

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

State of New Mexico
Energy, Minerals & Natural Resources

Form C-104
Revised August 1, 2011

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 New Well
⁴ API Number 30-039-31384	⁵ Pool Name Basin Mancos	⁶ Pool Code 97232
⁷ Property Code 320608	⁸ Property Name Rosa Unit	⁹ Well Number 654H

II. 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
A	25	31N	6W	1	1053	FNL	298	FEL	Rio Arriba

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	21	31N	5W		73	FSL	1209	FWL	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
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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 5/2/2019	²² Ready Date 9/03/2021	²³ TD 18430 MD / 7027 TVD	²⁴ PBDT 18324 MD / 7023 TVD	²⁵ Perforations 7502' MD / 18283' MD 7077' TVD / 6993' TVD	²⁶ DHC, MC R-13457A
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17-1/2"	13-3/8", 54.4#, J-55	327'	320sx (67bbls - 378cf)		
12-1/4"	9-5/8", 43.5#, N-80	6479'	1671sx (614bbls- 3457cf) cmt plug - 641sx (120bbls - 673cf)		
8-1/2"	5 1/2", 20#, P-110	18406'	2180sx (607bbls - 3401cf) TOC @ 4030'		
	Request to delay tubing installation submitted	Tubing extension			

V. Well Test Data

³¹ Date New Oil n/a	³² Gas Delivery Date 9/03/2021	³³ Test Date 9/03/2021	³⁴ Test Length 12hrs	³⁵ Tbg. Pressure N/A	³⁶ Csg. Pressure 2158
³⁷ Choke Size 18/64	³⁸ Oil 0	³⁹ Water 840bwpd	⁴⁰ Gas 1579 mcf/d	⁴¹ Test Method F	

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: *Etta Trujillo*
Printed name: Etta Trujillo
Title: Regulatory Specialist
E-mail Address: etrujillo@logosresourcesllc.com
Date: 9/14/2021
Phone: 505-324-4154

OIL CONSERVATION DIVISION
Approved by: *PATRICIA MARTINEZ*
Title: *NMOCD*
Approval Date: *11/16/2021*

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-039-31384		2 Pool Code 97232		3 Pool Name BASIN MANCOS	
4 Property Code 320608		5 Property Name ROSA UNIT		6 Well Number 654H	
7 OGRID No. 289408		8 Operator Name LOGOS OPERATING, LLC		9 Elevation 6372'	

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
A	25	31N	6W	1	1053	NORTH	298	EAST	RIO ARRIBA

11 Bottom Hole Location If Different From Surface

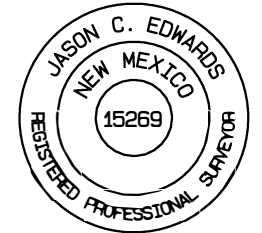
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	21	31N	5W	73	73	SOUTH	1209	WEST	RIO ARRIBA

12 Dedicated Acres 1144.45	S/2 - Section 24, T31N, R6W S/2 - Sections 19, 20, 21, T31N, R5W	13 Joint or Infill	14 Consolidation Code	15 Order No. R-13457A
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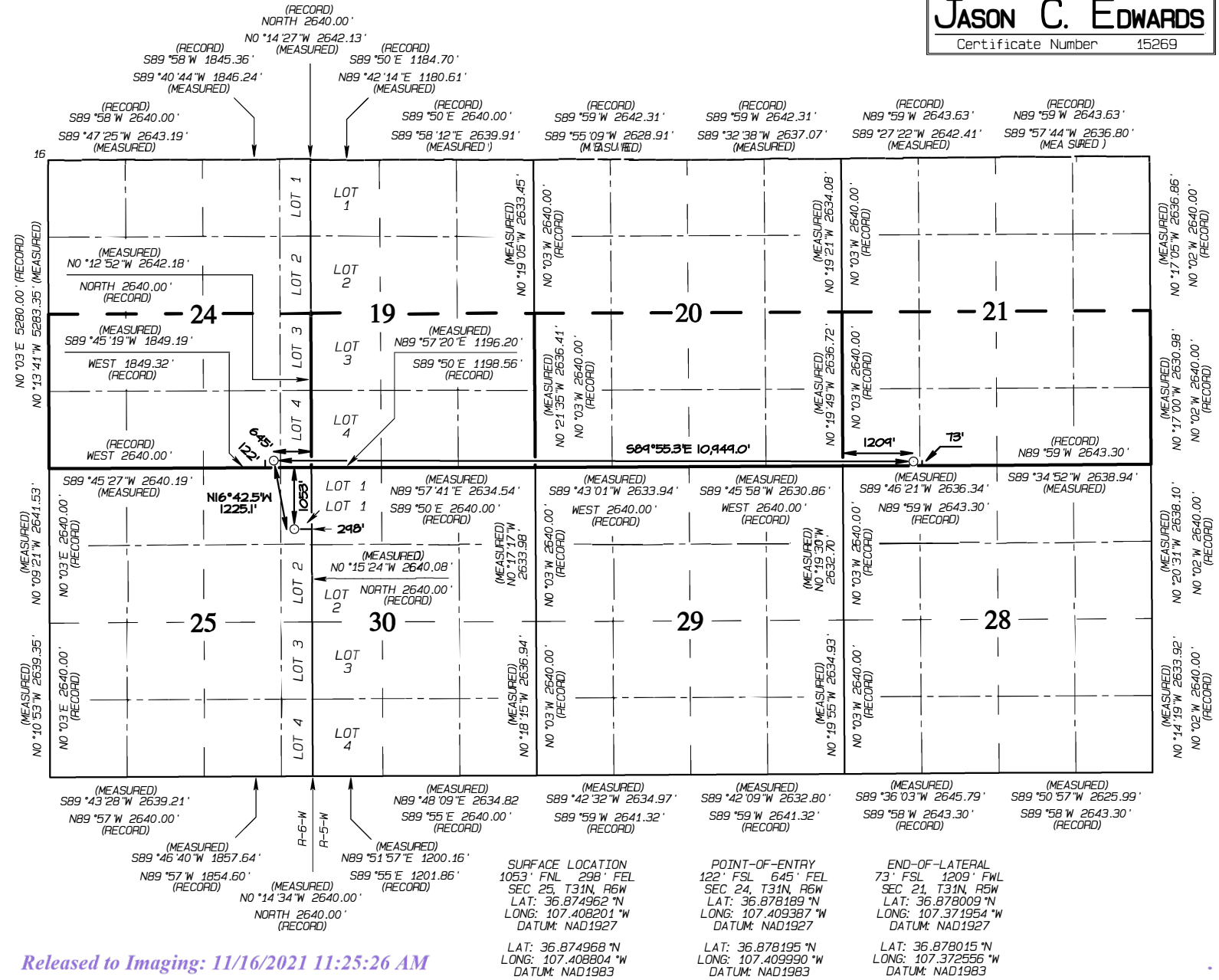
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

