

Well Name:
REEMAN-1X-HNB-04-06-65

Project Name:
Sec. 5-T6N-R65W

Pad Name:
REEMAN PAD

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	V Sect	Departure	Annotation
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	Surf Csg
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	Start Build 2.00
2783.21	23.66	308.93	2749.86	151.36	-187.40	-157.34	240.89	Hold 23.66 Inc, 308.93 Az
6702.84	23.66	308.93	6339.90	1139.91	-1411.27	-1184.90	1814.13	KOP 10°/100
7795.39	90.43	92.48	7073.00	1308.50	-857.00	-609.43	2492.11	LP 90.43 Inc, 92.48 Az
12564.12	90.43	92.48	7037.09	1102.02	3907.12	4041.15	7260.70	2/100 Turn
12685.07	90.43	90.06	7036.18	1099.34	4028.03	4159.64	7381.65	Hold 90.43 Inc, 90.06 Az
14698.09	90.43	90.06	7021.00	1097.13	6040.99	6139.81	9394.61	TD at 14698.09

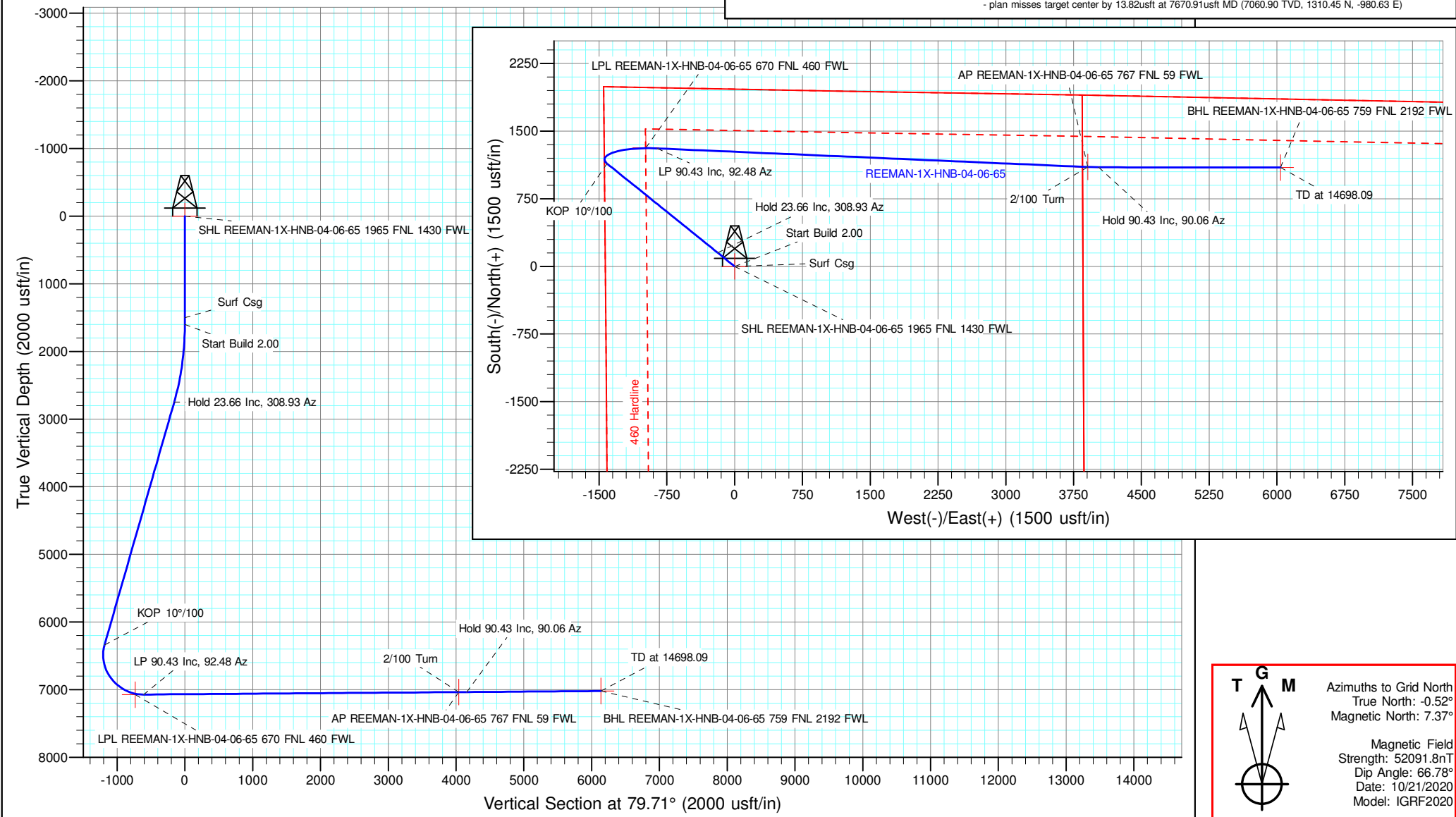
Geodetic Datum:
North American Datum 1983
US State Plane 1983 Colorado Northern Zone

