

Santa Fe Main Office Phone: (505) 476-3441 Fax: (55) 476-3462 General Information Phone: (505) 629-6116 Online Phone Directory Visit: https://www.emnrd.nm.gov/ocd/contact-us/	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	C-104 Revised July 9, 2024 Submit Electronically Via OCD Permitting
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REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT**Section 1 - Operator and Well Information**

Submittal Type: ☒ Test Allowable (C-104RT) ☐ New Well (C-104NW) ☐ Recomplete (C-104RC) ☐ Pay Add (C-104RC) ☐ Amended	
Operator Name: LOGOS OPERATING, LLC	OGRID: 289408
Property Name and Well Number: ROSA UNIT 704H	Property Code: 320608
Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal	API Number: 30-039-31442
Pool Name: BASIN MANCOS	Pool Code: 97232

Section 2 – Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
I	7	31N	5W		2592' FSL	1308' FEL	36.913904	-107.399208	Rio Arriba

Section 3 – Completion Information

Producing Method Flowing	Ready Date ~10/14/2024	Perforations MD ~7314' – 20,789'	Perforations TVD ~6949' – 6927'
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Section 4 – Action IDs for Submissions and Order Numbers

List Action IDs for Drilling Sundries	Was an Order required / needed (Y/N), if yes list Order number:
C-104 RT Action ID (if C-104NW):	Communitization Agreement ☒ Yes ☐ No, Order No. NMNM078407E
Surface Casing Action ID: 335999	Unit: ☒ Yes ☐ No, Order No. R-13457
Intermediate 1 Casing Action ID: 341686	Compulsory Pooling: ☐ Yes ☒ No, Order No.
Intermediate 2 Casing Action ID: 365434	Down Hole Commingling: ☐ Yes ☒ No, Order No.
Production Casing Action ID: 368576	Surface Commingling: ☐ Yes ☒ No, Order No.
All casing was pressure tested in accordance with NMAC ☒ Yes ☐ No	Non-standard Location: ☐ Yes ☒ No ☐ Common ownership Order No.
Liner 1 Action ID: N/A	Non-standard Proration: ☐ Yes ☒ No, Order No.
Casing was installed prior to OCD's Action ID system (Y/N): N	Simultaneous Dedication: ☐ Yes ☒ No, Order No.

Section 5 - Operator Signature and Certification

☒ I hereby certify that the required Water Use Report has been, or will be, submitted for this well's completion.	
☒ I hereby certify that the required Fracfocus disclosure has been, or will be, submitted for this well's completion.	
☒ 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.	
Name <i>Etta Trujillo</i>	
Title Regulatory Specialist II	Date 9/25/2024

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type	☐ Initial Submittal
			☐ Amended Report
		☒ As Drilled	

WELL LOCATION INFORMATION

API Number 30-039-31442	Pool Code 97232	Pool Name BASIN MANCOS
Property Code 320608	Property Name ROSA UNIT	Well Number 704H
OGRID No. 289408	Operator Name LOGOS OPERATING, LLC	Ground Level Elevation 6295'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL I	Section 7	Township 31N	Range 5W	Lot	Feet from N/S Line 2592' SOUTH	Feet from E/W Line 1308' EAST	Latitude 36.913904 °N	Longitude -107.399208 °W	County RIO ARriba
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Bottom Hole Location

UL G	Section 10	Township 31N	Range 5W	Lot	Feet from N/S Line 1992' NORTH	Feet from E/W Line 2616' EAST	Latitude 36.915750 °N	Longitude -107.349601 °W	County RIO ARriba
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Dedicated Acres 1191.86	Penetrated Spacing Unit: N/2 - Sections 7, 8, 9 & 10	Infill or Defining Well Infill	Defining Well API	Overlapping Spacing Unit ☐ Yes ☒ No	Consolidation Code Unitization
Order Numbers R-13457			Well setbacks are under Common Ownership: ☐ Yes ☒ No		

Kick Off Point (KOP)

UL H	Section 7	Township 31N	Range 5W	Lot	Feet from N/S Line 1974' NORTH	Feet from E/W Line 1033' EAST	Latitude 36.915837 °N	Longitude -107.398270 °W	County RIO ARriba
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First Take Point (FTP)

UL H	Section 7	Township 31N	Range 5W	Lot	Feet from N/S Line 1934' NORTH	Feet from E/W Line 483' EAST	Latitude 36.915944 °N	Longitude -107.396392 °W	County RIO ARriba
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Last Take Point (LTP)

UL F	Section 10	Township 31N	Range 5W	Lot	Feet from N/S Line 2004' NORTH	Feet from E/W Line 2446' WEST	Latitude 36.915718 °N	Longitude -107.350311 °W	County RIO ARriba
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Unitized Area or Area of Uniform Interest ROSA UNIT	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation
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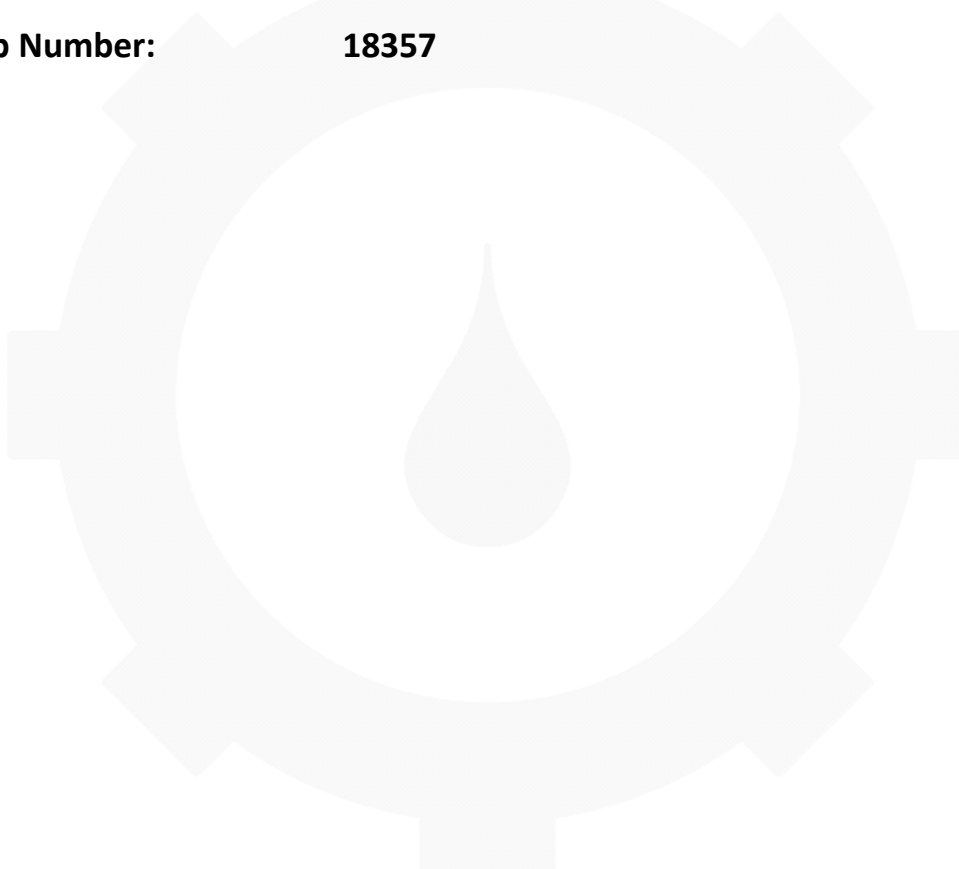
OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division. <u>Etta Trujillo</u> Signature 9/10/2024 Date Etta Trujillo Printed Name etrujillo@logosresourcesllc.com E-mail Address	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.  JASON C. EDWARDS Signature and Seal of Professional Surveyor Certificate Number 15269 Date of Survey NOVEMBER 15, 2021
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**Innovative Drilling Solutions
Data-Driven Decision**

