

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

Sundry Notices and Reports on Wells

2001 MAY 23 PM 1:55

1. Type of Well

GAS

Lease Number

NM-03561

6. If Indian, All. or

Tribe Name

7. Unit Agreement Name

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

1910' FSL, 1180' FEL, Sec. 6, T-29-N, R-10-W, NMPM

8. Well Name & Number

Grenier B #5E

9. API Well No.

30-045-30086

10. Field and Pool

Blanco MV/Basin DK/
Otero Chacra

11. County and State

San Juan 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 -

13. Describe Proposed or Completed Operations

It is intended to recomplete the existing Mesaverde/Dakota wellbore to the Chacra formation according to the attached procedure and wellbore diagram. The Mesaverde and Dakota formations will be commingled and dualled with the Chacra. NSL order #4540 was received for the Chacra formation. A new application for downhole commingling will be filed for the Mesaverde/Dakota formations.

App. will be to amend DHC 2726

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

Signed Jim Lovato Title Regulatory Supervisor Date 5/22/01

TLW

(This space for Federal or State Office use)

APPROVED BY /s/ Jim Lovato

Title

Date JUN 27

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.

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

P.O. 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-	² Pool Code 71599 82329/72319/	³ Pool Name Basin Dakota Otero Chacra/Blanco Mesaverde/
⁴ Property Code 18532	⁵ Property Name GRENIER B	⁶ Well Number 5E
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	⁹ Elevation 5835'

¹⁰ Surface Location

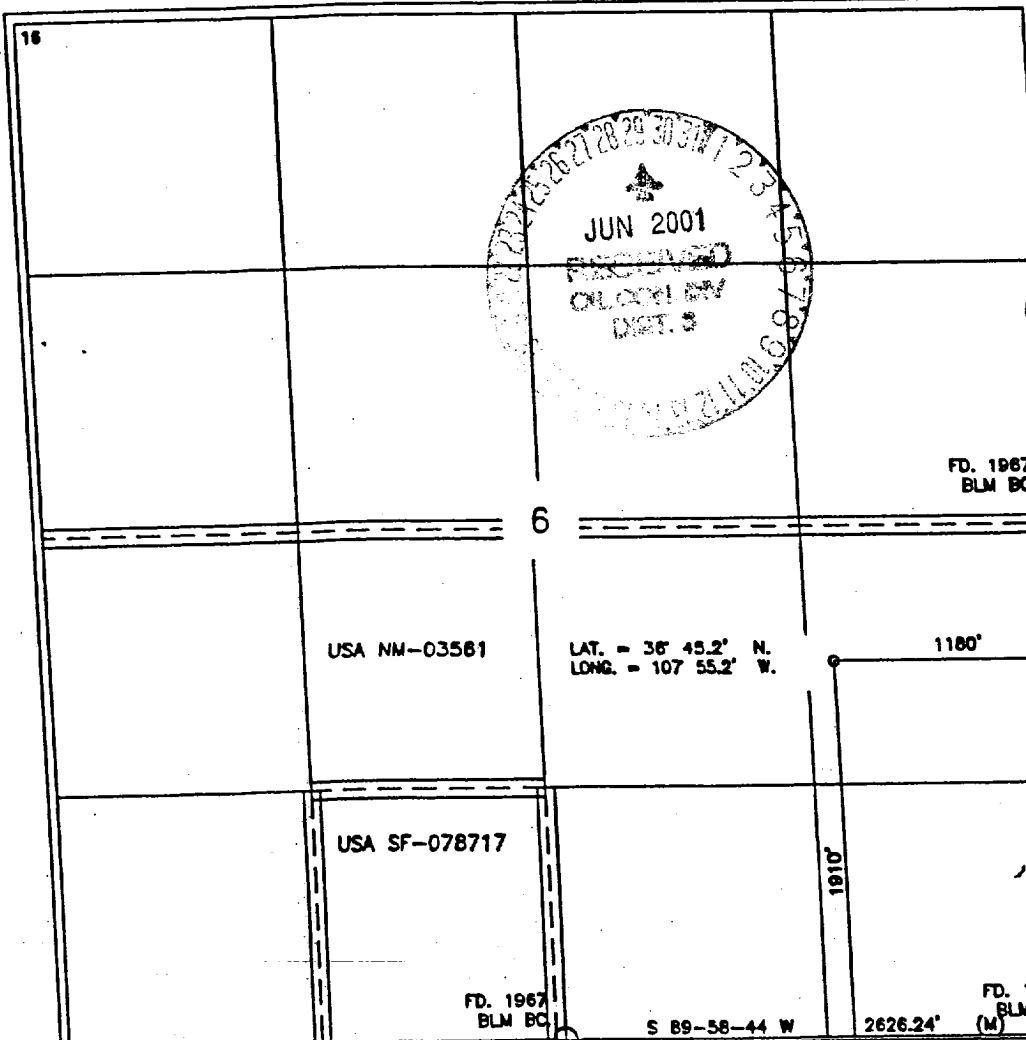
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	6	29-N	10-W		1910	SOUTH	1180	EAST	SAN JUAN

