

|                                   |                                                                           |                                                |
|-----------------------------------|---------------------------------------------------------------------------|------------------------------------------------|
| <b>Well Name:</b> ROSA UNIT       | <b>Well Location:</b> T31N / R5W / SEC 33 / SWNW / 36.856127 / -107.37341 | <b>County or Parish/State:</b> RIO ARriba / NM |
| <b>Well Number:</b> 756H          | <b>Type of Well:</b> CONVENTIONAL GAS WELL                                | <b>Allottee or Tribe Name:</b>                 |
| <b>Lease Number:</b> NMSF078773   | <b>Unit or CA Name:</b>                                                   | <b>Unit or CA Number:</b> NMNM078407E          |
| <b>US Well Number:</b> 3003931458 | <b>Operator:</b> LOGOS OPERATING LLC                                      |                                                |

### Notice of Intent

**Sundry ID:** 2791171

**Type of Submission:** Notice of Intent

**Type of Action:** Other

**Date Sundry Submitted:** 05/17/2024

**Time Sundry Submitted:** 02:15

**Date proposed operation will begin:** 05/20/2024

**Procedure Description:** LOGOS Operating request a change in plans for the following (based on KB elevation): Original surface-hole location from 2631' FNL & 951' FWL to new surface-hole location 2612' FSL & 952' FWL Original bottom-hole location from 1125' FSL & 1427' FEL to new bottom-hole location 660' FSL & 10' FEL Original TD @ 21,328' (MD) 7,099' (TVD) to new TD @ 21,798' (MD) 7,095' (TVD). Geology tops have been updated per changes. Original KOP @ 6,694' MD 6,543' TVD to new KOP @ 6,695' MD 6,487' TVD Original Landing point @ 7,581' MD 7,089' TVD to new Landing point @ 7,678' MD 7,085' TVD Original 13.375" Surface casing @ 320' MD to new 20" Surface casing @ 350' MD or greater Original 9.625" casing Intermediate @ 6,494' MD to new 9.625" Intermediate casing @ 6,547' MD Original 5.5" casing Production casing @ 20,328' MD to new 5.5" Production casing @ 21,798' MD All cementing bbls and sacks have been updated per casing depth changes. Attached: New C102, Operation and Directional Drill plans.

### Surface Disturbance

**Is any additional surface disturbance proposed?:** No

### NOI Attachments

#### Procedure Description

3160\_005\_Rosa\_Unit\_756H\_Change\_in\_Plan\_7\_\_20240516\_20240517141441.pdf

Well Name: ROSA UNIT

Well Location: T31N / R5W / SEC 33 /  
SWNW / 36.856127 / -107.37341County or Parish/State: RIO  
ARRIBA / NM

Well Number: 756H

Type of Well: CONVENTIONAL GAS  
WELL

Allottee or Tribe Name:

Lease Number: NMSF078773

Unit or CA Name:

Unit or CA Number:  
NMNM078407E

US Well Number: 3003931458

Operator: LOGOS OPERATING LLC

**Operator**

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: ETTA TRUJILLO

Signed on: MAY 17, 2024 02:14 PM

Name: LOGOS OPERATING LLC

Title: Regulatory Specialist

Street Address: 2010 AFTON PLACE

City: Farmington

State: NM

Phone: (505) 324-4154

Email address: ETRUJILLO@LOGOSRESOURCESLLC.COM

**Field**

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

**BLM Point of Contact**

BLM POC Name: KENNETH G RENNICK

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647742

BLM POC Email Address: krennick@blm.gov

Disposition: Approved

Disposition Date: 05/20/2024

Signature: Kenneth Rennick

Form 3160-5  
(June 2019)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB  
No. 1004-0137 Expires:  
December 31, 2024

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

5. Lease Serial No.  
NMSF078773

6. If Indian, Allottee or Tribe Name

|                                                                                                                                  |                                                     |                                                        |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------|
| <b>SUBMIT IN TRIPLICATE - Other instructions on page 2</b>                                                                       |                                                     | 7. If Unit of CA/Agreement, Name and/or No.            |
| 1. Type of Well<br><input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other |                                                     | 8. Well Name and No.<br>ROSA UNIT 756H                 |
| 2. Name of Operator<br>LOGOS OPERATING, LLC                                                                                      |                                                     | 9. API Well No.<br>30-039-31458                        |
| 3a. Address<br>2010 AFTON PLACE<br>FARMINGTON, NM 87401                                                                          | 3b. Phone No. (include area code)<br>(505) 278-8720 | 10. Field and Pool or Exploratory Area<br>BASIN MANCOS |
| 4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)<br>UNIT L SEC 33 T31N 5W 2612' FSL 952' FWL                 |                                                     | 11. Country or Parish, State<br>RIO ARriba, NEW MEXICO |

| 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"/> Hydraulic Fracturing | <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 type="checkbox"/> Other          |  |
|                                                                                      | <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 recompleate 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 perfonned 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 recompleation 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 detennined that the site is ready for final inspection.)

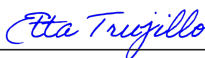
LOGOS Operating request a change in plans for the following (based on KB elevation):

Original surface-hole location from 2631' FNL & 951' FWL to **new surface-hole location 2612' FSL & 952' FWL**  
Original bottom-hole location from 1125' FSL & 1427' FEL to **new bottom-hole location 660' FSL & 10' FEL**  
Original TD @ 21,328' (MD) 7,099' (TVD) to **new TD @ 21,798' (MD) 7,095' (TVD).**

Geology tops have been updated per changes.  
Original KOP @ 6,694' MD 6,543' TVD to **new KOP @ 6,695' MD 6,487' TVD**  
Original Landing point @ 7,581' MD 7,089' TVD to **new Landing point @ 7,678' MD 7,085' TVD**

Original 13.375" Surface casing @ 320' MD to **new 20" Surface casing @ 350' MD or greater**  
Original 9,625" casing Intermediate @ 6,494' MD to **new 9.625" Intermediate casing @ 6,547' MD**  
Original 5.5" casing Production casing @ 20,328' MD to **new 5.5" Production casing @ 21,798' MD**

All cementing bbls and sacks have been updated per casing depth changes.  
Attached: New C102, Operation and Directional Drill plans.

|                                                                                                    |  |                                |
|----------------------------------------------------------------------------------------------------|--|--------------------------------|
| 14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)<br>Etta Trujillo |  | Title<br>Regulatory Specialist |
| Signature<br>   |  | Date<br>5/17/2024              |

| THE SPACE FOR FEDERAL OR STATE OFFICE USE                                                                                                                                                                                                                 |        |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------|
| Approved by                                                                                                                                                                                                                                               | Title  | Date |
| 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 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 page 2)

**JASON C. EDWARDS**  
Certificate Number 15269

LAT: 36.850702 °N  
LONG: -107.322612 °W  
DATUM: NAD1983



## LOGOS Operating, LLC Operations Plan

*Note: This procedure will be adjusted onsite based upon actual conditions*

|                           |                                                                              |                 |              |
|---------------------------|------------------------------------------------------------------------------|-----------------|--------------|
| Date:                     | May 14, 2024                                                                 | Pool:           | Basin Mancos |
| Well Name:                | Rosa Unit 756H                                                               | GL Elevation:   | 6,534'       |
| Surface Location:         | Sec 33, T31N, R5W 2612' FSL, 952' FWL (36.856045° N, -170.373405° W – NAD83) | KB:             | 30'          |
| Bottom Hole Location:     | Sec 35, T31N, R5W 660' FSL, 10' FEL (36.850702° N, -107.322612° W – NAD83)   | Measured Depth: | 21,798' (KB) |
| Lease Serial<br>CA Serial | # NMSF078773<br># NMNM78407E                                                 | County:         | Rio Arriba   |

### I. GEOLOGY

A. Formation Tops (Based on KB Elevation): Estimated top of important geological markers:  
SURFACE FORMATION – NACIMIENTO

| NAME             | MD    | TVD   | NAME           | MD     | TVD   |
|------------------|-------|-------|----------------|--------|-------|
| OJO ALAMO        | 2747' | 2684' | *POINT LOOKOUT | 5983'  | 5801' |
| KIRTLAND         | 2898' | 2829' | *MANCOS        | 6472'  | 6272' |
| *FRUITLAND       | 3271' | 3189' | KICKOFF POINT  | 6695'  | 6487' |
| *PICTURED CLIFFS | 3647' | 3551' | LANDING POINT  | 7678'  | 7085' |
| LEWIS            | 3760' | 3660' | TD             | 21798' | 7095' |
| CHACRA           | 4869' | 4728' |                |        |       |
| *CLIFF HOUSE     | 5733' | 5560' |                |        |       |
| MENEFEE          | 5762' | 5588' |                |        |       |

\* indicates depth at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered.

B. MUD LOGGING PROGRAM: Mudlogger on location from KOP to TD.

C. LOGGING PROGRAM: LWD GR from surface casing to TD.

D. NATURAL GAUGES: Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

### II. DRILLING

A. MUD PROGRAM: LSND mud (WBM) will be used to drill the 26"/24" surface hole and 12-1/4" intermediate hole. A LSND (WBM) or (OBM) will be used to drill the 8-1/2" curve and lateral portion of the wellbore. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.

Above ground steel pits will be used for fluid and cuttings while drilling. In the unlikely event that a tank develops a leak, upon immediate visual discovery, the fluid would be transferred to another tank and contaminated soil would be removed and disposed. Any leaks, spills or other undesirable events will be reported in accordance with BLM NTL 3A. Rig crews will monitor the tanks at all times.



- B. BOP TESTING:** The BOPE will be tested to **250 psi (Low) for 5 minutes** and **3000 psi (High) for 10 minutes**. Pressure test surface casing to **600 psi for 30 minutes** and intermediate casing to **1500 psi for 30 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. BOP equipment will be tested every 30 days, after any repairs are made to the BOP equipment, and after the BOP equipment is subjected to pressure. Annular preventers will be functionally operated at least once per week. Pipe and blind rams shall be activated each trip or but not more than once a day. The New Mexico Oil & Gas Conservation Commission and the BLM will be notified 24 hours in advance of testing of BOPE. **All tests and inspections will be recorded and logged with time and results.** A full BOP test will be conducted when initially installed for the first well on the pad or if seals subject to test pressure are broken, following related repairs and at a minimum of 30 day intervals. A BOPE Shell Test only will be conducted for subsequent wells on the pad when seals subject to pressure have not been broken or repaired and fall within the 30 day interval of first full test.
- C. GeoHazards:** There are no Geohazards
- D. Maximum Anticipated Pressure:** 7,095' TVD x 0.43 = 3,051 psi
- E. H2S Concerns:** There is no record of any naturally occurring H2S in any formation in the Rosa Unit. No H2S is anticipated in this formation or this well.