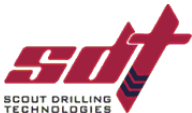


Well Name: Rosa Unit 704H
API Number: 3003931442
County: Rio Arriba County, NM
Scout Job Number: 18357



**Scout Drilling Technologies
1125 Beach Airport Road, Conroe, Texas 77301
Office: 936-756-3210
www.scoutdrilltech.com**

Well Summary

		Rosa Unit 704H - OH - Well Summary			
Job #	18357	Operator	Logos Operating LLC		
API Job# / AFE	/20*240105	Field	Rio Arriba, NM (NAD83) - Logos Operating LLC		
Rig	HP 530	Well	Rosa Unit 704H		
County	Rio Arriba	State	New Mexico		
Latitude	36° 54' 50.054" N	Longitude	107° 23' 57.149" W		
Start Date	04/10/2024	Start Depth(Usft)	0.00		
End Date	07/21/2024	End Depth(Usft)	20997.00		
Total Days	19	Total Drilled (Usft)	20997.00		
Cost per day	13735.53	Cost per (Usft)	12.43		
Curve Lndg MD / TVD	20997.00 / 0.00	Formation			
Curve Planned DLS	9.10	Lateral Dip	89.99		

BHA Summary											
BHA #	Bit #	Hole Size (in)	Start (Usft)	End (Usft)	Drilled (Usft)	Avg ROP (Usft/hr)	Slide %	Drig Hrs	Circ Hrs	BRT Hrs	Failed
1	1	26.000	0.00	367.00	367.00	35.06	0.00	10.47	0.98	0.00	
2	2	17.500	367.00	3458.00	3091.00	53.46	17.79	57.82	3.47	79.25	
3	3	12.250	3458.00	5849.00	2391.00	107.38	15.14	22.27	4.05	47.50	
4	3RR	12.250	5849.00	6323.00	474.00	73.68	0.00	6.43	5.78	24.00	
5	5	8.500	6323.00	20997.00	14674.00	195.35	6.64	75.12	12.83	0.00	

Bit Run Record										
Bit #	Make	Model	Size (in)	Grade In	Grade Out	TFA	Drilled	Drig Hrs	ROP	
1	NOV	TK95	26.000	0-0-NO-A-X-I-NO-TD		0.785	367.00	10.47	35.06	
2	Baker Hughes	DD507SX	17.500	New	2-2-CT-A-X-I-LT-TD	1.503	3091.00	57.82	53.46	
3	Baker Hughes	D506VTX	12.250	New	1-1-WT-A-X-I-NO-BHA	1.178	2391.00	22.27	107.38	
3RR	Baker Hughes	D506VTX	12.250	1-1-WT-A-X-I-NO-BHA	1-1-WT-A-X-I-NO-TD	1.178	474.00	6.43	73.68	
5	Baker Hughes	DD406TS	8.500	New	2-2-CT-T-X-I-WT-TD	0.994	14674.00	75.12	195.35	

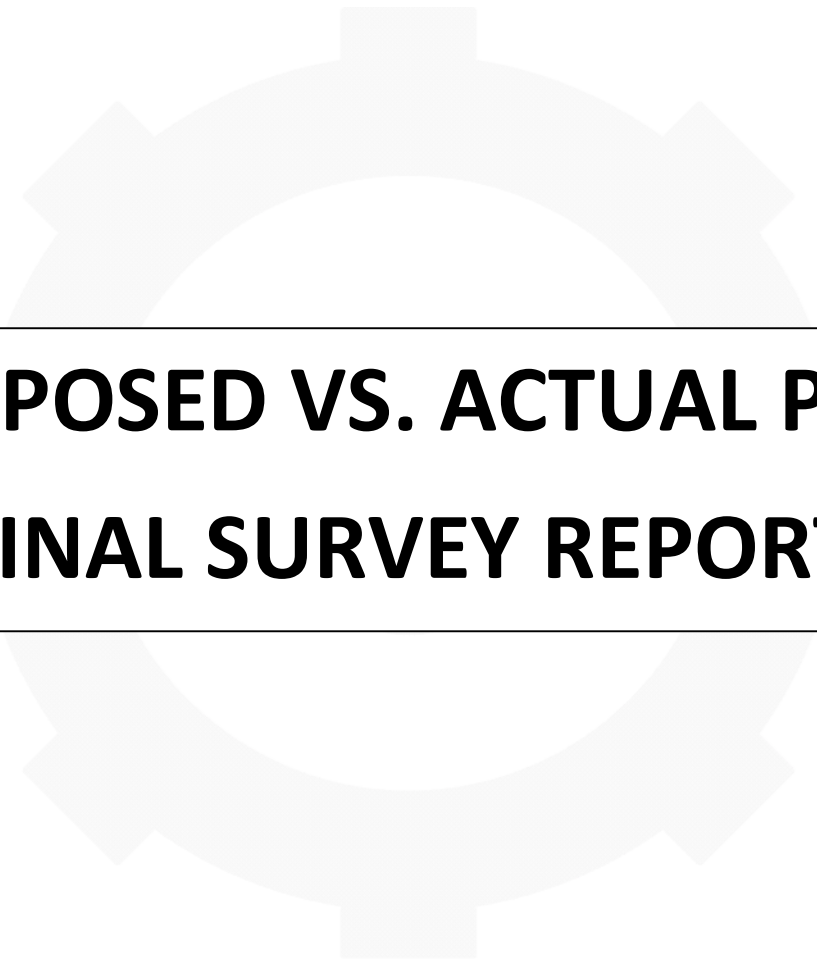
Motor Summary									
BHA #	Make	Model	Lobes	Stages	OD (in)	Bend	Bit to Bend	Drilled (Usft)	ROP (Usft/hr)
1	Scout	Turbo Scout	7/8	3.9	9.620	0.00	0.00	367.00	35.06
2	Scout	Turbo Scout	7/8	3.9	9.620	2.12	6.93	3091.00	53.46
3	Scout	Combo	7/8	5.9	8.000	2.12	8.72	2391.00	107.38
4			7/8	5.9	9.620	2.12	8.72	474.00	73.68
5			5/6	9.6	7.120	1.75	4.18	14674.00	195.35

Personnel Summary							
Day DD	Night DD	Day MWD	Night MWD	Day Co Man	Night CO Man	Drilling Eng	
Martin Leafstedt	Chris Hite	JC Slaton	JC Slaton	Andrew Balties	John Holland	Ryan Haddow	
Will Drake	Marc Keim	Tyler Sjogren	Marlin Martin	Andrew Balties	Ryan Buford		
	Will Drake		Theron Burks	Ryan Buford			
			Tyler Sjogren				

Phase Summary							
Phase	Days	Drilled (Usft)	Avg ROP (Usft/hr)	NPT (Rig/Dir)	# BHA's	Drig Hrs	
SURFACE: SURFACE	1.84	367.00	35.06	7.55 / 0.00	1	10.47	
INT-1: INTERMEDIATE 1	4.83	3091.00	47.32	12.00 / 0.00	1	65.32	
INT-2: INTERMEDIATE 2	4.00	2865.00	99.83		2	28.70	
CRVLAT: CURVE/LATERAL	6.00	14674.00	195.35	15.92 / 0.00	1	75.12	
STBY: STANDBY	2.32			2.00 / 0.00			
Total	19.00	20997.00	116.91	37.47 / 0.00	5	179.60	

