

Office

District I - (575) 393-6161

1625 N. French Dr., Hobbs, NM 88240

District II - (575) 748-1283

811 S. First St., Artesia, NM 88210

District III - (505) 334-6178

1000 Rio Brazos Rd., Aztec, NM 87410

District IV - (505) 476-3460

1220 S. St. Francis Dr., Santa Fe, NM

87505

State of New Mexico
Energy, Minerals and Natural ResourcesOIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103

Revised July 18, 2013

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-49507
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator Marshall & Winston, Inc.		6. State Oil & Gas Lease No.
3. Address of Operator P. O. Box 50880 - Midland, TX 79710		7. Lease Name or Unit Agreement Name Loco Dinero 36 State Com
4. Well Location Unit Letter <u>B</u> ; <u>200</u> feet from the <u>North</u> line and <u>1520</u> feet from the <u>East</u> line Section <u>36</u> Township <u>21S</u> Range <u>33E</u> NMPM <u>Lea</u> County		8. Well Number <u>8H</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3643.7' GR		9. OGRID Number <u>14187</u>
		10. Pool name or Wildcat WC025; G-06; S332126D; Bone Spring

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
 TEMPORARILY ABANDON ☐ CHANGE PLANS ☒
 PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
 DOWNHOLE COMMINGLE ☐
 CLOSED-LOOP SYSTEM ☐
 OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
 COMMENCE DRILLING OPNS. ☐ P AND A ☐
 CASING/CEMENT JOB ☐
 OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Marshall & Winston, Inc. respectfully requests to change the Bottom Hole Location (BHL) as follows:

FROM: 20' FSL & 330' FEL (Unit P, SESE) of Section 36-T21S-R33E

TO: 20' FSL & 1830' FEL (Unit O, SWSE) of Section 36-T21S-R33E

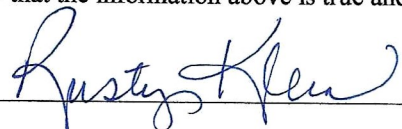
Attached are new directional drilling plans and an updated C102.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE



TITLE Agent for Marshall & Winston, Inc. DATE January 24, 2022

Type or print name

Rusty Klein

E-mail address: rustyklein4@gmail.com

PHONE: 575-703-6412

For State Use Only

APPROVED BY:

TITLE

DATE

Conditions of Approval (if any):

DISTRICT I
1635 N. FRENCH DR., HOBBS, NM 88240
Phone: (505) 333-9181 Fax: (505) 333-9729

DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (505) 748-1223 Fax: (505) 748-9729

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-8178 Fax: (505) 334-8178

DISTRICT IV
1920 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 476-3480 Fax: (505) 476-3488

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

~~AMENDED~~ REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-49507	Pool Code 97929	Pool Name WC 025; G-06 332126D; Bone Spring
Property Code 39736	Property Name LOCO DINERO 36 STATE COM	
GRID No. 14187	Operator Name MARSHALL & WINSTON, INC.	Well Number 8H
		Elevation 3643.7'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	36	21-S	33-E		200	NORTH	1520	EAST	LEA

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
O	36	21-S	33-E		20	SOUTH	1830	EAST	LEA

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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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

NAD 83 NME SURFACE LOCATION Y=525467.3 N X=791487.4 E LAT.=32.441964° N LONG.=103.522465° W	Y=525659.9 N X=790364.0 E FTP 426' FHL & 1830' FEL Y=525239.3 N X=791179.0 E LAT.=32.441344° N LONG.=103.523470° W GRID AZ. TO FTP 233°31'26"	200' 1520' Y=525668.6 N X=791685.0 E	OPERATOR CERTIFICATION I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a completed pooling order heretofore entered by the Division. <i>[Signature]</i> 1/21/22 Signature Date Todd Passmore Printed Name tpassmore@mar-win.com E-mail Address
NAD 83 NME PROPOSED BOTTOM HOLE LOCATION Y=520404.7 N X=791216.3 E LAT.=32.428055° N LONG.=103.523468° W	LTP 100' FSL & 1830' FEL Y=520484.7 N X=791215.7 E LAT.=32.428275° N LONG.=103.523468° W Y=520380.2 N X=790408.1 E	GRID AZ. - 179°33'28" HORZ. DIST. - 4834.7' 20' B.H. 1830' Y=520387.6 N X=791727.3 E	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. AUGUST 26, 2021 Date of Survey Signature & Seal of Professional Surveyor <i>[Signature]</i> 1/21/22 Certificate No. CHAD HARCROW 17777 W.O. #22-66 DRAWN BY: AH

Marshall & Winston, Inc.

Lea County, NM (NAD83 NME)

Loco Dinero 36 State Com 3U #8H

3U #8H

Planning

Lateral 1r1

Anticollision Report

24 January, 2022

Aim Directional Services, LLC

Anticollision Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 3U #8H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Updated @ 3668.00usft (25'KB)
Reference Site:	Loco Dinero 36 State Com 3U #8H	MD Reference:	Updated @ 3668.00usft (25'KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	3U #8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	EDMRESTORED
Reference Design:	Lateral 1r1	Offset TVD Reference:	Offset Datum

Reference	Lateral 1r1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum centre distance of 10,000.00usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program		Date	1/24/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	16,392.40	Lateral 1r1 (Planning)	MWD+HDGM	OWSG MWD + HDGM	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Loco Dinero 36 State Com 3U #7H						
3U #7H - Planning - Lateral 1r1	5,327.18	5,329.18	40.00	2.25	1.060	Level 3, CC
3U #7H - Planning - Lateral 1r1	5,400.00	5,401.65	40.23	1.96	1.051	Level 3, ES, SF

Offset Design:	Loco Dinero 36 State Com 3U #7H - 3U #7H - Planning - Lateral 1r1												Offset Site Error:	0.00 usft
Survey Program:	0-MWD+HDGM												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned:	Minimum	Separation	Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor		
0.00	0.00	2.00	2.00	0.00	0.00	-90.29	-0.20	-40.00	40.00					
100.00	100.00	102.00	102.00	0.13	0.14	-90.29	-0.20	-40.00	40.00	39.72	0.28	144.917		
200.00	200.00	202.00	202.00	0.49	0.50	-90.29	-0.20	-40.00	40.00	39.01	0.99	40.284		
300.00	300.00	302.00	302.00	0.85	0.86	-90.29	-0.20	-40.00	40.00	38.29	1.71	23.393		
400.00	400.00	402.00	402.00	1.21	1.22	-90.29	-0.20	-40.00	40.00	37.57	2.43	16.482		
500.00	500.00	502.00	502.00	1.57	1.58	-90.29	-0.20	-40.00	40.00	36.86	3.14	12.724		
600.00	600.00	602.00	602.00	1.93	1.93	-90.29	-0.20	-40.00	40.00	36.14	3.86	10.361		
700.00	700.00	702.00	702.00	2.29	2.29	-90.29	-0.20	-40.00	40.00	35.42	4.58	8.738		
800.00	800.00	802.00	802.00	2.64	2.65	-90.29	-0.20	-40.00	40.00	34.71	5.29	7.555		
900.00	900.00	902.00	902.00	3.00	3.01	-90.29	-0.20	-40.00	40.00	33.99	6.01	6.654		
1,000.00	1,000.00	1,002.00	1,002.00	3.36	3.37	-90.29	-0.20	-40.00	40.00	33.27	6.73	5.945		
1,100.00	1,100.00	1,102.00	1,102.00	3.72	3.73	-90.29	-0.20	-40.00	40.00	32.56	7.45	5.372		
1,200.00	1,200.00	1,202.00	1,202.00	4.08	4.08	-90.29	-0.20	-40.00	40.00	31.84	8.16	4.901		
1,300.00	1,300.00	1,302.00	1,302.00	4.44	4.44	-90.29	-0.20	-40.00	40.00	31.12	8.88	4.505		
1,400.00	1,400.00	1,402.00	1,402.00	4.79	4.80	-90.29	-0.20	-40.00	40.00	30.40	9.60	4.168		
1,500.00	1,500.00	1,502.00	1,502.00	5.15	5.16	-90.29	-0.20	-40.00	40.00	29.69	10.31	3.879		
1,600.00	1,600.00	1,602.00	1,602.00	5.51	5.52	-90.29	-0.20	-40.00	40.00	28.97	11.03	3.626		
1,700.00	1,700.00	1,702.00	1,702.00	5.87	5.88	-90.29	-0.20	-40.00	40.00	28.25	11.75	3.405		
1,800.00	1,800.00	1,802.00	1,802.00	6.23	6.24	-90.29	-0.20	-40.00	40.00	27.54	12.46	3.209		
1,900.00	1,900.00	1,902.00	1,902.00	6.59	6.59	-90.29	-0.20	-40.00	40.00	26.82	13.18	3.035		
2,000.00	2,000.00	2,002.00	2,002.00	6.95	6.95	-90.29	-0.20	-40.00	40.00	26.10	13.90	2.878		
2,100.00	2,100.00	2,102.00	2,102.00	7.30	7.31	-90.29	-0.20	-40.00	40.00	25.39	14.61	2.737		
2,200.00	2,200.00	2,202.00	2,202.00	7.66	7.67	-90.29	-0.20	-40.00	40.00	24.67	15.33	2.609		
2,300.00	2,300.00	2,302.00	2,302.00	8.02	8.03	-90.29	-0.20	-40.00	40.00	23.95	16.05	2.492		
2,400.00	2,400.00	2,402.00	2,402.00	8.38	8.39	-90.29	-0.20	-40.00	40.00	23.23	16.77	2.386		

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

Aim Directional Services, LLC

Anticollision Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 3U #8H
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Reference Site:	Loco Dinero 36 State Com 3U #8H	MD Reference:	Updated @ 3668.00usft (25'KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	3U #8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	EDMRESTORED
Reference Design:	Lateral 1r1	Offset TVD Reference:	Offset Datum

