

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

1190' FSL, 1480' FEL, Sec. 25, T-28-N, R-5-W, NMPM

5. Lease Number
SF-079520A6. If Indian, All. or
Tribe Name

7. Unit Agreement Name

San Juan 28-5 Unit
8. Well Name & Number
San Juan 28-5 U #94
9. API Well No.
30-039-20971
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 CON. DIV.
DIST. 3

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

Signed *Regan Brannick* (SCWPUD) Title Regulatory Administrator Date 3/19/97

(This space for Federal or State Office use)

APPROVED BY _____ Title _____

Date MAR 26 1997

CONDITION OF APPROVAL, if any:

②

NMOC

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Branca 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-10

Revised February 21, 1997

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-20971	Pool Code 72319/71599	Pool Name Blanco Mesaverde/Basin Dakota
Property Code 7460	Property Name San Juan 28-5 Unit	Well Number 94
GRID No. 14538	Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	Elevation 7009'

10 Surface Location

UL or lot no. P	Section 25	Township 28-N	Range 5-W	Lot Ida	Feet from the 1190	North/South line South	Feet from the 1480	East/West line East	County R.A.
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11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
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12 Dedicated Acres
MV-S/344.48

13 Joint or Infill
DK 316-70

14 Consolidation Code

15 Order No.

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

Not resurveyed prepared
from a plat by Fred B.
Kerr Jr. dated 2-28-74.

RECEIVED
MAR 31 1997

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 Bradfield
Signature

Peggy Bradfield
Printed Name

Regulatory Administrator
Title

3-19-97
Date

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 me 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

NEALE C. EDWARDS
NEW MEXICO
6857
PROFESSIONAL SURVEYOR
Certificate Number

Burlington Resources - Mesaverde Initial Completion
Lat-Long: 36° 37' 41"- 107° 18' 17"

General Well Data:

Well Name: San Juan 28-5 Unit #94
Location: Unit P, Section 26, T28N, R05W, 1190' FSL, 1480' 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 60 MCFD. Anticipated initial Mesaverde production 358 MCFD.

Equipment and Material Requirements:

Deliver the following equipment to location:

1. 8550' 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	60	bbls
4. Fluid Volume 2% KCL	4863	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 8357' of 1-1/2", 2.9#, 10rnd tubing. Rabbit and strap tubing. Inspect and replace any bad joints.
4. PU 3-7/8 bit and 4-1/2" csg scraper on 2-3/8" tubing. TIH. Cleanout with gas to PBTD of 8416'. POOH.
5. MIRU wireline unit. PU 4-1/2" CIBP and RIH. Under a lubricator, wireline set CIBP at 6500'. POOH. RD wireline.
6. Load hole with 2% KCL. Pressure test casing and CIBP to 1000 psi for 15 min.
7. NU wireline. RIH with CBL/CCL/GR log. Under 1000 psi, log from 6500' to 200' above TOC. Cement bond required from 6500' to 5575'. POOH. RD wireline.
8. 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 3800 psi for 15 min. Record results. Unseat packer and TOOH.

Point Lookout Fracture Stimulation (1st Stage):

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

6088,	6099,	6110,	6114,	6126,	6135,	6145,	6149,	6160,	6171,
6178,	6208,	6214,	6246,	6256,	6258,	6308,	6310,	6349,	6365,
6367,	6389,	6391							

(18 total intervals, 23 total holes, 303' 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 4800 psi. Prepare to breakdown perforations. Pump into perforations to establish injection rate at maximum pressure of 3800 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 5 bbls 15% HCL across perforations. 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 46, 7/8" 1.3 SG RCN ball sealers spaced evenly throughout job. Maximum pressure at balloff is 3800 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 4800 psi. Maximum surface treating pressure during frac is 3800 psi. Fracture stimulate Point Lookout interval per attached schedule at 50 BPM, with 100,000 #'s of 20/40 Arizona sand and 2436 bbls of slickwater. Quick flush at 2 ppg with 2% KCL. Flush with 95 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 @ 6023'. 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 3800 psi for 15 min. Record results. Unseat packer and TOOH.