### III. MATERIALS

#### A. CASING EQUIPMENT:

| CASING TYPE  | OH SIZE (IN) | DEPTH (MD)      | CSG SIZE | WEIGHT   | GRADE          | CONN    |
|--------------|--------------|-----------------|----------|----------|----------------|---------|
| SURFACE      | 26" or 24"   | 350' or greater | 20"      | 94 LBS   | J-55 or equiv  | LTC/BTC |
| INTERMEDIATE | 12.25"       | 6,547'          | 9.625"   | 43.5 LBS | N-80 or equiv  | LTC/BTC |
| PRODUCTION   | 8.5"         | 21,798'         | 5.5"     | 20 LBS   | P-110 or equiv | LTC/BTC |

NOTE: All casing depths are approximate, based on KB elevation and will be based on drilling conditions +/- 50'. Weights, grades and connections will be based on availability and may vary but will be equivalent or greater.

#### B. FLOAT EQUIPMENT:

- SURFACE CASING:** 20" cement nose guide shoe. Place float shoe 1 joint above shoe. Run (1) standard centralizer on each of the bottom (3) joints of Surface Casing.
- INTERMEDIATE CASING:** 9-5/8" cement float shoe. Place float collar one joint above the shoe. Install (1) centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) centralizer at 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. Optional use of DV Tools (2) will be strategically placed above loss circulation zones anticipated in the Mesaverde and Fruitland Coal. Optional use of cancellation plugs for DV tools may be used if losses while cementing are not encountered. Optional use of an ICP may be used in conjunction with DV Tools.
- PRODUCTION CASING:** Run 5-1/2" casing with cement nose guide Float Shoe, 5-1/2" full or pup joints as necessary, Landing Collar, 5-1/2" full or pup joints as necessary, at least (1) one Toe Sleeve (Sliding Sleeve) positioned inside the applicable production area. Centralizer program will be determined by wellbore conditions. Production casing to be pressure tested during completion operations with frac stack installed.

#### C. CEMENTING:

(Note: Cement type and volumes may be adjusted onsite due to actual conditions and availability)





1. SURFACE: Casing shall be set at ~ 350' and cemented to surface. TOC at Surface.

| Surface - 20" csg | Top | Footage | Cement (ft3/ft)<br>Annular Capacity | Cement (bbl/ft)<br>Annular Capacity | Excess (30%) | Total (ft3) | Total (bbl) | Slurry Yield (ft3/sk) | Sacks Cement | Density (PPG) |
|-------------------|-----|---------|-------------------------------------|-------------------------------------|--------------|-------------|-------------|-----------------------|--------------|---------------|
| Type G            | -   | 350     | 0.9599                              | 0.171                               | 1.3          | 487         | 87          | 1.11                  | 438          | 15.8          |
| or Type III       |     | 350     | 0.9599                              | 0.171                               | 1.3          | 487         | 87          | 1.39                  | 350          | 14.6          |

24" hole

Set Depth, ft RKB 350

2. INTERMEDIATE : Intermediate casing shall be kept fluid filled while running in to the hole to meet BLM minimum collapse requirements. The intermediate casing will be cemented in 2 or 3 stages using DV/STAGE tools in order to reduce cement losses and maximize cement coverage. Operator proposes optional DV tools and optional ICP's above anticipated loss circulation zones in the Mesaverde and in the Fruitland coal. If losses are not observed during the second stage a cancellation plug will be pumped and the remaining cement will be pumped during stage 2. If cement does not circulate to the DV tool(s) or to surface, a CBL will be run to determine TOC.

| Intermediate - 9-5/8" csg | Top   | Footage | Cement (ft3/ft)<br>Annular<br>Capacity | Excess<br>(30%) | Total (ft3) | Total<br>(bbl) | Slurry Yield<br>(ft3/sk) | Sacks<br>Cement | Density<br>(PPG) |      |
|---------------------------|-------|---------|----------------------------------------|-----------------|-------------|----------------|--------------------------|-----------------|------------------|------|
| Stage 1 Tail              | 6,047 | 500     | 0.3132                                 |                 | 1.3         | 221            | 39                       | 1.10            | 201              | 15.8 |
| Stage 1 Lead              | 4,944 | 1,103   | 0.3132                                 |                 | 1.3         | 449            | 80                       | 1.90            | 236              | 12.4 |
|                           |       |         |                                        |                 | 670         | 119            |                          | 437             |                  |      |
| Stage 2 Tail              | 4,344 | 600     | 0.3132                                 |                 | 1.3         | 244            | 44                       | 1.58            | 155              | 13.2 |
| Stage 2 Lead              | 3,346 | 998     | 0.3132                                 |                 | 1.3         | 406            | 72                       | 1.90            | 214              | 12.4 |
|                           |       |         |                                        |                 | 651         | 116            |                          | 368             |                  |      |
| Stage 3 Tail              | 2,696 | 650     | 0.3132                                 |                 | 1.3         | 265            | 47                       | 1.58            | 168              | 13.2 |
| Stage 3 Lead              | 350   | 2,346   | 0.3132                                 |                 | 1.3         | 955            | 170                      | 1.58            | 605              | 12.4 |
| Stage 3 Lead              | -     | 350     | 1.4895                                 | 0.2653          | 1           | 521            | 93                       | 1.90            | 274              | 12.4 |
|                           |       |         |                                        |                 | 1,741       | 310            |                          | 1046            |                  |      |
|                           |       |         |                                        |                 | 3,062       | 545            |                          | 1,852           |                  |      |

Set Depth, ft RKB 6547

Calculations based on 30% excess for open hole and cement to surface. Actual excess pumped will be determined by well conditions.

3. PRODUCTION: Production casing will be cemented in 1 stage with 100' of cement overlap above intermediate shoe. A CBL, or alternatively, a Temperature Survey will be used to determine TOC.

| Production - 5-1/2" | Top   | ft     | Cement (ft3/ft)<br>Annular Capacity | Excess (15%) | Total (ft3) | Total (bbl) | Slurry Yield (ft3/sk) | Sacks Cement | Density (PPG) |
|---------------------|-------|--------|-------------------------------------|--------------|-------------|-------------|-----------------------|--------------|---------------|
| Cased hole Tail     | 6,447 | 100    | 0.2531                              | 1            | 25          | 5           | 1.59                  | 16           | 13.2          |
| Open Hole Tail      | 6,547 | 15,251 | 0.2291                              | 1.15         | 4,029       | 718         | 1.59                  | 2,534        | 13.2          |
|                     |       |        |                                     |              | 4,054       | 722         |                       | 2,550        |               |

Set Depth, ft RKB 21798

Calculations based on 15% excess for open hole and 100' overlap into intermediate casing. Actual volumes will vary.

Cement calculations are used for volume estimation. Well conditions will dictate final cement job design. Actual volumes will be calculated and determined by conditions onsite. All cement slurries will meet or exceed minimum BLM and New Mexico Oil Conservation Division requirements. Slurries used will be the slurries listed above or equivalent slurries depending on service provider selected. Cement yields may change depending on slurries selected.



All waiting on cement times shall be a minimum of 8 hours or adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

**IV. COMPLETION**

**A. CBL**

CBLs and/or Temperature Surveys will be performed as needed or required to determine cement top if cement is not circulated.

**B. PRESSURE TEST**

C. Pressure test 5-1/2" casing to 0.22 psi/ft \* 7,095' TVD = 1561 psi for 30 minutes. Increase pressure to Open RSI sleeves.

**D. STIMULATION**

Stimulate with sand and water. Isolate stages with flow through or dissolvable frac plugs. Drill out frac plugs and flowback lateral.

**E. PRODUCTION TUBING**

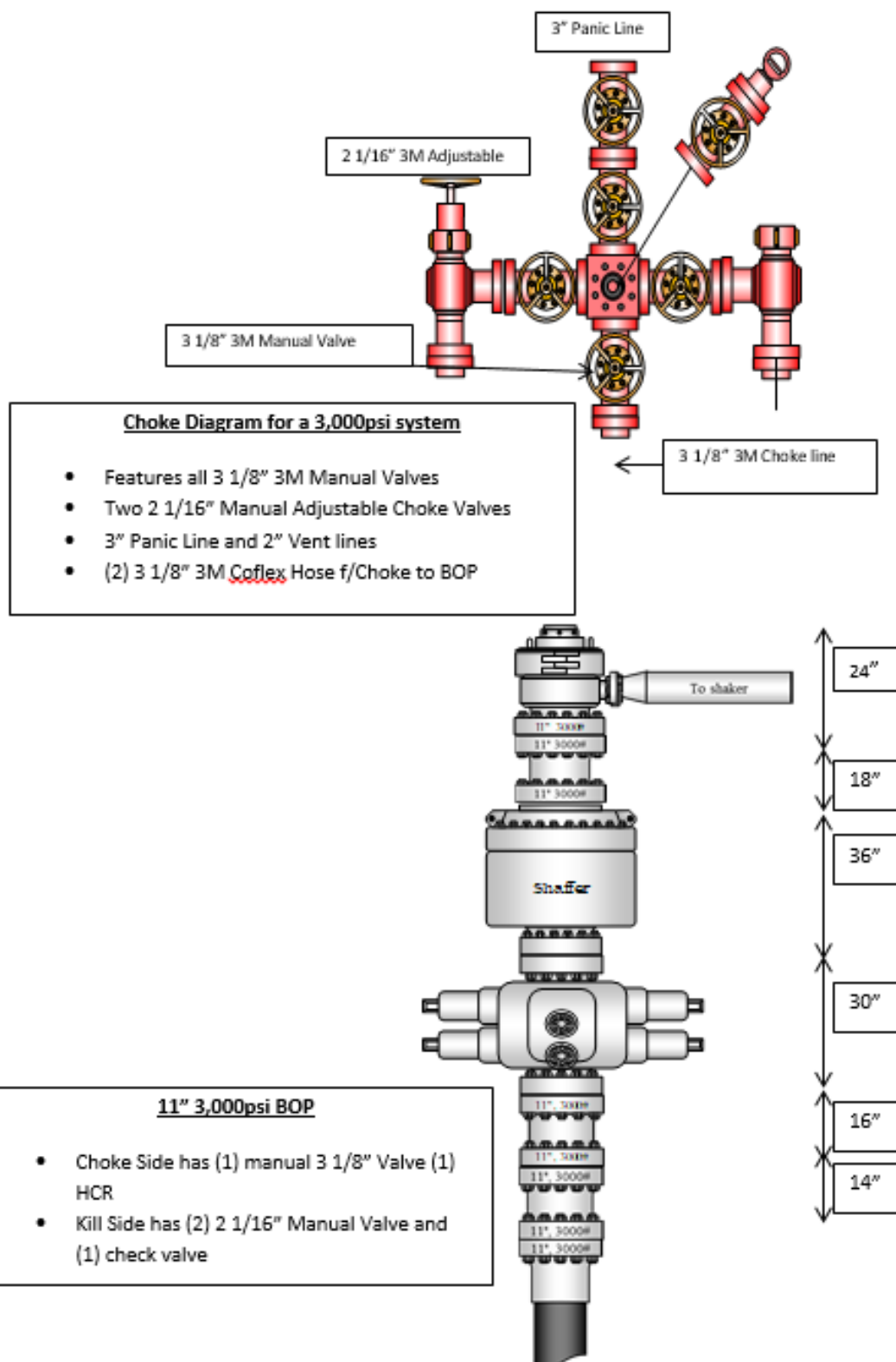
2-7/8", 6.5#, J-55 or L-80, EUE tubing will be run once volumes and pressures dictate. Due to the extremely high initial flow rates and pressures seen in offset wells, tubing will be installed once it is safe to do so, typically 12-36 months after completion.