Offset Design: Loco Dinero 36 State Com 3U #7H - 3U #7H - Planning - Lateral 1r1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,500.00	2,500.00	2,502.00	2,502.00	8.74	8.74	-90.29	-0.20	-40.00	40.00	22.52	17.48	2.288	
2,600.00	2,600.00	2,602.00	2,602.00	9.10	9.10	-90.29	-0.20	-40.00	40.00	21.80	18.20	2.198	
2,700.00	2,700.00	2,702.00	2,702.00	9.45	9.46	-90.29	-0.20	-40.00	40.00	21.08	18.92	2.115	
2,800.00	2,800.00	2,802.00	2,802.00	9.81	9.82	-90.29	-0.20	-40.00	40.00	20.37	19.63	2.037	
2,900.00	2,900.00	2,902.00	2,902.00	10.17	10.18	-90.29	-0.20	-40.00	40.00	19.65	20.35	1.966	
3,000.00	3,000.00	3,002.00	3,002.00	10.53	10.54	-90.29	-0.20	-40.00	40.00	18.93	21.07	1.899	
3,100.00	3,100.00	3,102.00	3,102.00	10.89	10.90	-90.29	-0.20	-40.00	40.00	18.22	21.78	1.836	
3,200.00	3,200.00	3,202.00	3,202.00	11.25	11.25	-90.29	-0.20	-40.00	40.00	17.50	22.50	1.778	
3,300.00	3,300.00	3,302.00	3,302.00	11.61	11.61	-90.29	-0.20	-40.00	40.00	16.78	23.22	1.723	
3,400.00	3,400.00	3,402.00	3,402.00	11.96	11.97	-90.29	-0.20	-40.00	40.00	16.07	23.94	1.671	
3,500.00	3,500.00	3,502.00	3,502.00	12.32	12.33	-90.29	-0.20	-40.00	40.00	15.35	24.65	1.623	
3,600.00	3,600.00	3,602.00	3,602.00	12.68	12.69	-90.29	-0.20	-40.00	40.00	14.63	25.37	1.577	
3,700.00	3,700.00	3,702.00	3,702.00	13.04	13.05	-90.29	-0.20	-40.00	40.00	13.91	26.09	1.533	
3,800.00	3,800.00	3,802.00	3,802.00	13.40	13.41	-90.29	-0.20	-40.00	40.00	13.20	26.80	1.492	Level 3
3,900.00	3,900.00	3,902.00	3,902.00	13.76	13.76	-90.29	-0.20	-40.00	40.00	12.48	27.52	1.454	Level 3
4,000.00	4,000.00	4,002.00	4,002.00	14.11	14.12	-90.29	-0.20	-40.00	40.00	11.76	28.24	1.417	Level 3
4,100.00	4,100.00	4,102.00	4,102.00	14.47	14.48	-90.29	-0.20	-40.00	40.00	11.05	28.95	1.382	Level 3
4,200.00	4,200.00	4,202.00	4,202.00	14.83	14.84	-90.29	-0.20	-40.00	40.00	10.33	29.67	1.348	Level 3
4,300.00	4,300.00	4,302.00	4,302.00	15.19	15.20	-90.29	-0.20	-40.00	40.00	9.61	30.39	1.316	Level 3
4,400.00	4,400.00	4,402.00	4,402.00	15.55	15.56	-90.29	-0.20	-40.00	40.00	8.90	31.10	1.286	Level 3
4,500.00	4,500.00	4,502.00	4,502.00	15.91	15.91	-90.29	-0.20	-40.00	40.00	8.18	31.82	1.257	Level 3
4,600.00	4,600.00	4,602.00	4,602.00	16.27	16.27	-90.29	-0.20	-40.00	40.00	7.46	32.54	1.229	Level 3
4,700.00	4,700.00	4,702.00	4,702.00	16.62	16.63	-90.29	-0.20	-40.00	40.00	6.75	33.26	1.203	Level 3
4,800.00	4,800.00	4,802.00	4,802.00	16.98	16.99	-90.29	-0.20	-40.00	40.00	6.03	33.97	1.177	Level 3
4,900.00	4,900.00	4,902.00	4,902.00	17.34	17.35	-90.29	-0.20	-40.00	40.00	5.31	34.69	1.153	Level 3
5,000.00	5,000.00	5,002.00	5,002.00	17.70	17.71	-90.29	-0.20	-40.00	40.00	4.59	35.41	1.130	Level 3
5,100.00	5,100.00	5,102.00	5,102.00	18.06	18.07	-90.29	-0.20	-40.00	40.00	3.88	36.12	1.107	Level 3
5,200.00	5,200.00	5,202.00	5,202.00	18.42	18.42	-90.29	-0.20	-40.00	40.00	3.16	36.84	1.086	Level 3
5,300.00	5,300.00	5,302.00	5,302.00	18.77	18.78	-90.29	-0.20	-40.00	40.00	2.44	37.56	1.065	Level 3
5,327.18	5,327.18	5,329.18	5,329.18	18.87	18.88	-90.00	-0.20	-40.00	40.00	2.25	37.75	1.060	Level 3, CC
5,400.00	5,400.00	5,401.65	5,401.64	19.13	19.14	-89.94	0.21	-40.23	40.23	1.96	38.27	1.051	Level 3, ES, SF
5,500.00	5,499.95	5,501.10	5,501.03	19.49	19.49	-90.10	3.20	-41.92	41.91	2.93	38.97	1.075	Level 3
5,600.00	5,599.88	5,601.07	5,600.90	19.85	19.85	-89.74	7.13	-44.14	44.10	4.41	39.69	1.111	Level 3
5,700.00	5,699.81	5,701.05	5,700.78	20.21	20.21	-89.42	11.06	-46.35	46.29	5.89	40.40	1.146	Level 3
5,800.00	5,799.74	5,801.02	5,800.65	20.57	20.56	-89.13	14.99	-48.57	48.49	7.38	41.11	1.179	Level 3
5,900.00	5,899.68	5,901.00	5,900.53	20.92	20.92	-88.86	18.92	-50.79	50.69	8.86	41.82	1.212	Level 3
6,000.00	5,999.61	6,000.97	6,000.40	21.28	21.28	-88.62	22.85	-53.01	52.88	10.35	42.54	1.243	Level 3
6,100.00	6,099.54	6,100.95	6,100.27	21.64	21.63	-88.39	26.78	-55.23	55.08	11.83	43.25	1.274	Level 3
6,200.00	6,199.47	6,200.93	6,200.15	22.00	21.99	-88.18	30.71	-57.44	57.28	13.32	43.97	1.303	Level 3
6,300.00	6,299.41	6,300.90	6,300.02	22.36	22.35	-87.99	34.64	-59.66	59.48	14.80	44.68	1.331	Level 3
6,400.00	6,399.34	6,400.88	6,399.89	22.72	22.70	-87.81	38.57	-61.88	61.68	16.29	45.39	1.359	Level 3
6,500.00	6,499.27	6,500.85	6,499.77	23.07	23.06	-87.64	42.50	-64.10	63.88	17.78	46.11	1.386	Level 3
6,600.00	6,599.20	6,600.83	6,599.64	23.43	23.42	-87.49	46.43	-66.32	66.09	19.26	46.82	1.411	Level 3
6,700.00	6,699.13	6,700.80	6,699.52	23.79	23.78	-87.34	50.36	-68.53	68.29	20.75	47.54	1.437	Level 3
6,800.00	6,799.07	6,800.78	6,799.39	24.15	24.13	-87.21	54.29	-70.75	70.49	22.24	48.25	1.461	Level 3
6,900.00	6,899.00	6,900.76	6,899.26	24.51	24.49	-87.08	58.22	-72.97	72.70	23.73	48.97	1.485	Level 3
7,000.00	6,998.93	7,000.73	6,999.14	24.87	24.85	-86.96	62.15	-75.19	74.90	25.21	49.68	1.507	
7,100.00	7,098.86	7,100.71	7,099.01	25.22	25.21	-86.85	66.08	-77.41	77.10	26.70	50.40	1.530	
7,200.00	7,198.80	7,200.68	7,198.88	25.58	25.57	-86.74	70.01	-79.62	79.31	28.19	51.12	1.552	
7,300.00	7,298.73	7,300.66	7,298.76	25.94	25.93	-86.64	73.94	-81.84	81.51	29.68	51.83	1.573	
7,400.00	7,398.66	7,400.63	7,398.63	26.30	26.28	-86.54	77.87	-84.06	83.72	31.17	52.55	1.593	
7,500.00	7,498.59	7,500.61	7,498.50	26.66	26.64	-86.45	81.80	-86.28	85.92	32.66	53.27	1.613	

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

Aim Directional Services, LLC

Anticollision Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 3U #8H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Updated @ 3668.00usft (25'KB)
Reference Site:	Loco Dinero 36 State Com 3U #8H	MD Reference:	Updated @ 3668.00usft (25'KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	3U #8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	EDMRESTORED
Reference Design:	Lateral 1r1	Offset TVD Reference:	Offset Datum

Offset Design: Loco Dinero 36 State Com 3U #7H - 3U #7H - Planning - Lateral 1r1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre		Rule Assigned:		Distance	Minimum	Separation	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
7,600.00	7,598.53	7,600.58	7,598.38	27.02	27.00	-86.36	85.73	-88.50	88.13	34.14	53.98	1.633	
7,700.00	7,698.46	7,700.56	7,698.25	27.38	27.36	-86.28	89.66	-90.71	90.33	35.63	54.70	1.651	
7,800.00	7,798.39	7,800.54	7,798.13	27.74	27.72	-86.20	93.59	-92.93	92.54	37.12	55.42	1.670	
7,900.00	7,898.32	7,900.51	7,898.00	28.09	28.08	-86.13	97.51	-95.15	94.74	38.61	56.13	1.688	
8,000.00	7,998.26	8,000.49	7,997.87	28.45	28.44	-86.06	101.44	-97.37	96.95	40.10	56.85	1.705	
8,100.00	8,098.19	8,100.46	8,097.75	28.81	28.80	-85.99	105.37	-99.59	99.15	41.59	57.57	1.722	
8,200.00	8,198.12	8,200.44	8,197.62	29.17	29.16	-85.92	109.30	-101.80	101.36	43.08	58.28	1.739	
8,300.00	8,298.05	8,300.41	8,297.49	29.53	29.52	-85.86	113.23	-104.02	103.57	44.57	59.00	1.755	
8,400.00	8,397.99	8,400.39	8,397.37	29.89	29.88	-85.80	117.16	-106.24	105.77	46.05	59.72	1.771	
8,500.00	8,497.92	8,500.36	8,497.24	30.25	30.24	-85.74	121.09	-108.46	107.98	47.54	60.44	1.787	
8,600.00	8,597.85	8,600.34	8,597.12	30.61	30.60	-85.69	125.02	-110.68	110.19	49.03	61.16	1.802	
8,700.00	8,697.78	8,700.32	8,696.99	30.97	30.95	-85.63	128.95	-112.89	112.39	50.52	61.87	1.817	
8,800.00	8,797.71	8,800.29	8,796.86	31.32	31.31	-85.58	132.88	-115.11	114.60	52.01	62.59	1.831	
8,900.00	8,897.65	8,900.27	8,896.74	31.68	31.67	-85.53	136.81	-117.33	116.81	53.50	63.31	1.845	
9,000.00	8,997.58	9,000.24	8,996.61	32.04	32.03	-85.49	140.74	-119.55	119.01	54.99	64.03	1.859	
9,100.00	9,097.51	9,100.22	9,096.48	32.40	32.39	-85.44	144.67	-121.77	121.22	56.48	64.75	1.872	
9,200.00	9,197.44	9,200.19	9,196.36	32.76	32.75	-85.40	148.60	-123.98	123.43	57.96	65.46	1.885	
9,300.00	9,297.38	9,300.17	9,296.23	33.12	33.11	-85.35	152.53	-126.20	125.63	59.45	66.18	1.898	
9,400.00	9,397.31	9,400.15	9,396.11	33.48	33.47	-85.31	156.46	-128.42	127.84	60.94	66.90	1.911	
9,500.00	9,497.24	9,500.12	9,495.98	33.84	33.83	-85.27	160.39	-130.64	130.05	62.43	67.62	1.923	
9,600.00	9,597.17	9,600.10	9,595.85	34.20	34.19	-85.24	164.32	-132.86	132.26	63.92	68.34	1.935	
9,700.00	9,697.11	9,700.07	9,695.73	34.56	34.55	-85.20	168.25	-135.07	134.46	65.41	69.06	1.947	
9,800.00	9,797.04	9,800.05	9,795.60	34.92	34.91	-85.16	172.18	-137.29	136.67	66.90	69.78	1.959	
9,900.00	9,896.97	9,900.76	9,896.22	35.28	35.28	-85.22	175.91	-139.40	138.73	68.23	70.50	1.968	
10,000.00	9,996.90	10,002.11	9,997.53	35.64	35.64	-85.82	178.27	-140.73	139.92	68.69	71.23	1.964	
10,100.00	10,096.84	10,103.40	10,098.82	36.00	36.00	-87.02	179.07	-141.18	140.18	68.23	71.95	1.948	
10,200.00	10,196.77	10,203.35	10,198.77	36.36	36.36	-88.52	179.07	-141.18	140.04	67.37	72.67	1.927	
10,300.00	10,296.73	10,303.31	10,298.73	36.72	36.72	-89.62	179.07	-141.18	140.00	66.61	73.39	1.908	
10,369.37	10,366.09	10,372.67	10,368.09	36.96	36.97	-89.96	179.07	-141.18	139.99	66.11	73.89	1.895	
10,400.00	10,396.73	10,403.31	10,398.73	37.07	37.07	-90.00	179.07	-141.18	139.99	65.89	74.10	1.889	
10,404.00	10,400.73	10,407.31	10,402.73	37.09	37.09	-90.00	179.07	-141.18	139.99	65.86	74.13	1.888	
10,500.00	10,496.73	10,484.91	10,480.04	37.43	37.35	-91.64	175.85	-145.78	145.85	71.51	74.33	1.962	
10,600.00	10,596.73	10,560.98	10,553.98	37.79	37.60	-95.11	165.78	-160.16	165.75	92.30	73.45	2.257	
10,700.00	10,696.73	10,630.00	10,617.89	38.15	37.82	-99.16	150.93	-181.37	199.61	128.09	71.52	2.791	
10,800.00	10,796.69	10,690.93	10,670.70	38.50	38.00	31.72	133.54	-206.21	245.16	176.22	68.93	3.556	
10,900.00	10,894.91	10,750.00	10,717.80	38.81	38.18	27.16	113.13	-235.35	289.20	223.12	66.08	4.377	
11,000.00	10,987.27	10,806.08	10,758.14	39.11	38.35	24.56	90.81	-267.22	326.96	264.11	62.86	5.202	
11,100.00	11,069.74	10,862.38	10,793.77	39.38	38.54	23.20	65.84	-302.89	357.58	297.80	59.78	5.982	
11,200.00	11,138.72	10,922.77	10,826.08	39.65	38.76	22.78	36.50	-344.58	380.49	323.12	57.37	6.632	
11,300.00	11,191.83	11,020.27	10,870.93	39.94	39.14	24.61	-22.03	-408.10	390.19	332.48	57.71	6.761	
11,400.00	11,234.08	11,118.27	10,908.26	40.24	39.51	28.80	-95.53	-460.79	395.26	337.28	57.98	6.817	
11,500.00	11,265.71	11,216.34	10,936.28	40.52	39.84	31.67	-180.70	-500.09	399.18	340.87	58.31	6.846	
11,600.00	11,285.32	11,314.54	10,953.78	40.76	40.11	33.36	-274.05	-524.33	401.77	343.08	58.69	6.846	
11,700.00	11,292.08	11,412.91	10,959.99	40.95	40.32	33.99	-371.72	-532.44	402.92	343.81	59.11	6.816	
11,800.00	11,292.67	11,512.86	10,960.00	41.12	40.49	33.94	-471.67	-531.68	403.41	343.95	59.47	6.784	
11,900.00	11,293.27	11,612.86	10,960.00	41.33	40.70	33.90	-571.66	-530.90	403.90	344.01	59.89	6.744	
12,000.00	11,293.86	11,712.85	10,960.00	41.59	40.95	33.85	-671.66	-530.13	404.40	344.01	60.38	6.697	
12,100.00	11,294.46	11,812.85	10,960.00	41.90	41.25	33.80	-771.65	-529.35	404.89	343.95	60.94	6.644	
12,200.00	11,295.05	11,912.85	10,960.00	42.26	41.59	33.75	-871.65	-528.58	405.38	343.82	61.56	6.585	
12,300.00	11,295.65	12,012.85	10,960.00	42.66	41.97	33.71	-971.64	-527.80	405.87	343.62	62.25	6.520	
12,400.00	11,296.24	12,112.85	10,960.00	43.11	42.41	33.66	-1,071.64	-527.03	406.36	343.37	62.99	6.451	
12,500.00	11,296.84	12,212.85	10,960.00	43.61	42.89	33.61	-1,171.63	-526.25	406.86	343.06	63.79	6.378	

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

Aim Directional Services, LLC

Anticollision Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 3U #8H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Updated @ 3668.00usft (25'KB)
Reference Site:	Loco Dinero 36 State Com 3U #8H	MD Reference:	Updated @ 3668.00usft (25'KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	3U #8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	EDMRESTORED
Reference Design:	Lateral 1r1	Offset TVD Reference:	Offset Datum

