UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

| Sundry Not: | ices and Reports on Wells | |
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| | 5. Lease N | umber |
| | SF-0786 | 26 |
| | 6. If Indi | an, All. |
| Type of Well | Tribe N | ame |
| GAS | | |
| | 7. Unit Ag | reement : |
| | | n 32-9 U |
| Name of Operator | DEGETAE Jus | |
| BURLINGTQN | m | |
| | & GAS COMPANY JUL ~ 2 1999 | |
| | | ame & Num |
| Address & Phone No. of Opera | itor OM COM DIVIGAN Jus | an 32-9 # |
| DO Boy 4289 Farmington, NM | 1 87499 (505) 326-9700 FORER (9) API WE | |
| Address & Phone No. of Opera PO Box 4289, Farmington, NM | DIST. 3 30-045. | |
| Location of Well, Footage, S | TO T P M 10. Field | |
| 1750'FSL, 1680'FEL Sec.10, T | r_21_N P_9_W NMPM | Mesaverd |
| 1,50 155, 1000 155 500.20, 5 | 11. 00411-7 | |
| | San Ju | an Co, NM |
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| CURCY ADDRODRIATE ROX TO TH | NDICATE NATURE OF NOTICE, REPORT, OTHER DATA | |
| Type of Submission | Type of Action | |
| - at the af Intent | Abandonment Change of Plans | |
| _X_ Notice of Intent | Recompletion New Construction | |
| n l Demost | Plugging Back Non-Routine Fracture | ing |
| Subsequent Report | | |
| | Casing Repair Water Shut Off | |
| | Casing Repair Water Shut off Altering Casing Conversion to Inject | tion |
| Final Abandonment | Altering Casing Conversion to Inject | tion |
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| Final Abandonment | Altering Casing Conversion to Inject X_ Other - Payadd | tion |
| Final Abandonment Describe Proposed or Com | Altering Casing Conversion to Inject X_ Other - Payadd pleted Operations | |
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Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Lewis Payadd Procedure Unit J, Section 10, T-31N, R-9 W

Lat: 36° 54.6057' Long: 107° 45.8395'

This well is currently completed in the Cliff House, Menefee, and Point Lookout. It is intended to add the Lewis to the existing Mesaverde production. The Lewis will be sand fracture stimulated in two stages using 100,000 lbs 20/40 sand and 70Q 20 lb linear gel in each stage. Foam is to be used to limit fluid damage to the Lewis and aide in the flowback. The flowback choke schedule is to be used to ensure that proppant remain in the fractures.

- Comply with all BLM, NMOCD, and BR rules and regulations.
- > Hold safety meetings.
- > Place fire safety equipment in strategic locations.
- Inspect location and test rig anchors.
- Dig flowback pit or set flowback tank.

Equipment Needed:

(4) Frac Tanks with 2% KCl water

(2) 4-1/2" CIBP

(1) 4-1/2" RBP

(1) 4-1/2" Packer

3500' -- 3-1/2" N-80 9.3#

PROCEDURE:

- MIRU. Record and report SI pressures on tubing, casing, and bradenhead. Lay blowdown line and blow well down. Kill well with 2% KCl water. ND WH, NU BOP. Test and record operation of rams. NU blooie line and 2-7/8" relief line. Redress production wellhead as needed.
- 2. TOOH w/ 2-3/8" 4.7# J-55 tubing set at 5995' (SN @ 5962' ID = 1.78"). Visually inspect tubing, note and report any corrosion and/or scale in/on tubing. Replace bad joints as needed.
- 3. RU wireline. Run 4-1/2" gauge ring to 4,900'. If ring tags up before 4,900', TIH with 3-7/8" Bit, 4-1/2" 10.5# casing scraper on 2-3/8" tubing and CO to 4,900'. TOOH. TIH with 4-1/2" CIBP and set CIBP @ ± 4,900'. Load hole w/ 2% KCI water. TOOH.
- Run GR-CBL-CCL w/ 1000 psi from 4,900' to 3,489' (TOL) correlate to old Induction-Gamma Ray Log. Contact Michele Quisel and Drilling to evaluate CBL.
- 5. TIH w/ 4-1/2" packer on 2-3/8" tubing and set packer @ 3550'. Pressure test CIBP and casing to 3800 psi. Release packer and TOOH.

1st Stage Lewis:

6. Perforate Lower Lewis as follows using select fire HSC guns loaded with Owens HSC-3125 302T 10 gram charges set at 1 SPF and 120° phasing (Avg. perf diameter – 0.30", Avg. penetration – 16.64" in concrete). Correlate to new GR-CBL-CCL.

