



# Precision Drilling Corporation

## Survey Report

<b>Company:</b> Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b> Well Horsetail #07G-1812
<b>Project:</b> Weld County, CO	<b>TVD Reference:</b> KBE @ 4916.00usft
<b>Site:</b> Sec 7-T10N-R57W	<b>MD Reference:</b> KBE @ 4916.00usft
<b>Well:</b> Horsetail #07G-1812	<b>North Reference:</b> True
<b>Wellbore:</b> Original Hole	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Original Hole	<b>Database:</b> Single User

<b>Project</b> 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	

<b>Site</b> Sec 7-T10N-R57W		
<b>Site Position:</b>	<b>Northing:</b> 1,558,398.04 usft	<b>Latitude:</b> 40.853825°N
<b>From:</b> Lat/Long	<b>Easting:</b> 3,469,889.54 usft	<b>Longitude:</b> 103.801372°W
<b>Position Uncertainty:</b> 0.00 usft	<b>Slot Radius:</b> 13-3/16 "	<b>Grid Convergence:</b> 1.10 °

<b>Well</b> Horsetail #07G-1812		
<b>Well Position</b> +N-S 0.00 usft	<b>Northing:</b> 1,558,380.06 usft	<b>Latitude:</b> 40.853628°N
+E-W 0.00 usft	<b>Easting:</b> 3,472,695.29 usft	<b>Longitude:</b> 103.791234°W
<b>Position Uncertainty</b> 0.00 usft	<b>Wellhead Elevation:</b> usft	<b>Ground Level:</b> 4,895.00 usft

<b>Wellbore</b> Original Hole					
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	01/06/15	7.88	67.44	53,088

<b>Design</b> Original Hole					
<b>Audit Notes:</b>					
<b>Version:</b> 1.0	<b>Phase:</b> ACTUAL	<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	177.85	

<b>Survey Program</b>		<b>Date</b> 03/14/16		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
222.00	13,950.00	Survey #1 (Original Hole)	MWD+IFR+MS	MWD + IFR + Multi Station
14,010.00	14,010.00	Survey #2 (Original Hole)	BLIND	OWSG BLIND

<b>Survey</b>									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
222.00	1.70	64.58	221.97	1.42	2.98	-1.30	0.77	0.77	0.00
314.00	3.09	39.94	313.89	3.91	5.81	-3.69	1.84	1.51	-26.78
405.00	4.56	44.06	404.68	8.39	9.90	-8.01	1.65	1.62	4.53
497.00	5.57	32.00	496.32	14.81	14.81	-14.24	1.59	1.10	-13.11
589.00	7.70	30.23	587.70	23.93	20.29	-23.15	2.32	2.31	-1.92
681.00	7.83	31.51	678.86	34.59	26.67	-33.57	0.23	0.14	1.38
772.00	7.45	32.20	769.05	44.87	33.05	-43.60	0.42	-0.41	0.76
863.00	6.77	30.31	859.35	54.50	38.90	-53.00	0.80	-0.75	-2.07
955.00	5.90	27.88	950.79	63.36	43.85	-61.67	0.99	-0.95	-2.64

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<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4916.00usft
<b>Site:</b>	Sec 7-T10N-R57W	<b>MD Reference:</b>	KBE @ 4916.00usft
<b>Well:</b>	Horsetail #07G-1812	<b>North Reference:</b>	True
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Original Hole	<b>Database:</b>	Single User