Offset Design: Loco Dinero 36 State Com 3U #7H - 3U #7H - Planning - Lateral 1r1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre		Rule Assigned:		Distance	Minimum	Separation	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
12,600.00	11,297.43	12,312.84	10,960.00	44.15	43.42	33.56	-1,271.63	-525.48	407.35	342.70	64.65	6.301	
12,700.00	11,298.03	12,412.84	10,960.00	44.74	43.99	33.52	-1,371.62	-524.70	407.84	342.28	65.56	6.221	
12,800.00	11,298.62	12,512.84	10,960.00	45.36	44.60	33.47	-1,471.62	-523.93	408.33	341.82	66.52	6.139	
12,900.00	11,299.22	12,612.84	10,960.00	46.02	45.26	33.42	-1,571.61	-523.16	408.83	341.30	67.52	6.054	
13,000.00	11,299.81	12,712.84	10,960.00	46.72	45.95	33.38	-1,671.61	-522.38	409.32	340.74	68.58	5.969	
13,100.00	11,300.41	12,812.83	10,960.00	47.46	46.68	33.33	-1,771.60	-521.61	409.82	340.14	69.68	5.882	
13,200.00	11,301.00	12,912.83	10,960.00	48.23	47.45	33.28	-1,871.60	-520.83	410.31	339.50	70.81	5.794	
13,300.00	11,301.60	13,012.83	10,960.00	49.03	48.25	33.24	-1,971.59	-520.06	410.80	338.81	71.99	5.706	
13,400.00	11,302.19	13,112.83	10,960.00	49.86	49.08	33.19	-2,071.59	-519.28	411.30	338.09	73.21	5.618	
13,500.00	11,302.79	13,212.83	10,960.00	50.72	49.94	33.15	-2,171.58	-518.51	411.79	337.34	74.46	5.531	
13,600.00	11,303.38	13,312.83	10,960.00	51.60	50.83	33.10	-2,271.58	-517.73	412.29	336.55	75.74	5.444	
13,700.00	11,303.98	13,412.82	10,960.00	52.52	51.74	33.06	-2,371.57	-516.96	412.79	335.73	77.05	5.357	
13,800.00	11,304.57	13,512.82	10,960.00	53.45	52.68	33.01	-2,471.57	-516.18	413.28	334.88	78.40	5.272	
13,900.00	11,305.17	13,612.82	10,960.00	54.41	53.64	32.96	-2,571.57	-515.41	413.78	334.01	79.77	5.187	
14,000.00	11,305.76	13,712.82	10,960.00	55.39	54.62	32.92	-2,671.56	-514.63	414.27	333.10	81.17	5.104	
14,100.00	11,306.36	13,812.82	10,960.00	56.39	55.63	32.87	-2,771.56	-513.86	414.77	332.18	82.59	5.022	
14,200.00	11,306.95	13,912.82	10,960.00	57.41	56.66	32.83	-2,871.55	-513.08	415.27	331.23	84.04	4.941	
14,300.00	11,307.55	14,012.81	10,960.00	58.45	57.70	32.78	-2,971.55	-512.31	415.76	330.25	85.51	4.862	
14,400.00	11,308.14	14,112.81	10,960.00	59.51	58.76	32.74	-3,071.54	-511.53	416.26	329.26	87.00	4.785	
14,500.00	11,308.74	14,212.81	10,960.00	60.58	59.84	32.69	-3,171.54	-510.76	416.76	328.25	88.51	4.709	
14,600.00	11,309.33	14,312.81	10,960.00	61.67	60.94	32.65	-3,271.53	-509.99	417.26	327.22	90.04	4.634	
14,700.00	11,309.93	14,412.81	10,960.00	62.78	62.04	32.60	-3,371.53	-509.21	417.76	326.17	91.59	4.561	
14,800.00	11,310.52	14,512.80	10,960.00	63.90	63.17	32.56	-3,471.52	-508.44	418.25	325.10	93.15	4.490	
14,900.00	11,311.12	14,612.80	10,960.00	65.03	64.31	32.51	-3,571.52	-507.66	418.75	324.02	94.73	4.421	
15,000.00	11,311.71	14,712.80	10,960.00	66.17	65.46	32.47	-3,671.51	-506.89	419.25	322.93	96.32	4.353	
15,100.00	11,312.31	14,812.80	10,960.00	67.33	66.62	32.43	-3,771.51	-506.11	419.75	321.82	97.93	4.286	
15,200.00	11,312.90	14,912.80	10,960.00	68.50	67.79	32.38	-3,871.50	-505.34	420.25	320.70	99.55	4.222	
15,300.00	11,313.50	15,012.80	10,960.00	69.67	68.97	32.34	-3,971.50	-504.56	420.75	319.57	101.18	4.158	
15,400.00	11,314.09	15,112.79	10,960.00	70.86	70.17	32.29	-4,071.49	-503.79	421.25	318.42	102.83	4.097	
15,500.00	11,314.69	15,212.79	10,960.00	72.06	71.37	32.25	-4,171.49	-503.01	421.75	317.27	104.48	4.037	
15,600.00	11,315.28	15,312.79	10,960.00	73.27	72.59	32.21	-4,271.48	-502.24	422.25	316.10	106.15	3.978	
15,700.00	11,315.88	15,412.79	10,960.00	74.49	73.81	32.16	-4,371.48	-501.46	422.75	314.93	107.83	3.921	
15,800.00	11,316.47	15,512.79	10,960.00	75.71	75.04	32.12	-4,471.47	-500.69	423.25	313.74	109.51	3.865	
15,900.00	11,317.07	15,612.79	10,960.00	76.94	76.28	32.08	-4,571.47	-499.91	423.75	312.55	111.20	3.811	
16,000.00	11,317.66	15,712.78	10,960.00	78.19	77.52	32.03	-4,671.47	-499.14	424.26	311.35	112.91	3.758	
16,100.00	11,318.26	15,812.78	10,960.00	79.43	78.78	31.99	-4,771.46	-498.36	424.76	310.14	114.62	3.706	
16,200.00	11,318.85	15,912.78	10,960.00	80.69	80.04	31.95	-4,871.46	-497.59	425.26	308.92	116.33	3.655	
16,300.00	11,319.45	16,012.78	10,960.00	81.95	81.30	31.90	-4,971.45	-496.82	425.76	307.70	118.06	3.606	
16,392.90	11,320.00	16,105.13	10,960.00	82.97	82.48	31.86	-5,063.80	-496.10	426.23	306.82	119.41	3.570	

Aim Directional Services, LLC

Anticollision Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 3U #8H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Updated @ 3668.00usft (25'KB)
Reference Site:	Loco Dinero 36 State Com 3U #8H	MD Reference:	Updated @ 3668.00usft (25'KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	3U #8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	EDMRESTORED
Reference Design:	Lateral 1r1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to Updated @ 3668.00usft (25'KB)

Offset Depths are relative to Offset Datum

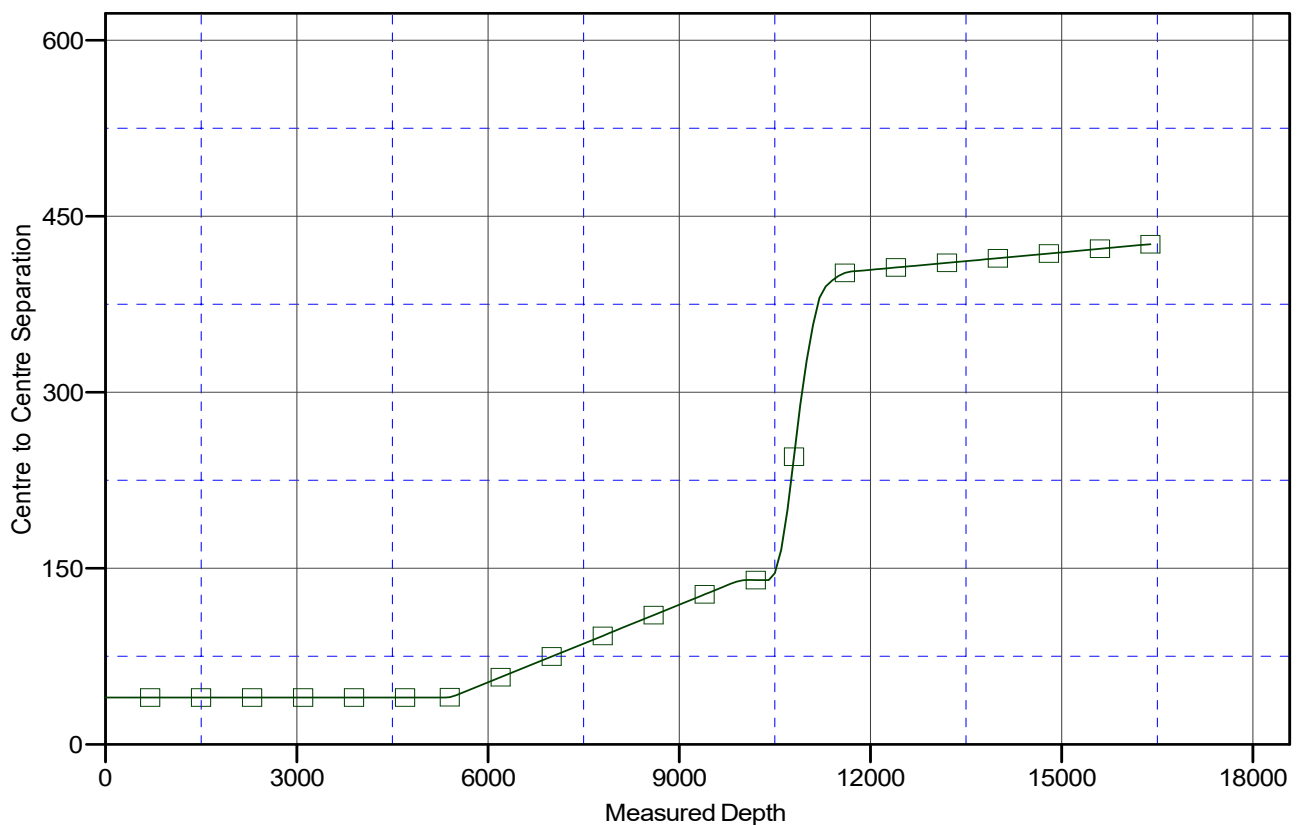
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: 3U #8H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.44°

Ladder Plot



LEGEND

—■— 3U #7H, Planning, Lateral 1r1 V0

Aim Directional Services, LLC

Anticollision Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 3U #8H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Updated @ 3668.00usft (25'KB)
Reference Site:	Loco Dinero 36 State Com 3U #8H	MD Reference:	Updated @ 3668.00usft (25'KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	3U #8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	EDMRESTORED
Reference Design:	Lateral 1r1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to Updated @ 3668.00usft (25'KB)

Offset Depths are relative to Offset Datum

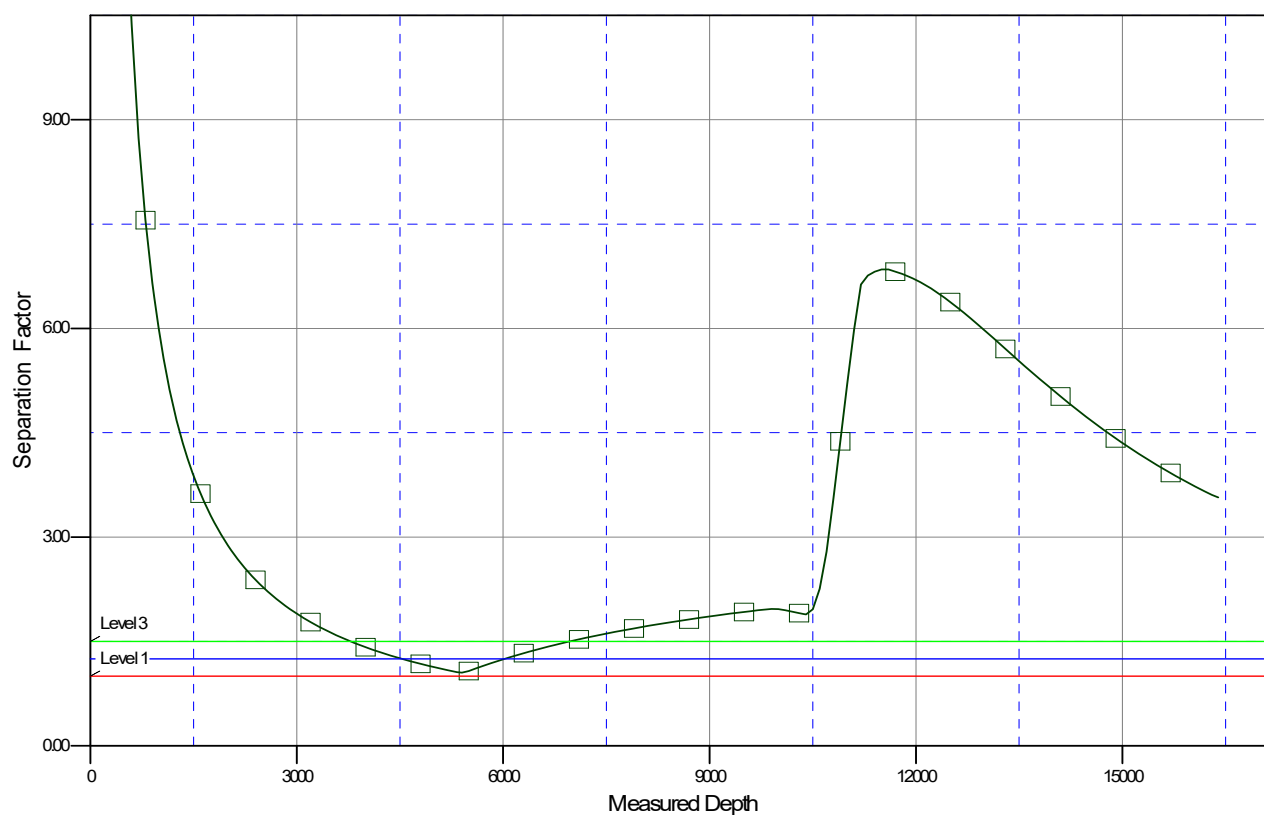
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: 3U #8H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.44°