Elevation:
Ground Elevation: 4816.00
KB Elevation: WELL @ 4843.00usft (Original Well Elev)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SHL REEMAN-1X-HNB-04-06-65 1965 FNL 1430 FWL	0.00	0.00	0.00	1432842.090	3224722.390	40.518741	-104.691700	Point
BHL REEMAN-1X-HNB-04-06-65 759 FNL 2192 FWL	7021.00	1097.13	6040.99	1433939.220	3230763.380	40.521599	-104.669936	Point
AP REEMAN-1X-HNB-04-06-65 767 FNL 59 FWL	7037.09	1102.02	3907.12	1433944.111	3228629.511	40.521667	-104.677611	Point
LPL REEMAN-1X-HNB-04-06-65 670 FNL 460 FWL	7074.00	1314.00	-983.26	1434156.087	3223739.126	40.522372	-104.695194	Point

- plan hits target center
- plan misses target center by 13.82usft at 7670.91usft MD (7060.90 TVD, 1310.45 N, -980.63 E)



T G M

Azimuths to Grid North
 True North: -0.52°
 Magnetic North: 7.37°

Magnetic Field
 Strength: 52091.8nT
 Dip Angle: 66.78°
 Date: 10/21/2020
 Model: IGRF2020

NICKEL ROAD

O P E R A T I N G

Nickel Road Operating

Sec. 5-T6N-R65W

REEMAN PAD

REEMAN-1X-HNB-04-06-65

Wellbore #1

Plan: Design #1

Standard Planning Report - Geographic

27 October, 2020

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-1X-HNB-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4843.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4843.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-1X-HNB-04-06-65	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Sec. 5-T6N-R65W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	REEMAN PAD				
Site Position:	Northing:	1,432,900.490 usft	Latitude:	40.518901	
From: Map	Easting:	3,224,708.630 usft	Longitude:	-104.691748	
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.52 °

Well	REEMAN-1X-HNB-04-06-65					
Well Position	+N/-S	0.00 usft	Northing:	1,432,842.090 usft	Latitude:	40.518741
	+E/-W	0.00 usft	Easting:	3,224,722.390 usft	Longitude:	-104.691701
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	4,816.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	10/21/2020	7.89	66.78	52,091.76561597

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	79.71

Plan Survey Tool Program	Date	10/26/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	14,698.09 Design #1 (Wellbore #1)	MWD	OWSG MWD - Standard

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,783.21	23.66	308.93	2,749.86	151.36	-187.40	2.00	2.00	0.00	308.93	
6,702.84	23.66	308.93	6,339.90	1,139.91	-1,411.27	0.00	0.00	0.00	0.00	
7,795.39	90.43	92.48	7,073.00	1,308.50	-857.00	10.00	6.11	13.14	141.00	
12,564.12	90.43	92.48	7,037.09	1,102.02	3,907.12	0.00	0.00	0.00	0.00	
12,685.07	90.43	90.06	7,036.18	1,099.34	4,028.03	2.00	0.00	-2.00	-89.99	
14,698.09	90.43	90.06	7,021.00	1,097.13	6,040.99	0.00	0.00	0.00	0.00	BHL REEMAN-1X-HN

