

Well Name:  
**REEMAN-5X-HC-04-06-65**

Project Name:  
**Sec. 5-T6N-R65W**

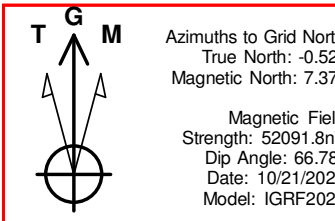
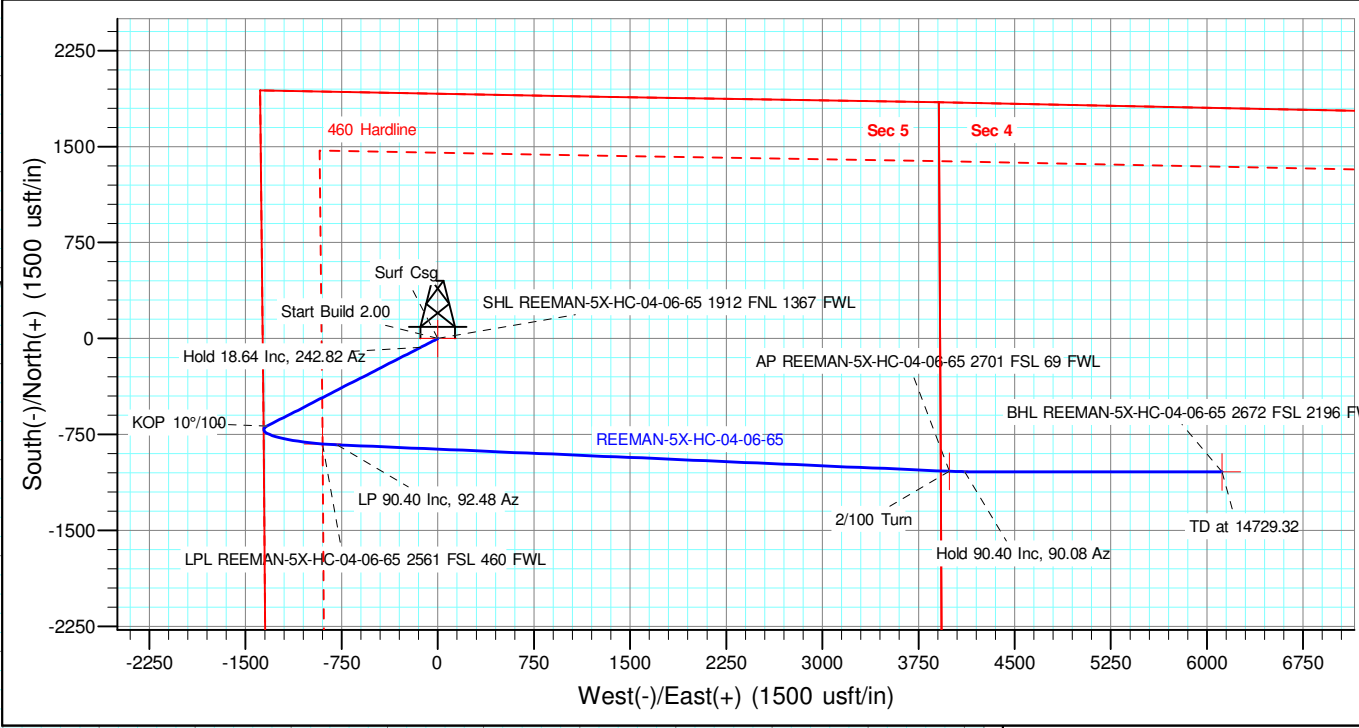
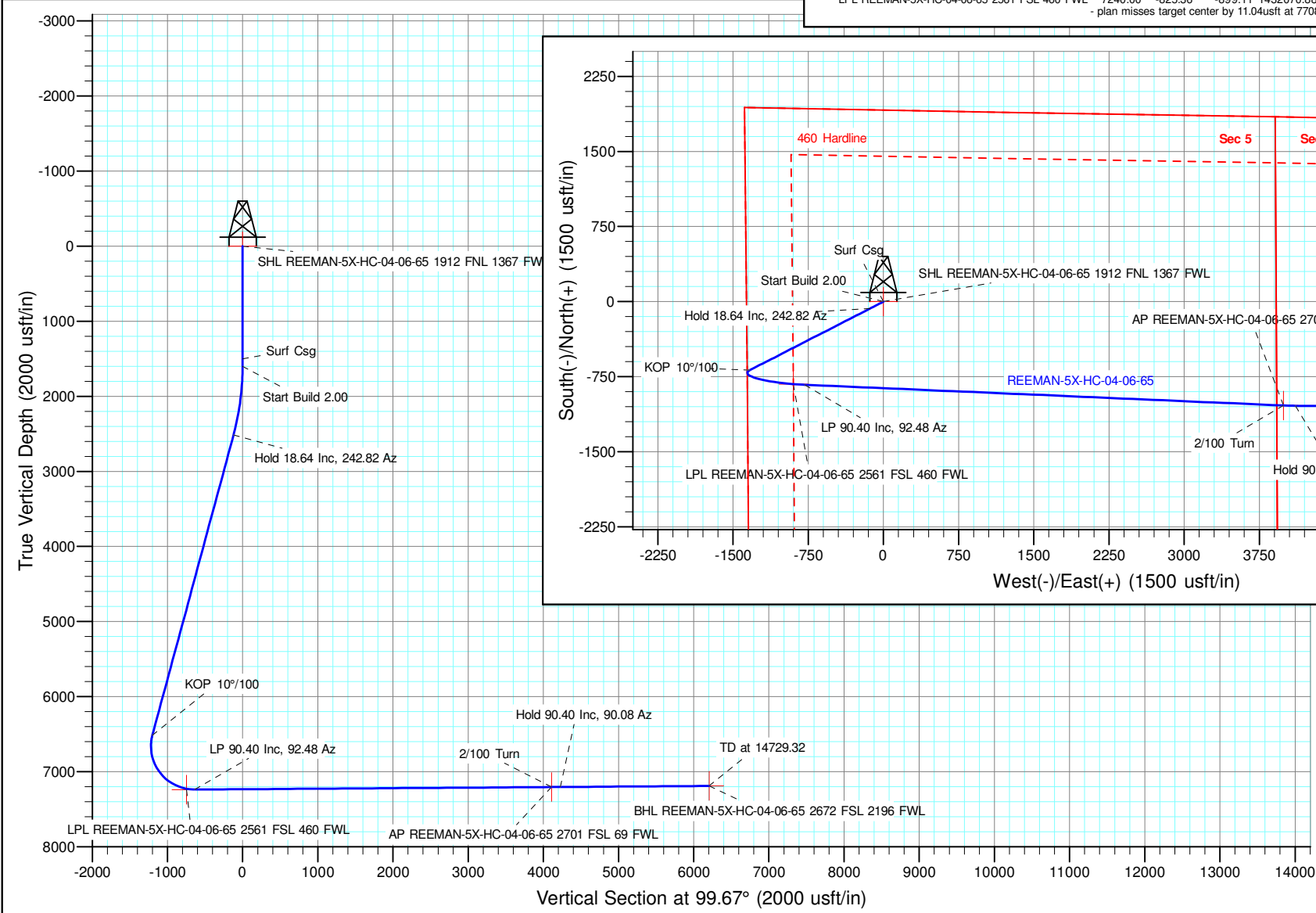
Pad Name:  
**REEMAN PAD**

