

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

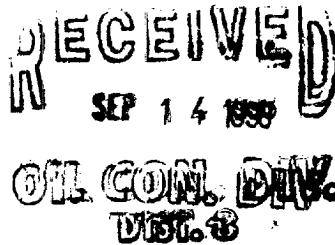
Sundry Notices and Reports on Wells

<p>1. Type of Well GAS</p> <hr/> <p>2. Name of Operator BURLINGTON RESOURCES OIL & GAS COMPANY</p> <hr/> <p>3. Address & Phone No. of Operator PO Box 4239, Farmington, NM 87499 (505) 326-9700</p> <hr/> <p>4. Location of Well, Footage, Sec., T, R, M 1000' FNL, 990' FEL, Sec. 19, T-32-N, R-6-W, NMPM, San Juan County, NM</p>	<p>API # (assigned by OCD) 30-045-21320</p> <p>5. Lease Number FEE</p> <p>6. State Oil&Gas Lease #</p> <p>7. Lease Name/Unit Name Allison Unit</p> <p>8. Well No. #40</p> <p>9. Pool Name or Wildcat Blanco MV/Basin DK</p> <p>10. Elevation:</p>
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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 checked="" type="checkbox"/> Other - Commingle

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 well will then be down-hole commingled per DHC-2072.



SIGNATURE *[Signature]* Regulatory Administrator September 9 1998

vkh

(This space for State Use)

Approved by ORIGINAL SIGNED BY ERNIE BUSCH Title DEPUTY OIL & GAS INSPECTOR, DIST. #3 Date SEP 14 1998

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 30-045-21320		*Pool Code 72319/71599		*Pool Name Blanco Mesaverde/Basin Dakota	
*Property Code 6784		*Property Name ALLISON UNIT			*Well Number 40
*GRID No. 14538		*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY			*Elevation 6511'

¹⁰ Surface Location

UL or lot no. A	Section 19	Township 32N	Range 6W	Lot Idn	Feet from the 1000	North/South line NORTH	Feet from the 990	East/West line EAST	County SAN JUAN
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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
¹² Dedicated Acres MV-E/320 DK-E/320		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

¹⁶ Not resurveyed, prepared
from a plat dated 7-27-73
by David O. Vilven.

1000'
990'

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

July 9, 1998

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.

JULY 6, 1998

Date of Survey

Signature and Seal of Professional Surveyor



6857
Certificate Number

BURLINGTON RESOURCES

Allison Unit # 40

1000' FNL, 990' FEL
Unit A, Section 19, T32N, R6W
San Juan County, New Mexico
LAT: 36° 58.22' LONG: 108° 29.65'

Project Objective:

Well is currently producing +/- 40 mcf/d. Set plug over Dakota to recomplete in the Mesaverde and Lewis zones. Mesaverde will be completed with a two stage crosslinked frac. The Lewis will be stimulated with a single stage 70 quality foam frac. If casing integrity and cement bond prove adequate, crosslinked fracs may change to slickwater fracs. After the zones are cleaned up, tubing will be landed in the Dakota and zones commingled.

Equipment and Material Requirements:

Deliver the following equipment to location:

1. 2-3/8" 4.7# J-55 tubing as needed for replacement.
2. Ten (10) - 400 bbls frac tanks to be spotted and filled w/ 2% KCL
3. 7000' of 2-7/8" 6.5# Buttress tubing for frac string
4. 4-1/2" annular packer for 2-3/8" tubing
5. 3-7/8" bit/mill
6. Six 3-1/8" drill collars
7. Four (4) CIBP

Below are materials required for fracture stimulations:

	<u>Mesaverde</u>	<u>Lewis</u>	
Fluid Type	20# X-link	20# Linear 70Q Foam	
Stages	Two	One	
Water Volume	2665	718	Bbls
Acid Volume	50	30	Bbls
Sand Type	Arizona	Arizona	
Sand Size	20/40	20/40	
Sand Volume	200,000	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.

