Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

**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.***

***SUBMIT IN TRIPLICATE*** *- Other instructions on page 2*

5. Lease Serial No.: NMSF078773

6. If Indian, Allottee or Tribe Name:

7. If Unit of CA/Agreement, Name and/or No.: NMNM78407E

1. Type of Well: [ ] Oil Well [x] Gas Well [ ] Other

8. Well Name and No.: ROSA UNIT 744H

2. Name of Operator: LOGOS OPERATING, LLC

API Well No.: 30-039-31423

3a. Address: 2010 AFTON PLACE, FARMINGTON, NM 87401

3b. Phone No. *(include area code)*: (505) 278-8720

10. Field and Pool or Exploratory Area: BASIN MANCOS

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*: SEC 33 T31N R05W, NENW (C) 349' FNL 1683' FWL

11. Country or Parish, State: RIO ARRIBA COUNTY, NM

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|---|---|---|---|---|
| [X] Notice of Intent | [ ] Acidize | [ ] Deepen | [ ] Production (Start/Resume) | [ ] Water Shut-Off |
| [ ] Subsequent Report | [ ] Alter Casing | [ ] Hydraulic Fracturing | [ ] Reclamation | [ ] Well Integrity |
| [ ] Final Abandonment Notice | [ ] Casing Repair | [ ] New Construction | [ ] Recomplete | [ ] Other |
| | [x] Change Plans | [ ] Plug and Abandon | [ ] Temporarily Abandon | |
| | [ ] Convert to Injection | [ ] Plug Back | [ ] 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 recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zonesAttach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

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

Original surface-hole location from 334' FNL & 1682' FWL to new **surface-hole location 349' FNL & 1683' FWL**

Original bottom-hole location from 488' FNL & 2612' FWL to new **bottom-hole location 618' FNL & 66' FEL**

Original TD @ 13,474' MD 7,097' TVD to new **TD @ 20,884' MD 7,122' TVD.**

Geology tops have been updated per changes.

Original KOP @ 6,424' MD 6,408' TVD to new **KOP @ 6,459' MD 6459' TVD**

Original Landing point @ 7,471' 7,092' TVD to new **Landing point @ 7,480' MD 7,117' TVD**

Original 9,625" casing Intermediate @ 6,359' MD to 9.625" Intermediate casing **@ 6,367' MD & 13.375" casing @ 3,613' MD**

Original 5.5" casing Production casing @ 13,474' MD to 5.5" Production casing **@ 20,884' MD 7,122' TVD**

The 13.375" & 9.625" Intermediate & 5.5" production cementing bbls and sacks have been update 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)*: Etta Trujillo

Title: Regulatory Specialist

Signature: Etta Trujillo

Date: 1/27/2023

**THE SPACE FOR FEDERAL OR STATE OFICE 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)

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

# Sundry Print Report

01/31/2023

| | | |
|---|---|---|
| **Well Name:** ROSA UNIT | **Well Location:** T31N / R05W / SEC 33 / NENW / | **County or Parish/State:** |
| **Well Number:** 744H | **Type of Well:** CONVENTIONAL GAS WELL | **Allottee or Tribe Name:** |
| **Lease Number:** NMSF0078773 | **Unit or CA Name:** | **Unit or CA Number:** NMNM078407E |
| **US Well Number:** 3003931423 | **Well Status:** Approved Application for Permit to Drill | **Operator:** LOGOS OPERATING LLC |

## Notice of Intent

**Sundry ID:** 2712959

**Type of Submission:** Notice of Intent

**Type of Action:** Other

**Date Sundry Submitted:** 01/30/2023

**Time Sundry Submitted:** 01:49

**Date proposed operation will begin:** 01/27/2023

**Procedure Description:** LOGOS Operating request a change in plans for the following (based on KB elevation): Original surface-hole location from 334' FNL & 1682' FWL to new surface-hole location 349' FNL & 1683' FWL Original bottom-hole location from 488' FNL & 2612' FWL to new bottom-hole location 618' FNL & 66' FEL Original TD @ 13,474' MD 7,097' TVD to new TD @ 20,884' MD 7,122' TVD. Geology tops have been updated per changes. Original KOP @ 6,424' MD 6,408' TVD to new KOP @ 6,459' MD 6459' TVD Original Landing point @ 7,471' 7,092' TVD to new Landing point @ 7,480' MD 7,117' TVD Original 9,625" casing Intermediate @ 6,359' MD to 9.625" Intermediate casing @ 6,367' MD & 13.375" casing @ 3,613' MD Original 5.5" casing Production casing @ 13,474' MD to 5.5" Production casing @ 20,884' MD 7,122' TVD The 13.375" & 9.625" Intermediate & 5.5" production cementing bbls and sacks have been update 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_5_Rosa_Unit_744H_Plan_7_Change_in_Plans_20230127_20230127142352.pdf

**Well Name:** ROSA UNIT

**Well Location:** T31N / R05W / SEC 33 / NENW /

**County or Parish/State:**

**Well Number:** 744H

**Type of Well:** CONVENTIONAL GAS WELL

**Allottee or Tribe Name:**

**Lease Number:** NMSF0078773

**Unit or CA Name:**

**Unit or CA Number:** NMNM078407E

**US Well Number:** 3003931423

**Well Status:** Approved Application for Permit to Drill

**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:** JAN 30, 2023 01:48 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:** 01/31/2023

**Signature:** Kenneth Rennick

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

# OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011

Submit one copy to Appropriate District Office

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

| [1] API Number | [2] Pool Code | [3] Pool Name |
|---|---|---|
| | 97232 | BASIN MANCOS |

| [4] Property Code | [5] Property Name | [6] Well Number |
|---|---|---|
| 320608 | ROSA UNIT | 744H |

| [7] OGRID No. | [8] Operator Name | [9] Elevation |
|---|---|---|
| 289408 | LOGOS OPERATING, LLC | 6492' |

[10] Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| C | 33 | 31N | 5W | | 349 | NORTH | 1683 | WEST | RIO ARRIBA |

[11] Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| A | 35 | 31N | 5W | | 618 | NORTH | 66 | EAST | RIO ARRIBA |

| [12] Dedicated Acres | | [13] Joint or Infill | [14] Consolidation Code | [15] Order No. |
|---|---|---|---|---|
| 960.00 | N/2 - Section 33<br>N/2 - Section 34<br>N/2 - Section 35 | | | R-13457 |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Etta Trujillo — Signature — 1/13/2023 — Date

Etta Trujillo — Printed Name

etrujillo@logosresourcesllc.com — E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: JANUARY 12, 2023
Date of Survey: APRIL 21, 2016

Signature and Seal of Professional Surveyor

JASON C. EDWARDS — NEW MEXICO — 15269 — REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

SURFACE LOCATION
349' FNL 1683' FWL
SEC 33, T31N, R5W
LAT: 36.862394 °N
LONG: 107.370313 °W
DATUM: NAD1927

LAT: 36.862401 °N
LONG: 107.370915 °W
DATUM: NAD1983

S87°07.1'E 674.5'

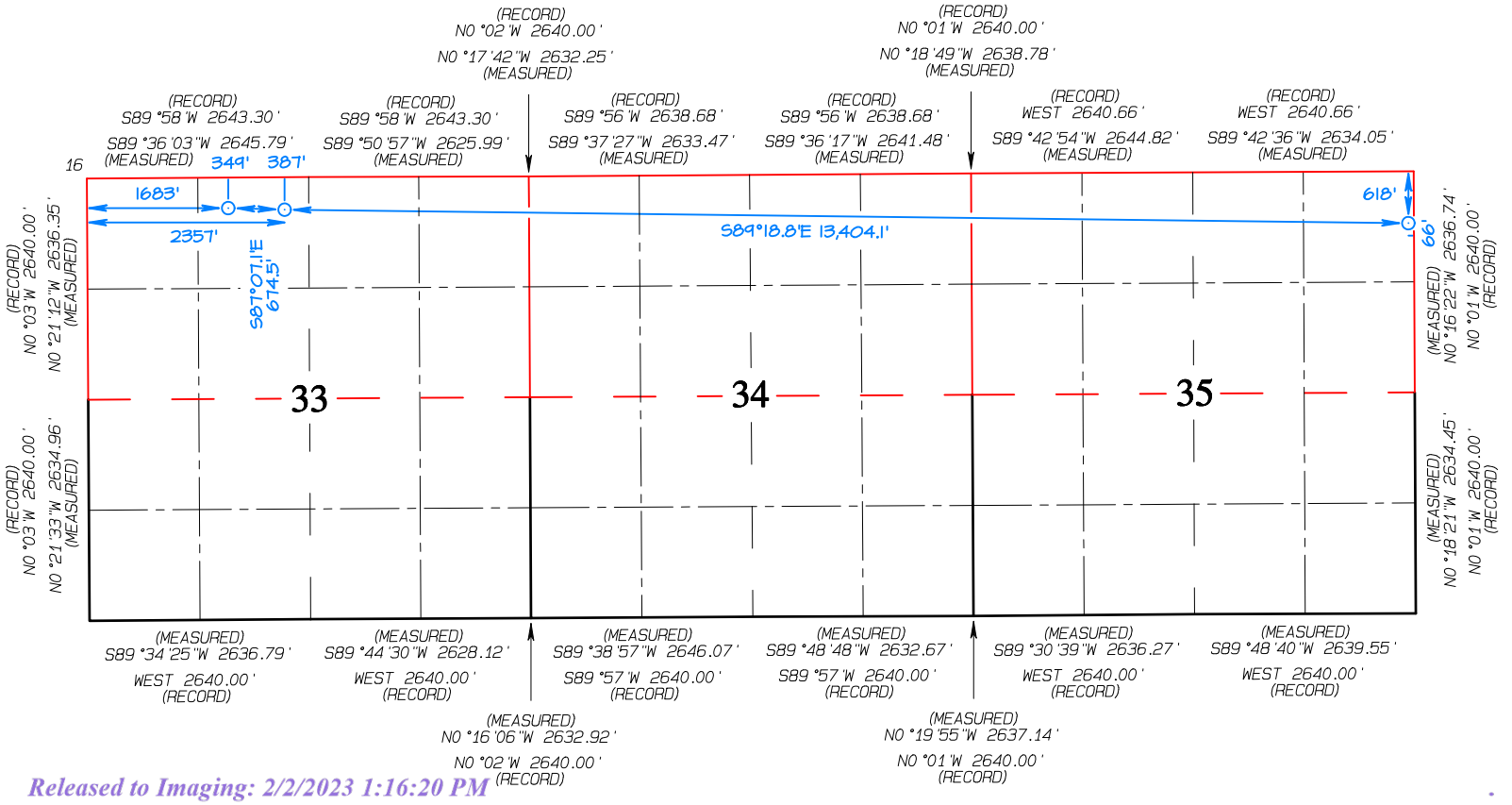
FIRST TAKE POINT
387' FNL 2357' FWL
SEC 33, T31N, R5W
LAT: 36.862292 °N
LONG: 107.368011 °W
DATUM: NAD1927

LAT: 36.862298 °N
LONG: 107.368613 °W
DATUM: NAD1983

S89°18.8'E 13,404.1'