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	
2532.08	18.64	242.82	2515.72	-68.65	-133.70	-120.27	150.30	Hold 18.64 Inc, 242.82 Az	
6755.18	18.64	242.82	6517.26	-685.20	-1334.58	-1200.50	1500.20	KOP 10°/100	
7820.39	90.40	92.48	7239.22	-830.50	-786.00	-635.31	2135.09	LP 90.40 Inc, 92.48 Az	
12602.40	90.40	92.48	7205.84	-1037.34	3991.41	4108.95	6916.98	2/100 Turn	
12722.42	90.40	90.08	7205.01	-1040.01	4111.40	4227.68	7037.00	Hold 90.40 Inc, 90.08 Az	
14728.32	90.40	90.08	7191.01	-1042.66	6117.24	6205.47	9042.85	TD at 14729.32	

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	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
SHL REEMAN-5X-HC-04-06-65 1912 FNL 1367 FWL	0.00	0.00	0.00	1432896.250	3224658.270	40.518891	-104.691929	Point	
BHL REEMAN-5X-HC-04-06-65 2672 FSL 2196 FWL	7191.00	-1042.66	6118.24	1431853.593	3230776.509	40.515874	-104.669959	Point	
AP REEMAN-5X-HC-04-06-65 2701 FSL 69 FWL	7205.84	-1037.34	3991.41	1431858.914	3228649.684	40.515943	-104.677608	Point	
LPL REEMAN-5X-HC-04-06-65 2561 FSL 460 FWL	7240.00	-825.36	-899.11	1432070.889	3223759.164	40.516648	-104.695190	Point	
- plan misses target center by 11.04usft at 7708.28usft MD (7229.21 TVD, -823.87 N, -897.29 E)									