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:

5625,	5645,	5679,	5702,	5717,	5727,	5738,	5745,	5754,	5760,
5771,	5792,	5824,	5840,	5848,	5852,	5866,	5913,	5921,	5931,
5936,	5942,	5947,	5951,	6004					

(25 total Intervals, 25 total holes, 379' 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 4800 psi. Prepare to breakdown perforations. Pump into perforations to establish injection rate at maximum pressure of 3800 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 5 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 50, 7/8" 1.3 SG RCN ball sealers spaced evenly throughout job. Maximum pressure at balloff is 3800 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 4800 psi. Maximum surface treating pressure during frac is 3800 psi. Fracture stimulate Cliff House / Menefee interval per attached schedule at 50 BPM, with 100,000 #'s of 20/40 Arizona sand and 2427 bbls of slickwater. Quick flush at 2 ppg with 2% KCL. Flush with 86 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 6023'. Obtain pitot gauge. Drill out CIBP at 6023'. Clean out to CIBP set at 6500'. 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 6500'. Clean out to PBTD of 8416'. 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 +/- 8367. 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 1/24/97
S. C. Woolverton
Production Engineer

Approval:

WSS 2/13/97
Regional Engineer

PJB 3/10
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

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PERTINENT DATA SHEET
SAN JUAN 28-5 UNIT #94

<u>Location:</u>	1190' FSL, 1480' FEL Unit P, Section 25, T28N, R5W Rio Arriba County, New Mexico	<u>Elevation:</u>	7009' GR
<u>Field:</u>	Blanco Mesaverde/Basin Dakota	<u>LAT:</u>	36° 37' 41"
<u>TD:</u>	8424'	<u>LONG:</u>	107° 18' 17"
<u>PBTD:</u>	8416'	<u>DP#:</u>	44066A - DK 36357A - MV
<u>Spud Date:</u>	09-05-77	<u>GWI:</u>	69.61% (DK)
<u>Completion Date:</u>	11-22-77	<u>NRI:</u>	58.90% (DK)
		<u>GWI:</u>	73.17% (MV)
		<u>NRI:</u>	62.36% (MV)

<u>Casing Record:</u>		<u>Weight & Grade</u>	<u>Depth Set</u>	<u>Sxs Cmt</u>	<u>Cement Top</u>
<u>Hole Size</u>	<u>Casing Size</u>				
12-1/4"	9-5/8"	32.3#, H-40	232'	190 (224 ft3)	surface
8-3/4"	7"	20#, K-55	3985'		
		23#, K-55	3985-4243'	120 (214 ft3)	3200' (TS)
6-1/4"	4-1/2"	10.5#, K-55	6530'		
		11.6#, N-80	6530-8424'	350 (643 ft3)	3750' (TS)
		Float collar @ 8416'			

<u>Tubing Record:</u>		<u>Weight & Grade</u>	<u>Depth Set</u>	<u>BHA</u>
<u>Tubing Size</u>				
1-1/2"		2.9#, J-55	8367'	SN @ 8333'

<u>Formation Tops:</u>					
Mesaverde	5712'	Gallup	7094'	Graneros	8132'
Pt. Lookout	6086'	Greenhorn	8063'	Dakota	8245'

Logging Record:
IL-GR / CDL-GR / AID / Temp Survey

Stimulation:
Dakota: Treated w/66,000# 40/60 sand & 68,040 gal treated water
Perf'd: 8185', 8189', 8251', 8271', 8279', 8333', 8340', 8356', 8368', 8374', w/1 SPZ

Workover History:
NONE

<u>Production History:</u>		
Latest Deliverability	61 MCFD	
Initial Deliverability	354 MCFD	ISIP: 2313 (csg)
Cums:	330 MMCF	

Transporter:
Oil/Condensate: Gas: Williams

San Juan 28-5 Unit #94

Blanco Mesaverde/Basin Dakota

Unit P, Section 25, T28N, R5W

Rio Arriba County, NM

Elevation: 7009' GR

LAT: 36° 37' 41" / LONG: 107° 18' 17"

date spud: 09-05-77