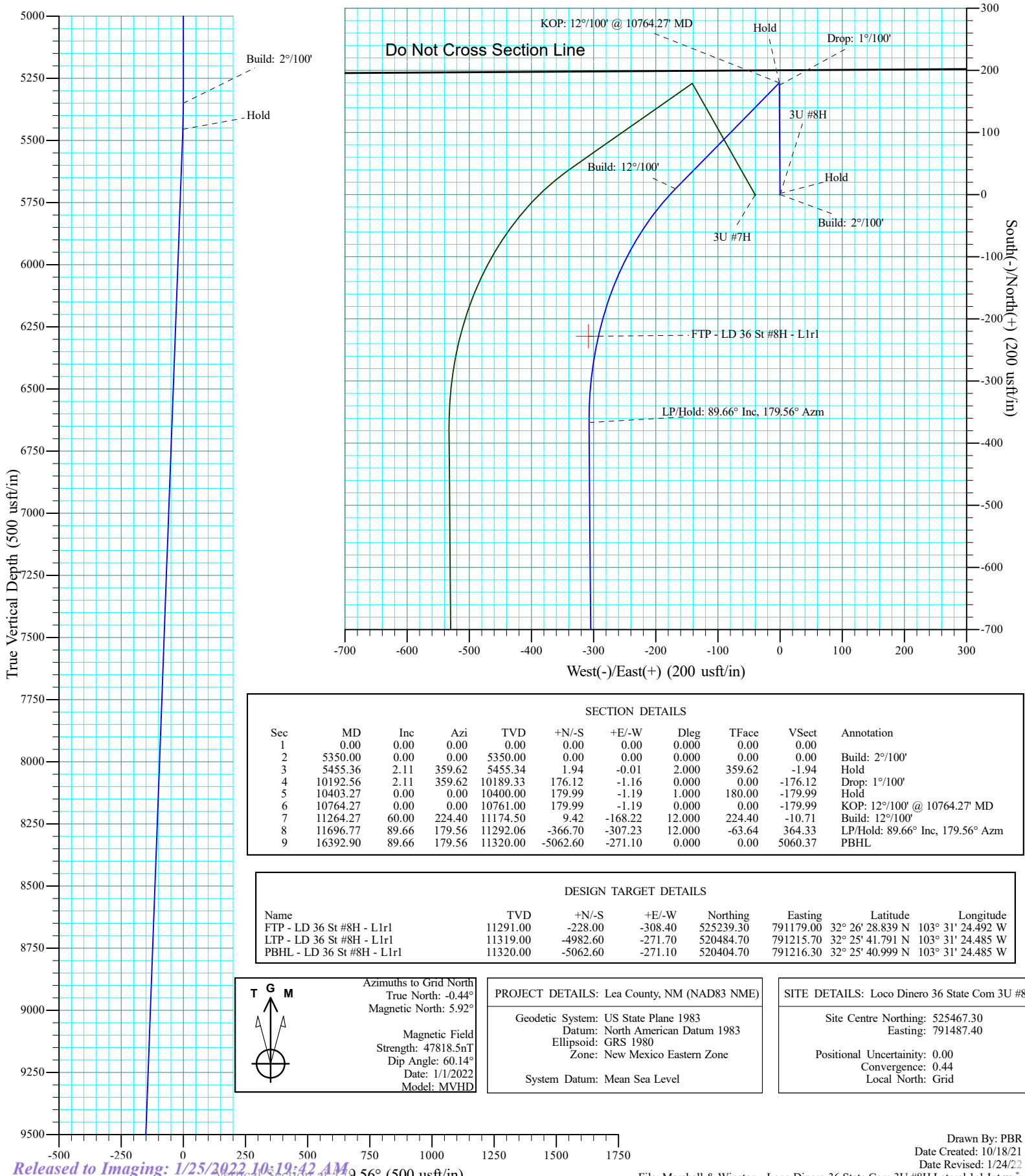
Separation Factor Plot



LEGEND

—■— 3U #8H, Planning, Lateral 1r1 V0

Loco Dinero 36 State Com 3U #8H
Lea County, NM (NAD83 NME)
Job No. WT-22-***
Lateral 1r1



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	
2	5350.00	0.00	0.00	5350.00	0.00	0.00	0.000	0.00	0.00	Build: 2°/100'
3	5455.36	2.11	359.62	5455.34	1.94	-0.01	2.000	359.62	-1.94	Hold
4	10192.56	2.11	359.62	10189.33	176.12	-1.16	0.000	0.00	-176.12	Drop: 1°/100'
5	10403.27	0.00	0.00	10400.00	179.99	-1.19	1.000	180.00	-179.99	Hold
6	10764.27	0.00	0.00	10761.00	179.99	-1.19	0.000	0.00	-179.99	KOP: 12°/100' @ 10764.27' MD
7	11264.27	60.00	224.40	11174.50	9.42	-168.22	12.000	224.40	-10.71	Build: 12°/100'
8	11696.77	89.66	179.56	11292.06	-366.70	-307.23	12.000	-63.64	364.33	LP/Hold: 89.66° Inc, 179.56° Azm
9	16392.90	89.66	179.56	11320.00	-5062.60	-271.10	0.000	0.00	5060.37	PBHL

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP - LD 36 St #8H - L1r1	11291.00	-228.00	-308.40	525239.30	791179.00	32° 26' 28.839 N	103° 31' 24.492 W
LTP - LD 36 St #8H - L1r1	11319.00	-4982.60	-271.70	520484.70	791215.70	32° 25' 41.791 N	103° 31' 24.485 W
PBHL - LD 36 St #8H - L1r1	11320.00	-5062.60	-271.10	520404.70	791216.30	32° 25' 40.999 N	103° 31' 24.485 W

T G M

Azimuths to Grid North
True North: -0.44°
Magnetic North: 5.92°

Magnetic Field
Strength: 47818.5nT
Dip Angle: 60.14°
Date: 1/1/2022
Model: MVHD

PROJECT DETAILS: Lea County, NM (NAD83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

SITE DETAILS: Loco Dinero 36 State Com 3U #8H

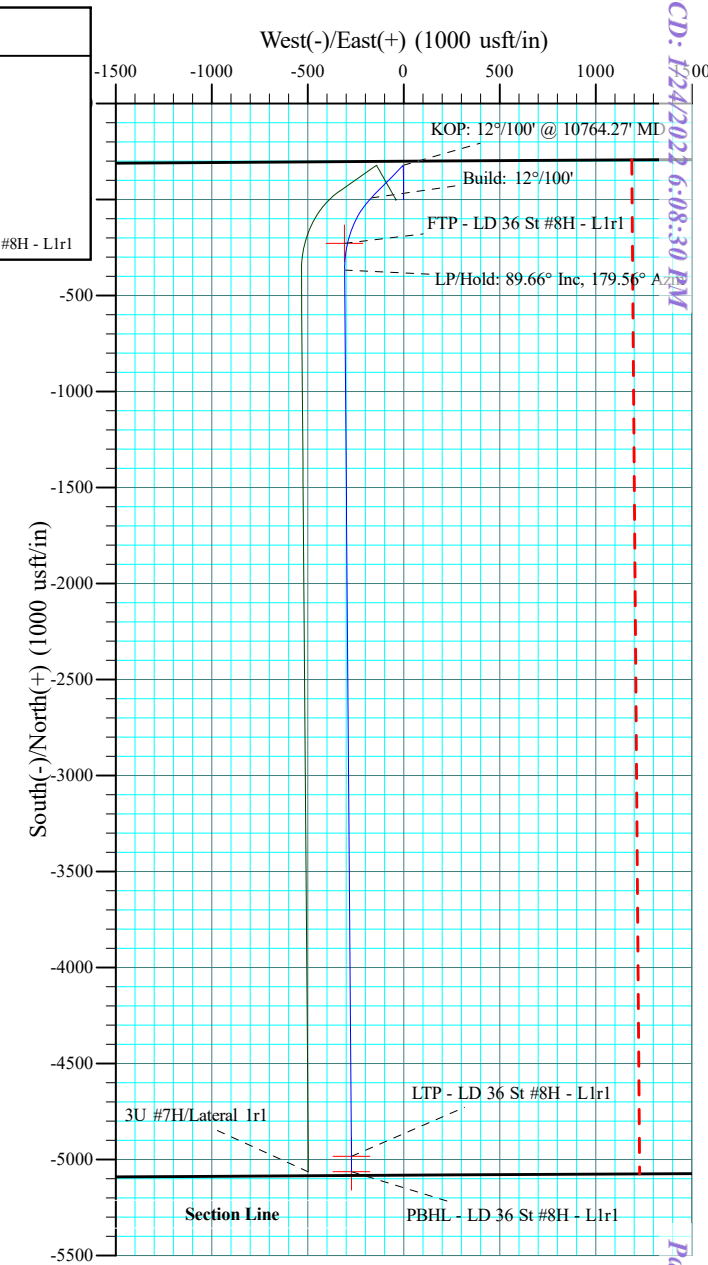
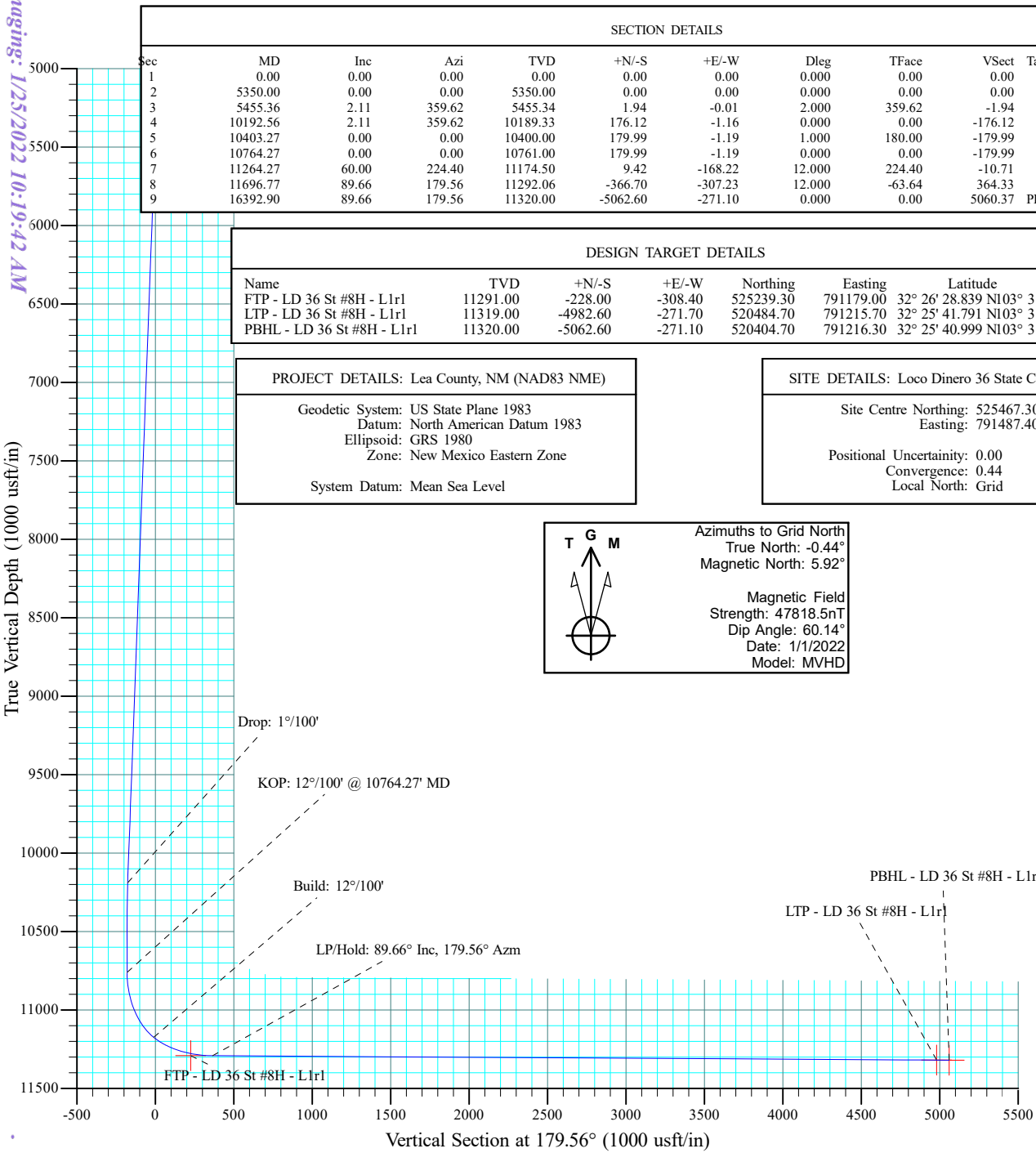
Site Centre Northing: 525467.30
Easting: 791487.40

Positional Uncertainty: 0.00
Convergence: 0.44
Local North: Grid

Loco Dinero 36 State Com 3U #8H
Lea County, NM (NAD83 NME)
Job No. WT-22-***
Lateral 1r1

Received by OCD: 1/25/2022 10:19:42 AM

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SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5350.00	0.00	0.00	5350.00	0.00	0.00	0.00	0.00	0.00	
3	5455.36	2.11	359.62	5455.34	1.94	-0.01	2.00	359.62	-1.94	
4	10192.56	2.11	359.62	10189.33	176.12	-1.16	0.00	0.00	-176.12	
5	10403.27	0.00	0.00	10400.00	179.99	-1.19	1.00	180.00	-179.99	
6	10764.27	0.00	0.00	10761.00	179.99	-1.19	0.00	0.00	-179.99	
7	11264.27	60.00	224.40	11174.50	9.42	-168.22	12.00	224.40	-10.71	
8	11696.77	89.66	179.56	11292.06	-366.70	-307.23	12.00	-63.64	364.33	
9	16392.90	89.66	179.56	11320.00	-5062.60	-271.10	0.00	0.00	5060.37	PBHL - LD 36 St #8H - L1r1