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
Cha-148.90.
¹³ Joint or Infill
MV-S/
¹⁴ Consolidation Code
281.04.
¹⁵ Order No.
DK-S/312.60

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>16</div> 	<div>17 OPERATOR CERTIFICATION</div> <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 Cole</i> Signature Peggy Cole Printed Name Regulatory Administrator Title Date 12-1-99</p>
	<div>18 SURVEYOR CERTIFICATION</div> <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><i>Roy Aguirre</i> Signature and Seal of Professional Surveyor Date of Survey Certificate Number 8894</p>

Grenier B #5E
Chacra Recompletion and Testing Procedure – Revised 5/8/01
Unit I, Sec 06, T29N, R10W
San Juan County, New Mexico
Lat: 36° 45.10' / Long: 107° 55.10'

Procedure Overview:

- MIRU. TOOH with Mesaverde production tubing and Dakota production tubing. Stand both strings back.
- PU 2-3/8" workstring and TIH with a Series 200 "HE" Packer Retrieval Spear and retrieve the Model "D" Packer.
- Set CIBP on wireline, load hole, and pressure test casing and CIBP.
- Perforate lower squeeze holes and attempt to pump in. Set cement retainer and squeeze with 100 sx cement if able to pump in.
- Perforate upper squeeze holes and attempt to pump in. Squeeze, under a packer, with 100 sx if able to pump in.
- DO cement. (If necessary)
- Run CBL to ensure isolation. Spot acid.
- Perforate and individually breakdown each perforated interval using an RBP and packer.
- Blow the well dry.
- Conduct slug and stress tests on the Lewis perforations.
- Frac and flow-back the Lewis, monitoring the flow-back.
- TIH with mill. Clean up the Lewis, get a pitot gauge.
- MO both plugs set above the Mesaverde perforations and CO to PBTD. TOOH with mill and LD 2-3/8" workstring.
- Run an after-frac log across the Lewis interval.
- TIH with 1-1/2" tubing with Baker Model "R-3" packer. Set packer above Mesaverde perforations and land 1-1/2" tubing.
- TIH and land 1-1/2" tubing string for the Lewis.
- RD and move off.
- Produce the well as a Dakota/Mesaverde and *Chacra* ~~Lewis~~ dual for 90-120 days.

Equipment Needed:

- 3 - 400 BBL Frac Tanks
- ~7200' 2-3/8" workstring
- 1 - 5-1/2" packer (with bypass – for breakdown)
- 1 - 5-1/2" Baker Model "R-3" packer
- 1 - 5-1/2" RBP
- 2 - 5-1/2" CIBP
- 1 - 5-1/2" Cement Retainer
- 1 - TAS (Telemetry Acquisition System tool - North Star Tool)
- 1 - SRO Gauge (Surface Read Out-gauge - Schlumberger tool)
- 1 - MRO Gauge (Memory Read Out gauge - Schlumberger tool)
- 2 - 10' perforated subs
- 1 - MBIT
- 1 - Frac Valve
- 1 - Offset spool and offset pipe rams
- 1 - 5-1/2" Series 200 "HE" Packer Retrieval Spear

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Summary:

The Grenier B #5E was drilled in May of 2000, as both a Mesaverde/Dakota well and a Lewis Shale (Chacra) Data Well. Whole cores were taken through the Chacra interval to promote greater understanding of the characteristics of the Chacra in this area. Currently, the Mesaverde and Dakota intervals have been dually completed and are producing. The Chacra is to be tested, perforated, and fracture-stimulated in 1 stage, and will then be flowed Chacra-only for 90-120 days.