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-1X-HNB-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4843.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4843.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-1X-HNB-04-06-65	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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	1,432,842.090	3,224,722.390	40.518741	-104.691701	
SHL REEMAN-1X-HNB-04-06-65 1965 FNL 1430 FWL										
100.00	0.00	0.00	100.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
200.00	0.00	0.00	200.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
300.00	0.00	0.00	300.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
400.00	0.00	0.00	400.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
500.00	0.00	0.00	500.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
600.00	0.00	0.00	600.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
700.00	0.00	0.00	700.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
800.00	0.00	0.00	800.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
900.00	0.00	0.00	900.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
Surf Csg										
1,600.00	0.00	0.00	1,600.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
Start Build 2.00										
1,700.00	2.00	308.93	1,699.98	1.10	-1.36	1,432,843.187	3,224,721.032	40.518744	-104.691706	
1,800.00	4.00	308.93	1,799.84	4.38	-5.43	1,432,846.475	3,224,716.961	40.518753	-104.691720	
1,900.00	6.00	308.93	1,899.45	9.86	-12.21	1,432,851.951	3,224,710.181	40.518768	-104.691744	
2,000.00	8.00	308.93	1,998.70	17.52	-21.69	1,432,859.608	3,224,700.701	40.518789	-104.691778	
2,100.00	10.00	308.93	2,097.47	27.35	-33.86	1,432,869.437	3,224,688.532	40.518817	-104.691822	
2,200.00	12.00	308.93	2,195.62	39.34	-48.70	1,432,881.426	3,224,673.689	40.518850	-104.691875	
2,300.00	14.00	308.93	2,293.06	53.47	-66.20	1,432,895.560	3,224,656.191	40.518889	-104.691937	
2,400.00	16.00	308.93	2,389.64	69.73	-86.33	1,432,911.822	3,224,636.057	40.518934	-104.692009	
2,500.00	18.00	308.93	2,485.27	88.10	-109.08	1,432,930.192	3,224,613.314	40.518985	-104.692090	
2,600.00	20.00	308.93	2,579.82	108.56	-134.40	1,432,950.648	3,224,587.988	40.519042	-104.692181	
2,700.00	22.00	308.93	2,673.17	131.08	-162.28	1,432,973.165	3,224,560.111	40.519105	-104.692280	
2,783.21	23.66	308.93	2,749.86	151.36	-187.40	1,432,993.453	3,224,534.994	40.519161	-104.692370	
Hold 23.66 Inc, 308.93 Az										
2,800.00	23.66	308.93	2,765.23	155.60	-192.64	1,432,997.687	3,224,529.751	40.519173	-104.692388	
2,900.00	23.66	308.93	2,856.83	180.82	-223.86	1,433,022.908	3,224,498.527	40.519243	-104.692500	
3,000.00	23.66	308.93	2,948.42	206.04	-255.09	1,433,048.128	3,224,467.303	40.519313	-104.692611	
3,100.00	23.66	308.93	3,040.01	231.26	-286.31	1,433,073.348	3,224,436.079	40.519383	-104.692723	
3,200.00	23.66	308.93	3,131.60	256.48	-317.54	1,433,098.569	3,224,404.854	40.519453	-104.692834	
3,300.00	23.66	308.93	3,223.19	281.70	-348.76	1,433,123.789	3,224,373.630	40.519523	-104.692946	
3,400.00	23.66	308.93	3,314.78	306.92	-379.98	1,433,149.009	3,224,342.406	40.519593	-104.693057	
3,500.00	23.66	308.93	3,406.37	332.14	-411.21	1,433,174.230	3,224,311.181	40.519663	-104.693169	
3,600.00	23.66	308.93	3,497.97	357.36	-442.43	1,433,199.450	3,224,279.957	40.519733	-104.693280	
3,700.00	23.66	308.93	3,589.56	382.58	-473.66	1,433,224.670	3,224,248.733	40.519803	-104.693392	
3,800.00	23.66	308.93	3,681.15	407.80	-504.88	1,433,249.891	3,224,217.509	40.519873	-104.693503	
3,900.00	23.66	308.93	3,772.74	433.02	-536.11	1,433,275.111	3,224,186.284	40.519943	-104.693615	
4,000.00	23.66	308.93	3,864.33	458.24	-567.33	1,433,300.332	3,224,155.060	40.520013	-104.693726	
4,100.00	23.66	308.93	3,955.92	483.46	-598.55	1,433,325.552	3,224,123.836	40.520083	-104.693838	
4,200.00	23.66	308.93	4,047.51	508.68	-629.78	1,433,350.772	3,224,092.612	40.520153	-104.693949	
4,300.00	23.66	308.93	4,139.11	533.90	-661.00	1,433,375.993	3,224,061.387	40.520223	-104.694061	
4,400.00	23.66	308.93	4,230.70	559.12	-692.23	1,433,401.213	3,224,030.163	40.520293	-104.694172	
4,500.00	23.66	308.93	4,322.29	584.34	-723.45	1,433,426.433	3,223,998.939	40.520363	-104.694284	
4,600.00	23.66	308.93	4,413.88	609.56	-754.68	1,433,451.654	3,223,967.715	40.520433	-104.694395	
4,700.00	23.66	308.93	4,505.47	634.78	-785.90	1,433,476.874	3,223,936.490	40.520503	-104.694507	
4,800.00	23.66	308.93	4,597.06	660.00	-817.12	1,433,502.094	3,223,905.266	40.520573	-104.694618	

