

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Submit one copy to appropriate District Office

☒ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address LOGOS Operating, LLC 2010 Afton Place Farmington, NM 87401		² OGRID Number 289408
		³ Reason for Filing Code/ Effective Date Test Allowable
⁴ API Number 30 – 039-31419	⁵ Pool Name Basin Mancos	⁶ Pool Code 97232
⁷ Property Code 32608	⁸ Property Name Rosa Unit	⁹ Well Number 742H

II. ¹⁰ Surface Location

UL or lot no. C	Section 33	Township 31N	Range 5W	Lot Idn	Feet from the 334	North/South Line North	Feet from the 1682	East/West line West	County Rio Arriba
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¹¹ Bottom Hole Location

UL or lot no. F	Section 31	Township 31N	Range 5W	Lot Idn 2	Feet from the 1611	North/South line North	Feet from the 180	East/West line West	County Rio Arriba
¹² Lse Code F	¹³ Producing Method Code F	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number		¹⁶ C-129 Effective Date		¹⁷ C-129 Expiration Date		

III. Oil and Gas Transporters

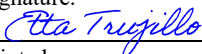
¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
373888	Harvest Four Corners, LLC 1755 Arroyo Dr. Bloomfield, NM 87413	G

IV. Well Completion Data

²¹ Spud Date 4/14/2023	²² Ready Date ~10/16/2023	²³ TD 17,260’ MD / 7,031’ TVD	²⁴ PBDT 17,135’ MD / 7,031’ TVD	²⁵ Perforations 7,645’ MD / 17,092’ MD 7,047’TVD / 7,031’TVD	²⁶ DHC, MC R-13457	
²⁷ Hole Size		²⁸ Casing & Tubing Size		²⁹ Depth Set		³⁰ Sacks Cement
26”		20”, 94.0#, J-55		366’		764sx (156bbls, 879cf)
17.5”		13-3/8”, 61.0#, BTC		3594’		2700sx (847bbls, 4755cf)
12.25”		9-5/8”, 47.0#, L-80		6525’		2121sx (639bbls, 3587cf) DV tool @ 4,918’
8.5”		5.5”, 20.0#, HCP-110		17,226’		2468sx (724bbls, 4066cf) TOC @ 5,831’
		2-7/8”, 6.5#, J-55		pending		

V. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date ~10/16/2023	³³ Test Date	³⁴ Test Length	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size	³⁸ Oil	³⁹ Water	⁴⁰ Gas		⁴¹ Test Method

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature:  Printed name: Etta Trujillo Title: Regulatory Specialist E-mail Address: etrujillo@logosresourcesllc.com Date: 10/15/2023		OIL CONSERVATION DIVISION	
		Approved by: PATRICIA MARTINEZ	
		Title: PETROLEUM SPECIALIST	
		Approval Date: 10/16/2023	
Phone: (505) 324-4154		RT EXPIRES 1/16/2024	

District I
1625 N. 1st Street, P.O. Box 10000
Phone: (505) 393-6161 Fax: (505) 393-0720

District II
811 S. First Street, Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 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

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT

AS-DRILLED WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31419	² Pool Code 97232	³ Pool Name BASIN MANCOS
⁴ Property Code 320608	⁵ Property Name ROSA UNIT	⁶ Well Number 742H
⁷ GRID No. 289408	⁸ Operator Name LOGOS OPERATING, LLC	⁹ Elevation 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		334	NORTH	1682	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
F	31	31N	5W	2	1611	NORTH	180	WEST	RIO ARriba

¹² Dedicated Acres 712.89	REFER TO DESCRIPTION BELOW	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-13457
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T31N R5W, Section 31 : Lots 1 & 2, NE/4
T31N R5W, Section 32 : N/2
T31N R5W, Section 33 : NW/4

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 CERT **Page 2 of 18**

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 10/15/2023
Signature Date

Printed Name
Etta Trujillo

E-mail Address
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: OCTOBER 14, 2023
Date of Survey: APRIL 21, 2016

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

LAST TAKE POINT (D)
1611' FNL 180' FWL
SECTION 31, T31N, R5W
LAT 36.8589236 °N
LONG -107.4065685 °W
DATUM: NAD1927

LAT 36.8589298 °N
LONG -107.4071715 °W
DATUM: NAD1983

FIRST PERFORATION (C)
1613' FNL 348' FWL
SECTION 31, T31N, R5W
LAT 36.8589170 °N
LONG -107.4059943 °W
DATUM: NAD1927

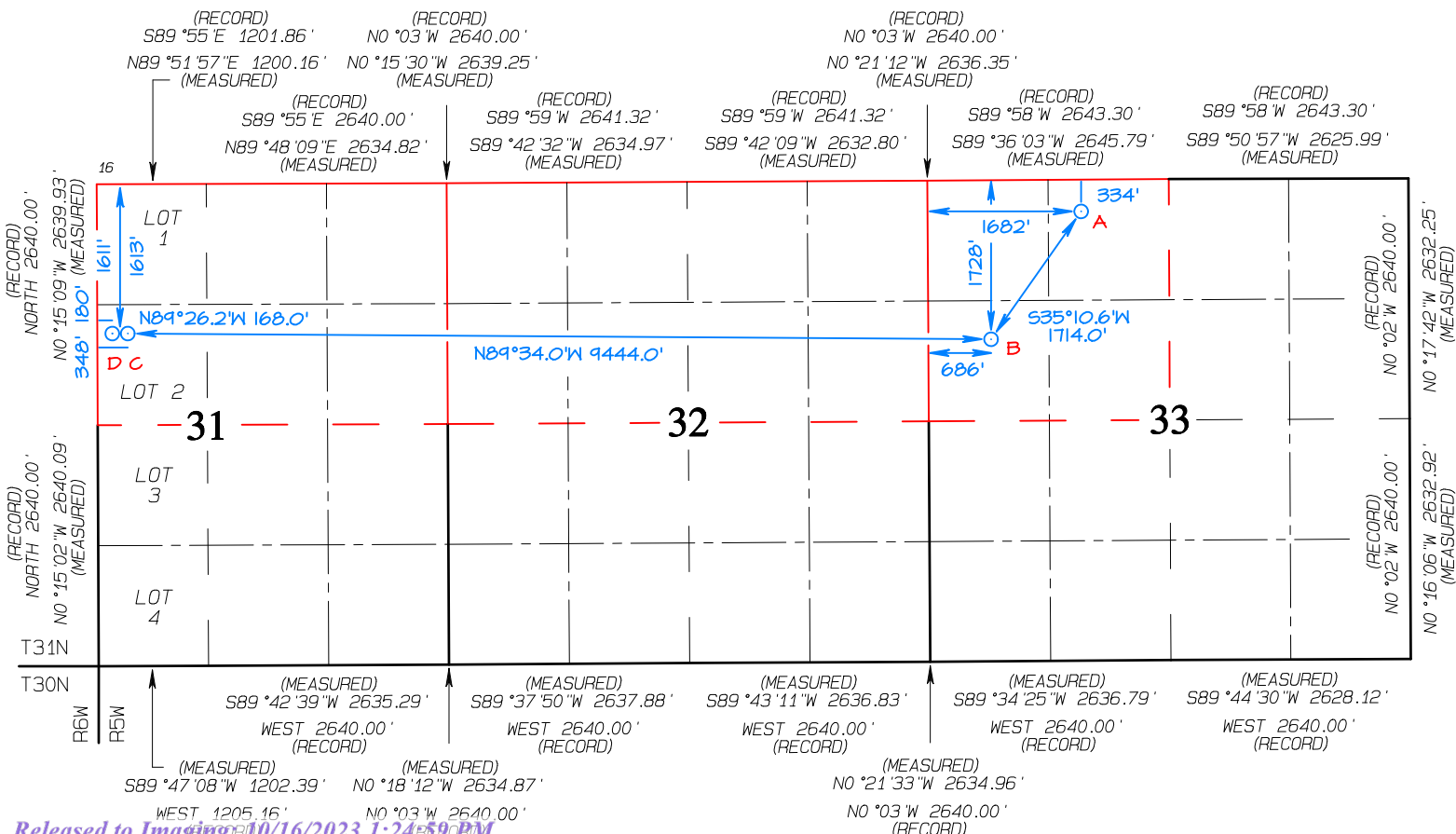
LAT 36.8589232 °N
LONG -107.4065973 °W
DATUM: NAD1983