LAST TAKE POINT
618' FNL 66' FEL
SEC 35, T31N, R5W
LAT: 36.861662 °N
LONG: 107.322200 °W
DATUM: NAD1927

LAT: 36.861669 °N
LONG: 107.322801 °W
DATUM: NAD1983



# Logos Operating LLC

**Rio Arriba, NM NAD83**
**Rosa Unit 31**
**Rosa Unit #744H**

**OH**
**Plan #7**

# Anticollision Summary Report

**09 January, 2023**

# Lonestar Consulting, LLC

## Anticollision Summary Report

| | | | |
|---|---|---|---|
| **Company:** | Logos Operating LLC | **Local Co-ordinate Reference:** | Well Rosa Unit #744H - Slot A3 |
| **Project:** | Rio Arriba, NM NAD83 | **TVD Reference:** | GL 6492' @ 6492.00ft |
| **Reference Site:** | Rosa Unit 31 | **MD Reference:** | GL 6492' @ 6492.00ft |
| **Site Error:** | 0.00 ft | **North Reference:** | True |
| **Reference Well:** | Rosa Unit #744H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.00 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | Grand Junction |
| **Reference Design:** | Plan #7 | **Offset TVD Reference:** | Offset Datum |

| | | | |
|---|---|---|---|
| **Reference** | Plan #7 | | |
| **Filter type:** | NO GLOBAL FILTER: Using user defined selection & filtering criteria | | |
| **Interpolation Method:** | Stations | **Error Model:** | ISCWSA |
| **Depth Range:** | Unlimited | **Scan Method:** | Closest Approach 3D |
| **Results Limited by:** | Maximum centre distance of 15,000.00ft | **Error Surface:** | Pedal Curve |
| **Warning Levels Evaluated at:** | 2.00 **Sigma** | **Casing Method:** | Not applied |

**Survey Tool Program** **Date** 1/9/2023

| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description |
|---|---|---|---|---|
| 0.00 | 20,859.34 | Plan #7 (OH) | MWD+HDGM | OWSG MWD + HDGM |

**Summary**

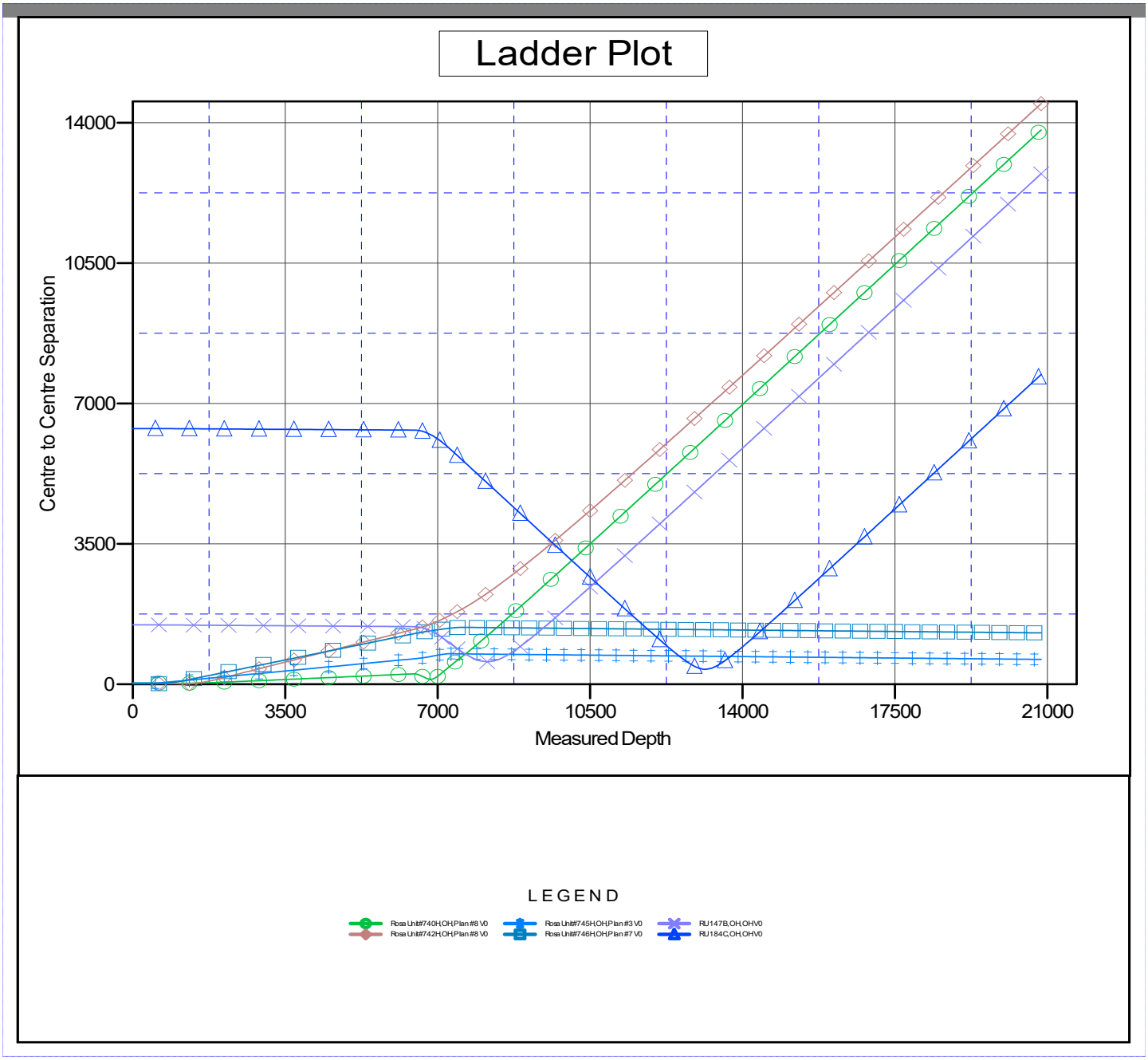
| Site Name<br>Offset Well - Wellbore - Design | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|
| Rosa Unit 31 | | | | | | |
| Rosa Unit #740H - OH - Plan #8 | 1,108.06 | 1,108.62 | 23.76 | 15.95 | 3.043 | CC |
| Rosa Unit #740H - OH - Plan #8 | 1,200.00 | 1,200.45 | 24.17 | 15.72 | 2.858 | ES |
| Rosa Unit #740H - OH - Plan #8 | 6,839.52 | 6,848.69 | 121.73 | 72.90 | 2.493 | SF |
| Rosa Unit #742H - OH - Plan #8 | 1,238.23 | 1,238.73 | 10.27 | 1.55 | 1.178 | Level 2, CC, ES, SF |
| Rosa Unit #745H - OH - Plan #3 | 410.00 | 410.00 | 30.33 | 27.39 | 10.317 | CC |
| Rosa Unit #745H - OH - Plan #3 | 20,859.41 | 21,222.00 | 620.50 | -158.14 | 0.797 | Level 1, ES, SF |
| Rosa Unit #746H - OH - Plan #7 | 500.00 | 500.00 | 15.33 | 11.75 | 4.278 | CC |
| Rosa Unit #746H - OH - Plan #7 | 521.34 | 521.22 | 15.37 | 11.63 | 4.119 | ES |
| Rosa Unit #746H - OH - Plan #7 | 20,859.41 | 20,868.93 | 1,281.24 | 437.63 | 1.519 | SF |
| RU 147B - OH - OH | 8,140.86 | 7,113.26 | 562.58 | 233.19 | 1.708 | CC, ES, SF |
| RU 184C - OH - OH | 13,144.95 | 7,384.15 | 374.13 | -40.51 | 0.902 | Level 1, CC, ES, SF |

# Lonestar Consulting, LLC
## Anticollision Summary Report

| | | | |
|---|---|---|---|
| **Company:** | Logos Operating LLC | **Local Co-ordinate Reference:** | Well Rosa Unit #744H - Slot A3 |
| **Project:** | Rio Arriba, NM NAD83 | **TVD Reference:** | GL 6492' @ 6492.00ft |
| **Reference Site:** | Rosa Unit 31 | **MD Reference:** | GL 6492' @ 6492.00ft |
| **Site Error:** | 0.00 ft | **North Reference:** | True |
| **Reference Well:** | Rosa Unit #744H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.00 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | Grand Junction |
| **Reference Design:** | Plan #7 | **Offset TVD Reference:** | Offset Datum |

Reference Depths are relative to GL 6492' @ 6492.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -107.8333334

Coordinates are relative to: Rosa Unit #744H - Slot A3
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.28°



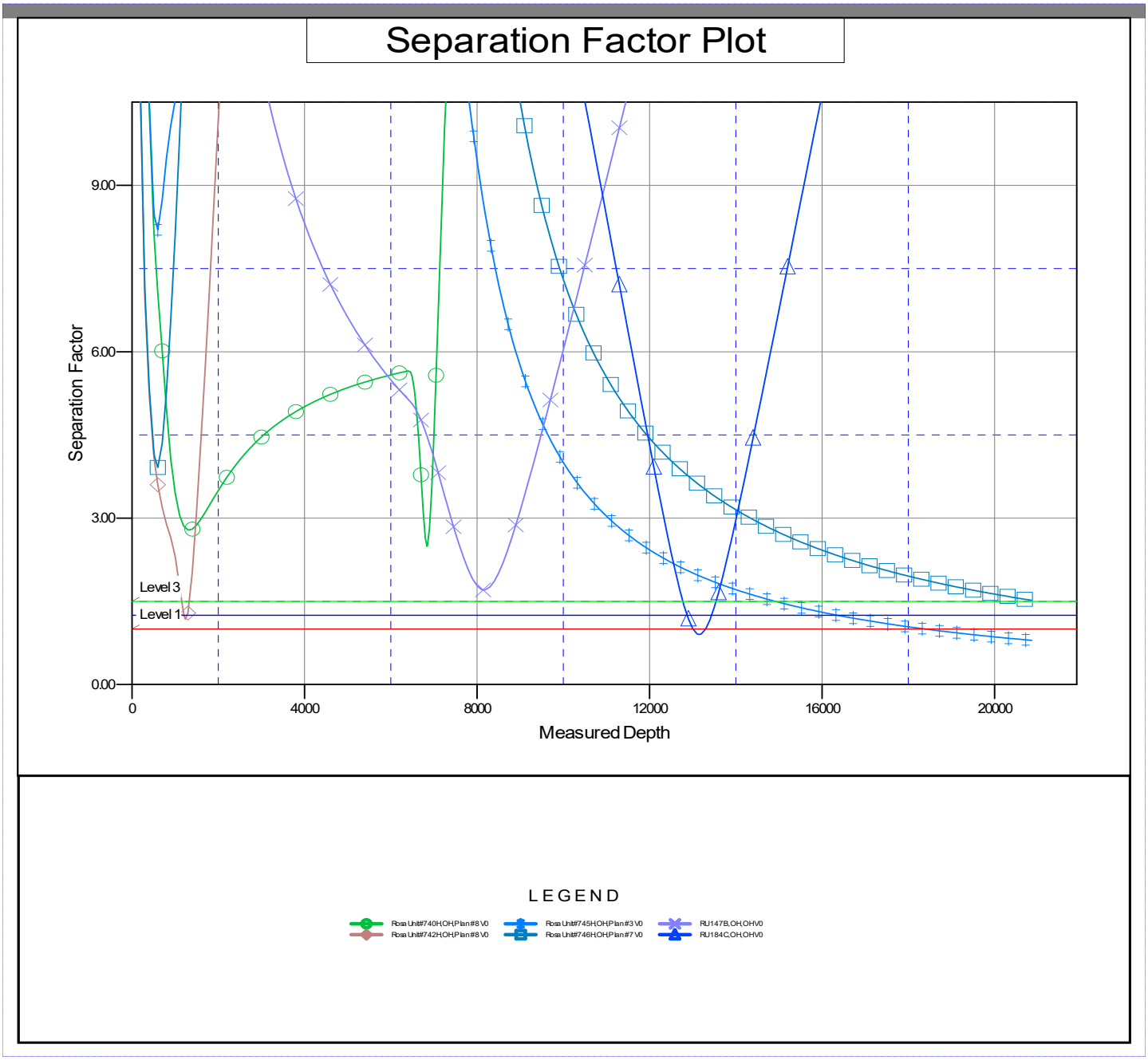

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

# Lonestar Consulting, LLC
## Anticollision Summary Report

| | | | |
|---|---|---|---|
| **Company:** | Logos Operating LLC | **Local Co-ordinate Reference:** | Well Rosa Unit #744H - Slot A3 |
| **Project:** | Rio Arriba, NM NAD83 | **TVD Reference:** | GL 6492' @ 6492.00ft |
| **Reference Site:** | Rosa Unit 31 | **MD Reference:** | GL 6492' @ 6492.00ft |
| **Site Error:** | 0.00 ft | **North Reference:** | True |
| **Reference Well:** | Rosa Unit #744H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.00 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | Grand Junction |
| **Reference Design:** | Plan #7 | **Offset TVD Reference:** | Offset Datum |