Procedure:

1. Hold safety meeting. MIRU completion rig. Place fire and safety equipment in strategic locations. Comply with all BR, BLM, and NMOCD rules and regulations. Record tubing, casing, pressures. RU flowlines. Blowdown tbg and casing.

2. Kill well w 2% KCL down tubing, if necessary. ND wellhead. Replace any failed valves or seals on wellhead. NU BOP's w/ 2-3/8" pipe rams and stripping head.
3. TOOH with 8081' of 2-3/8", 4.7#, 8rd tubing. Rabbit and strap tubing. Inspect and replace any bad joints. Call for test unit/separator and pit to be delivered to location to test Dakota Gas/Oil/Water rates. (Lary Byars @ 326-9865 or Ken Collins @ 326-9718)
4. PU 3-7/8" bit/mill, (drill collars, if necessary) and 2-3/8" tubing. Strap and rabbit tubing. TIH. Cleanout/drillout to PBD at 8168' with foam mist. Clean up to less than 5 BPH with no solids. Obtain stabilized pitot gauges at 15, 30, 45, and 60 min to test Dakota zone. Test Dakota through production test unit for 3 hours minimum. TOOH with 2-3/8" tubing. Lay down drill collars and bit.
5. PU 4-1/2" CIBP and 4-1/2" packer on 2-3/8" tubing. TIH with 4-1/2" CIBP and set at 7700'. Circulate 2% KCL to fill wellbore. TUH 10' and set packer. Pressure test tubing and CIBP to 1500 psi. POOH.
6. MIRU wireline company. PU CBL/GR/CCL tool and RIH to CIBP. Log from CIBP at 7700' to 500' above TOC for third stage of cement job, estimated 2700'. Call engineer with results. If cement bond looks questionable, CBL may be rerun with 1000 psi. If necessary, engineer to design squeeze job. PU 4-1/2" packer on 2-3/8" tubing. TIH and set packer at 100' to protect WH during testing.
7. MIRU cementers. NU to wellhead. Pressure test surface lines to 4200 psi. Bleed off pressure. Fill casing and stage pressure up to 3200 psi. If casing does not test, go to step 8. If casing holds pressure and no squeeze job necessary, go to step 14. If casing test and remediation is needed, go to step 9.
Note: If casing does test, ALL stimulation work will be done without a packer or frac string.
8. PU 4-1/2" packer on 2-3/8" tubing. TIH to CIBP. Circulate 2% KCL in well to fill tubing and annulus. Set packer about 10' above CIBP and test tubing to 1500 psi. PU 10 stands and hunt hole. Report finding to engineer to design squeeze to cover hole and Mesaverde interval for fracturing. POOH with 2-3/8" tubing.
9. RU wireline company. PU 3-1/8" perf gun with 0.5" squeeze holes. RIH and perforate squeeze holes based on CBL run in step 6. POOH with perforating gun.
10. RU cementers. Pressure test surface lines to 2500 psi. Pump in perfs to establish rate and pressure prior to running retainer. Max pressure for pump in is 1500 psi. RD cement crew.
11. PU 4-1/2" cement retainer and 2-3/8" tubing. TIH to 150' above squeeze holes and set retainer. RU cementers. Sting out of retainer. With 2-3/8" by 4-1/2" annulus open, pump tubing volume of 2% KCL to clear stinger. Sting into retainer and pump to establish rate and pressure into squeeze holes. Pump cement system calculated from step 6. Hesitate squeeze, leaving 1 bbl of cement in tubing for top of retainer. RD and release cement crew.
12. Sting out of retainer, allow cement in tubing to fall on top retainer, and TUH 300'. Reverse circulate two (2) tubing volumes with rig pump to clear tubing and annulus. TOOH with tubing and stinger. Lay down stinger. PU 3-7/8" bit/mill. WOC 12 hr. before going in to drill out.
13. TIH with 3-7/8" bit/mill and 2 3/8" tubing. Drill out retainer and cement to 20' below squeeze holes. Shut pipe rams. Pressure test casing to 1000 psi with rig pump. Call engineer with results of test. Decision will be made whether to repeat steps 10 – 13 based on results of test and CBL.
14. Wait 18 hrs. from end of squeeze for cement to cure. RIH with CBL/CCL to 50' below squeeze holes. Log up to 100' above new top of cement. If zone is not adequately isolated for fracture stimulating, select new holes for step 9 and repeat steps 9-14. When isolation looks good, prepare to perforate for frac.

