

Well Name:  
**BLEHM-5X-HC-10-07-67**

Project Name:  
**Sec. 9-T7N-R67W**

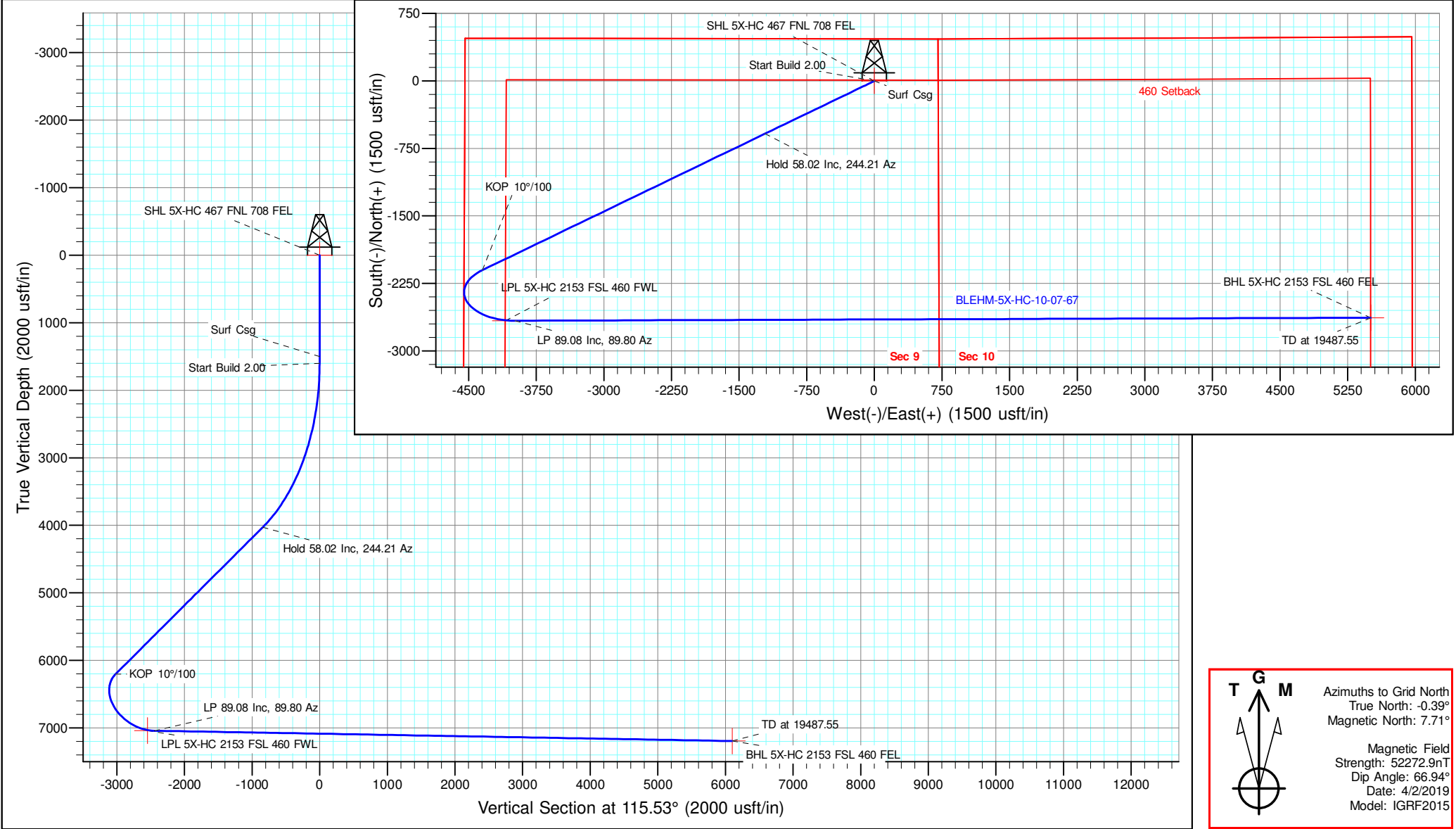
Pad Name:  
**BLEHM Pad**

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	
4500.97	58.02	244.21	4029.99	-586.35	-1213.25	-842.01	1347.51	Hold 58.02 Inc, 244.21 Az	
8604.72	58.02	244.21	6203.46	-2101.04	-4347.33	-3017.12	4828.42	KOP 10°/100	
9996.20	89.08	89.80	7043.00	-2663.50	-3984.00	-2446.83	6146.67	LP 89.08 Inc, 89.80 Az	
19487.55	89.08	89.80	7195.00	-2630.20	5506.07	6102.03	15636.79	TD at 19487.55	