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-1X-HNB-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4843.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4843.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-1X-HNB-04-06-65	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,900.00	23.66	308.93	4,688.65	685.22	-848.35	1,433,527.315	3,223,874.042	40.520643	-104.694730	
5,000.00	23.66	308.93	4,780.24	710.45	-879.57	1,433,552.535	3,223,842.818	40.520713	-104.694841	
5,100.00	23.66	308.93	4,871.84	735.67	-910.80	1,433,577.755	3,223,811.593	40.520783	-104.694952	
5,200.00	23.66	308.93	4,963.43	760.89	-942.02	1,433,602.976	3,223,780.369	40.520853	-104.695064	
5,300.00	23.66	308.93	5,055.02	786.11	-973.25	1,433,628.196	3,223,749.145	40.520923	-104.695175	
5,400.00	23.66	308.93	5,146.61	811.33	-1,004.47	1,433,653.416	3,223,717.920	40.520993	-104.695287	
5,500.00	23.66	308.93	5,238.20	836.55	-1,035.69	1,433,678.637	3,223,686.696	40.521063	-104.695398	
5,600.00	23.66	308.93	5,329.79	861.77	-1,066.92	1,433,703.857	3,223,655.472	40.521133	-104.695510	
5,700.00	23.66	308.93	5,421.38	886.99	-1,098.14	1,433,729.078	3,223,624.248	40.521203	-104.695621	
5,800.00	23.66	308.93	5,512.98	912.21	-1,129.37	1,433,754.298	3,223,593.023	40.521273	-104.695733	
5,900.00	23.66	308.93	5,604.57	937.43	-1,160.59	1,433,779.518	3,223,561.799	40.521343	-104.695844	
6,000.00	23.66	308.93	5,696.16	962.65	-1,191.82	1,433,804.739	3,223,530.575	40.521413	-104.695956	
6,100.00	23.66	308.93	5,787.75	987.87	-1,223.04	1,433,829.959	3,223,499.351	40.521483	-104.696067	
6,200.00	23.66	308.93	5,879.34	1,013.09	-1,254.26	1,433,855.179	3,223,468.126	40.521553	-104.696179	
6,300.00	23.66	308.93	5,970.93	1,038.31	-1,285.49	1,433,880.400	3,223,436.902	40.521623	-104.696290	
6,400.00	23.66	308.93	6,062.52	1,063.53	-1,316.71	1,433,905.620	3,223,405.678	40.521693	-104.696402	
6,500.00	23.66	308.93	6,154.12	1,088.75	-1,347.94	1,433,930.840	3,223,374.454	40.521763	-104.696513	
6,600.00	23.66	308.93	6,245.71	1,113.97	-1,379.16	1,433,956.061	3,223,343.229	40.521833	-104.696625	
6,700.00	23.66	308.93	6,337.30	1,139.19	-1,410.38	1,433,981.281	3,223,312.005	40.521903	-104.696736	
6,702.84	23.66	308.93	6,339.90	1,139.91	-1,411.27	1,433,981.998	3,223,311.118	40.521905	-104.696739	
KOP 10°/100										
6,800.00	17.17	330.01	6,431.03	1,164.64	-1,433.66	1,434,006.731	3,223,288.726	40.521973	-104.696819	
6,900.00	14.66	5.96	6,527.42	1,190.07	-1,439.75	1,434,032.165	3,223,282.645	40.522043	-104.696840	
7,000.00	18.18	39.71	6,623.54	1,214.72	-1,428.44	1,434,056.809	3,223,293.952	40.522111	-104.696799	
7,100.00	25.33	58.90	6,716.47	1,237.83	-1,400.08	1,434,079.915	3,223,322.306	40.522173	-104.696696	