Phase Summary - Per BHA											
Phase / BHA	From (Usft)	To(Usft)	Rot ROP	Rot Dist	Slide ROP	Slide Dist	Slide %	Tot Drill	Avg ROP	Tot Hrs	Slide Hrs
SURFACE: SURFACE-BHA#1 (Surface)	0.00	367.00	35.06	367.00	0.00	0.00	0.00	367.00	35.06	10.47	0.00
INT-1: INTERMEDIATE 1-BHA02 (Intermediate 1)	367.00	3458.00	59.46	2541.00	36.46	550.00	17.79	3091.00	53.46	57.82	15.08
INT-2: INTERMEDIATE 2-BHA3 (Intermediate 2)	3458.00	5849.00	116.83	2029.00	73.88	362.00	15.14	2391.00	107.38	22.27	4.90
INT-2: INTERMEDIATE 2-BHA4 (Intermediate 2)	5849.00	6323.00	73.68	474.00	0.00	0.00	0.00	474.00	73.68	6.43	0.00
CRVLAT: CURVE/LATERAL-BHA5 (Curve-Lateral)	6323.00	20997.00	220.30	13699.00	75.39	975.00	6.64	14674.00	195.35	75.12	12.93

**Innovative Drilling Solutions
Data-Driven Decision**

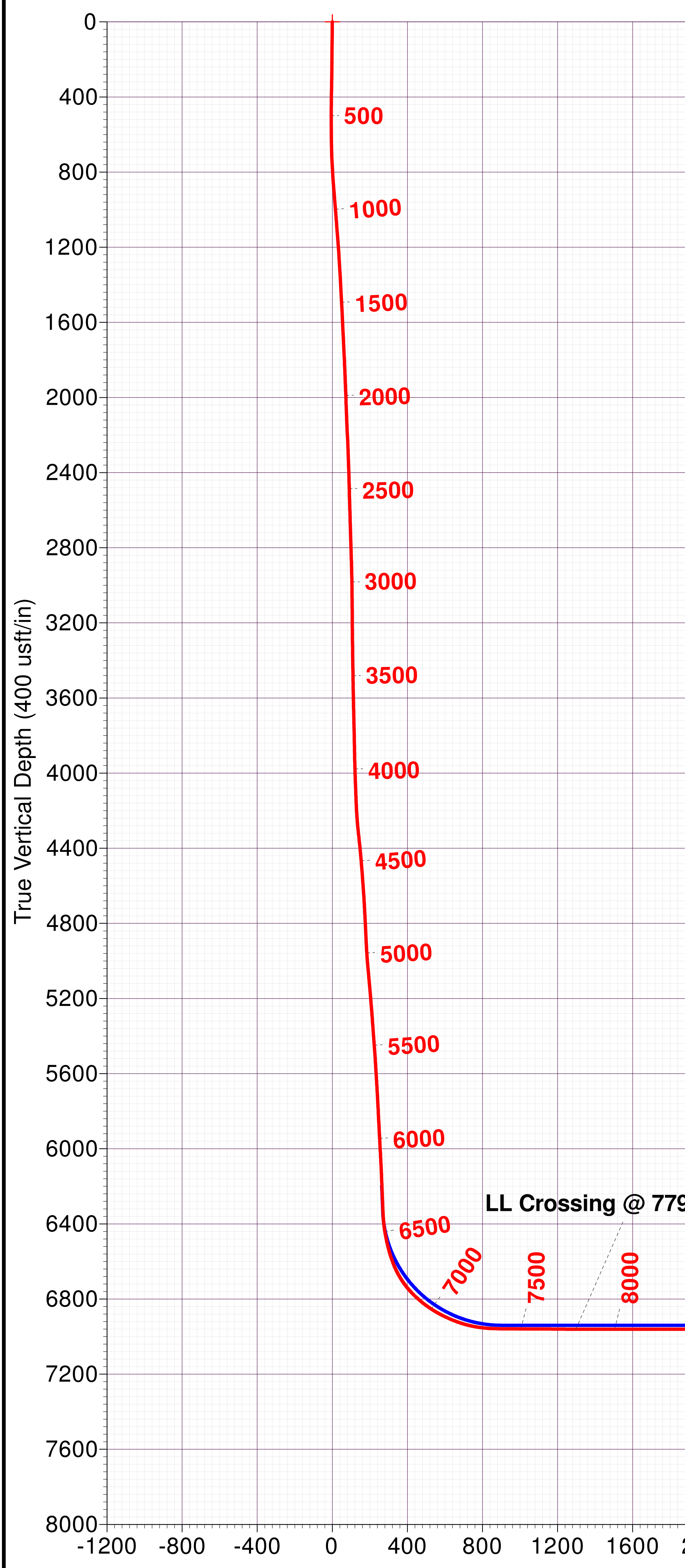
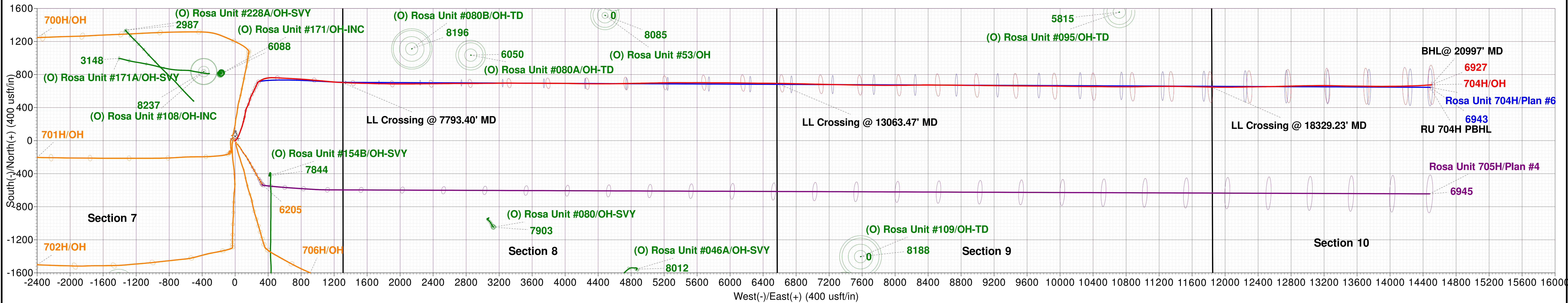
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PROPOSED VS. ACTUAL PLOT FINAL SURVEY REPORT