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 organized 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 8/10/2021
 Signature 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: AUGUST 9, 2021
 Date of Survey: MARCH 15, 2019
 Signature and Seal of Professional Surveyor



JASON C. EDWARDS
 Certificate Number 15269





Logos Opersting LLC

Rio Arriba, NM NAD83

Rosa Unit 29

Rosa Unit #654H - Slot A2 (654H)

ST2

Design: ST2

Standard Survey Report

16 July, 2021



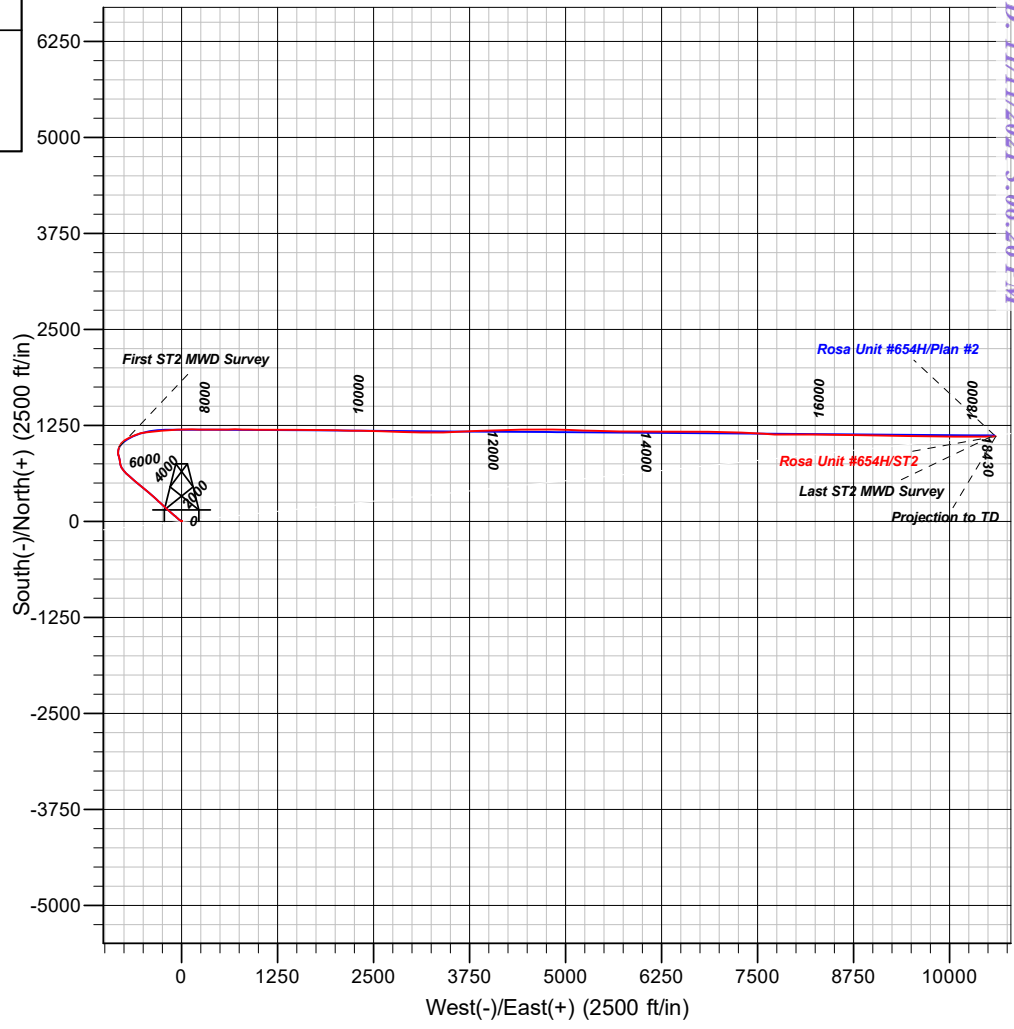
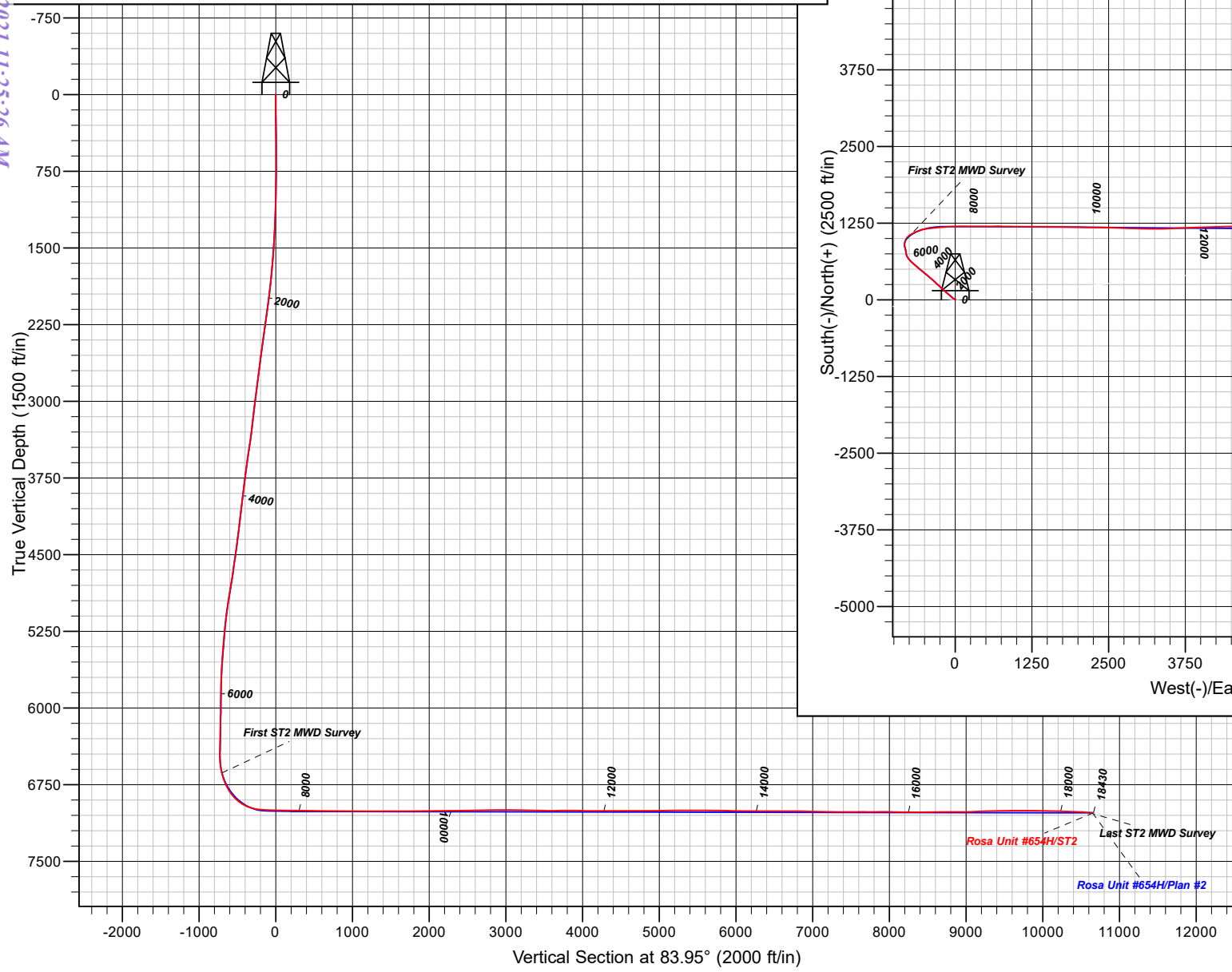