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4790', 89', 88', 87', 86', 85', 10', 09', 08', 07', 06', 05', 4663', 62', 61', 60', 59', 58', 43', 42', 41', 40', 39', 38', 4575', 74', 73', 72', 71', 70', 4557', 56', 55', 54', 53', 52', 33', 32', 31', 30', 29', 28'
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For a total of 42 holes. RD wireline.

Lewis Payadd Procedure
Unit J, Section 10, T-31N, R-9 W
Lat: 36° 54.6057' Long: 107° 45.8395'

7. TIH with 4-1/2" RBP, on/off tool and 4-1/2" packer on 2-3/8" tubing.

Set RBP at RBP setting depth. PUH ± 10 ft and set Packer. RU stimulation company and pressure test RBP and lines to 3800 psi. Release packer, and reset packer at Packer Setting Depth. Breakdown perforations and establish an injection rate between 8 and 10 BPM with 200 gals of Acetic Acid + 5% NH4Cl **. Breakdown to the Max pressure of 3800 psi. Release packer and RBP. Repeat for the remaining intervals.

** All Acid to contain the following additives/ 1000 gal:

1000 gal

10%

Acetic Acid

2 gal 5% MSA II NH₄CL corrosion inhibitor

clay contro

| RBP Setting Depth | Packer Setting Depth | Perforation Intervals |
|----------------------|-------------------------|---------------------------------|
| 4,820 | 4,730 | 4785-4790 |
| 4.730 | 4,590 | 4638-4643, 4658-4663 |
| 4,600 | 4,470 | 4528-4533, 4552-4557, 4570-4575 |

- 8. TOOH w/ RBP, Packer, and 2-3/8" tubing. PU and TIH w/ 4-1/2" packer, 2 joints 2-3/8" 4.7#, 2-3/8" X 3-1/2" N-80 crossover, and 3-1/2" 9.3# N-80 Frac String. Set Packer @ 3550' or where good cement dictates.
- 9. Pressure Test surface lines to 7000 psi. Fracture stimulate Lower Lewis with 100,000 lbs 20/40 sand in 62,431 gals 70Q 20 lb linear gel at a MAXIMUM RATE OF 40 BPM in 1.0 to 4.0 ppg stages. Apply 500 psi to annulus. Monitor annulus pressure throughout stimulation. Tag sand with 3 radioactive isotopes. Estimated Friction Pressure @ 40 BPM is 4500 psi. Maximum Surface Treating Pressure is 6000 psi.

| | BH Sand Conc. | Stage Sand | BH Rate | BH Foam | Clean Foam Volume | Clean Liquid Volume | Nitrogen Rate | Stage N2 |
|-------------|---------------------|---------------|--------------|---------------|-------------------------|---------------------------|------------------|---------------|
| Stage | ppg | <u>lbs</u> | <u>bpm</u> | Qual. | <u>gals</u> | gals | scf/min | mscf |
| Pad | | 0 | 40 | 80% | 17,000 | 3,400 | 23,197 | 234.7 |
| 2 | 1 | 10,000 | 40 | 70% | 10,000 | 2,000 | 19,412 | 80.5 |
| 3 | 2 | 20,000 | 40 | 70% | 10,000 | 2,000 | 18,601 | 80.4 |
| 4 | 3 | 40,000 | 40 | 70% | 13,333 | 2,667 | 17,855 | 107.1 |
| 5 | 4 | 30.000 | 40 | 70% | 7,500 | 1,500 | 17,166 | 60.2 |
| Flush | - | 0 | 40 | 0% | 4,598 | 4,598 | 0 | 0.0 |
| . , , , , , | | Total lbs. | Avg. Rate | Avg. Qual. | Total gallons | Total Gallons | Avg. N2 Rate | Total mscf |
| | | 100,000 | 40.0 | 60% | 62,431 | 16,164 | 16,038 | 563 |

Slow rate during flush. Flush to top perf with KCl water. Record ISIP, 5, 10 and 15 minute shut-in pressures. Shut-in frac valve. RD stimulation company. Install flowback line above frac valve. Lay flowback line to dual-flowbean or dual-choke manifold. Begin flowback when stimulation company is rigged down. Open well to pit in accordance to flowback schedule listed in the table below. Do not shut well in during flowback. When schedule dictates a larger choke size, open ball valve upstream of 2nd flowbean or adjustable choke and open adjustable choke or place

Lewis Payadd Procedure Unit J, Section 10, T-31N, R-9 W

Lat: 36° 54.6057' Long: 107° 45.8395'

correct size flowbean on manifold to pre-determined size listed in table and begin flowing through adjustable choke or 2nd flowbean. 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 2nd flowbean or adjustable choke.