**Scout Drilling Technologies
1125 Beach Airport Road, Conroe, Texas 77301
Office: 936-756-3210
www.scoutdrilltech.com**

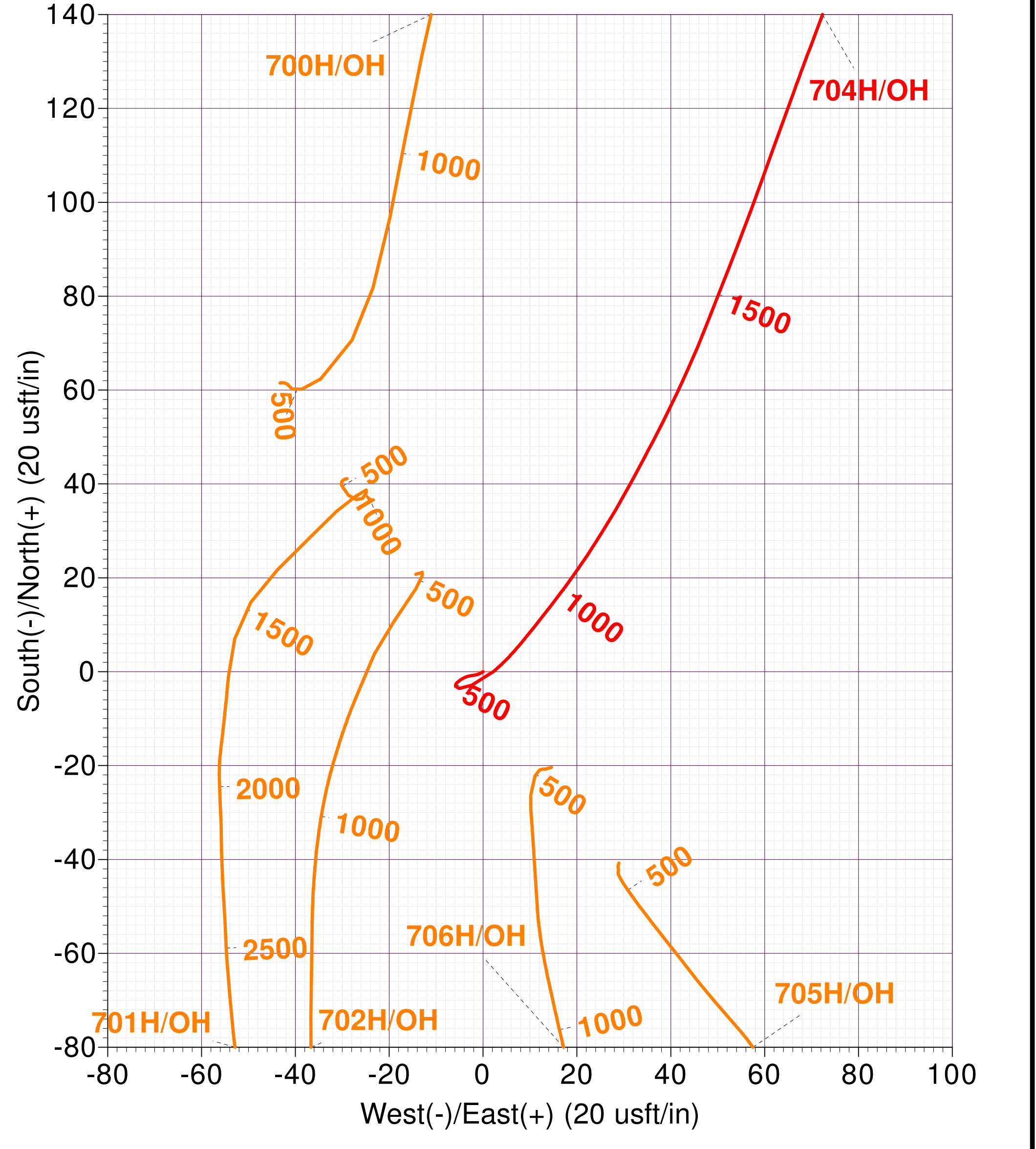
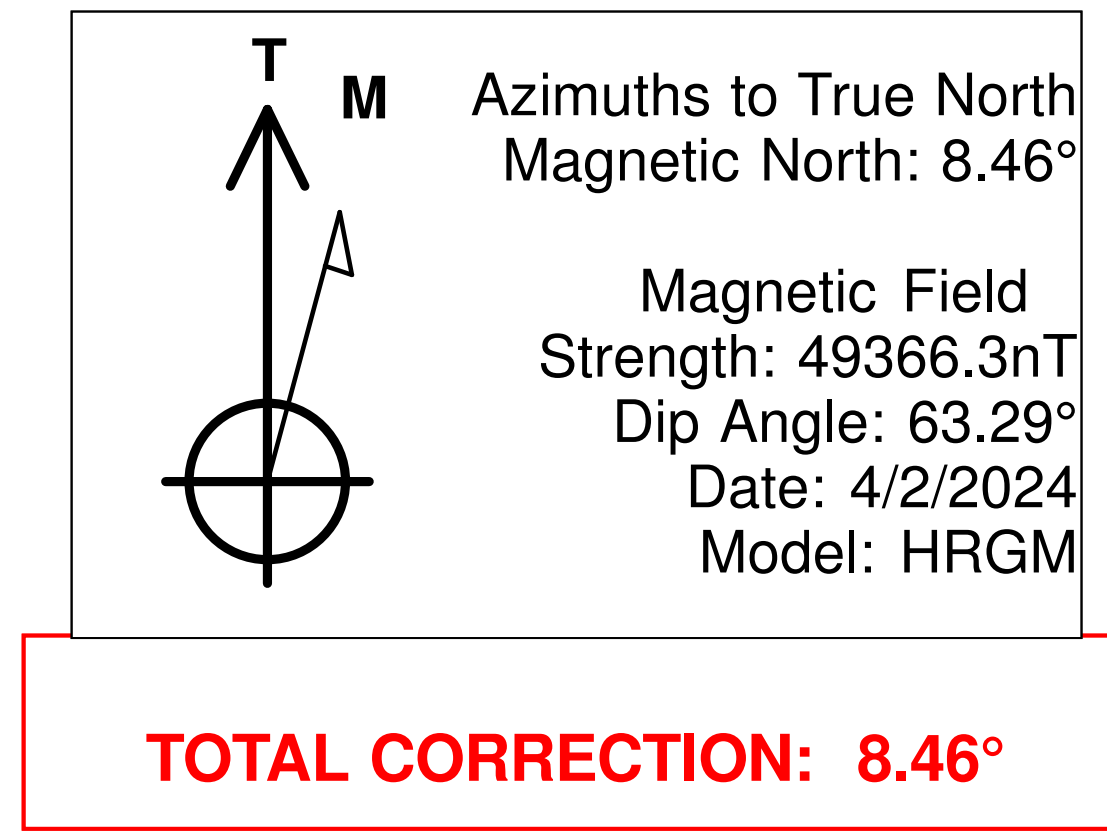


County: Rio Arriba, NM (NAD83)
Site: Rosa Unit 24
Well: Rosa Unit 704H
Depth Reference: 6295+30 @ 6325.00usft (H&P 530)
Rig: H&P 530
Plan: OH
Job #: 18357



ANNOTATIONS							
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure
7793.40	89.86	93.08	6960.65	702.98	1300.80	1297.60	1820.18
13063.47	89.80	90.91	6931.18	693.82	6570.06	6566.84	7089.93
18329.23	88.69	91.33	6935.24	648.62	11835.10	11832.04	12355.48
20997.00	89.87	86.06	6927.09	675.74	14502.05	14498.83	15023.13
				Annotation			
				LL Crossing @ 7793.40' MD			
				LL Crossing @ 13063.47' MD			
				LL Crossing @ 18329.23' MD			
				BHL@ 20997' MD			

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
RU 704H SHL	0.00	0.00	0.00	2152277.01	2850002.92	36.913904	-107.399208
RU 704H BHL	6927.09	675.74	14502.05	2153018.74	2864501.74	36.915750	-107.349601
RU 704H PBHL	6943.00	645.69	14485.59	2152988.62	2864485.42	36.915667	-107.349657



Logos Operating LLC

Rio Arriba, NM (NAD83)

Rosa Unit 24

Rosa Unit 704H

OH

Design: OH

Standard Survey Report

22 July, 2024

SDT
Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 704H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 704H	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 24				
Site Position:		Northing:	2,152,318.01 usft	Latitude:	36.914017
From:	Lat/Long	Easting:	2,849,973.79 usft	Longitude:	-107.399307
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well	Rosa Unit 704H					
Well Position	+N/-S	0.00 usft	Northing:	2,152,277.01 usft	Latitude:	36.913904
	+E/-W	0.00 usft	Easting:	2,850,002.92 usft	Longitude:	-107.399208
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	6,295.00 usft
Grid Convergence:		0.26 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HRGM	4/2/2024	8.46	63.29	49,366.28736580