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/S (usft)	+E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,046.00	5.46	25.42	1,041.34	71.40	47.89	-69.55	0.55	-0.48	-2.71
1,138.00	5.49	24.29	1,132.92	79.37	51.58	-77.38	0.12	0.03	-1.23
1,229.00	6.54	24.71	1,223.42	88.04	55.54	-85.90	1.16	1.16	0.46
1,321.00	6.62	24.58	1,314.81	97.63	59.94	-95.31	0.09	0.09	-0.14
1,412.00	6.55	25.71	1,405.21	107.08	64.37	-104.59	0.17	-0.08	1.25
1,503.00	6.21	26.61	1,495.65	116.15	68.83	-113.49	0.39	-0.37	0.99
1,595.00	6.43	25.80	1,587.09	125.24	73.30	-122.40	0.26	0.24	-0.88
1,687.00	6.61	23.05	1,678.49	134.75	77.62	-131.74	0.39	0.20	-2.99
1,779.00	5.68	22.81	1,769.96	143.82	81.46	-140.66	1.01	-1.01	-0.26
1,872.00	5.94	25.50	1,862.49	152.40	85.31	-149.10	0.40	0.28	2.89
1,966.00	4.96	23.86	1,956.06	160.51	89.05	-157.06	1.05	-1.03	-1.75
2,117.00	5.01	28.93	2,106.49	172.26	94.88	-168.58	0.29	0.03	3.36
2,212.00	8.11	46.25	2,200.86	180.53	101.74	-176.59	3.84	3.26	18.23
2,306.00	8.68	42.73	2,293.86	190.33	111.34	-186.02	0.82	0.60	-3.74
2,400.00	8.76	37.61	2,386.77	201.21	120.53	-196.55	0.83	0.08	-5.45
2,495.00	7.93	35.22	2,480.76	212.29	128.72	-207.32	0.95	-0.87	-2.52
2,589.00	7.72	32.77	2,573.89	222.90	135.88	-217.64	0.42	-0.22	-2.60
2,684.00	7.31	29.58	2,668.07	233.52	142.31	-228.02	0.61	-0.43	-3.36
2,778.00	6.82	27.58	2,761.36	243.67	147.85	-237.95	0.59	-0.53	-2.13
2,873.00	6.81	25.54	2,855.69	253.75	152.89	-247.83	0.25	-0.01	-2.15
2,967.00	6.34	23.43	2,949.07	263.53	157.35	-257.44	0.56	-0.50	-2.24
3,061.00	7.45	27.54	3,042.39	273.70	162.23	-267.42	1.29	1.18	4.37
3,156.00	6.46	22.97	3,136.69	284.08	167.16	-277.61	1.19	-1.04	-4.81
3,250.00	5.71	20.36	3,230.16	293.33	170.85	-286.71	0.85	-0.80	-2.78
3,345.00	4.61	19.16	3,324.78	301.36	173.75	-294.63	1.16	-1.16	-1.26
3,440.00	7.12	37.09	3,419.28	309.67	178.55	-302.75	3.24	2.64	18.87
3,534.00	6.43	35.98	3,512.62	318.57	185.15	-311.40	0.75	-0.73	-1.19
3,628.00	8.29	36.71	3,605.84	328.26	192.30	-320.81	1.99	1.99	0.78
3,723.00	10.29	43.50	3,699.60	339.91	202.24	-332.08	2.39	2.10	7.15
3,817.00	10.02	44.57	3,792.12	351.82	213.76	-343.56	0.35	-0.28	1.13
3,911.00	8.35	44.63	3,884.91	362.51	224.29	-353.84	1.78	-1.78	0.07
4,030.00	7.51	32.81	4,002.78	375.19	234.57	-366.12	1.54	-0.70	-9.93
4,124.00	7.80	22.16	4,095.95	386.25	240.30	-376.97	1.54	0.31	-11.33
4,218.00	7.25	17.62	4,189.14	397.81	244.50	-388.36	0.86	-0.58	-4.83
4,313.00	6.50	11.75	4,283.46	408.79	247.41	-399.22	1.08	-0.79	-6.17
4,407.00	7.35	0.57	4,376.78	420.01	248.56	-410.39	1.69	0.91	-11.89
4,502.00	6.84	358.62	4,471.05	431.74	248.48	-422.12	0.60	-0.54	-2.06
4,596.00	6.38	357.11	4,564.43	442.56	248.08	-432.94	0.52	-0.48	-1.60
4,690.00	5.76	12.82	4,657.90	452.38	248.87	-442.73	1.88	-0.66	16.71
4,784.00	4.15	4.88	4,751.55	460.37	250.20	-450.66	1.86	-1.72	-8.45
4,879.00	3.04	4.93	4,846.36	466.31	250.71	-456.57	1.17	-1.17	0.06
4,973.00	2.05	357.53	4,940.27	470.47	250.85	-460.72	1.11	-1.06	-7.87
5,067.00	1.74	358.57	5,034.22	473.57	250.74	-463.83	0.33	-0.33	1.11