\*NOTE: Although this horizontal well may be drilled past the applicable setbacks, an unorthodox location application is not required because the completed interval in this well, as defined by 19.15.16.7 8(1) NMAC, will be entirely within the applicable setbacks. This approach complies with all applicable rules, including 19.15.16.14 A(3) NMAC, 19.15.16.14 8(2) NMAC, 19.15.16.15 8(2)NMAC, and 19.15.16.15. 8(4) NMAC.





## **3M 11" B.O.P.E Diagram**



# **Logos Operating LLC**

**Rio Arriba, NM (NAD83)**

**Rosa Unit 32**

**Rosa Unit 756H**

**OH**

**Plan: Plan #7**

## **Standard Planning Report**

**10 May, 2024**

SDT  
Planning Report

|           |                        |                              |                                 |
|-----------|------------------------|------------------------------|---------------------------------|
| Database: | EDM 5000 Multi User Db | Local Co-ordinate Reference: | Well Rosa Unit 756H             |
| Company:  | Logos Operating LLC    | TVD Reference:               | 6534+30 @ 6564.00usft (H&P 530) |
| Project:  | Rio Arriba, NM (NAD83) | MD Reference:                | 6534+30 @ 6564.00usft (H&P 530) |
| Site:     | Rosa Unit 32           | North Reference:             | True                            |
| Well:     | Rosa Unit 756H         | Survey Calculation Method:   | Minimum Curvature               |
| Wellbore: | OH                     |                              |                                 |
| Design:   | Plan #7                |                              |                                 |

|             |                           |               |                |
|-------------|---------------------------|---------------|----------------|
| Project     | Rio Arriba, NM (NAD83)    |               |                |
| Map System: | US State Plane 1983       | System Datum: | Mean Sea Level |
| Geo Datum:  | North American Datum 1983 |               |                |
| Map Zone:   | New Mexico Western Zone   |               |                |

|                       |              |              |                   |            |             |
|-----------------------|--------------|--------------|-------------------|------------|-------------|
| Site                  | Rosa Unit 32 |              |                   |            |             |
| Site Position:        |              | Northing:    | 2,131,320.20 usft | Latitude:  | 36.856242   |
| From:                 | Lat/Long     | Easting:     | 2,857,795.25 usft | Longitude: | -107.372900 |
| Position Uncertainty: | 0.00 usft    | Slot Radius: | 13-3/16 "         |            |             |

|                      |                |           |                     |                   |               |               |
|----------------------|----------------|-----------|---------------------|-------------------|---------------|---------------|
| Well                 | Rosa Unit 756H |           |                     |                   |               |               |
| Well Position        | +N/-S          | 0.00 usft | Northing:           | 2,131,247.92 usft | Latitude:     | 36.856045     |
|                      | +E/-W          | 0.00 usft | Easting:            | 2,857,647.65 usft | Longitude:    | -107.373405   |
| Position Uncertainty |                | 3.28 usft | Wellhead Elevation: | usft              | Ground Level: | 6,534.00 usft |
| Grid Convergence:    |                | 0.28 °    |                     |                   |               |               |

|           |            |             |                 |               |                     |
|-----------|------------|-------------|-----------------|---------------|---------------------|
| Wellbore  | OH         |             |                 |               |                     |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|           | IGRF2015   | 11/21/2022  | 8.56            | 63.43         | 49,565.62626623     |

|                   |                         |              |              |               |      |
|-------------------|-------------------------|--------------|--------------|---------------|------|
| Design            | Plan #7                 |              |              |               |      |
| Audit Notes:      |                         |              |              |               |      |
| Version:          |                         | Phase:       | PLAN         | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |      |
|                   | 0.00                    | 0.00         | 0.00         | 90.22         |      |

|                          |                 |                        |                            |         |  |
|--------------------------|-----------------|------------------------|----------------------------|---------|--|
| Plan Survey Tool Program | Date            | 5/10/2024              |                            |         |  |
| Depth From (usft)        | Depth To (usft) | Survey (Wellbore)      | Tool Name                  | Remarks |  |
| 1                        | 0.00            | 21,798.24 Plan #7 (OH) | MWD+HRGM+MS                |         |  |
|                          |                 |                        | MWD + HRGM + Multi-Station |         |  |

|                       |                 |             |                       |              |              |                         |                        |                       |         |              |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|--------------|
| Plan Sections         |                 |             |                       |              |              |                         |                        |                       |         |              |
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target       |
| 0.00                  | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |              |
| 500.00                | 0.00            | 0.00        | 500.00                | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |              |
| 1,277.20              | 15.54           | 175.87      | 1,267.70              | -104.51      | 7.54         | 2.00                    | 2.00                   | 0.00                  | 175.87  |              |
| 6,694.93              | 15.54           | 175.87      | 6,487.28              | -1,552.57    | 112.04       | 0.00                    | 0.00                   | 0.00                  | 0.00    |              |
| 7,677.78              | 89.96           | 91.50       | 7,084.75              | -1,734.37    | 743.48       | 9.00                    | 7.57                   | -8.58                 | -84.59  | RU 756H POE  |
| 15,790.03             | 89.96           | 91.50       | 7,090.41              | -1,946.04    | 8,852.97     | 0.00                    | 0.00                   | 0.00                  | 0.00    | RU 756H IP   |
| 15,867.55             | 89.96           | 89.94       | 7,090.47              | -1,947.01    | 8,930.47     | 2.00                    | 0.00                   | -2.00                 | -90.00  |              |
| 21,798.31             | 89.96           | 89.94       | 7,094.61              | -1,941.30    | 14,861.24    | 0.00                    | 0.00                   | 0.00                  | 0.00    | RU 756H PBHL |

# SDT

## Planning Report

|                  |                        |                                     |                                 |
|------------------|------------------------|-------------------------------------|---------------------------------|
| <b>Database:</b> | EDM 5000 Multi User Db | <b>Local Co-ordinate Reference:</b> | Well Rosa Unit 756H             |
| <b>Company:</b>  | Logos Operating LLC    | <b>TVD Reference:</b>               | 6534+30 @ 6564.00usft (H&P 530) |
| <b>Project:</b>  | Rio Arriba, NM (NAD83) | <b>MD Reference:</b>                | 6534+30 @ 6564.00usft (H&P 530) |
| <b>Site:</b>     | Rosa Unit 32           | <b>North Reference:</b>             | True                            |
| <b>Well:</b>     | Rosa Unit 756H         | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Wellbore:</b> | OH                     |                                     |                                 |
| <b>Design:</b>   | Plan #7                |                                     |                                 |

