

State of New Mexico  
Energy, Minerals and Natural Resources Department

**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary-Designate

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey, Division Director**  
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions  
listed below are made in accordance with OCD Rule 19.15.7.11  
and are in addition to the actions approved by BLM on the  
following 3160-4 or 3160-5 form.

Operator Signature Date: February 19<sup>th</sup>, 2013

Application Type:

☐ P&A    ☐ Drilling/Casing Change    ☐ Recomplete/DHC  
☒ Location Change    ☐ Other: \_\_\_\_\_

Well information:

API WELL #	Well Name	Well #	Operator Name	Type	Stat	County	Surf. Owner	UL	Sec	Twp	N/S	Rng	W/E
30-045-35420-00-00	LOGOS	004	LOGOS OPERATING, LLC	O	N	San Juan	F	C	1	23	N	8	W

Conditions of Approval:

Notify NMOCD 24hrs prior to beginning operations

Hold C104 for amendment to NSL due to surface hole location change

Submit new sundry and plat reflecting Basin Mancos Gas Pool per NSP 1960  
and NSL 6751

DEC 19 2013

\_\_\_\_\_  
NMOCD Approved by Signature

\_\_\_\_\_  
Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

FEB 19 2013

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

Farmington Field

5. Lease Serial No.  
NM 09397

6. Indian Allottee or Tribe Name

## SUDDRY NOTICES AND REPORTS ON WELLS OF Land Man

**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

SUBMIT IN TRIPLICATE - Other instructions on page 2.

## 1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator  
Logos Operating, LLC3a. Address  
4001 North Butler Avenue, Building 7101  
Farmington, NM 874013b. Phone No. (include area code)  
505-436-2627

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.  
Logos #49. API Well No.  
30-045-3542010. Field and Pool or Exploratory Area  
Lybrook Gallup Ext. NSPU4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1256' FNL, 2298' FWL  
Section 1, T23N, R8W, UL C11. County or Parish, State  
San Juan County, NM

## 12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other Location Change
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Logos Operating, LLC proposes to move the location of the Logos #4 (30-045-35420) per the request of Craig Willems at the FFO. The location will be in the SE/4 of Unit Letter C, Section 1, T23N, R8W (1256' FNL, 2298' FWL). Please find attached the revised plat, operations plan and multi-point surface use plan.

RCVD DEC 13 '13  
OIL CONS. DIV.  
DIST. 3SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

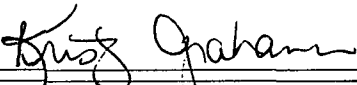
CONFIDENTIAL

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Kristy Graham

Title Director of Administration and Engineering Support

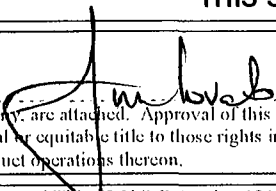
Signature



Date 02/19/2013

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by



Title

Petr. Eng.

Date

12/12/13

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

Title 18 U.S.C. Section 1001 and Title 18 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 page 2)

NMOCDA

District I  
1625 N. French Drive, Hobbs, NM 88240  
Phone: (575) 393-6151 Fax: (575) 393-0720

District II  
811 S. First Street, Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 1, 2011

Submit one copy to  
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive  
Santa Fe, NM 87505

AMENDED REPORT  
RECEIVED

FEB 19 2013

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number	*Pool Code 42289	*Pool Name LYBROOK GAILUP	Farmington Field Office Bureau of Land Management
*Property Code	*Property Name LOGOS	*Well Number 4	
*GRID No. 289408	*Operator Name LOGOS RESOURCES, LLC	*Elevation 6934'	

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
C	1	23N	8W	3	1256	NORTH	2298	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

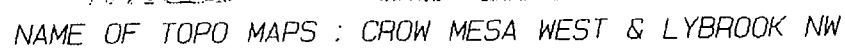
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres 40.20 Acres - (NE/4 NW/4)					13 Joint or Infill	14 Consolidation Code	15 Order No.	RCVD DEC 13 '13 OIL CONS. DIV. DIST. 3	

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 WEST 2665.08' (RECORD) NB9°56'W 2649.90' (RECORD)  
S89°53'09"W 2663.48' (MEASURED) S89°55'30"W 2649.14' (MEASURED)