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<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4916.00usft
<b>Site:</b>	Sec 7-T10N-R57W	<b>MD Reference:</b>	KBE @ 4916.00usft
<b>Well:</b>	Horsetail #07G-1812	<b>North Reference:</b>	True
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Original Hole	<b>Database:</b>	Single User

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,161.00	2.91	199.55	5,128.18	472.75	249.91	-463.04	4.86	1.24	-169.16	
5,255.00	9.97	188.02	5,221.54	462.44	247.98	-452.81	7.60	7.51	-12.27	
5,349.00	16.57	190.03	5,312.98	441.16	244.50	-431.68	7.04	7.02	2.14	
5,444.00	24.18	190.91	5,401.97	408.67	238.45	-399.44	8.02	8.01	0.92	
5,538.00	31.02	187.21	5,485.23	365.69	231.76	-356.73	7.50	7.28	-3.94	
5,633.00	39.90	183.89	5,562.54	310.89	226.61	-302.17	9.56	9.35	-3.49	
5,727.00	49.82	181.34	5,629.09	244.74	223.72	-236.17	10.72	10.55	-2.71	
5,821.00	60.90	178.20	5,682.45	167.54	224.17	-159.01	12.10	11.79	-3.35	
5,915.00	68.41	175.55	5,722.66	82.78	228.86	-74.14	8.39	7.99	-2.82	
6,010.00	70.60	173.22	5,755.92	-5.76	237.58	14.67	3.25	2.30	-2.45	
6,104.00	71.80	174.61	5,786.21	-94.24	247.00	103.44	1.90	1.28	1.48	
6,168.01	76.29	178.56	5,803.81	-155.65	250.64	164.95	9.18	7.01	6.17	
<b>100' Entry #1812</b>										
6,199.00	78.49	180.42	5,810.58	-185.89	250.91	195.17	9.18	7.09	5.99	
6,293.00	87.68	184.28	5,821.89	-279.00	247.06	288.08	10.60	9.78	4.11	
6,387.00	91.98	181.03	5,822.17	-372.87	242.71	381.71	5.73	4.57	-3.46	
6,481.00	90.22	178.25	5,820.37	-466.84	243.30	475.64	3.49	-1.87	-2.95	
6,576.00	90.09	177.67	5,820.12	-561.78	246.67	570.63	0.63	-0.14	-0.61	
6,671.00	91.26	178.13	5,819.00	-656.70	250.15	665.63	1.32	1.24	0.48	
6,765.00	92.66	177.89	5,815.78	-750.59	253.41	759.57	1.50	1.48	-0.25	
6,859.00	91.30	177.13	5,812.54	-844.44	257.49	853.51	1.65	-1.44	-0.81	
6,954.00	89.39	176.57	5,811.96	-939.29	262.71	948.49	2.10	-2.02	-0.59	
7,049.00	89.83	176.41	5,812.61	-1,034.11	268.52	1,043.46	0.49	0.46	-0.17	
7,143.00	91.09	175.62	5,811.86	-1,127.88	275.05	1,137.40	1.59	1.34	-0.85	
7,237.00	91.84	174.78	5,809.46	-1,221.52	282.92	1,231.27	1.20	0.80	-0.89	
7,331.00	91.34	180.36	5,806.85	-1,315.36	286.90	1,325.20	5.97	-0.53	5.95	
7,425.00	89.69	180.54	5,806.01	-1,409.35	286.16	1,419.09	1.77	-1.76	0.19	
7,519.00	90.23	179.96	5,806.08	-1,503.35	285.74	1,513.01	0.85	0.58	-0.62	
7,614.00	91.80	179.95	5,804.39	-1,598.33	285.82	1,607.93	1.66	1.66	-0.01	
7,708.00	90.33	179.11	5,802.64	-1,692.31	286.59	1,701.87	1.81	-1.57	-0.89	
7,801.00	89.36	179.88	5,802.90	-1,785.30	287.41	1,794.83	1.33	-1.05	0.82	
7,896.00	89.78	179.50	5,803.61	-1,880.30	287.93	1,889.77	0.60	0.45	-0.40	
7,990.00	92.11	180.11	5,802.06	-1,974.28	288.25	1,983.70	2.57	2.48	0.65	
8,085.00	90.03	180.34	5,800.29	-2,069.25	287.87	2,078.60	2.21	-2.19	0.24	
8,179.00	87.72	180.57	5,802.14	-2,163.23	287.12	2,172.47	2.47	-2.46	0.24	
8,273.00	87.44	180.42	5,806.11	-2,257.14	286.31	2,266.29	0.34	-0.29	-0.16	
8,367.00	89.53	179.92	5,808.60	-2,351.10	286.04	2,360.17	2.29	2.22	-0.53	
8,461.00	90.30	179.14	5,808.74	-2,445.09	286.81	2,454.13	1.16	0.81	-0.83	
8,556.00	89.87	178.75	5,808.60	-2,540.08	288.56	2,549.12	0.60	-0.45	-0.40	
8,650.00	90.75	180.95	5,808.09	-2,634.07	288.81	2,643.05	2.52	0.94	2.33	
8,744.00	91.84	180.97	5,805.97	-2,728.03	287.23	2,736.89	1.15	1.15	0.03	
8,839.00	92.45	180.44	5,802.42	-2,822.96	286.07	2,831.70	0.85	0.64	-0.56	
8,933.00	90.74	180.10	5,799.81	-2,916.92	285.63	2,925.58	1.85	-1.82	-0.36	

