

Well Name:
REEMAN-5X-HNC-04-06-65

Project Name:
Sec. 5-T6N-R65W

Pad Name:
REEMAN PAD

ANNOTATIONS

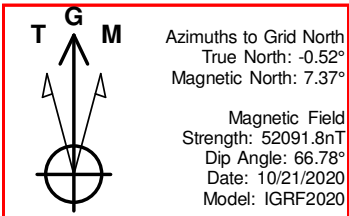
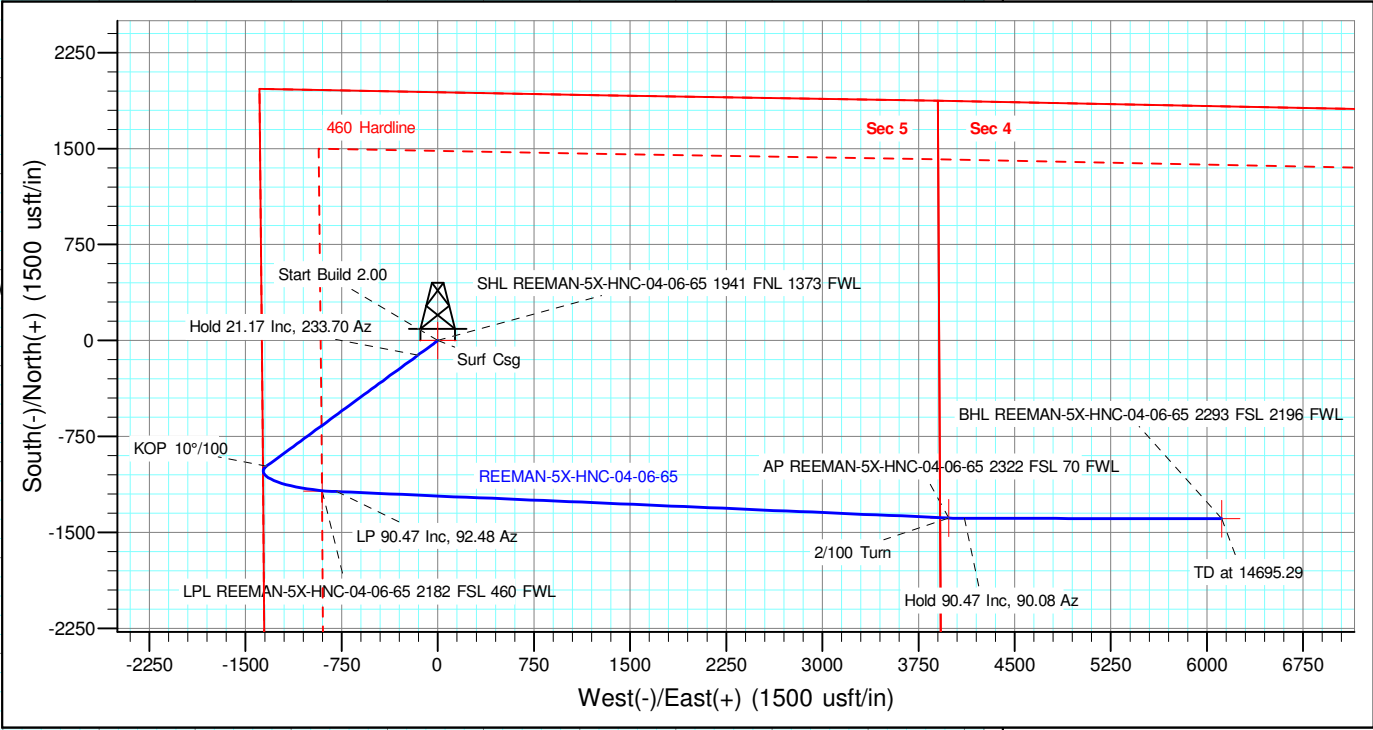
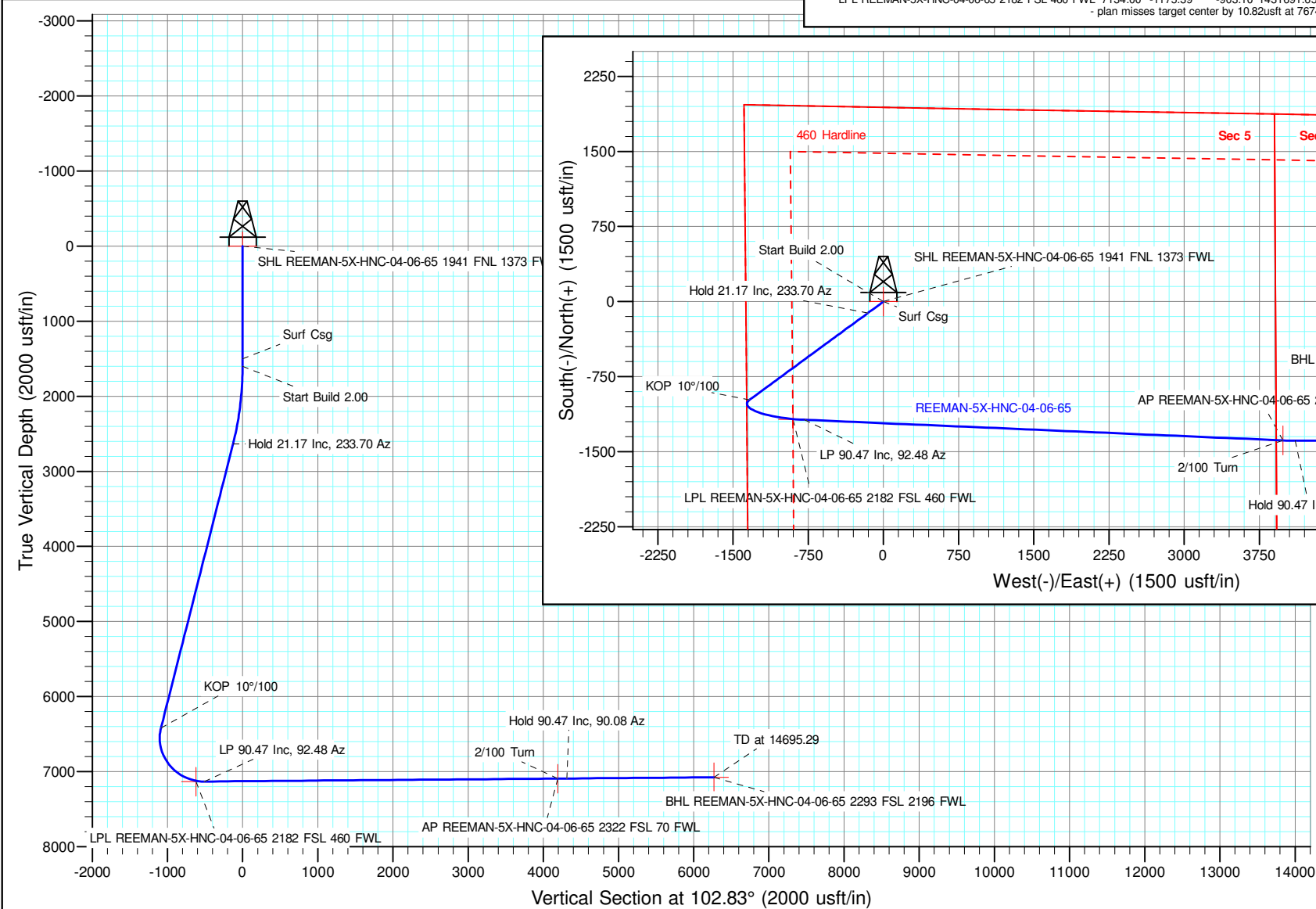
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	Surf Csg
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	Start Build 2.00
2658.42	21.17	233.70	2634.51	-114.43	-155.80	-126.50	193.31	Hold 21.17 Inc, 233.70 Az
6717.72	21.17	233.70	6419.90	-982.17	-1337.23	-1085.72	1659.17	KOP 10°/100
7785.75	90.47	92.48	7133.10	-1180.50	-791.00	-509.09	2321.36	LP 90.47 Inc, 92.48 Az
12568.60	90.47	92.48	7094.27	-1387.37	3987.22	4195.76	7104.05	2/100 Turn
12688.61	90.47	90.08	7093.29	-1390.04	4107.19	4313.33	7224.06	Hold 90.47 Inc, 90.08 Az
14695.29	90.47	90.08	7077.00	-1392.69	6113.80	6270.42	9230.67	TD at 14695.29