Company Name: Logos Operating LLC
 Project: Rio Arriba, NM NAD83
 Site: Rosa Unit 29
 Well: Rosa Unit #654H
 Wellbore: ST2



WELL DETAILS: Rosa Unit #654H

+NESW	Northing	GL 6372' & RKB 25' @ 6397.00ft	6372.00	Longitude	
0.00.00	2138089.14	Easting	2847260.68	Latitude	36.8749680
					-107.4088040
					A2 (654H)



Design: ST2 (Rosa Unit #654H/ST2)
Created By: Janie Collins Date: 11:10, July 16 2021
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



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #654H - Slot A2 (654H)
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Site:	Rosa Unit 29	MD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Well:	Rosa Unit #654H	North Reference:	True
Wellbore:	ST2	Survey Calculation Method:	Minimum Curvature
Design:	ST2	Database:	EDM_16.0

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 29				
Site Position:		Northing:	2,138,126.53 usft	Latitude:	36.8750715
From:	Map	Easting:	2,847,195.58 usft	Longitude:	-107.4090261
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in		

Well	Rosa Unit #654H - Slot A2 (654H)					
Well Position	+N/-S	0.00 ft	Northing:	2,138,089.14 usft	Latitude:	36.8749680
	+E/-W	0.00 ft	Easting:	2,847,260.69 usft	Longitude:	-107.4088040
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	6,372.00 ft
Grid Convergence:		0.25 °				

Wellbore	ST2				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM2021_FILE	6/27/2021	8.67	63.37	49,671.70000000

Design	ST2				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	6,760.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	83.95	

Survey Program	Date	7/16/2021			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
359.00	5,101.00	Survey #1 - Surface MWD Survey (OH)	MWD+HDGM	OWSG MWD + HDGM	
5,279.00	6,760.00	Survey #1 - MWD Survey (ST1)	MWD+HDGM	OWSG MWD + HDGM	
6,808.00	18,430.00	Survey #1 - MWD Survey (ST2)	MWD+HDGM	OWSG MWD + HDGM	

Survey										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
359.00	1.62	13.80	358.95	4.93	1.21	1.72	0.45	0.45	0.00	
454.00	1.89	14.51	453.91	7.75	1.92	2.73	0.29	0.28	0.75	
549.00	1.01	36.92	548.88	9.94	2.82	3.85	1.09	-0.93	23.59	
645.00	0.66	190.55	644.87	10.07	3.23	4.27	1.70	-0.36	160.03	
740.00	1.32	206.65	739.86	8.55	2.63	3.52	0.75	0.69	16.95	
836.00	1.10	234.23	835.84	7.03	1.39	2.12	0.64	-0.23	28.73	
931.00	0.83	204.88	930.82	5.87	0.36	0.98	0.58	-0.28	-30.89	



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #654H - Slot A2 (654H)
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Site:	Rosa Unit 29	MD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Well:	Rosa Unit #654H	North Reference:	True
Wellbore:	ST2	Survey Calculation Method:	Minimum Curvature
Design:	ST2	Database:	EDM_16.0