NO 17°W 2671.68' (RECORD) NO 24°03'W 2670.60' (MEASURED)	LOT 4	LEASE NM-109397	LOT 3	1256'	LOT 2	LOT 1	NO 06°E 2649.24' (RECORD) NO 02°27'W 2649.50' (MEASURED)	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  Signature: <i>Paul M. Williams</i> Date: 2/19/2013 Printed Name: Paul M. Williams E-mail Address: jmcwilliams@logosresourcesllc.com
								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. Date Revised: FEBRUARY 19, 2013 Date of Survey: JULY 19, 2012 Signature and Seal of Professional Surveyor  JASON C. EDWARDS NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 15269 JASON C. EDWARDS Certificate Number 15269
NO 17°W 2661.12' (RECORD) NO 28°54'W 2661.26' (MEASURED)	LAT: 36.26007°N LONG: 107.63384°W DATUM: NAD1927  LAT: 36.26008°N LONG: 107.63444°W DATUM: NAD1983							
S89°38'W 2640.33' (RECORD) S89°34'19"W 2640.21' (MEASURED)								S89°36'W 2640.33' (RECORD) S89°29'57"W 2642.36' (MEASURED)

1256' FNL & 2298' FWL, SECTION 1, T23N, R8W, N.M.P.M.  
SAN JUAN COUNTY, NEW MEXICO



Logos #4 Section 1, T23N, R08W, Unit Letter C – wells within a one-mile radius

API#	Company	Lease Name	Well#	County	Legal	Field	Status
30-045-30516	ELM RIDGE	SOUTH BLANCO COAL 36	1	SAN JUAN	S:36, T:24N, R:8W	BASIN FRC	Producing
30-045-24419	HANAGAN PETROLEUM	PRE-ONGARD WELL	33	SAN JUAN	S:2, T:23N, R:8W		Plugged
30-045-24682	HANAGAN PETROLEUM	PRE-ONGARD WELL	4	SAN JUAN	S:36, T:24N, R:8W		Plugged
30-045-05088	HANAGAN PETROLEUM	PRE-ONGARD WELL	1	SAN JUAN	S:1, T:23N, R:8W	WC D3	Plugged
30-045-27641	HANAGAN PETROLEUM	PRE-ONGARD WELL	8	SAN JUAN	S:36, T:24N, R:8W		Plugged
30-045-27639	ELM RIDGE	SOUTH BLANCO STATE 36	6	SAN JUAN	S:36, T:24N, R:8W	LYBROOK	Producing
30-045-27640	ELM RIDGE	SOUTH BLANCO STATE 36	7	SAN JUAN	S:36, T:24N, R:8W	LYBROOK	Producing
30-045-25272	ELM RIDGE	STATE OF NEW MEXICO 36	13	SAN JUAN	S:36, T:24N, R:8W	LYBROOK	Plugged
30-045-25273	ELM RIDGE	STATE OF NEW MEXICO 36	14	SAN JUAN	S:36, T:24N, R:8W	LYBROOK	Producing
30-045-25274	ELM RIDGE	STATE OF NEW MEXICO 36	24	SAN JUAN	S:36, T:24N, R:8W	LYBROOK	Producing