7,200.00	33.88	69.50	6,803.40	1,258.69	-1,355.55	1,434,100.782	3,223,366.843	40.522230	-104.696535	
7,300.00	43.01	76.12	6,881.67	1,276.68	-1,296.18	1,434,118.774	3,223,426.211	40.522277	-104.696321	
7,400.00	52.40	80.77	6,948.91	1,291.26	-1,223.78	1,434,133.345	3,223,498.606	40.522316	-104.696060	
7,500.00	61.94	84.37	7,003.07	1,301.96	-1,140.56	1,434,144.053	3,223,581.828	40.522343	-104.695760	
7,600.00	71.55	87.37	7,042.52	1,308.48	-1,049.04	1,434,150.573	3,223,673.349	40.522359	-104.695431	
7,671.54	78.45	89.31	7,061.03	1,310.46	-980.02	1,434,152.551	3,223,742.373	40.522362	-104.695183	
LPL REEMAN-1X-HNB-04-06-65 670 FNL 460 FWL										
7,700.00	81.20	90.05	7,066.05	1,310.62	-952.00	1,434,152.705	3,223,770.387	40.522362	-104.695082	
7,795.39	90.43	92.48	7,073.00	1,308.50	-857.00	1,434,150.590	3,223,865.390	40.522354	-104.694740	
LP 90.43 Inc, 92.48 Az										
7,800.00	90.43	92.48	7,072.97	1,308.30	-852.39	1,434,150.390	3,223,869.995	40.522353	-104.694724	
7,900.00	90.43	92.48	7,072.21	1,303.97	-752.49	1,434,146.060	3,223,969.899	40.522339	-104.694365	
8,000.00	90.43	92.48	7,071.46	1,299.64	-652.59	1,434,141.730	3,224,069.802	40.522324	-104.694005	
8,100.00	90.43	92.48	7,070.70	1,295.31	-552.68	1,434,137.399	3,224,169.705	40.522310	-104.693646	
8,200.00	90.43	92.48	7,069.95	1,290.98	-452.78	1,434,133.069	3,224,269.609	40.522296	-104.693287	
8,300.00	90.43	92.48	7,069.19	1,286.65	-352.88	1,434,128.738	3,224,369.512	40.522281	-104.692928	
8,400.00	90.43	92.48	7,068.44	1,282.32	-252.97	1,434,124.408	3,224,469.415	40.522267	-104.692569	
8,500.00	90.43	92.48	7,067.69	1,277.99	-153.07	1,434,120.078	3,224,569.319	40.522253	-104.692209	
8,600.00	90.43	92.48	7,066.93	1,273.66	-53.17	1,434,115.747	3,224,669.222	40.522238	-104.691850	
8,700.00	90.43	92.48	7,066.18	1,269.33	46.74	1,434,111.417	3,224,769.125	40.522224	-104.691491	
8,800.00	90.43	92.48	7,065.42	1,265.00	146.64	1,434,107.087	3,224,869.029	40.522209	-104.691132	
8,900.00	90.43	92.48	7,064.67	1,260.67	246.54	1,434,102.756	3,224,968.932	40.522195	-104.690773	
9,000.00	90.43	92.48	7,063.92	1,256.34	346.45	1,434,098.426	3,225,068.835	40.522181	-104.690413	
9,100.00	90.43	92.48	7,063.16	1,252.01	446.35	1,434,094.095	3,225,168.739	40.522166	-104.690054	
9,200.00	90.43	92.48	7,062.41	1,247.68	546.25	1,434,089.765	3,225,268.642	40.522152	-104.689695	
9,300.00	90.43	92.48	7,061.65	1,243.34	646.16	1,434,085.435	3,225,368.545	40.522137	-104.689336	
9,400.00	90.43	92.48	7,060.90	1,239.01	746.06	1,434,081.104	3,225,468.449	40.522123	-104.688977	
9,500.00	90.43	92.48	7,060.14	1,234.68	845.96	1,434,076.774	3,225,568.352	40.522109	-104.688617	
9,600.00	90.43	92.48	7,059.39	1,230.35	945.87	1,434,072.444	3,225,668.256	40.522094	-104.688258	