FIRST TAKE POINT (B)
1728' FNL 686' FWL
SECTION 33, T31N, R5W
LAT 36.8586007 °N
LONG -107.3737161 °W
DATUM: NAD1927

LAT 36.8586070 °N
LONG -107.3743182 °W
DATUM: NAD1983

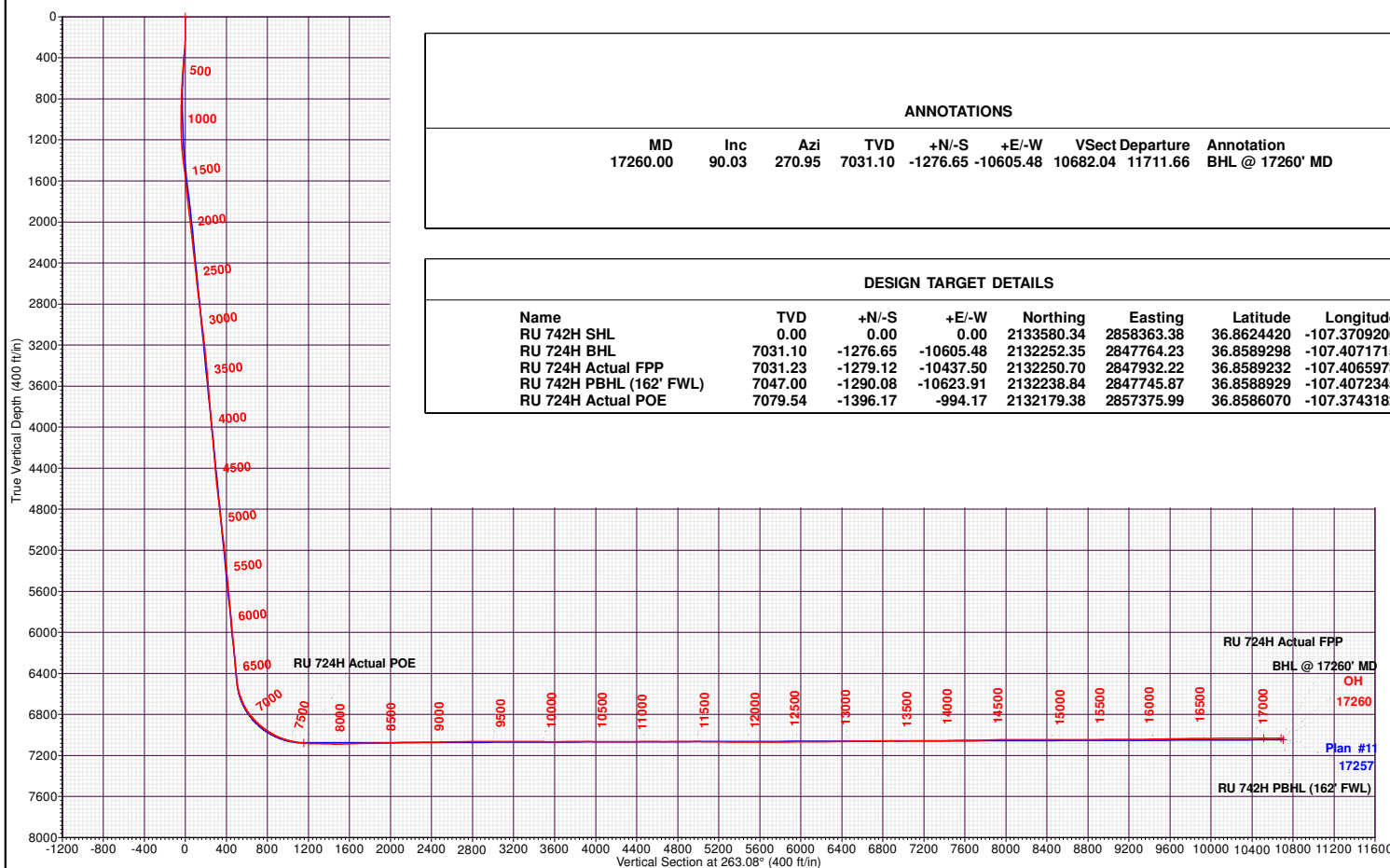
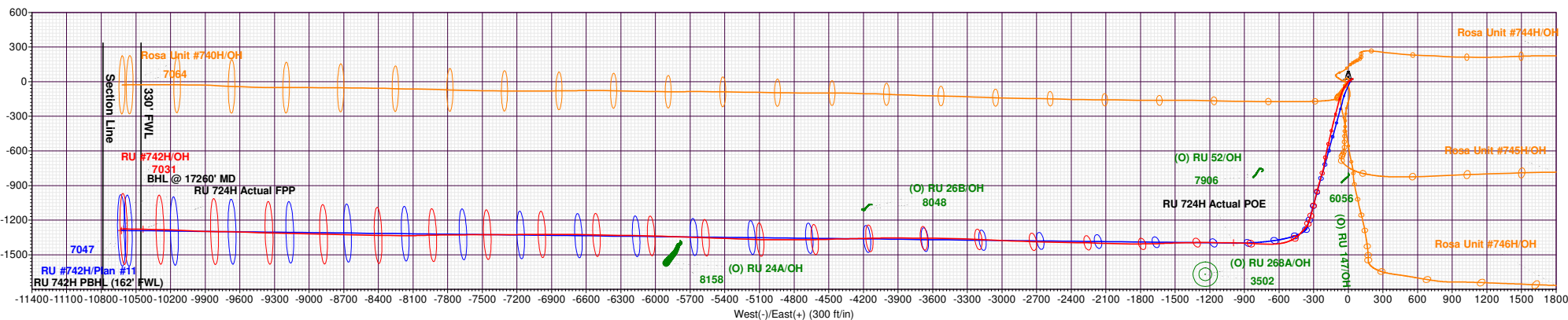
SURFACE LOCATION (A)
334' FNL 1682' FWL
SECTION 33, T31N, R5W
LAT 36.862435 °N
LONG -107.370318 °W
DATUM: NAD1927

LAT 36.862442 °N
LONG -107.370920 °W
DATUM: NAD1983





County: Rio Arriba, NM NAD83
 Site: Rosa Unit 31
 Well: Rosa Unit #742H
 Depth Reference: GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
 Rig: H&P 530
 Plan: OH
 Job #: 15946

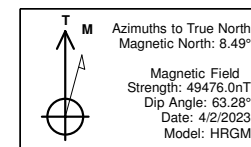
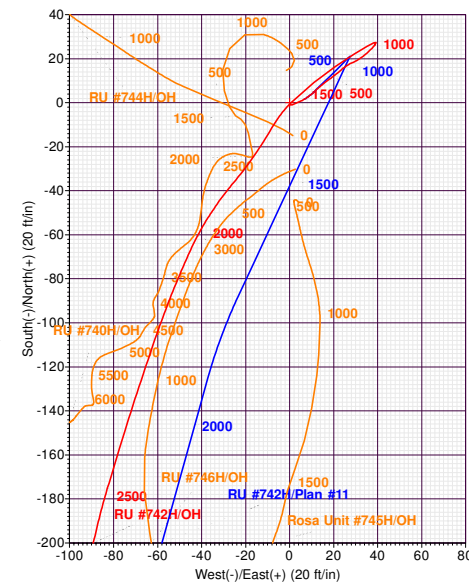


ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	V Sect	Departure	Annotation
17260.00	90.03	270.95	7031.10	-1276.65	-10605.48	10682.04	11711.66	BHL @ 17260' MD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
RU 742H SHL	0.00	0.00	0.00	2133580.34	2858363.38	36.8624420	-107.3709200
RU 724H BHL	7031.10	-1276.65	-10605.48	2132252.35	2847764.23	36.8589298	-107.4071715
RU 724H Actual FPP	7031.23	-1279.12	-10437.50	2132250.70	2847932.22	36.8589232	-107.4065973
RU 742H PBHL (162' FWL)	7047.00	-1290.08	-10623.91	2132238.84	2847745.87	36.8588929	-107.4072345
RU 724H Actual POE	7079.54	-1396.17	-994.17	2132179.38	2857375.99	36.8586070	-107.3743182



TOTAL CORRECTION: 8.49°

Logos Operating LLC

Rio Arriba, NM NAD83

Rosa Unit 31

Rosa Unit #742H - Slot A2

OH

Design: OH

Standard Survey Report

13 October, 2023

SDT

Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #742H - Slot A2
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #742H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

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:	2,133,595.07	usft	Latitude:	36.8624824
From:	Map	Easting:	2,858,361.84	usft	Longitude:	-107.3709251
Position Uncertainty:		0.00	ft	Slot Radius:	13-3/16	"

Well		Rosa Unit #742H - Slot A2				
Well Position	+N/-S	0.00 ft	Northing:	2,133,580.34 usft	Latitude:	36.8624420
	+E/-W	0.00 ft	Easting:	2,858,363.39 usft	Longitude:	-107.3709200
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)
	HRGM	4/2/2023	8.49	63.28	49,475.96611451

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	263.08	

Survey Program	Date	10/13/2023			
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
100.00	320.00	Survey #1 (OH)	A020Ga_GYRO-NS	OWSG Gyrocompass Gyro	
394.00	17,194.00	Survey #2 (OH)	MWD+HDGM	OWSG MWD + HDGM	
17,260.00	17,260.00	Survey #3 (OH)	Project	Projection	

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(ft)	(ft)	Section	Rate	Rate	Rate	
(ft)			(ft)			(ft)	(°/100usft)	(°/100usft)	(°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.61	176.78	100.00	-0.53	0.03	0.03	0.61	0.61	0.00	
200.00	1.23	82.19	199.99	-0.92	1.12	-1.00	1.42	0.62	-94.59	
300.00	4.08	62.63	299.87	0.86	5.35	-5.41	2.95	2.85	-19.56	
320.00	4.64	59.89	319.82	1.60	6.68	-6.82	2.99	2.80	-13.70	
394.00	5.35	45.22	393.54	5.53	11.72	-12.30	1.97	0.96	-19.82	
458.00	5.83	54.46	457.23	9.52	16.48	-17.51	1.59	0.75	14.44	
549.00	4.68	49.19	547.85	14.63	23.05	-24.65	1.37	-1.26	-5.79	