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
FTP - LD 36 St #8H - L1r1	11291.00	-228.00	-308.40	525239.30	791179.00	32° 26' 28.839 N 103° 31' 24.492 W
LTP - LD 36 St #8H - L1r1	11319.00	-4982.60	-271.70	520484.70	791215.70	32° 25' 41.791 N 103° 31' 24.485 W
PBHL - LD 36 St #8H - L1r1	11320.00	-5062.60	-271.10	520404.70	791216.30	32° 25' 40.999 N 103° 31' 24.485 W

PROJECT DETAILS: Lea County, NM (NAD83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

SITE DETAILS: Loco Dinero 36 State Com 3U #8H

Site Centre Northing: 525467.30
Easting: 791487.40

Positional Uncertainty: 0.00
Convergence: 0.44
Local North: Grid

T G M

Azimuths to Grid North
True North: -0.44°
Magnetic North: 5.92°

Magnetic Field
Strength: 47818.5nT
Dip Angle: 60.14°
Date: 1/1/2022
Model: MVHD

Aim Directional Services, LLC

Planning Report

Database:	EDMRESTORED	Local Co-ordinate Reference:	Well 3U #8H
Company:	Marshall & Winston, Inc.	TVD Reference:	Updated @ 3668.00usft (25'KB)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	Updated @ 3668.00usft (25'KB)
Site:	Loco Dinero 36 State Com 3U #8H	North Reference:	Grid
Well:	3U #8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Lateral 1r1		

Project	Lea County, NM (NAD83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Loco Dinero 36 State Com 3U #8H		
Site Position:		Northing:	525,467.30 usft
From:	Map	Easting:	791,487.40 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 26' 31.072 N
		Longitude:	103° 31' 20.874 W
		Grid Convergence:	0.44 °

Well	3U #8H		
Well Position	+N/-S	0.00 usft	Northing: 525,467.30 usft
	+E/-W	0.00 usft	Easting: 791,487.40 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	Latitude: 32° 26' 31.072 N
			Longitude: 103° 31' 20.874 W
			Ground Level: 3,643.00 usft

Wellbore	Planning				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	1/1/2022	6.36	60.14	47,818.511

Design	Lateral 1r1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.56

Plan Survey Tool Program	Date	1/24/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,392.40	Lateral 1r1 (Planning)	MWD+HDGM
				OWSG MWD + HDGM

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.00	
5,350.00	0.00	0.00	5,350.00	0.00	0.00	0.000	0.000	0.000	0.00	
5,455.36	2.11	359.62	5,455.34	1.94	-0.01	2.000	2.000	0.000	359.62	
10,192.56	2.11	359.62	10,189.33	176.12	-1.16	0.000	0.000	0.000	0.00	
10,403.27	0.00	0.00	10,400.00	179.99	-1.19	1.000	-1.000	0.000	180.00	
10,764.27	0.00	0.00	10,761.00	179.99	-1.19	0.000	0.000	0.000	0.00	
11,264.27	60.00	224.40	11,174.50	9.42	-168.22	12.000	12.000	0.000	224.40	
11,696.77	89.66	179.56	11,292.06	-366.70	-307.23	12.000	6.858	-10.368	-63.64	
16,392.90	89.66	179.56	11,320.00	-5,062.60	-271.10	0.000	0.000	0.000	0.00	PBHL - LD 36 St #8

Aim Directional Services, LLC

Planning Report

Database:	EDMRESTORED	Local Co-ordinate Reference:	Well 3U #8H
Company:	Marshall & Winston, Inc.	TVD Reference:	Updated @ 3668.00usft (25'KB)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	Updated @ 3668.00usft (25'KB)
Site:	Loco Dinero 36 State Com 3U #8H	North Reference:	Grid
Well:	3U #8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Lateral 1r1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.000	0.000	0.000
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.000	0.000	0.000
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.000	0.000	0.000
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.000	0.000	0.000
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.000	0.000	0.000
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.000	0.000	0.000
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.000	0.000	0.000
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.000	0.000	0.000
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.000	0.000	0.000
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.000	0.000	0.000
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.000	0.000	0.000
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.000	0.000	0.000
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.000	0.000	0.000
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.000	0.000	0.000
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.000	0.000	0.000
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.000	0.000	0.000
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.000	0.000	0.000
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.000	0.000	0.000
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.000	0.000	0.000
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.000	0.000	0.000
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.000	0.000	0.000
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.000	0.000	0.000
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.000	0.000	0.000
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.000	0.000	0.000
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.000	0.000	0.000
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.000	0.000	0.000
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.000	0.000	0.000
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.000	0.000	0.000
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.000	0.000	0.000
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.000	0.000	0.000
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.000	0.000	0.000
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.000	0.000	0.000
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.000	0.000	0.000
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.000	0.000	0.000
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.000	0.000	0.000
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.000	0.000	0.000
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.000	0.000	0.000
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.000	0.000	0.000
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.000	0.000	0.000
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.000	0.000	0.000
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.000	0.000	0.000
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.000	0.000	0.000
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.000	0.000	0.000
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.000	0.000	0.000
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.000	0.000	0.000
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.000	0.000	0.000
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.000	0.000	0.000
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.000	0.000	0.000
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.000	0.000	0.000
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.000	0.000	0.000
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.000	0.000	0.000
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.000	0.000	0.000
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.000	0.000	0.000

Aim Directional Services, LLC

Planning Report

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Company:	Marshall & Winston, Inc.	TVD Reference:	Updated @ 3668.00usft (25'KB)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	Updated @ 3668.00usft (25'KB)
Site:	Loco Dinero 36 State Com 3U #8H	North Reference:	Grid
Well:	3U #8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Lateral 1r1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,350.00	0.00	0.00	5,350.00	0.00	0.00	0.00	0.000	0.000	0.000	
Build: 2°/100'										
5,400.00	1.00	359.62	5,400.00	0.44	0.00	-0.44	2.000	2.000	0.000	
5,455.36	2.11	359.62	5,455.34	1.94	-0.01	-1.94	2.000	2.000	0.000	
Hold										
5,500.00	2.11	359.62	5,499.95	3.58	-0.02	-3.58	0.000	0.000	0.000	
5,600.00	2.11	359.62	5,599.88	7.26	-0.05	-7.26	0.000	0.000	0.000	
5,700.00	2.11	359.62	5,699.81	10.93	-0.07	-10.93	0.000	0.000	0.000	
5,800.00	2.11	359.62	5,799.74	14.61	-0.10	-14.61	0.000	0.000	0.000	
5,900.00	2.11	359.62	5,899.68	18.29	-0.12	-18.29	0.000	0.000	0.000	
6,000.00	2.11	359.62	5,999.61	21.96	-0.15	-21.96	0.000	0.000	0.000	
6,100.00	2.11	359.62	6,099.54	25.64	-0.17	-25.64	0.000	0.000	0.000	
6,200.00	2.11	359.62	6,199.47	29.32	-0.19	-29.32	0.000	0.000	0.000	
6,300.00	2.11	359.62	6,299.41	32.99	-0.22	-32.99	0.000	0.000	0.000	
6,400.00	2.11	359.62	6,399.34	36.67	-0.24	-36.67	0.000	0.000	0.000	
6,500.00	2.11	359.62	6,499.27	40.35	-0.27	-40.35	0.000	0.000	0.000	
6,600.00	2.11	359.62	6,599.20	44.02	-0.29	-44.02	0.000	0.000	0.000	
6,700.00	2.11	359.62	6,699.13	47.70	-0.32	-47.70	0.000	0.000	0.000	
6,800.00	2.11	359.62	6,799.07	51.38	-0.34	-51.38	0.000	0.000	0.000	
6,900.00	2.11	359.62	6,899.00	55.05	-0.36	-55.06	0.000	0.000	0.000	
7,000.00	2.11	359.62	6,998.93	58.73	-0.39	-58.73	0.000	0.000	0.000	
7,100.00	2.11	359.62	7,098.86	62.41	-0.41	-62.41	0.000	0.000	0.000	
7,200.00	2.11	359.62	7,198.80	66.08	-0.44	-66.09	0.000	0.000	0.000	
7,300.00	2.11	359.62	7,298.73	69.76	-0.46	-69.76	0.000	0.000	0.000	
7,400.00	2.11	359.62	7,398.66	73.44	-0.49	-73.44	0.000	0.000	0.000	
7,500.00	2.11	359.62	7,498.59	77.12	-0.51	-77.12	0.000	0.000	0.000	
7,600.00	2.11	359.62	7,598.53	80.79	-0.53	-80.79	0.000	0.000	0.000	
7,700.00	2.11	359.62	7,698.46	84.47	-0.56	-84.47	0.000	0.000	0.000	
7,800.00	2.11	359.62	7,798.39	88.15	-0.58	-88.15	0.000	0.000	0.000	
7,900.00	2.11	359.62	7,898.32	91.82	-0.61	-91.82	0.000	0.000	0.000	
8,000.00	2.11	359.62	7,998.26	95.50	-0.63	-95.50	0.000	0.000	0.000	
8,100.00	2.11	359.62	8,098.19	99.18	-0.66	-99.18	0.000	0.000	0.000	
8,200.00	2.11	359.62	8,198.12	102.85	-0.68	-102.86	0.000	0.000	0.000	
8,300.00	2.11	359.62	8,298.05	106.53	-0.70	-106.53	0.000	0.000	0.000	
8,400.00	2.11	359.62	8,397.99	110.21	-0.73	-110.21	0.000	0.000	0.000	
8,500.00	2.11	359.62	8,497.92	113.88	-0.75	-113.89	0.000	0.000	0.000	
8,600.00	2.11	359.62	8,597.85	117.56	-0.78	-117.56	0.000	0.000	0.000	
8,700.00	2.11	359.62	8,697.78	121.24	-0.80	-121.24	0.000	0.000	0.000	
8,800.00	2.11	359.62	8,797.71	124.91	-0.83	-124.92	0.000	0.000	0.000	
8,900.00	2.11	359.62	8,897.65	128.59	-0.85	-128.59	0.000	0.000	0.000	
9,000.00	2.11	359.62	8,997.58	132.27	-0.87	-132.27	0.000	0.000	0.000	
9,100.00	2.11	359.62	9,097.51	135.94	-0.90	-135.95	0.000	0.000	0.000	
9,200.00	2.11	359.62	9,197.44	139.62	-0.92	-139.62	0.000	0.000	0.000	
9,300.00	2.11	359.62	9,297.38	143.30	-0.95	-143.30	0.000	0.000	0.000	
9,400.00	2.11	359.62	9,397.31	146.97	-0.97	-146.98	0.000	0.000	0.000	
9,500.00	2.11	359.62	9,497.24	150.65	-1.00	-150.65	0.000	0.000	0.000	
9,600.00	2.11	359.62	9,597.17	154.33	-1.02	-154.33	0.000	0.000	0.000	
9,700.00	2.11	359.62	9,697.11	158.01	-1.04	-158.01	0.000	0.000	0.000	
9,800.00	2.11	359.62	9,797.04	161.68	-1.07	-161.69	0.000	0.000	0.000	
9,900.00	2.11	359.62	9,896.97	165.36	-1.09	-165.36	0.000	0.000	0.000	
10,000.00	2.11	359.62	9,996.90	169.04	-1.12	-169.04	0.000	0.000	0.000	
10,100.00	2.11	359.62	10,096.84	172.71	-1.14	-172.72	0.000	0.000	0.000	
10,192.56	2.11	359.62	10,189.33	176.12	-1.16	-176.12	0.000	0.000	0.000	