Reference Depths are relative to GL 6492' @ 6492.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -107.8333334

Coordinates are relative to: Rosa Unit #744H - Slot A3
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.28°




CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LOGOS RESOURCES II, LLC

Company: Logos Operating LLC
Project: Rio Arriba, NM NAD83
Site: Rosa Unit 31
Well: Rosa Unit #744H
Wellbore: OH
Design: Plan #7

**PROJECT DETAILS: Rio Arriba, NM NAD83**

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Local North: True

LONESTAR CONSULTING

**WELL DETAILS: Rosa Unit #744H**

GL 6492' @ 6492.00ft

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | |
|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 2133565.4216 | 2858364.9193 | 36.8624010 | -107.3709150 | A3 |

Plan: Plan #7 (Rosa Unit #744H/OH)

Created By: Janie Collins Date: 15:20, January 09 2023

Azimuths to True North
Magnetic North: 8.33°
Magnetic Field
Strength: 49534.7nT
Dip Angle: 63.33°
Date: 10/19/2022
Model: HDGM2022

**DESIGN TARGET DETAILS**

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| 744H POE Rev 3 | 7092.00 | -37.35 | 673.39 | 2133531.3345 | 2859038.4815 | 36.8622984 | -107.3686131 |
| 744H BHL Rev 3 | 7097.00 | -262.99 | 14075.58 | 2133370.5884 | 2872441.5823 | 36.8616689 | -107.3228005 |

**SECTION DETAILS**

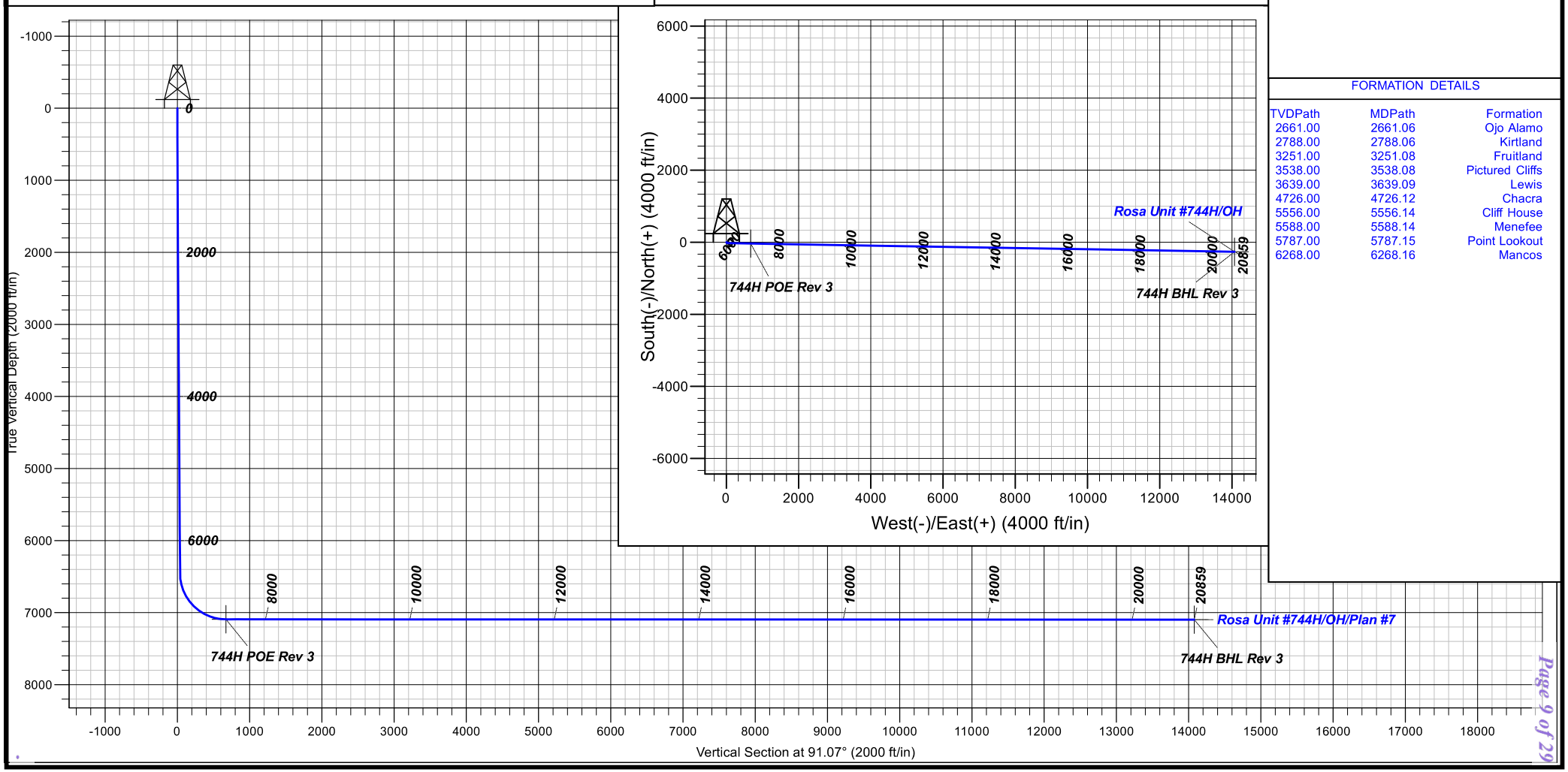
| MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSect |
|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 521.34 | 0.43 | 123.01 | 521.34 | -0.04 | 0.07 | 2.00 | 123.01 | 0.07 |
| 6459.57 | 0.43 | 123.01 | 6459.40 | -24.14 | 37.15 | 0.00 | 0.00 | 37.60 |
| 7455.31 | 89.98 | 90.96 | 7092.00 | -37.35 | 673.39 | 9.00 | -32.05 | 673.97 |
| 20859.40 | 89.98 | 90.96 | 7097.00 | -262.99 | 14075.58 | 0.00 | 0.00 | 14078.04 |

**CASING DETAILS**

| TVD | MD | Name |
|---|---|---|

**FORMATION DETAILS**

| TVDPath | MDPath | Formation |
|---|---|---|
| 2661.00 | 2661.06 | Ojo Alamo |
| 2788.00 | 2788.06 | Kirtland |
| 3251.00 | 3251.08 | Fruitland |
| 3538.00 | 3538.08 | Pictured Cliffs |
| 3639.00 | 3639.09 | Lewis |
| 4726.00 | 4726.12 | Chacra |
| 5556.00 | 5556.14 | Cliff House |
| 5588.00 | 5588.14 | Menefee |
| 5787.00 | 5787.15 | Point Lookout |
| 6268.00 | 6268.16 | Mancos |



# Logos Operating LLC

**Rio Arriba, NM NAD83**
**Rosa Unit 31**
**Rosa Unit #744H - Slot A3**

**OH**

**Plan: Plan #7**

# Standard Planning Report

**25 January, 2023**

# Lonestar Consulting, LLC
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | Grand Junction | **Local Co-ordinate Reference:** | Well Rosa Unit #744H - Slot A3 |
| **Company:** | Logos Operating LLC | **TVD Reference:** | GL 6492' @ 6492.00ft |
| **Project:** | Rio Arriba, NM NAD83 | **MD Reference:** | GL 6492' @ 6492.00ft |
| **Site:** | Rosa Unit 31 | **North Reference:** | True |
| **Well:** | Rosa Unit #744H | **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 31

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 2,133,595.0680 usft | **Latitude:** | 36.8624824 |
| **From:** | Map | **Easting:** | 2,858,361.8390 usft | **Longitude:** | -107.3709251 |
| **Position Uncertainty:** | 0.00 ft | **Slot Radius:** | 13.200 in | | |

**Well** Rosa Unit #744H - Slot A3

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 0.00 ft | **Northing:** | 2,133,565.4216 usft | **Latitude:** | 36.8624010 |
| | **+E/-W** | 0.00 ft | **Easting:** | 2,858,364.9193 usft | **Longitude:** | -107.3709150 |
| **Position Uncertainty** | | 0.00 ft | **Wellhead Elevation:** | ft | **Ground Level:** | 6,492.00 ft |
| **Grid Convergence:** | | 0.28 ° | | | | |

**Wellbore** OH

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | HDGM2022 | 10/19/2022 | 8.53 | 63.30 | 49,534.10000000 |

**Design** Plan #7

**Audit Notes:**

| | | | | | |
|---|---|---|---|---|---|
| **Version:** | | **Phase:** | PLAN | **Tie On Depth:** | 0.00 |

| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
|---|---|---|---|---|
| | 0.00 | 0.00 | 0.00 | 91.07 |

**Plan Survey Tool Program** **Date** 1/25/2023

| | Depth From (ft) | Depth To (ft) | Survey (Wellbore) | Tool Name | Remarks |
|---|---|---|---|---|---|
| 1 | 0.00 | 20,859.34 | Plan #7 (OH) | MWD+HDGM | |
| | | | | OWSG MWD + HDGM | |

**Plan Sections**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | 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 | |
| 521.34 | 0.43 | 123.01 | 521.34 | -0.04 | 0.07 | 2.00 | 2.00 | 0.00 | 123.01 | |
| 6,459.57 | 0.43 | 123.01 | 6,459.40 | -24.14 | 37.15 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,455.31 | 89.98 | 90.96 | 7,092.00 | -37.35 | 673.39 | 9.00 | 8.99 | -3.22 | -32.05 | 744H POE Rev 3 |
| 20,859.41 | 89.98 | 90.96 | 7,097.00 | -262.99 | 14,075.58 | 0.00 | 0.00 | 0.00 | 0.00 | 744H BHL Rev 3 |

