filter water based on Stimulation company solids water analysis.

Workover Procedure:

1. Hold safety meeting. MIRU completion rig. Place fire and safety equipment in strategic locations. Comply with all MOI, BLM, and NMOCD rules and regulations. Record all tubing, casing, and bradenhead, and line pressures. RU flowlines. Blowdown tbg and csg.
2. Kill well w 2% KCL down tubing. ND wellhead. Replace any failed valves or seals on wellhead. NU BOP's and stripping head.

3. TOOH with 7905' of 1-1/2", 2.9#, 10rnd tubing. Rabbit and strap tubing. Inspect and replace any bad joints.
4. MIRU wireline unit, under lubricator run 3-7/8" gauge ring to PBD of 7938'. POOH. PU 4-1/2" CIBP and RIH. Wireline set CIBP at 6150'. POOH. RD wireline.
5. Load hole with 2% KCL. Pressure test casing and CIBP to 1000 psi for 15 min.
6. NU wireline. RIH with CBL/CCL/GR log. Under 1000 psi, log from 6150' to 4200' (Top of Lewis). Cement bond required from 6150' to 5000'. POOH. RD wireline.
7. XO to 2-7/8" pipe rams and slips. PU 4-1/2" packer on 2 jts of 2-7/8" tubing. TIH and set packer @ 60'. RU stimulation company. Pressure test casing to 3500 psi for 15 min. Record results. Unseat packer and TOOH.

Point Lookout and Lower Menefee Fracture Stimulation (1st Stage):

8. NU wireline company. Under a lubricator, RIH with 3-1/8" HSC casing gun. Select fire perforate Point Lookout and Menefee with 1 SPF, 0.34" diameter, 11.3" penetration, 10 gram charges (Owen, 301) at the following depths:

5629,	5671,	5675,	5687,	5691,	5695,	5711,	5727,	5733,	5738,
5745,	5765,	5779,	5790,	5815,	5819,	5849,	5887,	5889,	5929,
5967,	6043,	6045,	6055,	6057					

(19 total intervals, 25 total holes, 428' of gross interval)

POOH and ND wireline. Inspect casing gun to ensure all perforations fired.

10. PU 4-1/2" packer on 2 jts of 2-7/8" tubing. TIH and set packer @ 60'. NU stimulation company. Pressure test surface lines to 4500 psi. Prepare to breakdown perforations. Pump into perforations to establish injection rate at maximum pressure of 3500 psi. Record breakdown pressure and rate and ISIP. **Note: Calculate the number of perforations open at beginning of the job. If 90% (or more) of the holes calculate to be open, pump acid but do not drop balls. Be prepared to continue right into frac job.** If less than 90% of holes are open proceed to next step. If an injection rate of > 5 BPM can be established, prepare to balloff. If an injection rate cannot be established, XO to 2-3/8" pipe rams. TIH with 2-3/8" tubing and spot 7 bbls 15% HCL across perforation. TOOH.
11. Begin balloff. Pump 25 bbls of 15% HCL (Add 2/1000 gallons corrosion inhibitor to acid.) and flush with 2% KCL at maximum rate pressure will allow. Drop a total of 50, 7/8" 1.3 SG RCN ball sealers spaced evenly throughout job. Maximum pressure at balloff is 3500 psi. ND stimulation company. Unseat packer and TOOH.
12. NU wireline company. Under lubricator, RIH with 4-1/2" junk basket to recover ball sealers. Run basket by perforations several times to ensure maximum ball recovery. POOH and ND wireline company. Record number of hits and balls recovered.
13. PU 4-1/2" packer and reset @ 60'. NU stimulation company. Hold safety meeting. Pressure test surface lines to 4500 psi. Maximum surface treating pressure during frac is 3500 psi. Fracture stimulate Point Lookout interval per attached schedule at 50 BPM, with 100,000 #'s of 20/40 Arizona sand and 2429 bbls of slickwater. Quick flush at 2 ppg with 2% KCL. Flush with 85 bbls of 2% KCL to 100' of top perforation. Cut pump rate throughout flush as pressure will allow. Shutdown and record ISIP, 5, 10, and 15 min shut-in pressures. ND stimulation company. Unseat packer and TOOH.
14. NU wireline company. Under and lubricator RIH with 4-1/2" CIBP and set @ 5604'. POOH. ND wireline company. PU 4-1/2" packer on 2 jts of 2-7/8" tubing and set @ 60'. RU stimulation company. Pressure

test CIBP to 3500 psi for 15 min. Record results. Unseat packer and TOOH.