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

Elevation:
Ground Elevation: 4817.00
KB Elevation: WELL @ 4844.00usft (Original Well Elev)

DESIGN TARGET DETAILS

Name	SHL	REEMAN-5X-HNC-04-06-65	1941 FNL	1373 FWL	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BHL REEMAN-5X-HNC-04-06-65	2293 FSL	2196 FWL	7077.00	-1392.69	6113.80	1431474.356	3230778.947	40.514833	-104.669963	Point		
AP REEMAN-5X-HNC-04-06-65	2322 FSL	70 FWL	7094.27	-1387.37	3987.22	1431479.679	3228652.367	40.514902	-104.677611	Point		
LPL REEMAN-5X-HNC-04-06-65	2182 FSL	460 FWL	7134.00	-1175.39	-903.10	1431691.656	3223762.050	40.515607	-104.695192	Point		
- plan hits target center												
- plan misses target center by 10.82usft at 7674.92usft MD (7123.61 TVD, -1173.20 N, -901.01 E)												





Nickel Road Operating

Sec. 5-T6N-R65W

REEMAN PAD

REEMAN-5X-HNC-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-5X-HNC-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4844.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4844.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-5X-HNC-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-5X-HNC-04-06-65					
Well Position	+N/-S	0.00 usft	Northing:	1,432,867.050 usft	Latitude:	40.518811
	+E/-W	0.00 usft	Easting:	3,224,665.150 usft	Longitude:	-104.691906
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	4,817.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	10/21/2020	7.89	66.78	52,091.77274453

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	102.83

Plan Survey Tool Program	Date	10/26/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	14,695.20 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	
2,658.42	21.17	233.70	2,634.51	-114.43	-155.80	2.00	2.00	0.00	233.70	
6,717.72	21.17	233.70	6,419.90	-982.17	-1,337.23	0.00	0.00	0.00	0.00	
7,785.75	90.47	92.48	7,133.10	-1,180.50	-791.00	10.00	6.49	-13.22	-139.14	
12,568.60	90.47	92.48	7,094.27	-1,387.37	3,987.22	0.00	0.00	0.00	-90.05	
12,688.61	90.47	90.08	7,093.29	-1,390.04	4,107.19	2.00	0.00	-2.00	-89.99	
14,695.29	90.47	90.08	7,077.00	-1,392.69	6,113.80	0.00	0.00	0.00	0.00	BHL REEMAN-5X-HN

