

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

800' FSL, 1080' FWL, Sec. 7, T-29-N, R-8-W, NMPM

5. Lease Number
SF-078414-A

6. If Indian, All. or
Tribe Name

7. Unit Agreement Name

8. Well Name & Number
Lively #26

9. API Well No.
30-045-21747

10. Field and Pool
Basin Dakota/
WC:29N8W7N Mancos

11. County and State
San Juan Co, NM

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

Type of Submission

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment

Type of Action

☐ Abandonment

☒ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☐ Other -

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut off

☐ Conversion to Injection

13. Describe Proposed or Completed Operations

It is intended to recompleate the subject well to the Mancos formation and plug and abandon the Dakota formation according to the attached procedure.

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

Signed [Signature] Title Regulatory Supervisor Date 5/8/01
TLW

(This space for Federal or State Office use)

APPROVED BY /s/ Jim Lovato Title _____ Date MAY 29

CONDITION OF APPROVAL, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMCCD

K

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-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 30-045-21747		*Pool Code 71599/	*Pool Name Basin Dakota/WC:29N8W7N Mancos
*Property Code	*Property Name LIVELY		*Well Number 26
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY, LP		*Elevation 6365'

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
N	7	29N	8W		800	SOUTH	1080	WEST	SAN JUAN

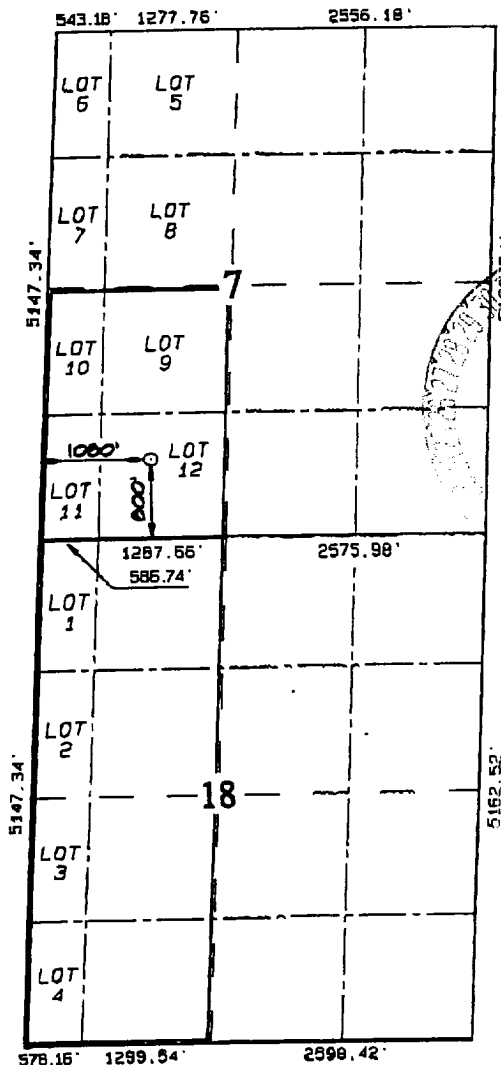
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
*Dedicated Acres DK: 341.88 Mancos: 172.14					*Joint or Infill		*Consolidation Code		*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

PLAT NOTE:

Not resurveyed - prepared
from a plat by E. V. EDWARDS
dated February 6, 1975



¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Signature Peggy Cole	
Printed Name Regulatory Supervisor	
Title 5-7-01	
Date	
¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from (field notes or actual) surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.	
MAY 6, 2001	
Date of Survey	
Signature and Seal of Surveyor NEALE C. EDWARDS NEW MEXICO 6857	
Certificate Number 6857	

Lively #26
Mancos Shale Re-completion Procedure
800' FSL, 1080' FWL
Unit M, Sec. 7, T-29-N, R-08-W
San Juan County, NM

Project Summary:

The Lively #26 was completed in the Dakota formation by Lively Exploration in 1975. BR acquired operations in 1995. Cumulative production from the Dakota formation is 167 MMCF, with a recent rate of < 10 MCFPD.

Re-completion Procedure:

The following procedure details the proposed operations to abandon the current Dakota formation and recomplete the well in four intervals of Mancos shale.