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	90.26	

Survey Program	Date	7/22/2024			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
58.45	299.93	Survey #1 (OH)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
446.00	20,927.00	Survey #2 (OH)	MWD+HRGM+MS	MWD + HRGM + Multi-Station Correction	
20,997.00	20,997.00	Survey #3 (OH)	A026Ua_BLIND	OWSG BLIND	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
58.45	0.71	238.29	58.45	-0.19	-0.31	-0.31	1.21	1.21	0.00	
150.25	0.66	256.59	150.24	-0.61	-1.31	-1.30	0.24	-0.05	19.93	
239.43	0.69	262.07	239.42	-0.81	-2.34	-2.33	0.08	0.03	6.14	
299.93	0.77	257.12	299.91	-0.95	-3.09	-3.09	0.17	0.13	-8.18	
446.00	1.14	232.72	445.96	-2.04	-5.21	-5.20	0.37	0.25	-16.70	
537.00	0.63	171.46	536.95	-3.09	-5.85	-5.84	1.10	-0.56	-67.32	
624.00	0.97	88.49	623.95	-3.54	-5.05	-5.03	1.25	0.39	-95.37	

SDT
Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 704H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 704H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
718.00	2.33	70.65	717.90	-2.89	-2.45	-2.44	1.53	1.45	-18.98
811.00	4.57	51.22	810.73	0.06	2.22	2.22	2.68	2.41	-20.89
903.00	7.76	39.15	902.19	7.17	9.01	8.97	3.72	3.47	-13.12
994.00	7.52	37.07	992.39	16.69	16.47	16.40	0.40	-0.26	-2.29
1,084.00	8.57	32.84	1,081.50	27.02	23.66	23.54	1.34	1.17	-4.70
1,175.00	8.54	28.93	1,171.49	38.63	30.61	30.43	0.64	-0.03	-4.30
1,268.00	7.95	27.29	1,263.53	50.39	36.89	36.67	0.68	-0.63	-1.76
1,363.00	7.89	24.72	1,357.62	62.15	42.63	42.35	0.38	-0.06	-2.71
1,457.00	7.89	21.44	1,450.73	74.02	47.69	47.35	0.48	0.00	-3.49
1,552.00	8.05	21.44	1,544.81	86.28	52.50	52.11	0.17	0.17	0.00
1,646.00	8.14	20.15	1,637.88	98.65	57.20	56.75	0.22	0.10	-1.37
1,741.00	8.01	19.86	1,731.93	111.19	61.77	61.26	0.14	-0.14	-0.31
1,835.00	7.50	19.89	1,825.07	123.12	66.08	65.52	0.54	-0.54	0.03
1,929.00	6.31	20.98	1,918.39	133.72	70.02	69.41	1.27	-1.27	1.16
2,024.00	6.02	19.41	2,012.84	143.29	73.54	72.89	0.35	-0.31	-1.65
2,118.00	7.39	19.18	2,106.20	153.65	77.17	76.47	1.46	1.46	-0.24
2,213.00	7.69	20.75	2,200.37	165.36	81.43	80.67	0.38	0.32	1.65
2,307.00	6.90	18.59	2,293.61	176.59	85.45	84.65	0.89	-0.84	-2.30
2,402.00	6.99	14.66	2,387.92	187.60	88.74	87.88	0.51	0.09	-4.14
2,496.00	6.22	13.57	2,481.29	198.08	91.38	90.48	0.83	-0.82	-1.16
2,591.00	6.90	14.86	2,575.67	208.60	94.05	93.10	0.73	0.72	1.36
2,686.00	6.16	14.54	2,670.05	219.05	96.79	95.80	0.78	-0.78	-0.34
2,780.00	6.46	16.51	2,763.48	229.00	99.56	98.52	0.39	0.32	2.10
2,875.00	5.85	17.91	2,857.94	238.73	102.57	101.48	0.66	-0.64	1.47
2,970.00	5.01	14.33	2,952.51	247.36	105.08	103.96	0.95	-0.88	-3.77
3,064.00	4.38	7.17	3,046.19	254.89	106.55	105.39	0.91	-0.67	-7.62
3,159.00	3.33	5.80	3,140.98	261.24	107.28	106.09	1.11	-1.11	-1.44
3,253.00	2.77	12.81	3,234.84	266.17	108.06	106.85	0.71	-0.60	7.46
3,348.00	2.47	20.53	3,329.74	270.33	109.29	108.06	0.49	-0.32	8.13
3,397.00	2.38	21.39	3,378.70	272.26	110.03	108.79	0.20	-0.18	1.76
3,488.00	2.02	24.10	3,469.63	275.49	111.37	110.12	0.41	-0.40	2.98
3,583.00	4.19	15.19	3,564.49	280.36	112.97	111.69	2.33	2.28	-9.38
3,677.00	5.80	14.30	3,658.13	288.28	115.04	113.73	1.71	1.71	-0.95
3,772.00	8.14	9.04	3,752.42	299.58	117.28	115.92	2.55	2.46	-5.54
3,867.00	8.51	8.02	3,846.42	313.18	119.32	117.90	0.42	0.39	-1.07
3,961.00	9.18	8.28	3,939.30	327.49	121.37	119.88	0.71	0.71	0.28
4,056.00	10.95	11.29	4,032.84	343.83	124.23	122.67	1.94	1.86	3.17
4,151.00	11.44	10.35	4,126.03	361.95	127.69	126.04	0.55	0.52	-0.99
4,246.00	11.55	18.15	4,219.13	380.26	132.34	130.61	1.64	0.12	8.21
4,340.00	13.21	27.19	4,310.95	398.76	140.18	138.37	2.71	1.77	9.62
4,435.00	12.45	27.68	4,403.58	417.48	149.90	148.00	0.81	-0.80	0.52
4,498.00	11.16	25.91	4,465.24	428.98	155.72	153.77	2.13	-2.05	-2.81
4,561.00	12.93	20.60	4,526.86	441.06	160.86	158.86	3.31	2.81	-8.43