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)	
1,026.00	1.67	265.61	1,025.80	5.14	-1.31	-0.76	1.53	0.88	63.93	
1,121.00	2.68	294.08	1,120.74	5.94	-4.72	-4.06	1.53	1.06	29.97	
1,217.00	3.60	300.50	1,216.59	8.38	-9.36	-8.43	1.02	0.96	6.69	
1,312.00	4.97	301.56	1,311.32	12.05	-15.44	-14.08	1.44	1.44	1.12	
1,407.00	6.37	305.25	1,405.86	17.25	-23.25	-21.30	1.52	1.47	3.88	
1,502.00	7.47	306.48	1,500.16	23.96	-32.52	-29.81	1.17	1.16	1.29	
1,597.00	8.39	310.87	1,594.26	32.17	-42.73	-39.10	1.16	0.97	4.62	
1,692.00	9.67	313.32	1,688.08	42.18	-53.77	-49.03	1.41	1.35	2.58	
1,788.00	10.81	313.77	1,782.55	53.94	-66.14	-60.09	1.19	1.19	0.47	
1,883.00	12.35	312.72	1,875.61	66.99	-80.04	-72.53	1.64	1.62	-1.11	
1,978.00	13.71	309.38	1,968.16	81.03	-96.20	-87.13	1.64	1.43	-3.52	
2,073.00	15.16	309.72	2,060.16	96.11	-114.46	-103.69	1.53	1.53	0.36	
2,169.00	15.42	311.05	2,152.76	112.51	-133.74	-121.14	0.45	0.27	1.39	
2,263.00	15.29	310.87	2,243.41	128.83	-152.54	-138.11	0.15	-0.14	-0.19	
2,359.00	15.21	312.19	2,336.03	145.57	-171.44	-155.14	0.37	-0.08	1.38	
2,454.00	14.85	312.37	2,427.78	162.14	-189.67	-171.52	0.38	-0.38	0.19	
2,549.00	14.81	312.45	2,519.61	178.54	-207.62	-187.65	0.05	-0.04	0.08	
2,645.00	14.77	312.19	2,612.43	195.04	-225.74	-203.93	0.08	-0.04	-0.27	
2,740.00	14.99	312.63	2,704.25	211.50	-243.75	-220.10	0.26	0.23	0.46	
2,836.00	14.85	312.37	2,797.01	228.19	-261.98	-236.47	0.16	-0.15	-0.27	
2,930.00	14.85	313.25	2,887.87	244.57	-279.65	-252.32	0.24	0.00	0.94	
3,024.00	14.28	312.19	2,978.85	260.61	-297.01	-267.89	0.67	-0.61	-1.13	
3,119.00	13.62	313.51	3,071.05	276.17	-313.81	-282.95	0.77	-0.69	1.39	
3,213.00	13.32	313.25	3,162.46	291.21	-329.72	-297.19	0.33	-0.32	-0.28	
3,308.00	13.32	312.01	3,254.91	306.04	-345.82	-311.64	0.30	0.00	-1.31	
3,403.00	14.46	310.96	3,347.13	321.14	-362.91	-327.04	1.23	1.20	-1.11	
3,497.00	15.60	310.87	3,437.91	337.10	-381.33	-343.68	1.21	1.21	-0.10	
3,591.00	15.78	309.73	3,528.41	353.54	-400.72	-361.23	0.38	0.19	-1.21	
3,685.00	15.29	310.43	3,618.97	369.75	-419.98	-378.67	0.56	-0.52	0.74	
3,780.00	14.85	309.47	3,710.71	385.61	-438.92	-395.83	0.53	-0.46	-1.01	
3,875.00	13.36	309.99	3,802.84	400.40	-456.72	-411.98	1.57	-1.57	0.55	
3,969.00	12.39	309.91	3,894.47	413.85	-472.78	-426.53	1.03	-1.03	-0.09	
4,064.00	11.82	309.38	3,987.36	426.56	-488.12	-440.44	0.61	-0.60	-0.56	
4,158.00	12.26	307.44	4,079.29	438.74	-503.48	-454.44	0.64	0.47	-2.06	
4,252.00	13.18	307.71	4,170.99	451.36	-519.89	-469.42	0.98	0.98	0.29	
4,346.00	13.23	311.49	4,262.50	465.04	-536.42	-484.42	0.92	0.05	4.02	
4,441.00	13.93	311.22	4,354.85	479.78	-553.17	-499.52	0.74	0.74	-0.28	
4,535.00	15.69	311.14	4,445.72	495.60	-571.25	-515.84	1.87	1.87	-0.09	
4,629.00	16.04	312.10	4,536.14	512.67	-590.46	-533.14	0.47	0.37	1.02	
4,724.00	14.99	309.64	4,627.68	529.31	-609.66	-550.48	1.30	-1.11	-2.59	
4,818.00	15.25	309.64	4,718.42	544.95	-628.54	-567.60	0.28	0.28	0.00	
4,912.00	17.09	309.11	4,808.70	561.55	-648.78	-585.98	1.96	1.96	-0.56	
5,007.00	18.28	310.96	4,899.21	580.12	-670.86	-605.98	1.39	1.25	1.95	



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Site:	Rosa Unit 29	MD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Well:	Rosa Unit #654H	North Reference:	True
Wellbore:	ST2	Survey Calculation Method:	Minimum Curvature
Design:	ST2	Database:	EDM_16.0