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

Elevation:  
Ground Elevation: 5088.00  
KB Elevation: KB @ 5115.00usft

DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
SHL 5X-HC 467 FNL 708 FEL	0.00	0.00	0.00	1460061.903	3169074.698	40.594675	-104.891179	Point	
LPL 5X-HC 2153 FSL 460 FWL	7041.00	-2663.95	-4092.64	1457397.956	3164982.057	40.587439	-104.905980	Point	- plan misses target center by 10.04usft at 9889.03usft MD (7033.01 TVD, -2658.28 N, -4090.42 E)
BHL 5X-HC 2153 FSL 460 FEL	7195.00	-2630.20	5506.07	1457431.703	3174580.763	40.587350	-104.871420	Point	



**T G M**

True North: -0.39°  
Magnetic North: 7.71°

Magnetic Field  
Strength: 52272.9nT  
Dip Angle: 66.94°  
Date: 4/2/2019  
Model: IGRF2015

# NICKEL ROAD

O P E R A T I N G

## **Nickel Road Operating**

**Sec. 9-T7N-R67W**

**BLEHM Pad**

**BLEHM-5X-HC-10-07-67**

**Wellbore #1**

**Plan: Plan #2**

## **Standard Planning Report - Geographic**

**20 July, 2020**

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BLEHM-5X-HC-10-07-67
<b>Company:</b>	Nickel Road Operating	<b>TVD Reference:</b>	KB @ 5115.00usft
<b>Project:</b>	Sec. 9-T7N-R67W	<b>MD Reference:</b>	KB @ 5115.00usft
<b>Site:</b>	BLEHM Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	BLEHM-5X-HC-10-07-67	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

<b>Project</b>	Sec. 9-T7N-R67W, 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	BLEHM Pad				
Site Position:		Northing:	1,458,460.000 usft	Latitude:	40.590318
From:	Lat/Long	Easting:	3,166,936.305 usft	Longitude:	-104.898918
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well	BLEHM-5X-HC-10-07-67					
Well Position	+N/-S	0.00 usft	Northing:	1,460,061.903 usft	Latitude:	40.594675
	+E/-W	0.00 usft	Easting:	3,169,074.698 usft	Longitude:	-104.891179
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,088.00 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>
	IGRF2015	4/2/2019	8.10	66.94	52,272.91743324

<b>Design</b>	Plan #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	115.53

<b>Plan Survey Tool Program</b>	<b>Date</b>	7/20/2020		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	19,487.55 Plan #2 (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	
4,500.97	58.02	244.21	4,029.99	-586.35	-1,213.25	2.00	2.00	0.00	244.21	
8,604.72	58.02	244.21	6,203.46	-2,101.04	-4,347.33	0.00	0.00	0.00	0.00	
9,996.21	89.08	89.80	7,043.00	-2,663.50	-3,984.00	10.00	2.23	-11.10	-138.68	
19,487.55	89.08	89.80	7,195.00	-2,630.20	5,506.07	0.00	0.00	0.00	0.00	BHL 5X-HC 2153 FSL

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BLEHM-5X-HC-10-07-67
<b>Company:</b>	Nickel Road Operating	<b>TVD Reference:</b>	KB @ 5115.00usft
<b>Project:</b>	Sec. 9-T7N-R67W	<b>MD Reference:</b>	KB @ 5115.00usft
<b>Site:</b>	BLEHM Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	BLEHM-5X-HC-10-07-67	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