SDT
Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 704H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 704H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,624.00	12.91	18.46	4,588.26	454.33	165.57	163.51	0.76	-0.03	-3.40	
4,687.00	12.27	17.94	4,649.75	467.38	169.86	167.74	1.03	-1.02	-0.83	
4,749.00	11.27	16.53	4,710.44	479.46	173.61	171.44	1.68	-1.61	-2.27	
4,812.00	10.33	15.84	4,772.32	490.79	176.91	174.68	1.51	-1.49	-1.10	
4,875.00	9.56	16.37	4,834.38	501.24	179.92	177.65	1.23	-1.22	0.84	
4,938.00	9.85	16.56	4,896.48	511.43	182.93	180.61	0.46	0.46	0.30	
5,001.00	10.32	19.94	4,958.50	521.90	186.39	184.02	1.20	0.75	5.37	
5,064.00	11.79	23.95	5,020.33	533.09	190.93	188.51	2.63	2.33	6.37	
5,126.00	11.75	28.61	5,081.03	544.42	196.53	194.05	1.53	-0.06	7.52	
5,189.00	10.99	26.58	5,142.79	555.42	202.29	199.76	1.36	-1.21	-3.22	
5,252.00	10.64	26.64	5,204.68	565.99	207.58	205.01	0.56	-0.56	0.10	
5,315.00	9.81	27.13	5,266.67	575.96	212.64	210.02	1.32	-1.32	0.78	
5,378.00	9.40	26.56	5,328.79	585.34	217.38	214.72	0.67	-0.65	-0.90	
5,441.00	9.62	26.55	5,390.92	594.65	222.04	219.34	0.35	0.35	-0.02	
5,503.00	8.89	26.80	5,452.12	603.56	226.51	223.77	1.18	-1.18	0.40	
5,566.00	8.90	26.83	5,514.36	612.26	230.91	228.13	0.02	0.02	0.05	
5,629.00	8.48	24.33	5,576.64	620.84	235.02	232.20	0.90	-0.67	-3.97	
5,692.00	7.90	26.92	5,638.99	628.93	238.89	236.04	1.09	-0.92	4.11	
5,747.00	7.62	24.59	5,693.49	635.62	242.12	239.24	0.77	-0.51	-4.24	
5,810.00	7.50	25.28	5,755.94	643.13	245.62	242.70	0.24	-0.19	1.10	
5,874.00	6.78	23.85	5,819.45	650.37	248.93	245.97	1.16	-1.13	-2.23	
5,936.00	7.11	24.64	5,880.99	657.20	252.01	249.02	0.55	0.53	1.27	
5,999.00	7.23	25.88	5,943.50	664.31	255.36	252.35	0.31	0.19	1.97	
6,062.00	7.16	23.25	6,006.00	671.49	258.64	255.59	0.53	-0.11	-4.17	
6,125.00	6.85	25.62	6,068.53	678.48	261.82	258.74	0.67	-0.49	3.76	
6,188.00	6.22	23.73	6,131.12	684.99	264.82	261.70	1.06	-1.00	-3.00	
6,255.00	5.49	24.72	6,197.77	691.23	267.62	264.48	1.10	-1.09	1.48	
6,341.00	5.02	26.13	6,283.41	698.34	270.99	267.82	0.57	-0.55	1.64	
6,411.00	5.16	33.41	6,353.14	703.72	274.08	270.88	0.94	0.20	10.40	
6,506.00	11.76	55.59	6,447.07	712.77	284.43	281.19	7.63	6.95	23.35	
6,601.00	17.51	57.86	6,538.95	725.85	304.54	301.24	6.08	6.05	2.39	
6,695.00	24.81	66.13	6,626.57	741.38	334.59	331.22	8.37	7.77	8.80	
6,789.00	34.92	77.48	6,708.05	755.24	379.04	375.61	12.28	10.76	12.07	
6,884.00	45.72	88.46	6,780.47	762.08	439.84	436.37	13.57	11.37	11.56	
6,978.00	54.84	94.08	6,840.50	760.24	511.99	508.53	10.73	9.70	5.98	
7,073.00	63.48	92.39	6,889.16	755.70	593.35	589.91	9.22	9.09	-1.78	
7,167.00	71.10	92.76	6,925.42	751.80	679.91	676.49	8.11	8.11	0.39	
7,262.00	80.47	93.84	6,948.72	746.49	771.74	768.34	9.92	9.86	1.14	
7,356.00	88.55	94.44	6,957.71	739.73	864.99	861.62	8.62	8.60	0.64	
7,451.00	89.73	95.23	6,959.14	731.73	959.64	956.30	1.49	1.24	0.83	
7,545.00	89.76	95.15	6,959.55	723.22	1,053.25	1,049.96	0.09	0.03	-0.09	
7,640.00	89.80	95.45	6,959.92	714.45	1,147.84	1,144.59	0.32	0.04	0.32	
7,734.00	89.63	94.04	6,960.39	706.67	1,241.52	1,238.30	1.51	-0.18	-1.50	
7,793.40	89.86	93.08	6,960.65	702.98	1,300.80	1,297.60	1.66	0.39	-1.61	

SDT
Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 704H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 704H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
LL Crossing @ 7793.40' MD									
7,829.00	90.00	92.51	6,960.69	701.25	1,336.36	1,333.16	1.66	0.39	-1.61
7,923.00	89.76	92.15	6,960.89	697.43	1,430.28	1,427.10	0.46	-0.26	-0.38
8,018.00	90.00	91.01	6,961.09	694.81	1,525.24	1,522.07	1.23	0.25	-1.20
8,112.00	89.97	91.42	6,961.11	692.81	1,619.22	1,616.06	0.44	-0.03	0.44
8,206.00	90.10	91.14	6,961.06	690.71	1,713.20	1,710.04	0.33	0.14	-0.30
8,301.00	90.17	90.99	6,960.83	688.95	1,808.18	1,805.03	0.17	0.07	-0.16
8,396.00	90.00	90.82	6,960.69	687.45	1,903.17	1,900.03	0.25	-0.18	-0.18
8,490.00	91.31	89.82	6,959.62	686.92	1,997.16	1,994.02	1.75	1.39	-1.06
8,585.00	91.28	89.83	6,957.47	687.21	2,092.13	2,088.99	0.03	-0.03	0.01
8,680.00	90.71	89.70	6,955.82	687.60	2,187.12	2,183.97	0.62	-0.60	-0.14
8,774.00	90.37	89.47	6,954.93	688.28	2,281.11	2,277.96	0.44	-0.36	-0.24
8,868.00	91.28	89.46	6,953.58	689.16	2,375.09	2,371.94	0.97	0.97	-0.01
8,963.00	91.11	89.16	6,951.60	690.30	2,470.07	2,466.91	0.36	-0.18	-0.32
9,057.00	90.81	89.60	6,950.02	691.32	2,564.05	2,560.88	0.57	-0.32	0.47
9,152.00	90.47	89.25	6,948.96	692.27	2,659.04	2,655.87	0.51	-0.36	-0.37
9,247.00	91.04	90.33	6,947.71	692.62	2,754.03	2,750.86	1.29	0.60	1.14
9,341.00	90.30	89.93	6,946.61	692.41	2,848.02	2,844.85	0.89	-0.79	-0.43
9,436.00	90.00	89.68	6,946.36	692.73	2,943.02	2,939.84	0.41	-0.32	-0.26
9,530.00	91.04	89.31	6,945.51	693.56	3,037.01	3,033.83	1.17	1.11	-0.39
9,625.00	90.67	89.39	6,944.09	694.64	3,131.99	3,128.81	0.40	-0.39	0.08
9,719.00	90.50	89.25	6,943.13	695.75	3,225.98	3,222.79	0.23	-0.18	-0.15
9,814.00	90.13	89.95	6,942.61	696.42	3,320.98	3,317.78	0.83	-0.39	0.74
9,908.00	91.48	90.74	6,941.29	695.85	3,414.96	3,411.77	1.66	1.44	0.84
10,003.00	91.18	90.23	6,939.09	695.05	3,509.93	3,506.74	0.62	-0.32	-0.54
10,097.00	90.94	89.94	6,937.35	694.91	3,603.92	3,600.73	0.40	-0.26	-0.31
10,192.00	90.64	90.19	6,936.04	694.80	3,698.91	3,695.72	0.41	-0.32	0.26
10,286.00	90.40	90.21	6,935.18	694.47	3,792.90	3,789.71	0.26	-0.26	0.02
10,381.00	90.44	90.27	6,934.49	694.07	3,887.90	3,884.71	0.08	0.04	0.06
10,476.00	90.34	90.75	6,933.84	693.23	3,982.89	3,979.71	0.52	-0.11	0.51
10,570.00	90.20	90.95	6,933.40	691.83	4,076.88	4,073.70	0.26	-0.15	0.21
10,664.00	90.00	90.52	6,933.23	690.63	4,170.87	4,167.70	0.50	-0.21	-0.46
10,759.00	89.76	90.77	6,933.43	689.56	4,265.87	4,262.69	0.36	-0.25	0.26
10,854.00	91.04	90.18	6,932.77	688.77	4,360.86	4,357.69	1.48	1.35	-0.62
10,948.00	91.58	90.30	6,930.62	688.38	4,454.83	4,451.66	0.59	0.57	0.13
11,042.00	90.34	89.32	6,929.05	688.69	4,548.82	4,545.64	1.68	-1.32	-1.04
11,137.00	90.10	88.88	6,928.68	690.18	4,643.80	4,640.62	0.53	-0.25	-0.46
11,231.00	90.00	89.00	6,928.60	691.92	4,737.79	4,734.60	0.17	-0.11	0.13
11,325.00	89.87	89.14	6,928.71	693.45	4,831.78	4,828.58	0.20	-0.14	0.15
11,420.00	89.80	88.74	6,928.98	695.20	4,926.76	4,923.55	0.43	-0.07	-0.42
11,514.00	89.56	89.13	6,929.50	696.95	5,020.74	5,017.53	0.49	-0.26	0.41
11,608.00	89.60	88.69	6,930.19	698.74	5,114.72	5,111.50	0.47	0.04	-0.47
11,703.00	89.76	89.37	6,930.72	700.35	5,209.70	5,206.47	0.74	0.17	0.72