## **Nickel Road Operating**

**Sec. 5-T6N-R65W**

**REEMAN PAD**

**REEMAN-5X-HC-04-06-65**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report - Geographic**

**27 October, 2020**

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well REEMAN-5X-HC-04-06-65
<b>Company:</b>	Nickel Road Operating	<b>TVD Reference:</b>	WELL @ 4844.00usft (Original Well Elev)
<b>Project:</b>	Sec. 5-T6N-R65W	<b>MD Reference:</b>	WELL @ 4844.00usft (Original Well Elev)
<b>Site:</b>	REEMAN PAD	<b>North Reference:</b>	Grid
<b>Well:</b>	REEMAN-5X-HC-04-06-65	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Sec. 5-T6N-R65W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	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-HC-04-06-65					
Well Position	+N/-S	0.00 usft	Northing:	1,432,896.250 usft	Latitude:	40.518891
	+E/-W	0.00 usft	Easting:	3,224,658.270 usft	Longitude:	-104.691930
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	4,817.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	10/21/2020	7.89	66.78	52,091.81204988

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	99.67

<b>Plan Survey Tool Program</b>	<b>Date</b>	10/26/2020			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	14,729.11 Design #1 (Wellbore #1)	MWD		
			OWSG MWD - Standard		

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
2,532.08	18.64	242.82	2,515.72	-68.65	-133.70	2.00	2.00	0.00	242.82	
6,755.18	18.64	242.82	6,517.26	-685.20	-1,334.58	0.00	0.00	0.00	0.00	
7,820.39	90.40	92.48	7,239.22	-830.50	-786.00	10.00	6.74	-14.11	-148.93	
12,602.40	90.40	92.48	7,205.84	-1,037.34	3,991.41	0.00	0.00	0.00	-89.95	
12,722.42	90.40	90.08	7,205.01	-1,040.01	4,111.40	2.00	0.00	-2.00	-89.99	
14,729.32	90.40	90.08	7,191.00	-1,042.66	6,118.24	0.00	0.00	0.00	0.00	BHL REEMAN-5X-HC