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	1,460,061.903	3,169,074.698	40.594675	-104.891179
<b>SHL 5X-HC 467 FNL 708 FEL</b>									
100.00	0.00	0.00	100.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
200.00	0.00	0.00	200.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
300.00	0.00	0.00	300.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
400.00	0.00	0.00	400.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
500.00	0.00	0.00	500.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
600.00	0.00	0.00	600.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
700.00	0.00	0.00	700.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
800.00	0.00	0.00	800.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
900.00	0.00	0.00	900.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
1,000.00	0.00	0.00	1,000.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
1,100.00	0.00	0.00	1,100.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
1,200.00	0.00	0.00	1,200.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
1,300.00	0.00	0.00	1,300.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
1,400.00	0.00	0.00	1,400.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
1,500.00	0.00	0.00	1,500.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
<b>Surf Csg</b>									
1,600.00	0.00	0.00	1,600.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
<b>Start Build 2.00</b>									
1,700.00	2.00	244.21	1,699.98	-0.76	-1.57	1,460,061.144	3,169,073.127	40.594673	-104.891185
1,800.00	4.00	244.21	1,799.84	-3.04	-6.28	1,460,058.866	3,169,068.415	40.594667	-104.891202
1,900.00	6.00	244.21	1,899.45	-6.83	-14.13	1,460,055.074	3,169,060.568	40.594656	-104.891230
2,000.00	8.00	244.21	1,998.70	-12.13	-25.10	1,460,049.771	3,169,049.596	40.594642	-104.891270
2,100.00	10.00	244.21	2,097.47	-18.94	-39.19	1,460,042.965	3,169,035.512	40.594624	-104.891321
2,200.00	12.00	244.21	2,195.62	-27.24	-56.36	1,460,034.662	3,169,018.333	40.594601	-104.891383
2,300.00	14.00	244.21	2,293.06	-37.03	-76.62	1,460,024.874	3,168,998.081	40.594575	-104.891456
2,400.00	16.00	244.21	2,389.64	-48.29	-99.92	1,460,013.612	3,168,974.779	40.594544	-104.891540
2,500.00	18.00	244.21	2,485.27	-61.01	-126.24	1,460,000.891	3,168,948.456	40.594510	-104.891635
2,600.00	20.00	244.21	2,579.82	-75.18	-155.55	1,459,986.725	3,168,919.144	40.594472	-104.891741
2,700.00	22.00	244.21	2,673.17	-90.77	-187.82	1,459,971.132	3,168,886.880	40.594429	-104.891858
2,800.00	24.00	244.21	2,765.21	-107.77	-223.00	1,459,954.130	3,168,851.702	40.594383	-104.891985
2,900.00	26.00	244.21	2,855.84	-126.16	-261.05	1,459,935.741	3,168,813.653	40.594334	-104.892122
3,000.00	28.00	244.21	2,944.94	-145.92	-301.92	1,459,915.987	3,168,772.779	40.594280	-104.892270
3,100.00	30.00	244.21	3,032.39	-167.01	-345.57	1,459,894.892	3,168,729.131	40.594223	-104.892428
3,200.00	32.00	244.21	3,118.11	-189.42	-391.94	1,459,872.482	3,168,682.761	40.594162	-104.892595
3,300.00	34.00	244.21	3,201.97	-213.12	-440.97	1,459,848.784	3,168,633.726	40.594098	-104.892772
3,400.00	36.00	244.21	3,283.88	-238.08	-492.61	1,459,823.827	3,168,582.085	40.594031	-104.892959
3,500.00	38.00	244.21	3,363.74	-264.26	-546.79	1,459,797.640	3,168,527.903	40.593960	-104.893155
3,600.00	40.00	244.21	3,441.45	-291.65	-603.45	1,459,770.258	3,168,471.244	40.593886	-104.893359
3,700.00	42.00	244.21	3,516.92	-320.19	-662.52	1,459,741.711	3,168,412.178	40.593809	-104.893573
3,800.00	44.00	244.21	3,590.05	-349.87	-723.92	1,459,712.036	3,168,350.777	40.593728	-104.893795
3,900.00	46.00	244.21	3,660.76	-380.63	-787.58	1,459,681.269	3,168,287.115	40.593645	-104.894025
4,000.00	48.00	244.21	3,728.95	-412.46	-853.43	1,459,649.446	3,168,221.270	40.593559	-104.894262
4,100.00	50.00	244.21	3,794.56	-445.30	-921.38	1,459,616.608	3,168,153.322	40.593470	-104.894508
4,200.00	52.00	244.21	3,857.48	-479.11	-991.34	1,459,582.793	3,168,083.354	40.593378	-104.894761
4,300.00	54.00	244.21	3,917.66	-513.86	-1,063.25	1,459,548.043	3,168,011.452	40.593284	-104.895020
4,400.00	56.00	244.21	3,975.02	-549.50	-1,137.00	1,459,512.400	3,167,937.702	40.593188	-104.895287
4,500.00	58.00	244.21	4,029.48	-586.00	-1,212.50	1,459,475.908	3,167,862.195	40.593089	-104.895560
4,500.97	58.02	244.21	4,029.99	-586.35	-1,213.25	1,459,475.548	3,167,861.451	40.593088	-104.895562
<b>Hold 58.02 Inc, 244.21 Az</b>									
4,600.00	58.02	244.21	4,082.44	-622.91	-1,288.87	1,459,438.998	3,167,785.824	40.592989	-104.895836
4,700.00	58.02	244.21	4,135.41	-659.81	-1,365.24	1,459,402.088	3,167,709.452	40.592889	-104.896111
4,800.00	58.02	244.21	4,188.37	-696.72	-1,441.62	1,459,365.178	3,167,633.081	40.592790	-104.896387

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BLEHM-5X-HC-10-07-67
<b>Company:</b>	Nickel Road Operating	<b>TVD Reference:</b>	KB @ 5115.00usft
<b>Project:</b>	Sec. 9-T7N-R67W	<b>MD Reference:</b>	KB @ 5115.00usft
<b>Site:</b>	BLEHM Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	BLEHM-5X-HC-10-07-67	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