# Lonestar Consulting, LLC

## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | Grand Junction | **Local Co-ordinate Reference:** | Well Rosa Unit #744H - Slot A3 |
| **Company:** | Logos Operating LLC | **TVD Reference:** | GL 6492' @ 6492.00ft |
| **Project:** | Rio Arriba, NM NAD83 | **MD Reference:** | GL 6492' @ 6492.00ft |
| **Site:** | Rosa Unit 31 | **North Reference:** | True |
| **Well:** | Rosa Unit #744H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #7 | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 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 |
| 521.34 | 0.43 | 123.01 | 521.34 | -0.04 | 0.07 | 0.07 | 2.00 | 2.00 | 0.00 |
| 600.00 | 0.43 | 123.01 | 600.00 | -0.36 | 0.56 | 0.56 | 0.00 | 0.00 | 0.00 |
| 700.00 | 0.43 | 123.01 | 699.99 | -0.77 | 1.18 | 1.20 | 0.00 | 0.00 | 0.00 |
| 800.00 | 0.43 | 123.01 | 799.99 | -1.17 | 1.81 | 1.83 | 0.00 | 0.00 | 0.00 |
| 900.00 | 0.43 | 123.01 | 899.99 | -1.58 | 2.43 | 2.46 | 0.00 | 0.00 | 0.00 |
| 1,000.00 | 0.43 | 123.01 | 999.99 | -1.99 | 3.06 | 3.09 | 0.00 | 0.00 | 0.00 |
| 1,100.00 | 0.43 | 123.01 | 1,099.98 | -2.39 | 3.68 | 3.72 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 0.43 | 123.01 | 1,199.98 | -2.80 | 4.31 | 4.36 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 0.43 | 123.01 | 1,299.98 | -3.20 | 4.93 | 4.99 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 0.43 | 123.01 | 1,399.98 | -3.61 | 5.55 | 5.62 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 0.43 | 123.01 | 1,499.97 | -4.01 | 6.18 | 6.25 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 0.43 | 123.01 | 1,599.97 | -4.42 | 6.80 | 6.88 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 0.43 | 123.01 | 1,699.97 | -4.83 | 7.43 | 7.52 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 0.43 | 123.01 | 1,799.96 | -5.23 | 8.05 | 8.15 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 0.43 | 123.01 | 1,899.96 | -5.64 | 8.68 | 8.78 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 0.43 | 123.01 | 1,999.96 | -6.04 | 9.30 | 9.41 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 0.43 | 123.01 | 2,099.96 | -6.45 | 9.93 | 10.04 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 0.43 | 123.01 | 2,199.95 | -6.85 | 10.55 | 10.68 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 0.43 | 123.01 | 2,299.95 | -7.26 | 11.18 | 11.31 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 0.43 | 123.01 | 2,399.95 | -7.67 | 11.80 | 11.94 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 0.43 | 123.01 | 2,499.94 | -8.07 | 12.42 | 12.57 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 0.43 | 123.01 | 2,599.94 | -8.48 | 13.05 | 13.20 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 0.43 | 123.01 | 2,699.94 | -8.88 | 13.67 | 13.84 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 0.43 | 123.01 | 2,799.94 | -9.29 | 14.30 | 14.47 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 0.43 | 123.01 | 2,899.93 | -9.69 | 14.92 | 15.10 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 0.43 | 123.01 | 2,999.93 | -10.10 | 15.55 | 15.73 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 0.43 | 123.01 | 3,099.93 | -10.51 | 16.17 | 16.36 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 0.43 | 123.01 | 3,199.93 | -10.91 | 16.80 | 17.00 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 0.43 | 123.01 | 3,299.92 | -11.32 | 17.42 | 17.63 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 0.43 | 123.01 | 3,399.92 | -11.72 | 18.05 | 18.26 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 0.43 | 123.01 | 3,499.92 | -12.13 | 18.67 | 18.89 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 0.43 | 123.01 | 3,599.91 | -12.53 | 19.29 | 19.52 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 0.43 | 123.01 | 3,699.91 | -12.94 | 19.92 | 20.16 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 0.43 | 123.01 | 3,799.91 | -13.35 | 20.54 | 20.79 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 0.43 | 123.01 | 3,899.91 | -13.75 | 21.17 | 21.42 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 0.43 | 123.01 | 3,999.90 | -14.16 | 21.79 | 22.05 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 0.43 | 123.01 | 4,099.90 | -14.56 | 22.42 | 22.68 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 0.43 | 123.01 | 4,199.90 | -14.97 | 23.04 | 23.32 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 0.43 | 123.01 | 4,299.90 | -15.37 | 23.67 | 23.95 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 0.43 | 123.01 | 4,399.89 | -15.78 | 24.29 | 24.58 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 0.43 | 123.01 | 4,499.89 | -16.19 | 24.91 | 25.21 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 0.43 | 123.01 | 4,599.89 | -16.59 | 25.54 | 25.85 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 0.43 | 123.01 | 4,699.88 | -17.00 | 26.16 | 26.48 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 0.43 | 123.01 | 4,799.88 | -17.40 | 26.79 | 27.11 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 0.43 | 123.01 | 4,899.88 | -17.81 | 27.41 | 27.74 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 0.43 | 123.01 | 4,999.88 | -18.22 | 28.04 | 28.37 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 0.43 | 123.01 | 5,099.87 | -18.62 | 28.66 | 29.01 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 0.43 | 123.01 | 5,199.87 | -19.03 | 29.29 | 29.64 | 0.00 | 0.00 | 0.00 |

# Lonestar Consulting, LLC

## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | Grand Junction | **Local Co-ordinate Reference:** | Well Rosa Unit #744H - Slot A3 |
| **Company:** | Logos Operating LLC | **TVD Reference:** | GL 6492' @ 6492.00ft |
| **Project:** | Rio Arriba, NM NAD83 | **MD Reference:** | GL 6492' @ 6492.00ft |
| **Site:** | Rosa Unit 31 | **North Reference:** | True |
| **Well:** | Rosa Unit #744H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #7 | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 5,300.00 | 0.43 | 123.01 | 5,299.87 | -19.43 | 29.91 | 30.27 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 0.43 | 123.01 | 5,399.86 | -19.84 | 30.54 | 30.90 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 0.43 | 123.01 | 5,499.86 | -20.24 | 31.16 | 31.53 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 0.43 | 123.01 | 5,599.86 | -20.65 | 31.78 | 32.17 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 0.43 | 123.01 | 5,699.86 | -21.06 | 32.41 | 32.80 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 0.43 | 123.01 | 5,799.85 | -21.46 | 33.03 | 33.43 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 0.43 | 123.01 | 5,899.85 | -21.87 | 33.66 | 34.06 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 0.43 | 123.01 | 5,999.85 | -22.27 | 34.28 | 34.69 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 0.43 | 123.01 | 6,099.85 | -22.68 | 34.91 | 35.33 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 0.43 | 123.01 | 6,199.84 | -23.08 | 35.53 | 35.96 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 0.43 | 123.01 | 6,299.84 | -23.49 | 36.16 | 36.59 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 0.43 | 123.01 | 6,399.84 | -23.90 | 36.78 | 37.22 | 0.00 | 0.00 | 0.00 |
| 6,459.57 | 0.43 | 123.01 | 6,459.40 | -24.14 | 37.15 | 37.60 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 4.01 | 94.20 | 6,499.80 | -24.32 | 38.69 | 39.14 | 9.00 | 8.85 | -71.26 |
| 6,600.00 | 13.00 | 91.95 | 6,598.60 | -24.96 | 53.45 | 53.90 | 9.00 | 9.00 | -2.25 |
| 6,700.00 | 22.00 | 91.52 | 6,693.87 | -25.84 | 83.48 | 83.94 | 9.00 | 9.00 | -0.42 |
| 6,800.00 | 31.00 | 91.34 | 6,783.27 | -26.95 | 128.04 | 128.52 | 9.00 | 9.00 | -0.18 |
| 6,900.00 | 40.00 | 91.23 | 6,864.60 | -28.24 | 186.04 | 186.53 | 9.00 | 9.00 | -0.11 |
| 7,000.00 | 49.00 | 91.16 | 6,935.85 | -29.71 | 256.04 | 256.55 | 9.00 | 9.00 | -0.07 |
| 7,100.00 | 58.00 | 91.11 | 6,995.27 | -31.29 | 336.33 | 336.86 | 9.00 | 9.00 | -0.06 |
| 7,200.00 | 67.00 | 91.06 | 7,041.39 | -32.97 | 424.92 | 425.47 | 9.00 | 9.00 | -0.05 |
| 7,300.00 | 76.00 | 91.02 | 7,073.09 | -34.69 | 519.64 | 520.20 | 9.00 | 9.00 | -0.04 |
| 7,400.00 | 85.00 | 90.98 | 7,089.58 | -36.41 | 618.16 | 618.73 | 9.00 | 9.00 | -0.04 |
| 7,455.31 | 89.98 | 90.96 | 7,092.00 | -37.35 | 673.39 | 673.97 | 9.00 | 9.00 | -0.04 |
| 7,500.00 | 89.98 | 90.96 | 7,092.02 | -38.10 | 718.07 | 718.66 | 0.00 | 0.00 | 0.00 |
| 7,600.00 | 89.98 | 90.96 | 7,092.05 | -39.78 | 818.06 | 818.66 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 89.98 | 90.96 | 7,092.09 | -41.47 | 918.04 | 918.66 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 89.98 | 90.96 | 7,092.13 | -43.15 | 1,018.03 | 1,018.66 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 89.98 | 90.96 | 7,092.17 | -44.83 | 1,118.02 | 1,118.66 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 89.98 | 90.96 | 7,092.20 | -46.52 | 1,218.00 | 1,218.66 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 89.98 | 90.96 | 7,092.24 | -48.20 | 1,317.99 | 1,318.66 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 89.98 | 90.96 | 7,092.28 | -49.88 | 1,417.97 | 1,418.66 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 89.98 | 90.96 | 7,092.32 | -51.57 | 1,517.96 | 1,518.66 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 89.98 | 90.96 | 7,092.35 | -53.25 | 1,617.94 | 1,618.66 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 89.98 | 90.96 | 7,092.39 | -54.93 | 1,717.93 | 1,718.66 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 89.98 | 90.96 | 7,092.43 | -56.62 | 1,817.92 | 1,818.66 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 89.98 | 90.96 | 7,092.46 | -58.30 | 1,917.90 | 1,918.66 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 89.98 | 90.96 | 7,092.50 | -59.98 | 2,017.89 | 2,018.66 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 89.98 | 90.96 | 7,092.54 | -61.67 | 2,117.87 | 2,118.66 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 89.98 | 90.96 | 7,092.58 | -63.35 | 2,217.86 | 2,218.66 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 89.98 | 90.96 | 7,092.61 | -65.03 | 2,317.85 | 2,318.66 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 89.98 | 90.96 | 7,092.65 | -66.72 | 2,417.83 | 2,418.66 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 89.98 | 90.96 | 7,092.69 | -68.40 | 2,517.82 | 2,518.66 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 89.98 | 90.96 | 7,092.73 | -70.08 | 2,617.80 | 2,618.65 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 89.98 | 90.96 | 7,092.76 | -71.77 | 2,717.79 | 2,718.65 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 89.98 | 90.96 | 7,092.80 | -73.45 | 2,817.77 | 2,818.65 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 89.98 | 90.96 | 7,092.84 | -75.13 | 2,917.76 | 2,918.65 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 89.98 | 90.96 | 7,092.87 | -76.82 | 3,017.75 | 3,018.65 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 89.98 | 90.96 | 7,092.91 | -78.50 | 3,117.73 | 3,118.65 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 89.98 | 90.96 | 7,092.95 | -80.18 | 3,217.72 | 3,218.65 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 89.98 | 90.96 | 7,092.99 | -81.87 | 3,317.70 | 3,318.65 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 89.98 | 90.96 | 7,093.02 | -83.55 | 3,417.69 | 3,418.65 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 89.98 | 90.96 | 7,093.06 | -85.23 | 3,517.67 | 3,518.65 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 89.98 | 90.96 | 7,093.10 | -86.92 | 3,617.66 | 3,618.65 | 0.00 | 0.00 | 0.00 |