Aim Directional Services, LLC

Planning Report

Database:	EDMRESTORED	Local Co-ordinate Reference:	Well 3U #8H
Company:	Marshall & Winston, Inc.	TVD Reference:	Updated @ 3668.00usft (25'KB)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	Updated @ 3668.00usft (25'KB)
Site:	Loco Dinero 36 State Com 3U #8H	North Reference:	Grid
Well:	3U #8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Lateral 1r1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Drop: 1°/100'									
10,200.00	2.03	359.62	10,196.77	176.38	-1.17	-176.39	1.001	-1.001	0.000
10,300.00	1.03	359.62	10,296.73	179.06	-1.18	-179.06	1.000	-1.000	0.000
10,403.27	0.00	0.00	10,400.00	179.99	-1.19	-179.99	1.000	-1.000	0.367
Hold									
10,500.00	0.00	0.00	10,496.73	179.99	-1.19	-179.99	0.000	0.000	0.000
10,600.00	0.00	0.00	10,596.73	179.99	-1.19	-179.99	0.000	0.000	0.000
10,700.00	0.00	0.00	10,696.73	179.99	-1.19	-179.99	0.000	0.000	0.000
10,764.27	0.00	0.00	10,761.00	179.99	-1.19	-179.99	0.000	0.000	0.000
KOP: 12°/100' @ 10764.27' MD									
10,775.00	1.29	224.40	10,771.72	179.90	-1.27	-179.91	11.995	11.995	0.000
10,800.00	4.29	224.40	10,796.69	179.04	-2.12	-179.05	12.000	12.000	0.000
10,825.00	7.29	224.40	10,821.56	177.23	-3.89	-177.26	12.000	12.000	0.000
10,850.00	10.29	224.40	10,846.27	174.51	-6.56	-174.55	12.000	12.000	0.000
10,875.00	13.29	224.40	10,870.74	170.86	-10.13	-170.93	12.000	12.000	0.000
10,900.00	16.29	224.40	10,894.91	166.30	-14.60	-166.41	12.000	12.000	0.000
10,925.00	19.29	224.40	10,918.71	160.84	-19.94	-160.99	12.000	12.000	0.000
10,950.00	22.29	224.40	10,942.08	154.51	-26.15	-154.70	12.000	12.000	0.000
10,975.00	25.29	224.40	10,964.95	147.30	-33.20	-147.55	12.000	12.000	0.000
11,000.00	28.29	224.40	10,987.27	139.25	-41.08	-139.56	12.000	12.000	0.000
11,025.00	31.29	224.40	11,008.96	130.38	-49.77	-130.76	12.000	12.000	0.000
11,050.00	34.29	224.40	11,029.97	120.71	-59.24	-121.16	12.000	12.000	0.000
11,075.00	37.29	224.40	11,050.25	110.27	-69.47	-110.80	12.000	12.000	0.000
11,100.00	40.29	224.40	11,069.74	99.08	-80.43	-99.69	12.000	12.000	0.000
11,125.00	43.29	224.40	11,088.38	87.18	-92.08	-87.88	12.000	12.000	0.000
11,150.00	46.29	224.40	11,106.12	74.59	-104.40	-75.39	12.000	12.000	0.000
11,175.00	49.29	224.40	11,122.91	61.37	-117.35	-62.27	12.000	12.000	0.000
11,200.00	52.29	224.40	11,138.72	47.53	-130.91	-48.53	12.000	12.000	0.000
11,225.00	55.29	224.40	11,153.48	33.12	-145.02	-34.23	12.000	12.000	0.000
11,250.00	58.29	224.40	11,167.18	18.18	-159.65	-19.40	12.000	12.000	0.000
11,264.27	60.00	224.40	11,174.49	9.42	-168.22	-10.72	12.000	12.000	0.000
Build: 12°/100'									
11,275.00	60.58	223.08	11,179.81	2.69	-174.66	-4.03	11.998	5.392	-12.341
11,300.00	61.97	220.05	11,191.83	-13.71	-189.20	12.26	12.000	5.587	-12.111
11,325.00	63.44	217.10	11,203.29	-31.08	-203.05	29.52	12.000	5.846	-11.794
11,350.00	64.96	214.23	11,214.18	-49.37	-216.17	47.70	12.000	6.082	-11.491
11,375.00	66.53	211.43	11,224.45	-68.52	-228.52	66.76	12.000	6.298	-11.204
11,400.00	68.15	208.69	11,234.08	-88.48	-240.07	86.64	12.000	6.493	-10.936
11,425.00	69.82	206.02	11,243.05	-109.21	-250.79	107.28	12.000	6.669	-10.687
11,450.00	71.53	203.41	11,251.32	-130.64	-260.65	128.63	12.000	6.827	-10.459
11,475.00	73.27	200.84	11,258.88	-152.71	-269.62	150.64	12.000	6.968	-10.250
11,500.00	75.04	198.33	11,265.71	-175.37	-277.68	173.23	12.000	7.092	-10.063
11,525.00	76.84	195.85	11,271.78	-198.55	-284.80	196.35	12.000	7.200	-9.897
11,550.00	78.67	193.41	11,277.08	-222.18	-290.97	219.94	12.000	7.293	-9.752
11,575.00	80.51	191.01	11,281.60	-246.21	-296.17	243.93	12.000	7.372	-9.627
11,600.00	82.37	188.63	11,285.32	-270.57	-300.38	268.25	12.000	7.437	-9.524
11,625.00	84.24	186.27	11,288.24	-295.19	-303.60	292.85	12.000	7.489	-9.441
11,650.00	86.12	183.92	11,290.34	-320.00	-305.81	317.64	12.000	7.528	-9.379
11,675.00	88.01	181.59	11,291.62	-344.93	-307.01	342.57	12.000	7.553	-9.337
11,696.77	89.66	179.56	11,292.06	-366.70	-307.23	364.33	12.000	7.566	-9.316
LP/Hold: 89.66° Inc, 179.56° Azm									
11,700.00	89.66	179.56	11,292.08	-369.93	-307.20	367.56	0.010	0.006	-0.008
11,800.00	89.66	179.56	11,292.67	-469.92	-306.43	467.55	0.000	0.000	0.000

Aim Directional Services, LLC

Planning Report

Database:	EDMRESTORED	Local Co-ordinate Reference:	Well 3U #8H
Company:	Marshall & Winston, Inc.	TVD Reference:	Updated @ 3668.00usft (25'KB)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	Updated @ 3668.00usft (25'KB)
Site:	Loco Dinero 36 State Com 3U #8H	North Reference:	Grid
Well:	3U #8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Lateral 1r1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,900.00	89.66	179.56	11,293.27	-569.92	-305.66	567.55	0.000	0.000	0.000
12,000.00	89.66	179.56	11,293.86	-669.91	-304.89	667.55	0.000	0.000	0.000
12,100.00	89.66	179.56	11,294.46	-769.91	-304.12	767.55	0.000	0.000	0.000
12,200.00	89.66	179.56	11,295.05	-869.90	-303.36	867.55	0.000	0.000	0.000
12,300.00	89.66	179.56	11,295.65	-969.90	-302.59	967.54	0.000	0.000	0.000
12,400.00	89.66	179.56	11,296.24	-1,069.89	-301.82	1,067.54	0.000	0.000	0.000
12,500.00	89.66	179.56	11,296.84	-1,169.89	-301.05	1,167.54	0.000	0.000	0.000
12,600.00	89.66	179.56	11,297.43	-1,269.88	-300.28	1,267.54	0.000	0.000	0.000
12,700.00	89.66	179.56	11,298.03	-1,369.88	-299.51	1,367.54	0.000	0.000	0.000
12,800.00	89.66	179.56	11,298.62	-1,469.87	-298.74	1,467.54	0.000	0.000	0.000
12,900.00	89.66	179.56	11,299.22	-1,569.87	-297.97	1,567.53	0.000	0.000	0.000
13,000.00	89.66	179.56	11,299.81	-1,669.86	-297.20	1,667.53	0.000	0.000	0.000
13,100.00	89.66	179.56	11,300.41	-1,769.86	-296.43	1,767.53	0.000	0.000	0.000
13,200.00	89.66	179.56	11,301.00	-1,869.85	-295.66	1,867.53	0.000	0.000	0.000
13,300.00	89.66	179.56	11,301.60	-1,969.85	-294.89	1,967.53	0.000	0.000	0.000
13,400.00	89.66	179.56	11,302.19	-2,069.84	-294.12	2,067.53	0.000	0.000	0.000
13,500.00	89.66	179.56	11,302.79	-2,169.84	-293.35	2,167.52	0.000	0.000	0.000
13,600.00	89.66	179.56	11,303.38	-2,269.84	-292.59	2,267.52	0.000	0.000	0.000
13,700.00	89.66	179.56	11,303.98	-2,369.83	-291.82	2,367.52	0.000	0.000	0.000
13,800.00	89.66	179.56	11,304.57	-2,469.83	-291.05	2,467.52	0.000	0.000	0.000
13,900.00	89.66	179.56	11,305.17	-2,569.82	-290.28	2,567.52	0.000	0.000	0.000
14,000.00	89.66	179.56	11,305.76	-2,669.82	-289.51	2,667.51	0.000	0.000	0.000
14,100.00	89.66	179.56	11,306.36	-2,769.81	-288.74	2,767.51	0.000	0.000	0.000
14,200.00	89.66	179.56	11,306.95	-2,869.81	-287.97	2,867.51	0.000	0.000	0.000
14,300.00	89.66	179.56	11,307.55	-2,969.80	-287.20	2,967.51	0.000	0.000	0.000
14,400.00	89.66	179.56	11,308.14	-3,069.80	-286.43	3,067.51	0.000	0.000	0.000
14,500.00	89.66	179.56	11,308.74	-3,169.79	-285.66	3,167.51	0.000	0.000	0.000
14,600.00	89.66	179.56	11,309.33	-3,269.79	-284.89	3,267.50	0.000	0.000	0.000
14,700.00	89.66	179.56	11,309.93	-3,369.78	-284.12	3,367.50	0.000	0.000	0.000
14,800.00	89.66	179.56	11,310.52	-3,469.78	-283.35	3,467.50	0.000	0.000	0.000
14,900.00	89.66	179.56	11,311.12	-3,569.77	-282.58	3,567.50	0.000	0.000	0.000
15,000.00	89.66	179.56	11,311.71	-3,669.77	-281.82	3,667.50	0.000	0.000	0.000
15,100.00	89.66	179.56	11,312.31	-3,769.76	-281.05	3,767.50	0.000	0.000	0.000
15,200.00	89.66	179.56	11,312.90	-3,869.76	-280.28	3,867.49	0.000	0.000	0.000
15,300.00	89.66	179.56	11,313.50	-3,969.76	-279.51	3,967.49	0.000	0.000	0.000
15,400.00	89.66	179.56	11,314.09	-4,069.75	-278.74	4,067.49	0.000	0.000	0.000
15,500.00	89.66	179.56	11,314.69	-4,169.75	-277.97	4,167.49	0.000	0.000	0.000
15,600.00	89.66	179.56	11,315.28	-4,269.74	-277.20	4,267.49	0.000	0.000	0.000
15,700.00	89.66	179.56	11,315.88	-4,369.74	-276.43	4,367.48	0.000	0.000	0.000
15,800.00	89.66	179.56	11,316.47	-4,469.73	-275.66	4,467.48	0.000	0.000	0.000
15,900.00	89.66	179.56	11,317.07	-4,569.73	-274.89	4,567.48	0.000	0.000	0.000
16,000.00	89.66	179.56	11,317.66	-4,669.72	-274.12	4,667.48	0.000	0.000	0.000
16,100.00	89.66	179.56	11,318.26	-4,769.72	-273.35	4,767.48	0.000	0.000	0.000
16,200.00	89.66	179.56	11,318.85	-4,869.71	-272.58	4,867.48	0.000	0.000	0.000
16,300.00	89.66	179.56	11,319.45	-4,969.71	-271.81	4,967.47	0.000	0.000	0.000
16,392.90	89.66	179.56	11,320.00	-5,062.60	-271.10	5,060.37	0.000	0.000	0.000
PBHL									

Aim Directional Services, LLC

Planning Report

Database:	EDMRESTORED	Local Co-ordinate Reference:	Well 3U #8H
Company:	Marshall & Winston, Inc.	TVD Reference:	Updated @ 3668.00usft (25'KB)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	Updated @ 3668.00usft (25'KB)
Site:	Loco Dinero 36 State Com 3U #8H	North Reference:	Grid
Well:	3U #8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Lateral 1r1		

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,800.00	1,800.00	Casing	13-3/8	17-1/2
5,250.00	5,250.00	Casing	9-5/8	12-1/4

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,350.00	5,350.00	0.00	0.00	Build: 2°/100'
5,455.36	5,455.34	1.94	-0.01	Hold
10,192.56	10,189.33	176.12	-1.16	Drop: 1°/100'
10,403.27	10,400.00	179.99	-1.19	Hold
10,764.27	10,761.00	179.99	-1.19	KOP: 12°/100' @ 10764.27' MD
11,264.27	11,174.49	9.42	-168.22	Build: 12°/100'
11,696.77	11,292.06	-366.70	-307.23	LP/Hold: 89.66° Inc, 179.56° Azm
16,392.90	11,320.00	-5,062.60	-271.10	PBHL

Aim Directional Services, LLC

Survey Report - Geographic

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 3U #8H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Updated @ 3668.00usft (25'KB)
Site:	Loco Dinero 36 State Com 3U #8H	MD Reference:	Updated @ 3668.00usft (25'KB)
Well:	3U #8H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r1	Database:	EDMRESTORED

Project	Lea County, NM (NAD83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Loco Dinero 36 State Com 3U #8H		
Site Position:		Northing:	525,467.30 usft
From:	Map	Easting:	791,487.40 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 26' 31.072 N
		Longitude:	103° 31' 20.874 W
		Grid Convergence:	0.44 °

Well	3U #8H		
Well Position	+N/-S	0.00 usft	Northing: 525,467.30 usft
	+E/-W	0.00 usft	Easting: 791,487.40 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 26' 31.072 N
		Longitude:	103° 31' 20.874 W
		Ground Level:	3,643.00 usft

Wellbore	Planning		
Magnetics	Model Name	Sample Date	Declination (°)
	MVHD	1/1/2022	6.36
			Dip Angle (°) 60.14
			Field Strength (nT) 47,818.511

Design	Lateral 1r1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°) 179.56

Survey Tool Program	Date	1/24/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	16,392.40	Lateral 1r1 (Planning)	MWD+HDGM	OWSG MWD + HDGM

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
100.00	0.00	0.00	100.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
200.00	0.00	0.00	200.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
300.00	0.00	0.00	300.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
400.00	0.00	0.00	400.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
500.00	0.00	0.00	500.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
600.00	0.00	0.00	600.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
700.00	0.00	0.00	700.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
800.00	0.00	0.00	800.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
900.00	0.00	0.00	900.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
1,100.00	0.00	0.00	1,100.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W

Aim Directional Services, LLC

Survey Report - Geographic

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 3U #8H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Updated @ 3668.00usft (25'KB)
Site:	Loco Dinero 36 State Com 3U #8H	MD Reference:	Updated @ 3668.00usft (25'KB)
Well:	3U #8H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r1	Database:	EDMRESTORED