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-1X-HNB-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4843.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4843.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-1X-HNB-04-06-65	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
9,700.00	90.43	92.48	7,058.64	1,226.02	1,045.77	1,434,068.113	3,225,768.159	40.522080	-104.687899	
9,800.00	90.43	92.48	7,057.88	1,221.69	1,145.67	1,434,063.783	3,225,868.062	40.522065	-104.687540	
9,900.00	90.43	92.48	7,057.13	1,217.36	1,245.58	1,434,059.452	3,225,967.966	40.522051	-104.687181	
10,000.00	90.43	92.48	7,056.37	1,213.03	1,345.48	1,434,055.122	3,226,067.869	40.522037	-104.686821	
10,100.00	90.43	92.48	7,055.62	1,208.70	1,445.38	1,434,050.792	3,226,167.772	40.522022	-104.686462	
10,200.00	90.43	92.48	7,054.87	1,204.37	1,545.29	1,434,046.461	3,226,267.676	40.522008	-104.686103	
10,300.00	90.43	92.48	7,054.11	1,200.04	1,645.19	1,434,042.131	3,226,367.579	40.521993	-104.685744	
10,400.00	90.43	92.48	7,053.36	1,195.71	1,745.09	1,434,037.801	3,226,467.482	40.521979	-104.685385	
10,500.00	90.43	92.48	7,052.60	1,191.38	1,845.00	1,434,033.470	3,226,567.386	40.521965	-104.685025	
10,600.00	90.43	92.48	7,051.85	1,187.05	1,944.90	1,434,029.140	3,226,667.289	40.521950	-104.684666	
10,700.00	90.43	92.48	7,051.10	1,182.72	2,044.80	1,434,024.809	3,226,767.192	40.521936	-104.684307	
10,800.00	90.43	92.48	7,050.34	1,178.39	2,144.71	1,434,020.479	3,226,867.096	40.521921	-104.683948	
10,900.00	90.43	92.48	7,049.59	1,174.06	2,244.61	1,434,016.149	3,226,966.999	40.521907	-104.683589	
11,000.00	90.43	92.48	7,048.83	1,169.73	2,344.51	1,434,011.818	3,227,066.902	40.521893	-104.683229	
11,100.00	90.43	92.48	7,048.08	1,165.40	2,444.42	1,434,007.488	3,227,166.806	40.521878	-104.682870	
11,200.00	90.43	92.48	7,047.32	1,161.07	2,544.32	1,434,003.158	3,227,266.709	40.521864	-104.682511	
11,300.00	90.43	92.48	7,046.57	1,156.74	2,644.22	1,433,998.827	3,227,366.612	40.521849	-104.682152	
11,400.00	90.43	92.48	7,045.82	1,152.41	2,744.13	1,433,994.497	3,227,466.516	40.521835	-104.681793	
11,500.00	90.43	92.48	7,045.06	1,148.08	2,844.03	1,433,990.167	3,227,566.419	40.521821	-104.681433	
11,600.00	90.43	92.48	7,044.31	1,143.75	2,943.93	1,433,985.836	3,227,666.322	40.521806	-104.681074	
11,700.00	90.43	92.48	7,043.55	1,139.42	3,043.84	1,433,981.506	3,227,766.226	40.521792	-104.680715	
11,800.00	90.43	92.48	7,042.80	1,135.09	3,143.74	1,433,977.175	3,227,866.129	40.521777	-104.680356	
11,900.00	90.43	92.48	7,042.05	1,130.76	3,243.64	1,433,972.845	3,227,966.032	40.521763	-104.679997	
12,000.00	90.43	92.48	7,041.29	1,126.42	3,343.55	1,433,968.515	3,228,065.936	40.521748	-104.679638	
12,100.00	90.43	92.48	7,040.54	1,122.09	3,443.45	1,433,964.184	3,228,165.839	40.521734	-104.679278	