| Planned Survey                   |                 |             |                       |              |              |                         |                         |                        |                       |
|----------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)            | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 0.00                             | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 100.00                           | 0.00            | 0.00        | 100.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 200.00                           | 0.00            | 0.00        | 200.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 300.00                           | 0.00            | 0.00        | 300.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 400.00                           | 0.00            | 0.00        | 400.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 500.00                           | 0.00            | 0.00        | 500.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| Start Build 2.00                 |                 |             |                       |              |              |                         |                         |                        |                       |
| 600.00                           | 2.00            | 175.87      | 599.98                | -1.74        | 0.13         | 0.13                    | 2.00                    | 2.00                   | 0.00                  |
| 700.00                           | 4.00            | 175.87      | 699.84                | -6.96        | 0.50         | 0.53                    | 2.00                    | 2.00                   | 0.00                  |
| 800.00                           | 6.00            | 175.87      | 799.45                | -15.65       | 1.13         | 1.19                    | 2.00                    | 2.00                   | 0.00                  |
| 900.00                           | 8.00            | 175.87      | 898.70                | -27.81       | 2.01         | 2.11                    | 2.00                    | 2.00                   | 0.00                  |
| 1,000.00                         | 10.00           | 175.87      | 997.47                | -43.41       | 3.13         | 3.30                    | 2.00                    | 2.00                   | 0.00                  |
| 1,100.00                         | 12.00           | 175.87      | 1,095.62              | -62.44       | 4.51         | 4.75                    | 2.00                    | 2.00                   | 0.00                  |
| 1,200.00                         | 14.00           | 175.87      | 1,193.06              | -84.88       | 6.12         | 6.45                    | 2.00                    | 2.00                   | 0.00                  |
| 1,277.20                         | 15.54           | 175.87      | 1,267.70              | -104.51      | 7.54         | 7.94                    | 2.00                    | 2.00                   | 0.00                  |
| Start 5417.73 hold at 1277.20 MD |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,300.00                         | 15.54           | 175.87      | 1,289.67              | -110.60      | 7.98         | 8.41                    | 0.00                    | 0.00                   | 0.00                  |
| 1,400.00                         | 15.54           | 175.87      | 1,386.01              | -137.33      | 9.91         | 10.44                   | 0.00                    | 0.00                   | 0.00                  |
| 1,500.00                         | 15.54           | 175.87      | 1,482.35              | -164.06      | 11.84        | 12.47                   | 0.00                    | 0.00                   | 0.00                  |
| 1,600.00                         | 15.54           | 175.87      | 1,578.70              | -190.79      | 13.77        | 14.50                   | 0.00                    | 0.00                   | 0.00                  |
| 1,700.00                         | 15.54           | 175.87      | 1,675.04              | -217.51      | 15.70        | 16.53                   | 0.00                    | 0.00                   | 0.00                  |
| 1,800.00                         | 15.54           | 175.87      | 1,771.38              | -244.24      | 17.63        | 18.56                   | 0.00                    | 0.00                   | 0.00                  |
| 1,900.00                         | 15.54           | 175.87      | 1,867.72              | -270.97      | 19.55        | 20.59                   | 0.00                    | 0.00                   | 0.00                  |
| 2,000.00                         | 15.54           | 175.87      | 1,964.07              | -297.70      | 21.48        | 22.63                   | 0.00                    | 0.00                   | 0.00                  |
| 2,100.00                         | 15.54           | 175.87      | 2,060.41              | -324.43      | 23.41        | 24.66                   | 0.00                    | 0.00                   | 0.00                  |
| 2,200.00                         | 15.54           | 175.87      | 2,156.75              | -351.16      | 25.34        | 26.69                   | 0.00                    | 0.00                   | 0.00                  |
| 2,300.00                         | 15.54           | 175.87      | 2,253.09              | -377.88      | 27.27        | 28.72                   | 0.00                    | 0.00                   | 0.00                  |
| 2,400.00                         | 15.54           | 175.87      | 2,349.44              | -404.61      | 29.20        | 30.75                   | 0.00                    | 0.00                   | 0.00                  |
| 2,500.00                         | 15.54           | 175.87      | 2,445.78              | -431.34      | 31.13        | 32.78                   | 0.00                    | 0.00                   | 0.00                  |
| 2,600.00                         | 15.54           | 175.87      | 2,542.12              | -458.07      | 33.06        | 34.81                   | 0.00                    | 0.00                   | 0.00                  |
| 2,700.00                         | 15.54           | 175.87      | 2,638.46              | -484.80      | 34.98        | 36.85                   | 0.00                    | 0.00                   | 0.00                  |
| 2,747.27                         | 15.54           | 175.87      | 2,684.00              | -497.43      | 35.90        | 37.81                   | 0.00                    | 0.00                   | 0.00                  |
| Ojo Alamo                        |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,800.00                         | 15.54           | 175.87      | 2,734.81              | -511.53      | 36.91        | 38.88                   | 0.00                    | 0.00                   | 0.00                  |
| 2,897.77                         | 15.54           | 175.87      | 2,829.00              | -537.66      | 38.80        | 40.86                   | 0.00                    | 0.00                   | 0.00                  |
| Kirtland                         |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,900.00                         | 15.54           | 175.87      | 2,831.15              | -538.25      | 38.84        | 40.91                   | 0.00                    | 0.00                   | 0.00                  |
| 3,000.00                         | 15.54           | 175.87      | 2,927.49              | -564.98      | 40.77        | 42.94                   | 0.00                    | 0.00                   | 0.00                  |
| 3,100.00                         | 15.54           | 175.87      | 3,023.83              | -591.71      | 42.70        | 44.97                   | 0.00                    | 0.00                   | 0.00                  |
| 3,200.00                         | 15.54           | 175.87      | 3,120.18              | -618.44      | 44.63        | 47.00                   | 0.00                    | 0.00                   | 0.00                  |
| 3,271.44                         | 15.54           | 175.87      | 3,189.00              | -637.53      | 46.01        | 48.45                   | 0.00                    | 0.00                   | 0.00                  |
| Fruitland                        |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,300.00                         | 15.54           | 175.87      | 3,216.52              | -645.17      | 46.56        | 49.03                   | 0.00                    | 0.00                   | 0.00                  |
| 3,344.09                         | 15.54           | 175.87      | 3,259.00              | -656.95      | 47.41        | 49.93                   | 0.00                    | 0.00                   | 0.00                  |
| T/Coals                          |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,400.00                         | 15.54           | 175.87      | 3,312.86              | -671.89      | 48.49        | 51.07                   | 0.00                    | 0.00                   | 0.00                  |
| 3,480.07                         | 15.54           | 175.87      | 3,390.00              | -693.30      | 50.03        | 52.69                   | 0.00                    | 0.00                   | 0.00                  |
| B/Coals                          |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,500.00                         | 15.54           | 175.87      | 3,409.20              | -698.62      | 50.42        | 53.10                   | 0.00                    | 0.00                   | 0.00                  |
| 3,600.00                         | 15.54           | 175.87      | 3,505.55              | -725.35      | 52.34        | 55.13                   | 0.00                    | 0.00                   | 0.00                  |
| 3,647.18                         | 15.54           | 175.87      | 3,551.00              | -737.96      | 53.25        | 56.09                   | 0.00                    | 0.00                   | 0.00                  |
| Pictured Cliffs                  |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,700.00                         | 15.54           | 175.87      | 3,601.89              | -752.08      | 54.27        | 57.16                   | 0.00                    | 0.00                   | 0.00                  |

# SDT

## Planning Report

|                  |                        |                                     |                                 |
|------------------|------------------------|-------------------------------------|---------------------------------|
| <b>Database:</b> | EDM 5000 Multi User Db | <b>Local Co-ordinate Reference:</b> | Well Rosa Unit 756H             |
| <b>Company:</b>  | Logos Operating LLC    | <b>TVD Reference:</b>               | 6534+30 @ 6564.00usft (H&P 530) |
| <b>Project:</b>  | Rio Arriba, NM (NAD83) | <b>MD Reference:</b>                | 6534+30 @ 6564.00usft (H&P 530) |
| <b>Site:</b>     | Rosa Unit 32           | <b>North Reference:</b>             | True                            |
| <b>Well:</b>     | Rosa Unit 756H         | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Wellbore:</b> | OH                     |                                     |                                 |
| <b>Design:</b>   | Plan #7                |                                     |                                 |

| Planned Survey                   |                 |             |                       |              |              |                         |                         |                        |                       |
|----------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)            | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 3,760.32                         | 15.54           | 175.87      | 3,660.00              | -768.20      | 55.44        | 58.39                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Lewis</b>                     |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,800.00                         | 15.54           | 175.87      | 3,698.23              | -778.81      | 56.20        | 59.19                   | 0.00                    | 0.00                   | 0.00                  |
| 3,900.00                         | 15.54           | 175.87      | 3,794.57              | -805.54      | 58.13        | 61.22                   | 0.00                    | 0.00                   | 0.00                  |
| 4,000.00                         | 15.54           | 175.87      | 3,890.92              | -832.26      | 60.06        | 63.25                   | 0.00                    | 0.00                   | 0.00                  |
| 4,100.00                         | 15.54           | 175.87      | 3,987.26              | -858.99      | 61.99        | 65.29                   | 0.00                    | 0.00                   | 0.00                  |
| 4,200.00                         | 15.54           | 175.87      | 4,083.60              | -885.72      | 63.92        | 67.32                   | 0.00                    | 0.00                   | 0.00                  |
| 4,300.00                         | 15.54           | 175.87      | 4,179.94              | -912.45      | 65.85        | 69.35                   | 0.00                    | 0.00                   | 0.00                  |
| 4,400.00                         | 15.54           | 175.87      | 4,276.29              | -939.18      | 67.77        | 71.38                   | 0.00                    | 0.00                   | 0.00                  |
| 4,500.00                         | 15.54           | 175.87      | 4,372.63              | -965.90      | 69.70        | 73.41                   | 0.00                    | 0.00                   | 0.00                  |
| 4,600.00                         | 15.54           | 175.87      | 4,468.97              | -992.63      | 71.63        | 75.44                   | 0.00                    | 0.00                   | 0.00                  |
| 4,700.00                         | 15.54           | 175.87      | 4,565.31              | -1,019.36    | 73.56        | 77.47                   | 0.00                    | 0.00                   | 0.00                  |
| 4,800.00                         | 15.54           | 175.87      | 4,661.66              | -1,046.09    | 75.49        | 79.51                   | 0.00                    | 0.00                   | 0.00                  |
| 4,868.86                         | 15.54           | 175.87      | 4,728.00              | -1,064.49    | 76.82        | 80.90                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Chacra</b>                    |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,900.00                         | 15.54           | 175.87      | 4,758.00              | -1,072.82    | 77.42        | 81.54                   | 0.00                    | 0.00                   | 0.00                  |
| 5,000.00                         | 15.54           | 175.87      | 4,854.34              | -1,099.55    | 79.35        | 83.57                   | 0.00                    | 0.00                   | 0.00                  |
| 5,100.00                         | 15.54           | 175.87      | 4,950.68              | -1,126.27    | 81.28        | 85.60                   | 0.00                    | 0.00                   | 0.00                  |
| 5,200.00                         | 15.54           | 175.87      | 5,047.03              | -1,153.00    | 83.21        | 87.63                   | 0.00                    | 0.00                   | 0.00                  |
| 5,300.00                         | 15.54           | 175.87      | 5,143.37              | -1,179.73    | 85.13        | 89.66                   | 0.00                    | 0.00                   | 0.00                  |
| 5,393.03                         | 15.54           | 175.87      | 5,233.00              | -1,204.60    | 86.93        | 91.55                   | 0.00                    | 0.00                   | 0.00                  |
| <b>U/Cliff House</b>             |                 |             |                       |              |              |                         |                         |                        |                       |
| 5,400.00                         | 15.54           | 175.87      | 5,239.71              | -1,206.46    | 87.06        | 91.69                   | 0.00                    | 0.00                   | 0.00                  |
| 5,500.00                         | 15.54           | 175.87      | 5,336.05              | -1,233.19    | 88.99        | 93.73                   | 0.00                    | 0.00                   | 0.00                  |
| 5,600.00                         | 15.54           | 175.87      | 5,432.40              | -1,259.91    | 90.92        | 95.76                   | 0.00                    | 0.00                   | 0.00                  |
| 5,700.00                         | 15.54           | 175.87      | 5,528.74              | -1,286.64    | 92.85        | 97.79                   | 0.00                    | 0.00                   | 0.00                  |
| 5,732.45                         | 15.54           | 175.87      | 5,560.00              | -1,295.32    | 93.47        | 98.45                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Cliff House</b>               |                 |             |                       |              |              |                         |                         |                        |                       |
| 5,761.51                         | 15.54           | 175.87      | 5,588.00              | -1,303.08    | 94.04        | 99.04                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Menefee</b>                   |                 |             |                       |              |              |                         |                         |                        |                       |
| 5,800.00                         | 15.54           | 175.87      | 5,625.08              | -1,313.37    | 94.78        | 99.82                   | 0.00                    | 0.00                   | 0.00                  |
| 5,900.00                         | 15.54           | 175.87      | 5,721.42              | -1,340.10    | 96.71        | 101.85                  | 0.00                    | 0.00                   | 0.00                  |
| 5,982.60                         | 15.54           | 175.87      | 5,801.00              | -1,362.18    | 98.30        | 103.53                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Point Lookout</b>             |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,000.00                         | 15.54           | 175.87      | 5,817.77              | -1,366.83    | 98.64        | 103.88                  | 0.00                    | 0.00                   | 0.00                  |
| 6,100.00                         | 15.54           | 175.87      | 5,914.11              | -1,393.56    | 100.56       | 105.91                  | 0.00                    | 0.00                   | 0.00                  |
| 6,200.00                         | 15.54           | 175.87      | 6,010.45              | -1,420.28    | 102.49       | 107.95                  | 0.00                    | 0.00                   | 0.00                  |
| 6,300.00                         | 15.54           | 175.87      | 6,106.79              | -1,447.01    | 104.42       | 109.98                  | 0.00                    | 0.00                   | 0.00                  |
| 6,400.00                         | 15.54           | 175.87      | 6,203.14              | -1,473.74    | 106.35       | 112.01                  | 0.00                    | 0.00                   | 0.00                  |
| 6,471.48                         | 15.54           | 175.87      | 6,272.00              | -1,492.85    | 107.73       | 113.46                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Mancos</b>                    |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,500.00                         | 15.54           | 175.87      | 6,299.48              | -1,500.47    | 108.28       | 114.04                  | 0.00                    | 0.00                   | 0.00                  |
| 6,600.00                         | 15.54           | 175.87      | 6,395.82              | -1,527.20    | 110.21       | 116.07                  | 0.00                    | 0.00                   | 0.00                  |
| 6,694.93                         | 15.54           | 175.87      | 6,487.28              | -1,552.57    | 112.04       | 118.00                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Start DLS 9.00 TFO -84.59</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,700.00                         | 15.59           | 174.18      | 6,492.16              | -1,553.93    | 112.16       | 118.12                  | 9.00                    | 0.98                   | -33.34                |
| 6,750.00                         | 16.74           | 158.49      | 6,540.21              | -1,567.32    | 115.48       | 121.50                  | 9.00                    | 2.29                   | -31.38                |
| 6,800.00                         | 18.88           | 145.51      | 6,587.83              | -1,580.69    | 122.70       | 128.77                  | 9.00                    | 4.29                   | -25.96                |
| 6,850.00                         | 21.74           | 135.46      | 6,634.73              | -1,593.96    | 133.79       | 139.90                  | 9.00                    | 5.71                   | -20.12                |
| 6,900.00                         | 25.06           | 127.79      | 6,680.62              | -1,607.06    | 148.66       | 154.83                  | 9.00                    | 6.64                   | -15.34                |
| 6,950.00                         | 28.68           | 121.88      | 6,725.22              | -1,619.89    | 167.22       | 173.44                  | 9.00                    | 7.25                   | -11.82                |
| 7,000.00                         | 32.51           | 117.22      | 6,768.26              | -1,632.38    | 189.37       | 195.64                  | 9.00                    | 7.66                   | -9.31                 |
| 7,050.00                         | 36.48           | 113.47      | 6,809.46              | -1,644.45    | 214.97       | 221.28                  | 9.00                    | 7.93                   | -7.51                 |