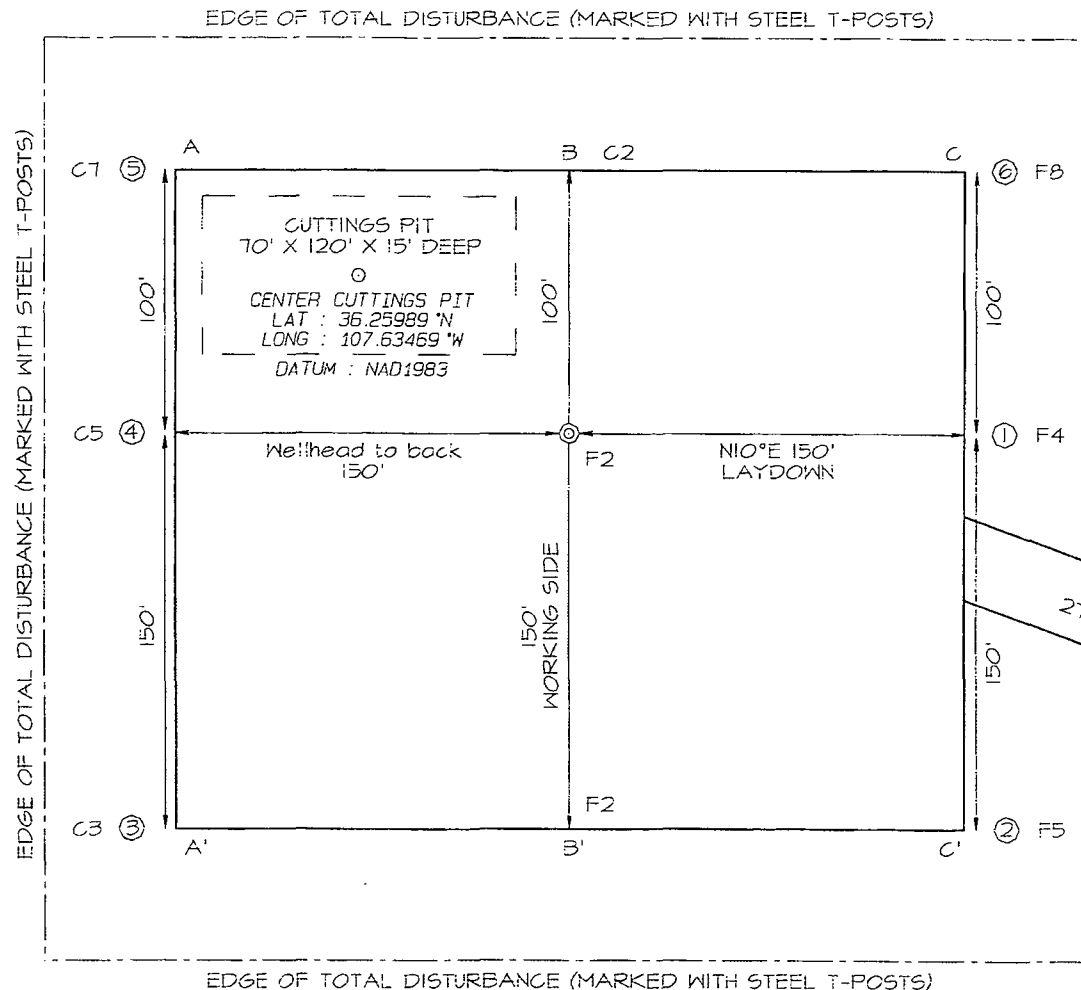




LOGOS RESOURCES, LLC LOGOS #4  
 1256' FNL & 2298' FWL, SECTION 1, T23N, R8W, NMPM  
 SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6934'  
 LAT: 36.26008°N LONG: 107.63444°W DATUM: NAD1983