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-5X-HNC-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4844.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4844.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-5X-HNC-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	1,432,867.050	3,224,665.150	40.518811	-104.691906
SHL REEMAN-5X-HNC-04-06-65 1941 FNL 1373 FWL									
100.00	0.00	0.00	100.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
200.00	0.00	0.00	200.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
300.00	0.00	0.00	300.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
400.00	0.00	0.00	400.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
500.00	0.00	0.00	500.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
600.00	0.00	0.00	600.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
700.00	0.00	0.00	700.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
800.00	0.00	0.00	800.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
900.00	0.00	0.00	900.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
1,000.00	0.00	0.00	1,000.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
1,100.00	0.00	0.00	1,100.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
1,200.00	0.00	0.00	1,200.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
1,300.00	0.00	0.00	1,300.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
1,400.00	0.00	0.00	1,400.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
1,500.00	0.00	0.00	1,500.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
1,600.00	0.00	0.00	1,600.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
Start Build 2.00									
1,700.00	2.00	233.70	1,699.98	-1.03	-1.41	1,432,866.017	3,224,663.743	40.518808	-104.691911
1,800.00	4.00	233.70	1,799.84	-4.13	-5.62	1,432,862.919	3,224,659.525	40.518800	-104.691926
1,900.00	6.00	233.70	1,899.45	-9.29	-12.65	1,432,857.760	3,224,652.501	40.518786	-104.691952
2,000.00	8.00	233.70	1,998.70	-16.50	-22.47	1,432,850.546	3,224,642.680	40.518766	-104.691987
2,100.00	10.00	233.70	2,097.47	-25.76	-35.08	1,432,841.286	3,224,630.072	40.518741	-104.692033
2,200.00	12.00	233.70	2,195.62	-37.06	-50.46	1,432,829.992	3,224,614.694	40.518710	-104.692088
2,300.00	14.00	233.70	2,293.06	-50.37	-68.58	1,432,816.676	3,224,596.565	40.518674	-104.692154
2,400.00	16.00	233.70	2,389.64	-65.69	-89.44	1,432,801.356	3,224,575.706	40.518633	-104.692230
2,500.00	18.00	233.70	2,485.27	-83.00	-113.01	1,432,784.049	3,224,552.143	40.518586	-104.692315
2,600.00	20.00	233.70	2,579.82	-102.27	-139.24	1,432,764.778	3,224,525.905	40.518534	-104.692410
2,658.42	21.17	233.70	2,634.51	-114.43	-155.80	1,432,752.619	3,224,509.351	40.518501	-104.692470
Hold 21.17 Inc, 233.70 Az									
2,700.00	21.17	233.70	2,673.28	-123.32	-167.90	1,432,743.731	3,224,497.250	40.518477	-104.692514
2,800.00	21.17	233.70	2,766.53	-144.70	-197.00	1,432,722.354	3,224,468.145	40.518419	-104.692619
2,900.00	21.17	233.70	2,859.78	-166.07	-226.11	1,432,700.978	3,224,439.041	40.518361	-104.692724
3,000.00	21.17	233.70	2,953.04	-187.45	-255.21	1,432,679.602	3,224,409.937	40.518303	-104.692830
3,100.00	21.17	233.70	3,046.29	-208.82	-284.32	1,432,658.225	3,224,380.833	40.518245	-104.692935
3,200.00	21.17	233.70	3,139.54	-230.20	-313.42	1,432,636.849	3,224,351.728	40.518187	-104.693041
3,300.00	21.17	233.70	3,232.79	-251.58	-342.53	1,432,615.472	3,224,322.624	40.518129	-104.693146
3,400.00	21.17	233.70	3,326.05	-272.95	-371.63	1,432,594.096	3,224,293.520	40.518071	-104.693251
3,500.00	21.17	233.70	3,419.30	-294.33	-400.73	1,432,572.719	3,224,264.416	40.518013	-104.693357
3,600.00	21.17	233.70	3,512.55	-315.71	-429.84	1,432,551.343	3,224,235.311	40.517955	-104.693462
3,700.00	21.17	233.70	3,605.80	-337.08	-458.94	1,432,529.966	3,224,206.207	40.517897	-104.693567
3,800.00	21.17	233.70	3,699.05	-358.46	-488.05	1,432,508.590	3,224,177.103	40.517839	-104.693673
3,900.00	21.17	233.70	3,792.31	-379.84	-517.15	1,432,487.214	3,224,147.999	40.517781	-104.693778
4,000.00	21.17	233.70	3,885.56	-401.21	-546.26	1,432,465.837	3,224,118.894	40.517723	-104.693884
4,100.00	21.17	233.70	3,978.81	-422.59	-575.36	1,432,444.461	3,224,089.790	40.517665	-104.693989
4,200.00	21.17	233.70	4,072.06	-443.97	-604.46	1,432,423.084	3,224,060.686	40.517607	-104.694094
4,300.00	21.17	233.70	4,165.32	-465.34	-633.57	1,432,401.708	3,224,031.582	40.517549	-104.694200
4,400.00	21.17	233.70	4,258.57	-486.72	-662.67	1,432,380.331	3,224,002.477	40.517491	-104.694305
4,500.00	21.17	233.70	4,351.82	-508.10	-691.78	1,432,358.955	3,223,973.373	40.517433	-104.694410
4,600.00	21.17	233.70	4,445.07	-529.47	-720.88	1,432,337.578	3,223,944.269	40.517375	-104.694516
4,700.00	21.17	233.70	4,538.33	-550.85	-749.99	1,432,316.202	3,223,915.165	40.517318	-104.694621
4,800.00	21.17	233.70	4,631.58	-572.22	-779.09	1,432,294.826	3,223,886.060	40.517260	-104.694727
4,900.00	21.17	233.70	4,724.83	-593.60	-808.19	1,432,273.449	3,223,856.956	40.517202	-104.694832