- Comply with all NMOCD, BLM and BR regulations. Conduct daily safety meetings for all personnel on location. **Notify BR regulatory (Peggy Cole 326-9727)** and the appropriate Regulatory Agency prior to pumping any cement job and after CBL is run. If an unplanned cement job is required, **approval is required before the job can be pumped. If verbal approval is obtained, document the approval in Dims.** Allow adequate notice prior to the pump time for the Agency to witness the cementing operation.
 - Inspect location and wellhead and install rig anchors prior to rig move.
 - Construct blow pit.
1. MOL, hold safety meeting and RU completion rig. Insure all safety equipment is strategically located and functioning properly. NU relief lines to blow pit. Set frac tanks and fill with 2% KCl water. Blow well down and kill with 2% KCl water as necessary.
 2. ND wellhead. NU BOP, stripper head and blooie line. Test BOP.
 3. TOOH w/ 229 joints of 1-1/4", 2.4#, J-55 tbg set at 7420' and stand back. Inspect tubing and replace as necessary for production string following workover operations.
 4. PU CIBP for 4-1/2" casing (4-1/2", 11.6# csg drift – 3.875") on 2-3/8", 4.7#, J-55 work string. TIH and set CIBP at 7300' (Top Dakota Perf at 7317'). Spot 8 sx Class "B" cement on top of CIBP (8 sx = 9.44 cf = ±100' capacity in 4-1/2" casing). TOOH.
 5. PU 3-3/4" casing mill on the 2-3/8", 4.7#, J-55 work string. Clean out to new PBTD of ±7200'. Circulate hole clean with 2% KCl.
 6. Pull up to 7041' and spot 5 Bbls of 10% Acetic Acid with 5%NH₄Cl across the proposed Carlile perforation interval (7021' to 7041'). TOOH.
 7. NU wireline company. Run GR-CBL-CCL from 7200' to TOC. Correlate CBL depth to attached GR/Induction log section. Evaluate CBL. Good isolation must exist over the proposed perforation intervals (5916' - 7041' OA) to continue with planned procedure. Should CBL indicate poor bond or isolation, contact Drilling Manager or Production Engineer to discuss modifications to planned perforation depths. ND wireline.
 8. Install MB wellhead isolation tool. Pressure test CIBP and 4-1/2" casing to 4050 psi (~85% of burst for 4-1/2", 10.5#, J-55 casing). Bleed off pressure.

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CARLILE:

9. NU wireline company's perforating guns. Correlate GR-CBL-CCL w/ attached GR/Induction log section. Perforate **Carlile interval from 7021' to 7041'** at 6 spf with 60 degree phasing (total of 120 holes) using an Owens 3-1/8" HSC-3125-301A perf gun; 10.5 gram charge; 0.30" Entry hole; 10.26" penetration in concrete (4-1/2", 11.6# csg drift – 3.875"). RD wireline.
10. TIH open ended with 2-3/8" 4.7# J-55 work string to 6650' and displace 2% KCl with 40# Linear Gel. TOOH.
11. RU stimulation company. Hold safety meeting. Pressure test surface lines to 5050 psi. Fracture stimulate the Carlile interval with 35,000 lbs 20/40 Arizona sand in 42,000 gals of 30# cross-linked gel @ 35 BPM. Tag sand with 3 isotopes. **Maximum surface treating pressure is 4050 psi.** Average surface treating pressure is estimated to be 3195 psi @ 35 BPM. The total friction pressure is estimated to be 1107 psi. Treat per the following schedule:

Stage	Frac Fluid (gals)	Sand Volume (lbs)
Pad	12,000	
0.5 ppg	7,500	3,750
1.0 ppg	10,000	10,000
1.5 ppg	7,500	11,250
2.0 ppg	5,000	10,000
Flush (100' above top perf)	4,622	
Totals	46,622	35,000

Monitor treatment pressures during job. Cut the crosslinker and reduce gel concentration to 25# per 1000 gal if pressures allow. The 30# cross-linked fluid is designed to overcome the initiation of near wellbore multiple fractures (high net pressure) that have been experienced in past stimulation attempts in the Lower portions of the Mancos Shale. However, recent fluid studies have indicated significantly better residual permeability resulting from lower gel loading and linear gel systems. The ideal situation would be to start the frac with the 30# cross-linked fluid and finish with a 25# liner gel.