~ SURFACE OWNER ~  
 Bureau of Land Management

GRAPHIC SCALE: 1"=70'  
 0 70 140



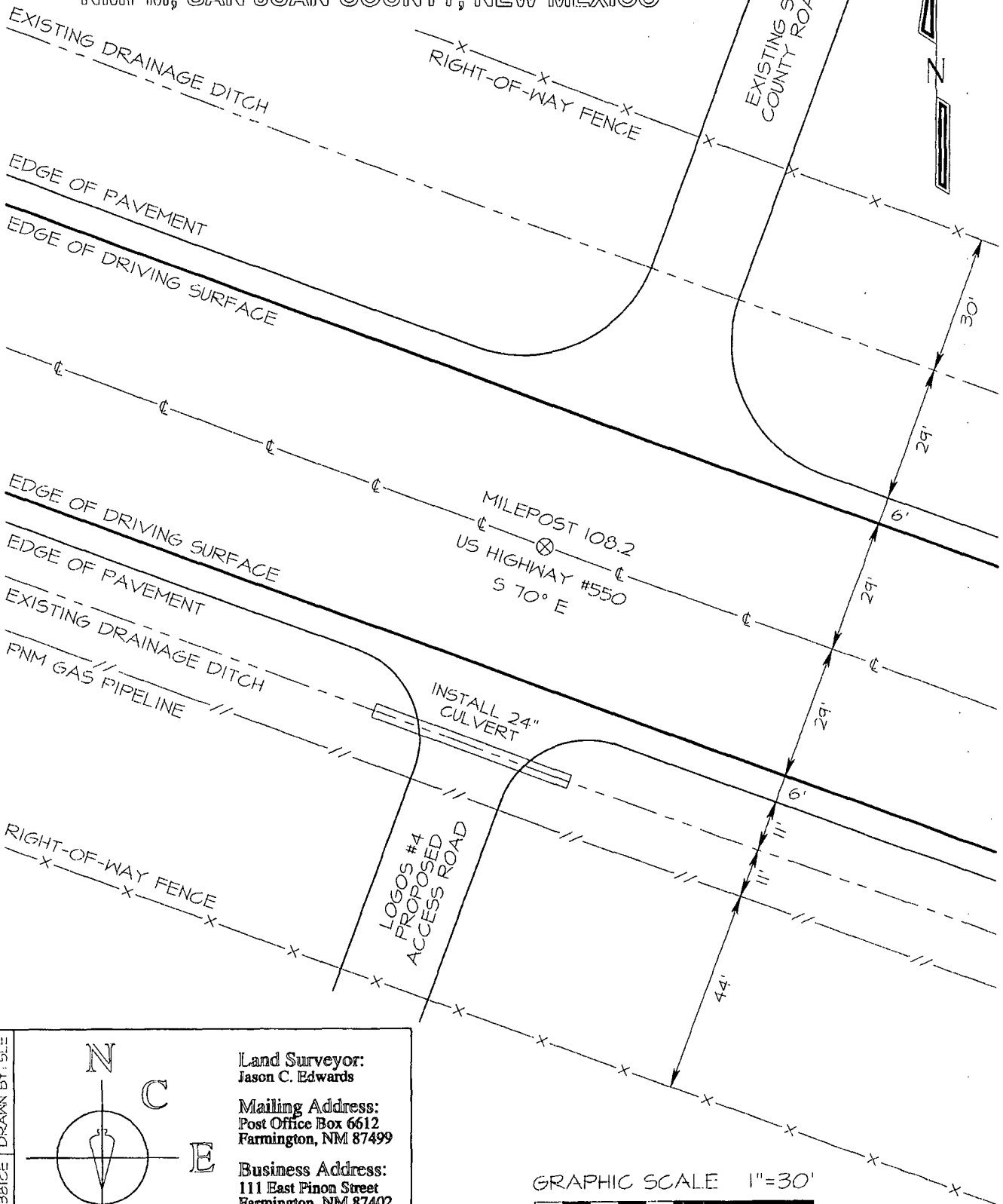
270' TOTAL ACCESS LENGTH  
 205' - Bureau of Land Management  
 65' - Highway Department

AREA OF WELLPAD = 350' X 400' = 3.21 Acres

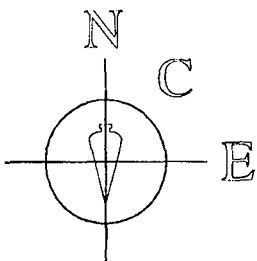
Steel T-Posts have been set to define Edge of Disturbance limits which are 50' offset from the edge of the staked wellpad.

# LOGOS RESOURCES, LLC LOGOS #4

US HWY #550 DRIVE-WAY PERMIT FOR LOGOS #4  
1256' FNL & 2298' FWL, SECTION 1, T23N, R8W  
NMPM, SAN JUAN COUNTY, NEW MEXICO



SHEET 5 OF 5  
FILENAME: 288ICE  
CHECKED: JCE  
DRAWN BY: SLE



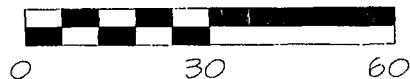
Land Surveyor:  
Jason C. Edwards

Mailing Address:  
Post Office Box 6612  
Farmington, NM 87499

Business Address:  
111 East Pinon Street  
Farmington, NM 87402  
(505) 486-1695 (Office)

**SURVEYS, INC.**

GRAPHIC SCALE 1"=30'