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-5X-HNC-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4844.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4844.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-5X-HNC-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
5,000.00	21.17	233.70	4,818.08	-614.98	-837.30	1,432,252.073	3,223,827.852	40.517144	-104.694937
5,100.00	21.17	233.70	4,911.33	-636.35	-866.40	1,432,230.696	3,223,798.748	40.517086	-104.695043
5,200.00	21.17	233.70	5,004.59	-657.73	-895.51	1,432,209.320	3,223,769.643	40.517028	-104.695148
5,300.00	21.17	233.70	5,097.84	-679.11	-924.61	1,432,187.943	3,223,740.539	40.516970	-104.695253
5,400.00	21.17	233.70	5,191.09	-700.48	-953.71	1,432,166.567	3,223,711.435	40.516912	-104.695359
5,500.00	21.17	233.70	5,284.34	-721.86	-982.82	1,432,145.191	3,223,682.331	40.516854	-104.695464
5,600.00	21.17	233.70	5,377.60	-743.24	-1,011.92	1,432,123.814	3,223,653.226	40.516796	-104.695570
5,700.00	21.17	233.70	5,470.85	-764.61	-1,041.03	1,432,102.438	3,223,624.122	40.516738	-104.695675
5,800.00	21.17	233.70	5,564.10	-785.99	-1,070.13	1,432,081.061	3,223,595.018	40.516680	-104.695780
5,900.00	21.17	233.70	5,657.35	-807.37	-1,099.24	1,432,059.685	3,223,565.914	40.516622	-104.695886
6,000.00	21.17	233.70	5,750.61	-828.74	-1,128.34	1,432,038.308	3,223,536.810	40.516564	-104.695991
6,100.00	21.17	233.70	5,843.86	-850.12	-1,157.44	1,432,016.932	3,223,507.705	40.516506	-104.696096
6,200.00	21.17	233.70	5,937.11	-871.49	-1,186.55	1,431,995.555	3,223,478.601	40.516448	-104.696202
6,300.00	21.17	233.70	6,030.36	-892.87	-1,215.65	1,431,974.179	3,223,449.497	40.516390	-104.696307
6,400.00	21.17	233.70	6,123.61	-914.25	-1,244.76	1,431,952.803	3,223,420.393	40.516332	-104.696413
6,500.00	21.17	233.70	6,216.87	-935.62	-1,273.86	1,431,931.426	3,223,391.288	40.516274	-104.696518
6,600.00	21.17	233.70	6,310.12	-957.00	-1,302.97	1,431,910.050	3,223,362.184	40.516216	-104.696623
6,700.00	21.17	233.70	6,403.37	-978.38	-1,332.07	1,431,888.673	3,223,333.080	40.516159	-104.696729
6,717.72	21.17	233.70	6,419.90	-982.17	-1,337.23	1,431,884.885	3,223,327.921	40.516148	-104.696747
KOP 10°/100									
6,800.00	15.84	213.65	6,497.97	-1,000.34	-1,355.46	1,431,866.710	3,223,309.694	40.516099	-104.696813
6,900.00	13.79	174.59	6,594.87	-1,023.63	-1,361.91	1,431,843.418	3,223,303.238	40.516035	-104.696837
7,000.00	18.05	140.85	6,691.22	-1,047.58	-1,350.98	1,431,819.475	3,223,314.170	40.515969	-104.696799
7,100.00	25.64	123.03	6,784.07	-1,071.44	-1,322.99	1,431,795.608	3,223,342.158	40.515903	-104.696699
7,200.00	34.42	113.38	6,870.61	-1,094.51	-1,278.80	1,431,772.542	3,223,386.351	40.515838	-104.696541
7,300.00	43.68	107.34	6,948.22	-1,116.07	-1,219.74	1,431,750.979	3,223,445.407	40.515778	-104.696329
7,400.00	53.16	103.09	7,014.52	-1,135.48	-1,147.62	1,431,731.573	3,223,517.530	40.515723	-104.696070
7,500.00	62.77	99.78	7,067.51	-1,152.14	-1,064.62	1,431,714.914	3,223,600.530	40.515675	-104.695772
7,600.00	72.43	97.01	7,105.58	-1,165.54	-973.27	1,431,701.508	3,223,691.885	40.515636	-104.695444
7,675.41	79.75	95.12	7,123.70	-1,173.25	-900.52	1,431,693.802	3,223,764.627	40.515613	-104.695183
LPL REEMAN-5X-HNC-04-06-65 2182 FSL 460 FWL									
7,700.00	82.13	94.52	7,127.57	-1,175.29	-876.33	1,431,691.763	3,223,788.819	40.515607	-104.695096
7,785.75	90.47	92.48	7,133.10	-1,180.50	-791.00	1,431,686.550	3,223,874.150	40.515590	-104.694789
LP 90.47 Inc, 92.48 Az									
7,800.00	90.47	92.48	7,132.98	-1,181.12	-776.76	1,431,685.933	3,223,888.387	40.515588	-104.694738
7,900.00	90.47	92.48	7,132.17	-1,185.45	-676.86	1,431,681.603	3,223,988.290	40.515574	-104.694379
8,000.00	90.47	92.48	7,131.36	-1,189.78	-576.96	1,431,677.273	3,224,088.193	40.515559	-104.694020
8,100.00	90.47	92.48	7,130.55	-1,194.11	-477.05	1,431,672.943	3,224,188.096	40.515545	-104.693661
8,200.00	90.47	92.48	7,129.74	-1,198.44	-377.15	1,431,668.613	3,224,287.999	40.515531	-104.693301
8,300.00	90.47	92.48	7,128.92	-1,202.77	-277.25	1,431,664.284	3,224,387.902	40.515516	-104.692942
8,400.00	90.47	92.48	7,128.11	-1,207.10	-177.35	1,431,659.954	3,224,487.805	40.515502	-104.692583
8,500.00	90.47	92.48	7,127.30	-1,211.42	-77.44	1,431,655.625	3,224,587.707	40.515488	-104.692224
8,600.00	90.47	92.48	7,126.49	-1,215.75	22.46	1,431,651.297	3,224,687.610	40.515473	-104.691865
8,700.00	90.47	92.48	7,125.68	-1,220.08	122.36	1,431,646.968	3,224,787.513	40.515459	-104.691506
8,800.00	90.47	92.48	7,124.86	-1,224.41	222.27	1,431,642.640	3,224,887.416	40.515444	-104.691146
8,900.00	90.47	92.48	7,124.05	-1,228.74	322.17	1,431,638.312	3,224,987.319	40.515430	-104.690787
9,000.00	90.47	92.48	7,123.24	-1,233.07	422.07	1,431,633.984	3,225,087.222	40.515416	-104.690428
9,100.00	90.47	92.48	7,122.43	-1,237.39	521.98	1,431,629.656	3,225,187.125	40.515401	-104.690069
9,200.00	90.47	92.48	7,121.62	-1,241.72	621.88	1,431,625.329	3,225,287.028	40.515387	-104.689710
9,300.00	90.47	92.48	7,120.80	-1,246.05	721.78	1,431,621.001	3,225,386.931	40.515373	-104.689351
9,400.00	90.47	92.48	7,119.99	-1,250.38	821.68	1,431,616.674	3,225,486.834	40.515358	-104.688992
9,500.00	90.47	92.48	7,119.18	-1,254.70	921.59	1,431,612.348	3,225,586.738	40.515344	-104.688632
9,600.00	90.47	92.48	7,118.37	-1,259.03	1,021.49	1,431,608.021	3,225,686.641	40.515329	-104.688273
9,700.00	90.47	92.48	7,117.56	-1,263.36	1,121.39	1,431,603.694	3,225,786.544	40.515315	-104.687914