POINT LOOKOUT AND MENELEE PERFORATING AND FRACTURE STIMULATION (1st STAGE):

15. MIRU wireline company. Under a lubricator, RIH with 3-1/8" HSC casing gun. Select fire perforate Massive Point Lookout with 1 SPF, 0.32" diameter, (Owen, 302) charges at the following depths:
Note: Perforate Lower Point Lookout w/ 2 spf at 120° phasing at the following depths:

Following Lower Point Lookout perforations at 2 spf:

5847, 5865, 5904, 5926, 5946, 5993, 6026, 6052, 6095

Following Massive Point Lookout at 1 spf:

5620, 5622, 5627, 5652, 5656, 5683, 5687, 5710, 5730, 5742,
5755, 5766, 5781, 5800, 5820

(33 total holes, 24 effective holes, 475' of gross interval)

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

16. XO to 2-7/8" pipe rams and slips. PU 4-1/2" packer, 2 jts. of 2-3/8" 4.7# tubing, and remaining 2-7/8" 6.5# buttress tubing, and TIH to set packer +/- 5400'. RU stimulation company.
17. Fill annulus behind 2-7/8" tubing and apply 500 psi and hold during frac job. If treatment is to be done via 4-1/2" casing instead of through a frac string based on tests in step 7, max pressure will be 3200 psi for frac job and surface pressure tests need only be 4200 psi. Otherwise, use the pressures in each step.
18. NU stimulation company. Pressure test surface lines to 6500 psi. Prepare to breakdown perforations. Pump into perforations to establish injection rate at maximum pressure of 5500 psi. Record breakdown pressure and rate and ISIP. **Note: Calculate the number of perforations open at beginning of the job. Note number of perfs open in frac report. Prepare to bailout to ensure effective stimulation.** If an injector rate cannot be established, unseat packer and TIH with 2-7/8" tubing and spot 5 bbls 15% HCL across perforations. TUH and reseat packer at +/- 5400'.
19. Begin balloff. Pump 30 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 66, 7/8" 1.3 SG RCN ball sealers spaced evenly throughout job. Maximum pressure at balloff is 5500 psi. ND stimulation company.
20. Unseat packer. PU 2-7/8" tubing and TIH to 6100' to knock balls off. TUH and reseat packer at +/- 5400'.
21. NU stimulation company. Hold safety meeting. Pressure test surface lines to 6500 psi. Maximum surface treating pressure during frac is 5500 psi. Fracture stimulate Point Lookout / Lower Menefee interval per attached schedule at 30 BPM, with 100,000 #'s of 20/40 Arizona sand. Quick flush at 4 ppg with 2% KCL. Flush with 34 bbls of 2% KCL to 100' of top perforation. Cut rate throughout flush as pressure allows. Shut down and record ISIP, 5, 10, 15 min shut-in pressures. ND stimulation company.
22. NU wireline company. Under a lubricator, RIH with 4-1/2" CIBP and set at 5555' (Note: lowest next stage perforation @ 5527'). POOH and ND wireline.
23. If previous pressure test (step 7) was not successful, go to step 23 and test CIBP under packer in step 24. Otherwise, NU stimulation company. Pressure test surface lines to 6500 psi. Pressure test CIBP to 5500 psi for 15 minutes. Bleed off pressure. ND stimulation company.