SDT

Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 704H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 704H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,798.00	89.83	89.52	6,931.06	701.27	5,304.70	5,301.46	0.17	0.07	0.16
11,892.00	90.44	90.47	6,930.84	701.28	5,398.70	5,395.46	1.20	0.65	1.01
11,986.00	90.50	89.92	6,930.07	700.96	5,492.69	5,489.46	0.59	0.06	-0.59
12,081.00	90.37	89.36	6,929.35	701.55	5,587.69	5,584.45	0.61	-0.14	-0.59
12,175.00	90.77	90.87	6,928.41	701.36	5,681.68	5,678.44	1.66	0.43	1.61
12,269.00	90.51	90.55	6,927.36	700.20	5,775.67	5,772.43	0.44	-0.28	-0.34
12,364.00	90.43	89.68	6,926.59	700.01	5,870.66	5,867.43	0.92	-0.08	-0.92
12,458.00	90.34	90.10	6,925.95	700.19	5,964.66	5,961.42	0.46	-0.10	0.45
12,553.00	89.36	91.19	6,926.20	699.12	6,059.65	6,056.42	1.54	-1.03	1.15
12,648.00	89.46	90.91	6,927.18	697.38	6,154.63	6,151.40	0.31	0.11	-0.29
12,742.00	89.53	90.65	6,928.01	696.10	6,248.62	6,245.40	0.29	0.07	-0.28
12,837.00	89.36	90.45	6,928.93	695.19	6,343.61	6,340.39	0.28	-0.18	-0.21
12,931.00	89.06	89.85	6,930.23	694.94	6,437.60	6,434.38	0.71	-0.32	-0.64
13,026.00	89.90	90.82	6,931.09	694.39	6,532.59	6,529.37	1.35	0.88	1.02
13,063.47	89.80	90.91	6,931.18	693.82	6,570.06	6,566.84	0.35	-0.26	0.24
LL Crossing @ 13063.47' MD									
13,120.00	89.66	91.05	6,931.45	692.85	6,626.58	6,623.37	0.35	-0.26	0.24
13,215.00	89.29	90.90	6,932.32	691.24	6,721.56	6,718.36	0.42	-0.39	-0.16
13,310.00	90.24	91.52	6,932.71	689.23	6,816.54	6,813.34	1.19	1.00	0.65
13,404.00	90.07	91.33	6,932.45	686.89	6,910.51	6,907.32	0.27	-0.18	-0.20
13,499.00	90.00	91.49	6,932.40	684.55	7,005.48	7,002.30	0.18	-0.07	0.17
13,594.00	89.90	91.26	6,932.48	682.27	7,100.45	7,097.28	0.26	-0.11	-0.24
13,688.00	89.60	91.19	6,932.89	680.27	7,194.43	7,191.27	0.33	-0.32	-0.07
13,783.00	89.60	91.49	6,933.55	678.04	7,289.40	7,286.25	0.32	0.00	0.32
13,877.00	89.63	90.99	6,934.18	676.01	7,383.38	7,380.23	0.53	0.03	-0.53
13,972.00	89.70	91.38	6,934.74	674.04	7,478.35	7,475.22	0.42	0.07	0.41
14,066.00	89.50	90.50	6,935.40	672.50	7,572.34	7,569.21	0.96	-0.21	-0.94
14,161.00	89.23	90.42	6,936.45	671.74	7,667.33	7,664.20	0.30	-0.28	-0.08
14,255.00	90.87	90.76	6,936.37	670.77	7,761.32	7,758.20	1.78	1.74	0.36
14,350.00	90.81	90.20	6,934.97	669.98	7,856.31	7,853.19	0.59	-0.06	-0.59
14,445.00	90.91	89.90	6,933.55	669.89	7,951.30	7,948.17	0.33	0.11	-0.32
14,539.00	91.01	89.89	6,931.97	670.07	8,045.28	8,042.16	0.11	0.11	-0.01
14,634.00	89.97	89.34	6,931.16	670.70	8,140.28	8,137.15	1.24	-1.09	-0.58
14,728.00	89.80	88.86	6,931.35	672.18	8,234.26	8,231.13	0.54	-0.18	-0.51
14,823.00	89.56	89.02	6,931.88	673.94	8,329.25	8,326.10	0.30	-0.25	0.17
14,917.00	90.00	90.70	6,932.24	674.17	8,423.24	8,420.10	1.85	0.47	1.79
15,011.00	90.17	90.84	6,932.10	672.90	8,517.23	8,514.09	0.23	0.18	0.15
15,105.00	90.13	90.31	6,931.86	671.96	8,611.23	8,608.09	0.57	-0.04	-0.56
15,200.00	90.07	90.45	6,931.69	671.33	8,706.22	8,703.09	0.16	-0.06	0.15
15,294.00	90.24	90.51	6,931.44	670.54	8,800.22	8,797.09	0.19	0.18	0.06
15,388.00	89.60	90.70	6,931.57	669.55	8,894.22	8,891.09	0.71	-0.68	0.20
15,483.00	89.63	90.84	6,932.20	668.27	8,989.20	8,986.08	0.15	0.03	0.15
15,577.00	89.70	90.60	6,932.75	667.09	9,083.20	9,080.07	0.27	0.07	-0.26
15,672.00	89.39	90.40	6,933.51	666.26	9,178.19	9,175.07	0.39	-0.33	-0.21