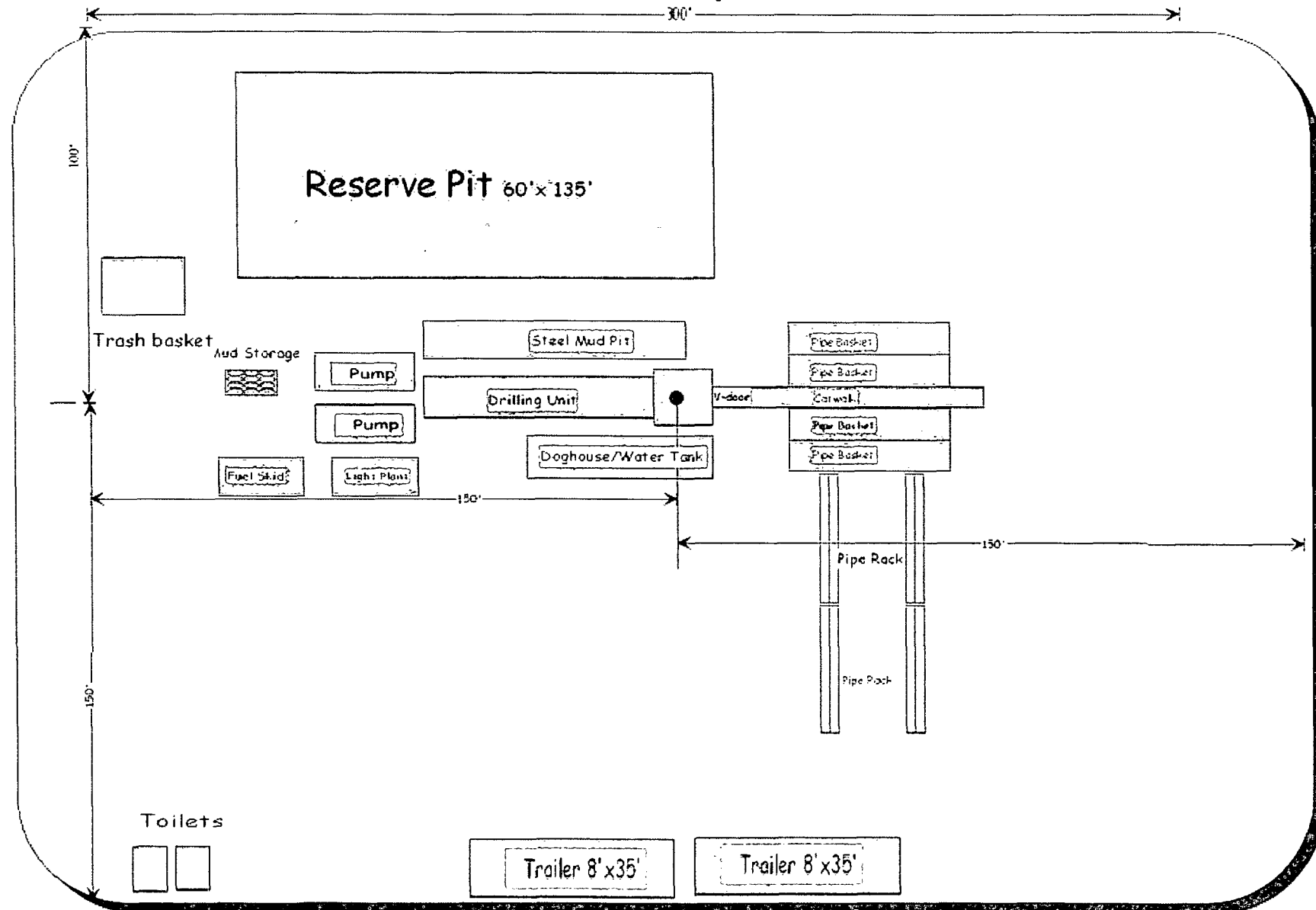




Plat #3  
Location Diagram

November, 2001  
John Thompson

Location Dimensions 300' X 250'



Great Western Drilling Company  
Typical Location Layout

LOGOS OPERATING, LLC.  
OPERATIONS PLAN  
LOGOS #4

**Note:** This procedure will be adjusted on site based on actual conditions.

I. Location: 1256' FNL & 2298' FWL Date: February 19, 2013  
Sec 1, T23N, R8W  
San Juan County, NM

Field: Lybrook Gallup Ext. NSPU Elev: GL 6,934'  
Surface: Federal  
Minerals: Federal

II. Geology: Surface formation \_ Nacimiento

A. Formation Tops	Depths
Ojo Alamo	1,149'
Kirtland	1,488'
Fruitland	1,820'
Pictured Cliffs	1,838'
Lewis	1,910'
Chacra	2,235'
Chacra Mrkr	2,674'
Cliff House	3,317'
Menefee	3,344'
Point Lookout	4,201'
Mancos	4,390'
Niobrara B	5,224'
Niobrara C	5,320'
Greenhorn	5,916'
Dakota	5,983'
Morrison	6,363'
Total Depth	6,373'

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

Water and gas - 1,820', 1,838', 2,235', 3,317', 4,201'  
Water, gas, and oil - 4,390', 5,224', 5,320', and 5,983'

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/CCI and CBL logs will be run from PBTD to surface.

C. No over pressured zones are expected in this well. No H<sub>2</sub>S 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, etc.