# Lonestar Consulting, LLC

## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | Grand Junction | **Local Co-ordinate Reference:** | Well Rosa Unit #744H - Slot A3 |
| **Company:** | Logos Operating LLC | **TVD Reference:** | GL 6492' @ 6492.00ft |
| **Project:** | Rio Arriba, NM NAD83 | **MD Reference:** | GL 6492' @ 6492.00ft |
| **Site:** | Rosa Unit 31 | **North Reference:** | True |
| **Well:** | Rosa Unit #744H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #7 | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 10,500.00 | 89.98 | 90.96 | 7,093.14 | -88.60 | 3,717.65 | 3,718.65 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 89.98 | 90.96 | 7,093.17 | -90.29 | 3,817.63 | 3,818.65 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 89.98 | 90.96 | 7,093.21 | -91.97 | 3,917.62 | 3,918.65 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 89.98 | 90.96 | 7,093.25 | -93.65 | 4,017.60 | 4,018.65 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 89.98 | 90.96 | 7,093.29 | -95.34 | 4,117.59 | 4,118.65 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 89.98 | 90.96 | 7,093.32 | -97.02 | 4,217.58 | 4,218.65 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 89.98 | 90.96 | 7,093.36 | -98.70 | 4,317.56 | 4,318.65 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 89.98 | 90.96 | 7,093.40 | -100.39 | 4,417.55 | 4,418.65 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 89.98 | 90.96 | 7,093.43 | -102.07 | 4,517.53 | 4,518.65 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 89.98 | 90.96 | 7,093.47 | -103.75 | 4,617.52 | 4,618.65 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 89.98 | 90.96 | 7,093.51 | -105.44 | 4,717.50 | 4,718.65 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 89.98 | 90.96 | 7,093.55 | -107.12 | 4,817.49 | 4,818.65 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 89.98 | 90.96 | 7,093.58 | -108.80 | 4,917.48 | 4,918.65 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 89.98 | 90.96 | 7,093.62 | -110.49 | 5,017.46 | 5,018.65 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 89.98 | 90.96 | 7,093.66 | -112.17 | 5,117.45 | 5,118.65 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 89.98 | 90.96 | 7,093.70 | -113.85 | 5,217.43 | 5,218.65 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 89.98 | 90.96 | 7,093.73 | -115.54 | 5,317.42 | 5,318.65 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 89.98 | 90.96 | 7,093.77 | -117.22 | 5,417.41 | 5,418.65 | 0.00 | 0.00 | 0.00 |
| 12,300.00 | 89.98 | 90.96 | 7,093.81 | -118.90 | 5,517.39 | 5,518.65 | 0.00 | 0.00 | 0.00 |
| 12,400.00 | 89.98 | 90.96 | 7,093.84 | -120.59 | 5,617.38 | 5,618.65 | 0.00 | 0.00 | 0.00 |
| 12,500.00 | 89.98 | 90.96 | 7,093.88 | -122.27 | 5,717.36 | 5,718.65 | 0.00 | 0.00 | 0.00 |
| 12,600.00 | 89.98 | 90.96 | 7,093.92 | -123.95 | 5,817.35 | 5,818.65 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 89.98 | 90.96 | 7,093.96 | -125.64 | 5,917.33 | 5,918.65 | 0.00 | 0.00 | 0.00 |
| 12,800.00 | 89.98 | 90.96 | 7,093.99 | -127.32 | 6,017.32 | 6,018.65 | 0.00 | 0.00 | 0.00 |
| 12,900.00 | 89.98 | 90.96 | 7,094.03 | -129.00 | 6,117.31 | 6,118.65 | 0.00 | 0.00 | 0.00 |
| 13,000.00 | 89.98 | 90.96 | 7,094.07 | -130.69 | 6,217.29 | 6,218.65 | 0.00 | 0.00 | 0.00 |
| 13,100.00 | 89.98 | 90.96 | 7,094.11 | -132.37 | 6,317.28 | 6,318.65 | 0.00 | 0.00 | 0.00 |
| 13,200.00 | 89.98 | 90.96 | 7,094.14 | -134.05 | 6,417.26 | 6,418.65 | 0.00 | 0.00 | 0.00 |
| 13,300.00 | 89.98 | 90.96 | 7,094.18 | -135.74 | 6,517.25 | 6,518.65 | 0.00 | 0.00 | 0.00 |
| 13,400.00 | 89.98 | 90.96 | 7,094.22 | -137.42 | 6,617.24 | 6,618.65 | 0.00 | 0.00 | 0.00 |
| 13,500.00 | 89.98 | 90.96 | 7,094.25 | -139.10 | 6,717.22 | 6,718.65 | 0.00 | 0.00 | 0.00 |
| 13,600.00 | 89.98 | 90.96 | 7,094.29 | -140.79 | 6,817.21 | 6,818.65 | 0.00 | 0.00 | 0.00 |
| 13,700.00 | 89.98 | 90.96 | 7,094.33 | -142.47 | 6,917.19 | 6,918.65 | 0.00 | 0.00 | 0.00 |
| 13,800.00 | 89.98 | 90.96 | 7,094.37 | -144.15 | 7,017.18 | 7,018.65 | 0.00 | 0.00 | 0.00 |
| 13,900.00 | 89.98 | 90.96 | 7,094.40 | -145.84 | 7,117.16 | 7,118.65 | 0.00 | 0.00 | 0.00 |
| 14,000.00 | 89.98 | 90.96 | 7,094.44 | -147.52 | 7,217.15 | 7,218.65 | 0.00 | 0.00 | 0.00 |
| 14,100.00 | 89.98 | 90.96 | 7,094.48 | -149.20 | 7,317.14 | 7,318.65 | 0.00 | 0.00 | 0.00 |
| 14,200.00 | 89.98 | 90.96 | 7,094.52 | -150.89 | 7,417.12 | 7,418.65 | 0.00 | 0.00 | 0.00 |
| 14,300.00 | 89.98 | 90.96 | 7,094.55 | -152.57 | 7,517.11 | 7,518.65 | 0.00 | 0.00 | 0.00 |
| 14,400.00 | 89.98 | 90.96 | 7,094.59 | -154.25 | 7,617.09 | 7,618.65 | 0.00 | 0.00 | 0.00 |
| 14,500.00 | 89.98 | 90.96 | 7,094.63 | -155.94 | 7,717.08 | 7,718.65 | 0.00 | 0.00 | 0.00 |
| 14,600.00 | 89.98 | 90.96 | 7,094.67 | -157.62 | 7,817.07 | 7,818.65 | 0.00 | 0.00 | 0.00 |
| 14,700.00 | 89.98 | 90.96 | 7,094.70 | -159.30 | 7,917.05 | 7,918.65 | 0.00 | 0.00 | 0.00 |
| 14,800.00 | 89.98 | 90.96 | 7,094.74 | -160.99 | 8,017.04 | 8,018.65 | 0.00 | 0.00 | 0.00 |
| 14,900.00 | 89.98 | 90.96 | 7,094.78 | -162.67 | 8,117.02 | 8,118.65 | 0.00 | 0.00 | 0.00 |
| 15,000.00 | 89.98 | 90.96 | 7,094.81 | -164.35 | 8,217.01 | 8,218.65 | 0.00 | 0.00 | 0.00 |
| 15,100.00 | 89.98 | 90.96 | 7,094.85 | -166.04 | 8,316.99 | 8,318.64 | 0.00 | 0.00 | 0.00 |
| 15,200.00 | 89.98 | 90.96 | 7,094.89 | -167.72 | 8,416.98 | 8,418.64 | 0.00 | 0.00 | 0.00 |
| 15,300.00 | 89.98 | 90.96 | 7,094.93 | -169.40 | 8,516.97 | 8,518.64 | 0.00 | 0.00 | 0.00 |
| 15,400.00 | 89.98 | 90.96 | 7,094.96 | -171.09 | 8,616.95 | 8,618.64 | 0.00 | 0.00 | 0.00 |
| 15,500.00 | 89.98 | 90.96 | 7,095.00 | -172.77 | 8,716.94 | 8,718.64 | 0.00 | 0.00 | 0.00 |
| 15,600.00 | 89.98 | 90.96 | 7,095.04 | -174.45 | 8,816.92 | 8,818.64 | 0.00 | 0.00 | 0.00 |
| 15,700.00 | 89.98 | 90.96 | 7,095.08 | -176.14 | 8,916.91 | 8,918.64 | 0.00 | 0.00 | 0.00 |
| 15,800.00 | 89.98 | 90.96 | 7,095.11 | -177.82 | 9,016.90 | 9,018.64 | 0.00 | 0.00 | 0.00 |