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	58.02	244.21	4,241.33	-733.63	-1,517.99	1,459,328.268	3,167,556.710	40.592690	-104.896663	
5,000.00	58.02	244.21	4,294.29	-770.54	-1,594.36	1,459,291.359	3,167,480.338	40.592590	-104.896939	
5,100.00	58.02	244.21	4,347.26	-807.45	-1,670.73	1,459,254.449	3,167,403.967	40.592490	-104.897215	
5,200.00	58.02	244.21	4,400.22	-844.36	-1,747.10	1,459,217.539	3,167,327.596	40.592390	-104.897491	
5,300.00	58.02	244.21	4,453.18	-881.27	-1,823.47	1,459,180.629	3,167,251.225	40.592290	-104.897767	
5,400.00	58.02	244.21	4,506.15	-918.18	-1,899.84	1,459,143.719	3,167,174.853	40.592190	-104.898043	
5,500.00	58.02	244.21	4,559.11	-955.09	-1,976.22	1,459,106.810	3,167,098.482	40.592090	-104.898319	
5,600.00	58.02	244.21	4,612.07	-992.00	-2,052.59	1,459,069.900	3,167,022.111	40.591991	-104.898594	
5,700.00	58.02	244.21	4,665.04	-1,028.91	-2,128.96	1,459,032.990	3,166,945.739	40.591891	-104.898870	
5,800.00	58.02	244.21	4,718.00	-1,065.82	-2,205.33	1,458,996.080	3,166,869.368	40.591791	-104.899146	
5,900.00	58.02	244.21	4,770.96	-1,102.73	-2,281.70	1,458,959.170	3,166,792.997	40.591691	-104.899422	
6,000.00	58.02	244.21	4,823.93	-1,139.64	-2,358.07	1,458,922.261	3,166,716.625	40.591591	-104.899698	
6,100.00	58.02	244.21	4,876.89	-1,176.55	-2,434.44	1,458,885.351	3,166,640.254	40.591491	-104.899974	
6,200.00	58.02	244.21	4,929.85	-1,213.46	-2,510.81	1,458,848.441	3,166,563.883	40.591391	-104.900250	
6,300.00	58.02	244.21	4,982.81	-1,250.37	-2,587.19	1,458,811.531	3,166,487.511	40.591291	-104.900526	
6,400.00	58.02	244.21	5,035.78	-1,287.28	-2,663.56	1,458,774.621	3,166,411.140	40.591191	-104.900801	
6,500.00	58.02	244.21	5,088.74	-1,324.19	-2,739.93	1,458,737.712	3,166,334.769	40.591091	-104.901077	
6,600.00	58.02	244.21	5,141.70	-1,361.10	-2,816.30	1,458,700.802	3,166,258.398	40.590992	-104.901353	
6,700.00	58.02	244.21	5,194.67	-1,398.01	-2,892.67	1,458,663.892	3,166,182.026	40.590892	-104.901629	
6,800.00	58.02	244.21	5,247.63	-1,434.92	-2,969.04	1,458,626.982	3,166,105.655	40.590792	-104.901905	
6,900.00	58.02	244.21	5,300.59	-1,471.83	-3,045.41	1,458,590.072	3,166,029.284	40.590692	-104.902181	
7,000.00	58.02	244.21	5,353.56	-1,508.74	-3,121.79	1,458,553.163	3,165,952.912	40.590592	-104.902457	
7,100.00	58.02	244.21	5,406.52	-1,545.65	-3,198.16	1,458,516.253	3,165,876.541	40.590492	-104.902733	
7,200.00	58.02	244.21	5,459.48	-1,582.56	-3,274.53	1,458,479.343	3,165,800.170	40.590392	-104.903009	
7,300.00	58.02	244.21	5,512.45	-1,619.47	-3,350.90	1,458,442.433	3,165,723.798	40.590292	-104.903284	
7,400.00	58.02	244.21	5,565.41	-1,656.38	-3,427.27	1,458,405.523	3,165,647.427	40.590192	-104.903560	
7,500.00	58.02	244.21	5,618.37	-1,693.29	-3,503.64	1,458,368.614	3,165,571.056	40.590093	-104.903836	
7,600.00	58.02	244.21	5,671.33	-1,730.20	-3,580.01	1,458,331.704	3,165,494.685	40.589993	-104.904112	
7,700.00	58.02	244.21	5,724.30	-1,767.11	-3,656.38	1,458,294.794	3,165,418.313	40.589893	-104.904388	
7,800.00	58.02	244.21	5,777.26	-1,804.02	-3,732.76	1,458,257.884	3,165,341.942	40.589793	-104.904664	
7,900.00	58.02	244.21	5,830.22	-1,840.93	-3,809.13	1,458,220.974	3,165,265.571	40.589693	-104.904940	
8,000.00	58.02	244.21	5,883.19	-1,877.84	-3,885.50	1,458,184.064	3,165,189.199	40.589593	-104.905215	
8,100.00	58.02	244.21	5,936.15	-1,914.75	-3,961.87	1,458,147.155	3,165,112.828	40.589493	-104.905491	
8,200.00	58.02	244.21	5,989.11	-1,951.66	-4,038.24	1,458,110.245	3,165,036.457	40.589393	-104.905767	
8,300.00	58.02	244.21	6,042.08	-1,988.57	-4,114.61	1,458,073.335	3,164,960.085	40.589293	-104.906043	
8,400.00	58.02	244.21	6,095.04	-2,025.48	-4,190.98	1,458,036.425	3,164,883.714	40.589193	-104.906319	
8,500.00	58.02	244.21	6,148.00	-2,062.39	-4,267.35	1,457,999.515	3,164,807.343	40.589093	-104.906595	
8,600.00	58.02	244.21	6,200.97	-2,099.30	-4,343.73	1,457,962.606	3,164,730.971	40.588994	-104.906871	
8,604.72	58.02	244.21	6,203.46	-2,101.04	-4,347.33	1,457,960.865	3,164,727.369	40.588989	-104.906884	
KOP 10°/100										
8,700.00	51.11	236.13	6,258.73	-2,139.38	-4,414.66	1,457,922.526	3,164,660.037	40.588885	-104.907127	
8,800.00	44.59	225.88	6,325.90	-2,185.62	-4,472.32	1,457,876.283	3,164,602.373	40.588759	-104.907336	
8,900.00	39.21	213.22	6,400.43	-2,236.63	-4,514.95	1,457,825.272	3,164,559.743	40.588620	-104.907490	
9,000.00	35.52	197.87	6,480.07	-2,290.86	-4,541.25	1,457,771.044	3,164,533.443	40.588471	-104.907586	
9,100.00	34.07	180.48	6,562.39	-2,346.66	-4,550.43	1,457,715.246	3,164,524.272	40.588318	-104.907621	
9,200.00	35.15	162.93	6,644.90	-2,402.33	-4,542.19	1,457,659.575	3,164,532.508	40.588165	-104.907593	
9,300.00	38.56	147.21	6,725.08	-2,456.18	-4,516.80	1,457,605.720	3,164,557.902	40.588017	-104.907502	
9,400.00	43.73	134.16	6,800.51	-2,506.58	-4,475.02	1,457,555.320	3,164,599.682	40.587878	-104.907353	
9,500.00	50.11	123.59	6,868.88	-2,552.00	-4,418.12	1,457,509.904	3,164,656.578	40.587752	-104.907149	
9,600.00	57.28	114.92	6,928.13	-2,591.05	-4,347.84	1,457,470.853	3,164,726.862	40.587644	-104.906897	
9,700.00	64.96	107.59	6,976.44	-2,622.55	-4,266.30	1,457,439.354	3,164,808.397	40.587556	-104.906605	
9,800.00	72.95	101.15	7,012.36	-2,645.54	-4,175.99	1,457,416.364	3,164,898.707	40.587491	-104.906280	
9,889.49	80.26	95.84	7,033.09	-2,658.32	-4,089.97	1,457,403.582	3,164,984.723	40.587454	-104.905971	
LPL 5X-HC 2153 FSL 460 FWL										