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)	
5,101.00	17.84	310.78	4,988.58	599.19	-692.90	-625.89	0.47	-0.47	-0.19	
5,279.00	13.45	318.43	5,159.96	632.51	-727.30	-656.59	2.72	-2.47	4.30	
5,373.00	10.63	319.13	5,251.88	647.25	-740.23	-667.89	3.00	-3.00	0.74	
5,468.00	11.12	318.61	5,345.18	660.75	-752.02	-678.19	0.53	0.52	-0.55	
5,562.00	11.73	321.33	5,437.31	675.01	-763.99	-688.59	0.87	0.65	2.89	
5,656.00	12.35	326.60	5,529.25	690.86	-775.49	-698.36	1.34	0.66	5.61	
5,751.00	12.74	333.28	5,621.99	708.70	-785.79	-706.72	1.58	0.41	7.03	
5,845.00	14.19	342.95	5,713.41	728.97	-793.83	-712.58	2.84	1.54	10.29	
5,940.00	15.50	352.00	5,805.25	752.68	-799.02	-715.24	2.80	1.38	9.53	
6,034.00	15.34	349.98	5,895.87	777.36	-802.93	-716.52	0.60	-0.17	-2.15	
6,129.00	14.37	350.16	5,987.69	801.35	-807.13	-718.17	1.02	-1.02	0.19	
6,223.00	12.26	348.67	6,079.16	822.64	-811.08	-719.86	2.27	-2.24	-1.59	
6,318.00	9.32	344.89	6,172.47	839.96	-815.07	-722.00	3.18	-3.09	-3.98	
6,412.00	6.77	340.93	6,265.54	852.54	-818.87	-724.45	2.77	-2.71	-4.21	
6,524.00	5.84	335.75	6,376.86	863.98	-823.36	-727.72	0.97	-0.83	-4.63	
6,620.00	20.79	355.96	6,470.05	885.56	-826.59	-728.65	16.08	15.57	21.05	
6,715.00	29.31	4.84	6,556.07	925.63	-825.81	-723.66	9.78	8.97	9.35	
6,760.00	29.99	21.32	6,595.24	947.12	-820.79	-716.39	18.14	1.51	36.63	
6,808.00	33.49	20.83	6,636.06	970.68	-811.71	-704.88	7.31	7.29	-1.03	
6,904.00	37.44	36.74	6,714.40	1,018.94	-784.77	-673.01	10.43	4.11	16.57	
6,999.00	40.12	57.21	6,788.76	1,058.83	-741.58	-625.85	13.74	2.82	21.55	
7,094.00	48.82	66.01	6,856.55	1,090.03	-683.01	-564.33	11.21	9.16	9.26	
7,190.00	60.95	65.39	6,911.67	1,122.32	-611.59	-489.90	12.65	12.64	-0.65	
7,285.00	67.68	76.20	6,952.92	1,150.19	-530.88	-406.70	12.45	7.08	11.38	
7,380.00	78.66	83.24	6,980.41	1,166.22	-441.58	-316.21	13.55	11.56	7.41	
7,476.00	85.86	86.22	6,993.34	1,174.93	-346.93	-221.16	8.11	7.50	3.10	
7,570.00	88.64	85.87	6,997.85	1,181.41	-253.27	-127.34	2.98	2.96	-0.37	
7,666.00	88.02	86.05	7,000.65	1,188.17	-157.55	-31.44	0.67	-0.65	0.19	
7,761.00	89.25	87.54	7,002.91	1,193.48	-62.73	63.41	2.03	1.29	1.57	
7,856.00	89.17	86.58	7,004.22	1,198.35	32.13	158.26	1.01	-0.08	-1.01	
7,952.00	90.31	90.71	7,004.65	1,200.62	128.08	253.91	4.46	1.19	4.30	
8,047.00	89.69	91.85	7,004.65	1,198.49	223.06	348.13	1.37	-0.65	1.20	
8,143.00	89.65	90.18	7,005.21	1,196.79	319.04	443.40	1.74	-0.04	-1.74	
8,238.00	89.34	90.00	7,006.04	1,196.65	414.03	537.85	0.38	-0.33	-0.19	
8,334.00	89.17	89.21	7,007.29	1,197.31	510.02	633.37	0.84	-0.18	-0.82	
8,429.00	89.03	89.30	7,008.78	1,198.54	605.00	727.96	0.18	-0.15	0.09	
8,520.00	88.99	89.79	7,010.36	1,199.26	695.99	818.51	0.54	-0.04	0.54	
8,615.00	89.56	91.11	7,011.56	1,198.52	790.97	912.89	1.51	0.60	1.39	
8,709.00	90.83	91.02	7,011.24	1,196.77	884.95	1,006.16	1.35	1.35	-0.10	
8,804.00	90.70	90.06	7,009.97	1,195.88	979.94	1,100.52	1.02	-0.14	-1.01	
8,898.00	90.35	90.23	7,009.11	1,195.64	1,073.94	1,193.97	0.41	-0.37	0.18	
8,993.00	89.87	90.14	7,008.93	1,195.33	1,168.94	1,288.41	0.51	-0.51	-0.09	
9,087.00	89.21	90.94	7,009.68	1,194.45	1,262.93	1,381.78	1.10	-0.70	0.85	
9,182.00	88.77	90.12	7,011.36	1,193.57	1,357.91	1,476.14	0.98	-0.46	-0.86	



Survey Report



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #654H - Slot A2 (654H)
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Site:	Rosa Unit 29	MD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Well:	Rosa Unit #654H	North Reference:	True
Wellbore:	ST2	Survey Calculation Method:	Minimum Curvature
Design:	ST2	Database:	EDM_16.0