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. Surface casing will be tested to 600 psi before drillout. 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'	9-5/8"	36# J-55
7-7/8"	6,600'	5-1/2"	15.5# L-80

##### 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 4,440'**. 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:

**Note: Cement volumes will be adjusted based on actual conditions.**

**Surface casing: 9-5/8"** - Use 225 sx (266 cu. ft.) of Type V with 2% CaCl<sub>2</sub> 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. **1<sup>st</sup> Stage: Lead** with 260 sx (458 cu.ft.) of Cl "B" 65/35 poz with 6% gel, 1%  $\text{CaCl}_2$ , 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%  $\text{CaCl}_2$  and  $\frac{1}{4}$  #/sk. celloflake. (Yield = 1.46 cu. ft./sk; slurry weight = 13.0 PPG). **2<sup>nd</sup> Stage:** Precede cement with 20 bbls of water. **Lead** with 600 sx (1056 cu.ft) Cl "B" 65/35 poz with 6% gel, 1%  $\text{CaCl}_2$ , 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%  $\text{CaCl}_2$  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).



-----  
Jay Paul McWilliams  
President  
Logos Operating, LLC

# MULTI-POINT SURFACE USE PLAN

## Logos #4

1. Existing Roads:

All existing roads used to access the proposed location are shown on attached Plat #1 and shall be maintained in the same or better condition than presently found.

Directions: From the intersection of HWY 550 and HWY 64 in Bloomfield, travel South on 550 for 43.4 where access is staked on the right side of the road.

2. Planned Access Roads:

Approximately 270' of new access road will be constructed for this location. The existing access road will be maintained in at least the current condition and will be upgraded where necessary to provide uninterrupted access to the proposed well.

3. Location of Existing Wells:

Attached map (Plat #1) shows existing wells within a one mile radius of the proposed well. There are five P&Ad wells and five producing wells within one mile.

4. Location of Production Facilities:

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion.

Upon completion of drilling, the location and surrounding area will be cleared of all debris.

5. Water Supply:

Water for drilling and completion operations will be hauled by truck from various permitted water sources within the area through the water haulers association.

6. Source of Construction Materials:

No additional construction materials will be required to build the proposed location.

7. Methods for Handling Waste Disposal:

a. The drill cuttings, fluids and completion fluids will be placed in the reserve pit. The reserve pit will be lined with a 20 mil liner and fenced prior to drilling. The reserve pit will be allowed to dry, and materials remaining in the reserve pit buried. The reserve pit will be backfilled, leveled and contoured so as to prevent any materials being carried into the watershed. Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture.

b. All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped in an approved land fill upon completion of operations.

c. Portable toilets will be provided and maintained during drilling operations. See Plat #3 for location.

8. Ancillary Facilities:

Ancillary facilities are to be based on well productivity. The gas pipeline size and route is yet to be determined.

9. Well Site Layout:

A cross section of the drill pad with approximate cuts, fills, and pad orientation is attached as Plat #2. Location of drilling equipment, rig orientation, and access road approach is also attached as Plat #3.

As per the on-site the following will apply for location construction:

- a. The pit will be "stepped-down" into the cut.
- b. Standard BLM tree stipulations.
- c. 24" culvert @ take off for access.
- d. Divert water around pad with top soil.
- e. Plan to use top soil for interim reclamation.

Please note "Conditions of Approval" for any additional stipulations.

10. Plans for Restoration of Surface:

When the well is abandoned, the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with the appropriate seed mixture.

If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted the color designated by the surface managing agency.

11. Surface Ownership:

The surface ownership of the proposed well pad is the BLM. The original on-site inspection with a BLM representative was performed October 16, 2012. The second on-site inspection with a BLM representative was performed February 15, 2013.

12. Other Information:

La Plata Archaeological Consultants have prepared an EA and a T&E species survey for the access road and location. La Plata Archaeological Consultants performed an archaeology survey. Copies of their reports will be sent directly to the BLM. No conflicts were discovered.


13. Lessee's or Operator's Representative:

John C. Thompson, Engineer  
Walsh Engineering & Production Corporation  
7415 East Main  
Farmington, NM 87402  
Phone: (505) 327-4892

14. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that I have full knowledge of state and federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Logos Operating, LLC, and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to 18 U.S. Code 1001 for the filing of a false statement.

2/19/2013  
Date

  
Jay Paul McWilliams  
President / Logos Operating, LLC