40+ hour Flowback

| 16/64" Choke | From Shut-in — Until 2/3 of flush volume has been recovered (Approximately 73 BBL). |
|--------------|---|
| 10/64" Choke | Approximately 3 hrs. |
| 12/64" Choke | Approximately 3 hrs. |
| 14/64" Choke | Approximately 3 hrs. |
| 16/64" Choke | Approximately 4 hrs. |
| 18/64" Choke | Approximately 4 hrs. |
| 20/64" Choke | Approximately 4 hrs. |
| 22/64" Choke | Approximately 4 hrs. |
| 24/64" Choke | Approximately 4 hrs. |
| 32/64" Choke | Approximately 5 hrs. |
| 48/64" Choke | Approximately 5 hrs. |

NOTE: Follow this schedule to utilize a 40+ hour flowback. If well begins to slug or make large amounts of sand to surface, drop to next lower choke size. If well begins to taper off in liquid production (mostly N_2), change to next larger choke size before time schedule dictates.

- 10. Release packer and TOOH. Stand back 3-1/2" frac string, 3-1/2" X 2-3/8" crossover, and 2-3/8" Frac String.
- 11. TIH w/ 4-1/2" CIBP, on/off tool and 4-1/2" packer on 2-3/8" tbg and set CIBP @ ± 4475'. PUH, set packer @ 3550', and pressure test CIBP to 3800 psi. Release packer and TOOH.
- 12. Perforate Upper Lewis as follows using select fire HSC guns loaded with Owens HSC-3125 302T 10 gram charges set at 1 SPF and 120° phasing (Avg. perf diameter 0.30", Avg. penetration 16.64" in concrete). Correlate to new GR-CBL-CCL.

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4415', 14', 13', 12', 11', 10', 4367', 66', 65', 64', 63', 62', 26', 25', 24', 23', 22', 21', 02', 01', 00', 4299', 98', 97', 40', 39', 38', 37', 36', 35', 4190', 89', 88', 87', 86', 85', 84', 83', 82', 81', 80'
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For a total of 41 holes. RD wireline.

13. TIH with 4-1/2" RBP, on/off tool and 4-1/2" packer on 2-3/8" tubing.

Set RBP at RBP setting depth. PUH ± 10 ft and set Packer. RU stimulation company and pressure test RBP and lines to 3800 psi. Release packer, and reset packer at Packer Setting Depth. Breakdown perforations and establish an injection rate between 8 and 10 BPM with 200 gals of Acetic Acid + 5% NH4Cl **. Breakdown to the Max pressure of 3800 psi. Release packer and RBP. Repeat for the remaining intervals.

Lewis Payadd Procedure Unit J, Section 10, T-31N, R-9 W

Lat: 36° 54.6057' Long: 107° 45.8395'

| RBP Setting Depth | Packer Setting Depth | Perforation Intervals |
|----------------------|-------------------------|-----------------------|
| 4,460 | 4,335 | 4410-4415, 4362-4367 |
| 4,340 | 4,260 | 4321-4326, 4297-4302 |
| 4,275 | 4,130 | 4235-4240, 4180-4190 |

** All Acid to contain the following additives/ 1000 gal:

1000 gal 10% Acetic Acid
2 gal MSA II corrosion inhibitor
5% NH₄CL clay control

- 14. TOOH w/ RBP, Packer, and 2-3/8" tubing and stand back. TIH w/ 4-1/2" packer, 2 joints 2-3/8" 4.7#, 2-3/8" X 3-1/2" N-80 crossover, and 3-1/2" 9.3# N-80 Frac String. Set Packer @ 3550' or where good cement dictates.
- 15. Pressure Test surface lines to 7000 psi. Fracture stimulate Upper Lewis with 100,000 lbs 20/40 sand in 61,122 gals 70Q 20 lb linear gel at a MAXIMUM RATE OF 40 BPM in 1.0 to 4.0 ppg stages. Apply 500 psi to annulus. Monitor annulus pressure throughout stimulation. Tag sand with 3 radioactive isotopes. Estimated friction pressure @ 40 BPM is 4500 psi. Maximum Surface Treating Pressure is 6000 psi.

| | Sand Conc. | Stage Sand | BH Rate | BH Foam | Foam Volume | Liquid Volume | Nitrogen Rate | Stage N2 |
|-------|---------------|-----------------|------------|--------------|-------------------|-------------------|-------------------|-------------------|
| Stage | ppg | lbs | bpm | Qual. | gals | gals | scf/min | mscf |
| Pad | | <u>o</u> | <u>40</u> | <u>0.8</u> | <u>17000</u> | <u>3400</u> | 21509.72 | <u>217.657881</u> |
| 2 | 1 | 10,000 | 40 | 70% | 10,000 | 2,000 | 18,000 | 74.6 |
| 3 | 2 | 20,000 | 40 | 70% | 10,000 | 2,000 | 17,248 | 74.5 |
| 4 | 3 | 40,000 | 40 | 70% | 13,333 | 2,667 | 16,556 | 99.3 |
| 5 | 4 | 30,000 | 40 | 70% | 7,500 | 1,500 | 15,918 | 55.8 |
| Flush | | 0 | 40 | 0% | 3,289 | 3,289 | 0 | 0.0 |
| | | Total | Avg. | Avg. | Total | Total | Avg. | Total |
| | L | lbs. 100,000 | Rate 40 | Qual. 60% | gallons 61,122 | Gallons 14,856 | N2 Rate 14,872 | mscf 522 |

