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OIL CONS. DIV.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FEB 03 2012

Farmington Field Office
REENTER and Management

APPLICATION FOR PERMIT TO DRILL OR REENTER

DIST. 3
FORM APPROVED
OMB No 1004-0136
Expires November 30, 2000

1a. Type of Work: ☒ DRILL ☐ REENTER

5. Lease Serial No.

Jicarilla Apache Lease 424

6. If Indian, Allottee or Tribe Name

Jicarilla Apache Nation

7. If Unit or CA Agreement, Name and No

8. Lease Name and Well No

Logos #2

b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator

Logos Capital Management, LLC

3A. Address c/o Walsh Engineering

7415 E. Main, Farmington, NM 87402

3b. Phone No. (include area code)

(505) 327-4892

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At surface 1930' FSL and 730' FEL

At proposed prod. Zone

Same

14. Distance in miles and direction from nearest town or post office*

4 miles southwest of Counselors, NM

10. Field and Pool, or Exploratory

Basin Dakota

11. Sec., T., R., M., or Blk., and Survey or Area

I Sec. 6, T22N, R5W

12. County or Parish

Sandoval

13. State

NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)

730'

16. No. of Acres in lease

2561.60
2560 +/-

17. Spacing Unit dedicated to this well

320.90
E/2 320.85 acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.

5,000

19. Proposed Depth

6,550' +/-

20. BLM/BIA Bond No. on file

Bond #1062070

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

6901' GL

22. Approximate date work will start*

April 1, 2012

23. Estimated duration

2 weeks

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.

2. A Drilling Plan

3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office)

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).

5. Operator certification.

6. Such other site specific information and/or plans as may be required by the authorized office

25. Signature

Paul C. Thompson

Name (Printed/Typed)

Paul C. Thompson, P.E.

Date

2/2/2012

Title

Agent/Engineer

Approved by (Signature)

[Signature]

Name (Printed/Typed)

Date

6/1/12

Title

Office

FFO

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

Conditions of approval, if any, are attached

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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

*(Instructions on reverse)

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

NMOCD

A

ca JUN 15 2012

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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Submit one copy to
Appropriate District Office

Santa Fe, NM 87505 Office
Bureau of Land Management.

☐ AMENDED REPORT

'API Number 30-043-21120	'Pool Code 71599	'Pool Name BASIN DAKOTA
'Property Code 39230	'Property Name LOGOS	'Well Number 2
'OGRID No. 287123	'Operator Name LOGOS CAPITAL MANAGEMENT, LLC	'Elevation 6901'

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	6	22N	5W		1930	SOUTH	730	EAST	SANDOVAL

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 320.85 Acres - (E/2)					¹³ Joint or Infill N	¹⁴ Consolidation Code	¹⁵ Order No.		

LOGOS CAPITAL MANAGEMENT, LLC.
OPERATIONS PLAN
LOGOS #2

I. Location: 1930' FSL & 730' FEL
Sec 6, T22N, R5W
Sandoval County, NM

Date: February 2, 2010

Field: Basin Dakota
Surface: Jicarilla Apache
Minerals: Jicarilla Lease #424

Elev: GL 6,901'

II. Geology: Surface formation _ Nacimiento

A. Formation Tops	Depths
Ojo Alamo	1,340'
Kirtland	1,620'
Pictured Cliffs	1,853'
Lewis	1,944'
Chacra	2,276'
Cliff House	3,332'
Menefee	3,413'
Point Lookout	4,092'
Mancos	4,283'
Niobrara A	5,027'
Niobrara B	5,130'
Niobrara C	5,247'
Greenhorn	6,093'
Graneros	6,140'
Dakota	6,160'
Morrison	6,540'
Total Depth	6,550'

Estimated depths of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered:

Water and gas - 1,853, 2,276', 3,332', 4,092'.

Water, gas, and oil - 4,283', 5,027', 5,130', 5,247', and 6,160'.

B. Logging Program: Induction/GR and density/neutron logs from TD to the surface casing point. Mud logs will be run from below the surface casing to TD. No DST's or cores are planned for this well. Cased hole GR/CCl and CBL logs will be run from PBTD to surface.

C. No over pressured zones are expected in this well. No H₂S zones will be penetrated in this well. Max. BHP = 2,850 psig. Lost circulation zones may be encountered in the Mesa Verde group and Niobrara sections.

III. Drilling

A. Contractor:

B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with a fresh water mud and will use bentonite to increase the viscosity. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected is 9.2 ppg. The water loss will be controlled to a 6 - 8 cc/30 min. and loss circulation will be controlled with cedar fiber, paper, ect.

The Charca, Cliff House, Menefee, and Point Lookout, Mancos, Niobrara, and Dakota formations will all be considered for completion in this well. A completion procedure will be developed after evaluating the wireline and mud logs.

C. Minimum Blowout Control Specifications:

Double ram type 2000 psi working pressure BOP with a rotating head. See the attached Exhibit #1 for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up to 250 psi (Low) for 5 minutes and 1,500 psi (High) for 10 minutes. All tests and inspections will be recorded in the daily drilling tour book.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
12-1/4"	320'	8-5/8"	32# J-55
7-7/8"	6,550'	5-1/5"	15.5# J-55

B. Float Equipment:

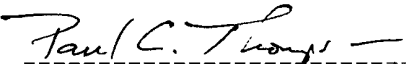
a) Surface Casing: Notched collar, aluminum insert float in the first collar, and 3 centralizers on the bottom 3 joints.

b) Production Casing: Production Casing: 5-1/2" cement float shoe and self-fill insert float collar. Place float one joint above shoe. **Place DV tool at 4250'**. Place ten centralizers spaced every other joint above the shoe, two turbolizers on the collars below the DV tool and two turbolizers above the DV tool. Place five turbolizers every third joint from the top of the well.