Lewis Shale Data Gathering:

The Grenier B #5E is a Lewis Shale (Chacra) Data Well (SDW). The purpose of the SDW's is to gather the necessary data to assist in the evaluation of the Lewis Shale's economic potential in the San Juan Basin. Before the fracture stimulation, nitrogen slug tests will be performed to identify the presence of natural fractures in the Chacra interval, and to calculate permeability, skin factor, and reservoir pressure. Nitrogen stress tests will follow the slug tests, and will be used to determine the magnitude of the stresses within the Chacra. Following the stimulation stage, flowback measurements will be taken to quantify the amount of fracture fluids that have been recovered.

- **COMPLY WITH ALL NMOCD, BLM, AND BR REGULATIONS.**
- **CONDUCT DAILY SAFETY MEETINGS FOR ALL PERSONNEL ON LOCATION.**
- **INSPECT LOCATION AND WELLHEAD, AND INSTALL RIG ANCHORS PRIOR TO RIG MOVE.**
- **CONSTRUCT BLOW PIT.**
- **SET 3 400-BBL FRAC TANKS AND FILL WITH 2% KCL WATER.**

Perforating and Breakdown:

1. MIRU workover unit. Record and report shut-in pressures on casing and bradenhead. Ensure that all safety equipment is strategically located and functioning properly. NU relief line and blow well down to pit. Kill well with 2% KCl water if necessary. ND dual-tubing wellhead and NU BOP with offset pipe rams and an offset spool. Test and record operation of BOP rams.
2. Mesaverde, 1-1/2" 2.76# J-55 IJ tubing set at 4717' (152 jts). PU additional joints of 1-1/2" IJ tubing and CO on top of the Model "D" packer set at 4858'. TOOH with Mesaverde tubing and stand back in derrick. ND offset spool and install tubing-centered pipe rams. Test and record the operation of the new rams. Pick straight up on tubing to release G-22 Locator Seal Assembly from Model "D" packer. TOOH with 1-1/2" IJ 2.76# tubing set at 6723' and stand back in derrick.
3. PU and TIH with 5-1/2" Series 200 "HE" Packer Retrieval Spear on 2-3/8" 4.7# J-55 workstring. Retrieve the Model "D" packer from 4858' and TOOH. **NOTE: WHEN MILLING, MIST RATE MUST NOT BE LESS THAN 12 BPH.**
4. RU wireline. RIH with 5-1/2" CIBP and set at 3660'. POOH. Load the hole. Pressure test casing to 4000 psi.
5. RIH with 3-1/8" gun loaded with HSC 3125-306T charges (12 gram, 0.30" perf diameter, 17.48" penetration) set for 2 SPF. Correlate to the attached CBL/GR/CCL and shoot four shots at 3637'. RD wireline.
6. Attempt to break down the squeeze perforations at 3637'. If the squeeze perforations hold ~1000 psi at surface (~1000 psi over fracturing pressures), TIH and set CIBP at 3574'. TOOH, then go to step #8. If the squeeze perforations break down and an injection rate is established, shutdown pumps.
7. PU and TIH with a cement retainer. Set the retainer at 3574'. RU cementers. Sting into the retainer, establish an injection rate and squeeze with 100 sx of Class "B" neat cement with 2% CaCl₂. Displace the cement to the retainer, unsting from the retainer and leave ~1/2 bbl on top of the retainer, circulate any additional cement out of the hole and TOOH.
8. RU wireline. RIH with 3-1/8" gun loaded with HSC 3125-306T charges (12 gram, 0.30" perf diameter, 17.48" penetration) set for 2 SPF. Correlate to the attached CBL/GR/CCL and shoot two shots at 2825'. RD wireline.
9. Attempt to break down the squeeze perforations at 2825'. If the squeeze perforations hold ~1000 psi at surface (~1000 psi over fracturing pressures), TIH and spot 17 bbls 10% acetic acid** from 3574' to above top perf. TOOH, then go to step #13. If the squeeze perforations break down and an injection rate is established, shutdown pumps.
10. PU and TIH with a 5-1/2" packer. Set the packer at 2630'. RU cementers. Establish an injection rate and squeeze with 100 sx of Class "B" neat cement with 2% CaCl₂. Displace the cement to 150' past the packer until squeeze is obtained. Release the packer and reverse 1.5 volumes of workstring. TOOH and pressure up to 1600 psi. WOC ~8 hrs.
11. PU 4-3/4" bit/mill and drill/mill out cement to the plug at 3574'. TOOH.
12. RU wireline and RIH with CBL/GR/CCL. Correlate to attached CBL and log from 3574' – 2550'. POOH. Send log to Drilling and the Production Engineer to verify that there is isolation for the frac.