# SDT

## Planning Report

|                  |                        |                                     |                                 |
|------------------|------------------------|-------------------------------------|---------------------------------|
| <b>Database:</b> | EDM 5000 Multi User Db | <b>Local Co-ordinate Reference:</b> | Well Rosa Unit 756H             |
| <b>Company:</b>  | Logos Operating LLC    | <b>TVD Reference:</b>               | 6534+30 @ 6564.00usft (H&P 530) |
| <b>Project:</b>  | Rio Arriba, NM (NAD83) | <b>MD Reference:</b>                | 6534+30 @ 6564.00usft (H&P 530) |
| <b>Site:</b>     | Rosa Unit 32           | <b>North Reference:</b>             | True                            |
| <b>Well:</b>     | Rosa Unit 756H         | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Wellbore:</b> | OH                     |                                     |                                 |
| <b>Design:</b>   | Plan #7                |                                     |                                 |

| Planned Survey                          |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)                   | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 7,100.00                                | 40.55           | 110.36      | 6,848.58              | -1,656.03    | 243.86       | 250.21                  | 9.00                    | 8.13                   | -6.21                 |
| 7,150.00                                | 44.68           | 107.74      | 6,885.37              | -1,667.05    | 275.85       | 282.25                  | 9.00                    | 8.27                   | -5.25                 |
| 7,187.05                                | 47.78           | 106.03      | 6,911.00              | -1,674.81    | 301.45       | 307.88                  | 9.00                    | 8.36                   | -4.61                 |
| <b>Black Top</b>                        |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,200.00                                | 48.87           | 105.47      | 6,919.61              | -1,677.44    | 310.76       | 317.20                  | 9.00                    | 8.41                   | -4.30                 |
| 7,250.00                                | 53.09           | 103.48      | 6,951.09              | -1,687.13    | 348.37       | 354.84                  | 9.00                    | 8.45                   | -3.98                 |
| 7,300.00                                | 57.35           | 101.70      | 6,979.60              | -1,696.06    | 388.44       | 394.95                  | 9.00                    | 8.51                   | -3.56                 |
| 7,350.00                                | 61.63           | 100.08      | 7,004.98              | -1,704.18    | 430.73       | 437.27                  | 9.00                    | 8.56                   | -3.24                 |
| 7,400.00                                | 65.92           | 98.59       | 7,027.07              | -1,711.45    | 474.98       | 481.55                  | 9.00                    | 8.59                   | -2.99                 |
| 7,450.00                                | 70.23           | 97.19       | 7,045.73              | -1,717.80    | 520.91       | 527.50                  | 9.00                    | 8.62                   | -2.79                 |
| 7,500.00                                | 74.55           | 95.87       | 7,060.85              | -1,723.22    | 568.25       | 574.86                  | 9.00                    | 8.64                   | -2.64                 |
| 7,550.00                                | 78.88           | 94.60       | 7,072.34              | -1,727.65    | 616.70       | 623.33                  | 9.00                    | 8.66                   | -2.54                 |
| 7,600.00                                | 83.21           | 93.37       | 7,080.12              | -1,731.08    | 665.96       | 672.60                  | 9.00                    | 8.67                   | -2.46                 |
| 7,650.00                                | 87.55           | 92.16       | 7,084.14              | -1,733.49    | 715.72       | 722.37                  | 9.00                    | 8.67                   | -2.42                 |
| 7,677.78                                | 89.96           | 91.50       | 7,084.75              | -1,734.37    | 743.48       | 750.14                  | 9.00                    | 8.67                   | -2.40                 |
| <b>Start 8112.25 hold at 7677.78 MD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,700.00                                | 89.96           | 91.50       | 7,084.76              | -1,734.95    | 765.69       | 772.35                  | 0.00                    | 0.00                   | 0.00                  |
| 7,800.00                                | 89.96           | 91.50       | 7,084.83              | -1,737.56    | 865.66       | 872.32                  | 0.00                    | 0.00                   | 0.00                  |
| 7,900.00                                | 89.96           | 91.50       | 7,084.90              | -1,740.17    | 965.62       | 972.30                  | 0.00                    | 0.00                   | 0.00                  |
| 8,000.00                                | 89.96           | 91.50       | 7,084.97              | -1,742.78    | 1,065.59     | 1,072.27                | 0.00                    | 0.00                   | 0.00                  |
| 8,100.00                                | 89.96           | 91.50       | 7,085.04              | -1,745.39    | 1,165.56     | 1,172.25                | 0.00                    | 0.00                   | 0.00                  |
| 8,200.00                                | 89.96           | 91.50       | 7,085.11              | -1,748.00    | 1,265.52     | 1,272.22                | 0.00                    | 0.00                   | 0.00                  |
| 8,300.00                                | 89.96           | 91.50       | 7,085.18              | -1,750.61    | 1,365.49     | 1,372.20                | 0.00                    | 0.00                   | 0.00                  |
| 8,400.00                                | 89.96           | 91.50       | 7,085.25              | -1,753.22    | 1,465.45     | 1,472.18                | 0.00                    | 0.00                   | 0.00                  |
| 8,500.00                                | 89.96           | 91.50       | 7,085.32              | -1,755.83    | 1,565.42     | 1,572.15                | 0.00                    | 0.00                   | 0.00                  |
| 8,600.00                                | 89.96           | 91.50       | 7,085.39              | -1,758.44    | 1,665.39     | 1,672.13                | 0.00                    | 0.00                   | 0.00                  |
| 8,700.00                                | 89.96           | 91.50       | 7,085.46              | -1,761.05    | 1,765.35     | 1,772.10                | 0.00                    | 0.00                   | 0.00                  |
| 8,800.00                                | 89.96           | 91.50       | 7,085.53              | -1,763.65    | 1,865.32     | 1,872.08                | 0.00                    | 0.00                   | 0.00                  |
| 8,900.00                                | 89.96           | 91.50       | 7,085.60              | -1,766.26    | 1,965.28     | 1,972.05                | 0.00                    | 0.00                   | 0.00                  |
| 9,000.00                                | 89.96           | 91.50       | 7,085.67              | -1,768.87    | 2,065.25     | 2,072.03                | 0.00                    | 0.00                   | 0.00                  |
| 9,100.00                                | 89.96           | 91.50       | 7,085.74              | -1,771.48    | 2,165.22     | 2,172.00                | 0.00                    | 0.00                   | 0.00                  |
| 9,200.00                                | 89.96           | 91.50       | 7,085.81              | -1,774.09    | 2,265.18     | 2,271.98                | 0.00                    | 0.00                   | 0.00                  |
| 9,300.00                                | 89.96           | 91.50       | 7,085.88              | -1,776.70    | 2,365.15     | 2,371.95                | 0.00                    | 0.00                   | 0.00                  |
| 9,400.00                                | 89.96           | 91.50       | 7,085.95              | -1,779.31    | 2,465.11     | 2,471.93                | 0.00                    | 0.00                   | 0.00                  |
| 9,500.00                                | 89.96           | 91.50       | 7,086.02              | -1,781.92    | 2,565.08     | 2,571.90                | 0.00                    | 0.00                   | 0.00                  |
| 9,600.00                                | 89.96           | 91.50       | 7,086.09              | -1,784.53    | 2,665.05     | 2,671.88                | 0.00                    | 0.00                   | 0.00                  |
| 9,700.00                                | 89.96           | 91.50       | 7,086.16              | -1,787.14    | 2,765.01     | 2,771.85                | 0.00                    | 0.00                   | 0.00                  |
| 9,800.00                                | 89.96           | 91.50       | 7,086.23              | -1,789.75    | 2,864.98     | 2,871.83                | 0.00                    | 0.00                   | 0.00                  |
| 9,900.00                                | 89.96           | 91.50       | 7,086.30              | -1,792.36    | 2,964.94     | 2,971.80                | 0.00                    | 0.00                   | 0.00                  |
| 10,000.00                               | 89.96           | 91.50       | 7,086.37              | -1,794.96    | 3,064.91     | 3,071.78                | 0.00                    | 0.00                   | 0.00                  |
| 10,100.00                               | 89.96           | 91.50       | 7,086.44              | -1,797.57    | 3,164.87     | 3,171.75                | 0.00                    | 0.00                   | 0.00                  |
| 10,200.00                               | 89.96           | 91.50       | 7,086.51              | -1,800.18    | 3,264.84     | 3,271.73                | 0.00                    | 0.00                   | 0.00                  |
| 10,300.00                               | 89.96           | 91.50       | 7,086.58              | -1,802.79    | 3,364.81     | 3,371.70                | 0.00                    | 0.00                   | 0.00                  |
| 10,400.00                               | 89.96           | 91.50       | 7,086.65              | -1,805.40    | 3,464.77     | 3,471.68                | 0.00                    | 0.00                   | 0.00                  |
| 10,500.00                               | 89.96           | 91.50       | 7,086.72              | -1,808.01    | 3,564.74     | 3,571.65                | 0.00                    | 0.00                   | 0.00                  |
| 10,600.00                               | 89.96           | 91.50       | 7,086.79              | -1,810.62    | 3,664.70     | 3,671.63                | 0.00                    | 0.00                   | 0.00                  |
| 10,700.00                               | 89.96           | 91.50       | 7,086.86              | -1,813.23    | 3,764.67     | 3,771.60                | 0.00                    | 0.00                   | 0.00                  |
| 10,800.00                               | 89.96           | 91.50       | 7,086.93              | -1,815.84    | 3,864.64     | 3,871.58                | 0.00                    | 0.00                   | 0.00                  |
| 10,900.00                               | 89.96           | 91.50       | 7,087.00              | -1,818.45    | 3,964.60     | 3,971.56                | 0.00                    | 0.00                   | 0.00                  |
| 11,000.00                               | 89.96           | 91.50       | 7,087.07              | -1,821.06    | 4,064.57     | 4,071.53                | 0.00                    | 0.00                   | 0.00                  |
| 11,100.00                               | 89.96           | 91.50       | 7,087.14              | -1,823.67    | 4,164.53     | 4,171.51                | 0.00                    | 0.00                   | 0.00                  |
| 11,200.00                               | 89.96           | 91.50       | 7,087.21              | -1,826.28    | 4,264.50     | 4,271.48                | 0.00                    | 0.00                   | 0.00                  |
| 11,300.00                               | 89.96           | 91.50       | 7,087.28              | -1,828.88    | 4,364.47     | 4,371.46                | 0.00                    | 0.00                   | 0.00                  |
| 11,400.00                               | 89.96           | 91.50       | 7,087.35              | -1,831.49    | 4,464.43     | 4,471.43                | 0.00                    | 0.00                   | 0.00                  |

