

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

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
2210' FSL, 1850' FWL, Sec.36, T-30-N, R-8-W, NMPM, San Juan County

API # (assigned by OCD)
30-045-21349

5. Lease Number

6. State Oil&Gas Lease #
E-1193-3

7. Lease Name/Unit Name
Lively Com

8. Well No.
#14

9. Pool Name or Wildcat
Basin Dakota/
WC:30N8W6E Mancos

10. Elevation:

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

13. Describe Proposed or Completed Operations

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



SIGNATURE

Juan Carr

Regulatory Supervisor May 3, 2001

TLW

(This space for State Use)

Approved by

Title

Date

MAY - 7 2001

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

¹ API Number 30-045-21349		² Pool Code 71599/		³ Pool Name Basin Dakota/WC:30N8W36E Mancos	
⁴ Property Code		⁵ Property Name Lively Com			⁶ Well Number 14
⁷ OGRID No. 14538		⁸ Operator Name Burlington Resources Oil & Gas Company			⁹ Elevation 6040' GL

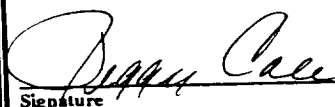
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	36	30N	8W		2210	South	1850	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
¹² Dedicated Acres DK: W/320 MA: SW/120		¹³ Joint or Infill		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

<div><div>16</div><div>Original plat from E.V. Echohawk 9-25-73.</div><div>36</div><div>1850'</div><div>2210'</div></div>	<div><div>¹⁷ OPERATOR CERTIFICATION</div><div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</div><div></div><div>Signature</div><div>Peggy Cole</div><div>Printed Name</div><div>Regulatory Supervisor</div><div>Title</div><div>5-4-01</div><div>Date</div></div>	
	<div><div>¹⁸ SURVEYOR CERTIFICATION</div><div>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.</div><div></div><div>Date of Survey</div><div>Signature and Seal of Professional Surveyer:</div></div>	
	<div>Certificate Number</div>	

Lively Com #14
Mancos Shale Re-completion Procedure
2210' FSL, 1850' FWL
Unit K, Sec. 36 T-30-N, R-08-W
San Juan County, NM

Project Summary:

The Lively Com #14 was completed in the Dakota formation by Lively Exploration in 1973. BR acquired operations from Crosstimbers in 1989. Cumulative production from the Dakota formation is 301 MMCF, with the last reported production in 1997.

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/ 241 joints of 1-1/4", 2.4#, J-55 tbg set at 7298' 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 7130' (Top Dakota Perf at 7154'). Spot 8 sx Class "B" cement on top of CIBP (8 sx = 9.44 cf = $\pm 100'$ 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 $\pm 7030'$. Circulate hole clean with 2% KCl.
 6. Pull up to 6905' and spot 5 Bbls of 10% Acetic Acid with 5% NH₄Cl across the proposed Carlile perforation interval (6885' to 6905'). TOOH.
 7. NU wireline company. Run GR-CBL-CCL from 7030' to TOC. Correlate CBL depth to attached GR/Neutron log section. Evaluate CBL. Good isolation must exist over the proposed perforation intervals (5810' - 6905' 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/Neutron log section. Perforate **Carlile interval from 6885' to 6905'** 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 6550' 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 3134 psi @ 35 BPM. The total friction pressure is estimated to be 1086 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)	4,531	
Totals	46,531	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 6660'. 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/Neutron log section. Perforate the **Tocito interval from 6606' to 6626'** 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 2677 psi @ 45 BPM. The total friction pressure is estimated to be 911 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 (50' above top perf)	4,378	
Totals	84,378	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 6500'. 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/Neutron log section. Perforate the **Upper Gallup interval from 6447' to 6467'** 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 2614 psi @ 45 BPM. The total friction pressure is estimated to be 890 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)	4,239	
Totals	84,239	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 5860'. 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/Neutron log section. Perforate the **Middle Mancos interval from 5810' to 5830'** 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 2361 psi @ 45 BPM. The total friction pressure is estimated to be 807 psi.

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Treat the Middle Mancos interval per the following schedule.

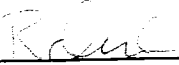
Stage	Frac Fluid (gals)	Sand Volume (lbs)
Pad	40,000	
0.5 ppg	10,000	5,000
1.0 ppg	15,000	15,000
1.5 ppg	10,000	15,000
2.0 ppg	5,000	10,000
Flush (100' above top perf)	3,818	
Totals	83,818	45,000

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 @ 5860'; 6500' and 6660'**. Clean out to PBTD @ 7030'. 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 @ ±6900'. 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	326-7133

 5-2-01

Production Engineer:	Randy Buckley	Office 326-9597	Pager 326-8820	Home 599-8136
Lease Operator:	Leroy Serrano		Cell 320-1364	Pager 324-7440
Specialist:	Wayne Ritter		Cell 320-0436	Pager 324-7225
Forman:	Hans Dube	Office 326-9818	Cell 320-4925	Pager 949-2664

Lively Com #14

Unit K, Sec. 36, T-30-N, R-08-W
San Juan County, New Mexico

Wellbore Diagram