MENELEE AND CLIFF HOUSE PERFORATING AND FRACTURE STIMULATION (2nd STAGE):

24. NU wireline company. Under packoff, RIH with 3-1/8" HSC casing gun. Select fire perforate Menefee and Cliffhouse with 1 SPF, 0.32" diameter, (Owen, 302) charges at the following depths:

4968.	4976.	5006.	5040.	5060.	5090.	5122.	5141.	5161.	5198.
5242.	5277.	5320.	5350.	5372.	5383.	5396.	5412.	5428.	5447.
5460.	5465.	5494.	5496.	5525.	5527				

(26 total holes, 559' of total gross interval)

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

25. PU 4-1/2" packer, 2 jts. of 2-3/8" 4.7# tubing, and remaining 2-7/8" 6.5# tubing with turndown collars, and TIH to set packer across section with good bond based on CBL in step 14. RU stimulation company. Fill annulus behind 2-7/8" tubing and apply 500 psi and hold during frac job. If treatment is to be done via 4-1/2" casing instead of through a frac string based on tests in step 7, max pressure will be 3200 psi for frac job and surface pressure tests need only be 4200 psi. Otherwise, use the pressures in each step.
26. NU stimulation company. Pressure test lines to 6500 psi. Prepare to breakdown perforations. Pump into perforations to establish injection rate at maximum pressure of 5500 psi. Record breakdown pressure, rate and ISIP. If an injection rate cannot be established, unseat packer and TIH with 2-7/8" tubing and spot 5 bbls 15% HCL across perforations. TUH and reseat packer at previous depth.
27. Begin balloff. Pump 20 bbls of 15% HCL (Add 2/1000 gallons corrosion inhibitor) and flush with 2% KCL at maximum rate pressure will allow. **Note: Calculate the number of perforations open once a stabilized rate is achieved during breakdown. If 90% of the perforations calculate to open, pump acid but do not drop balls. If no ball sealers are going to be dropped skip to step 29.**
28. If less than 90% of the holes calculate to be open, drop a total of 52, 7/8" 1.3 SG RCN ball sealers spaced evenly throughout job. Maximum pressure at balloff is 5500 psi. ND stimulation company.
29. Unseat packer. PU 2-7/8" tubing, TIH to 5530' to knock balls off. TUH and reseat packer at previous depth.
30. NU stimulation company. Hold safety meeting. Pressure test surface lines to 6500 psi. Maximum surface treating pressure during frac is 5500 psi. Fracture stimulate Cliff House and Menefee interval per attached schedule at 30 BPM, with an estimated 100,000 #'s of 20/40 Arizona sand. Quick flush at 4 ppg with 2% KCL with 29 bbls to 100' of top perforation. Shut down and record ISIP, 5, 10, 15 min shut-in pressures. ND stimulation company.
31. Bleed pressure off tubing and casing. ND stimulation company. Unseat packer and TOOH.
32. NU wireline company. Under a lubricator, RIH with 4-1/2" CIBP and set at 4905' (Note: lowest next stage perforation @ 4888'). POOH and ND wireline.
33. If previous pressure test (step 7) was not successful, go to step 33 and test CIBP under packer in step 34. Otherwise, NU stimulation company. Pressure test surface lines to 6500 psi. Pressure test CIBP to 5500 psi for 15 minutes. Bleed off pressure. ND stimulation company.

LEWIS PERFORATING AND FRACTURE STIMULATION (3rd STAGE):

34. NU wire line company. Under packoff, RIH with 3-1/8" HSC casing gun. Select fire perforate Menefee and Cliffhouse with 1 SPF, 0.32" diameter, (Owen, 302) charges at the following depths:

4335.	4340.	4360.	4365.	4395.	4405.	4425.	4440.	4462.	4484.
4513.	4528.	4570.	4611.	4643.	4684.	4705.	4724.	4772.	4806.
4835.	4855.	4875.	4888						

(24 total holes, 553' of total gross interval)