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)
9,275.00	90.53	89.62	7,011.92	1,193.78	1,450.90	1,568.64	1.97	1.89	-0.54
9,370.00	89.38	91.20	7,012.00	1,193.10	1,545.89	1,663.03	2.06	-1.21	1.66
9,464.00	91.14	89.79	7,011.57	1,192.29	1,639.88	1,756.41	2.40	1.87	-1.50
9,559.00	91.19	90.76	7,009.64	1,191.83	1,734.86	1,850.81	1.02	0.05	1.02
9,653.00	90.66	91.11	7,008.12	1,190.30	1,828.84	1,944.10	0.68	-0.56	0.37
9,748.00	90.70	90.76	7,007.00	1,188.75	1,923.82	2,038.39	0.37	0.04	-0.37
9,842.00	90.22	90.67	7,006.24	1,187.57	2,017.81	2,131.73	0.52	-0.51	-0.10
9,936.00	89.38	92.08	7,006.57	1,185.32	2,111.78	2,224.94	1.75	-0.89	1.50
10,031.00	91.05	90.41	7,006.21	1,183.25	2,206.75	2,319.17	2.49	1.76	-1.76
10,125.00	91.14	90.50	7,004.42	1,182.51	2,300.73	2,412.54	0.14	0.10	0.10
10,218.00	90.79	91.90	7,002.85	1,180.56	2,393.69	2,504.78	1.55	-0.38	1.51
10,313.00	90.66	91.81	7,001.65	1,177.49	2,488.63	2,598.87	0.17	-0.14	-0.09
10,407.00	90.48	91.81	7,000.71	1,174.52	2,582.58	2,691.99	0.19	-0.19	0.00
10,501.00	91.01	90.94	6,999.49	1,172.26	2,676.54	2,785.19	1.08	0.56	-0.93
10,596.00	90.40	91.38	6,998.32	1,170.34	2,771.52	2,879.43	0.79	-0.64	0.46
10,690.00	89.87	92.08	6,998.10	1,167.50	2,865.47	2,972.56	0.93	-0.56	0.74
10,785.00	89.74	92.08	6,998.42	1,164.05	2,960.41	3,066.61	0.14	-0.14	0.00
10,880.00	89.08	92.25	6,999.40	1,160.46	3,055.34	3,160.63	0.72	-0.69	0.18
10,976.00	89.25	89.88	7,000.80	1,158.68	3,151.30	3,255.87	2.47	0.18	-2.47
11,071.00	89.43	89.00	7,001.90	1,159.61	3,246.29	3,350.43	0.95	0.19	-0.93
11,166.00	88.51	90.67	7,003.60	1,159.88	3,341.27	3,444.91	2.01	-0.97	1.76
11,261.00	89.34	88.83	7,005.39	1,160.30	3,436.25	3,539.40	2.12	0.87	-1.94
11,356.00	91.19	86.72	7,004.95	1,163.98	3,531.17	3,634.18	2.95	1.95	-2.22
11,450.00	90.26	87.42	7,003.76	1,168.79	3,625.03	3,728.03	1.24	-0.99	0.74
11,544.00	90.04	86.63	7,003.51	1,173.67	3,718.91	3,821.89	0.87	-0.23	-0.84
11,639.00	89.34	88.12	7,004.02	1,178.02	3,813.80	3,916.72	1.73	-0.74	1.57
11,734.00	88.42	87.60	7,005.88	1,181.56	3,908.72	4,011.48	1.11	-0.97	-0.55
11,828.00	90.70	87.60	7,006.60	1,185.50	4,002.62	4,105.28	2.43	2.43	0.00
11,923.00	89.96	89.09	7,006.06	1,188.24	4,097.58	4,199.99	1.75	-0.78	1.57
12,017.00	89.47	88.56	7,006.52	1,190.17	4,191.56	4,293.65	0.77	-0.52	-0.56
12,112.00	89.12	87.42	7,007.69	1,193.50	4,286.49	4,388.41	1.26	-0.37	-1.20
12,206.00	90.79	89.53	7,007.77	1,196.00	4,380.45	4,482.11	2.86	1.78	2.24
12,301.00	90.48	89.62	7,006.71	1,196.71	4,475.44	4,576.64	0.34	-0.33	0.09
12,391.00	90.79	88.91	7,005.72	1,197.86	4,565.43	4,666.25	0.86	0.34	-0.79
12,485.00	89.96	90.41	7,005.10	1,198.42	4,659.42	4,759.78	1.82	-0.88	1.60
12,581.00	89.91	88.91	7,005.21	1,198.99	4,755.42	4,855.30	1.56	-0.05	-1.56
12,675.00	90.04	92.08	7,005.25	1,198.18	4,849.40	4,948.67	3.38	0.14	3.37
12,770.00	90.13	90.32	7,005.11	1,196.19	4,944.38	5,042.91	1.86	0.09	-1.85
12,864.00	90.66	93.48	7,004.46	1,193.07	5,038.31	5,135.99	3.41	0.56	3.36
12,959.00	90.79	91.90	7,003.26	1,188.62	5,133.19	5,229.88	1.67	0.14	-1.66
13,053.00	90.31	92.52	7,002.36	1,184.99	5,227.12	5,322.90	0.83	-0.51	0.66
13,148.00	90.18	91.55	7,001.95	1,181.62	5,322.06	5,416.95	1.03	-0.14	-1.02
13,242.00	89.78	91.20	7,001.98	1,179.36	5,416.03	5,510.16	0.57	-0.43	-0.37



Survey Report



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #654H - Slot A2 (654H)
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Site:	Rosa Unit 29	MD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Well:	Rosa Unit #654H	North Reference:	True
Wellbore:	ST2	Survey Calculation Method:	Minimum Curvature
Design:	ST2	Database:	EDM_16.0