Upper Menefee and Cliff House perforating and fracture stimulation (2nd Stage):

15. NU wireline company. Under a full lubricator, RIH with 3-1/8" HSC casing gun. Select fire perforate the Menefee and Cliff House with 1 SPF, 0.34" diameter, 11.3" penetration, 10 gram charges (Owen, 301) at the following depths:

5069,	5080,	5139,	5191,	5263,	5270,	5296,	5303,	5309,	5319,
5326,	5335,	5361,	5382,	5407,	5426,	5470,	5492,	5497,	5542,
5546,	5554,	5559							

(16 total intervals, 23 total holes, 490' of gross interval)

POOH and ND wireline. Inspect casing gun to ensure all perforations fired.

16. PU 4-1/2" packer on 2 jts of 2-7/8" tubing. TIH and set packer @ 60'. NU stimulation company. Pressure test surface lines to 4500 psi. Prepare to breakdown perforations. Pump into perforations to establish injection rate at maximum pressure of 3500 psi. Record breakdown pressure and rate and ISIP. **Note: Calculate the number of perforations open at beginning of the job. If 90% (or more) of the holes calculate to be open, pump acid but do not drop balls. Be prepared to continue right into frac job.** If less than 90% of holes are open proceed to next step. If an injection rate of > 5 BPM can be established, prepare to balloff. If an injection rate cannot be established, XO to 2-3/8" pipe rams. TIH with 2-3/8" tubing and spot 8 bbls 15% HCL across perforation. TOOH.
17. Begin balloff. Pump 25 bbls of 15% HCL (Add 2/1000 gallons corrosion inhibitor to acid.) and flush with 2% KCL at maximum rate pressure will allow. Drop a total of 46, 7/8" 1.3 SG RCN ball sealers spaced evenly throughout job. Maximum pressure at balloff is 3500 psi. ND stimulation company. Unseat packer and TOOH.
18. NU wireline company. Under lubricator, RIH with 4-1/2" junk basket to recover ball sealers. Run basket by perforations several times to ensure maximum ball recovery. POOH and ND wireline company. Record number of hits and balls recovered.
19. PU 4-1/2" packer and reset @ 60'. NU stimulation company. Hold safety meeting. Pressure test surface lines to 4500 psi. Maximum surface treating pressure during frac is 3500 psi. Fracture stimulate Point Lookout interval per attached schedule at 50 BPM, with 100,000 #'s of 20/40 Arizona sand and 2418 bbls of slickwater. Quick flush at 2 ppg with 2% KCL. Flush with 75 bbls of 2% KCL to 200' of top perforation. Cut pump rate throughout flush as pressure will allow. Shutdown and record ISIP, 5, 10, and 15 min shut-in pressures. RD stimulation company. Unseat packer and TOOH. XO to 2-3/8" pipe rams and slips.
20. PU 3-7/8" bit and six drill collars on 2-3/8" tubing. Clean out to CIBP set and 5604'. Obtain pitot gauge. Drill out CIBP at 5604'. Clean out to CIBP set at 6150'. Clean up to less than 5 BPH water and trace of sand. Obtain stabilized pitot gauges at 15, 30, 45, and 60 min for the Mesaverde interval. Record on WIMS report.
21. Drill CIBP set at 6150' Clean out to PBTD of 7938'. Clean up to less than 5 BPH and trace of sand. Obtain stabilized pitot gauges at 15, 30, 45, and 60 min for the commingled zones. TOOH laying down 2-3/8" tubing, drill collars, and bit. Note: All production testing required for commingle allocation will be performed after rig is released.
22. XO to 1-1/2" pipe rams. PU 1-1/2" tubing. TIH with one joint of 1-1/2", 2.9# J-55 tubing with expendable check, a seat-nipple, and the remaining 1-1/2" tubing. Land tubing at +/- 7905. Broach tubing while running in hole to seat-nipple with sandline. POOH

23. ND BOP's. NU Tree and manifold assembly. Pump off expendable check. Make swab run to kick well off if needed. Obtain stabilized pitot gauges at 15, 30, 45, and 60 min for the entire well. Record on WIMS report. SI well. RD and MOL.