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13. TIH and spot 17 bbls of 10% acetic acid** from 3574' to above the planned top perf at 2899'. TOOH and stand back 2-3/8" workstring.
14. RIH with 4" HEGS loaded with 41B HJ SXI charges (22 gram, 0.42" perf diameter, 21.67" penetration) set for 1 SPF and 120° phasing, and correlate to CBL/GR/CCL log. Perforate 120 shots in the following Chacra intervals from the top down:

2899-2909, 2943-53, 2992-3002, 3044-54, 3098-3108, 3162-72, 3250-60, 3318-28, 3348-58, 3380-90, 3436-46, 3507-17

15. RD wireline. PU and TIH with 5-1/2" RBP, on/off tool, and 5-1/2" retrievable packer on 2-3/8" workstring. The following table lists RBP and packer setting depths and the perforation intervals that will be broken down with each setting.

RBP Setting Depth	Packer Setting Depth	Perforation Interval
3570	3487	3507-17
3490	3416	3436-46
3420	3369	3380-90
3370	3338	3348-58
3335	3298	3318-28
3290	3230	3250-60
3210	3142	3162-72
3150	3078	3098-3108
3080	3024	3044-54
3030	2972	2992-3002
2980	2923	2943-53
2930	2879	2899-2909

16. Set RBP at the first RBP setting depth. PUH +/- 10' and set packer, making sure that the interval in between consists of nothing but blank pipe. RU stimulation company and pressure test RBP, packer, and surface lines to 5000 psi. Release packer, and reset at the first packer setting depth. Open the bypass on the packer and circulate the acetic acid to the top of the packer. Breakdown perforations and establish an injection rate between 8 and 10 bpm with 167 gals 10% acetic acid**. Breakdown to the **MAXIMUM PRESSURE OF 4000 PSI**. Release packer and RBP. Reset packer and RBP and repeat breakdown procedure for the remaining perforation intervals. When finished, TOOH and LD packer and RBP.

****NOTE: ALL ACID IS TO CONTAIN THE FOLLOWING ADDITIVES PER 1000 GALLONS:**

1000 gallons	10%	Acetic Acid
2 gallons	MSA II	Corrosion Inhibitor
5%	NH ₄ Cl	Clay Control

Nitrogen Slug and Stress Tests:

17. **NOTE: IT IS VERY IMPORTANT THAT THE HOLE REMAIN DRY DURING THE SLUG AND STRESS TESTS. THE PRESENCE OF LIQUID DURING THE TESTS WILL MAKE THE COLLECTED DATA DIFFICULT, IF NOT IMPOSSIBLE TO ANALYZE.** TIH with 2-3/8" workstring and blow the hole dry with air. SD the air package and allow the well to flow naturally, and then alternate blowing with air and flowing naturally to dry up the interval. Discuss liquid production with Production Engineer/Geologist on location and Drilling Manager to determine when clean-up is sufficient. TOOH and stand back 2-3/8" workstring.
18. Measure the total flow rate from the well and report it to Production Engineer/Geologist on location.
19. PU and TIH with Cased-Hole Test Assembly (CHTA) on 2-3/8" tubing. Assembly consists of one MRO pressure gauge seated inside a 10' perforated pup joint, 5-1/2" retrievable packer, seating nipple, and 2-3/8" 4.7# J-55 workstring.
20. PU and TIH with CHTA on 2-3/8" workstring. Set the packer at 3555'. RU wireline and RIH with SRO (Surface Read Out) gauge to a depth approximately 10' above the seating nipple. Allow the SRO gauge time to adjust to the bottom-hole temperature. RU stimulation company and pump +/- 115°F N₂ down workstring until the pressure at the CHTA is between 1000 and 1500 psig, and without shutting down the N₂ pump, set SRO gauge in seating nipple to hold pressure between packer, gauge, and RBP. Pump approximately 300 psi over the current pressure in workstring to hold SRO gauge in place. Watch SRO gauge readings for a minimum of 10 minutes to ensure that the packer and plug are holding pressure. Bleed down workstring pressure, release SRO gauge, and TOOH with SRO gauge. RD wireline, and then release the packer.
21. PUH and set the packer at 2840'. After the packer is set, shut pipe-rams on BOP.

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22. RU wireline and RIH with SRO gauge to a depth approximately 10' above the seating nipple. **NOTE: IT IS CRITICAL THAT THERE IS NOT ANY LIQUID (BREAKDOWN WATER AND/OR ACID) IN THE TEST INTERVAL DURING THE SLUG TEST. THE PRESENCE OF LIQUID WILL BE MARKED BY A SUDDEN PRESSURE INCREASE ON THE SRO GAUGE AS IT IS RIH. IF LIQUID IS ENCOUNTERED, IT WILL BE NECESSARY TO PULL THE SRO GAUGE, RELEASE THE PACKER, AND BLOW THE INTERVAL DRY.** Report the presence of liquid to the Production Engineer/Geologist on location and the Drilling Manager. Allow the SRO gauge temperature to adjust to downhole conditions.
23. RU stimulation company for N₂ injection. Hold pre-job safety meeting. Inject N₂ at 1500 scf/min and +/- 115°F down 2-3/8" 4.7# J-55 workstring. **NOTE: DO NOT EXCEED ESTIMATED FRAC GRADIENT OF 0.45 PSI/FT DURING THE SLUG TESTING. PUMP AT CONSTANT RATE, PRESSURE MAY VARY.** Monitor annulus pressure during injection period for evidence of leaking. Injection time will be approximately 15-30 minutes, or until the frac gradient is in danger of being exceeded.
24. Without shutting down the N₂ pump, set SRO gauge in seating nipple to hold pressure between packer, gauge, and RBP. Pump approximately 300 psi over the current pressure in workstring to hold SRO gauge in place. Monitor pressure falloff for 2 hours. Depending upon the pressure response, the Production Engineer/Geologist on location and the Drilling Manager may decide to cut short or extend this test. Blow down workstring to release SRO gauge. PUH with SRO gauge to approximately 10' above the seating nipple.
25. Begin the stress test by injecting N₂ at 2500 scf/min and +/- 115°F down 2-3/8" 4.7# J-55 workstring. Continue injecting until the frac gradient is exceeded. This can be observed when the SRO gauge pressure rolls over and remains fairly constant. Record this SRO gauge pressure and report it to the Production Engineer/Geologist on location. After SRO gauge pressure rolls over, continue pumping for an additional 1 to 3 minutes.
26. Without shutting down the N₂ pump, set SRO gauge in seating nipple to hold pressure between packer, gauge, and RBP. Pump approximately 300 psi over the current pressure in workstring to hold SRO gauge in place. Monitor pressure falloff until the fracture closure pressure is observed. Record this pressure and report it to the Production Engineer/Geologist on location. Blow down workstring to release SRO gauge and TOOH. RD wireline.
27. After slug and stress tests are complete, release CHTA and TOOH. Stand back 2-3/8" workstring and LD CHTA.