# Lonestar Consulting, LLC

## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | Grand Junction | **Local Co-ordinate Reference:** | Well Rosa Unit #744H - Slot A3 |
| **Company:** | Logos Operating LLC | **TVD Reference:** | GL 6492' @ 6492.00ft |
| **Project:** | Rio Arriba, NM NAD83 | **MD Reference:** | GL 6492' @ 6492.00ft |
| **Site:** | Rosa Unit 31 | **North Reference:** | True |
| **Well:** | Rosa Unit #744H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #7 | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 15,900.00 | 89.98 | 90.96 | 7,095.15 | -179.50 | 9,116.88 | 9,118.64 | 0.00 | 0.00 | 0.00 |
| 16,000.00 | 89.98 | 90.96 | 7,095.19 | -181.19 | 9,216.87 | 9,218.64 | 0.00 | 0.00 | 0.00 |
| 16,100.00 | 89.98 | 90.96 | 7,095.22 | -182.87 | 9,316.85 | 9,318.64 | 0.00 | 0.00 | 0.00 |
| 16,200.00 | 89.98 | 90.96 | 7,095.26 | -184.55 | 9,416.84 | 9,418.64 | 0.00 | 0.00 | 0.00 |
| 16,300.00 | 89.98 | 90.96 | 7,095.30 | -186.24 | 9,516.82 | 9,518.64 | 0.00 | 0.00 | 0.00 |
| 16,400.00 | 89.98 | 90.96 | 7,095.34 | -187.92 | 9,616.81 | 9,618.64 | 0.00 | 0.00 | 0.00 |
| 16,500.00 | 89.98 | 90.96 | 7,095.37 | -189.60 | 9,716.80 | 9,718.64 | 0.00 | 0.00 | 0.00 |
| 16,600.00 | 89.98 | 90.96 | 7,095.41 | -191.29 | 9,816.78 | 9,818.64 | 0.00 | 0.00 | 0.00 |
| 16,700.00 | 89.98 | 90.96 | 7,095.45 | -192.97 | 9,916.77 | 9,918.64 | 0.00 | 0.00 | 0.00 |
| 16,800.00 | 89.98 | 90.96 | 7,095.49 | -194.65 | 10,016.75 | 10,018.64 | 0.00 | 0.00 | 0.00 |
| 16,900.00 | 89.98 | 90.96 | 7,095.52 | -196.34 | 10,116.74 | 10,118.64 | 0.00 | 0.00 | 0.00 |
| 17,000.00 | 89.98 | 90.96 | 7,095.56 | -198.02 | 10,216.73 | 10,218.64 | 0.00 | 0.00 | 0.00 |
| 17,100.00 | 89.98 | 90.96 | 7,095.60 | -199.70 | 10,316.71 | 10,318.64 | 0.00 | 0.00 | 0.00 |
| 17,200.00 | 89.98 | 90.96 | 7,095.64 | -201.39 | 10,416.70 | 10,418.64 | 0.00 | 0.00 | 0.00 |
| 17,300.00 | 89.98 | 90.96 | 7,095.67 | -203.07 | 10,516.68 | 10,518.64 | 0.00 | 0.00 | 0.00 |
| 17,400.00 | 89.98 | 90.96 | 7,095.71 | -204.75 | 10,616.67 | 10,618.64 | 0.00 | 0.00 | 0.00 |
| 17,500.00 | 89.98 | 90.96 | 7,095.75 | -206.44 | 10,716.65 | 10,718.64 | 0.00 | 0.00 | 0.00 |
| 17,600.00 | 89.98 | 90.96 | 7,095.78 | -208.12 | 10,816.64 | 10,818.64 | 0.00 | 0.00 | 0.00 |
| 17,700.00 | 89.98 | 90.96 | 7,095.82 | -209.80 | 10,916.63 | 10,918.64 | 0.00 | 0.00 | 0.00 |
| 17,800.00 | 89.98 | 90.96 | 7,095.86 | -211.49 | 11,016.61 | 11,018.64 | 0.00 | 0.00 | 0.00 |
| 17,900.00 | 89.98 | 90.96 | 7,095.90 | -213.17 | 11,116.60 | 11,118.64 | 0.00 | 0.00 | 0.00 |
| 18,000.00 | 89.98 | 90.96 | 7,095.93 | -214.85 | 11,216.58 | 11,218.64 | 0.00 | 0.00 | 0.00 |
| 18,100.00 | 89.98 | 90.96 | 7,095.97 | -216.54 | 11,316.57 | 11,318.64 | 0.00 | 0.00 | 0.00 |
| 18,200.00 | 89.98 | 90.96 | 7,096.01 | -218.22 | 11,416.56 | 11,418.64 | 0.00 | 0.00 | 0.00 |
| 18,300.00 | 89.98 | 90.96 | 7,096.05 | -219.91 | 11,516.54 | 11,518.64 | 0.00 | 0.00 | 0.00 |
| 18,400.00 | 89.98 | 90.96 | 7,096.08 | -221.59 | 11,616.53 | 11,618.64 | 0.00 | 0.00 | 0.00 |
| 18,500.00 | 89.98 | 90.96 | 7,096.12 | -223.27 | 11,716.51 | 11,718.64 | 0.00 | 0.00 | 0.00 |
| 18,600.00 | 89.98 | 90.96 | 7,096.16 | -224.96 | 11,816.50 | 11,818.64 | 0.00 | 0.00 | 0.00 |
| 18,700.00 | 89.98 | 90.96 | 7,096.19 | -226.64 | 11,916.48 | 11,918.64 | 0.00 | 0.00 | 0.00 |
| 18,800.00 | 89.98 | 90.96 | 7,096.23 | -228.32 | 12,016.47 | 12,018.64 | 0.00 | 0.00 | 0.00 |
| 18,900.00 | 89.98 | 90.96 | 7,096.27 | -230.01 | 12,116.46 | 12,118.64 | 0.00 | 0.00 | 0.00 |
| 19,000.00 | 89.98 | 90.96 | 7,096.31 | -231.69 | 12,216.44 | 12,218.64 | 0.00 | 0.00 | 0.00 |
| 19,100.00 | 89.98 | 90.96 | 7,096.34 | -233.37 | 12,316.43 | 12,318.64 | 0.00 | 0.00 | 0.00 |
| 19,200.00 | 89.98 | 90.96 | 7,096.38 | -235.06 | 12,416.41 | 12,418.64 | 0.00 | 0.00 | 0.00 |
| 19,300.00 | 89.98 | 90.96 | 7,096.42 | -236.74 | 12,516.40 | 12,518.64 | 0.00 | 0.00 | 0.00 |
| 19,400.00 | 89.98 | 90.96 | 7,096.46 | -238.42 | 12,616.39 | 12,618.64 | 0.00 | 0.00 | 0.00 |
| 19,500.00 | 89.98 | 90.96 | 7,096.49 | -240.11 | 12,716.37 | 12,718.64 | 0.00 | 0.00 | 0.00 |
| 19,600.00 | 89.98 | 90.96 | 7,096.53 | -241.79 | 12,816.36 | 12,818.64 | 0.00 | 0.00 | 0.00 |
| 19,700.00 | 89.98 | 90.96 | 7,096.57 | -243.47 | 12,916.34 | 12,918.64 | 0.00 | 0.00 | 0.00 |
| 19,800.00 | 89.98 | 90.96 | 7,096.60 | -245.16 | 13,016.33 | 13,018.64 | 0.00 | 0.00 | 0.00 |
| 19,900.00 | 89.98 | 90.96 | 7,096.64 | -246.84 | 13,116.31 | 13,118.64 | 0.00 | 0.00 | 0.00 |
| 20,000.00 | 89.98 | 90.96 | 7,096.68 | -248.52 | 13,216.30 | 13,218.64 | 0.00 | 0.00 | 0.00 |
| 20,100.00 | 89.98 | 90.96 | 7,096.72 | -250.21 | 13,316.29 | 13,318.64 | 0.00 | 0.00 | 0.00 |
| 20,200.00 | 89.98 | 90.96 | 7,096.75 | -251.89 | 13,416.27 | 13,418.64 | 0.00 | 0.00 | 0.00 |
| 20,300.00 | 89.98 | 90.96 | 7,096.79 | -253.57 | 13,516.26 | 13,518.64 | 0.00 | 0.00 | 0.00 |
| 20,400.00 | 89.98 | 90.96 | 7,096.83 | -255.26 | 13,616.24 | 13,618.64 | 0.00 | 0.00 | 0.00 |
| 20,500.00 | 89.98 | 90.96 | 7,096.87 | -256.94 | 13,716.23 | 13,718.64 | 0.00 | 0.00 | 0.00 |
| 20,600.00 | 89.98 | 90.96 | 7,096.90 | -258.62 | 13,816.21 | 13,818.64 | 0.00 | 0.00 | 0.00 |
| 20,700.00 | 89.98 | 90.96 | 7,096.94 | -260.31 | 13,916.20 | 13,918.64 | 0.00 | 0.00 | 0.00 |
| 20,800.00 | 89.98 | 90.96 | 7,096.98 | -261.99 | 14,016.19 | 14,018.63 | 0.00 | 0.00 | 0.00 |
| 20,859.41 | 89.98 | 90.96 | 7,097.00 | -262.99 | 14,075.58 | 14,078.04 | 0.00 | 0.00 | 0.00 |

# Lonestar Consulting, LLC

Planning Report

| | | | |
|---|---|---|---|
| **Database:** | Grand Junction | **Local Co-ordinate Reference:** | Well Rosa Unit #744H - Slot A3 |
| **Company:** | Logos Operating LLC | **TVD Reference:** | GL 6492' @ 6492.00ft |
| **Project:** | Rio Arriba, NM NAD83 | **MD Reference:** | GL 6492' @ 6492.00ft |
| **Site:** | Rosa Unit 31 | **North Reference:** | True |
| **Well:** | Rosa Unit #744H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #7 | | |

**Design Targets**

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| 744H POE Rev 3<br>- plan hits target center<br>- Point | 0.00 | 0.00 | 7,092.00 | -37.35 | 673.39 | 2,133,531.3345 | 2,859,038.4816 | 36.8622984 | -107.3686132 |
| 744H BHL Rev 3<br>- plan hits target center<br>- Point | 0.00 | 0.00 | 7,097.00 | -262.99 | 14,075.58 | 2,133,370.5884 | 2,872,441.5823 | 36.8616689 | -107.3228006 |

**Formations**

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---|---|---|---|---|---|
| 2,661.06 | 2,661.00 | Ojo Alamo | | 0.00 | 0.00 |
| 2,788.06 | 2,788.00 | Kirtland | | 0.00 | 0.00 |
| 3,251.08 | 3,251.00 | Fruitland | | 0.00 | 0.00 |
| 3,538.08 | 3,538.00 | Pictured Cliffs | | 0.00 | 0.00 |
| 3,639.09 | 3,639.00 | Lewis | | 0.00 | 0.00 |
| 4,726.12 | 4,726.00 | Chacra | | 0.00 | 0.00 |
| 5,556.14 | 5,556.00 | Cliff House | | 0.00 | 0.00 |
| 5,588.14 | 5,588.00 | Menefee | | 0.00 | 0.00 |
| 5,787.15 | 5,787.00 | Point Lookout | | 0.00 | 0.00 |
| 6,268.16 | 6,268.00 | Mancos | | 0.00 | 0.00 |

**Plan Annotations**

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates +N/-S (ft) | Local Coordinates +E/-W (ft) | Comment |
|---|---|---|---|---|
| 500.00 | 500.00 | 0.00 | 0.00 | Start Build 2.00 |
| 521.34 | 521.34 | -0.04 | 0.07 | Start 5938.23 hold at 521.34 MD |
| 6,459.57 | 6,459.40 | -24.14 | 37.15 | Start DLS 9.00 TFO -32.05 |
| 7,455.31 | 7,092.00 | -37.35 | 673.39 | 36.8622984 / -107.3686131 |
| 7,455.31 | 7,092.00 | -37.35 | 673.39 | POE @ 7455' MD |
| 20,859.40 | 7,097.00 | -262.99 | 14,075.58 | TD at 20859.40 |

# LOGOS Operating, LLC
# Operations Plan

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

| | | | |
|---|---|---|---|
| Date: | January 23, 2023 | Pool: | Basin Mancos |
| **Well Name:** | **Rosa Unit 744H** | GL Elevation: | 6,492’ |
| Surface Location: | Sec 33, T31N, R5W 349 FNL, 1683 FWL (36.862401º N, 107.370915º W – NAD83) | Measured Depth: | 20,884’ (MD) |
| Bottom Hole Location: | Sec 35, T31N, R5W 618 FNL, 66 FEL (36.861669º N, 107.322801º W – NAD83) | County: | Rio Arriba |

**Lease Serial #NMSF078773, CA Serial # NMNM78407E**

## 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 | 2686 | 2686 | *POINT LOOKOUT | 5812 | 5812 |
| KIRTLAND | 2813 | 2813 | *MANCOS | 6293 | 6293 |
| *FRUITLAND | 3276 | 3276 | KICKOFF POINT | 6459 | 6459 |
| *PICTURED CLIFFS | 3563 | 3563 | | | |
| LEWIS | 3664 | 3664 | POINT OF ENTRY | 7480 | 7117 |
| CHACRA | 4751 | 4751 | | | |
| *CLIFF HOUSE | 5581 | 5581 | | | |
| MENEFEE | 5613 | 5613 | TD | 20884 | 7122 |

* 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 the Tour book and on morning reports.