12,200.00	90.43	92.48	7,039.78	1,117.76	3,543.35	1,433,959.854	3,228,265.742	40.521720	-104.678919	
12,300.00	90.43	92.48	7,039.03	1,113.43	3,643.26	1,433,955.524	3,228,365.646	40.521705	-104.678560	
12,400.00	90.43	92.48	7,038.27	1,109.10	3,743.16	1,433,951.193	3,228,465.549	40.521691	-104.678201	
12,500.00	90.43	92.48	7,037.52	1,104.77	3,843.06	1,433,946.863	3,228,565.452	40.521676	-104.677842	
12,564.12	90.43	92.48	7,037.09	1,102.02	3,907.12	1,433,944.111	3,228,629.510	40.521667	-104.677611	
2/100 Turn - AP REEMAN-1X-HNB-04-06-65 767 FNL 59 FWL										
12,600.00	90.43	91.76	7,036.82	1,100.69	3,942.98	1,433,942.781	3,228,665.366	40.521663	-104.677482	
12,685.07	90.43	90.06	7,036.18	1,099.34	4,028.03	1,433,941.425	3,228,750.424	40.521657	-104.677176	
Hold 90.43 Inc, 90.06 Az										
12,700.00	90.43	90.06	7,036.07	1,099.32	4,042.96	1,433,941.409	3,228,765.349	40.521656	-104.677123	
12,800.00	90.43	90.06	7,035.31	1,099.21	4,142.96	1,433,941.299	3,228,865.346	40.521653	-104.676763	
12,900.00	90.43	90.06	7,034.56	1,099.10	4,242.95	1,433,941.190	3,228,965.343	40.521651	-104.676403	
13,000.00	90.43	90.06	7,033.81	1,098.99	4,342.95	1,433,941.080	3,229,065.341	40.521648	-104.676044	
13,100.00	90.43	90.06	7,033.05	1,098.88	4,442.95	1,433,940.970	3,229,165.338	40.521645	-104.675684	
13,200.00	90.43	90.06	7,032.30	1,098.77	4,542.95	1,433,940.861	3,229,265.335	40.521642	-104.675324	
13,300.00	90.43	90.06	7,031.54	1,098.66	4,642.94	1,433,940.751	3,229,365.332	40.521639	-104.674965	
13,400.00	90.43	90.06	7,030.79	1,098.55	4,742.94	1,433,940.642	3,229,465.329	40.521636	-104.674605	
13,500.00	90.43	90.06	7,030.04	1,098.44	4,842.94	1,433,940.532	3,229,565.326	40.521633	-104.674245	
13,600.00	90.43	90.06	7,029.28	1,098.33	4,942.93	1,433,940.423	3,229,665.323	40.521631	-104.673886	
13,700.00	90.43	90.06	7,028.53	1,098.22	5,042.93	1,433,940.313	3,229,765.320	40.521628	-104.673526	
13,800.00	90.43	90.06	7,027.77	1,098.11	5,142.93	1,433,940.204	3,229,865.317	40.521625	-104.673166	
13,900.00	90.43	90.06	7,027.02	1,098.00	5,242.92	1,433,940.094	3,229,965.314	40.521622	-104.672807	
14,000.00	90.43	90.06	7,026.26	1,097.89	5,342.92	1,433,939.984	3,230,065.312	40.521619	-104.672447	
14,100.00	90.43	90.06	7,025.51	1,097.78	5,442.92	1,433,939.875	3,230,165.309	40.521616	-104.672087	
14,200.00	90.43	90.06	7,024.76	1,097.68	5,542.92	1,433,939.765	3,230,265.306	40.521613	-104.671728	
14,300.00	90.43	90.06	7,024.00	1,097.57	5,642.91	1,433,939.656	3,230,365.303	40.521611	-104.671368	
14,400.00	90.43	90.06	7,023.25	1,097.46	5,742.91	1,433,939.546	3,230,465.300	40.521608	-104.671008	
14,500.00	90.43	90.06	7,022.49	1,097.35	5,842.91	1,433,939.437	3,230,565.297	40.521605	-104.670649	
14,600.00	90.43	90.06	7,021.74	1,097.24	5,942.90	1,433,939.327	3,230,665.294	40.521602	-104.670289	

