

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division

Sundry Notices and Reports on Wells

1. Type of Well GAS	API # (assigned by OCD) 30-039-20669
2. Name of Operator BURLINGTON RESOURCES OIL & GAS COMPANY	5. Lease Number Fee
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	6. State Oil&Gas Lease #
4. Location of Well, Footage, Sec., T, R, M 1180' FSL, 1500' FWL, Sec. 13, T-27-N, R-6-W, NMPM, Rio Arriba County	7. Lease Name/Unit Name San Juan 28-6 Unit
	8. Well No. 179
	9. Pool Name or Wildcat WC:Cereza Canyon Gallup Basin Dakota
	10. Elevation:

Type of Submission	Type of Action
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment <input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input checked="" type="checkbox"/> Recompletion <input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back <input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair <input type="checkbox"/> Water Shut off
	<input type="checkbox"/> Altering Casing <input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other -

13. Describe Proposed or Completed Operations

It is intended to add the Gallup formation to the subject well according to the attached procedure and wellbore diagram. A cast iron bridge plug will be set for approximately 90 days for testing purposes. The well will then be down-hole commingled. A down-hole commingle order will be applied for.

RECEIVED
DEC - 3 1997
OIL CON. DIV.
DIST. 3

SIGNATURE *Ray B. Smith* (RGOpps) Regulatory Administrator December 1, 1997

(This space for State Use)

Approved by *Ernie Burch* Title DEPUTY OIL & GAS INSPECTOR, DIST. #3 Date DEC - 3 1997

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 C-102
Revised February 21, 1994
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 30-039-20669		*Pool Code 96766/71599	*Pool Name WC:Cereza Canyon Gallup/Basin Dakota
*Property Code 7462	*Property Name SAN JUAN 28-6 UNIT		*Well Number 179
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		*Elevation 6419'

¹⁰ Surface Location

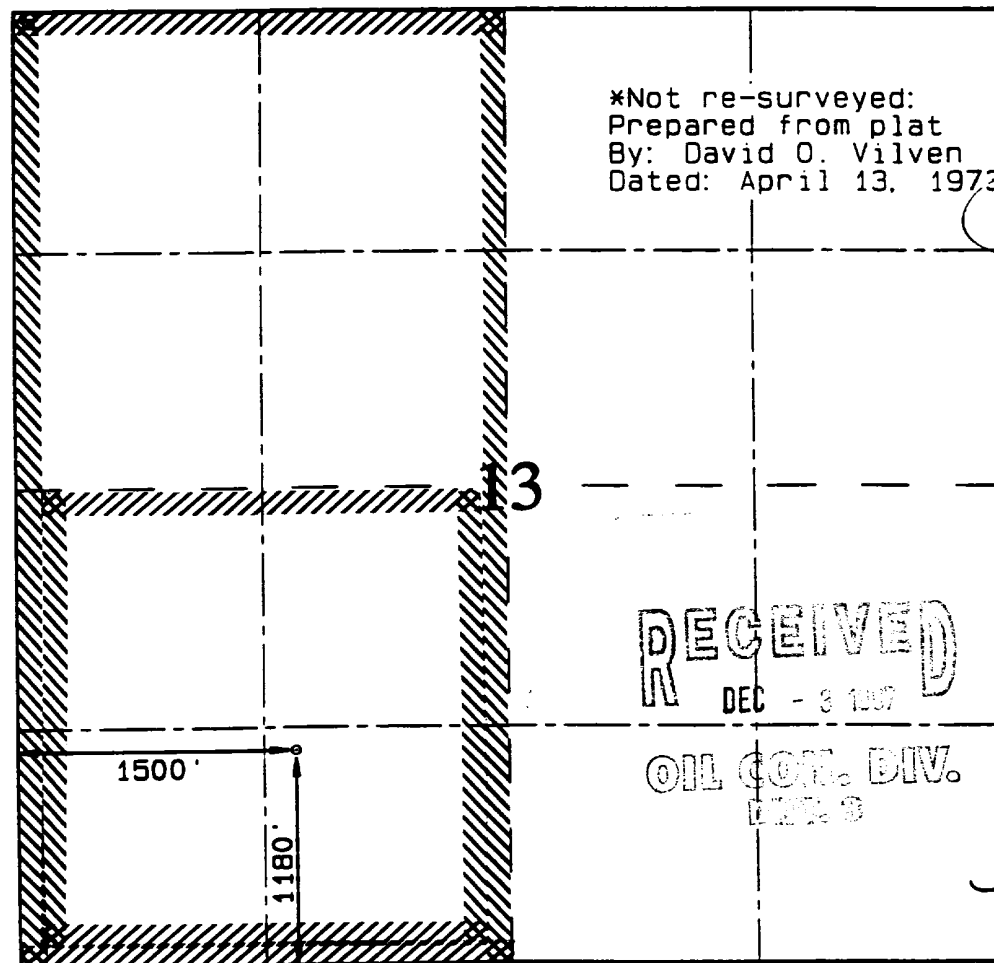
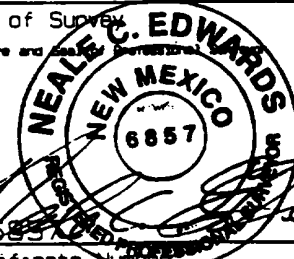
UL or lot no. N	Section 13	Township 27N	Range 6W	Lot Idn	Feet from the 1180	North/South line South	Feet from the 1500	East/West line West	County RIO ARriba
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¹¹ Bottom Hole Location If Different From Surface