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well REEMAN-5X-HC-04-06-65
<b>Company:</b>	Nickel Road Operating	<b>TVD Reference:</b>	WELL @ 4844.00usft (Original Well Elev)
<b>Project:</b>	Sec. 5-T6N-R65W	<b>MD Reference:</b>	WELL @ 4844.00usft (Original Well Elev)
<b>Site:</b>	REEMAN PAD	<b>North Reference:</b>	Grid
<b>Well:</b>	REEMAN-5X-HC-04-06-65	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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	1,432,896.250	3,224,658.270	40.518891	-104.691930
<b>SHL REEMAN-5X-HC-04-06-65 1912 FNL 1367 FWL</b>									
100.00	0.00	0.00	100.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
200.00	0.00	0.00	200.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
300.00	0.00	0.00	300.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
400.00	0.00	0.00	400.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
500.00	0.00	0.00	500.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
600.00	0.00	0.00	600.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
700.00	0.00	0.00	700.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
800.00	0.00	0.00	800.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
900.00	0.00	0.00	900.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
1,000.00	0.00	0.00	1,000.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
1,100.00	0.00	0.00	1,100.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
1,200.00	0.00	0.00	1,200.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
1,300.00	0.00	0.00	1,300.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
1,400.00	0.00	0.00	1,400.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
1,500.00	0.00	0.00	1,500.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
<b>Surf Csg</b>									
1,600.00	0.00	0.00	1,600.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
<b>Start Build 2.00</b>									
1,700.00	2.00	242.82	1,699.98	-0.80	-1.55	1,432,895.453	3,224,656.717	40.518889	-104.691935
1,800.00	4.00	242.82	1,799.84	-3.19	-6.21	1,432,893.063	3,224,652.062	40.518883	-104.691952
1,900.00	6.00	242.82	1,899.45	-7.17	-13.96	1,432,889.082	3,224,644.309	40.518872	-104.691980
2,000.00	8.00	242.82	1,998.70	-12.73	-24.80	1,432,883.516	3,224,633.468	40.518857	-104.692019
2,100.00	10.00	242.82	2,097.47	-19.88	-38.72	1,432,876.371	3,224,619.552	40.518838	-104.692069
2,200.00	12.00	242.82	2,195.62	-28.59	-55.69	1,432,867.657	3,224,602.579	40.518814	-104.692131
2,300.00	14.00	242.82	2,293.06	-38.87	-75.70	1,432,857.383	3,224,582.568	40.518786	-104.692203
2,400.00	16.00	242.82	2,389.64	-50.69	-98.73	1,432,845.562	3,224,559.545	40.518754	-104.692286
2,500.00	18.00	242.82	2,485.27	-64.04	-124.73	1,432,832.209	3,224,533.536	40.518718	-104.692380
2,532.08	18.64	242.82	2,515.72	-68.65	-133.70	1,432,827.604	3,224,524.566	40.518706	-104.692413
<b>Hold 18.64 Inc, 242.82 Az</b>									
2,600.00	18.64	242.82	2,580.08	-78.56	-153.02	1,432,817.688	3,224,505.252	40.518679	-104.692482
2,700.00	18.64	242.82	2,674.83	-93.16	-181.45	1,432,803.088	3,224,476.816	40.518640	-104.692585
2,800.00	18.64	242.82	2,769.59	-107.76	-209.89	1,432,788.489	3,224,448.381	40.518601	-104.692688
2,900.00	18.64	242.82	2,864.34	-122.36	-238.33	1,432,773.889	3,224,419.945	40.518561	-104.692791
3,000.00	18.64	242.82	2,959.09	-136.96	-266.76	1,432,759.290	3,224,391.509	40.518522	-104.692893
3,100.00	18.64	242.82	3,053.85	-151.56	-295.20	1,432,744.690	3,224,363.073	40.518482	-104.692996
3,200.00	18.64	242.82	3,148.60	-166.16	-323.63	1,432,730.091	3,224,334.637	40.518443	-104.693099
3,300.00	18.64	242.82	3,243.35	-180.76	-352.07	1,432,715.491	3,224,306.201	40.518404	-104.693202
3,400.00	18.64	242.82	3,338.11	-195.36	-380.50	1,432,700.891	3,224,277.766	40.518364	-104.693304
3,500.00	18.64	242.82	3,432.86	-209.96	-408.94	1,432,686.292	3,224,249.330	40.518325	-104.693407
3,600.00	18.64	242.82	3,527.62	-224.56	-437.38	1,432,671.692	3,224,220.894	40.518286	-104.693510
3,700.00	18.64	242.82	3,622.37	-239.16	-465.81	1,432,657.093	3,224,192.458	40.518246	-104.693613
3,800.00	18.64	242.82	3,717.12	-253.76	-494.25	1,432,642.493	3,224,164.022	40.518207	-104.693715
3,900.00	18.64	242.82	3,811.88	-268.36	-522.68	1,432,627.894	3,224,135.586	40.518168	-104.693818
4,000.00	18.64	242.82	3,906.63	-282.96	-551.12	1,432,613.294	3,224,107.151	40.518128	-104.693921
4,100.00	18.64	242.82	4,001.38	-297.56	-579.56	1,432,598.695	3,224,078.715	40.518089	-104.694024
4,200.00	18.64	242.82	4,096.14	-312.15	-607.99	1,432,584.095	3,224,050.279	40.518049	-104.694126
4,300.00	18.64	242.82	4,190.89	-326.75	-636.43	1,432,569.496	3,224,021.843	40.518010	-104.694229
4,400.00	18.64	242.82	4,285.65	-341.35	-664.86	1,432,554.896	3,223,993.407	40.517971	-104.694332
4,500.00	18.64	242.82	4,380.40	-355.95	-693.30	1,432,540.297	3,223,964.971	40.517931	-104.694435
4,600.00	18.64	242.82	4,475.15	-370.55	-721.73	1,432,525.697	3,223,936.536	40.517892	-104.694537
4,700.00	18.64	242.82	4,569.91	-385.15	-750.17	1,432,511.098	3,223,908.100	40.517853	-104.694640
4,800.00	18.64	242.82	4,664.66	-399.75	-778.61	1,432,496.498	3,223,879.664	40.517813	-104.694743