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BLEHM-5X-HC-10-07-67
<b>Company:</b>	Nickel Road Operating	<b>TVD Reference:</b>	KB @ 5115.00usft
<b>Project:</b>	Sec. 9-T7N-R67W	<b>MD Reference:</b>	KB @ 5115.00usft
<b>Site:</b>	BLEHM Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	BLEHM-5X-HC-10-07-67	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,900.00	81.13	95.24	7,034.79	-2,659.32	-4,079.65	1,457,402.581	3,164,995.048	40.587452	-104.905933
9,996.21	89.08	89.80	7,043.00	-2,663.50	-3,984.00	1,457,398.403	3,165,090.697	40.587438	-104.905589
LP 89.08 Inc, 89.80 Az									
10,000.00	89.08	89.80	7,043.06	-2,663.49	-3,980.21	1,457,398.416	3,165,094.492	40.587438	-104.905575
10,100.00	89.08	89.80	7,044.67	-2,663.14	-3,880.22	1,457,398.768	3,165,194.479	40.587437	-104.905215
10,200.00	89.08	89.80	7,046.27	-2,662.78	-3,780.23	1,457,399.120	3,165,294.465	40.587437	-104.904855
10,300.00	89.08	89.80	7,047.87	-2,662.43	-3,680.25	1,457,399.471	3,165,394.452	40.587436	-104.904495
10,400.00	89.08	89.80	7,049.48	-2,662.08	-3,580.26	1,457,399.823	3,165,494.438	40.587435	-104.904135
10,500.00	89.08	89.80	7,051.08	-2,661.73	-3,480.27	1,457,400.174	3,165,594.425	40.587434	-104.903775
10,600.00	89.08	89.80	7,052.69	-2,661.38	-3,380.29	1,457,400.526	3,165,694.411	40.587433	-104.903415
10,700.00	89.08	89.80	7,054.29	-2,661.03	-3,280.30	1,457,400.877	3,165,794.398	40.587432	-104.903055
10,800.00	89.08	89.80	7,055.89	-2,660.67	-3,180.31	1,457,401.229	3,165,894.384	40.587431	-104.902695
10,900.00	89.08	89.80	7,057.50	-2,660.32	-3,080.33	1,457,401.580	3,165,994.371	40.587430	-104.902335
11,000.00	89.08	89.80	7,059.10	-2,659.97	-2,980.34	1,457,401.932	3,166,094.357	40.587429	-104.901975
11,100.00	89.08	89.80	7,060.71	-2,659.62	-2,880.35	1,457,402.283	3,166,194.344	40.587429	-104.901615
11,200.00	89.08	89.80	7,062.31	-2,659.27	-2,780.37	1,457,402.635	3,166,294.330	40.587428	-104.901255
11,300.00	89.08	89.80	7,063.92	-2,658.92	-2,680.38	1,457,402.986	3,166,394.317	40.587427	-104.900895
11,400.00	89.08	89.80	7,065.52	-2,658.57	-2,580.39	1,457,403.338	3,166,494.303	40.587426	-104.900535
11,500.00	89.08	89.80	7,067.12	-2,658.21	-2,480.41	1,457,403.689	3,166,594.290	40.587425	-104.900175
11,600.00	89.08	89.80	7,068.73	-2,657.86	-2,380.42	1,457,404.041	3,166,694.276	40.587424	-104.899815
11,700.00	89.08	89.80	7,070.33	-2,657.51	-2,280.43	1,457,404.393	3,166,794.263	40.587423	-104.899455
11,800.00	89.08	89.80	7,071.94	-2,657.16	-2,180.45	1,457,404.744	3,166,894.249	40.587422	-104.899095
11,900.00	89.08	89.80	7,073.54	-2,656.81	-2,080.46	1,457,405.096	3,166,994.236	40.587421	-104.898735
12,000.00	89.08	89.80	7,075.14	-2,656.46	-1,980.48	1,457,405.447	3,167,094.222	40.587421	-104.898375
12,100.00	89.08	89.80	7,076.75	-2,656.10	-1,880.49	1,457,405.799	3,167,194.209	40.587420	-104.898015