Compiled By: Sean Woolverton 1/16/97
S. C. Woolverton
Production Engineer

Approval: *[Signature]* 2/1/97 *[Signature]* 2/1/97
Regional Engineer Drilling Superintendent

Engineers -

Sean Woolverton
Office - (326-9837)
Home - (326-4525)
Pager - (326-8931)

James A. Smith
Office - (326-9713)
Home - (327-3061)
Pager - (324-2420)

Frac Consultants

Mark Byars
Pager - (327-8470)
Mobile - (320-0349)
Home - (327-0096)

Mike Martinez
Pager - (599-7429)
Mob - (860-7518)
Home - (326-4861)

VENDORS:

CASED HOLE:
STIMULATION:

SERVICE COMPANY
TBA
TBA

PHONE NUMBER

q:\area\mvpud\1997\sj297140\PROCED.doc

PERTINENT DATA SHEET
SAN JUAN 28-5 UNIT #84E

Location: 790' FSL, 1450' FEL
Unit O, Section 16, T28N, R5W
Rio Arriba County, New Mexico
Field: Blanco Mesaverde/Basin Dakota
TD: 7947'
PBTD: 7938'
Spud Date: 10/20/85
Completion Date: 11/14/85

Elevation: 6575' GL
LAT: 36° 39' 22"
LONG: 107° 21' 36"
DP#: 54344A - DK
36046A - MV
GWI: 69.61% (DK)
NRI: 58.90% (DK)
GWI: 73.17% (MV)
NRI: 62.36% (MV)

Casing Record:

<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight & Grade</u>	<u>Depth Set</u>	<u>Sxs Cmt</u>	<u>Cement Top</u>
12-1/4"	9-5/8"	32.3#, K-55	222'	117 (138 ft3)	surface
8-3/4"	7"	20.0#, K-55	3783'	197 (305 ft3)	2300'
6-1/4"	4-1/2"	11.6#, N-80	7932'	341 (641 ft3)	3400'

Float collar @ 7925', Marker Jt @ 7581'

Tubing Record:

<u>Tubing Size</u>	<u>Weight & Grade</u>	<u>Depth Set</u>	<u>BHA</u>
1-1/2"	2.9#, J-55	7905'	SN @ 7870'

Formation Tops:

Chacra	4464'	Pt. Lookout	5653'	Greenhorn	7618'
Mesaverde	5260'	Mancos	6153'	Graneros	7673'
Menefee	5340'	Gallup	6705'	Dakota	7791'

Logging Record:

Ind. Gamma Ray / Comp, Density Sidewall Neutron Log / Temp Log / Correlation Gamma Ray / Temp Survey
Correlation Gamma Ray & Temp Survey not found in log file.

Stimulation:

Dakota: Treated w/82,000# 40/60 sand & 98,600 slickwater

Perf'd: 7738', 7742', 7811', 7815', 7819', 7822', 7825', 7828', 7873', 7876', 7879', 7882', 7885', 7888', 7891', 7894',
7897', 7900', 7903', 7906', 7919', 7923', 7927', 7931', 7935', w/1 SPZ

Workover History:

NONE

Production History:

Latest Deliverability	228 MCFD	<1 BOPD
Initial Deliverability	1016 MCFD	ISIP: 1600
Cums:	1088 MMCF	1936 BO

Transporter:

Oil/Condensate: Giant Gas: El Paso

San Juan 28-5 Unit #84E

Blanco Mesaverde/Basin Dakota

Unit O, Section 16, T28N, R5W

Rio Arriba County, NM

Elevation: 6575' GL

LAT: 36 39' 22" / LONG: 107 21' 36"

date spud: 10-20-85