# SDT

## Planning Report

|                  |                        |                                     |                                 |
|------------------|------------------------|-------------------------------------|---------------------------------|
| <b>Database:</b> | EDM 5000 Multi User Db | <b>Local Co-ordinate Reference:</b> | Well Rosa Unit 756H             |
| <b>Company:</b>  | Logos Operating LLC    | <b>TVD Reference:</b>               | 6534+30 @ 6564.00usft (H&P 530) |
| <b>Project:</b>  | Rio Arriba, NM (NAD83) | <b>MD Reference:</b>                | 6534+30 @ 6564.00usft (H&P 530) |
| <b>Site:</b>     | Rosa Unit 32           | <b>North Reference:</b>             | True                            |
| <b>Well:</b>     | Rosa Unit 756H         | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Wellbore:</b> | OH                     |                                     |                                 |
| <b>Design:</b>   | Plan #7                |                                     |                                 |

| Planned Survey                    |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)             | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 11,500.00                         | 89.96           | 91.50       | 7,087.42              | -1,834.10    | 4,564.40     | 4,571.41                | 0.00                    | 0.00                   | 0.00                  |
| 11,600.00                         | 89.96           | 91.50       | 7,087.49              | -1,836.71    | 4,664.36     | 4,671.38                | 0.00                    | 0.00                   | 0.00                  |
| 11,700.00                         | 89.96           | 91.50       | 7,087.56              | -1,839.32    | 4,764.33     | 4,771.36                | 0.00                    | 0.00                   | 0.00                  |
| 11,800.00                         | 89.96           | 91.50       | 7,087.63              | -1,841.93    | 4,864.30     | 4,871.33                | 0.00                    | 0.00                   | 0.00                  |
| 11,900.00                         | 89.96           | 91.50       | 7,087.70              | -1,844.54    | 4,964.26     | 4,971.31                | 0.00                    | 0.00                   | 0.00                  |
| 12,000.00                         | 89.96           | 91.50       | 7,087.76              | -1,847.15    | 5,064.23     | 5,071.28                | 0.00                    | 0.00                   | 0.00                  |
| 12,100.00                         | 89.96           | 91.50       | 7,087.83              | -1,849.76    | 5,164.19     | 5,171.26                | 0.00                    | 0.00                   | 0.00                  |
| 12,200.00                         | 89.96           | 91.50       | 7,087.90              | -1,852.37    | 5,264.16     | 5,271.23                | 0.00                    | 0.00                   | 0.00                  |
| 12,300.00                         | 89.96           | 91.50       | 7,087.97              | -1,854.98    | 5,364.13     | 5,371.21                | 0.00                    | 0.00                   | 0.00                  |
| 12,400.00                         | 89.96           | 91.50       | 7,088.04              | -1,857.59    | 5,464.09     | 5,471.18                | 0.00                    | 0.00                   | 0.00                  |
| 12,500.00                         | 89.96           | 91.50       | 7,088.11              | -1,860.20    | 5,564.06     | 5,571.16                | 0.00                    | 0.00                   | 0.00                  |
| 12,600.00                         | 89.96           | 91.50       | 7,088.18              | -1,862.80    | 5,664.02     | 5,671.13                | 0.00                    | 0.00                   | 0.00                  |
| 12,700.00                         | 89.96           | 91.50       | 7,088.25              | -1,865.41    | 5,763.99     | 5,771.11                | 0.00                    | 0.00                   | 0.00                  |
| 12,800.00                         | 89.96           | 91.50       | 7,088.32              | -1,868.02    | 5,863.95     | 5,871.08                | 0.00                    | 0.00                   | 0.00                  |
| 12,900.00                         | 89.96           | 91.50       | 7,088.39              | -1,870.63    | 5,963.92     | 5,971.06                | 0.00                    | 0.00                   | 0.00                  |
| 13,000.00                         | 89.96           | 91.50       | 7,088.46              | -1,873.24    | 6,063.89     | 6,071.03                | 0.00                    | 0.00                   | 0.00                  |
| 13,100.00                         | 89.96           | 91.50       | 7,088.53              | -1,875.85    | 6,163.85     | 6,171.01                | 0.00                    | 0.00                   | 0.00                  |
| 13,200.00                         | 89.96           | 91.50       | 7,088.60              | -1,878.46    | 6,263.82     | 6,270.99                | 0.00                    | 0.00                   | 0.00                  |
| 13,300.00                         | 89.96           | 91.50       | 7,088.67              | -1,881.07    | 6,363.78     | 6,370.96                | 0.00                    | 0.00                   | 0.00                  |
| 13,400.00                         | 89.96           | 91.50       | 7,088.74              | -1,883.68    | 6,463.75     | 6,470.94                | 0.00                    | 0.00                   | 0.00                  |
| 13,500.00                         | 89.96           | 91.50       | 7,088.81              | -1,886.29    | 6,563.72     | 6,570.91                | 0.00                    | 0.00                   | 0.00                  |
| 13,600.00                         | 89.96           | 91.50       | 7,088.88              | -1,888.90    | 6,663.68     | 6,670.89                | 0.00                    | 0.00                   | 0.00                  |
| 13,700.00                         | 89.96           | 91.50       | 7,088.95              | -1,891.51    | 6,763.65     | 6,770.86                | 0.00                    | 0.00                   | 0.00                  |
| 13,800.00                         | 89.96           | 91.50       | 7,089.02              | -1,894.11    | 6,863.61     | 6,870.84                | 0.00                    | 0.00                   | 0.00                  |
| 13,900.00                         | 89.96           | 91.50       | 7,089.09              | -1,896.72    | 6,963.58     | 6,970.81                | 0.00                    | 0.00                   | 0.00                  |
| 14,000.00                         | 89.96           | 91.50       | 7,089.16              | -1,899.33    | 7,063.55     | 7,070.79                | 0.00                    | 0.00                   | 0.00                  |
| 14,100.00                         | 89.96           | 91.50       | 7,089.23              | -1,901.94    | 7,163.51     | 7,170.76                | 0.00                    | 0.00                   | 0.00                  |
| 14,200.00                         | 89.96           | 91.50       | 7,089.30              | -1,904.55    | 7,263.48     | 7,270.74                | 0.00                    | 0.00                   | 0.00                  |
| 14,300.00                         | 89.96           | 91.50       | 7,089.37              | -1,907.16    | 7,363.44     | 7,370.71                | 0.00                    | 0.00                   | 0.00                  |
| 14,400.00                         | 89.96           | 91.50       | 7,089.44              | -1,909.77    | 7,463.41     | 7,470.69                | 0.00                    | 0.00                   | 0.00                  |
| 14,500.00                         | 89.96           | 91.50       | 7,089.51              | -1,912.38    | 7,563.38     | 7,570.66                | 0.00                    | 0.00                   | 0.00                  |
| 14,600.00                         | 89.96           | 91.50       | 7,089.58              | -1,914.99    | 7,663.34     | 7,670.64                | 0.00                    | 0.00                   | 0.00                  |
| 14,700.00                         | 89.96           | 91.50       | 7,089.65              | -1,917.60    | 7,763.31     | 7,770.61                | 0.00                    | 0.00                   | 0.00                  |
| 14,800.00                         | 89.96           | 91.50       | 7,089.72              | -1,920.21    | 7,863.27     | 7,870.59                | 0.00                    | 0.00                   | 0.00                  |
| 14,900.00                         | 89.96           | 91.50       | 7,089.79              | -1,922.82    | 7,963.24     | 7,970.56                | 0.00                    | 0.00                   | 0.00                  |
| 15,000.00                         | 89.96           | 91.50       | 7,089.86              | -1,925.43    | 8,063.21     | 8,070.54                | 0.00                    | 0.00                   | 0.00                  |
| 15,100.00                         | 89.96           | 91.50       | 7,089.93              | -1,928.03    | 8,163.17     | 8,170.51                | 0.00                    | 0.00                   | 0.00                  |
| 15,200.00                         | 89.96           | 91.50       | 7,090.00              | -1,930.64    | 8,263.14     | 8,270.49                | 0.00                    | 0.00                   | 0.00                  |
| 15,300.00                         | 89.96           | 91.50       | 7,090.07              | -1,933.25    | 8,363.10     | 8,370.46                | 0.00                    | 0.00                   | 0.00                  |
| 15,400.00                         | 89.96           | 91.50       | 7,090.14              | -1,935.86    | 8,463.07     | 8,470.44                | 0.00                    | 0.00                   | 0.00                  |
| 15,500.00                         | 89.96           | 91.50       | 7,090.21              | -1,938.47    | 8,563.04     | 8,570.42                | 0.00                    | 0.00                   | 0.00                  |
| 15,600.00                         | 89.96           | 91.50       | 7,090.28              | -1,941.08    | 8,663.00     | 8,670.39                | 0.00                    | 0.00                   | 0.00                  |
| 15,700.00                         | 89.96           | 91.50       | 7,090.35              | -1,943.69    | 8,762.97     | 8,770.37                | 0.00                    | 0.00                   | 0.00                  |
| 15,790.03                         | 89.96           | 91.50       | 7,090.41              | -1,946.04    | 8,852.97     | 8,860.38                | 0.00                    | 0.00                   | 0.00                  |
| Start DLS 2.00 TFO -90.00         |                 |             |                       |              |              |                         |                         |                        |                       |
| 15,800.00                         | 89.96           | 91.30       | 7,090.42              | -1,946.28    | 8,862.93     | 8,870.34                | 2.00                    | 0.00                   | -2.00                 |
| 15,867.55                         | 89.96           | 89.94       | 7,090.47              | -1,947.01    | 8,930.47     | 8,937.89                | 2.00                    | 0.00                   | -2.00                 |
| Start 5930.77 hold at 15867.55 MD |                 |             |                       |              |              |                         |                         |                        |                       |
| 15,900.00                         | 89.96           | 89.94       | 7,090.49              | -1,946.98    | 8,962.93     | 8,970.34                | 0.00                    | 0.00                   | 0.00                  |
| 16,000.00                         | 89.96           | 89.94       | 7,090.56              | -1,946.89    | 9,062.93     | 9,070.34                | 0.00                    | 0.00                   | 0.00                  |
| 16,100.00                         | 89.96           | 89.94       | 7,090.63              | -1,946.79    | 9,162.93     | 9,170.34                | 0.00                    | 0.00                   | 0.00                  |
| 16,200.00                         | 89.96           | 89.94       | 7,090.70              | -1,946.69    | 9,262.93     | 9,270.33                | 0.00                    | 0.00                   | 0.00                  |
| 16,300.00                         | 89.96           | 89.94       | 7,090.77              | -1,946.60    | 9,362.93     | 9,370.33                | 0.00                    | 0.00                   | 0.00                  |
| 16,400.00                         | 89.96           | 89.94       | 7,090.84              | -1,946.50    | 9,462.93     | 9,470.33                | 0.00                    | 0.00                   | 0.00                  |