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well REEMAN-5X-HC-04-06-65
<b>Company:</b>	Nickel Road Operating	<b>TVD Reference:</b>	WELL @ 4844.00usft (Original Well Elev)
<b>Project:</b>	Sec. 5-T6N-R65W	<b>MD Reference:</b>	WELL @ 4844.00usft (Original Well Elev)
<b>Site:</b>	REEMAN PAD	<b>North Reference:</b>	Grid
<b>Well:</b>	REEMAN-5X-HC-04-06-65	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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	18.64	242.82	4,759.41	-414.35	-807.04	1,432,481.899	3,223,851.228	40.517774	-104.694846
5,000.00	18.64	242.82	4,854.17	-428.95	-835.48	1,432,467.299	3,223,822.792	40.517735	-104.694948
5,100.00	18.64	242.82	4,948.92	-443.55	-863.91	1,432,452.700	3,223,794.357	40.517695	-104.695051
5,200.00	18.64	242.82	5,043.67	-458.15	-892.35	1,432,438.100	3,223,765.921	40.517656	-104.695154
5,300.00	18.64	242.82	5,138.43	-472.75	-920.79	1,432,423.501	3,223,737.485	40.517616	-104.695257
5,400.00	18.64	242.82	5,233.18	-487.35	-949.22	1,432,408.901	3,223,709.049	40.517577	-104.695359
5,500.00	18.64	242.82	5,327.94	-501.95	-977.66	1,432,394.302	3,223,680.613	40.517538	-104.695462
5,600.00	18.64	242.82	5,422.69	-516.55	-1,006.09	1,432,379.702	3,223,652.177	40.517498	-104.695565
5,700.00	18.64	242.82	5,517.44	-531.15	-1,034.53	1,432,365.103	3,223,623.742	40.517459	-104.695668
5,800.00	18.64	242.82	5,612.20	-545.75	-1,062.96	1,432,350.503	3,223,595.306	40.517420	-104.695770
5,900.00	18.64	242.82	5,706.95	-560.35	-1,091.40	1,432,335.904	3,223,566.870	40.517380	-104.695873
6,000.00	18.64	242.82	5,801.70	-574.95	-1,119.84	1,432,321.304	3,223,538.434	40.517341	-104.695976
6,100.00	18.64	242.82	5,896.46	-589.55	-1,148.27	1,432,306.704	3,223,509.998	40.517302	-104.696079
6,200.00	18.64	242.82	5,991.21	-604.15	-1,176.71	1,432,292.105	3,223,481.562	40.517262	-104.696181
6,300.00	18.64	242.82	6,085.96	-618.74	-1,205.14	1,432,277.505	3,223,453.127	40.517223	-104.696284
6,400.00	18.64	242.82	6,180.72	-633.34	-1,233.58	1,432,262.906	3,223,424.691	40.517183	-104.696387
6,500.00	18.64	242.82	6,275.47	-647.94	-1,262.01	1,432,248.306	3,223,396.255	40.517144	-104.696490
6,600.00	18.64	242.82	6,370.23	-662.54	-1,290.45	1,432,233.707	3,223,367.819	40.517105	-104.696592
6,700.00	18.64	242.82	6,464.98	-677.14	-1,318.89	1,432,219.107	3,223,339.383	40.517065	-104.696695
6,755.18	18.64	242.82	6,517.26	-685.20	-1,334.58	1,432,211.052	3,223,323.693	40.517044	-104.696752
<b>KOP 10°/100</b>									
6,800.00	14.98	233.84	6,560.17	-691.89	-1,345.63	1,432,204.360	3,223,312.639	40.517026	-104.696792
6,900.00	9.63	192.36	6,658.01	-707.73	-1,357.89	1,432,188.522	3,223,300.385	40.516982	-104.696836
7,000.00	12.63	140.83	6,756.35	-724.42	-1,352.76	1,432,171.829	3,223,305.512	40.516936	-104.696819
7,100.00	20.60	118.97	6,852.19	-741.46	-1,330.41	1,432,154.787	3,223,327.864	40.516889	-104.696739
7,200.00	29.79	109.54	6,942.61	-758.33	-1,291.51	1,432,137.915	3,223,366.762	40.516842	-104.696599
7,300.00	39.35	104.32	7,024.88	-774.53	-1,237.24	1,432,121.725	3,223,421.025	40.516796	-104.696405
7,400.00	49.06	100.89	7,096.49	-789.54	-1,169.27	1,432,106.709	3,223,489.003	40.516753	-104.696161
7,500.00	58.85	98.35	7,155.27	-802.93	-1,089.64	1,432,093.323	3,223,568.632	40.516714	-104.695875
7,600.00	68.68	96.29	7,199.43	-814.28	-1,000.78	1,432,081.973	3,223,657.490	40.516681	-104.695556
7,700.00	78.53	94.49	7,227.62	-823.24	-905.39	1,432,073.006	3,223,752.880	40.516654	-104.695213
7,707.78	79.30	94.36	7,229.12	-823.83	-897.77	1,432,072.416	3,223,760.496	40.516652	-104.695185
<b>LPL REEMAN-5X-HC-04-06-65 2561 FSL 460 FWL</b>									
7,800.00	88.39	92.82	7,239.00	-829.56	-806.37	1,432,066.693	3,223,851.902	40.516634	-104.694857
7,820.39	90.40	92.48	7,239.22	-830.50	-786.00	1,432,065.750	3,223,872.270	40.516631	-104.694784
<b>LP 90.40 Inc, 92.48 Az</b>									
7,900.00	90.40	92.48	7,238.66	-833.95	-706.47	1,432,062.303	3,223,951.801	40.516620	-104.694498
8,000.00	90.40	92.48	7,237.97	-838.28	-606.57	1,432,057.973	3,224,051.705	40.516605	-104.694139
8,100.00	90.40	92.48	7,237.27	-842.61	-506.66	1,432,053.643	3,224,151.608	40.516591	-104.693779
8,200.00	90.40	92.48	7,236.57	-846.94	-406.76	1,432,049.314	3,224,251.512	40.516577	-104.693420
8,300.00	90.40	92.48	7,235.87	-851.27	-306.85	1,432,044.984	3,224,351.416	40.516562	-104.693061
8,400.00	90.40	92.48	7,235.17	-855.59	-206.95	1,432,040.655	3,224,451.320	40.516548	-104.692702
8,500.00	90.40	92.48	7,234.48	-859.92	-107.05	1,432,036.326	3,224,551.224	40.516533	-104.692343
8,600.00	90.40	92.48	7,233.78	-864.25	-7.14	1,432,031.997	3,224,651.127	40.516519	-104.691984
8,700.00	90.40	92.48	7,233.08	-868.58	92.76	1,432,027.669	3,224,751.031	40.516505	-104.691624
8,800.00	90.40	92.48	7,232.38	-872.91	192.67	1,432,023.341	3,224,850.935	40.516490	-104.691265
8,900.00	90.40	92.48	7,231.68	-877.24	292.57	1,432,019.012	3,224,950.839	40.516476	-104.690906
9,000.00	90.40	92.48	7,230.99	-881.57	392.47	1,432,014.685	3,225,050.743	40.516462	-104.690547
9,100.00	90.40	92.48	7,230.29	-885.89	492.38	1,432,010.357	3,225,150.647	40.516447	-104.690188
9,200.00	90.40	92.48	7,229.59	-890.22	592.28	1,432,006.029	3,225,250.551	40.516433	-104.689829
9,300.00	90.40	92.48	7,228.89	-894.55	692.18	1,432,001.702	3,225,350.454	40.516418	-104.689469
9,400.00	90.40	92.48	7,228.19	-898.87	792.09	1,431,997.375	3,225,450.358	40.516404	-104.689110
9,500.00	90.40	92.48	7,227.50	-903.20	891.99	1,431,993.048	3,225,550.262	40.516390	-104.688751
9,600.00	90.40	92.48	7,226.80	-907.53	991.90	1,431,988.722	3,225,650.166	40.516375	-104.688392