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,200.00	0.00	0.00	1,200.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
1,300.00	0.00	0.00	1,300.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
1,400.00	0.00	0.00	1,400.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
1,500.00	0.00	0.00	1,500.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
1,600.00	0.00	0.00	1,600.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
1,700.00	0.00	0.00	1,700.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
1,800.00	0.00	0.00	1,800.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
1,900.00	0.00	0.00	1,900.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
2,000.00	0.00	0.00	2,000.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
2,100.00	0.00	0.00	2,100.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
2,200.00	0.00	0.00	2,200.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
2,300.00	0.00	0.00	2,300.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
2,400.00	0.00	0.00	2,400.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
2,500.00	0.00	0.00	2,500.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
2,600.00	0.00	0.00	2,600.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
2,700.00	0.00	0.00	2,700.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
2,800.00	0.00	0.00	2,800.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
2,900.00	0.00	0.00	2,900.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
3,000.00	0.00	0.00	3,000.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
3,100.00	0.00	0.00	3,100.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
3,200.00	0.00	0.00	3,200.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
3,300.00	0.00	0.00	3,300.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
3,400.00	0.00	0.00	3,400.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
3,500.00	0.00	0.00	3,500.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
3,600.00	0.00	0.00	3,600.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
3,700.00	0.00	0.00	3,700.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
3,800.00	0.00	0.00	3,800.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
3,900.00	0.00	0.00	3,900.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
4,000.00	0.00	0.00	4,000.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
4,100.00	0.00	0.00	4,100.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
4,200.00	0.00	0.00	4,200.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
4,300.00	0.00	0.00	4,300.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
4,400.00	0.00	0.00	4,400.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
4,500.00	0.00	0.00	4,500.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
4,600.00	0.00	0.00	4,600.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
4,700.00	0.00	0.00	4,700.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
4,800.00	0.00	0.00	4,800.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
4,900.00	0.00	0.00	4,900.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
5,000.00	0.00	0.00	5,000.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
5,100.00	0.00	0.00	5,100.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
5,200.00	0.00	0.00	5,200.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
5,300.00	0.00	0.00	5,300.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
5,350.00	0.00	0.00	5,350.00	0.00	0.00	525,467.30	791,487.40	32° 26' 31.072 N	103° 31' 20.874 W
Build: 2°/100'									
5,400.00	1.00	359.62	5,400.00	0.44	0.00	525,467.74	791,487.39	32° 26' 31.076 N	103° 31' 20.874 W
5,455.36	2.11	359.62	5,455.34	1.94	-0.01	525,469.24	791,487.38	32° 26' 31.091 N	103° 31' 20.874 W
Hold									
5,500.00	2.11	359.62	5,499.95	3.58	-0.02	525,470.88	791,487.37	32° 26' 31.107 N	103° 31' 20.874 W
5,600.00	2.11	359.62	5,599.88	7.26	-0.05	525,474.56	791,487.35	32° 26' 31.144 N	103° 31' 20.874 W
5,700.00	2.11	359.62	5,699.81	10.93	-0.07	525,478.23	791,487.33	32° 26' 31.180 N	103° 31' 20.874 W
5,800.00	2.11	359.62	5,799.74	14.61	-0.10	525,481.91	791,487.30	32° 26' 31.217 N	103° 31' 20.874 W
5,900.00	2.11	359.62	5,899.68	18.29	-0.12	525,485.59	791,487.28	32° 26' 31.253 N	103° 31' 20.874 W
6,000.00	2.11	359.62	5,999.61	21.96	-0.15	525,489.26	791,487.25	32° 26' 31.289 N	103° 31' 20.874 W
6,100.00	2.11	359.62	6,099.54	25.64	-0.17	525,492.94	791,487.23	32° 26' 31.326 N	103° 31' 20.873 W
6,200.00	2.11	359.62	6,199.47	29.32	-0.19	525,496.62	791,487.20	32° 26' 31.362 N	103° 31' 20.873 W

Aim Directional Services, LLC

Survey Report - Geographic

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 3U #8H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Updated @ 3668.00usft (25'KB)
Site:	Loco Dinero 36 State Com 3U #8H	MD Reference:	Updated @ 3668.00usft (25'KB)
Well:	3U #8H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r1	Database:	EDMRESTORED

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,300.00	2.11	359.62	6,299.41	32.99	-0.22	525,500.29	791,487.18	32° 26' 31.398 N	103° 31' 20.873 W
6,400.00	2.11	359.62	6,399.34	36.67	-0.24	525,503.97	791,487.16	32° 26' 31.435 N	103° 31' 20.873 W
6,500.00	2.11	359.62	6,499.27	40.35	-0.27	525,507.65	791,487.13	32° 26' 31.471 N	103° 31' 20.873 W
6,600.00	2.11	359.62	6,599.20	44.02	-0.29	525,511.33	791,487.11	32° 26' 31.508 N	103° 31' 20.873 W
6,700.00	2.11	359.62	6,699.13	47.70	-0.32	525,515.00	791,487.08	32° 26' 31.544 N	103° 31' 20.873 W
6,800.00	2.11	359.62	6,799.07	51.38	-0.34	525,518.68	791,487.06	32° 26' 31.580 N	103° 31' 20.873 W
6,900.00	2.11	359.62	6,899.00	55.05	-0.36	525,522.36	791,487.03	32° 26' 31.617 N	103° 31' 20.873 W
7,000.00	2.11	359.62	6,998.93	58.73	-0.39	525,526.03	791,487.01	32° 26' 31.653 N	103° 31' 20.873 W
7,100.00	2.11	359.62	7,098.86	62.41	-0.41	525,529.71	791,486.99	32° 26' 31.689 N	103° 31' 20.873 W
7,200.00	2.11	359.62	7,198.80	66.08	-0.44	525,533.39	791,486.96	32° 26' 31.726 N	103° 31' 20.873 W
7,300.00	2.11	359.62	7,298.73	69.76	-0.46	525,537.06	791,486.94	32° 26' 31.762 N	103° 31' 20.873 W
7,400.00	2.11	359.62	7,398.66	73.44	-0.49	525,540.74	791,486.91	32° 26' 31.799 N	103° 31' 20.873 W
7,500.00	2.11	359.62	7,498.59	77.12	-0.51	525,544.42	791,486.89	32° 26' 31.835 N	103° 31' 20.873 W
7,600.00	2.11	359.62	7,598.53	80.79	-0.53	525,548.09	791,486.86	32° 26' 31.871 N	103° 31' 20.873 W
7,700.00	2.11	359.62	7,698.46	84.47	-0.56	525,551.77	791,486.84	32° 26' 31.908 N	103° 31' 20.873 W
7,800.00	2.11	359.62	7,798.39	88.15	-0.58	525,555.45	791,486.81	32° 26' 31.944 N	103° 31' 20.873 W
7,900.00	2.11	359.62	7,898.32	91.82	-0.61	525,559.12	791,486.79	32° 26' 31.981 N	103° 31' 20.873 W
8,000.00	2.11	359.62	7,998.26	95.50	-0.63	525,562.80	791,486.77	32° 26' 32.017 N	103° 31' 20.873 W
8,100.00	2.11	359.62	8,098.19	99.18	-0.66	525,566.48	791,486.74	32° 26' 32.053 N	103° 31' 20.873 W
8,200.00	2.11	359.62	8,198.12	102.85	-0.68	525,570.15	791,486.72	32° 26' 32.090 N	103° 31' 20.873 W
8,300.00	2.11	359.62	8,298.05	106.53	-0.70	525,573.83	791,486.69	32° 26' 32.126 N	103° 31' 20.873 W
8,400.00	2.11	359.62	8,397.99	110.21	-0.73	525,577.51	791,486.67	32° 26' 32.162 N	103° 31' 20.872 W
8,500.00	2.11	359.62	8,497.92	113.88	-0.75	525,581.19	791,486.64	32° 26' 32.199 N	103° 31' 20.872 W
8,600.00	2.11	359.62	8,597.85	117.56	-0.78	525,584.86	791,486.62	32° 26' 32.235 N	103° 31' 20.872 W
8,700.00	2.11	359.62	8,697.78	121.24	-0.80	525,588.54	791,486.60	32° 26' 32.272 N	103° 31' 20.872 W
8,800.00	2.11	359.62	8,797.71	124.91	-0.83	525,592.22	791,486.57	32° 26' 32.308 N	103° 31' 20.872 W
8,900.00	2.11	359.62	8,897.65	128.59	-0.85	525,595.89	791,486.55	32° 26' 32.344 N	103° 31' 20.872 W
9,000.00	2.11	359.62	8,997.58	132.27	-0.87	525,599.57	791,486.52	32° 26' 32.381 N	103° 31' 20.872 W
9,100.00	2.11	359.62	9,097.51	135.94	-0.90	525,603.25	791,486.50	32° 26' 32.417 N	103° 31' 20.872 W
9,200.00	2.11	359.62	9,197.44	139.62	-0.92	525,606.92	791,486.47	32° 26' 32.454 N	103° 31' 20.872 W
9,300.00	2.11	359.62	9,297.38	143.30	-0.95	525,610.60	791,486.45	32° 26' 32.490 N	103° 31' 20.872 W
9,400.00	2.11	359.62	9,397.31	146.97	-0.97	525,614.28	791,486.43	32° 26' 32.526 N	103° 31' 20.872 W
9,500.00	2.11	359.62	9,497.24	150.65	-1.00	525,617.95	791,486.40	32° 26' 32.563 N	103° 31' 20.872 W
9,600.00	2.11	359.62	9,597.17	154.33	-1.02	525,621.63	791,486.38	32° 26' 32.599 N	103° 31' 20.872 W
9,700.00	2.11	359.62	9,697.11	158.01	-1.04	525,625.31	791,486.35	32° 26' 32.635 N	103° 31' 20.872 W
9,800.00	2.11	359.62	9,797.04	161.68	-1.07	525,628.98	791,486.33	32° 26' 32.672 N	103° 31' 20.872 W
9,900.00	2.11	359.62	9,896.97	165.36	-1.09	525,632.66	791,486.30	32° 26' 32.708 N	103° 31' 20.872 W
10,000.00	2.11	359.62	9,996.90	169.04	-1.12	525,636.34	791,486.28	32° 26' 32.745 N	103° 31' 20.872 W
10,100.00	2.11	359.62	10,096.84	172.71	-1.14	525,640.01	791,486.26	32° 26' 32.781 N	103° 31' 20.872 W
10,192.56	2.11	359.62	10,189.33	176.12	-1.16	525,643.42	791,486.23	32° 26' 32.815 N	103° 31' 20.872 W
Drop: 1°/100'									
10,200.00	2.03	359.62	10,196.77	176.38	-1.17	525,643.69	791,486.23	32° 26' 32.817 N	103° 31' 20.872 W
10,300.00	1.03	359.62	10,296.73	179.06	-1.18	525,646.36	791,486.21	32° 26' 32.844 N	103° 31' 20.872 W
10,403.27	0.00	0.00	10,400.00	179.99	-1.19	525,647.29	791,486.21	32° 26' 32.853 N	103° 31' 20.872 W
Hold									
10,500.00	0.00	0.00	10,496.73	179.99	-1.19	525,647.29	791,486.21	32° 26' 32.853 N	103° 31' 20.872 W
10,600.00	0.00	0.00	10,596.73	179.99	-1.19	525,647.29	791,486.21	32° 26' 32.853 N	103° 31' 20.872 W
10,700.00	0.00	0.00	10,696.73	179.99	-1.19	525,647.29	791,486.21	32° 26' 32.853 N	103° 31' 20.872 W
10,764.27	0.00	0.00	10,761.00	179.99	-1.19	525,647.29	791,486.21	32° 26' 32.853 N	103° 31' 20.872 W
KOP: 12°/100' @ 10764.27' MD									
10,775.00	1.29	224.40	10,771.72	179.90	-1.27	525,647.21	791,486.12	32° 26' 32.852 N	103° 31' 20.873 W
10,800.00	4.29	224.40	10,796.69	179.04	-2.12	525,646.34	791,485.27	32° 26' 32.844 N	103° 31' 20.883 W
10,825.00	7.29	224.40	10,821.56	177.23	-3.89	525,644.54	791,483.51	32° 26' 32.826 N	103° 31' 20.903 W
10,850.00	10.29	224.40	10,846.27	174.51	-6.56	525,641.81	791,480.84	32° 26' 32.799 N	103° 31' 20.935 W
10,875.00	13.29	224.40	10,870.74	170.86	-10.13	525,638.16	791,477.27	32° 26' 32.763 N	103° 31' 20.977 W

Aim Directional Services, LLC

Survey Report - Geographic

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 3U #8H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Updated @ 3668.00usft (25'KB)
Site:	Loco Dinero 36 State Com 3U #8H	MD Reference:	Updated @ 3668.00usft (25'KB)
Well:	3U #8H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r1	Database:	EDMRESTORED