SDT

Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 704H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 704H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,766.00	89.50	90.58	6,934.42	665.46	9,272.18	9,269.07	0.22	0.12	0.19
15,861.00	89.56	90.83	6,935.20	664.29	9,367.17	9,364.06	0.27	0.06	0.26
15,955.00	89.56	90.45	6,935.92	663.24	9,461.16	9,458.05	0.40	0.00	-0.40
16,050.00	89.46	90.37	6,936.73	662.56	9,556.16	9,553.05	0.13	-0.11	-0.08
16,144.00	89.60	90.39	6,937.50	661.94	9,650.15	9,647.05	0.15	0.15	0.02
16,239.00	89.70	90.19	6,938.08	661.46	9,745.15	9,742.05	0.24	0.11	-0.21
16,333.00	89.56	90.56	6,938.69	660.84	9,839.14	9,836.04	0.42	-0.15	0.39
16,427.00	88.92	90.69	6,939.94	659.82	9,933.13	9,930.03	0.69	-0.68	0.14
16,522.00	90.10	90.68	6,940.75	658.68	10,028.12	10,025.02	1.24	1.24	-0.01
16,616.00	90.30	91.01	6,940.42	657.30	10,122.11	10,119.02	0.41	0.21	0.35
16,711.00	90.24	90.91	6,939.97	655.70	10,217.09	10,214.01	0.12	-0.06	-0.11
16,805.00	90.00	90.10	6,939.78	654.88	10,311.09	10,308.01	0.90	-0.26	-0.86
16,899.00	90.17	90.14	6,939.64	654.68	10,405.09	10,402.01	0.19	0.18	0.04
16,993.00	90.24	90.32	6,939.30	654.30	10,499.09	10,496.01	0.21	0.07	0.19
17,087.00	90.34	90.63	6,938.83	653.52	10,593.08	10,590.01	0.35	0.11	0.33
17,182.00	90.24	90.59	6,938.35	652.51	10,688.07	10,685.00	0.11	-0.11	-0.04
17,276.00	90.07	89.96	6,938.09	652.06	10,782.07	10,779.00	0.69	-0.18	-0.67
17,371.00	90.10	89.42	6,937.95	652.57	10,877.07	10,874.00	0.57	0.03	-0.57
17,465.00	90.10	89.11	6,937.79	653.78	10,971.06	10,967.98	0.33	0.00	-0.33
17,559.00	90.07	88.95	6,937.65	655.37	11,065.05	11,061.96	0.17	-0.03	-0.17
17,654.00	90.61	89.93	6,937.08	656.30	11,160.04	11,156.95	1.18	0.57	1.03
17,748.00	90.94	89.56	6,935.81	656.72	11,254.03	11,250.94	0.53	0.35	-0.39
17,842.00	91.24	90.04	6,934.02	657.05	11,348.01	11,344.91	0.60	0.32	0.51
17,937.00	90.60	91.14	6,932.50	656.07	11,442.99	11,439.90	1.34	-0.67	1.16
18,032.00	90.81	90.76	6,931.33	654.49	11,537.97	11,534.88	0.46	0.22	-0.40
18,126.00	89.13	91.09	6,931.38	652.97	11,631.96	11,628.87	1.82	-1.79	0.35
18,221.00	88.96	91.15	6,932.96	651.12	11,726.93	11,723.85	0.19	-0.18	0.06
18,316.00	88.66	91.47	6,934.93	648.95	11,821.88	11,818.81	0.46	-0.32	0.34
18,329.23	88.69	91.33	6,935.24	648.62	11,835.10	11,832.04	1.10	0.24	-1.07
LL Crossing @ 18329.23' MD									
18,410.00	88.89	90.46	6,936.94	647.36	11,915.84	11,912.78	1.10	0.24	-1.07
18,505.00	90.07	90.09	6,937.81	646.91	12,010.84	12,007.78	1.30	1.24	-0.39
18,599.00	90.40	88.93	6,937.42	647.71	12,104.83	12,101.77	1.28	0.35	-1.23
18,694.00	90.44	88.97	6,936.72	649.45	12,199.81	12,196.74	0.06	0.04	0.04
18,789.00	90.34	89.25	6,936.08	650.93	12,294.80	12,291.72	0.31	-0.11	0.29
18,883.00	90.34	89.40	6,935.52	652.04	12,388.79	12,385.70	0.16	0.00	0.16
18,978.00	90.10	88.91	6,935.16	653.44	12,483.78	12,480.69	0.57	-0.25	-0.52
19,072.00	90.07	89.14	6,935.02	655.04	12,577.77	12,574.66	0.25	-0.03	0.24
19,166.00	90.44	88.35	6,934.60	657.09	12,671.74	12,668.63	0.93	0.39	-0.84
19,261.00	90.47	88.26	6,933.84	659.90	12,766.70	12,763.57	0.10	0.03	-0.09
19,355.00	91.48	88.80	6,932.24	662.32	12,860.65	12,857.51	1.22	1.07	0.57
19,449.00	91.55	88.96	6,929.76	664.15	12,954.60	12,951.45	0.19	0.07	0.17
19,544.00	90.81	89.36	6,927.80	665.54	13,049.57	13,046.41	0.89	-0.78	0.42

SDT
Survey Report

Company:	Logos Operating LLC	Local Co-ordinate Reference:	Well Rosa Unit 704H
Project:	Rio Arriba, NM (NAD83)	TVD Reference:	6295+30 @ 6325.00usft (H&P 530)
Site:	Rosa Unit 24	MD Reference:	6295+30 @ 6325.00usft (H&P 530)
Well:	Rosa Unit 704H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 Multi User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
19,638.00	90.78	89.39	6,926.50	666.57	13,143.55	13,140.39	0.05	-0.03	0.03	
19,733.00	90.27	91.02	6,925.63	666.23	13,238.55	13,235.39	1.80	-0.54	1.72	
19,827.00	90.13	91.02	6,925.30	664.56	13,332.53	13,329.38	0.15	-0.15	0.00	
19,922.00	90.24	91.10	6,924.99	662.80	13,427.51	13,424.37	0.14	0.12	0.08	
20,016.00	90.07	90.71	6,924.74	661.31	13,521.50	13,518.36	0.45	-0.18	-0.41	
20,111.00	89.93	90.49	6,924.74	660.32	13,616.50	13,613.36	0.27	-0.15	-0.23	
20,205.00	90.00	91.07	6,924.80	659.04	13,710.49	13,707.36	0.62	0.07	0.62	
20,299.00	89.97	90.53	6,924.82	657.73	13,804.48	13,801.35	0.58	-0.03	-0.57	
20,394.00	89.87	89.79	6,924.95	657.46	13,899.48	13,896.35	0.79	-0.11	-0.78	
20,488.00	89.60	89.53	6,925.39	658.02	13,993.47	13,990.34	0.40	-0.29	-0.28	
20,583.00	89.33	89.36	6,926.27	658.94	14,088.47	14,085.33	0.34	-0.28	-0.18	
20,678.00	90.30	88.08	6,926.58	661.06	14,183.44	14,180.29	1.69	1.02	-1.35	
20,772.00	89.76	88.86	6,926.53	663.57	14,277.40	14,274.25	1.01	-0.57	0.83	
20,867.00	89.90	86.78	6,926.81	667.19	14,372.33	14,369.15	2.19	0.15	-2.19	
20,927.00	89.87	86.06	6,926.93	670.93	14,432.21	14,429.02	1.20	-0.05	-1.20	
20,997.00	89.87	86.06	6,927.09	675.74	14,502.05	14,498.83	0.00	0.00	0.00	
BHL@ 20997' MD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
- hit/miss target										
- Shape										
RU 704H SHL	0.00	0.00	0.00	0.00	0.00	2,152,277.01	2,850,002.92	36.913904		-107.399208
- actual wellpath hits target center										
- Point										
RU 704H BHL	0.00	0.00	6,927.09	675.74	14,502.05	2,153,018.74	2,864,501.74	36.915750		-107.349601
- actual wellpath hits target center										
- Point										
RU 704H PBHL	0.00	0.00	6,943.00	645.69	14,485.59	2,152,988.62	2,864,485.42	36.915667		-107.349657
- actual wellpath misses target center by 32.96usft at 20978.55usft MD (6927.05 TVD, 674.47 N, 14483.64 E)										
- Point										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
7,793.40	6,960.65	702.98	1,300.80	LL Crossing @ 7793.40' MD	
13,063.47	6,931.18	693.82	6,570.06	LL Crossing @ 13063.47' MD	
18,329.23	6,935.24	648.62	11,835.10	LL Crossing @ 18329.23' MD	
20,997.00	6,927.09	675.74	14,502.05	BHL@ 20997' 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 386920

ACKNOWLEDGMENTS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 386920
	Action Type: [C-104] Completion Packet - Test Allowable (C-104RT)

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.
☒	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.

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CONDITIONS

Action 386920

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Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 386920
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CONDITIONS

Created By	Condition	Condition Date
plmartinez	RT EXPIRES 12/26/2024.	9/26/2024