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well REEMAN-5X-HC-04-06-65
<b>Company:</b>	Nickel Road Operating	<b>TVD Reference:</b>	WELL @ 4844.00usft (Original Well Elev)
<b>Project:</b>	Sec. 5-T6N-R65W	<b>MD Reference:</b>	WELL @ 4844.00usft (Original Well Elev)
<b>Site:</b>	REEMAN PAD	<b>North Reference:</b>	Grid
<b>Well:</b>	REEMAN-5X-HC-04-06-65	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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	90.40	92.48	7,226.10	-911.85	1,091.80	1,431,984.395	3,225,750.070	40.516361	-104.688033
9,800.00	90.40	92.48	7,225.40	-916.18	1,191.70	1,431,980.069	3,225,849.974	40.516346	-104.687674
9,900.00	90.40	92.48	7,224.70	-920.51	1,291.61	1,431,975.743	3,225,949.878	40.516332	-104.687314
10,000.00	90.40	92.48	7,224.01	-924.83	1,391.51	1,431,971.417	3,226,049.782	40.516318	-104.686955
10,100.00	90.40	92.48	7,223.31	-929.16	1,491.42	1,431,967.091	3,226,149.686	40.516303	-104.686596
10,200.00	90.40	92.48	7,222.61	-933.48	1,591.32	1,431,962.766	3,226,249.590	40.516289	-104.686237
10,300.00	90.40	92.48	7,221.91	-937.81	1,691.22	1,431,958.441	3,226,349.494	40.516275	-104.685878
10,400.00	90.40	92.48	7,221.22	-942.13	1,791.13	1,431,954.116	3,226,449.398	40.516260	-104.685519
10,500.00	90.40	92.48	7,220.52	-946.46	1,891.03	1,431,949.791	3,226,549.302	40.516246	-104.685159
10,600.00	90.40	92.48	7,219.82	-950.78	1,990.94	1,431,945.466	3,226,649.206	40.516231	-104.684800
10,700.00	90.40	92.48	7,219.12	-955.11	2,090.84	1,431,941.142	3,226,749.110	40.516217	-104.684441
10,800.00	90.40	92.48	7,218.42	-959.43	2,190.74	1,431,936.818	3,226,849.014	40.516203	-104.684082
10,900.00	90.40	92.48	7,217.73	-963.76	2,290.65	1,431,932.494	3,226,948.918	40.516188	-104.683723
11,000.00	90.40	92.48	7,217.03	-968.08	2,390.55	1,431,928.170	3,227,048.822	40.516174	-104.683364
11,100.00	90.40	92.48	7,216.33	-972.40	2,490.46	1,431,923.846	3,227,148.726	40.516159	-104.683004
11,200.00	90.40	92.48	7,215.63	-976.73	2,590.36	1,431,919.523	3,227,248.630	40.516145	-104.682645
11,300.00	90.40	92.48	7,214.93	-981.05	2,690.26	1,431,915.200	3,227,348.534	40.516131	-104.682286
11,400.00	90.40	92.48	7,214.24	-985.37	2,790.17	1,431,910.877	3,227,448.438	40.516116	-104.681927
11,500.00	90.40	92.48	7,213.54	-989.70	2,890.07	1,431,906.554	3,227,548.342	40.516102	-104.681568
11,600.00	90.40	92.48	7,212.84	-994.02	2,989.98	1,431,902.232	3,227,648.246	40.516087	-104.681209
11,700.00	90.40	92.48	7,212.14	-998.34	3,089.88	1,431,897.909	3,227,748.150	40.516073	-104.680849
11,800.00	90.40	92.48	7,211.44	-1,002.66	3,189.78	1,431,893.587	3,227,848.055	40.516059	-104.680490
11,900.00	90.40	92.48	7,210.75	-1,006.98	3,289.69	1,431,889.265	3,227,947.959	40.516044	-104.680131
12,000.00	90.40	92.48	7,210.05	-1,011.31	3,389.59	1,431,884.944	3,228,047.863	40.516030	-104.679772