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,900.00	16.29	224.40	10,894.91	166.30	-14.60	525,633.60	791,472.80	32° 26' 32.719 N	103° 31' 21.029 W
10,925.00	19.29	224.40	10,918.71	160.84	-19.94	525,628.15	791,467.46	32° 26' 32.665 N	103° 31' 21.092 W
10,950.00	22.29	224.40	10,942.08	154.51	-26.15	525,621.81	791,461.25	32° 26' 32.603 N	103° 31' 21.165 W
10,975.00	25.29	224.40	10,964.95	147.30	-33.20	525,614.60	791,454.20	32° 26' 32.532 N	103° 31' 21.248 W
11,000.00	28.29	224.40	10,987.27	139.25	-41.08	525,606.55	791,446.32	32° 26' 32.453 N	103° 31' 21.341 W
11,025.00	31.29	224.40	11,008.96	130.38	-49.77	525,597.68	791,437.63	32° 26' 32.366 N	103° 31' 21.443 W
11,050.00	34.29	224.40	11,029.97	120.71	-59.24	525,588.01	791,428.16	32° 26' 32.271 N	103° 31' 21.554 W
11,075.00	37.29	224.40	11,050.25	110.27	-69.47	525,577.57	791,417.93	32° 26' 32.168 N	103° 31' 21.675 W
11,100.00	40.29	224.40	11,069.74	99.08	-80.43	525,566.38	791,406.97	32° 26' 32.058 N	103° 31' 21.803 W
11,125.00	43.29	224.40	11,088.38	87.18	-92.08	525,554.48	791,395.32	32° 26' 31.941 N	103° 31' 21.940 W
11,150.00	46.29	224.40	11,106.12	74.59	-104.40	525,541.90	791,383.00	32° 26' 31.818 N	103° 31' 22.085 W
11,175.00	49.29	224.40	11,122.91	61.37	-117.35	525,528.67	791,370.04	32° 26' 31.688 N	103° 31' 22.238 W
11,200.00	52.29	224.40	11,138.72	47.53	-130.91	525,514.83	791,356.49	32° 26' 31.552 N	103° 31' 22.397 W
11,225.00	55.29	224.40	11,153.48	33.12	-145.02	525,500.42	791,342.38	32° 26' 31.411 N	103° 31' 22.563 W
11,250.00	58.29	224.40	11,167.18	18.18	-159.65	525,485.48	791,327.75	32° 26' 31.264 N	103° 31' 22.735 W
11,264.27	60.00	224.40	11,174.49	9.42	-168.22	525,476.73	791,319.18	32° 26' 31.178 N	103° 31' 22.836 W
Build: 12°/100'									
11,275.00	60.58	223.08	11,179.81	2.69	-174.66	525,469.99	791,312.74	32° 26' 31.112 N	103° 31' 22.912 W
11,300.00	61.97	220.05	11,191.83	-13.71	-189.20	525,453.59	791,298.20	32° 26' 30.950 N	103° 31' 23.083 W
11,325.00	63.44	217.10	11,203.29	-31.08	-203.05	525,436.22	791,284.35	32° 26' 30.780 N	103° 31' 23.246 W
11,350.00	64.96	214.23	11,214.18	-49.37	-216.17	525,417.94	791,271.23	32° 26' 30.600 N	103° 31' 23.400 W
11,375.00	66.53	211.43	11,224.45	-68.52	-228.52	525,398.78	791,258.88	32° 26' 30.411 N	103° 31' 23.546 W
11,400.00	68.15	208.69	11,234.08	-88.48	-240.07	525,378.82	791,247.33	32° 26' 30.214 N	103° 31' 23.683 W
11,425.00	69.82	206.02	11,243.05	-109.21	-250.79	525,358.09	791,236.61	32° 26' 30.010 N	103° 31' 23.810 W
11,450.00	71.53	203.41	11,251.32	-130.64	-260.65	525,336.66	791,226.75	32° 26' 29.799 N	103° 31' 23.927 W
11,475.00	73.27	200.84	11,258.88	-152.71	-269.62	525,314.59	791,217.78	32° 26' 29.581 N	103° 31' 24.033 W
11,500.00	75.04	198.33	11,265.71	-175.37	-277.68	525,291.93	791,209.72	32° 26' 29.358 N	103° 31' 24.129 W
11,525.00	76.84	195.85	11,271.78	-198.55	-284.80	525,268.75	791,202.60	32° 26' 29.129 N	103° 31' 24.215 W
11,550.00	78.67	193.41	11,277.08	-222.18	-290.97	525,245.12	791,196.43	32° 26' 28.895 N	103° 31' 24.289 W
11,575.00	80.51	191.01	11,281.60	-246.21	-296.17	525,221.09	791,191.23	32° 26' 28.658 N	103° 31' 24.351 W
11,600.00	82.37	188.63	11,285.32	-270.57	-300.38	525,196.73	791,187.02	32° 26' 28.417 N	103° 31' 24.403 W
11,625.00	84.24	186.27	11,288.24	-295.19	-303.60	525,172.11	791,183.80	32° 26' 28.174 N	103° 31' 24.442 W
11,650.00	86.12	183.92	11,290.34	-320.00	-305.81	525,147.30	791,181.59	32° 26' 27.929 N	103° 31' 24.470 W
11,675.00	88.01	181.59	11,291.62	-344.93	-307.01	525,122.37	791,180.39	32° 26' 27.682 N	103° 31' 24.487 W
11,696.77	89.66	179.56	11,292.06	-366.70	-307.23	525,100.61	791,180.17	32° 26' 27.467 N	103° 31' 24.491 W
LP/Hold: 89.66° Inc, 179.56° Azm									
11,700.00	89.66	179.56	11,292.08	-369.93	-307.20	525,097.38	791,180.20	32° 26' 27.435 N	103° 31' 24.491 W
11,800.00	89.66	179.56	11,292.67	-469.92	-306.43	524,997.38	791,180.96	32° 26' 26.445 N	103° 31' 24.491 W
11,900.00	89.66	179.56	11,293.27	-569.92	-305.66	524,897.39	791,181.73	32° 26' 25.456 N	103° 31' 24.491 W
12,000.00	89.66	179.56	11,293.86	-669.91	-304.89	524,797.39	791,182.50	32° 26' 24.466 N	103° 31' 24.491 W
12,100.00	89.66	179.56	11,294.46	-769.91	-304.12	524,697.40	791,183.27	32° 26' 23.477 N	103° 31' 24.491 W
12,200.00	89.66	179.56	11,295.05	-869.90	-303.36	524,597.40	791,184.04	32° 26' 22.487 N	103° 31' 24.490 W
12,300.00	89.66	179.56	11,295.65	-969.90	-302.59	524,497.40	791,184.81	32° 26' 21.498 N	103° 31' 24.490 W
12,400.00	89.66	179.56	11,296.24	-1,069.89	-301.82	524,397.41	791,185.58	32° 26' 20.508 N	103° 31' 24.490 W
12,500.00	89.66	179.56	11,296.84	-1,169.89	-301.05	524,297.41	791,186.35	32° 26' 19.519 N	103° 31' 24.490 W
12,600.00	89.66	179.56	11,297.43	-1,269.88	-300.28	524,197.42	791,187.12	32° 26' 18.529 N	103° 31' 24.490 W
12,700.00	89.66	179.56	11,298.03	-1,369.88	-299.51	524,097.42	791,187.89	32° 26' 17.540 N	103° 31' 24.490 W
12,800.00	89.66	179.56	11,298.62	-1,469.87	-298.74	523,997.43	791,188.66	32° 26' 16.550 N	103° 31' 24.490 W
12,900.00	89.66	179.56	11,299.22	-1,569.87	-297.97	523,897.43	791,189.43	32° 26' 15.561 N	103° 31' 24.490 W
13,000.00	89.66	179.56	11,299.81	-1,669.86	-297.20	523,797.44	791,190.20	32° 26' 14.571 N	103° 31' 24.489 W
13,100.00	89.66	179.56	11,300.41	-1,769.86	-296.43	523,697.44	791,190.97	32° 26' 13.582 N	103° 31' 24.489 W
13,200.00	89.66	179.56	11,301.00	-1,869.85	-295.66	523,597.45	791,191.73	32° 26' 12.592 N	103° 31' 24.489 W
13,300.00	89.66	179.56	11,301.60	-1,969.85	-294.89	523,497.45	791,192.50	32° 26' 11.603 N	103° 31' 24.489 W
13,400.00	89.66	179.56	11,302.19	-2,069.84	-294.12	523,397.46	791,193.27	32° 26' 10.613 N	103° 31' 24.489 W
13,500.00	89.66	179.56	11,302.79	-2,169.84	-293.35	523,297.46	791,194.04	32° 26' 9.624 N	103° 31' 24.489 W

Aim Directional Services, LLC

Survey Report - Geographic

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 3U #8H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Updated @ 3668.00usft (25'KB)
Site:	Loco Dinero 36 State Com 3U #8H	MD Reference:	Updated @ 3668.00usft (25'KB)
Well:	3U #8H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r1	Database:	EDMRESTORED

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
13,600.00	89.66	179.56	11,303.38	-2,269.84	-292.59	523,197.47	791,194.81	32° 26' 8.634 N	103° 31' 24.489 W
13,700.00	89.66	179.56	11,303.98	-2,369.83	-291.82	523,097.47	791,195.58	32° 26' 7.645 N	103° 31' 24.488 W
13,800.00	89.66	179.56	11,304.57	-2,469.83	-291.05	522,997.48	791,196.35	32° 26' 6.656 N	103° 31' 24.488 W
13,900.00	89.66	179.56	11,305.17	-2,569.82	-290.28	522,897.48	791,197.12	32° 26' 5.666 N	103° 31' 24.488 W
14,000.00	89.66	179.56	11,305.76	-2,669.82	-289.51	522,797.49	791,197.89	32° 26' 4.677 N	103° 31' 24.488 W
14,100.00	89.66	179.56	11,306.36	-2,769.81	-288.74	522,697.49	791,198.66	32° 26' 3.687 N	103° 31' 24.488 W
14,200.00	89.66	179.56	11,306.95	-2,869.81	-287.97	522,597.49	791,199.43	32° 26' 2.698 N	103° 31' 24.488 W
14,300.00	89.66	179.56	11,307.55	-2,969.80	-287.20	522,497.50	791,200.20	32° 26' 1.708 N	103° 31' 24.488 W
14,400.00	89.66	179.56	11,308.14	-3,069.80	-286.43	522,397.50	791,200.97	32° 26' 0.719 N	103° 31' 24.488 W
14,500.00	89.66	179.56	11,308.74	-3,169.79	-285.66	522,297.51	791,201.74	32° 25' 59.729 N	103° 31' 24.487 W
14,600.00	89.66	179.56	11,309.33	-3,269.79	-284.89	522,197.51	791,202.51	32° 25' 58.740 N	103° 31' 24.487 W
14,700.00	89.66	179.56	11,309.93	-3,369.78	-284.12	522,097.52	791,203.27	32° 25' 57.750 N	103° 31' 24.487 W
14,800.00	89.66	179.56	11,310.52	-3,469.78	-283.35	521,997.52	791,204.04	32° 25' 56.761 N	103° 31' 24.487 W
14,900.00	89.66	179.56	11,311.12	-3,569.77	-282.58	521,897.53	791,204.81	32° 25' 55.771 N	103° 31' 24.487 W
15,000.00	89.66	179.56	11,311.71	-3,669.77	-281.82	521,797.53	791,205.58	32° 25' 54.782 N	103° 31' 24.487 W
15,100.00	89.66	179.56	11,312.31	-3,769.76	-281.05	521,697.54	791,206.35	32° 25' 53.792 N	103° 31' 24.487 W
15,200.00	89.66	179.56	11,312.90	-3,869.76	-280.28	521,597.54	791,207.12	32° 25' 52.803 N	103° 31' 24.487 W
15,300.00	89.66	179.56	11,313.50	-3,969.76	-279.51	521,497.55	791,207.89	32° 25' 51.813 N	103° 31' 24.486 W
15,400.00	89.66	179.56	11,314.09	-4,069.75	-278.74	521,397.55	791,208.66	32° 25' 50.824 N	103° 31' 24.486 W
15,500.00	89.66	179.56	11,314.69	-4,169.75	-277.97	521,297.56	791,209.43	32° 25' 49.834 N	103° 31' 24.486 W
15,600.00	89.66	179.56	11,315.28	-4,269.74	-277.20	521,197.56	791,210.20	32° 25' 48.845 N	103° 31' 24.486 W
15,700.00	89.66	179.56	11,315.88	-4,369.74	-276.43	521,097.57	791,210.97	32° 25' 47.855 N	103° 31' 24.486 W
15,800.00	89.66	179.56	11,316.47	-4,469.73	-275.66	520,997.57	791,211.74	32° 25' 46.866 N	103° 31' 24.486 W
15,900.00	89.66	179.56	11,317.07	-4,569.73	-274.89	520,897.58	791,212.51	32° 25' 45.876 N	103° 31' 24.486 W
16,000.00	89.66	179.56	11,317.66	-4,669.72	-274.12	520,797.58	791,213.28	32° 25' 44.887 N	103° 31' 24.485 W
16,100.00	89.66	179.56	11,318.26	-4,769.72	-273.35	520,697.58	791,214.04	32° 25' 43.897 N	103° 31' 24.485 W
16,200.00	89.66	179.56	11,318.85	-4,869.71	-272.58	520,597.59	791,214.81	32° 25' 42.908 N	103° 31' 24.485 W
16,300.00	89.66	179.56	11,319.45	-4,969.71	-271.81	520,497.59	791,215.58	32° 25' 41.918 N	103° 31' 24.485 W
16,392.90	89.66	179.56	11,320.00	-5,062.60	-271.10	520,404.70	791,216.30	32° 25' 40.999 N	103° 31' 24.485 W
PBHL									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP - LD 36 St #8H - - hit/miss target - Shape	0.00	0.00	11,291.00	-228.00	-308.40	525,239.30	791,179.00	32° 26' 28.839 N	103° 31' 24.492 W
- plan misses target center by 19.68usft at 11561.73usft MD (11279.30 TVD, -233.42 N, -293.53 E)									
- Point									
LTP - LD 36 St #8H - I - plan misses target center by 12.90usft at 16300.00usft MD (11319.45 TVD, -4969.71 N, -271.81 E)	0.00	0.00	11,319.00	-4,982.60	-271.70	520,484.70	791,215.70	32° 25' 41.791 N	103° 31' 24.485 W
- Point									
PBHL - LD 36 St #8H - plan hits target center - Point	0.00	0.00	11,320.00	-5,062.60	-271.10	520,404.70	791,216.30	32° 25' 40.999 N	103° 31' 24.485 W

Aim Directional Services, LLC

Survey Report - Geographic

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 3U #8H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Updated @ 3668.00usft (25'KB)
Site:	Loco Dinero 36 State Com 3U #8H	MD Reference:	Updated @ 3668.00usft (25'KB)
Well:	3U #8H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r1	Database:	EDMRESTORED

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,800.00	1,800.00	Casing	13-3/8	17-1/2
5,250.00	5,250.00	Casing	9-5/8	12-1/4

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5350	5350	0	0	Build: 2°/100'
5455	5455	2	0	Hold
10,193	10,189	176	-1	Drop: 1°/100'
10,403	10,400	180	-1	Hold
10,764	10,761	180	-1	KOP: 12°/100' @ 10764.27' MD
11,264	11,174	9	-168	Build: 12°/100'
11,697	11,292	-367	-307	LP/Hold: 89.66° Inc, 179.56° Azm
16,393	11,320	-5063	-271	PBHL

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

CONDITIONS

Action 74846

CONDITIONS

Operator: MARSHALL & WINSTON INC P.O. Box 50880 Midland, TX 79710	OGRID: 14187
	Action Number: 74846
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	1/25/2022