## II. DRILLING

**A.** **MUD PROGRAM:** LSND mud (WBM) will be used to drill the 24” or 26" surface hole, 17-1/2” and 12-1/4” directional / vertical hole. An LSND (WBM) or (OBM) system will be used to drill the 8-1/2” curve and lateral portion of the wellbore. Treat for lost circulation as necessary. Obtain 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 of. 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 **1500 psi (High) for 10 minutes.** Pressure test surface casing to **600 psi for 30 minutes** and intermediate casing strings to one-third of internal yield pressure not to exceed **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 on each tour. BOP equipment will be tested a minimum of 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 but not more than once daily. The New Mexico Oil & Gas Conservation Commission and the BLM will be notified 24 hours in advance of testing of the BOPE. **All tests and inspections will be recorded and logged with time and results.** A full BOP test will be conducted when 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 the first full test.

C. **GeoHazards:** There are no anticipated geohazards

D. **Maximum Anticipated Pressure:** 7122' TVD x 0.43 = 3062 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) | KB DEPTH (MD) | CSG SIZE | WEIGHT | GRADE | CONN |
|---|---|---|---|---|---|---|
| SURFACE | 24" or 26" | 320' | 20" | 94 LBS | J-55 or equiv | LTC/BTC |
| INTERMEDIATE | 17.5" | 3,613' | 13.375" | 61 LBS | J-55 or equiv | LTC/BTC |
| INTERMEDIATE | 12.25" | 6,367' | 9.625" | 43.5 LBS | N-80 or equiv | LTC/BTC |
| PRODUCTION | 8.5" | 20,884' | 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:

1. SURFACE CASING: 20" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (3) joints of Surface Casing one every 3joints to Surf.
2. INTERMEDIATE CASING: 13-3/8" cement nose guide shoe with a self-fill insert float. 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., 1,000 ft, and 500ft.
3. INTERMEDIATE CASING: 9-5/8" cement nose guide shoe with a self-fill insert float. 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 3,600 ft. Run (1) centralizer at 3,000 ft., and 2,500ft. Optional use of DV Tools will be strategically placed above loss circulation zones anticipated in the Mesaverde. Optional cancelation plugs for DV tools may be used if losses while cementing are not encountered.
4. 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. The 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 ~ 320' and cemented to surface. TOC at Surface. 381 sks of 15.8 ppg Type Neat G, 1.18 cuft/sk yield or equivalent 323 sks of 14.6 ppg Type III with 1.39 cuf/sk yield, 30% excess. (assuming 24" hole).

2. INTERMEDIATE 1: Intermediate casing shall be kept fluid-filled while running into the hole to meet BLM minimum collapse requirements. The intermediate casing will be cemented in 1 stage. If cement does not circulate to the surface, a CBL will be run to determine TOC.

| Intermediate 1 -13-3/8" | Top | Footage | Cement (ft3/ft) Annular Capacity | Excess (30%) | Total (ft3) | Total (bbl) | Slurry Yield (ft3/sk) | Sacks Cement | Density (PPG) |
|---|---|---|---|---|---|---|---|---|---|
| Stage 1 Tail | 3,013 | 600 | 0.6947 | 1.3 | 575 | 102 | 1.18 | 488 | 15.8 |
| Stage 1 Lead - OH | 320 | 2,693 | 0.6947 | 1.3 | 2,432 | 433 | 2.10 | 1158 | 12.1 |
| Stage 2 Lead - Cased | - | 320 | 1.019 | 1 | 326 | 58 | 2.10 | 155 | 12.1 |
| | | | | | **3,334** | **594** | | **1801** | |

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

3. INTERMEDIATE 2: Intermediate casing shall be kept fluid-filled while running into the hole to meet BLM minimum collapse requirements. The intermediate casing will be cemented in 1 or 2 stages using a DV/STAGE tool to reduce cement losses and maximize cement coverage. The operator proposes optional DV tools above anticipated loss circulation zones in the Mesaverde. If losses are not observed, a cancelation plug will be pumped and the remaining cement will be pumped during stage 2. Top of cement is planned at 100' above the base of the 13-3/8" casing (100' of overlap). If cement does not circulate to the DV tool or to the 13-3/8" casing, a CBL will be run to determine TOC.

| Intermediate 2 -9-5/8" | Top | Footage | Cement (ft3/ft) Annular Capacity | Excess (30%) | Total (ft3) | Total (bbl) | Slurry Yield (ft3/sk) | Sacks Cement | Density (PPG) |
|---|---|---|---|---|---|---|---|---|---|
| Stage 1 Tail | 5,862 | 505 | 0.3132 | 1.3 | 222 | 40 | 1.18 | 188 | 15.8 |
| Stage 1 Lead | 4,826 | 1,036 | 0.3132 | 1.3 | 422 | 75 | 1.97 | 214 | 12.4 |
| | | | | | **644** | **115** | | **403** | |
| Stage 2 Tail | 4,226 | 600 | 0.3132 | 1.3 | 244 | 44 | 1.65 | 148 | 13.2 |
| Stage 2 Lead | 3,613 | 613 | 0.3132 | 1.3 | 250 | 44 | 1.97 | 127 | 12.4 |
| Stage 2 Lead - Cased | 3,513 | 100 | 0.3627 | 1 | 36 | 6 | 1.97 | 18 | 12.4 |
| Stage 2 Totals | | | | | **530** | **94** | | **293** | |
| Int 2 Totals | | | | | **1,174** | **209** | | **696** | |

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

4. PRODUCTION: Production casing will be cemented in 1 stage with 100' of cement

overlap above the intermediate shoe. A CBL, or alternatively, a Temperature Survey will be used to determine TOC.

| | Top | ft | Cement (ft3/ft) Annular Capacity | Excess (15%) | Total (ft3) | Total (bbl) | Slurry Yield (ft3/sk) | Sacks Cement | Density (PPG) |
|---|---|---|---|---|---|---|---|---|---|
| Cased Lead | 6,267 | 100 | 0.2531 | 1 | 25 | 5 | 1.56 | 16 | 13.2 |
| Open Hole Lead | 6,367 | 14,517 | 0.2291 | 1.15 | 3,830 | 682 | 1.56 | 2,455 | 13.2 |
| | | | | | 3,855 | 687 | | 2,471 | |

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

*Cement calculations are used for volume estimation. Well conditions will dictate the 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 the service provider selected. Cement yields may change depending on the 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 the cement top if cement is not circulated.

### B. PRESSURE TEST

C. Pressure test 5-1/2" casing to 1567 psi (0.22 psi/ft * 7,122' TVD) for 30 minutes. Increase pressure to Open Toe sleeves.

### D. STIMULATION

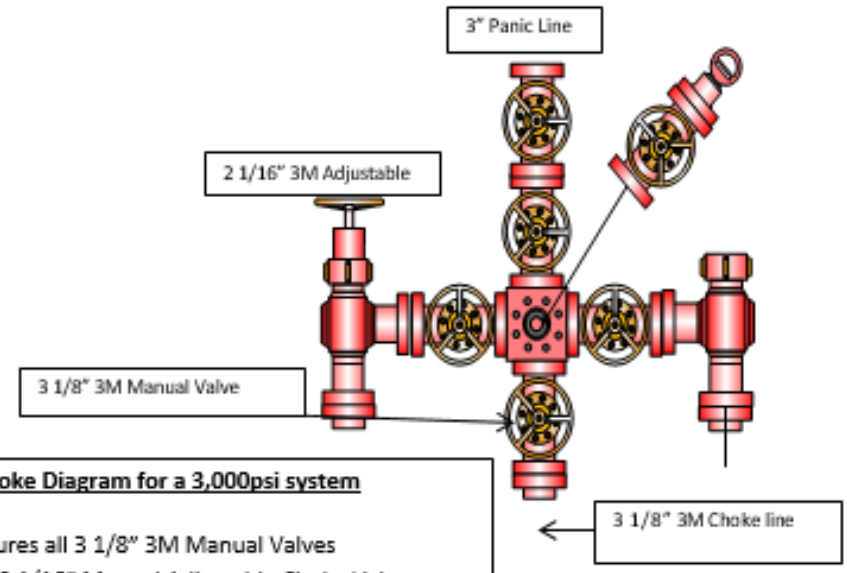
Stimulate with sand and water. Isolate stages with flow-through or dissolvable frac plugs. Drill out frac plugs as required and flow back lateral.

### 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 12-18 months after completion.

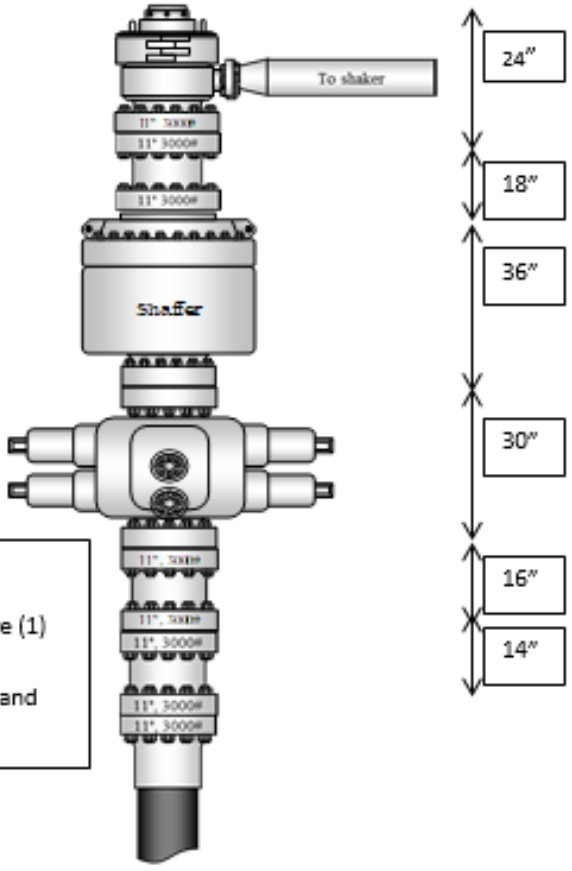
*NOTE: Although this horizontal well may be drilled past the applicable setbacks, an unorthodox location application is not required because the completed interval in this well, as defined by 19.15.16.7 8(1) NMAC, will be entirely within the applicable setbacks. This approach complies with all applicable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




**Choke Diagram for a 3,000psi system**

- Features all 3 1/8" 3M Manual Valves
- Two 2 1/16" Manual Adjustable Choke Valves
- 3" Panic Line and 2" Vent lines
- (2) 3 1/8" 3M Coflex Hose f/Choke to BOP




**11" 3,000psi BOP**

- Choke Side has (1) manual 3 1/8" Valve (1) HCR
- Kill Side has (2) 2 1/16" Manual Valve and (1) check valve

ROSA UNIT 744H

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

# NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

## Section 1 – Plan Description
**Effective May 25, 2021**

**I. Operator:** LOGOS Operating, LLC **OGRID:** 289408 **Date:** 1/25/2023

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

| Well Name | API | ULSTR | Footages | Anticipated Oil BBL/D | Anticipated Gas MCF/D | Anticipated Produced Water BBL/D |
|---|---|---|---|---|---|---|
| Rosa Unit 740H | 30-039-31364 | C 33 T31N R5W | 319FNL 1681FWL | N/A | 14,176 | 504 |
| Rosa Unit 742H | 30-039- | C 33 T31N R5W | 334FNL 1682FWL | N/A | 14,696 | 470 |
| Rosa Unit 744H | 30-039- | C 33 T31N R5W | 349FNL 1683FWL | N/A | 20,068 | 649 |
| Rosa Unit 746H | 30-039- | C 33 T31N R5W | 363FNL 1685FWL | N/A | 20,804 | 671 |
| Rosa Unit 745H | 30-039- | C 33 T31N R5W | 378FNL 1686FWL | N/A | 20,804 | 671 |