12,100.00	90.40	92.48	7,209.35	-1,015.63	3,489.50	1,431,880.622	3,228,147.767	40.516015	-104.679413
12,200.00	90.40	92.48	7,208.65	-1,019.95	3,589.40	1,431,876.301	3,228,247.671	40.516001	-104.679054
12,300.00	90.40	92.48	7,207.95	-1,024.27	3,689.31	1,431,871.980	3,228,347.575	40.515987	-104.678694
12,400.00	90.40	92.48	7,207.26	-1,028.59	3,789.21	1,431,867.659	3,228,447.479	40.515972	-104.678335
12,500.00	90.40	92.48	7,206.56	-1,032.91	3,889.11	1,431,863.338	3,228,547.384	40.515958	-104.677976
12,600.00	90.40	92.48	7,205.86	-1,037.23	3,989.02	1,431,859.018	3,228,647.288	40.515943	-104.677617
12,602.40	90.40	92.48	7,205.84	-1,037.34	3,991.41	1,431,858.914	3,228,649.683	40.515943	-104.677608
<b>2/100 Turn - AP REEMAN-5X-HC-04-06-65 2701 FSL 69 FWL</b>									
12,700.00	90.40	90.52	7,205.16	-1,039.89	4,088.98	1,431,856.359	3,228,747.245	40.515934	-104.677257
12,722.42	90.40	90.08	7,205.01	-1,040.01	4,111.40	1,431,856.242	3,228,769.668	40.515933	-104.677177
<b>Hold 90.40 Inc, 90.08 Az</b>									
12,800.00	90.40	90.08	7,204.47	-1,040.11	4,188.97	1,431,856.139	3,228,847.242	40.515930	-104.676898
12,900.00	90.40	90.08	7,203.77	-1,040.24	4,288.97	1,431,856.007	3,228,947.240	40.515928	-104.676538
13,000.00	90.40	90.08	7,203.07	-1,040.37	4,388.97	1,431,855.875	3,229,047.237	40.515925	-104.676179
13,100.00	90.40	90.08	7,202.37	-1,040.51	4,488.96	1,431,855.743	3,229,147.234	40.515922	-104.675819
13,200.00	90.40	90.08	7,201.67	-1,040.64	4,588.96	1,431,855.611	3,229,247.232	40.515919	-104.675459
13,300.00	90.40	90.08	7,200.98	-1,040.77	4,688.96	1,431,855.479	3,229,347.229	40.515916	-104.675100
13,400.00	90.40	90.08	7,200.28	-1,040.90	4,788.96	1,431,855.347	3,229,447.227	40.515913	-104.674740
13,500.00	90.40	90.08	7,199.58	-1,041.03	4,888.95	1,431,855.215	3,229,547.224	40.515910	-104.674380
13,600.00	90.40	90.08	7,198.88	-1,041.17	4,988.95	1,431,855.083	3,229,647.222	40.515907	-104.674021
13,700.00	90.40	90.08	7,198.18	-1,041.30	5,088.95	1,431,854.951	3,229,747.219	40.515904	-104.673661
13,800.00	90.40	90.08	7,197.49	-1,041.43	5,188.95	1,431,854.819	3,229,847.217	40.515901	-104.673301
13,900.00	90.40	90.08	7,196.79	-1,041.56	5,288.94	1,431,854.687	3,229,947.214	40.515898	-104.672942
14,000.00	90.40	90.08	7,196.09	-1,041.69	5,388.94	1,431,854.555	3,230,047.212	40.515895	-104.672582
14,100.00	90.40	90.08	7,195.39	-1,041.83	5,488.94	1,431,854.423	3,230,147.209	40.515893	-104.672223
14,200.00	90.40	90.08	7,194.69	-1,041.96	5,588.94	1,431,854.291	3,230,247.207	40.515890	-104.671863
14,300.00	90.40	90.08	7,194.00	-1,042.09	5,688.93	1,431,854.159	3,230,347.204	40.515887	-104.671503
14,400.00	90.40	90.08	7,193.30	-1,042.22	5,788.93	1,431,854.028	3,230,447.202	40.515884	-104.671144
14,500.00	90.40	90.08	7,192.60	-1,042.35	5,888.93	1,431,853.896	3,230,547.199	40.515881	-104.670784
14,600.00	90.40	90.08	7,191.90	-1,042.49	5,988.93	1,431,853.764	3,230,647.197	40.515878	-104.670424