12,200.00	89.08	89.80	7,078.35	-2,655.75	-1,780.50	1,457,406.150	3,167,294.195	40.587419	-104.897655
12,300.00	89.08	89.80	7,079.96	-2,655.40	-1,680.52	1,457,406.502	3,167,394.182	40.587418	-104.897295
12,400.00	89.08	89.80	7,081.56	-2,655.05	-1,580.53	1,457,406.853	3,167,494.168	40.587417	-104.896935
12,500.00	89.08	89.80	7,083.17	-2,654.70	-1,480.54	1,457,407.205	3,167,594.155	40.587416	-104.896575
12,600.00	89.08	89.80	7,084.77	-2,654.35	-1,380.56	1,457,407.556	3,167,694.141	40.587415	-104.896215
12,700.00	89.08	89.80	7,086.37	-2,654.00	-1,280.57	1,457,407.908	3,167,794.128	40.587414	-104.895855
12,800.00	89.08	89.80	7,087.98	-2,653.64	-1,180.58	1,457,408.259	3,167,894.114	40.587413	-104.895495
12,900.00	89.08	89.80	7,089.58	-2,653.29	-1,080.60	1,457,408.611	3,167,994.101	40.587412	-104.895135
13,000.00	89.08	89.80	7,091.19	-2,652.94	-980.61	1,457,408.962	3,168,094.087	40.587412	-104.894775
13,100.00	89.08	89.80	7,092.79	-2,652.59	-880.62	1,457,409.314	3,168,194.074	40.587411	-104.894415
13,200.00	89.08	89.80	7,094.39	-2,652.24	-780.64	1,457,409.666	3,168,294.060	40.587410	-104.894055
13,300.00	89.08	89.80	7,096.00	-2,651.89	-680.65	1,457,410.017	3,168,394.047	40.587409	-104.893695
13,400.00	89.08	89.80	7,097.60	-2,651.53	-580.66	1,457,410.369	3,168,494.033	40.587408	-104.893335
13,500.00	89.08	89.80	7,099.21	-2,651.18	-480.68	1,457,410.720	3,168,594.021	40.587407	-104.892975
13,600.00	89.08	89.80	7,100.81	-2,650.83	-380.69	1,457,411.072	3,168,694.007	40.587406	-104.892615
13,700.00	89.08	89.80	7,102.42	-2,650.48	-280.70	1,457,411.423	3,168,793.994	40.587405	-104.892255
13,800.00	89.08	89.80	7,104.02	-2,650.13	-180.72	1,457,411.775	3,168,893.980	40.587404	-104.891895
13,900.00	89.08	89.80	7,105.62	-2,649.78	-80.73	1,457,412.126	3,168,993.967	40.587403	-104.891535
14,000.00	89.08	89.80	7,107.23	-2,649.43	19.26	1,457,412.478	3,169,093.953	40.587402	-104.891175
14,100.00	89.08	89.80	7,108.83	-2,649.07	119.24	1,457,412.829	3,169,193.940	40.587401	-104.890815
14,200.00	89.08	89.80	7,110.44	-2,648.72	219.23	1,457,413.181	3,169,293.926	40.587401	-104.890455
14,300.00	89.08	89.80	7,112.04	-2,648.37	319.21	1,457,413.532	3,169,393.913	40.587400	-104.890095
14,400.00	89.08	89.80	7,113.64	-2,648.02	419.20	1,457,413.884	3,169,493.899	40.587399	-104.889735
14,500.00	89.08	89.80	7,115.25	-2,647.67	519.19	1,457,414.235	3,169,593.886	40.587398	-104.889375
14,600.00	89.08	89.80	7,116.85	-2,647.32	619.17	1,457,414.587	3,169,693.873	40.587397	-104.889015
14,700.00	89.08	89.80	7,118.46	-2,646.96	719.16	1,457,414.939	3,169,793.859	40.587396	-104.888655
14,800.00	89.08	89.80	7,120.06	-2,646.61	819.15	1,457,415.290	3,169,893.846	40.587395	-104.888295
14,900.00	89.08	89.80	7,121.67	-2,646.26	919.13	1,457,415.642	3,169,993.832	40.587394	-104.887935
15,000.00	89.08	89.80	7,123.27	-2,645.91	1,019.12	1,457,415.993	3,170,093.819	40.587393	-104.887575