SDT Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #742H - Slot A2
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #742H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
640.00	3.53	66.33	638.62	18.18	28.43	-30.41	1.83	-1.26	18.84	
731.00	3.14	52.10	729.47	20.84	32.96	-35.23	1.00	-0.43	-15.64	
918.00	1.54	36.43	916.30	26.01	38.49	-41.35	0.91	-0.86	-8.38	
1,009.00	0.44	359.85	1,007.29	27.34	39.22	-42.23	1.34	-1.21	-40.20	
1,100.00	1.31	246.25	1,098.28	27.27	38.27	-41.27	1.69	0.96	-124.84	
1,192.00	3.03	238.78	1,190.21	25.59	35.22	-38.05	1.89	1.87	-8.12	
1,284.00	5.50	240.02	1,281.95	22.12	29.32	-31.78	2.69	2.68	1.35	
1,378.00	6.94	234.26	1,375.40	16.56	20.81	-22.65	1.67	1.53	-6.13	
1,473.00	7.76	231.51	1,469.62	9.21	11.13	-12.16	0.94	0.86	-2.89	
1,568.00	8.47	226.39	1,563.67	0.39	1.05	-1.09	1.07	0.75	-5.39	
1,665.00	9.42	210.03	1,659.50	-11.41	-8.10	9.42	2.79	0.98	-16.87	
1,854.00	9.28	220.01	1,846.00	-36.47	-25.64	29.85	0.86	-0.07	5.28	
1,949.00	10.86	213.78	1,939.54	-49.78	-35.54	41.28	2.02	1.66	-6.56	
2,043.00	11.59	205.03	2,031.75	-65.70	-44.46	52.05	1.97	0.78	-9.31	
2,138.00	12.85	202.12	2,124.59	-84.13	-52.48	62.23	1.48	1.33	-3.06	
2,232.00	13.76	199.24	2,216.07	-104.37	-60.10	72.23	1.20	0.97	-3.06	
2,327.00	14.42	198.42	2,308.21	-126.26	-67.56	82.28	0.73	0.69	-0.86	
2,422.00	15.05	197.15	2,400.09	-149.27	-74.93	92.37	0.75	0.66	-1.34	
2,516.00	15.28	196.83	2,490.81	-172.79	-82.12	102.34	0.26	0.24	-0.34	
2,611.00	16.88	192.93	2,582.10	-198.21	-88.83	112.06	2.03	1.68	-4.11	
2,705.00	17.42	194.72	2,671.92	-225.12	-95.46	121.88	0.80	0.57	1.90	
2,800.00	18.13	195.35	2,762.38	-253.13	-102.98	132.73	0.77	0.75	0.66	
2,894.00	17.95	194.95	2,851.76	-281.23	-110.59	143.67	0.23	-0.19	-0.43	
2,989.00	20.20	193.29	2,941.54	-311.34	-118.14	154.79	2.44	2.37	-1.75	
3,083.00	19.69	194.78	3,029.90	-342.44	-125.91	166.25	0.77	-0.54	1.59	
3,178.00	17.67	193.98	3,119.89	-371.91	-133.48	177.31	2.14	-2.13	-0.84	
3,272.00	16.73	193.20	3,209.69	-398.93	-140.01	187.06	1.03	-1.00	-0.83	
3,367.00	17.22	193.50	3,300.55	-425.92	-146.42	196.67	0.52	0.52	0.32	
3,462.00	15.29	192.05	3,391.75	-451.84	-152.32	205.65	2.08	-2.03	-1.53	
3,556.00	14.14	193.84	3,482.66	-475.11	-157.65	213.74	1.32	-1.22	1.90	
3,641.00	13.50	192.51	3,565.20	-494.88	-162.28	220.73	0.84	-0.75	-1.56	
3,749.00	13.71	192.77	3,670.17	-519.67	-167.84	229.23	0.20	0.19	0.24	
3,844.00	13.18	194.96	3,762.57	-541.11	-173.13	237.06	0.77	-0.56	2.31	
3,938.00	13.80	193.82	3,853.97	-562.35	-178.57	245.02	0.72	0.66	-1.21	
4,033.00	14.19	192.33	3,946.15	-584.73	-183.76	252.88	0.56	0.41	-1.57	
4,128.00	14.68	192.50	4,038.15	-607.86	-188.86	260.72	0.52	0.52	0.18	
4,222.00	15.60	192.15	4,128.89	-631.84	-194.09	268.81	0.98	0.98	-0.37	
4,317.00	16.39	189.95	4,220.21	-657.53	-199.10	276.87	1.05	0.83	-2.32	
4,411.00	17.71	189.43	4,310.08	-684.70	-203.73	284.74	1.41	1.40	-0.55	
4,506.00	17.31	188.46	4,400.68	-712.93	-208.18	292.56	0.52	-0.42	-1.02	
4,600.00	16.61	190.22	4,490.59	-739.99	-212.62	300.23	0.92	-0.74	1.87	
4,695.00	17.01	194.96	4,581.53	-766.78	-218.62	309.41	1.50	0.42	4.99	
4,789.00	16.22	196.72	4,671.61	-792.63	-225.94	319.80	1.00	-0.84	1.87	

SDT

Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #742H - Slot A2
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #742H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,884.00	17.18	196.55	4,762.60	-818.79	-233.76	330.71	1.01	1.01	-0.18
4,978.00	15.51	196.46	4,852.80	-844.15	-241.27	341.22	1.78	-1.78	-0.10
5,073.00	15.78	195.67	4,944.28	-868.77	-248.36	351.23	0.36	0.28	-0.83
5,167.00	18.41	196.19	5,034.12	-895.34	-255.95	361.96	2.80	2.80	0.55
5,357.00	16.61	193.73	5,215.31	-950.54	-270.77	383.32	1.02	-0.95	-1.29
5,452.00	16.39	193.56	5,306.40	-976.76	-277.13	392.80	0.24	-0.23	-0.18
5,546.00	16.08	193.29	5,396.65	-1,002.32	-283.23	401.93	0.34	-0.33	-0.29
5,703.00	14.81	193.29	5,547.98	-1,043.01	-292.85	416.38	0.81	-0.81	0.00
5,766.00	14.50	193.73	5,608.93	-1,058.51	-296.57	421.94	0.52	-0.49	0.70
5,829.00	14.28	194.04	5,669.95	-1,073.71	-300.33	427.50	0.37	-0.35	0.49
5,892.00	14.19	195.05	5,731.02	-1,088.70	-304.22	433.17	0.42	-0.14	1.60
5,955.00	14.02	195.58	5,792.12	-1,103.51	-308.27	438.98	0.34	-0.27	0.84
6,018.00	14.02	196.37	5,853.24	-1,118.18	-312.47	444.92	0.30	0.00	1.25
6,143.00	14.02	193.65	5,974.52	-1,147.42	-320.31	456.22	0.53	0.00	-2.18
6,206.00	13.40	193.12	6,035.72	-1,161.95	-323.77	461.41	1.00	-0.98	-0.84
6,269.00	12.48	199.53	6,097.13	-1,175.47	-327.70	466.94	2.70	-1.46	10.17
6,332.00	12.00	201.56	6,158.69	-1,187.98	-332.38	473.09	1.02	-0.76	3.22
6,395.00	11.51	201.38	6,220.37	-1,199.92	-337.08	479.20	0.78	-0.78	-0.29
6,476.00	10.42	201.03	6,299.89	-1,214.29	-342.66	486.46	1.35	-1.35	-0.43
6,584.00	9.35	201.80	6,406.29	-1,231.55	-349.42	495.26	1.00	-0.99	0.71
6,642.00	9.30	203.58	6,463.52	-1,240.22	-353.04	499.90	0.50	-0.09	3.07
6,737.00	18.81	218.97	6,555.60	-1,259.21	-365.78	514.83	10.67	10.01	16.20
6,831.00	26.40	221.31	6,642.32	-1,286.73	-389.14	541.34	8.13	8.07	2.49
6,925.00	34.23	223.51	6,723.40	-1,321.66	-421.19	577.36	8.41	8.33	2.34
7,020.00	40.57	235.95	6,798.94	-1,358.42	-465.29	625.57	10.36	6.67	13.09
7,114.00	45.40	250.82	6,867.87	-1,386.62	-522.41	685.67	11.92	5.14	15.82
7,209.00	52.68	261.64	6,930.20	-1,403.28	-591.94	756.69	11.50	7.66	11.39
7,303.00	59.10	269.48	6,982.95	-1,409.09	-669.41	834.30	9.71	6.83	8.34
7,398.00	68.35	271.74	7,024.96	-1,408.12	-754.49	918.64	9.97	9.74	2.38
7,493.00	75.58	273.65	7,054.35	-1,403.84	-844.65	1,007.64	7.85	7.61	2.01
7,587.00	81.79	273.18	7,072.79	-1,398.36	-936.62	1,098.27	6.62	6.61	-0.50
7,681.00	86.73	269.96	7,082.19	-1,395.81	-1,030.07	1,190.74	6.26	5.26	-3.43
7,775.00	88.92	270.20	7,085.76	-1,395.68	-1,123.99	1,283.96	2.34	2.33	0.26
7,870.00	88.89	270.50	7,087.57	-1,395.10	-1,218.98	1,378.18	0.32	-0.03	0.32
7,964.00	89.90	269.42	7,088.57	-1,395.16	-1,312.97	1,471.50	1.57	1.07	-1.15
8,058.00	91.92	268.62	7,087.07	-1,396.77	-1,406.94	1,564.97	2.31	2.15	-0.85
8,153.00	91.48	268.67	7,084.25	-1,399.02	-1,501.87	1,659.49	0.47	-0.46	0.05
8,248.00	90.94	267.51	7,082.25	-1,402.18	-1,596.79	1,754.10	1.35	-0.57	-1.22
8,342.00	90.98	269.32	7,080.67	-1,404.78	-1,690.74	1,847.68	1.93	0.04	1.93
8,437.00	90.71	268.76	7,079.27	-1,406.37	-1,785.71	1,942.15	0.65	-0.28	-0.59
8,532.00	91.21	270.81	7,077.68	-1,406.73	-1,880.70	2,036.48	2.22	0.53	2.16
8,626.00	90.77	270.66	7,076.06	-1,405.52	-1,974.67	2,129.63	0.49	-0.47	-0.16
8,721.00	90.74	272.08	7,074.80	-1,403.25	-2,069.64	2,223.63	1.49	-0.03	1.49
8,816.00	90.54	272.17	7,073.74	-1,399.73	-2,164.56	2,317.44	0.23	-0.21	0.09

