

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013
Permit 171928

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

| | | |
|---|--|-------------------------------|
| 1. Operator Name and Address LOGOS OPERATING, LLC 4001 N. Butler, Bldg 7101 Farmington, NM 87401 | | 2. OGRID Number 289408 |
| 4. Property Code 310176 | | 3. API Number 30-039-31195 |
| 5. Property Name NCRA STATE | | 6. Well No. 008P |

7. Surface Location

| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|------------|
| P | 16 | 24N | 06W | P | 888 | S | 470 | E | RIO ARRIBA |

8. Proposed Bottom Hole Location

| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|------------|
| P | 16 | 24N | 06W | P | 888 | S | 470 | E | Rio Arriba |

9. Pool Information

| | |
|---------------------------------|-------|
| DEVILS FORK GALLUP (ASSOCIATED) | 17610 |
| DEVILS FORK MESAVERDE | 17620 |

Additional Well Information

| | | | | |
|---------------------------|----------------------------|--|-------------------------|------------------------------------|
| 11. Work Type New Well | 12. Well Type OIL | 13. Cable/Rotary | 14. Lease Type State | 15. Ground Level Elevation 6769 |
| 16. Multiple Y | 17. Proposed Depth 6506 | 18. Formation Gallup Formation | 19. Contractor | 20. Spud Date 10/31/2013 |
| Depth to Ground water | | Distance from nearest fresh water well | | Distance to nearest surface water |

☐ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

| Type | Hole Size | Casing Type | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|------|-----------|-------------|------------------|---------------|-----------------|---------------|
| Surf | 12.25 | 8.625 | 32 | 320 | 225 | 0 |
| Prod | 7.875 | 5.5 | 15.5 | 6506 | 1012.27 | 0 |

Casing/Cement Program: Additional Comments

Surface casing: 8-5/8" - Use 225 sx (266 cu. ft.) of Type V with 2% CaCl₂ and ¼ #/sk celloflake (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 1500 psi. Production Casing: 5-1/2" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 30 bbls of fresh water. 1st Stage: Lead with 260 sx (458 cu.ft.) of C1 "B" 65/35 poz with 6% gel, 1% CaCl₂, 4% phenoseal, and ¼ #/sx celloflake (Yield = 1.76 cu. ft./sk; slurry weight = 12.8 PPG). Tail with 100 sx (146 cu.ft.) of C1 "B" 50/50 poz with 0.15% dispersant, 1% CaCl₂ and ¼ #/sk. celloflake. (Yield = 1.46 cu. ft./sk; slurry weight = 13.0 PPG). 2nd Stage: Precede cement with 20 bbls of water. Lead with 600 sx (1056 cu.ft.) C1 "B" 65/35 poz with 6% gel, 1% CaCl₂, and ¼ #/sx celloflake (Yield = 1.76 cu. ft./sk; slurry weight = 12.8 PPG). Tail with 100 sx (146 cu.ft.) of C1 "B" 50/50 poz with 0.15% dispersant, 1% C

22. Proposed Blowout Prevention Program

| Type | Working Pressure | Test Pressure | Manufacturer |
|-----------|------------------|---------------|--------------|
| DoubleRam | 2000 | 1500 | |

| | |
|---|--|
| 23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable. Signature: Printed Name: Electronically filed by DAVID PAUL GONZALES Title: VICE PRESIDENT OF OPERATIONS Email Address: dgonzales@logosresourcesllc.com Date: 8/23/2013 | OIL CONSERVATION DIVISION Approved By: Charlie Perrin Title: District Supervisor Approved Date: 8/28/2013 Expiration Date: 8/28/2015 Conditions of Approval Attached |
|---|--|

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Form C-102
August 1, 2011
Permit 171928

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | |
|-------------------------------|--|---|
| 1. API Number 30-039-31195 | 2. Pool Code 17610 | 3. Pool Name DEVILS FORK GALLUP (ASSOCIATED) |
| 4. Property Code 310176 | 5. Property Name NCRA STATE | 6. Well No. 008P |
| 7. OGRID No. 289408 | 8. Operator Name LOGOS OPERATING, LLC | 9. Elevation 6769 |

10. Surface Location

| | | | | | | | | | |
|---------------|---------------|-----------------|--------------|---------|------------------|---------------|------------------|---------------|----------------------|
| UL - Lot P | Section 16 | Township 24N | Range 06W | Lot Idn | Feet From 888 | N/S Line S | Feet From 470 | E/W Line E | County RIO ARriba |
|---------------|---------------|-----------------|--------------|---------|------------------|---------------|------------------|---------------|----------------------|

11. Bottom Hole Location If Different From Surface

| | | | | | | | | | |
|-------------------------------|---------------------|------------------------|---------------|---------|-----------|----------|-----------|----------|--------|
| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
| 12. Dedicated Acres 160.00 | 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

| | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
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| | | | | <p align="center">SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> <p>Surveyed By: Glen Russell Date of Survey: 8/15/2013 Certificate Number: 15703</p> | | | | | | | | | | | | | | | | |

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| 12. Dedicated Acres 40.00 | 13. Joint or Infill | 14. Consolidation Code | 15. Order No. | | | | | | |

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Permit Conditions of Approval

Operator: LOGOS OPERATING, LLC , 289408

Well: NCRA STATE #008P

API: 30-039-31195

| OCD Reviewer | Condition |
|--------------|---|
| whoppe | Setbacks in the Gallup require 790 feet |
| CPerrin | Requires NSL, Hold C-104 for NSL Gallup |