Displace with 2% KCl. Calculate displacement to spot 5 Bbls of 10% Acetic Acid with 5%NH₄C across next interval. Cut rate throughout flush as pressure allows. Shut down and record ISIP, 5, 10, 15 min shut-in pressures. ND stimulation company. **Wait 1 hour to allow sand to settle.**

12. NU wireline company. Under a lubricator, RIH with **Frac Plug** and set at 6800'. POOH and ND wireline.
13. NU stimulation company test surface lines to 5050 psi. Pressure test **Frac Plug** to 4050 psi (85% of burst for 4-1/2" casing). Note: Pressure may bleed slowly past the frac plug during the pressure test. Notify the Drilling Manager or Production Engineer if the pressure bleeds off more than 500 psi during 15 minutes.
14. ND stimulation company.

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TOCITO:

15. NU wireline company's lubricator to hold pressure on **Frac Plug**. Correlate GR-CBL-CCL w/ attached GR/Induction log section. Perforate the **Tocito interval from 6750' to 6770'** at 6 spf with 60 degree phasing (total of 120 holes) using an Owens 3-1/8" HSC-3125-301A perf gun; 10.5 gram charge; 0.30" Entry hole; 10.26" penetration in concrete (4-1/2", 11.6# csg drift – 3.875"). RD wireline.
16. RU stimulation company. Hold safety meeting. Pressure test surface lines to 5050 psi. Fracture stimulate the Tocito interval with 45,000 lbs 20/40 Arizona sand in 80,000 gals of slick water (containing 1 gal of surfactant per 1000 gal of slick water). Tag sand with 3 isotopes. Treat @ 45 BPM. **Maximum surface treating pressure is 4050 psi.** Average surface treating pressure is estimated to be 2735 psi @ 45 BPM. The total friction pressure is estimated to be 930 psi. Treat per the following schedule:

Stage	Frac Fluid (gals)	Sand Volume (lbs)
Pad	40,000	
0.5 ppg	10,000	5,000
1.0 ppg	15,000	15,000
1.5 ppg	10,000	15,000
2.0 ppg	5,000	10,000
Flush (100' above top perf)	4,441	
Totals	84,441	45,000

Calculate displacement to spot 5 Bbls of 10% Acetic Acid with 5%NH₄C across next interval. Cut rate throughout flush as pressure allows. Shut down and record ISIP, 5, 10, 15 min shut-in pressures. ND stimulation company. **Wait 1 hour to allow sand to settle.**

17. NU wireline company. Under a lubricator, RIH with **Frac Plug** and set at 6550'. POOH and ND wireline.
18. NU stimulation company test surface lines to 5050 psi. Pressure test **Frac Plug** to 4050 psi (85% of burst for 4-1/2" casing). Note: Pressure may bleed slowly past the frac plug during the pressure test. Notify the Drilling Manager or Production Engineer if the pressure bleeds off more than 500 psi during 15 minutes.
19. ND stimulation company.

UPPER GALLUP:

20. NU wireline company's lubricator to hold pressure on **Frac Plug**. Correlate GR-CBL-CCL w/ attached GR/Induction log section. Perforate the **Upper Gallup interval from 6496' to 6516'** at 6 spf with 60 degree phasing (total of 120 holes) using an Owens 3-1/8" HSC-3125-301A perf gun; 10.5 gram charge; 0.30" Entry hole; 10.26" penetration in concrete (4-1/2", 11.6# csg drift – 3.875"). RD wireline.

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21. RU stimulation company. Hold safety meeting. Pressure test surface lines to 5050 psi. Fracture stimulate the Upper Gallup interval with 45,000 lbs 20/40 Arizona sand in 80,000 gals of slick water (containing 1 gal of surfactant per 1000 gal of slick water). Tag sand with 3 isotopes. Treat @ 45 BPM. **Maximum surface treating pressure is 4050 psi.** Average surface treating pressure is estimated to be 2634 psi @ 45 BPM. The total friction pressure is estimated to be 897 psi. Treat per the following schedule:

Stage	Frac Fluid (gals)	Sand Volume (lbs)
Pad	40,000	
0.5 ppg	10,000	5,000
1.0 ppg	15,000	15,000
1.5 ppg	10,000	15,000
2.0 ppg	5,000	10,000
Flush (100' above top perf)	4,271	
Totals	84,271	45,000

Cut rate throughout flush as pressure allows. Shut down and record ISIP, 5, 10, 15 min shut-in pressures. ND Stimulation Company. **Wait 1 hour to allow sand to settle.**

22. NU wireline company. Under a lubricator, RIH with *Frac Plug* and set at 5970'. POOH and ND wireline.
23. NU stimulation company test surface lines to 5050 psi. Pressure test **Frac Plug** to 4050 psi (85% of burst for 4-1/2" casing). Note: Pressure may bleed slowly past the frac plug during the pressure test. Notify the Drilling Manager or Production Engineer if the pressure bleeds off more than 500 psi during 15 minutes.
24. ND stimulation company.

