

submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
BLM

Sundry Notices and Reports on Wells

9 FEB 25 PM 1:29

1. Type of Well
GAS

070 FARMINGTON, NM

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

1650' FNL, 1754' FEL, Sec. 16, T-27-N, R-4-W, NMPM

6

5. Lease Number
SF-080674

6. If Indian, All. or
Tribe Name

7. Unit Agreement Name

San Juan 27-4 Unit

8. Well Name & Number

San Juan 27-4 U #71

9. API Well No.

30-039-20724

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 - abandon Dakota

13. Describe Proposed or Completed Operations

It is intended to recompleate the subject well in the Mesaverde formation according to the attached procedure and wellbore diagram. The Dakota formation will be plugged and abandoned.

RECEIVED
MAR 24 1997

OIL CON. DIV.
DIST. 3

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

Signed [Signature] (SCWPUD) Title Regulatory Administrator Date 2/25/97

(This space for Federal or State Office use)

APPROVED BY [Signature] Title _____

Date MAR 20 1997

CONDITION OF APPROVAL, if any:

2

NMOCD

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer 00, 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
Revised February 21
Instructions c
Submit to Appropriate District
State Lease - 4
Fee Lease - 3

☐ AMENDED RE

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 0-039-20724	Pool Code 72319/71599	Pool Name Blanco Mesaverde/Basin Dakota
Property Code 7452	Property Name San Juan 27-4 Unit	Well Number 71
OGRID No. 14538	Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	Elevation 7195'

¹⁰ Surface Location

UL or lot no. G	Section 16	Township 27-N	Range 4-W	Lot Idn	Feet from the 1650	North/South line North	Feet from the 1754	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 Idn	Feet from the	North/South line	Feet from the	East/West line	County
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¹² Dedicated Acres MV-E/320 DK-E/320	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

16 Not resurveyed, prepared from a plat by David O. Vilven dated 6-28-68. RECEIVED MAR 24 1997 OIL CON. DIV. DIST. 3	1650' 16	1754'	17 OPERATOR CERTIFICATION I hereby certify that the information contained hereon is true and complete to the best of my knowledge and belief. Signature Peggy Bradfield Printed Name Regulatory Administrator Title 2-25-97 Date
			18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made or under my supervision, and that the same is true and correct to the best of my belief. 2/21/97 Date of Survey Signature and Seal of Professional Surveyor: NEALE C. EDWARDS NEW MEXICO 6857 Certificate Number

Burlington Resources - Mesaverde Initial Completion

Lat-Long: 36° 34' 33"- 107° 15' 8"

General Well Data:

Well Name: San Juan 27-4 Unit #71
Location: Unit G, Section 16, T27N, R04W, 1650' FNL, 1754' FEL
County, State: Rio Arriba County, New Mexico
Field: Blanco Mesaverde / Basin Dakota
Formation: Mesaverde / Dakota

Project Objective:

Recomplete Mesaverde PUD in existing Dakota wellbore. The Dakota will be permanently abandoned. Current Dakota production is 0 MCFD. Anticipated initial Mesaverde production 703 MCFD.

Equipment and Material Requirements:

Deliver the following equipment to location:

1. 8700' of 2-3/8" 4.7# J-55 tubing
2. Ten (10) - 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	25# Borate Gel		
2. Stages	Two		
3. Acid Volume	65		bbls
4. Fluid Volume 2% KCL	2,797		bbls
5. Sand Type	Arizona		
6. Sand Size	20/40	40/70	
7. Sand Volume	180,000	20,000	#'s

Run fluid tests on water. Filter water based on Stimulation company solids water analysis. Contact Production Engineering and discuss stimulation water source and quality. 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.

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 down tubing if necessary. ND wellhead. Replace any failed valves or seals on wellhead. NU BOP's and stripping head.
3. TOOH with 502' of 1-1/2", 2.9#, 10rnd tubing. Send to town for salvage.