Slow rate during flush. Flush to top perf. Record ISIP, 5 minute, 10 minute, and 15 minute pressures. Shut-in frac valve. RD stimulation company. Install flowback line above frac valve. Lay flowback line to dual-flowbean or dual-choke manifold. Begin flowback when stimulation company is rigged down. Open well to pit in accordance to flowback schedule listed in the table below. Do not shut well in during flowback. When schedule dictates a larger choke size, open ball valve upstream of 2nd flowbean or adjustable choke and open adjustable choke or place correct size flowbean on manifold to pre-determined size listed in table and begin flowing through adjustable choke or 2nd flowbean. 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.

Lewis Payadd Procedure Unit J, Section 10, T-31N, R-9 W

Lat: 36° 54.6057' Long: 107° 45.8395'

40+ hour Flowback

| 16/64" Choke | From Shut-in - Until 2/3 of flush |
|--------------|-----------------------------------|
| 10/04 CHORE | 1 |
| | volume has been recovered |
| | (Approximately 52 BBL). |
| 10/64" Choke | Approximately 3 hrs. |
| 12/64" Choke | Approximately 3 hrs. |
| 14/64" Choke | Approximately 3 hrs. |
| 16/64" Choke | Approximately 4 hrs. |
| 18/64" Choke | Approximately 4 hrs. |
| 20/64" Choke | Approximately 4 hrs. |
| 22/64" Choke | Approximately 4 hrs. |
| 24/64" Choke | Approximately 4 hrs. |
| 32/64" Choke | Approximately 5 hrs. |
| 48/64" Choke | Approximately 5 hrs. |

NOTE: Follow this schedule to utilize a 40+ hour flowback. If well begins to slug or make large amounts of sand to surface, drop to next lower choke size. If well begins to taper off in liquid production (mostly N_2), change to next larger choke size before time schedule dictates.

- 16. Release packer and TOOH. Laydown 3-1/2" frac string, 3-1/2" X 2-3/8" crossover, and 2-3/8 Frac String.
- 17. TIH w/ 3-7/8" bit on 2-3/8" tubing and CO to CIBP @ 4475'. Monitor gas and water returns. When sand and water allow (less than 5 BPH and trace sand), take a Upper Lewis pitot gauge. DO CIBP @ 4475' with a minimum of 12 BPH mist rate.
- 18. CO to CIBP @ 4900'. Monitor gas and water returns. When sand and water allow (less than 5 BPH and trace sand), take a complete Lewis pitot gauge. DO CIBP @ 4900' with a minimum of 12 BPH mist rate.
- 19. Continue to CO to PBTD with air. Blow well at PBTD to check water rates. If needed continue to blow well for clean up. When water rates are below 5 BPH and there is no sand production, TOOH.
- 20. TIH with an expendable check, one 2-3/8" joint, seating nipple, and remaining production tubing. Broach tubing while running in hole. CO with air/mist to PBTD again, if necessary. Obtain final Lewis/Cliff House/Menefee/Point Lookout pitot gauge. Land tubing at 5628'. ND BOP. NU WH. Pump off expendable check. RDMO. Contact Production Operations for well tie-in.

| 21. RU F | Pro-Technics. Ru | n After Fr | ac Log ac | cross Lewis (4 | 4900' – 4100'). RD Pro-Technic | 3. |
|--------------|------------------------------------|------------------|-----------|----------------|--------------------------------|----|
| Recommend | ed: <u>Vichela S</u> Production | Engineer | <u>-</u> | Approved: _ | Drilling Superintendent | |
| | | _ • | • | Approved: | | |
| | | | | - | Team Leader | |
| Contact: | | | | | | |
| Michele Quis | sel 324-6162 (WC | PRK) | 326-819 | 6(PAGER) | 564-9097(HOME) | |
| Vendors: | Wireline: RA Tagging: | Schlum Pro-Te | - | 325-5 326-7 | | |

1750' FSL, 1680' FEL Unit J Sec. 10, T-31 R-09W San Juan County, New Mexico

KB 6526

GL 6515