Hydraulic Fracture Treatment and Flowback:

28. RU wireline and RIH with TAS (formally known as the RTD tool – it was sold to North Star, but Protechnics will assist with setting and retrieving). Set the top of the tool in the 5-1/2" casing at 3210'. **NOTE: THE TAS TOOL WILL REMAIN IN THE HOLE THROUGHOUT THE HYDRAULIC FRACTURE TREATMENT AND FLOWBACK.** RD wireline.
29. RU stimulation company to frac down casing. Hold a pre-job safety meeting with all personnel on location. Pressure test surface lines to 5000 psi. RU Pro-Technics and tag sand with 3 radioactive isotopes. **Pump 6400 gals of pad and SD pumps for 10-15 minutes, monitoring pressure (mini-frac test).** At this point, approximately 3575 gals of pad will have entered the perforations. The necessary volume for a mini-frac test is 3000-4000 gals. Reestablish rate with remaining pad volume (3600 gals). Fracture stimulate at a constant downhole rate of 40 bpm with 75Q N₂ foamed 20# linear gel and 200,000# 20/40 mesh sand according to the attached frac schedule. Flush to 100' above the top perf with 75Q N₂ foam. **NOTE: THE MAXIMUM TREATING PRESSURE IS 4000 PSI.**
30. Record ISIP, 5, 10, and 15-minute shut-in pressures. Shut-in frac valve. RD Pro-Technics, RD stimulation company and install flowback line above frac valve. Lay flowback line to dual-choke manifold and 2-phase upright vessel provided by D.C. Production Services. Open well to pit in accordance with the flowback schedule below. **NOTE: DO NOT SHUT WELL IN DURING FLOWBACK.** When schedule dictates a larger choke size, open ball valve upstream of adjustable choke and open adjustable choke on manifold to appropriate size from table and begin flowing through the adjustable choke. Close ball valve upstream of positive flow bean and change out flow bean to next larger size in table. Open ball valve upstream of positive flow bean and begin flowing. Close ball valve upstream of adjustable choke and close adjustable choke. **NOTE: THIS IS A DATA GATHERING WELL, SO PRODUCTION ENGINEER WILL DETERMINE FLOWBACK TIME IN CONJUNCTION WITH DRILLING MANAGER. FOLLOW THIS SCHEDULE TO UTILIZE A 24-48 HOUR FLOWBACK. IF WELL BEGINS TO SLUG OR MAKE LARGE AMOUNTS OF SAND TO SURFACE, DROP TO NEXT SMALLER CHOKE SIZE. IF WELL BEGINS TO TAPER OFF IN LIQUID PRODUCTION AND FLOW MOSTLY N₂, CHANGE TO NEXT LARGER CHOKE SIZE BEFORE TIME SCHEDULE DICTATES.**

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Choke Size	Approximate Flowback Time
10/64"	3 Hours
12/64"	3 Hours
14/64"	3 Hours
16/64"	5 Hours
18/64"	5 Hours
20/64"	5 Hours
22/64"	5 Hours
24/64"	5 Hours
32/64"	5 Hours

31. After flowback ceases and pressures allow, RU wireline and retrieve North Star's TAS tool from 3210' (well conditions such as sand production may dictate tool retrieval using workstring). RD wireline.

Well Cleanup:

32. PU and TIH with 4-3/4" mill on 2-3/8" workstring and CO to plug at 3574' with air/mist. When the well is sufficiently clean, gauge the Lewis interval for 1 hour, recording results every 15 minutes. A quickly dropping pitot gauge (unstable) over the 60 minutes may indicate liquid loading, and that further time should be spent cleaning up the Lewis interval. Further cleanup should be discussed with the Production Engineer and Drilling Manager. Drill out the plug at 3574' with air/mist. **NOTE: WHEN MILLING, MIST RATE MUST NOT BE LESS THAN 12 BPH.**
33. CO to CIBP at 3660'. Drill out the CIBP with air/mist. CO to PBTD at 7044'.
34. PU above the top Lewis perforation at 2899' and flow the well naturally, making short trips for cleanup when necessary. Discuss sand production with Production Engineer and Drilling Manager to determine when cleanup is sufficient. TOOH laying down 2-3/8" workstring and mill.
35. RU ProTechnics. Run Spectral GR tool across the Lewis (3667-2675'). RD ProTechnics.
36. TIH with an expendable check, seating nipple, one joint of 1-1/2" 2.76# J-55 IJ tubing, a 2'x1-1/2" pup joint, 83 joints of 1-1/2" 2.76# J-55 IJ tubing, a 5-1/2" Baker Model "R-3" packer, and 1/2 of the remaining 1-1/2" tubing. Run a broach on sandline to ensure that the tubing is clear. TIH with remaining 1-1/2" tubing and run a broach on sandline to ensure that the upper half of the tubing string is clear. Replace any bad joints. Set the "R-3" packer inside the 5-1/2" casing at 4070', which should place the end of the tubing at approximately 6680'. The "R-3" is set by picking up, rotating to the right, and setting down 6000-8000 lbs at the tool. Land tubing.
37. NU offset spool and install offset pipe rams. Test and record the operation of the new rams. TIH with an expendable check with a tubing plug, seating nipple, one joint of 1-1/2" 2.76# J-55 IJ tubing, a 2'x1-1/2" pup joint, and 1/2 of the remaining 1-1/2" tubing. Run a broach on sandline to ensure that the tubing is clear. TIH with remaining 1-1/2" tubing and run a broach on sandline to ensure that the upper half of the tubing string is clear. Replace any bad joints. Land tubing at 3550'.
38. ND BOP and NU dual-tubing wellhead. Pump off the expendable check valve in the Mesaverde/Dakota tubing. RU wireline and retrieve the tubing plug from the Lewis tubing's seating nipple. RD wireline. If zones will not flow on their own, make swab runs to seating nipples with the rig's sandline. **NOTE: DURING CLEANOUT OPERATIONS THE RESERVOIR MAY BE CHARGED WITH AIR. AS A RESULT OF EXCESS OXYGEN LEVELS THAT 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.** SI well. RD and MOL. Return well to production.
39. This well will be produced in the dual configuration for approximately 120 days.

Recommended: J. Yon Gove 5/8/01
 Lewis Team Production Engineer

Approved: _____
 Inventory Development Manager

Approved: D. E. Myer 5/16/01
 Drilling Manager

Approved: _____
 Regulatory

Grenier B #5E

1910' FNL, 1180 FEL

I Sec. 6, T-29N R-10W

San Juan County, New Mexico

KB 5847 GL 5835

LAT: 36 45.10, LONG: 107 55.10'

Current

Proposed

8-5/8" 24# WC-50
360 sx TOC circ

349'

Formation Tops

Ojo Alamo	0,945'
Kirtland	1,070'
Fruitland Coal	1,876'
Pictured Cliffs	2,213'
Lewis	2,290'
Huer. Bent.	2,878'
Navajo City Chacra	2,880'
Otero Chacra	3,210'
Middle Bench Otero Chacra	3,308'
Upper Cliff House	3,671'
Massive Cliff House	3,780'
Menefee	3,909'
Point Lookout	4,506'
Mancos	4,755'
Greenhorn	6,458'
Dakota	6,660'

349'

Tubing:

1-1/2" 2.76# J-55
Set @ 4,717'

1-1/2" 2.76# J-55
Set @ 6,723'

Proposed Upper Lewis Perfs:

2899-2909, 2943-53, 2992-3002,
3044-54, 3098-3108, 3162-72
3250-60, 3318-28, 3348-58,
3380-90, 3436-46, 3507-17
200,000# sand and 75Q Foam

Squeeze perfs @ 2825'

1-1/2" 2.76#
J-55 IJ tubing
set at 6680'

1-1/2" 2.76#
J-55 IJ tubing
set at 3550'

Squeeze perfs @ 3637'

DV @ 3,714'

Baker Model "R-3"
packer set at 4070'

Menefee:

4,120' - 4,440'
100,000# 20/40 & 105,000 gals Slickwater

Point Lookout:

4,524 - 4,772'
80,000# 20/40 & 88,000 gals Slickwater

Packer Set @ 4858'

Dakota:

6,586' - 6,738'
100,000# 20/40 TLC & 586 bbls 30# LG 70Q foam

7-7/8" Hole
5-1/2" 17# L-80
DV @ 3,714'
615 sx No Circ
825 sx Circ 135 BBLs

7119'

7119'

TD = 7,130'
DBTD = 7,044'

3/26/2000

MSQ