**IV. Central Delivery Point Name:** Harvest Gathering System [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

| Well Name | API | Spud Date | TD Reached Date | Completion Commencement Date | Initial Flow Back Date | First Production Date |
|---|---|---|---|---|---|---|
| Rosa Unit 740H | 30-039-31364 | 8/25/2021 | Pending | Pending | Pending | Pending |
| Rosa Unit 742H | 30-039- | Pending | Pending | Pending | Pending | Pending |
| Rosa Unit 744H | 30-039- | Pending | Pending | Pending | Pending | Pending |
| Rosa Unit 746H | 30-039- | Pending | Pending | Pending | Pending | Pending |
| Rosa Unit 745H | 30-039- | Pending | Pending | Pending | Pending | Pending |

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

## Section 3 - Certifications

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

## Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

**(a)** Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

**(b)** Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

**I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.**

| | |
|---|---|
| Signature: | Etta Trujillo |
| Printed Name: | Etta Trujillo |
| Title: | Regulatory Specialist |
| E-mail Address: | etrujillo@logosresourcesllc.com |
| Date: | 1/26/2023 |
| Phone: | (505) 324-4154 |

**OIL CONSERVATION DIVISION**
**(Only applicable when submitted as a standalone form)**

| | |
|---|---|
| Approved By: | |
| Title: | |
| Approval Date: | |
| Conditions of Approval: | |

VI. Separation Equipment

The operator will select separation equipment for the maximum anticipated throughput and pressure to optimize gas capture. Separation equipment is sized according to manufacturer's design specifications. Separation vessels are built following the A.S.M.E. section VII division 1 codes for pressure vessel design, fabrication, inspection, testing and certification. Anticipated well pressures and production rates are evaluated to select separation equipment according to the equipment's designed operating pressure and throughput.

After completion, the operator utilizes flowback equipment, including separators, to manage wellbore fluids and solids during the initial separation period. After the initial flowback period is complete the operator utilizes iterative facility separation equipment to ensure that optimal separation is achieved.

VII. Operational Practices 19.15.27.8 NMAC A through F

A. The operator will maximize the recovery of natural gas and minimize the amount of gas vented or flared when technically and safely feasible as further described and detailed within the following subsections (B-F of 19.15.27.8). In all cases where natural gas venting and flaring requires regulatory reporting, reporting will be submitted accurately and within the required time frames.
B. Venting and flaring during drilling operations:
    a. New Drill HZ Oil Wells: The operator drills wells in the area by utilizing a balanced mud to safely drill the wellbore. This technique prevents gas from coming to surface during the drilling process. If there is an emergency or malfunction and natural gas does come to surface the natural gas will be captured or combusted, with an appropriately sized and located flare stack, if technically and safely feasible.
    b. New Drill HZ Gas Wells: The operator drills wells in the area by balancing the mud weight to safely drill the wellbore with as minimal flaring as possible. When gas kicks enter the wellbore, sometimes it is necessary to circulate it out of the wellbore to an appropriately sized and located flare stack. The operator will estimate the volume flared and appropriately report.
C. Venting and flaring during completion or recompletion operations:
    a. New Drill HZ Oil Wells: The operator's facilities are designed to handle the maximum throughput and pressures from the newly drilled and completed wellbores. The amount of gas vented and flared will be minimized when technically and safely feasible. During initial flowback and initial separation flowback the operator will utilize contracted flowback equipment, including separators, to manage wellbore fluids and solids. The initial flowback period will be minimized and flow will be sent to separation equipment as soon as possible to reduce the amount of gas that is vented to atmosphere. During the separation flowback period natural gas will be routed to a properly sized and located flare until the natural gas is of pipeline quality (less than 60 days). The natural gas will also be utilized on site as needed for fuel gas or injection gas.
    b. New Drill HZ Gas Wells: The operator's facilities are designed to handle the maximum throughput and pressures from the newly drilled and completed wellbores. The amount of gas vented and flared will be minimized when technically and safely feasible. During

initial flowback and initial separation flowback the operator will utilize contracted flowback equipment, including separators, to manage wellbore fluids and solids. The initial flowback period will be minimized and flow will be sent to separation equipment as soon as possible to reduce the amount of gas that is vented to atmosphere. The natural gas will be utilized on site as needed for fuel gas and natural gas will be sold.

D. Venting and flaring during production operations:
   a. New Drill HZ Oil Wells: The operator's facilities are designed to handle the maximum throughput and pressures from producing wellbores. The amount of gas vented and flared will be minimized when technically and safely feasible. This facility will operate under a notice of intent (NOI) from the New Mexico Environment Department (NMED).

      Operations will effectively manage the following scenarios to minimize the quantity of natural gas that is vented or flared:

      (a) If there is an emergency or malfunction, vented or flared natural gas will be reported, if required, and the emergency or malfunction will be resolved as soon as technically and safely feasible.
      (b) If the wellbore requires liquids to be unloaded to atmosphere, the operator will not vent the well after the well has achieved a stabilized rate and pressure. The operator will remain on site during unloading. Plunger lift systems will be optimized to reduce the amount of natural gas venting. Downhole maintenance, such as workovers, swabbing, etc. will only be conducted as needed and best management practices will be utilized to reduce venting of natural gas.
      (c) The operator will minimize the amount of time that natural gas is vented to atmosphere from gauging and sampling a storage tank or low-pressure vessel, automatic tank gauges will be the primary means of gauging with minor exceptions.
      (d) The operator will reduce the amount of time needed for loading out liquids from a storage tanks or other low-pressure vessels whenever feasible. Operations will utilize a LACT system when available to minimize gas vented during oil tank loading.
      (e) Equipment will be repaired and maintained routinely to minimize the venting or flaring of natural gas. Repairs and maintenance will be conducted in a manner that minimizes the amount of natural gas vented to atmosphere through the isolation of the equipment that is being repaired or maintained.
      (f) Electric controllers and pumps will be installed to replace pneumatic controllers whenever feasible. Pneumatic controllers and pumps will be inspected frequently to ensure that no excess gas is vented to atmosphere.
      (g) Storage tanks and other low-pressure vessel normal operational venting will be minimized during the early life of the well with the installation of

a vapor recovery unit to limit the flash and working and breathing emissions to atmosphere.

(h) No dehydration or amine units are anticipated to be set on location.

(i) Compressors, compressor engines, turbines, flanges, connectors, valves, and flanges will be routinely inspected to ensure that no excess venting occurs outside of normal operation.

(j) Regulatory required testing, such as bradenhead and packer testing will be performed in a manner that minimizes the amount of natural gas vented to atmosphere.

(k) When natural gas does not meet gathering pipeline specifications, for example high nitrogen content after a nearby frac, gas samples will be collected twice per week to determine when pipeline specification gas content has been achieved. During this time frame gas will be flared and not vented to atmosphere. Natural gas that meets pipeline specifications will be sold via pipeline and natural gas that can be utilized for fuel gas will be used during this time.

(l) If pipeline, equipment, or facilities need purged of impurities gas losses will be minimized as much as technically and safely feasible.

b. New Drill HZ Gas Wells: The operator's facilities are designed to handle the maximum throughput and pressures from producing wellbores. The amount of gas vented and flared will be minimized when technically and safely feasible.

Operations will effectively manage the following scenarios to minimize the quantity of natural gas that is vented or flared:

(a) If there is an emergency or malfunction vented or flared natural gas will be reported, if required, and the emergency or malfunction will be resolved as soon as technically and safely feasible.

(b) If the wellbore needs to be unloaded to atmosphere the operator will not vent the well after the well has achieved a stabilized rate and pressure. The operator will remain on site during unloading. Plunger lift systems will be optimized to reduce the amount of natural gas venting. Downhole maintenance, such as workovers, swabbing, etc. will only be conducted as needed and best management practices will be utilized to reduce venting of natural gas.

(c) The operator will minimize the amount of time that natural gas is vented to atmosphere from gauging and sampling a storage tank or low-pressure vessel, automatic tank gauges will be the primary means of gauging. The formation is only anticipated to produce water and therefore tank emissions are anticipated to be negligible.

(d) The operator will reduce the amount of time needed for loading out liquids from a storage tanks or other low-pressure vessels whenever feasible. Operations will always utilize the water transfer systems when available. Water loading emissions are anticipated to be negligible.

(e) Equipment will be repaired and maintained routinely to minimize the venting or flaring of natural gas. Repairs and maintenance will be conducted in a manner that minimizes the amount of natural gas vented to atmosphere through the isolation of the equipment that is being repaired or maintained.
(f) Electric controllers and pumps, or instrument air, will be installed to replace pneumatic controllers whenever feasible. Pneumatic controllers and pumps will be inspected frequently to ensure that no excess gas is vented to atmosphere.
(g) No dehydration or amine units are anticipated to be set on location.
(h) Compressors, compressor engines, turbines, flanges, connectors, valves, storage tanks, and other low-pressure vessels and flanges will be routinely inspected to ensure that no excess venting occurs outside of normal operations.
(i) Regulatory required testing, such as bradenhead and packer testing will be performed in a manner that minimizes the amount of natural gas vented to atmosphere.
(j) If natural gas does not meet gathering pipeline specifications gas samples will be collected twice per week to determine when pipeline specification gas content has been achieved. During this time frame gas will be flared and not vented to atmosphere. Natural gas that meets pipeline specifications will be sold via pipeline and natural gas that can be utilized for fuel gas will be used during this time.
(k) If pipeline, equipment, or facilities need purged of impurities gas losses will be minimized as much as technically and safely feasible.

E. Performance standards:
   a. The production facilities are designed to handle the maximum throughput and pressures from producing wellbores and will be designed to minimize waste. The amount of gas vented and flared will be minimized when technically and safely feasible.
   b. All tanks that are routed to a control device that is installed after 5/25/2021 will have an automatic gauging system to minimize the amount of vented natural gas.
   c. If a flare stack is installed or replaced after 5/25/2021 it will be equipped with an automatic ignitor or continuous pilot. The flare stack will be properly sized and designed to ensure proper combustion efficiency. The flare stack will be located 100 feet away from the nearest wellhead or storage tank.
   d. AVO inspections will be conducted weekly for the year after completion and for all wells producing greater than 60,000 cubic feet of natural gas daily. The AVO inspection will include all components, including flare stacks, thief hatches, closed vent systems, pumps, compressors, pressure relief devices, valves, lines, flanges, connectors, and associated pipeline to identify any leaks and releases by comprehensive auditory, visual, and olfactory inspection. The AVO inspection records will be maintained for 5 years which will be available at the department's request. Identified leaks will be repaired as soon as feasible to minimize the amount of vented natural gas.

F. Measurement or estimation of vented and flared natural gas.

**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 181795

## CONDITIONS

| | |
|---|---|
| Operator:<br>LOGOS OPERATING, LLC<br>2010 Afton Place<br>Farmington, NM 87401 | OGRID:<br>289408 |
| | Action Number:<br>181795 |
| | Action Type:<br>[C-103] NOI Change of Plans (C-103A) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| kpickford | Adhere to previous NMOCD Conditions of Approval | 2/2/2023 |