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 Gal - 160 DK - W/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

	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Peggy Bradford</i> Signature Peggy Bradford Printed Name Regulatory Administrator Title 12-2-97 Date</p> <p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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.</p> <p>NOVEMBER 20, 1997 Date of Survey <i>Neale C. Edwards</i> Signature and Seal  Certificate Number</p>
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San Juan 28-6 Unit #179
Burlington Resources Oil & Gas
~~Niobrara Pay~~ **GALLUP RECOMPLETION**
Unit N-SEC13-T27N-R06W
Lat: 36° 34' 14"
Long: 107° 25' 19"

-
- Comply with all BLM, NMOCD, & BR rules & regulations.
 - **Always Hold Safety Meetings.** Place fire and safety equipment in strategic locations.
 - Spot and fill 4 frac tanks with 2% KCl water.
 - Use drill gas for all operations.
 - **(2) 4-1/2" CIBP** required for 4-1/2" 11.6# K-55 pipe.
 - (1) 4-1/2" Model 'EA' Retrieval Packer
 - 7750' 2-3/8" 4.7# 8rd EUE workstring
 - 2 joints (+/- 60') 2-7/8" 6.4# N-80 BTC tubing
-

*The well is currently completed in the Basin Dakota (61 MCFD). Cumulative production is 1344 MMCF from the Dakota. Gallup/~~Niobrara pay~~ will be ~~added~~ **recompleted** and stimulated in two stages with a 70 Quality foam and 30# linear gel frac. The frac will be done in two days, allowing time for proper flowback of each stage. Foam is being used to keep damaging fluids off the formation and assist in flowback. Controlled flowback will be used to insure proppant placement in the frac.*

NOTE: Dakota perms open 7354' - 7564'

1. MIRU. Record and report SI pressures on tubing, casing, and bradenhead. Blow down casing and tubing. Kill well w/ 2% KCl. ND WH, NU BOP.
2. TOOH with 1-1/2" 2.9# J-55 tubing from 7550' (233 joints) and LD. Rabbit and strap tubing. Visually inspect tubing, note any scale. Replace any bad tubing.
3. RU wireline unit. Run gauge ring to 7050'. Wireline set 4-1/2" CIBP at 7030' to isolate the Dakota. POOH.
4. PU 4-1/2" retrievable packer with 2 joints of 2-7/8" BTC tubing. Set packer at 60'
5. Pressure test 4-1/2" casing to 3800 psi for 10 minutes. If casing fails, TIH with 4-1/2" packer and hunt hole(s). Engineering will provide squeeze design if required. TOOH.

First Stage:

6. Spot 350 gallons 15% Acetic acid (w/ 2 gal/1000 corrosion inhibitor) at 6980'. TOOH, standing 2-3/8" back. (If separate trip is required, skip spotting acid.)
7. RU wireline under packoff. Perforate first stage (top-down if in acid) at the following depths with a 3-1/8" HSC gun w/ Owen 3125306P 12g charges (0.29" hole, 12" penetration), 1 SPF @ 180 degree phasing.