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-5X-HNC-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4844.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4844.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-5X-HNC-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
9,800.00	90.47	92.48	7,116.74	-1,267.68	1,221.30	1,431,599.368	3,225,886.447	40.515301	-104.687555
9,900.00	90.47	92.48	7,115.93	-1,272.01	1,321.20	1,431,595.042	3,225,986.350	40.515286	-104.687196
10,000.00	90.47	92.48	7,115.12	-1,276.33	1,421.10	1,431,590.717	3,226,086.253	40.515272	-104.686837
10,100.00	90.47	92.48	7,114.31	-1,280.66	1,521.01	1,431,586.391	3,226,186.156	40.515257	-104.686477
10,200.00	90.47	92.48	7,113.50	-1,284.98	1,620.91	1,431,582.066	3,226,286.059	40.515243	-104.686118
10,300.00	90.47	92.48	7,112.69	-1,289.31	1,720.81	1,431,577.741	3,226,385.962	40.515229	-104.685759
10,400.00	90.47	92.48	7,111.87	-1,293.63	1,820.72	1,431,573.416	3,226,485.865	40.515214	-104.685400
10,500.00	90.47	92.48	7,111.06	-1,297.96	1,920.62	1,431,569.091	3,226,585.768	40.515200	-104.685041
10,600.00	90.47	92.48	7,110.25	-1,302.28	2,020.52	1,431,564.767	3,226,685.672	40.515185	-104.684682
10,700.00	90.47	92.48	7,109.44	-1,306.61	2,120.43	1,431,560.442	3,226,785.575	40.515171	-104.684322
10,800.00	90.47	92.48	7,108.63	-1,310.93	2,220.33	1,431,556.118	3,226,885.478	40.515157	-104.683963
10,900.00	90.47	92.48	7,107.81	-1,315.26	2,320.23	1,431,551.795	3,226,985.381	40.515142	-104.683604
11,000.00	90.47	92.48	7,107.00	-1,319.58	2,420.13	1,431,547.471	3,227,085.284	40.515128	-104.683245
11,100.00	90.47	92.48	7,106.19	-1,323.90	2,520.04	1,431,543.148	3,227,185.188	40.515114	-104.682886
11,200.00	90.47	92.48	7,105.38	-1,328.23	2,619.94	1,431,538.824	3,227,285.091	40.515099	-104.682527
11,300.00	90.47	92.48	7,104.57	-1,332.55	2,719.84	1,431,534.501	3,227,384.994	40.515085	-104.682168
11,400.00	90.47	92.48	7,103.75	-1,336.87	2,819.75	1,431,530.179	3,227,484.897	40.515070	-104.681808
11,500.00	90.47	92.48	7,102.94	-1,341.19	2,919.65	1,431,525.856	3,227,584.800	40.515056	-104.681449
11,600.00	90.47	92.48	7,102.13	-1,345.52	3,019.55	1,431,521.534	3,227,684.704	40.515042	-104.681090
11,700.00	90.47	92.48	7,101.32	-1,349.84	3,119.46	1,431,517.212	3,227,784.607	40.515027	-104.680731
11,800.00	90.47	92.48	7,100.51	-1,354.16	3,219.36	1,431,512.890	3,227,884.510	40.515013	-104.680372
11,900.00	90.47	92.48	7,099.70	-1,358.48	3,319.26	1,431,508.568	3,227,984.413	40.514998	-104.680013
12,000.00	90.47	92.48	7,098.88	-1,362.80	3,419.17	1,431,504.247	3,228,084.317	40.514984	-104.679653
12,100.00	90.47	92.48	7,098.07	-1,367.12	3,519.07	1,431,499.926	3,228,184.220	40.514970	-104.679294
12,200.00	90.47	92.48	7,097.26	-1,371.45	3,618.97	1,431,495.605	3,228,284.123	40.514955	-104.678935