SDT

Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #742H - Slot A2
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #742H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,910.00	91.72	270.85	7,071.89	-1,397.25	-2,258.51	2,410.40	1.88	1.26	-1.40
9,005.00	91.52	271.11	7,069.20	-1,395.63	-2,353.46	2,504.46	0.35	-0.21	0.27
9,099.00	91.25	271.51	7,066.93	-1,393.48	-2,447.41	2,597.47	0.51	-0.29	0.43
9,194.00	90.67	270.43	7,065.34	-1,391.87	-2,542.38	2,691.55	1.29	-0.61	-1.14
9,288.00	90.71	270.90	7,064.21	-1,390.78	-2,636.36	2,784.72	0.50	0.04	0.50
9,383.00	90.14	272.50	7,063.50	-1,387.96	-2,731.32	2,878.64	1.79	-0.60	1.68
9,477.00	90.00	271.82	7,063.39	-1,384.42	-2,825.25	2,971.47	0.74	-0.15	-0.72
9,572.00	89.90	272.33	7,063.47	-1,380.98	-2,920.18	3,065.30	0.55	-0.11	0.54
9,666.00	89.70	272.96	7,063.80	-1,376.64	-3,014.08	3,157.99	0.70	-0.21	0.67
9,761.00	89.36	273.14	7,064.58	-1,371.59	-3,108.95	3,251.55	0.40	-0.36	0.19
9,856.00	90.20	272.03	7,064.94	-1,367.30	-3,203.85	3,345.24	1.47	0.88	-1.17
9,950.00	89.93	272.28	7,064.84	-1,363.77	-3,297.78	3,438.07	0.39	-0.29	0.27
10,045.00	89.16	270.73	7,065.59	-1,361.28	-3,392.74	3,532.04	1.82	-0.81	-1.63
10,139.00	90.54	271.03	7,065.84	-1,359.83	-3,486.73	3,625.16	1.50	1.47	0.32
10,234.00	90.34	270.95	7,065.11	-1,358.19	-3,581.71	3,719.26	0.23	-0.21	-0.08
10,328.00	90.00	269.90	7,064.83	-1,357.49	-3,675.70	3,812.48	1.17	-0.36	-1.12
10,423.00	89.90	270.77	7,064.91	-1,356.94	-3,770.70	3,906.72	0.92	-0.11	0.92
10,517.00	89.46	271.22	7,065.44	-1,355.31	-3,864.69	3,999.82	0.67	-0.47	0.48
10,611.00	90.00	269.70	7,065.88	-1,354.55	-3,958.68	4,093.04	1.72	0.57	-1.62
10,706.00	89.93	268.52	7,065.94	-1,356.03	-4,053.67	4,187.51	1.24	-0.07	-1.24
10,800.00	90.17	268.93	7,065.86	-1,358.12	-4,147.64	4,281.06	0.51	0.26	0.44
10,895.00	90.27	268.31	7,065.49	-1,360.41	-4,242.61	4,375.61	0.66	0.11	-0.65
10,990.00	90.17	269.22	7,065.13	-1,362.45	-4,337.59	4,470.14	0.96	-0.11	0.96
11,084.00	89.93	268.37	7,065.04	-1,364.43	-4,431.57	4,563.68	0.94	-0.26	-0.90
11,179.00	89.80	268.37	7,065.27	-1,367.13	-4,526.53	4,658.27	0.14	-0.14	0.00
11,273.00	90.37	269.26	7,065.13	-1,369.08	-4,620.51	4,751.80	1.12	0.61	0.95
11,368.00	90.10	269.27	7,064.74	-1,370.29	-4,715.50	4,846.25	0.28	-0.28	0.01
11,462.00	90.13	270.27	7,064.55	-1,370.67	-4,809.50	4,939.60	1.06	0.03	1.06
11,557.00	88.92	269.51	7,065.34	-1,370.85	-4,904.49	5,033.93	1.50	-1.27	-0.80
11,651.00	89.36	270.26	7,066.75	-1,371.04	-4,998.48	5,127.25	0.92	0.47	0.80
11,746.00	89.36	271.43	7,067.81	-1,369.64	-5,093.46	5,221.38	1.23	0.00	1.23
11,840.00	89.33	272.32	7,068.88	-1,366.57	-5,187.40	5,314.26	0.95	-0.03	0.95
11,935.00	89.02	271.96	7,070.25	-1,363.02	-5,282.33	5,408.07	0.50	-0.33	-0.38
12,030.00	90.00	271.80	7,071.06	-1,359.90	-5,377.27	5,501.95	1.05	1.03	-0.17
12,124.00	90.20	272.09	7,070.90	-1,356.71	-5,471.22	5,594.82	0.37	0.21	0.31
12,219.00	90.10	272.29	7,070.65	-1,353.08	-5,566.15	5,688.62	0.24	-0.11	0.21
12,313.00	90.91	271.87	7,069.82	-1,349.67	-5,660.08	5,781.46	0.97	0.86	-0.45
12,408.00	90.44	271.59	7,068.70	-1,346.80	-5,755.03	5,875.37	0.58	-0.49	-0.29
12,502.00	90.27	272.24	7,068.12	-1,343.66	-5,848.98	5,968.26	0.71	-0.18	0.69
12,597.00	89.90	271.78	7,067.98	-1,340.33	-5,943.92	6,062.11	0.62	-0.39	-0.48
12,691.00	91.01	271.95	7,067.23	-1,337.27	-6,037.86	6,155.00	1.19	1.18	0.18
12,786.00	90.84	271.33	7,065.70	-1,334.55	-6,132.81	6,248.93	0.68	-0.18	-0.65
12,880.00	90.68	270.43	7,064.45	-1,333.11	-6,226.79	6,342.05	0.97	-0.17	-0.96