4. **Plug #1 (Dakota, 8212' - 8524')**: PU 4-1/2" cement retainer on 2-3/8" tubing. TIH and set retainer at 8262'. Pressure test tubing to 1000 psi; replace all bad joints as necessary. Load 4-1/2" casing with water down backside. Pressure test casing (annulus) to 1000 psi. Mix 46 sxs of class B cement. Squeeze Dakota perforations below retainer with 40 sxs of cement (100% excess). Sting out of retainer and spot 6 sxs of cement above retainer (50% excess).
5. **Plug #2 (Gallup, 7217' - 7317')**: TOO H to 7317'. Mix 12 sxs of class B cement and spot 100' cement plug (50% excess) across Gallup from 7217' to 7317'. Reverse circulate tubing clean. Load hole bottoms up. TOO H to 6750'.
6. **Plug #3 (PBTD, 6750'-6650')**: Mix 8 sxs of class B cement and spot 100' cement plug for PBTD from 6750' to 6650'. Reverse circulate tubing clean. Load hole bottoms up. TOO H.
7. Pressure test casing to 1000 psi with rig pump for 15 minutes.
8. MIRU wireline. RIH with CBL/CCL/GR log. Under 1000 psi, log from 6600' to 200' above TOC. Cement bond required from 6550' to 5730'. POOH. RD wireline.
9. 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 acid truck company. Pressure test casing to 3000 psi for 15 min (63% of burst). Unseat packer and TOO H. Contact engineering with results. If casing held pressure notify stimulation company that well is ready to be frac'd.

Point Lookout Fracture Stimulation (1st Stage):

10. XO to 2-3/8" pipe rams and slips. PU 2-3/8" tubing and TIH. Spot 5 bbls of 15% HCL (Add 2/1000 gallons corrosion inhibitor to acid) from 6500' to 6175'. TOO H.
11. NU wireline company. Under a lubricator, RIH with 3-1/8" HSC casing gun. Select fire perforate Point Lookout **Top Down** with 1 SPF, 0.29" diameter, 18" penetration, 12 gram charges (Owen, 306T) at the following depths:

6263,	6273,	6281,	6287,	6298,	6316,	6323,	6332,	6353,	6359,
6366,	6376,	6389,	6391,	6396,	6398,	6411,	6418,	6420,	6425,
6447,	6449,	6471,	6484,	6486					

(17 total Intervals, 25 total holes, 223' of gross interval)

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

12. 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'. NU stimulation company. Pressure test surface lines to 4000 psi. Prepare to breakdown perforations. Pump into perforations to establish injection rate at maximum pressure of 3000 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.
13. 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 3000 psi. ND stimulation company. Unseat packer and TOO H.
14. 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.

15. PU 4-1/2" packer and reset @ 60'. NU stimulation company. Hold safety meeting. Pressure test surface lines to 4000 psi. Maximum surface treating pressure during frac is 3000 psi. Fracture stimulate Point Lookout interval per attached schedule at 40 BPM, with 10,000 #'s 40/70 sand and 90,000 #'s of 20/40 Arizona sand and 1403 bbls of 25# borate gel (Delta Frac). Quick flush at 4 ppg with 2% KCL. Flush with 97 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.
16. NU wireline company. Under and lubricator RIH with 4-1/2" CIBP and set @ 6228'. 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 3000 psi for 15 min. Record results. Unseat packer and TOOH.

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

17. XO to 2-3/8" pipe rams and slips. PU 2-3/8" tubing and TIH. Spot 8 bbls of 15% HCL (Add 2/1000 gallons corrosion inhibitor to acid.) from 6225' to 5725'. TOOH.
18. NU wireline company. Under a full lubricator, RIH with 3-1/8" HSC casing gun. Select fire perforate the Menefee and Cliff House **Top Down** with 1 SPF, 0.29" diameter, 18" penetration, 12 gram charges (Owen, 306T) at the following depths:

5780,	5835,	5864,	5882,	5890,	5897,	5910,	5954,	5962,	5977,
5982,	5987,	5990,	6033,	6130,	6135,	6167,	6169,	6184,	6188,
6191,	6202,	6205							

(17 total Intervals, 23 total holes, 425' of gross interval)

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

19. 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'. NU stimulation company. Pressure test surface lines to 4000 psi. Prepare to breakdown perforations. Pump into perforations to establish injection rate at maximum pressure of 3000 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.
20. Begin balloff. Pump 25 bbls of 15% HCL (Add 2/1000 gallons corrosion inhibitor and 1/1000 gallons surfactant 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 3000 psi. ND stimulation company. Unseat packer and TOOH.
21. 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.
22. PU 4-1/2" packer and reset @ 60'. NU stimulation company. Hold safety meeting. Pressure test surface lines to 4000 psi. Maximum surface treating pressure during frac is 3000 psi. Fracture stimulate Cliff House / Menefee interval per attached schedule at 40 BPM, with 10,000 #'s of 40/70 sand and 90,000 #'s of 20/40 Arizona sand and 1394 bbls of 25# borate gel (Delta Frac). Quick flush at 4 ppg with 2% KCL. Flush with 88 bbls of 2% KCL to 500' 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.
23. PU 3-7/8" bit and six drill collars on 2-3/8" tubing. Clean out to CIBP set and 6228'. Obtain **15 min** pitot gauge, zone does not have to totally cleaned up. Drill out CIBP at 6228'. Clean out to PBTD of 6600'. Cemet plug set at 6650'. 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. TOOH. Lay down bit and drill collars.