12,300.00	90.47	92.48	7,096.45	-1,375.77	3,718.88	1,431,491.284	3,228,384.027	40.514941	-104.678576
12,400.00	90.47	92.48	7,095.64	-1,380.09	3,818.78	1,431,486.963	3,228,483.930	40.514926	-104.678217
12,500.00	90.47	92.48	7,094.82	-1,384.41	3,918.68	1,431,482.643	3,228,583.833	40.514912	-104.677858
12,568.60	90.47	92.48	7,094.27	-1,387.37	3,987.22	1,431,479.679	3,228,652.366	40.514902	-104.677611
2/100 Turn - AP REEMAN-5X-HNC-04-06-65 2322 FSL 70 FWL									
12,600.00	90.47	91.85	7,094.01	-1,388.56	4,018.59	1,431,478.495	3,228,683.743	40.514898	-104.677498
12,688.61	90.47	90.08	7,093.29	-1,390.04	4,107.19	1,431,477.007	3,228,772.339	40.514892	-104.677180
Hold 90.47 Inc, 90.08 Az									
12,700.00	90.47	90.08	7,093.20	-1,390.06	4,118.57	1,431,476.992	3,228,783.724	40.514891	-104.677139
12,800.00	90.47	90.08	7,092.39	-1,390.19	4,218.57	1,431,476.860	3,228,883.721	40.514888	-104.676779
12,900.00	90.47	90.08	7,091.58	-1,390.32	4,318.57	1,431,476.728	3,228,983.717	40.514886	-104.676420
13,000.00	90.47	90.08	7,090.76	-1,390.45	4,418.56	1,431,476.596	3,229,083.714	40.514883	-104.676060
13,100.00	90.47	90.08	7,089.95	-1,390.59	4,518.56	1,431,476.464	3,229,183.710	40.514880	-104.675700
13,200.00	90.47	90.08	7,089.14	-1,390.72	4,618.56	1,431,476.331	3,229,283.707	40.514877	-104.675341
13,300.00	90.47	90.08	7,088.33	-1,390.85	4,718.55	1,431,476.199	3,229,383.704	40.514874	-104.674981
13,400.00	90.47	90.08	7,087.52	-1,390.98	4,818.55	1,431,476.067	3,229,483.700	40.514871	-104.674622
13,500.00	90.47	90.08	7,086.70	-1,391.11	4,918.55	1,431,475.935	3,229,583.697	40.514868	-104.674262
13,600.00	90.47	90.08	7,085.89	-1,391.25	5,018.54	1,431,475.803	3,229,683.694	40.514865	-104.673902
13,700.00	90.47	90.08	7,085.08	-1,391.38	5,118.54	1,431,475.671	3,229,783.690	40.514862	-104.673543
13,800.00	90.47	90.08	7,084.27	-1,391.51	5,218.54	1,431,475.539	3,229,883.687	40.514859	-104.673183
13,900.00	90.47	90.08	7,083.46	-1,391.64	5,318.53	1,431,475.407	3,229,983.683	40.514856	-104.672823
14,000.00	90.47	90.08	7,082.65	-1,391.78	5,418.53	1,431,475.274	3,230,083.680	40.514853	-104.672464
14,100.00	90.47	90.08	7,081.83	-1,391.91	5,518.53	1,431,475.142	3,230,183.677	40.514851	-104.672104
14,200.00	90.47	90.08	7,081.02	-1,392.04	5,618.52	1,431,475.010	3,230,283.673	40.514848	-104.671744
14,300.00	90.47	90.08	7,080.21	-1,392.17	5,718.52	1,431,474.878	3,230,383.670	40.514845	-104.671385
14,400.00	90.47	90.08	7,079.40	-1,392.30	5,818.52	1,431,474.746	3,230,483.666	40.514842	-104.671025
14,500.00	90.47	90.08	7,078.59	-1,392.44	5,918.51	1,431,474.614	3,230,583.663	40.514839	-104.670666
14,600.00	90.47	90.08	7,077.77	-1,392.57	6,018.51	1,431,474.482	3,230,683.660	40.514836	-104.670306