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BLEHM-5X-HC-10-07-67
<b>Company:</b>	Nickel Road Operating	<b>TVD Reference:</b>	KB @ 5115.00usft
<b>Project:</b>	Sec. 9-T7N-R67W	<b>MD Reference:</b>	KB @ 5115.00usft
<b>Site:</b>	BLEHM Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	BLEHM-5X-HC-10-07-67	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,100.00	89.08	89.80	7,124.87	-2,645.56	1,119.11	1,457,416.345	3,170,193.805	40.587392	-104.887215
15,200.00	89.08	89.80	7,126.48	-2,645.21	1,219.09	1,457,416.696	3,170,293.792	40.587391	-104.886855
15,300.00	89.08	89.80	7,128.08	-2,644.86	1,319.08	1,457,417.048	3,170,393.778	40.587390	-104.886495
15,400.00	89.08	89.80	7,129.69	-2,644.50	1,419.07	1,457,417.399	3,170,493.765	40.587389	-104.886135
15,500.00	89.08	89.80	7,131.29	-2,644.15	1,519.05	1,457,417.751	3,170,593.751	40.587388	-104.885775
15,600.00	89.08	89.80	7,132.89	-2,643.80	1,619.04	1,457,418.102	3,170,693.738	40.587388	-104.885415
15,700.00	89.08	89.80	7,134.50	-2,643.45	1,719.03	1,457,418.454	3,170,793.724	40.587387	-104.885055
15,800.00	89.08	89.80	7,136.10	-2,643.10	1,819.01	1,457,418.805	3,170,893.711	40.587386	-104.884695
15,900.00	89.08	89.80	7,137.71	-2,642.75	1,919.00	1,457,419.157	3,170,993.697	40.587385	-104.884335
16,000.00	89.08	89.80	7,139.31	-2,642.39	2,018.99	1,457,419.508	3,171,093.684	40.587384	-104.883975
16,100.00	89.08	89.80	7,140.92	-2,642.04	2,118.97	1,457,419.860	3,171,193.670	40.587383	-104.883615
16,200.00	89.08	89.80	7,142.52	-2,641.69	2,218.96	1,457,420.212	3,171,293.657	40.587382	-104.883255
16,300.00	89.08	89.80	7,144.12	-2,641.34	2,318.95	1,457,420.563	3,171,393.643	40.587381	-104.882895
16,400.00	89.08	89.80	7,145.73	-2,640.99	2,418.93	1,457,420.915	3,171,493.630	40.587380	-104.882535
16,500.00	89.08	89.80	7,147.33	-2,640.64	2,518.92	1,457,421.266	3,171,593.616	40.587379	-104.882175
16,600.00	89.08	89.80	7,148.94	-2,640.29	2,618.90	1,457,421.618	3,171,693.603	40.587378	-104.881815
16,700.00	89.08	89.80	7,150.54	-2,639.93	2,718.89	1,457,421.969	3,171,793.589	40.587377	-104.881455
16,800.00	89.08	89.80	7,152.14	-2,639.58	2,818.88	1,457,422.321	3,171,893.576	40.587376	-104.881095
16,900.00	89.08	89.80	7,153.75	-2,639.23	2,918.86	1,457,422.672	3,171,993.562	40.587375	-104.880735
17,000.00	89.08	89.80	7,155.35	-2,638.88	3,018.85	1,457,423.024	3,172,093.549	40.587374	-104.880375
17,100.00	89.08	89.80	7,156.96	-2,638.53	3,118.84	1,457,423.375	3,172,193.535	40.587373	-104.880015
17,200.00	89.08	89.80	7,158.56	-2,638.18	3,218.82	1,457,423.727	3,172,293.522	40.587372	-104.879655
17,300.00	89.08	89.80	7,160.17	-2,637.82	3,318.81	1,457,424.078	3,172,393.508	40.587371	-104.879295
17,400.00	89.08	89.80	7,161.77	-2,637.47	3,418.80	1,457,424.430	3,172,493.495	40.587370	-104.878935
17,500.00	89.08	89.80	7,163.37	-2,637.12	3,518.78	1,457,424.781	3,172,593.481	40.587370	-104.878575
17,600.00	89.08	89.80	7,164.98	-2,636.77	3,618.77	1,457,425.133	3,172,693.468	40.587369	-104.878215
17,700.00	89.08	89.80	7,166.58	-2,636.42	3,718.76	1,457,425.485	3,172,793.454	40.587368	-104.877855
17,800.00	89.08	89.80	7,168.19	-2,636.07	3,818.74	1,457,425.836	3,172,893.441	40.587367	-104.877495
17,900.00	89.08	89.80	7,169.79	-2,635.72	3,918.73	1,457,426.188	3,172,993.427	40.587366	-104.877135
18,000.00	89.08	89.80	7,171.39	-2,635.36	4,018.72	1,457,426.539	3,173,093.414	40.587365	-104.876775
18,100.00	89.08	89.80	7,173.00	-2,635.01	4,118.70	1,457,426.891	3,173,193.400	40.587364	-104.876415
18,200.00	89.08	89.80	7,174.60	-2,634.66	4,218.69	1,457,427.242	3,173,293.387	40.587363	-104.876055
18,300.00	89.08	89.80	7,176.21	-2,634.31	4,318.68	1,457,427.594	3,173,393.373	40.587362	-104.875695
18,400.00	89.08	89.80	7,177.81	-2,633.96	4,418.66	1,457,427.945	3,173,493.360	40.587361	-104.875335
18,500.00	89.08	89.80	7,179.42	-2,633.61	4,518.65	1,457,428.297	3,173,593.346	40.587360	-104.874975
18,600.00	89.08	89.80	7,181.02	-2,633.25	4,618.63	1,457,428.648	3,173,693.333	40.587359	-104.874615
18,700.00	89.08	89.80	7,182.62	-2,632.90	4,718.62	1,457,429.000	3,173,793.319	40.587358	-104.874255
18,800.00	89.08	89.80	7,184.23	-2,632.55	4,818.61	1,457,429.351	3,173,893.306	40.587357	-104.873895
18,900.00	89.08	89.80	7,185.83	-2,632.20	4,918.59	1,457,429.703	3,173,993.292	40.587356	-104.873535
19,000.00	89.08	89.80	7,187.44	-2,631.85	5,018.58	1,457,430.054	3,174,093.279	40.587355	-104.873175
19,100.00	89.08	89.80	7,189.04	-2,631.50	5,118.57	1,457,430.406	3,174,193.265	40.587354	-104.872815
19,200.00	89.08	89.80	7,190.64	-2,631.15	5,218.55	1,457,430.758	3,174,293.252	40.587353	-104.872455
19,300.00	89.08	89.80	7,192.25	-2,630.79	5,318.54	1,457,431.109	3,174,393.238	40.587352	-104.872095
19,400.00	89.08	89.80	7,193.85	-2,630.44	5,418.53	1,457,431.461	3,174,493.225	40.587351	-104.871735
19,487.55	89.08	89.80	7,195.00	-2,630.20	5,506.07	1,457,431.703	3,174,580.764	40.587350	-104.871420
TD at 19487.55 - BHL 5X-HC 2153 FSL 460 FEL									