V. Cementing:

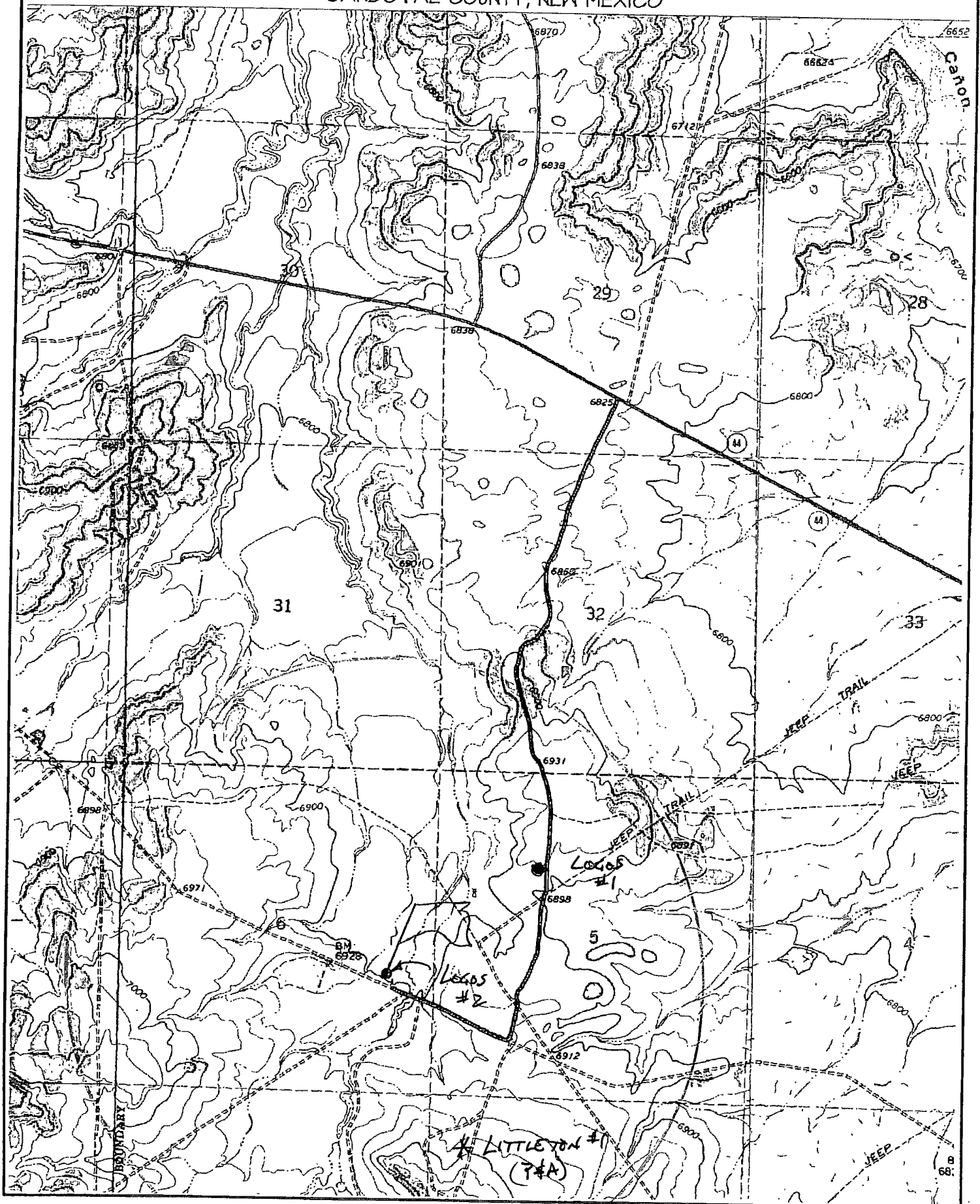
Surface casing: 8-5/8" - Use 225 sx (266 cu. ft.) of Type V with 2% CaCl_2 and $\frac{1}{4}$ #/sk celloflake (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 1500 psi.

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 Cl "B" 65/35 poz with 6% gel, 1% CaCl_2 , 4% phenoseal, and $\frac{1}{4}$ #/sx celloflake (Yield = 1.76 cu. ft./sk; slurry weight = 12.8 PPG). **Tail** with 100 sx (146 cu.ft.) of Cl "B" 50/50 poz with 0.15% dispersant, 1% CaCl_2 and $\frac{1}{4}$ #/sk. celloflake. (Yield = 1.46 cu. ft./sk; slurry weight = 13.0 PPG). **2nd Stage:** Precede cement with 20 bbls of water. **Lead** with 550 sx (968 cu.ft) Cl "B" 65/35 poz with 6% gel, 1% CaCl_2 , and $\frac{1}{4}$ #/sx celloflake (Yield = 1.76 cu. ft./sk; slurry weight = 12.8 PPG). **Tail** with 100 sx (146 cu.ft.) of Cl "B" 50/50 poz with 0.15% dispersant, 1% CaCl_2 and $\frac{1}{4}$ #/sk. celloflake. (Yield = 1.46 cu. ft./sk; slurry weight = 13.0 PPG). Total cement volume is 1806 cu.ft. (50% excess to hole volume to circulate cement to surface).



Paul C. Thompson, P.E.

PLAT #1
LOGOS CAPITAL MANAGEMENT, LLC LOGOS #2
1930' FSL 730' FEL, SECTION 6, T22N, R. ., N.M.P.M.
SANDOVAL COUNTY, NEW MEXICO



Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Exhibit #1 Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)