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

35. PU 4-1/2" packer, 2 jts. of 2-3/8" 4.7# tubing, and remaining 2-7/8" 6.5# buttress tubing, and TIH to set packer across section with good cement bond based on CBL in step 14. RU stimulation company. Fill annulus behind 2-7/8" tubing and apply 500 psi and hold during frac job.
36. NU stimulation company. Pressure test lines to 6500 psi. Prepare to breakdown perforations. Pump into perforations to establish injection rate at maximum pressure of 5500 psi. Record breakdown pressure, rate and ISIP. If an injection rate cannot be established, unseat packer and TIH with 2-7/8" tubing and spot 5 bbls of 15% HCL across perforations. TUH and reseat packer at +/- previous depth.
37. Begin balloff. Pump 30 bbls of 15% HCL (Add 2/1000 gallons corrosion inhibitor) and flush with 2% KCL at maximum rate pressure will allow. **Note: Calculate the number of perforations open once a stabilized rate is achieved during breakdown. If 90% of the perforations calculate to open, pump acid but do not drop balls.** If no ball sealers are going to be dropped skip to step 39.
38. If less than 90% of the holes calculate to be open, drop a total of 44, 7/8" 1.3 SG RCN ball sealers spaced evenly throughout job. Maximum pressure at balloff is 5500 psi. ND stimulation company.
39. Unseat packer. PU 2-7/8" tubing, TIH to 4900' to knock balls off. TUH and reseat packer at previous depth.
40. NU stimulation company. Hold safety meeting. Pressure test surface lines to 6500 psi. Maximum surface treating pressure during frac is 5500 psi. Fracture stimulate Lewis interval, with 70Q foam system of N2 and 25# linear gel, per attached schedule at 40 BPM, with an estimated 200,000 #'s of 20/40 Arizona sand. Quick flush at 4 ppg with 26 bbls of 2% KCL to 100' of top perforation. Shut down and record ISIP, 5, 10, 15 min shut-in pressures.
41. Bleed pressure off tubing and casing. ND stimulation company. Unseat packer and TOOH laying down 2-7/8" tubing.

CLEANOUT PROCEDURE:

42. XO to 2-3/8" pipe rams and slips. PU 3-7/8" bit (drill collars as needed) on 2-3/8" tubing. Clean out to CIBP set and 4905'. 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 Lewis interval. Record on WIMS report.
43. RU adjustable choke and flow line to pit. Flow test Lewis up annulus with back pressure (+/- 200 psi, if possible). Pitot gauge results every 15 minutes for 3 hour test. Record results on WIMS report. (Testers and separators not needed for Lewis.)
44. Call for test unit/seperator and pit to be delivered to location to test Mesaverde Gas/Oil/Water rates. (Lary Byars @ 326-9865 or Ken Collins @ 326-9718)
45. Check for fill on CIBP at 4905' (covering CH/MN). Drill out CIBP at 4905'. Use foam/mist rate of 10-12 BPH.
46. Continue to TIH and clean out to CIBP at 5555'. Obtain 15 minute pitot on LW/CH/MN zones. Zones need not be totally cleaned up. Record results on WIMS report.
47. Check for fill on CIBP at 5555' (covering MN/PL). Drill out CIBP at 5555'. Use foam/mist rate of 10-12 BPH.
48. Clean out to CIBP set and 7700'. Obtain stabilized pitot gauge and record in WIMS report. When rates are less than 5 BPH water and trace of sand, space out tubing to within +/- 20' of bottom perforation at 6095'.
49. RU test unit and pit. Flow test LW/MV up annulus with 200 psi backpressure on unit. Run a minimum 3 hour test and record results on WIMS report. RD test unit and release.

50. Check for fill on CIBP at 7700'. TIH. Drill out CIBP at 7700'. Use foam/mist rate of 10 to 12 BPH.
51. Clean out to PBTD at 8168'. 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.
52. 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 +/- 8070'. Broach tubing while running in hole to seat-nipple with sandline. POOH.
53. 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: Kenneth M. Collins 8/28/98
 Kenneth M. Collins
 Production Engineer

Approval: [Signature] 8/28/98 PJB 8/28/98
 Regional Engineer Drilling Superintendent

VENDORS:

CASED HOLE:
STIMULATION:
FRAC VALVE:

SERVICE COMPANY

TBA
 TBA
 District Tools

PHONE NUMBER

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Allison Unit #40

Basin Dakota
Unit A, Section 19, T32N, R6W
San Juan County, NM
Elevation: 6511' GL
LAT: 36 58.22' / LONG: 108° 29.65'
date spud: 11/10/73