6775', 6780', 6785', 6790', 6795', 6800', 6805', 6815', 6820', 6825', 6830', 6835', 6840',
6845', 6850', 6855', 6875', 6880', 6885', 6890', 6895', 6900', 6905', 6910', 6915', 6920',
6925', 6945', 6950', 6955', 6960', 6965', 6970', 6975', 6980'
(35 total holes, 205' gross interval)

8. Set packer at 60'. RU stimulation company. Pressure test surface lines to 4800 psi. **Max surface pressure = 3800 psi.** Break down first stage w/ 1000 gallons 15% **Acetic acid** (w/ 2 gal/1000 corrosion inhibitor) and 62 7/8" 1.3 s.g. ball sealers. Release pressure, RD stimulation company. TOOH. RU wireline unit. Run junk basket and recover balls. Record number of hits. RD wireline unit.
9. RU flowback equipment so that flowback can commence within 30 min. after shutdown
10. Set packer at 60'. RU stimulation company. Pressure test surface lines to 4800 psi. **Max surface pressure = 3800 psi.** Fracture stimulate the first stage w/ 150,000# 20/40 Arizona sand in 50,661 gal 70 Quality foam with 30# Linear gel. See attached frac schedule for details. (1 *frac tank needed for stimulation and 1 needed for balloff / breakdown*)

<u>Stage</u>	<u>Foam Volume (gals)</u>	<u>Gel Volume (gals)</u>	<u>Sand Volume (lbs)</u>
Pad	6,000	1,800	0
2.0 ppg	5,000	1,500	10,000
3.0 ppg	10,000	3,000	30,000
4.0 ppg	15,000	4,500	60,000
5.0 ppg	10,000	3,000	50,000
Flush	4,661	1,398	0
Totals	50,661	15,198	150,000

11. Treat frac fluid with the following additives per 1000 gallons:
- * 6.75 gal (Guar Slurried Gel)
 - * 5.0 gal F-52.1 (Foamer mix on the fly)
 - * 1.0# (Enzyme Breaker mix on the fly)
 - * 1.0# (Oxidator Breaker mix on the fly)
 - * 2.0 gal L55 (Clay Control)
 - * 0.38# (Bacteriacide mix on the fly)
12. Shut well in after frac and record ISIP. RD stimulation company. Install flowback line above frac valve. Wait for 30 min before commencing flowback. Open well to pit, starting with a 10/64" choke. If minimal sand is being produced, change to a larger choke size (16/64"). If choke plugs off, shut well in and remove obstruction from choke and return to flowback. Continue increasing choke size and cleaning well up until fluid returns are negligible. Take pitot gauges when possible.

Second Day

13. RD flowback equipment. TOOH.
14. RU wireline unit. Wireline set 4-1/2" CIBP at 6770' to isolate the first stage from the second. POOH. RD wireline unit.
15. Set packer at 60'. RU stimulation company. Pressure test CIBP to 3800 psi. RD stimulation company. TOOH.

Second Stage:

16. RU wireline under packoff. Perforate second stage at the following depths with a 3-1/8" HSC gun w/ Owen 3125306P 12g charges (0.29" hole, 12" penetration), 1 SPF @ 180 degree phasing.

6545', 6550', 6555', 6560', 6565', 6570', 6575', 6580', 6585', 6590', 6615', 6620', 6625',
 6630', 6635', 6640', 6645', 6650', 6655', 6660', 6675', 6680', 6685', 6690', 6695', 6700',
 6705', 6710', 6715', 6720', 6725', 6730'
 (32 total holes, 185' gross interval)

17. Set packer at 60'. RU stimulation company. Pressure test surface lines to 4800 psi. **Max surface pressure = 3800 psi.** Break down second stage w/ 1000 gallons 15% **Acetic acid** (w/ 2 gal/1000 corrosion inhibitor) and 64 7/8" 1.3 s.g. ball sealers. Release pressure, RD stimulation company. TOOH. RU wireline unit. Run junk basket and recover balls. Record number of hits. RD wireline unit.

18. RU flowback equipment so that flowback can commence within 30 min. after shutdown

19. Set packer at 60'. RU stimulation company. Pressure test surface lines to 4800 psi. **Max surface pressure = 3800 psi.** Fracture stimulate the first stage w/ 155,000# 20/40 Arizona sand in 50,494 gal 70 Quality foam with 30# Linear gel. See attached frac schedule for details. (1 frac tank needed for stimulation and 1 tank needed for balloff / breakdown)

<u>Stage</u>	<u>Foam Volume (gals)</u>	<u>Gel Volume (gals)</u>	<u>Sand Volume (lbs)</u>
Pad	6,000	1,800	0
2.0 ppg	5,000	1,500	10,000
3.0 ppg	10,000	3,000	30,000
4.0 ppg	10,000	3,000	40,000
5.0 ppg	15,000	4,500	75,000
Flush	4,494	1,348	0
Totals	50,494	15,148	155,000

Treat frac fluid with the following additives per 1000 gallons:

- * 6.75 gal (Guar Slurried Gel)
- * 5.0 gal F-52.1 (Foamer mix on the fly)
- * 1.0# (Enzyme Breaker mix on the fly)
- * 1.0# (Oxidator Breaker mix on the fly)
- * 2.0 gal L55 (Clay Control)
- * 0.38# (Bacteriacide mix on the fly)

20. Shut well in after frac and record ISIP. RD stimulation company. Install flowback line above frac valve. Wait for 30 min before commencing flowback. Open well to pit, starting with a 10/64" choke. If minimal sand is being produced, change to a larger choke size (16/64"). If choke plugs off, shut well in and remove obstruction from choke and return to flowback. Continue increasing choke size and cleaning well up until fluid returns are negligible. Take pitot gauges when possible.

21. RD flowback equipment. TOOH.

22. TIH w/ 3-7/8" bit on 2-3/8" tubing and clean out to CIBP at 6770'. Pull up above perfs, obtain pitot gauge. Drill up CIBP, clean out to 7030'. Clean up to minimal water and trace to no sand. Obtain pitot gauge for Gallup.

23. ~~Drill up CIBP @ 7030', clean out to PSTD @ 7596'. Clean up to minimal water and trace to no sand. Obtain pitot gauge. TOOH, laying down workstring.~~ CIBP WILL REMAIN FOR 3 MONTHS FOR PRODUCTION TEST

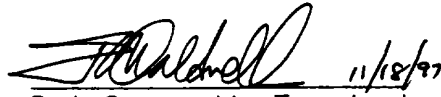
24. Prepare to run production tubing string as follows: expendable check, one joint 1-1/2" tubing, 1.78" seating nipple, and remaining tubing. Land tubing @ 7550'. 6930'

25. ND BOP, NU WH. Pump off expendable check and flow well up tubing to ensure check pumped off. Gauge well. RD & release rig to next location.


Recommended:


Production Engineer 11-7-97

Concur:


Basin Opportunities Team Leader 11/18/97

Approved:


Drilling Superintendent

Vendors:

Wireline	Basin	327-5244
Stimulation	Dowell	325-5096

Production Engineer: **Bobby Goodwin**
326-9713-work
564-7096-pager
599-0992-home

Pertinent Data Sheet - San Juan 28-6 Unit # 179

N 13 T27N R06W

Location: 1180' FNL & 1500' FWL, Unit N, Section 13, T27N, R06W, Rio Arriba County, New Mexico

Field: Basin Dakota

Elevation: 6419' GL
6431' KB

TD: 7605'

PBTD: 7596'

Spud Date: 7/1/73

Dakota
~~Nebraska~~
Gallup

Lease#: SF-079363

DP #: 44085A

GWl: 56.65% **NRI:** 46.14%

GWl: 93.40% **NRI:** 72.36%

Prop#: 007970300

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
12-1/4"	9-5/8"	32.3# H-40	218'	190 sx	Circ 12 BBL Cmt
8-3/4"	7"	20.0# K-55	3442'	114 sx	2250'
6-1/4"	4-1/2"	10.5# K-55	6469'	Total of	
6-1/4"	4-1/2"	11.6# K-55	7605'	349 sx	3060'

Float Collar at 7596'

Tubing Record:

1-1/2"	2.9# K-55	7550'	233 Jts
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Formation Tops:

Ojo Alamo:	2421'	Point Lookout	5311'
Kirtland Shale:	2641'	Mancos	5466'
Fruitland:	2971'	Gallup	6296'
Pictured Cliffs:	3156'	Greenhorn	7256'
Lewis	3236'	Graneros	7314'
Mesaverde	4791'	Dakota	7469'

Logging Record: Induction Log, Density-Nuetron Log, Temperature Survey

Stimulation: Perfed Dakota w/1 spf @ 7354', 7428', 7464', 7466', 7500', 7526', 7528', 7564'. Total 8 holes. Fraced w/72,000# 40/60 sand in 91,080 gal slickwater.

Workover History: None

Production History: Dakota in this well has an EUR of 1.577 BCF with remaining reserves of 233MMCF. The well is producing at 61 MCFD.

Pipeline: El Paso Natural Gas - Gas
Giant - Oil/ Condensate

San Juan 28-6 Unit #179

Basin Dakota/~~Niobrara Payadd~~ GALLUP

Unit N, Section 13, T27N, R06W

Rio Arriba County, NM

Elevation: +6419' GL

LAT: 36 34' 13"

LONG: 107 25' 19"

date spud: 07-01-73

RECOMPLETION