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-5X-HNC-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4844.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4844.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-5X-HNC-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
14,695.29	90.47	90.08	7,077.00	-1,392.69	6,113.80	1,431,474.356	3,230,778.946	40.514833	-104.669963
TD at 14695.29 - BHL REEMAN-5X-HNC-04-06-65 2293 FSL 2196 FWL									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL REEMAN-5X-HNC- - plan hits target center - Point	0.00	0.01	0.00	0.00	0.00	1,432,867.050	3,224,665.150	40.518811	-104.691906
BHL REEMAN-5X-HNC- - plan hits target center - Point	0.00	0.00	7,077.00	-1,392.69	6,113.80	1,431,474.356	3,230,778.946	40.514833	-104.669963
AP REEMAN-5X-HNC-0 - plan hits target center - Point	0.00	0.00	7,094.27	-1,387.37	3,987.22	1,431,479.679	3,228,652.366	40.514902	-104.677611
LPL REEMAN-5X-HNC- - plan misses target center by 10.83usft at 7675.41usft MD (7123.70 TVD, -1173.25 N, -900.52 E) - Point	0.00	0.00	7,134.00	-1,175.39	-903.10	1,431,691.656	3,223,762.050	40.515607	-104.695192

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,600.00	1,600.00	0.00	0.00	Start Build 2.00	
2,658.42	2,634.51	-114.43	-155.80	Hold 21.17 Inc, 233.70 Az	
6,717.72	6,419.90	-982.17	-1,337.23	KOP 10°/100	
7,785.75	7,133.10	-1,180.50	-791.00	LP 90.47 Inc, 92.48 Az	
12,568.60	7,094.27	-1,387.37	3,987.22	2/100 Turn	
12,688.61	7,093.29	-1,390.04	4,107.19	Hold 90.47 Inc, 90.08 Az	
14,695.29	7,077.00	-1,392.69	6,113.80	TD at 14695.29	