24. TIH with one joint of 2-3/8", 4.7# J-55 tubing with expendable check, a seat-nipple, and the remaining 2-3/8" tubing. Land tubing at +/- 6490. Broach tubing while running in hole to seat-nipple with sandline. POOH
25. 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 2/10/97
S. C. Woolverton
Production Engineer

Approval:

[Signature] 2/10/97
Regional Engineer

[Signature] 2/10/97
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
Halliburton

PHONE NUMBER

325-3575

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PERTINENT DATA SHEET
SAN JUAN 27-4 UNIT #71

Location:	1650' FNL, 1754' FEL Unit G, Section 16, T27N, R4W Rio Arriba County, New Mexico	Elevation:	7195' GL
Field:	Blanco Mesaverde/Basin Dakota	LAT:	36° 34' 33"
TD:	8532'	LONG:	107° 15' 8"
PBTD:	8524'	DP#:	44034A - DK 35618A - MV
Spud Date:	08-04-73	GWI:	83.02% (DK)
Completion Date:	10-11-73	NRI:	68.56% (DK)
		GWI:	84.66% (MV)
		NRI:	70.04% (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>
13-3/4"	9-5/8"	32.3#, H-40	228'	190 (225 ft3)	surface
8-3/4"	7"	20#, KS (135 jts)	0-3952'	147 (307 ft3)	3360' (TS)
		23 #, KS (13 jts)	3952-4371'		
6-1/4"	4-1/2"	10.5#, KS (212 jts)	0-6445'		
		11.6#, N-80 (17 jts)	6445-7975'		
		11.6#, KS (49 jts)	7975-8532'	354 (651 ft3)	3950' (TS)
		Float collar @ 8524'			

Tubing Record:

<u>Tubing Size</u>	<u>Weight & Grade</u>	<u>Depth Set</u>	<u>BHA</u>
1-1/2"	2.9#, J-55	502'	SN @ 468'

Formation Tops:

Mesaverde	5768'	Gallup	7267'	Graneros	8258'
Pt. Lookout	6253'	Greenhorn	8198'	Dakota	8382'

Logging Record:

FDC-GR / IGR / Temp Survey

Stimulation:

05/1996: Treated DK w/1033 bbl 40# X-Link gel, 58,000# 20/40 super DC sand / Perf'd @ 8460', 8462', 8464', 8466', 8468', 8484', 8488', 8490', 8492', 8494', 8496', 8498', w/2 JSPF

09/1973: Treated DK w/60,000# sand & 64,000 gal water / Perf'd @ 8312', 8394', 8422', 8424', 8468', 8500', 8502', w/1 SPZ

Workover History:

05-16-96: Pay add. See stimulation above. 1-1/2", 2.9# J-55 tbg set @ 502'

11-01-75: Pulled 1-1/2" tbg, ran 4-1/2" retainer, & set retainer @ 8446' KB. Ran in 1-1/2" tbg & landed @ 8401' KB.

12-18-74: Pulled 1-1/2" tbg & ran 4-1/2" bridge plug. Set @ 8482' KB. Ran 257 jts 1-1/2", 2.9#, K-55 EUE tbg & landed @ 8434' KB.

Production History:

Latest Deliverability	0 MCFD	0 BOPD
Initial Deliverability	287 MCFD	ISIP: 2572 (csg) 1134 (tbg)
Cums:	191 MMCF	1.1 MBO

Transporter:

Oil/Condensate: Giant Gas: El Paso

San Juan 27-4 Unit #71
 Blanco Mesaverde/Basin Dakota
 Unit G, Section 16, T27N, R4W
 Rio Arriba County, NM
 Elevation: 7195' GL
 LAT: 36° 34' 33" / LONG: 107° 15' 8"
 date spud: 08-04-73