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well REEMAN-5X-HC-04-06-65
<b>Company:</b>	Nickel Road Operating	<b>TVD Reference:</b>	WELL @ 4844.00usft (Original Well Elev)
<b>Project:</b>	Sec. 5-T6N-R65W	<b>MD Reference:</b>	WELL @ 4844.00usft (Original Well Elev)
<b>Site:</b>	REEMAN PAD	<b>North Reference:</b>	Grid
<b>Well:</b>	REEMAN-5X-HC-04-06-65	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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
14,700.00	90.40	90.08	7,191.20	-1,042.62	6,088.92	1,431,853.632	3,230,747.194	40.515875	-104.670065
14,729.32	90.40	90.08	7,191.00	-1,042.66	6,118.24	1,431,853.593	3,230,776.509	40.515874	-104.669959
TD at 14729.32 - BHL REEMAN-5X-HC-04-06-65 2672 FSL 2196 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-5X-HC-0- - hit/miss target - Shape - Point	0.00	0.00	0.00	0.00	0.00	1,432,896.250	3,224,658.270	40.518891	-104.691930
BHL REEMAN-5X-HC-0- - plan hits target center - Point	0.00	0.00	7,191.00	-1,042.66	6,118.24	1,431,853.593	3,230,776.509	40.515874	-104.669959
AP REEMAN-5X-HC-04- - plan hits target center - Point	0.00	0.00	7,205.84	-1,037.34	3,991.41	1,431,858.914	3,228,649.683	40.515943	-104.677608
LPL REEMAN-5X-HC-04- - plan misses target center by 11.07usft at 7707.78usft MD (7229.12 TVD, -823.83 N, -897.77 E) - Point	0.00	0.00	7,240.00	-825.36	-899.11	1,432,070.889	3,223,759.164	40.516648	-104.695190

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+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	
2,532.08	2,515.72	-68.65	-133.70	Hold 18.64 Inc, 242.82 Az	
6,755.18	6,517.26	-685.20	-1,334.58	KOP 10°/100	
7,820.39	7,239.22	-830.50	-786.00	LP 90.40 Inc, 92.48 Az	
12,602.40	7,205.84	-1,037.34	3,991.41	2/100 Turn	
12,722.42	7,205.01	-1,040.01	4,111.40	Hold 90.40 Inc, 90.08 Az	
14,729.32	7,191.00	-1,042.66	6,118.24	TD at 14729.32	