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)	
13,337.00	89.30	91.38	7,002.75	1,177.22	5,511.00	5,604.38	0.54	-0.51	0.19	
13,431.00	89.65	91.20	7,003.61	1,175.11	5,604.97	5,697.61	0.42	0.37	-0.19	
13,526.00	89.43	90.32	7,004.37	1,173.85	5,699.96	5,791.93	0.95	-0.23	-0.93	
13,621.00	89.17	91.02	7,005.53	1,172.74	5,794.95	5,886.27	0.79	-0.27	0.74	
13,717.00	88.73	90.85	7,007.29	1,171.17	5,890.92	5,981.54	0.49	-0.46	-0.18	
13,811.00	90.18	89.71	7,008.18	1,170.71	5,984.91	6,074.96	1.96	1.54	-1.21	
13,905.00	89.87	89.00	7,008.14	1,171.77	6,078.90	6,168.54	0.82	-0.33	-0.76	
14,001.00	88.99	89.71	7,009.10	1,172.85	6,174.89	6,264.11	1.18	-0.92	0.74	
14,096.00	90.04	90.85	7,009.90	1,172.39	6,269.88	6,358.53	1.63	1.11	1.20	
14,191.00	89.65	90.67	7,010.16	1,171.13	6,364.87	6,452.86	0.45	-0.41	-0.19	
14,287.00	90.57	90.58	7,009.98	1,170.08	6,460.87	6,548.20	0.96	0.96	-0.09	
14,382.00	89.78	90.23	7,009.69	1,169.41	6,555.86	6,642.60	0.91	-0.83	-0.37	
14,477.00	89.78	90.23	7,010.05	1,169.03	6,650.86	6,737.03	0.00	0.00	0.00	
14,573.00	89.43	90.67	7,010.71	1,168.27	6,746.86	6,832.41	0.59	-0.36	0.46	
14,694.00	89.65	88.56	7,011.68	1,169.08	6,867.84	6,952.81	1.75	0.18	-1.74	
14,790.00	88.90	91.20	7,012.90	1,169.29	6,963.83	7,048.28	2.86	-0.78	2.75	
14,885.00	87.89	92.87	7,015.56	1,165.91	7,058.72	7,142.29	2.05	-1.06	1.76	
14,980.00	90.00	91.81	7,017.31	1,162.04	7,153.62	7,236.25	2.49	2.22	-1.12	
15,075.00	90.00	91.81	7,017.31	1,159.04	7,248.57	7,330.36	0.00	0.00	0.00	
15,170.00	89.17	92.17	7,018.00	1,155.74	7,343.51	7,424.42	0.95	-0.87	0.38	
15,265.00	90.83	93.40	7,018.00	1,151.12	7,438.40	7,518.29	2.17	1.75	1.29	
15,360.00	90.48	93.75	7,016.91	1,145.20	7,533.20	7,611.95	0.52	-0.37	0.37	
15,456.00	89.25	94.63	7,017.14	1,138.18	7,628.95	7,706.41	1.58	-1.28	0.92	
15,550.00	90.57	90.67	7,017.28	1,133.84	7,722.82	7,799.31	4.44	1.40	-4.21	
15,645.00	90.44	89.71	7,016.45	1,133.52	7,817.82	7,893.74	1.02	-0.14	-1.01	
15,739.00	89.69	90.14	7,016.34	1,133.65	7,911.82	7,987.23	0.92	-0.80	0.46	
15,834.00	89.21	89.97	7,017.25	1,133.56	8,006.81	8,081.69	0.54	-0.51	-0.18	
15,928.00	88.95	89.71	7,018.76	1,133.82	8,100.80	8,175.18	0.39	-0.28	-0.28	
16,023.00	89.78	91.02	7,019.81	1,133.21	8,195.79	8,269.58	1.63	0.87	1.38	
16,119.00	89.60	90.67	7,020.33	1,131.80	8,291.78	8,364.88	0.41	-0.19	-0.36	
16,214.00	90.83	90.32	7,019.98	1,130.98	8,386.77	8,459.26	1.35	1.29	-0.37	
16,309.00	90.83	91.11	7,018.60	1,129.79	8,481.75	8,553.59	0.83	0.00	0.83	
16,392.00	90.40	90.90	7,017.71	1,128.34	8,564.74	8,635.95	0.58	-0.52	-0.25	
16,487.00	90.22	91.02	7,017.20	1,126.74	8,659.72	8,730.24	0.23	-0.19	0.13	
16,581.00	89.77	90.73	7,017.20	1,125.31	8,753.71	8,823.56	0.57	-0.48	-0.31	
16,675.00	89.43	90.83	7,017.86	1,124.03	8,847.70	8,916.89	0.38	-0.36	0.11	
16,770.00	91.81	91.14	7,016.83	1,122.40	8,942.67	9,011.16	2.53	2.51	0.33	
16,865.00	91.84	91.14	7,013.81	1,120.51	9,037.60	9,105.36	0.03	0.03	0.00	
16,960.00	91.61	91.00	7,010.95	1,118.73	9,132.54	9,199.59	0.28	-0.24	-0.15	
17,054.00	91.21	91.07	7,008.64	1,117.04	9,226.50	9,292.84	0.43	-0.43	0.07	
17,148.00	90.70	91.09	7,007.07	1,115.26	9,320.47	9,386.10	0.54	-0.54	0.02	
17,243.00	90.87	90.97	7,005.77	1,113.56	9,415.45	9,480.37	0.22	0.18	-0.13	
17,337.00	90.27	90.96	7,004.83	1,111.97	9,509.43	9,573.66	0.64	-0.64	-0.01	



Lonestar Consulting
Survey Report



Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit #654H - Slot A2 (654H)
Project:	Rio Arriba, NM NAD83	TVD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Site:	Rosa Unit 29	MD Reference:	GL 6372' & RKB 25' @ 6397.00ft
Well:	Rosa Unit #654H	North Reference:	True
Wellbore:	ST2	Survey Calculation Method:	Minimum Curvature
Design:	ST2	Database:	EDM_16.0

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)
17,433.00	90.03	90.57	7,004.58	1,110.69	9,605.42	9,668.98	0.48	-0.25	-0.41
17,528.00	89.70	90.40	7,004.80	1,109.89	9,700.41	9,763.36	0.39	-0.35	-0.18
17,624.00	89.60	90.50	7,005.39	1,109.13	9,796.41	9,858.75	0.15	-0.10	0.10
17,718.00	89.33	90.69	7,006.27	1,108.16	9,890.40	9,952.11	0.35	-0.29	0.20
17,814.00	89.50	90.48	7,007.25	1,107.18	9,986.39	10,047.46	0.28	0.18	-0.22
17,909.00	89.06	90.41	7,008.44	1,106.44	10,081.38	10,141.84	0.47	-0.46	-0.07
18,004.00	88.62	90.50	7,010.37	1,105.69	10,176.36	10,236.21	0.47	-0.46	0.09
18,099.00	88.36	90.18	7,012.87	1,105.12	10,271.32	10,330.59	0.43	-0.27	-0.34
18,194.00	88.33	89.67	7,015.61	1,105.25	10,366.28	10,425.03	0.54	-0.03	-0.54
18,290.00	87.49	88.90	7,019.11	1,106.44	10,462.21	10,520.55	1.19	-0.88	-0.80
18,370.00	86.44	87.59	7,023.35	1,108.89	10,542.06	10,600.21	2.10	-1.31	-1.64
18,430.00	86.44	87.59	7,027.08	1,111.41	10,601.89	10,659.98	0.00	0.00	0.00