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BLEHM-5X-HC-10-07-67
<b>Company:</b>	Nickel Road Operating	<b>TVD Reference:</b>	KB @ 5115.00usft
<b>Project:</b>	Sec. 9-T7N-R67W	<b>MD Reference:</b>	KB @ 5115.00usft
<b>Site:</b>	BLEHM Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	BLEHM-5X-HC-10-07-67	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
SHL 5X-HC 467 FNL 70i - plan hits target center - Point	0.00	0.01	0.00	0.00	0.00	1,460,061.903	3,169,074.698	40.594675	-104.891179
LPL 5X-HC 2153 FSL 4f - plan misses target center by 10.07usft at 9889.49usft MD (7033.09 TVD, -2658.32 N, -4089.97 E) - Point	0.00	0.00	7,041.00	-2,663.95	-4,092.64	1,457,397.956	3,164,982.057	40.587439	-104.905980
BHL 5X-HC 2153 FSL 4f - plan hits target center - Point	0.00	0.01	7,195.00	-2,630.20	5,506.07	1,457,431.703	3,174,580.764	40.587350	-104.871420

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
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
4,500.97	4,029.99	-586.35	-1,213.25	Hold 58.02 Inc, 244.21 Az
8,604.72	6,203.46	-2,101.04	-4,347.33	KOP 10°/100
9,996.21	7,043.00	-2,663.50	-3,984.00	LP 89.08 Inc, 89.80 Az
19,487.55	7,195.00	-2,630.20	5,506.07	TD at 19487.55