SDT Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #742H - Slot A2
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #742H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,975.00	90.84	270.76	7,063.19	-1,332.12	-6,321.78	6,436.22	0.39	0.17	0.35
13,070.00	91.01	270.61	7,061.66	-1,330.99	-6,416.76	6,530.38	0.24	0.18	-0.16
13,164.00	91.45	272.43	7,059.64	-1,328.49	-6,510.70	6,623.33	1.99	0.47	1.94
13,259.00	90.40	270.06	7,058.11	-1,326.43	-6,605.66	6,717.35	2.73	-1.11	-2.49
13,354.00	89.50	271.56	7,058.19	-1,325.09	-6,700.64	6,811.48	1.84	-0.95	1.58
13,449.00	89.26	270.23	7,059.22	-1,323.60	-6,795.62	6,905.59	1.42	-0.25	-1.40
13,543.00	90.54	269.96	7,059.38	-1,323.45	-6,889.62	6,998.89	1.39	1.36	-0.29
13,638.00	90.34	269.56	7,058.65	-1,323.85	-6,984.62	7,093.24	0.47	-0.21	-0.42
13,732.00	90.44	270.13	7,058.01	-1,324.10	-7,078.61	7,186.58	0.62	0.11	0.61
13,827.00	90.10	268.78	7,057.57	-1,325.00	-7,173.61	7,280.99	1.47	-0.36	-1.42
13,921.00	91.11	269.49	7,056.57	-1,326.42	-7,267.59	7,374.46	1.31	1.07	0.76
14,015.00	91.55	269.64	7,054.39	-1,327.14	-7,361.56	7,467.83	0.49	0.47	0.16
14,110.00	90.30	271.46	7,052.86	-1,326.22	-7,456.54	7,562.01	2.32	-1.32	1.92
14,205.00	90.98	268.99	7,051.80	-1,325.85	-7,551.52	7,656.26	2.70	0.72	-2.60
14,299.00	90.71	268.85	7,050.41	-1,327.62	-7,645.50	7,749.76	0.32	-0.29	-0.15
14,394.00	90.94	269.95	7,049.04	-1,328.62	-7,740.48	7,844.17	1.18	0.24	1.16
14,488.00	90.67	269.22	7,047.72	-1,329.30	-7,834.47	7,937.55	0.83	-0.29	-0.78
14,583.00	90.30	268.89	7,046.92	-1,330.87	-7,929.45	8,032.03	0.52	-0.39	-0.35
14,677.00	90.24	268.37	7,046.47	-1,333.11	-8,023.42	8,125.59	0.56	-0.06	-0.55
14,772.00	89.76	269.08	7,046.47	-1,335.23	-8,118.40	8,220.13	0.90	-0.51	0.75
14,867.00	90.30	271.07	7,046.42	-1,335.10	-8,213.39	8,314.42	2.17	0.57	2.09
14,961.00	90.00	270.64	7,046.18	-1,333.70	-8,307.38	8,407.55	0.56	-0.32	-0.46
15,056.00	89.70	270.10	7,046.43	-1,333.09	-8,402.38	8,501.79	0.65	-0.32	-0.57
15,150.00	90.44	272.36	7,046.31	-1,331.07	-8,496.35	8,594.83	2.53	0.79	2.40
15,245.00	90.27	271.56	7,045.72	-1,327.82	-8,591.29	8,688.69	0.86	-0.18	-0.84
15,339.00	90.13	270.90	7,045.40	-1,325.80	-8,685.27	8,781.74	0.72	-0.15	-0.70
15,434.00	90.07	270.67	7,045.23	-1,324.50	-8,780.26	8,875.88	0.25	-0.06	-0.24
15,528.00	90.27	271.45	7,044.95	-1,322.76	-8,874.24	8,968.97	0.86	0.21	0.83
15,623.00	89.80	270.94	7,044.89	-1,320.78	-8,969.22	9,063.02	0.73	-0.49	-0.54
15,717.00	90.71	271.52	7,044.47	-1,318.76	-9,063.20	9,156.06	1.15	0.97	0.62
15,812.00	90.40	271.31	7,043.55	-1,316.42	-9,158.16	9,250.06	0.39	-0.33	-0.22
15,906.00	90.71	271.49	7,042.64	-1,314.12	-9,252.13	9,343.06	0.38	0.33	0.19
16,001.00	90.68	272.22	7,041.49	-1,311.05	-9,347.07	9,436.94	0.77	-0.03	0.77
16,096.00	90.64	271.45	7,040.40	-1,308.00	-9,442.02	9,530.83	0.81	-0.04	-0.81
16,190.00	90.98	271.86	7,039.07	-1,305.29	-9,535.97	9,623.77	0.57	0.36	0.44
16,285.00	90.84	270.94	7,037.56	-1,302.97	-9,630.93	9,717.76	0.98	-0.15	-0.97
16,379.00	90.77	271.24	7,036.24	-1,301.18	-9,724.90	9,810.83	0.33	-0.07	0.32
16,473.00	90.71	271.00	7,035.03	-1,299.34	-9,818.88	9,903.90	0.26	-0.06	-0.26
16,568.00	90.81	271.63	7,033.77	-1,297.16	-9,913.84	9,997.91	0.67	0.11	0.66
16,662.00	90.77	272.72	7,032.47	-1,293.60	-10,007.76	10,090.72	1.16	-0.04	1.16
16,757.00	90.37	272.56	7,031.52	-1,289.22	-10,102.66	10,184.39	0.45	-0.42	-0.17
16,851.00	90.03	271.73	7,031.20	-1,285.70	-10,196.59	10,277.22	0.95	-0.36	-0.88
16,946.00	90.10	271.84	7,031.09	-1,282.74	-10,291.54	10,371.12	0.14	0.07	0.12

SDT
Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #742H - Slot A2
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #742H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,041.00	89.83	271.32	7,031.15	-1,280.12	-10,386.51	10,465.08	0.62	-0.28	-0.55
17,136.00	90.10	270.60	7,031.20	-1,278.53	-10,481.49	10,559.18	0.81	0.28	-0.76
17,194.00	90.03	270.95	7,031.14	-1,277.75	-10,539.49	10,616.66	0.62	-0.12	0.60
17,260.00	90.03	270.95	7,031.10	-1,276.65	-10,605.48	10,682.04	0.00	0.00	0.00
BHL @ 17260' MD									

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
RU 742H SHL - actual wellpath hits target center - Point	0.00	0.00	0.00	0.00	0.00	2,133,580.34	2,858,363.39	36.8624420	-107.3709200
RU 724H BHL - actual wellpath hits target center - Point	0.00	0.00	7,031.10	-1,276.65	-10,605.48	2,132,252.35	2,847,764.24	36.8589298	-107.4071715
RU 724H Actual FPP - actual wellpath hits target center - Point	0.00	0.00	7,031.23	-1,279.12	-10,437.50	2,132,250.70	2,847,932.23	36.8589232	-107.4065973
RU 742H PBHL (162' FV - actual wellpath misses target center by 27.80ft at 17260.00ft MD (7031.10 TVD, -1276.65 N, -10605.48 E) - Point	0.00	0.00	7,047.00	-1,290.08	-10,623.91	2,132,238.84	2,847,745.87	36.8588929	-107.4072345
RU 724H Actual POE - actual wellpath hits target center - Point	0.00	0.00	7,079.54	-1,396.17	-994.17	2,132,179.38	2,857,375.99	36.8586070	-107.3743183

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
17,260.00	7,031.10	-1,276.65	-10,605.48	BHL @ 17260' MD

Checked By: _____	Approved By: _____	Date: _____
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Logos Operating LLC

Rio Arriba, NM NAD83

Rosa Unit 31

Rosa Unit #742H - Slot A2

OH

Design: OH

Survey Report - Geographic

13 October, 2023

SDT
Survey Report - Geographic

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #742H - Slot A2
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #742H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

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:	2,133,595.07 usft	Latitude:	36.8624824
From:	Map	Easting:	2,858,361.84 usft	Longitude:	-107.3709251
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.28 °

Well	Rosa Unit #742H - Slot A2					
Well Position	+N/-S	0.00 ft	Northing:	2,133,580.34 usft	Latitude:	36.8624420
	+E/-W	0.00 ft	Easting:	2,858,363.39 usft	Longitude:	-107.3709200
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,492.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HRGM	4/2/2023	8.49	63.28	49,475.96611451

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00		263.08

Survey Program	Date	10/13/2023			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	320.00	Survey #1 (OH)	A020Ga_GYRO-NS	OWSG Gyrocompass Gyro	
394.00	17,194.00	Survey #2 (OH)	MWD+HDGM	OWSG MWD + HDGM	
17,260.00	17,260.00	Survey #3 (OH)	Project	Projection	

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	2,133,580.34	2,858,363.39	36.8624420	-107.3709200
100.00	0.61	176.78	100.00	-0.53	0.03	2,133,579.81	2,858,363.42	36.8624405	-107.3709199
200.00	1.23	82.19	199.99	-0.92	1.12	2,133,579.43	2,858,364.52	36.8624395	-107.3709162
300.00	4.08	62.63	299.87	0.86	5.35	2,133,581.23	2,858,368.73	36.8624443	-107.3709018
320.00	4.64	59.89	319.82	1.60	6.68	2,133,581.97	2,858,370.06	36.8624464	-107.3708972
394.00	5.35	45.22	393.54	5.53	11.72	2,133,585.92	2,858,375.08	36.8624572	-107.3708800
458.00	5.83	54.46	457.23	9.52	16.48	2,133,589.94	2,858,379.82	36.8624681	-107.3708637
549.00	4.68	49.19	547.85	14.63	23.05	2,133,595.08	2,858,386.37	36.8624822	-107.3708413
640.00	3.53	66.33	638.62	18.18	28.43	2,133,598.66	2,858,391.73	36.8624919	-107.3708229
731.00	3.14	52.10	729.47	20.84	32.96	2,133,601.34	2,858,396.25	36.8624992	-107.3708074