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<b>Site:</b>	Sec 7-T10N-R57W	<b>MD Reference:</b>	KBE @ 4916.00usft
<b>Well:</b>	Horsetail #07G-1812	<b>North Reference:</b>	True
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Original Hole	<b>Database:</b>	Single User

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,027.00	90.87	180.32	5,798.49	-3,010.91	285.28	3,019.49	0.27	0.13	0.24	
9,121.00	91.22	178.77	5,796.77	-3,104.88	286.03	3,113.43	1.70	0.38	-1.66	
9,216.00	92.86	177.97	5,793.39	-3,199.78	288.73	3,208.36	1.92	1.73	-0.84	
9,310.00	90.61	178.63	5,790.54	-3,293.69	291.52	3,302.31	2.49	-2.39	0.71	
9,405.00	90.13	179.21	5,789.93	-3,388.67	293.31	3,397.29	0.80	-0.51	0.61	
9,499.00	89.28	180.60	5,790.42	-3,482.67	293.46	3,491.22	1.73	-0.90	1.48	
9,593.00	89.99	180.47	5,791.02	-3,576.66	292.58	3,585.12	0.77	0.76	-0.15	
9,685.00	88.74	180.08	5,792.04	-3,668.65	292.14	3,677.03	1.42	-1.36	-0.42	
9,776.00	87.85	178.69	5,794.75	-3,759.60	293.12	3,767.95	1.82	-0.98	-1.53	
9,868.00	86.90	178.14	5,798.96	-3,851.47	295.67	3,859.85	1.19	-1.03	-0.59	
9,959.00	88.69	179.18	5,802.46	-3,942.37	297.80	3,950.77	2.27	1.97	1.14	
10,052.00	90.53	179.51	5,803.09	-4,035.36	298.86	4,043.73	2.01	1.98	0.36	
10,144.00	91.66	178.25	5,801.33	-4,127.32	300.65	4,135.70	1.83	1.22	-1.37	
10,236.00	90.62	179.02	5,799.50	-4,219.28	302.84	4,227.67	1.40	-1.12	0.84	
10,327.00	89.95	180.99	5,799.05	-4,310.27	302.83	4,318.60	2.28	-0.73	2.15	
10,418.00	89.09	181.00	5,799.81	-4,401.25	301.25	4,409.46	0.95	-0.95	0.01	
10,510.00	89.10	179.81	5,801.26	-4,493.24	300.61	4,501.35	1.29	0.01	-1.29	
10,601.00	88.95	181.04	5,802.81	-4,584.22	299.94	4,592.24	1.36	-0.17	1.35	
10,693.00	89.78	181.89	5,803.83	-4,676.18	297.59	4,684.05	1.29	0.90	0.92	
10,784.00	91.47	181.57	5,802.84	-4,767.13	294.84	4,774.84	1.89	1.86	-0.34	