# SDT

## Planning Report

|                  |                        |                                     |                                 |
|------------------|------------------------|-------------------------------------|---------------------------------|
| <b>Database:</b> | EDM 5000 Multi User Db | <b>Local Co-ordinate Reference:</b> | Well Rosa Unit 756H             |
| <b>Company:</b>  | Logos Operating LLC    | <b>TVD Reference:</b>               | 6534+30 @ 6564.00usft (H&P 530) |
| <b>Project:</b>  | Rio Arriba, NM (NAD83) | <b>MD Reference:</b>                | 6534+30 @ 6564.00usft (H&P 530) |
| <b>Site:</b>     | Rosa Unit 32           | <b>North Reference:</b>             | True                            |
| <b>Well:</b>     | Rosa Unit 756H         | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Wellbore:</b> | OH                     |                                     |                                 |
| <b>Design:</b>   | Plan #7                |                                     |                                 |

| Planned Survey        |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 16,500.00             | 89.96           | 89.94       | 7,090.91              | -1,946.40    | 9,562.93     | 9,570.33                | 0.00                    | 0.00                   | 0.00                  |
| 16,600.00             | 89.96           | 89.94       | 7,090.98              | -1,946.31    | 9,662.93     | 9,670.33                | 0.00                    | 0.00                   | 0.00                  |
| 16,700.00             | 89.96           | 89.94       | 7,091.05              | -1,946.21    | 9,762.93     | 9,770.33                | 0.00                    | 0.00                   | 0.00                  |
| 16,800.00             | 89.96           | 89.94       | 7,091.12              | -1,946.12    | 9,862.93     | 9,870.33                | 0.00                    | 0.00                   | 0.00                  |
| 16,900.00             | 89.96           | 89.94       | 7,091.19              | -1,946.02    | 9,962.93     | 9,970.33                | 0.00                    | 0.00                   | 0.00                  |
| 17,000.00             | 89.96           | 89.94       | 7,091.26              | -1,945.92    | 10,062.93    | 10,070.32               | 0.00                    | 0.00                   | 0.00                  |
| 17,100.00             | 89.96           | 89.94       | 7,091.33              | -1,945.83    | 10,162.93    | 10,170.32               | 0.00                    | 0.00                   | 0.00                  |
| 17,200.00             | 89.96           | 89.94       | 7,091.40              | -1,945.73    | 10,262.93    | 10,270.32               | 0.00                    | 0.00                   | 0.00                  |
| 17,300.00             | 89.96           | 89.94       | 7,091.47              | -1,945.63    | 10,362.93    | 10,370.32               | 0.00                    | 0.00                   | 0.00                  |
| 17,400.00             | 89.96           | 89.94       | 7,091.54              | -1,945.54    | 10,462.93    | 10,470.32               | 0.00                    | 0.00                   | 0.00                  |
| 17,500.00             | 89.96           | 89.94       | 7,091.61              | -1,945.44    | 10,562.93    | 10,570.32               | 0.00                    | 0.00                   | 0.00                  |
| 17,600.00             | 89.96           | 89.94       | 7,091.68              | -1,945.35    | 10,662.93    | 10,670.32               | 0.00                    | 0.00                   | 0.00                  |
| 17,700.00             | 89.96           | 89.94       | 7,091.75              | -1,945.25    | 10,762.93    | 10,770.32               | 0.00                    | 0.00                   | 0.00                  |
| 17,800.00             | 89.96           | 89.94       | 7,091.82              | -1,945.15    | 10,862.93    | 10,870.32               | 0.00                    | 0.00                   | 0.00                  |
| 17,900.00             | 89.96           | 89.94       | 7,091.89              | -1,945.06    | 10,962.93    | 10,970.31               | 0.00                    | 0.00                   | 0.00                  |
| 18,000.00             | 89.96           | 89.94       | 7,091.96              | -1,944.96    | 11,062.93    | 11,070.31               | 0.00                    | 0.00                   | 0.00                  |
| 18,100.00             | 89.96           | 89.94       | 7,092.03              | -1,944.86    | 11,162.93    | 11,170.31               | 0.00                    | 0.00                   | 0.00                  |
| 18,200.00             | 89.96           | 89.94       | 7,092.10              | -1,944.77    | 11,262.93    | 11,270.31               | 0.00                    | 0.00                   | 0.00                  |
| 18,300.00             | 89.96           | 89.94       | 7,092.17              | -1,944.67    | 11,362.93    | 11,370.31               | 0.00                    | 0.00                   | 0.00                  |
| 18,400.00             | 89.96           | 89.94       | 7,092.24              | -1,944.58    | 11,462.93    | 11,470.31               | 0.00                    | 0.00                   | 0.00                  |
| 18,500.00             | 89.96           | 89.94       | 7,092.31              | -1,944.48    | 11,562.93    | 11,570.31               | 0.00                    | 0.00                   | 0.00                  |
| 18,600.00             | 89.96           | 89.94       | 7,092.38              | -1,944.38    | 11,662.93    | 11,670.31               | 0.00                    | 0.00                   | 0.00                  |
| 18,700.00             | 89.96           | 89.94       | 7,092.45              | -1,944.29    | 11,762.93    | 11,770.30               | 0.00                    | 0.00                   | 0.00                  |
| 18,800.00             | 89.96           | 89.94       | 7,092.52              | -1,944.19    | 11,862.93    | 11,870.30               | 0.00                    | 0.00                   | 0.00                  |
| 18,900.00             | 89.96           | 89.94       | 7,092.59              | -1,944.09    | 11,962.93    | 11,970.30               | 0.00                    | 0.00                   | 0.00                  |
| 19,000.00             | 89.96           | 89.94       | 7,092.65              | -1,944.00    | 12,062.93    | 12,070.30               | 0.00                    | 0.00                   | 0.00                  |
| 19,100.00             | 89.96           | 89.94       | 7,092.72              | -1,943.90    | 12,162.93    | 12,170.30               | 0.00                    | 0.00                   | 0.00                  |
| 19,200.00             | 89.96           | 89.94       | 7,092.79              | -1,943.81    | 12,262.93    | 12,270.30               | 0.00                    | 0.00                   | 0.00                  |
| 19,300.00             | 89.96           | 89.94       | 7,092.86              | -1,943.71    | 12,362.93    | 12,370.30               | 0.00                    | 0.00                   | 0.00                  |
| 19,400.00             | 89.96           | 89.94       | 7,092.93              | -1,943.61    | 12,462.93    | 12,470.30               | 0.00                    | 0.00                   | 0.00                  |
| 19,500.00             | 89.96           | 89.94       | 7,093.00              | -1,943.52    | 12,562.93    | 12,570.30               | 0.00                    | 0.00                   | 0.00                  |
| 19,600.00             | 89.96           | 89.94       | 7,093.07              | -1,943.42    | 12,662.93    | 12,670.29               | 0.00                    | 0.00                   | 0.00                  |
| 19,700.00             | 89.96           | 89.94       | 7,093.14              | -1,943.32    | 12,762.93    | 12,770.29               | 0.00                    | 0.00                   | 0.00                  |
| 19,800.00             | 89.96           | 89.94       | 7,093.21              | -1,943.23    | 12,862.93    | 12,870.29               | 0.00                    | 0.00                   | 0.00                  |
| 19,900.00             | 89.96           | 89.94       | 7,093.28              | -1,943.13    | 12,962.93    | 12,970.29               | 0.00                    | 0.00                   | 0.00                  |
| 20,000.00             | 89.96           | 89.94       | 7,093.35              | -1,943.04    | 13,062.93    | 13,070.29               | 0.00                    | 0.00                   | 0.00                  |
| 20,100.00             | 89.96           | 89.94       | 7,093.42              | -1,942.94    | 13,162.92    | 13,170.29               | 0.00                    | 0.00                   | 0.00                  |
| 20,200.00             | 89.96           | 89.94       | 7,093.49              | -1,942.84    | 13,262.92    | 13,270.29               | 0.00                    | 0.00                   | 0.00                  |
| 20,300.00             | 89.96           | 89.94       | 7,093.56              | -1,942.75    | 13,362.92    | 13,370.29               | 0.00                    | 0.00                   | 0.00                  |
| 20,400.00             | 89.96           | 89.94       | 7,093.63              | -1,942.65    | 13,462.92    | 13,470.28               | 0.00                    | 0.00                   | 0.00                  |
| 20,500.00             | 89.96           | 89.94       | 7,093.70              | -1,942.55    | 13,562.92    | 13,570.28               | 0.00                    | 0.00                   | 0.00                  |
| 20,600.00             | 89.96           | 89.94       | 7,093.77              | -1,942.46    | 13,662.92    | 13,670.28               | 0.00                    | 0.00                   | 0.00                  |
| 20,700.00             | 89.96           | 89.94       | 7,093.84              | -1,942.36    | 13,762.92    | 13,770.28               | 0.00                    | 0.00                   | 0.00                  |
| 20,800.00             | 89.96           | 89.94       | 7,093.91              | -1,942.27    | 13,862.92    | 13,870.28               | 0.00                    | 0.00                   | 0.00                  |
| 20,900.00             | 89.96           | 89.94       | 7,093.98              | -1,942.17    | 13,962.92    | 13,970.28               | 0.00                    | 0.00                   | 0.00                  |
| 21,000.00             | 89.96           | 89.94       | 7,094.05              | -1,942.07    | 14,062.92    | 14,070.28               | 0.00                    | 0.00                   | 0.00                  |
| 21,100.00             | 89.96           | 89.94       | 7,094.12              | -1,941.98    | 14,162.92    | 14,170.28               | 0.00                    | 0.00                   | 0.00                  |
| 21,200.00             | 89.96           | 89.94       | 7,094.19              | -1,941.88    | 14,262.92    | 14,270.28               | 0.00                    | 0.00                   | 0.00                  |
| 21,300.00             | 89.96           | 89.94       | 7,094.26              | -1,941.78    | 14,362.92    | 14,370.27               | 0.00                    | 0.00                   | 0.00                  |
| 21,400.00             | 89.96           | 89.94       | 7,094.33              | -1,941.69    | 14,462.92    | 14,470.27               | 0.00                    | 0.00                   | 0.00                  |
| 21,500.00             | 89.96           | 89.94       | 7,094.40              | -1,941.59    | 14,562.92    | 14,570.27               | 0.00                    | 0.00                   | 0.00                  |
| 21,600.00             | 89.96           | 89.94       | 7,094.47              | -1,941.50    | 14,662.92    | 14,670.27               | 0.00                    | 0.00                   | 0.00                  |
| 21,700.00             | 89.96           | 89.94       | 7,094.54              | -1,941.40    | 14,762.92    | 14,770.27               | 0.00                    | 0.00                   | 0.00                  |
| 21,798.31             | 89.96           | 89.94       | 7,094.61              | -1,941.30    | 14,861.24    | 14,868.58               | 0.00                    | 0.00                   | 0.00                  |