MIDDLE MANCOS:

25. NU wireline company's lubricator to hold pressure on **Frac Plug**. Correlate GR-CBL-CCL w/ attached GR/Induction log section. Perforate the **Middle Mancos interval from 5916' to 5936'** at 6 spf with 60 degree phasing (total of 120 holes) using an Owens 3-1/8" HSC-3125-301A perf gun; 10.5 gram charge; 0.30" Entry hole; 10.26" penetration in concrete (4-1/2", 11.6# csg drift – 3.875"). RD wireline.
26. RU stimulation company. Hold safety meeting. Pressure test surface lines to 5050 psi. Fracture stimulate the Middle Mancos interval with 45,000 lbs 20/40 Arizona sand in 80,000 gals of slick water (containing 1 gal of surfactant per 1000 gal of slick water). Tag sand with 3 isotopes. Treat @ 45 BPM. **Maximum surface treating pressure is 4050 psi.** Average surface treating pressure is estimated to be 2403 psi @ 45 BPM. The total friction pressure is estimated to be 821 psi.

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San Juan County, NM

Treat the Middle Mancos interval per the following schedule.


Stage	Frac Fluid (gals)	Sand Volume (lbs)
Pad	40,000	
0.5 ppg	10,000	5,000
1.0 ppg	15,000	15,000
1.5 ppg	10,000	15,000
2.0 ppg	5,000	10,000
Flush (100' above top perf)	3,884	
Totals	83,884	45,000

Cut rate throughout flush as pressure allows. Shut down and record ISIP, 5, 10, 15 min shut-in pressures. ND stimulation company.

27. Flow back through choke manifold & monitor flow. Flow @ 20 bbl/hr. or less, if sand is observed.
28. When pressure allows, TIH w/ 3-3/4" casing mill on 2-3/8", 4.7#, J-55 work string.
29. Drill out **Frac Plugs @ 5970'; 6550' and 6800'**. Clean out to PBTD @ 7200'. It is not necessary to obtain separate pitot gauges for each of the four intervals. Cleaning out to PBTD without gauges for each of the intervals will allow the bottom intervals to start flowing back and will reduce the time frac fluids are on the formation.
30. Once the well has been cleaned out to PBTD, continue to flow and blow well clean. Record estimated load recovery during flow back and clean up operations.
31. Monitor fluid rates until well is sufficiently clean (<5 BWPH). **Obtain a pitot gauge for the combined Mancos intervals.** TOOH.
32. RU wireline company. Run After Frac Tracer Log (Pro-Technics) and Perf Efficiency Log over each of the four Mancos intervals. RD wireline.
33. TIH with an expendable check valve; 1 jt. of 1-1/4", 2.4#, J-55 production tubing; S.N.; and half of the 1-1/4", 2.4#, J-55 production string. Run a broach on sand line to insure the tubing is clear.
34. TIH with remaining 1-1/4" production string and broach this tubing. Replace any bad joints. CO to PBTD with air/mist. PU above perforations. Alternate blow and flow periods, making short trips for clean up as necessary.
35. Land tubing @ ±7030'. ND BOP & NU wellhead & tree. Pump off check valve. Flow up tubing. **Take final water rates and pitot gauge for gas rates.**

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36. During workover operations the reservoir may be charged with air. As a result of introducing air to the wellbore, excess oxygen levels may be in the reservoir and/or wellbore. Contact the Lease Operator to discuss the need for determining oxygen levels prior to returning the well to production.
37. Rig down & release rig.

Approve: 
Team Leader

Approve:  5-1-01
Drilling Manager

Recommend: 
Production Engineer

Regulatory: Sundry Notice Required
Yes X
No

Vendors:

Stimulation: No Preference
Radioactive Tagging: ProTechnics

 5-1-01

326-7133

Production Engineer:	Randy Buckley	Office 326-9597	Pager 326-8820	Home 599-8136
Lease Operator:	Cliff Gates		Cell 320-2480	Pager 326-8833
Specialist:	Wayne Ritter		Cell 320-0436	Pager 324-7225
Forman:	Hans Dube	Office 326-9818	Cell 320-4925	Pager 949-2664