SDT

Survey Report - Geographic

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #742H - Slot A2
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #742H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
918.00	1.54	36.43	916.30	26.01	38.49	2,133,606.53	2,858,401.75	36.8625134	-107.3707885	
1,009.00	0.44	359.85	1,007.29	27.34	39.22	2,133,607.87	2,858,402.47	36.8625171	-107.3707860	
1,100.00	1.31	246.25	1,098.28	27.27	38.27	2,133,607.80	2,858,401.52	36.8625169	-107.3707892	
1,192.00	3.03	238.78	1,190.21	25.59	35.22	2,133,606.10	2,858,398.49	36.8625123	-107.3707996	
1,284.00	5.50	240.02	1,281.95	22.12	29.32	2,133,602.60	2,858,392.60	36.8625027	-107.3708198	
1,378.00	6.94	234.26	1,375.40	16.56	20.81	2,133,597.00	2,858,384.12	36.8624874	-107.3708489	
1,473.00	7.76	231.51	1,469.62	9.21	11.13	2,133,589.60	2,858,374.48	36.8624673	-107.3708820	
1,568.00	8.47	226.39	1,563.67	0.39	1.05	2,133,580.74	2,858,364.43	36.8624431	-107.3709165	
1,665.00	9.42	210.03	1,659.50	-11.41	-8.10	2,133,568.89	2,858,355.34	36.8624106	-107.3709477	
1,854.00	9.28	220.01	1,846.00	-36.47	-25.64	2,133,543.74	2,858,337.93	36.8623418	-107.3710077	
1,949.00	10.86	213.78	1,939.54	-49.78	-35.54	2,133,530.39	2,858,328.09	36.8623052	-107.3710415	
2,043.00	11.59	205.03	2,031.75	-65.70	-44.46	2,133,514.43	2,858,319.25	36.8622615	-107.3710720	
2,138.00	12.85	202.12	2,124.59	-84.13	-52.48	2,133,495.96	2,858,311.32	36.8622109	-107.3710994	
2,232.00	13.76	199.24	2,216.07	-104.37	-60.10	2,133,475.68	2,858,303.80	36.8621553	-107.3711255	
2,327.00	14.42	198.42	2,308.21	-126.26	-67.56	2,133,453.75	2,858,296.44	36.8620952	-107.3711510	
2,422.00	15.05	197.15	2,400.09	-149.27	-74.93	2,133,430.71	2,858,289.18	36.8620320	-107.3711762	
2,516.00	15.28	196.83	2,490.81	-172.79	-82.12	2,133,407.16	2,858,282.11	36.8619674	-107.3712007	
2,611.00	16.88	192.93	2,582.10	-198.21	-88.83	2,133,381.70	2,858,275.52	36.8618975	-107.3712237	
2,705.00	17.42	194.72	2,671.92	-225.12	-95.46	2,133,354.76	2,858,269.02	36.8618236	-107.3712463	
2,800.00	18.13	195.35	2,762.38	-253.13	-102.98	2,133,326.71	2,858,261.63	36.8617467	-107.3712721	
2,894.00	17.95	194.95	2,851.76	-281.23	-110.59	2,133,298.58	2,858,254.16	36.8616695	-107.3712981	
2,989.00	20.20	193.29	2,941.54	-311.34	-118.14	2,133,268.43	2,858,246.76	36.8615868	-107.3713239	
3,083.00	19.69	194.78	3,029.90	-342.44	-125.91	2,133,237.29	2,858,239.14	36.8615014	-107.3713504	
3,178.00	17.67	193.98	3,119.89	-371.91	-133.48	2,133,207.78	2,858,231.71	36.8614204	-107.3713763	
3,272.00	16.73	193.20	3,209.69	-398.93	-140.01	2,133,180.74	2,858,225.31	36.8613462	-107.3713986	
3,367.00	17.22	193.50	3,300.55	-425.92	-146.42	2,133,153.72	2,858,219.03	36.8612721	-107.3714205	
3,462.00	15.29	192.05	3,391.75	-451.84	-152.32	2,133,127.77	2,858,213.26	36.8612009	-107.3714407	
3,556.00	14.14	193.84	3,482.66	-475.11	-157.65	2,133,104.47	2,858,208.04	36.8611370	-107.3714589	
3,641.00	13.50	192.51	3,565.20	-494.88	-162.28	2,133,084.68	2,858,203.50	36.8610827	-107.3714748	
3,749.00	13.71	192.77	3,670.17	-519.67	-167.84	2,133,059.87	2,858,198.06	36.8610146	-107.3714938	
3,844.00	13.18	194.96	3,762.57	-541.11	-173.13	2,133,038.40	2,858,192.88	36.8609557	-107.3715118	
3,938.00	13.80	193.82	3,853.97	-562.35	-178.57	2,133,017.13	2,858,187.54	36.8608973	-107.3715304	
4,033.00	14.19	192.33	3,946.15	-584.73	-183.76	2,132,994.73	2,858,182.46	36.8608359	-107.3715482	
4,128.00	14.68	192.50	4,038.15	-607.86	-188.86	2,132,971.58	2,858,177.48	36.8607723	-107.3715656	
4,222.00	15.60	192.15	4,128.89	-631.84	-194.09	2,132,947.57	2,858,172.36	36.8607065	-107.3715835	
4,317.00	16.39	189.95	4,220.21	-657.53	-199.10	2,132,921.85	2,858,167.48	36.8606359	-107.3716006	
4,411.00	17.71	189.43	4,310.08	-684.70	-203.73	2,132,894.66	2,858,162.97	36.8605613	-107.3716165	
4,506.00	17.31	188.46	4,400.68	-712.93	-208.18	2,132,866.41	2,858,158.66	36.8604837	-107.3716317	
4,600.00	16.61	190.22	4,490.59	-739.99	-212.62	2,132,839.33	2,858,154.35	36.8604094	-107.3716468	
4,695.00	17.01	194.96	4,581.53	-766.78	-218.62	2,132,812.51	2,858,148.49	36.8603358	-107.3716673	
4,789.00	16.22	196.72	4,671.61	-792.63	-225.94	2,132,786.62	2,858,141.29	36.8602648	-107.3716924	
4,884.00	17.18	196.55	4,762.60	-818.79	-233.76	2,132,760.43	2,858,133.60	36.8601930	-107.3717191	
4,978.00	15.51	196.46	4,852.80	-844.15	-241.27	2,132,735.03	2,858,126.20	36.8601233	-107.3717448	
5,073.00	15.78	195.67	4,944.28	-868.77	-248.36	2,132,710.38	2,858,119.24	36.8600557	-107.3717690	
5,167.00	18.41	196.19	5,034.12	-895.34	-255.95	2,132,683.77	2,858,111.77	36.8599827	-107.3717950	
5,357.00	16.61	193.73	5,215.31	-950.54	-270.77	2,132,628.51	2,858,097.23	36.8598311	-107.3718456	
5,452.00	16.39	193.56	5,306.40	-976.76	-277.13	2,132,602.26	2,858,090.99	36.8597591	-107.3718673	
5,546.00	16.08	193.29	5,396.65	-1,002.32	-283.23	2,132,576.66	2,858,085.01	36.8596889	-107.3718882	
5,703.00	14.81	193.29	5,547.98	-1,043.01	-292.85	2,132,535.93	2,858,075.60	36.8595771	-107.3719210	
5,766.00	14.50	193.73	5,608.93	-1,058.51	-296.57	2,132,520.41	2,858,071.95	36.8595345	-107.3719338	
5,829.00	14.28	194.04	5,669.95	-1,073.71	-300.33	2,132,505.19	2,858,068.27	36.8594928	-107.3719466	
5,892.00	14.19	195.05	5,731.02	-1,088.70	-304.22	2,132,490.18	2,858,064.45	36.8594516	-107.3719599	
5,955.00	14.02	195.58	5,792.12	-1,103.51	-308.27	2,132,475.35	2,858,060.47	36.8594109	-107.3719738	
6,018.00	14.02	196.37	5,853.24	-1,118.18	-312.47	2,132,460.66	2,858,056.34	36.8593706	-107.3719881	
6,143.00	14.02	193.65	5,974.52	-1,147.42	-320.31	2,132,431.38	2,858,048.64	36.8592903	-107.3720149	