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,808.00	6,636.06	970.68	-811.71	First ST2 MWD Survey
18,370.00	7,023.35	1,108.89	10,542.06	Last ST2 MWD Survey
18,430.00	7,027.08	1,111.41	10,601.89	Projection to TD

Checked By: _____ Approved By: _____ Date: _____

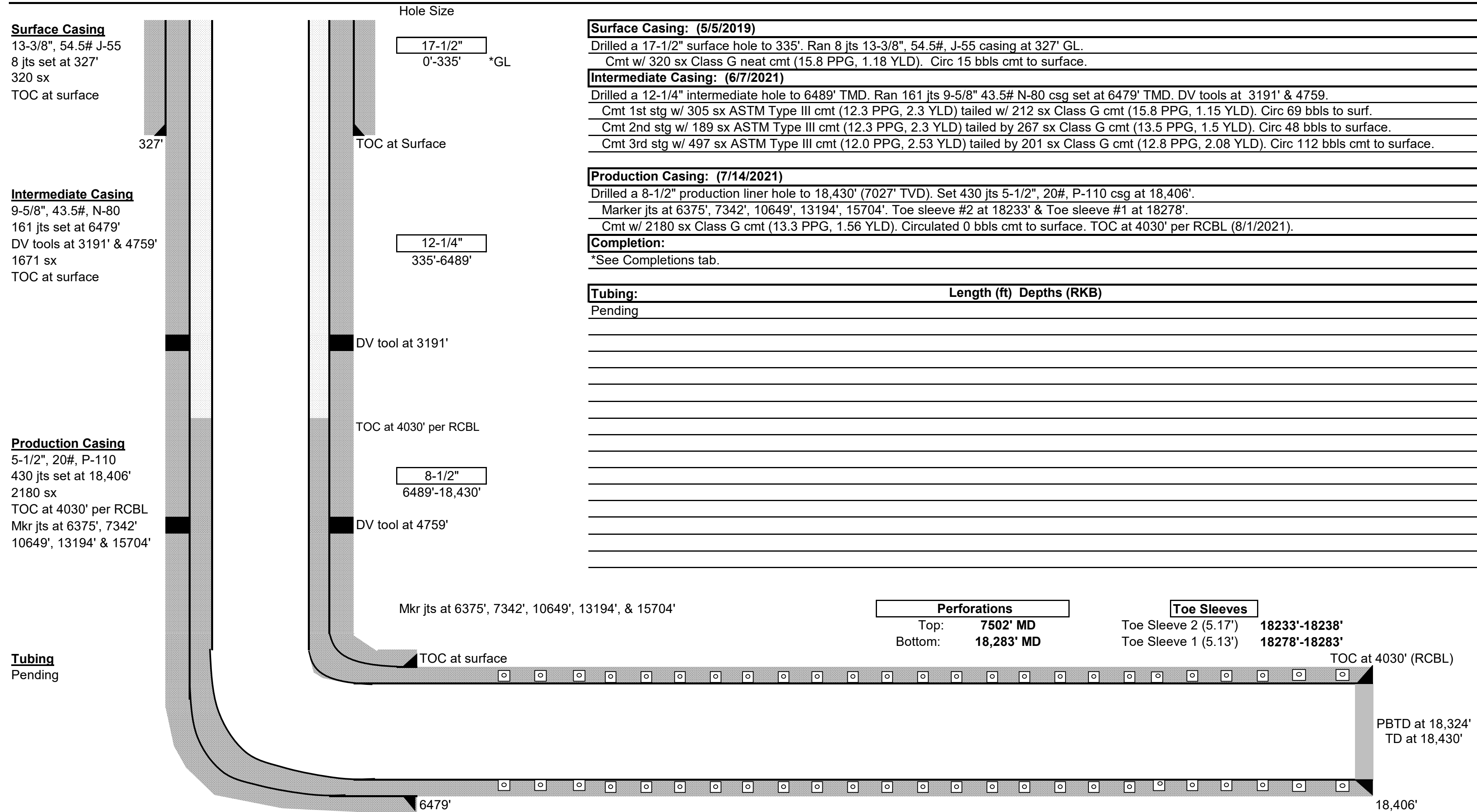


Well Name: Rosa Unit 654H
 Location: A - Sec 25, T31N, R06W, 1053' FNL, 298' FEL
 County: Rio Arriba
 API #: 30-039-31384
 Co-ordinates: 36.874968, -107.408804 NAD83
 Operator: Logos Operating, LLC

Wellbore Schematic

Ground Elevation: 6372'
 KB Elevation: 6397'
 TD (TVD): 7027'
 TD (MD): 18,430'
 PBTD: 18,324'

Prepared By: 8/2/2021 Moss
 Reviewed By:
 Last Updated: 9/8/2021 Moss
 Spud Date: 5/2/2019
 Completion Date: 8/1/2021
 Last Workover Date:



Formation Tops: (MD)			
Nacimiento	Surface	Chacra	4710'
Ojo Alamo	2528'	Cliff House	5545'
Kirtland	2644'	Menefee	5588'
Fruitland	3131'	Point Lookout	5828'
Pictured Cliffs	3478'	Mancos	6320'
Lewis	3591'		

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 61478

ACKNOWLEDGMENTS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 61478
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
<input checked="" type="checkbox"/>	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

District I
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS
 Action 61478

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 61478
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
plmartinez	None	11/16/2021