SDT

Planning Report

|           |                        |                              |                                 |
|-----------|------------------------|------------------------------|---------------------------------|
| Database: | EDM 5000 Multi User Db | Local Co-ordinate Reference: | Well Rosa Unit 756H             |
| Company:  | Logos Operating LLC    | TVD Reference:               | 6534+30 @ 6564.00usft (H&P 530) |
| Project:  | Rio Arriba, NM (NAD83) | MD Reference:                | 6534+30 @ 6564.00usft (H&P 530) |
| Site:     | Rosa Unit 32           | North Reference:             | True                            |
| Well:     | Rosa Unit 756H         | Survey Calculation Method:   | Minimum Curvature               |
| Wellbore: | OH                     |                              |                                 |
| Design:   | Plan #7                |                              |                                 |

|                       |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Planned Survey        |                 |             |                       |              |              |                         |                         |                        |                       |
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| TD at 21798.31        |                 |             |                       |              |              |                         |                         |                        |                       |

|                                                      |               |              |            |              |              |                 |                |           |             |
|------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-----------|-------------|
| Design Targets                                       |               |              |            |              |              |                 |                |           |             |
| Target Name                                          | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude  | Longitude   |
| - hit/miss target                                    |               |              |            |              |              |                 |                |           |             |
| - Shape                                              |               |              |            |              |              |                 |                |           |             |
| RU 756H SHL<br>- plan hits target center<br>- Point  | 0.00          | 0.00         | 0.00       | 0.00         | 0.00         | 2,131,247.92    | 2,857,647.65   | 36.856045 | -107.373405 |
| RU 756H POE<br>- plan hits target center<br>- Point  | 0.00          | 0.00         | 7,084.75   | -1,734.37    | 743.48       | 2,129,517.14    | 2,858,399.48   | 36.851281 | -107.370864 |
| RU 756H IP<br>- plan hits target center<br>- Point   | 0.00          | 0.00         | 7,090.41   | -1,946.04    | 8,852.97     | 2,129,344.53    | 2,866,509.89   | 36.850696 | -107.343147 |
| RU 756H PBHL<br>- plan hits target center<br>- Point | 0.00          | 0.00         | 7,094.61   | -1,941.30    | 14,861.24    | 2,129,378.20    | 2,872,518.07   | 36.850702 | -107.322612 |

|                       |                       |                 |           |         |                   |  |
|-----------------------|-----------------------|-----------------|-----------|---------|-------------------|--|
| Formations            |                       |                 |           |         |                   |  |
| Measured Depth (usft) | Vertical Depth (usft) | Name            | Lithology | Dip (°) | Dip Direction (°) |  |
| 2,747.27              | 2,684.00              | Ojo Alamo       |           | 0.00    | 0.00              |  |
| 2,897.77              | 2,829.00              | Kirtland        |           | 0.00    | 0.00              |  |
| 3,271.44              | 3,189.00              | Fruitland       |           | 0.00    | 0.00              |  |
| 3,344.09              | 3,259.00              | T/Coals         |           | 0.00    | 0.00              |  |
| 3,480.07              | 3,390.00              | B/Coals         |           | 0.00    | 0.00              |  |
| 3,647.18              | 3,551.00              | Pictured Cliffs |           | 0.00    | 0.00              |  |
| 3,760.32              | 3,660.00              | Lewis           |           | 0.00    | 0.00              |  |
| 4,868.86              | 4,728.00              | Chacra          |           | 0.00    | 0.00              |  |
| 5,393.03              | 5,233.00              | U/Cliff House   |           | 0.00    | 0.00              |  |
| 5,732.45              | 5,560.00              | Cliff House     |           | 0.00    | 0.00              |  |
| 5,761.51              | 5,588.00              | Menefee         |           |         |                   |  |
| 5,982.60              | 5,801.00              | Point Lookout   |           |         |                   |  |
| 6,471.48              | 6,272.00              | Mancos          |           |         |                   |  |
| 7,187.05              | 6,911.00              | Black Top       |           |         |                   |  |

SDT

Planning Report

|           |                        |                              |                                 |
|-----------|------------------------|------------------------------|---------------------------------|
| Database: | EDM 5000 Multi User Db | Local Co-ordinate Reference: | Well Rosa Unit 756H             |
| Company:  | Logos Operating LLC    | TVD Reference:               | 6534+30 @ 6564.00usft (H&P 530) |
| Project:  | Rio Arriba, NM (NAD83) | MD Reference:                | 6534+30 @ 6564.00usft (H&P 530) |
| Site:     | Rosa Unit 32           | North Reference:             | True                            |
| Well:     | Rosa Unit 756H         | Survey Calculation Method:   | Minimum Curvature               |
| Wellbore: | OH                     |                              |                                 |
| Design:   | Plan #7                |                              |                                 |

| Plan Annotations            |                             |                   |                 |                                   |
|-----------------------------|-----------------------------|-------------------|-----------------|-----------------------------------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                           |
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                   |
| 500.00                      | 500.00                      | 0.00              | 0.00            | Start Build 2.00                  |
| 1,277.20                    | 1,267.70                    | -104.51           | 7.54            | Start 5417.73 hold at 1277.20 MD  |
| 6,694.93                    | 6,487.28                    | -1,552.57         | 112.04          | Start DLS 9.00 TFO -84.59         |
| 7,677.78                    | 7,084.75                    | -1,734.37         | 743.48          | Start 8112.25 hold at 7677.78 MD  |
| 15,790.03                   | 7,090.41                    | -1,946.04         | 8,852.97        | Start DLS 2.00 TFO -90.00         |
| 15,867.55                   | 7,090.47                    | -1,947.01         | 8,930.47        | Start 5930.77 hold at 15867.55 MD |
| 21,798.31                   | 7,094.61                    | -1,941.30         | 14,861.24       | TD at 21798.31                    |

**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**

CONDITIONS  
  
Action 345732

CONDITIONS

|                                                                               |                                                      |
|-------------------------------------------------------------------------------|------------------------------------------------------|
| Operator:<br>LOGOS OPERATING, LLC<br>2010 Afton Place<br>Farmington, NM 87401 | OGRID:<br>289408                                     |
|                                                                               | Action Number:<br>345732                             |
|                                                                               | Action Type:<br>[C-103] NOI Change of Plans (C-103A) |

CONDITIONS

| Created By  | Condition                                                                                                                                 | Condition Date |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| ward.rikala | All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required. | 5/21/2024      |