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Survey Report - Geographic

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #742H - Slot A2
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #742H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,206.00	13.40	193.12	6,035.72	-1,161.95	-323.77	2,132,416.84	2,858,045.25	36.8592504	-107.3720267
6,269.00	12.48	199.53	6,097.13	-1,175.47	-327.70	2,132,403.30	2,858,041.38	36.8592133	-107.3720402
6,332.00	12.00	201.56	6,158.69	-1,187.98	-332.38	2,132,390.77	2,858,036.76	36.8591789	-107.3720562
6,395.00	11.51	201.38	6,220.37	-1,199.92	-337.08	2,132,378.80	2,858,032.12	36.8591461	-107.3720723
6,476.00	10.42	201.03	6,299.89	-1,214.29	-342.66	2,132,364.41	2,858,026.62	36.8591066	-107.3720913
6,584.00	9.35	201.80	6,406.29	-1,231.55	-349.42	2,132,347.12	2,858,019.94	36.8590592	-107.3721144
6,642.00	9.30	203.58	6,463.52	-1,240.22	-353.04	2,132,338.43	2,858,016.35	36.8590354	-107.3721268
6,737.00	18.81	218.97	6,555.60	-1,259.21	-365.78	2,132,319.37	2,858,003.71	36.8589832	-107.3721703
6,831.00	26.40	221.31	6,642.32	-1,286.73	-389.14	2,132,291.74	2,857,980.48	36.8589077	-107.3722502
6,925.00	34.23	223.51	6,723.40	-1,321.66	-421.19	2,132,256.66	2,857,948.60	36.8588117	-107.3723597
7,020.00	40.57	235.95	6,798.94	-1,358.42	-465.29	2,132,219.68	2,857,904.68	36.8587107	-107.3725105
7,114.00	45.40	250.82	6,867.87	-1,386.62	-522.41	2,132,191.20	2,857,847.70	36.8586333	-107.3727057
7,209.00	52.68	261.64	6,930.20	-1,403.28	-591.94	2,132,174.21	2,857,778.26	36.8585875	-107.3729434
7,303.00	59.10	269.48	6,982.95	-1,409.09	-669.41	2,132,168.03	2,857,700.81	36.8585715	-107.3732082
7,398.00	68.35	271.74	7,024.96	-1,408.12	-754.49	2,132,168.59	2,857,615.73	36.8585742	-107.3734990
7,493.00	75.58	273.65	7,054.35	-1,403.84	-844.65	2,132,172.43	2,857,525.55	36.8585859	-107.3738072
7,587.00	81.79	273.18	7,072.79	-1,398.36	-936.62	2,132,177.46	2,857,433.56	36.8586010	-107.3741216
7,681.00	86.73	269.96	7,082.19	-1,395.81	-1,030.07	2,132,179.56	2,857,340.09	36.8586080	-107.3744410
7,775.00	88.92	270.20	7,085.76	-1,395.68	-1,123.99	2,132,179.24	2,857,246.17	36.8586083	-107.3747620
7,870.00	88.89	270.50	7,087.57	-1,395.10	-1,218.98	2,132,179.36	2,857,151.18	36.8586099	-107.3750867
7,964.00	89.90	269.42	7,088.57	-1,395.16	-1,312.97	2,132,178.84	2,857,057.19	36.8586097	-107.3754080
8,058.00	91.92	268.62	7,087.07	-1,396.77	-1,406.94	2,132,176.78	2,856,963.23	36.8586053	-107.3757292
8,153.00	91.48	268.67	7,084.25	-1,399.02	-1,501.87	2,132,174.07	2,856,868.32	36.8585991	-107.3760537
8,248.00	90.94	267.51	7,082.25	-1,402.18	-1,596.79	2,132,170.44	2,856,773.41	36.8585904	-107.3763781
8,342.00	90.98	269.32	7,080.67	-1,404.78	-1,690.74	2,132,167.39	2,856,679.47	36.8585833	-107.3766993
8,437.00	90.71	268.76	7,079.27	-1,406.37	-1,785.71	2,132,165.34	2,856,584.51	36.8585789	-107.3770239
8,532.00	91.21	270.81	7,077.68	-1,406.73	-1,880.70	2,132,164.52	2,856,489.53	36.8585779	-107.3773486
8,626.00	90.77	270.66	7,076.06	-1,405.52	-1,974.67	2,132,165.27	2,856,395.55	36.8585812	-107.3776698
8,721.00	90.74	272.08	7,074.80	-1,403.25	-2,069.64	2,132,167.08	2,856,300.58	36.8585874	-107.3779944
8,816.00	90.54	272.17	7,073.74	-1,399.73	-2,164.56	2,132,170.15	2,856,205.63	36.8585970	-107.3783189
8,910.00	91.72	270.85	7,071.89	-1,397.25	-2,258.51	2,132,172.17	2,856,111.68	36.8586038	-107.3786400
9,005.00	91.52	271.11	7,069.20	-1,395.63	-2,353.46	2,132,173.33	2,856,016.72	36.8586083	-107.3789646
9,099.00	91.25	271.51	7,066.93	-1,393.48	-2,447.41	2,132,175.03	2,855,922.76	36.8586141	-107.3792857
9,194.00	90.67	270.43	7,065.34	-1,391.87	-2,542.38	2,132,176.17	2,855,827.79	36.8586185	-107.3796103
9,288.00	90.71	270.90	7,064.21	-1,390.78	-2,636.36	2,132,176.81	2,855,733.80	36.8586215	-107.3799316
9,383.00	90.14	272.50	7,063.50	-1,387.96	-2,731.32	2,132,179.17	2,855,638.83	36.8586292	-107.3802561
9,477.00	90.00	271.82	7,063.39	-1,384.42	-2,825.25	2,132,182.26	2,855,544.88	36.8586389	-107.3805772
9,572.00	89.90	272.33	7,063.47	-1,380.98	-2,920.18	2,132,185.24	2,855,449.93	36.8586484	-107.3809017
9,666.00	89.70	272.96	7,063.80	-1,376.64	-3,014.08	2,132,189.12	2,855,356.01	36.8586602	-107.3812227
9,761.00	89.36	273.14	7,064.58	-1,371.59	-3,108.95	2,132,193.72	2,855,261.13	36.8586741	-107.3815469
9,856.00	90.20	272.03	7,064.94	-1,367.30	-3,203.85	2,132,197.54	2,855,166.21	36.8586858	-107.3818713
9,950.00	89.93	272.28	7,064.84	-1,363.77	-3,297.78	2,132,200.62	2,855,072.26	36.8586955	-107.3821924
10,045.00	89.16	270.73	7,065.59	-1,361.28	-3,392.74	2,132,202.66	2,854,977.29	36.8587023	-107.3825170
10,139.00	90.54	271.03	7,065.84	-1,359.83	-3,486.73	2,132,203.64	2,854,883.29	36.8587063	-107.3828383
10,234.00	90.34	270.95	7,065.11	-1,358.19	-3,581.71	2,132,204.83	2,854,788.30	36.8587107	-107.3831629
10,328.00	90.00	269.90	7,064.83	-1,357.49	-3,675.70	2,132,205.07	2,854,694.31	36.8587126	-107.3834842
10,423.00	89.90	270.77	7,064.91	-1,356.94	-3,770.70	2,132,205.16	2,854,599.31	36.8587141	-107.3838089
10,517.00	89.46	271.22	7,065.44	-1,355.31	-3,864.69	2,132,206.34	2,854,505.32	36.8587186	-107.3841302
10,611.00	90.00	269.70	7,065.88	-1,354.55	-3,958.68	2,132,206.64	2,854,411.32	36.8587206	-107.3844515
10,706.00	89.93	268.52	7,065.94	-1,356.03	-4,053.67	2,132,204.70	2,854,316.34	36.8587165	-107.3847762
10,800.00	90.17	268.93	7,065.86	-1,358.12	-4,147.64	2,132,202.16	2,854,222.38	36.8587107	-107.3850974
10,895.00	90.27	268.31	7,065.49	-1,360.41	-4,242.61	2,132,199.41	2,854,127.42	36.8587044	-107.3854220
10,990.00	90.17	269.22	7,065.13	-1,362.45	-4,337.59	2,132,196.90	2,854,032.45	36.8586987	-107.3857467
11,084.00	89.93	268.37	7,065.04	-1,364.43	-4,431.57	2,132,194.47	2,853,938.49	36.8586933	-107.3860679
11,179.00	89.80	268.37	7,065.27	-1,367.13	-4,526.53	2,132,191.31	2,853,843.54	36.8586858	-107.3863925