10,876.00	91.35	180.69	5,800.58	-4,859.08	293.03	4,866.66	0.97	-0.13	-0.96	
10,967.00	89.93	179.77	5,799.56	-4,950.08	292.66	4,957.57	1.85	-1.55	-1.01	
11,059.00	89.05	179.20	5,800.38	-5,042.07	293.49	5,049.53	1.15	-0.96	-0.62	
11,151.00	89.71	178.81	5,801.38	-5,134.05	295.08	5,141.50	0.83	0.72	-0.42	
11,243.00	89.53	181.35	5,801.99	-5,226.04	294.96	5,233.42	2.76	-0.19	2.75	
11,335.00	90.45	181.78	5,802.00	-5,318.00	292.45	5,325.23	1.10	1.00	0.47	
11,428.00	89.71	182.32	5,801.87	-5,410.94	289.12	5,417.98	0.99	-0.80	0.58	
11,519.00	88.51	182.51	5,803.29	-5,501.85	285.29	5,508.68	1.34	-1.32	0.21	
11,611.00	89.56	181.98	5,804.84	-5,593.76	281.68	5,600.39	1.28	1.15	-0.58	
11,702.00	89.41	181.10	5,805.65	-5,684.72	279.23	5,691.20	0.98	-0.17	-0.97	
11,794.00	89.37	180.35	5,806.63	-5,776.71	278.07	5,783.08	0.82	-0.04	-0.82	
11,885.00	88.98	179.60	5,807.94	-5,867.70	278.11	5,874.00	0.93	-0.42	-0.83	
11,976.00	89.37	179.13	5,809.25	-5,958.69	279.12	5,964.96	0.67	0.42	-0.52	
12,067.00	90.37	180.10	5,809.46	-6,049.68	279.74	6,055.92	1.53	1.10	1.07	
12,157.00	91.26	177.98	5,808.17	-6,139.65	281.25	6,145.88	2.55	0.98	-2.35	
12,248.00	90.33	178.66	5,806.91	-6,230.60	283.92	6,236.87	1.26	-1.01	0.75	
12,339.00	89.70	180.04	5,806.88	-6,321.59	284.95	6,327.83	1.67	-0.70	1.52	
12,429.00	91.16	180.59	5,806.21	-6,411.59	284.46	6,417.75	1.74	1.63	0.61	
12,519.00	89.32	179.52	5,805.83	-6,501.58	284.37	6,507.67	2.36	-2.04	-1.19	
12,611.00	90.15	178.74	5,806.25	-6,593.57	285.77	6,599.65	1.23	0.89	-0.85	
12,702.00	91.86	178.35	5,804.66	-6,684.52	288.09	6,690.62	1.93	1.88	-0.43	
12,794.00	90.64	178.56	5,802.66	-6,776.46	290.57	6,782.60	1.35	-1.33	0.24	
12,885.00	89.32	179.35	5,802.69	-6,867.45	292.22	6,873.58	1.69	-1.45	0.87	
12,977.00	89.57	178.05	5,803.58	-6,959.42	294.31	6,965.56	1.44	0.27	-1.41	