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-1X-HNB-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4843.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4843.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-1X-HNB-04-06-65	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
14,698.09	90.43	90.06	7,021.00	1,097.13	6,040.99	1,433,939.220	3,230,763.380	40.521599	-104.669936	
TD at 14698.09 - BHL REEMAN-1X-HNB-04-06-65 759 FNL 2192 FWL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL REEMAN-1X-HNB- - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	1,432,842.090	3,224,722.390	40.518741	-104.691701	
BHL REEMAN-1X-HNB- - plan hits target center - Point	0.00	0.00	7,021.00	1,097.13	6,040.99	1,433,939.220	3,230,763.380	40.521599	-104.669936	
AP REEMAN-1X-HNB-0 - plan misses target center by 0.06usft at 12564.12usft MD (7037.04 TVD, 1102.00 N, 3907.12 E) - Point	0.00	0.00	7,037.09	1,102.02	3,907.12	1,433,944.111	3,228,629.510	40.521667	-104.677611	
LPL REEMAN-1X-HNB-I - plan misses target center by 13.83usft at 7671.54usft MD (7061.02 TVD, 1310.46 N, -980.02 E) - Point	0.00	0.00	7,074.00	1,314.00	-983.26	1,434,156.087	3,223,739.126	40.522372	-104.695194	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
1,500.00	1,500.00	0.00	0.00	Surf Csg	
1,600.00	1,600.00	0.00	0.00	Start Build 2.00	
2,783.21	2,749.86	151.36	-187.40	Hold 23.66 Inc, 308.93 Az	
6,702.84	6,339.90	1,139.91	-1,411.27	KOP 10°/100	
7,795.39	7,073.00	1,308.50	-857.00	LP 90.43 Inc, 92.48 Az	
12,564.12	7,037.09	1,102.02	3,907.12	2/100 Turn	
12,685.07	7,036.18	1,099.34	4,028.03	Hold 90.43 Inc, 90.06 Az	
14,698.09	7,021.00	1,097.13	6,040.99	TD at 14698.09	