SDT

Survey Report - Geographic

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #742H - Slot A2
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #742H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,273.00	90.37	269.26	7,065.13	-1,369.08	-4,620.51	2,132,188.91	2,853,749.57	36.8586804	-107.3867137
11,368.00	90.10	269.27	7,064.74	-1,370.29	-4,715.50	2,132,187.23	2,853,654.59	36.8586770	-107.3870384
11,462.00	90.13	270.27	7,064.55	-1,370.67	-4,809.50	2,132,186.40	2,853,560.59	36.8586759	-107.3873597
11,557.00	88.92	269.51	7,065.34	-1,370.85	-4,904.49	2,132,185.76	2,853,465.60	36.8586754	-107.3876844
11,651.00	89.36	270.26	7,066.75	-1,371.04	-4,998.48	2,132,185.11	2,853,371.62	36.8586748	-107.3880057
11,746.00	89.36	271.43	7,067.81	-1,369.64	-5,093.46	2,132,186.05	2,853,276.63	36.8586786	-107.3883304
11,840.00	89.33	272.32	7,068.88	-1,366.57	-5,187.40	2,132,188.67	2,853,182.67	36.8586870	-107.3886515
11,935.00	89.02	271.96	7,070.25	-1,363.02	-5,282.33	2,132,191.76	2,853,087.73	36.8586967	-107.3889759
12,030.00	90.00	271.80	7,071.06	-1,359.90	-5,377.27	2,132,194.42	2,852,992.77	36.8587052	-107.3893005
12,124.00	90.20	272.09	7,070.90	-1,356.71	-5,471.22	2,132,197.15	2,852,898.82	36.8587140	-107.3896216
12,219.00	90.10	272.29	7,070.65	-1,353.08	-5,566.15	2,132,200.32	2,852,803.87	36.8587239	-107.3899461
12,313.00	90.91	271.87	7,069.82	-1,349.67	-5,660.08	2,132,203.28	2,852,709.92	36.8587332	-107.3902672
12,408.00	90.44	271.59	7,068.70	-1,346.80	-5,755.03	2,132,205.69	2,852,614.96	36.8587410	-107.3905917
12,502.00	90.27	272.24	7,068.12	-1,343.66	-5,848.98	2,132,208.37	2,852,521.00	36.8587496	-107.3909129
12,597.00	89.90	271.78	7,067.98	-1,340.33	-5,943.92	2,132,211.25	2,852,426.04	36.8587587	-107.3912374
12,691.00	91.01	271.95	7,067.23	-1,337.27	-6,037.86	2,132,213.85	2,852,332.08	36.8587670	-107.3915585
12,786.00	90.84	271.33	7,065.70	-1,334.55	-6,132.81	2,132,216.11	2,852,237.12	36.8587744	-107.3918831
12,880.00	90.68	270.43	7,064.45	-1,333.11	-6,226.79	2,132,217.10	2,852,143.14	36.8587784	-107.3922043
12,975.00	90.84	270.76	7,063.19	-1,332.12	-6,321.78	2,132,217.63	2,852,048.15	36.8587810	-107.3925290
13,070.00	91.01	270.61	7,061.66	-1,330.99	-6,416.76	2,132,218.30	2,851,953.16	36.8587841	-107.3928537
13,164.00	91.45	272.43	7,059.64	-1,328.49	-6,510.70	2,132,220.34	2,851,859.21	36.8587909	-107.3931748
13,259.00	90.40	270.06	7,058.11	-1,326.43	-6,605.66	2,132,221.94	2,851,764.25	36.8587965	-107.3934993
13,354.00	89.50	271.56	7,058.19	-1,325.09	-6,700.64	2,132,222.83	2,851,669.25	36.8588001	-107.3938240
13,449.00	89.26	270.23	7,059.22	-1,323.60	-6,795.62	2,132,223.85	2,851,574.27	36.8588041	-107.3941487
13,543.00	90.54	269.96	7,059.38	-1,323.45	-6,889.62	2,132,223.55	2,851,480.27	36.8588045	-107.3944700
13,638.00	90.34	269.56	7,058.65	-1,323.85	-6,984.62	2,132,222.69	2,851,385.28	36.8588033	-107.3947947
13,732.00	90.44	270.13	7,058.01	-1,324.10	-7,078.61	2,132,221.98	2,851,291.28	36.8588025	-107.3951160
13,827.00	90.10	268.78	7,057.57	-1,325.00	-7,173.61	2,132,220.62	2,851,196.30	36.8588000	-107.3954407
13,921.00	91.11	269.49	7,056.57	-1,326.42	-7,267.59	2,132,218.74	2,851,102.32	36.8587960	-107.3957619
14,015.00	91.55	269.64	7,054.39	-1,327.14	-7,361.56	2,132,217.58	2,851,008.35	36.8587940	-107.3960832
14,110.00	90.30	271.46	7,052.86	-1,326.22	-7,456.54	2,132,218.03	2,850,913.37	36.8587964	-107.3964078
14,205.00	90.98	268.99	7,051.80	-1,325.85	-7,551.52	2,132,217.94	2,850,818.39	36.8587974	-107.3967325
14,299.00	90.71	268.85	7,050.41	-1,327.62	-7,645.50	2,132,215.72	2,850,724.43	36.8587925	-107.3970537
14,394.00	90.94	269.95	7,049.04	-1,328.62	-7,740.48	2,132,214.26	2,850,629.45	36.8587896	-107.3973784
14,488.00	90.67	269.22	7,047.72	-1,329.30	-7,834.47	2,132,213.12	2,850,535.46	36.8587877	-107.3976996
14,583.00	90.30	268.89	7,046.92	-1,330.87	-7,929.45	2,132,211.10	2,850,440.49	36.8587833	-107.3980243
14,677.00	90.24	268.37	7,046.47	-1,333.11	-8,023.42	2,132,208.40	2,850,346.53	36.8587771	-107.3983455
14,772.00	89.76	269.08	7,046.47	-1,335.23	-8,118.40	2,132,205.82	2,850,251.57	36.8587712	-107.3986702
14,867.00	90.30	271.07	7,046.42	-1,335.10	-8,213.39	2,132,205.49	2,850,156.57	36.8587715	-107.3989949
14,961.00	90.00	270.64	7,046.18	-1,333.70	-8,307.38	2,132,206.43	2,850,062.58	36.8587752	-107.3993161
15,056.00	89.70	270.10	7,046.43	-1,333.09	-8,402.38	2,132,206.59	2,849,967.58	36.8587768	-107.3996409
15,150.00	90.44	272.36	7,046.31	-1,331.07	-8,496.35	2,132,208.15	2,849,873.60	36.8587823	-107.3999621
15,245.00	90.27	271.56	7,045.72	-1,327.82	-8,591.29	2,132,210.94	2,849,778.64	36.8587912	-107.4002866
15,339.00	90.13	270.90	7,045.40	-1,325.80	-8,685.27	2,132,212.50	2,849,684.66	36.8587966	-107.4006078
15,434.00	90.07	270.67	7,045.23	-1,324.50	-8,780.26	2,132,213.34	2,849,589.66	36.8588001	-107.4009325
15,528.00	90.27	271.45	7,044.95	-1,322.76	-8,874.24	2,132,214.63	2,849,495.67	36.8588048	-107.4012538
15,623.00	89.80	270.94	7,044.89	-1,320.78	-8,969.22	2,132,216.15	2,849,400.68	36.8588102	-107.4015784
15,717.00	90.71	271.52	7,044.47	-1,318.76	-9,063.20	2,132,217.71	2,849,306.70	36.8588156	-107.4018997
15,812.00	90.40	271.31	7,043.55	-1,316.42	-9,158.16	2,132,219.60	2,849,211.72	36.8588220	-107.4022243
15,906.00	90.71	271.49	7,042.64	-1,314.12	-9,252.13	2,132,221.44	2,849,117.75	36.8588282	-107.4025455
16,001.00	90.68	272.22	7,041.49	-1,311.05	-9,347.07	2,132,224.05	2,849,022.79	36.8588366	-107.4028700
16,096.00	90.64	271.45	7,040.40	-1,308.00	-9,442.02	2,132,226.64	2,848,927.83	36.8588448	-107.4031946
16,190.00	90.98	271.86	7,039.07	-1,305.29	-9,535.97	2,132,228.90	2,848,833.87	36.8588522	-107.4035157
16,285.00	90.84	270.94	7,037.56	-1,302.97	-9,630.93	2,132,230.76	2,848,738.90	36.8588585	-107.4038403
16,379.00	90.77	271.24	7,036.24	-1,301.18	-9,724.90	2,132,232.09	2,848,644.92	36.8588633	-107.4041615

SDT

Survey Report - Geographic

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #742H - Slot A2
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Site:	Rosa Unit 31	MD Reference:	GL 6492' & RKB 30' @ 6522.00ft (H&P 530)
Well:	Rosa Unit #742H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,473.00	90.71	271.00	7,035.03	-1,299.34	-9,818.88	2,132,233.47	2,848,550.94	36.8588683	-107.4044827
16,568.00	90.81	271.63	7,033.77	-1,297.16	-9,913.84	2,132,235.19	2,848,455.96	36.8588742	-107.4048074
16,662.00	90.77	272.72	7,032.47	-1,293.60	-10,007.76	2,132,238.30	2,848,362.03	36.8588839	-107.4051284
16,757.00	90.37	272.56	7,031.52	-1,289.22	-10,102.66	2,132,242.22	2,848,267.11	36.8588958	-107.4054528
16,851.00	90.03	271.73	7,031.20	-1,285.70	-10,196.59	2,132,245.28	2,848,173.16	36.8589054	-107.4057739
16,946.00	90.10	271.84	7,031.09	-1,282.74	-10,291.54	2,132,247.78	2,848,078.20	36.8589134	-107.4060984
17,041.00	89.83	271.32	7,031.15	-1,280.12	-10,386.51	2,132,249.94	2,847,983.22	36.8589205	-107.4064230
17,136.00	90.10	270.60	7,031.20	-1,278.53	-10,481.49	2,132,251.07	2,847,888.23	36.8589248	-107.4067477
17,194.00	90.03	270.95	7,031.14	-1,277.75	-10,539.49	2,132,251.58	2,847,830.23	36.8589269	-107.4069460
17,260.00	90.03	270.95	7,031.10	-1,276.65	-10,605.48	2,132,252.35	2,847,764.24	36.8589298	-107.4071715
BHL @ 17260' MD									

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
RU 742H SHL - actual wellpath hits target center - Point	0.00	0.00	0.00	0.00	0.00	2,133,580.34	2,858,363.39	36.8624420	-107.3709200
RU 724H BHL - actual wellpath hits target center - Point	0.00	0.00	7,031.10	-1,276.65	-10,605.48	2,132,252.35	2,847,764.24	36.8589298	-107.4071715
RU 724H Actual FPP - actual wellpath hits target center - Point	0.00	0.00	7,031.23	-1,279.12	-10,437.50	2,132,250.70	2,847,932.23	36.8589232	-107.4065973
RU 742H PBHL (162' FV - actual wellpath misses target center by 27.80ft at 17260.00ft MD (7031.10 TVD, -1276.65 N, -10605.48 E) - Point	0.00	0.00	7,047.00	-1,290.08	-10,623.91	2,132,238.84	2,847,745.87	36.8588929	-107.4072345
RU 724H Actual POE - actual wellpath hits target center - Point	0.00	0.00	7,079.54	-1,396.17	-994.17	2,132,179.38	2,857,375.99	36.8586070	-107.3743183

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
+N/-S (ft)	+E/-W (ft)			
17,260.00	7,031.10	-1,276.65	-10,605.48	BHL @ 17260' MD

Checked By: _____ Approved By: _____ Date: _____

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

ACKNOWLEDGMENTS

Action 275780

ACKNOWLEDGMENTS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 275780
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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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 275780

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 275780
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
plmartinez	RT EXPIRES 1/16/2024.	10/16/2023