# Precision Drilling Corporation

## Survey Report

<b>Company:</b> Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b> Well Horsetail #07G-1812
<b>Project:</b> Weld County, CO	<b>TVD Reference:</b> KBE @ 4916.00usft
<b>Site:</b> Sec 7-T10N-R57W	<b>MD Reference:</b> KBE @ 4916.00usft
<b>Well:</b> Horsetail #07G-1812	<b>North Reference:</b> True
<b>Wellbore:</b> Original Hole	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Original Hole	<b>Database:</b> Single User

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,068.00	89.52	179.42	5,804.30	-7,050.39	296.31	7,056.54	1.50	-0.06	1.50
13,159.00	90.67	180.12	5,804.15	-7,141.39	296.68	7,147.49	1.48	1.26	0.77
13,251.00	90.37	179.80	5,803.31	-7,233.38	296.74	7,239.42	0.48	-0.32	-0.35
13,343.00	89.26	179.71	5,803.60	-7,325.38	297.13	7,331.37	1.21	-1.21	-0.10
13,435.00	89.43	180.47	5,804.65	-7,417.37	296.98	7,423.29	0.84	0.19	0.82
13,526.00	90.65	180.44	5,804.58	-7,508.37	296.26	7,514.20	1.34	1.34	-0.03
13,618.00	89.14	180.68	5,804.74	-7,600.36	295.36	7,606.09	1.66	-1.64	0.25
13,710.00	89.72	180.52	5,805.65	-7,692.35	294.39	7,697.98	0.65	0.63	-0.17
13,802.00	90.48	180.13	5,805.50	-7,784.35	293.87	7,789.89	0.93	0.83	-0.43
13,893.00	90.71	179.27	5,804.55	-7,875.34	294.35	7,880.84	0.98	0.25	-0.94
13,940.00	91.07	178.71	5,803.83	-7,922.33	295.18	7,927.83	1.42	0.77	-1.20
<b>100' Exit #1812</b>									
13,940.27	91.07	178.71	5,803.82	-7,922.60	295.19	7,928.10	0.00	0.00	0.00
<b>PBHL #1812</b>									
13,950.00	91.14	178.59	5,803.63	-7,932.32	295.42	7,937.82	1.46	0.79	-1.23
14,010.00	91.14	178.59	5,802.44	-7,992.29	296.90	7,997.81	0.00	0.00	0.00
<b>BHL #1812</b>									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SL #1812 - hit/miss target - Shape - Point	0.00	0.00	0.00	0.00	0.00	1,558,380.07	3,472,695.29	40.853628°N	103.791234°W
PBHL #1812 - actual wellpath misses target center by 7.20usft at 13940.26usft MD (5803.82 TVD, -7922.59 N, 295.19 E) - Point	0.00	0.00	5,797.00	-7,922.41	297.49	1,550,464.85	3,473,145.38	40.831883°N	103.790159°W
BHL #1812 - actual wellpath hits target center - Point	0.00	0.00	5,802.44	-7,992.29	296.90	1,550,394.97	3,473,146.14	40.831692°N	103.790161°W
100' Entry #1812 - actual wellpath hits target center - Point	0.00	0.00	5,803.81	-155.64	250.64	1,558,229.28	3,472,948.89	40.853201°N	103.790328°W
100' Exit #1812 - actual wellpath hits target center - Point	0.00	0.00	5,803.83	-7,922.33	295.18	1,550,464.89	3,473,143.07	40.831884°N	103.790167°W

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N-S (usft)	+E-W (usft)		
6,168.00	5,803.81	-155.64	250.64	100' Entry	
13,940.00	5,803.83	-7,922.33	295.18	100' Exit	

# Precision Drilling Corporation

## Survey Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Horsetail #07G-1812
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<b>Site:</b>	Sec 7-T10N-R57W	<b>MD Reference:</b>	KBE @ 4916.00usft
<b>Well:</b>	Horsetail #07G-1812	<b>North Reference:</b>	True
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Original Hole	<b>Database:</b>	Single User