

## Survey Report

<b>Company:</b>	Whiting Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well HORSETAIL 08D-1703
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	18.5' KB @ 4976.7usft (UNIT 406)
<b>Site:</b>	S8-T10N-R57W	<b>MD Reference:</b>	18.5' KB @ 4976.7usft (UNIT 406)
<b>Well:</b>	HORSETAIL 08D-1703	<b>North Reference:</b>	True
<b>Wellbore:</b>	HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

<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		

Site		S8-T10N-R57W			
Site Position:		Northing:	1,560,717.72 usft	Latitude:	40.859783
From:	Lat/Long	Easting:	3,477,578.15 usft	Longitude:	-103.773422
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.12 °

Well	HORSETAIL 08D-1703					
Well Position	+N/-S	0.0 usft	Northing:	1,560,656.21 usft	Latitude:	40.859761
	+E/-W	0.0 usft	Easting:	3,474,821.77 usft	Longitude:	-103.783389
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	4,958.2 usft

<b>Wellbore</b>	HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	4/25/2015	7.63	67.37	52,952

<b>Design</b>	FINAL				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	177.68	

<b>Survey Program</b>	<b>Date</b>	7/6/2015			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
167.0	15,875.0	Survey #1 (HZ)	ISCWSA MWD	MWD - ISCWSA	

<b>Survey</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>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usf)</b>	<b>Build Rate (°/100u)</b>	<b>Formations / Comments</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00		
167.0	0.75	92.25	167.0	0.0	1.1	0.1	0.45	0.45		
260.0	0.87	82.49	260.0	0.0	2.4	0.1	0.20	0.13		
353.0	0.67	87.91	353.0	0.1	3.6	0.0	0.23	-0.22		
446.0	1.89	77.04	446.0	0.5	5.7	-0.3	1.33	1.31		
539.0	4.08	66.75	538.8	2.2	10.2	-1.7	2.41	2.35		
632.0	6.75	59.16	631.4	6.3	18.0	-5.5	2.97	2.87		
725.0	6.70	56.20	723.8	12.1	27.2	-11.0	0.38	-0.05		
819.0	6.31	58.10	817.2	17.9	36.1	-16.4	0.47	-0.41		
912.0	5.77	56.50	909.6	23.1	44.3	-21.3	0.61	-0.58		
1,005.0	5.09	56.15	1,002.2	28.0	51.7	-25.9	0.73	-0.73		
1,099.0	6.60	50.07	1,095.7	33.8	59.3	-31.4	1.73	1.61		
1,192.0	6.81	47.21	1,188.1	41.0	67.4	-38.2	0.42	0.23		

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<b>Site:</b>	S8-T10N-R57W	<b>MD Reference:</b>	18.5' KB @ 4976.7usft (UNIT 406)
<b>Well:</b>	HORSETAIL 08D-1703	<b>North Reference:</b>	True
<b>Wellbore:</b>	HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
1,286.0	6.18	43.62	1,281.5	48.4	75.0	-45.4	0.80	-0.67	
1,379.0	5.73	44.83	1,374.0	55.4	81.7	-52.0	0.50	-0.48	
1,473.0	6.01	48.20	1,467.5	62.0	88.7	-58.3	0.47	0.30	
1,566.0	5.42	49.09	1,560.0	68.1	95.6	-64.2	0.64	-0.63	
1,620.0	5.03	51.00	1,613.8	71.2	99.4	-67.2	0.79	-0.72	
1,766.0	5.44	51.60	1,759.2	79.6	109.8	-75.1	0.28	0.28	
1,860.0	6.87	56.66	1,852.7	85.4	118.0	-80.6	1.63	1.52	
1,953.0	6.54	54.30	1,945.0	91.6	126.9	-86.4	0.46	-0.35	
2,047.0	6.31	52.52	2,038.4	97.8	135.4	-92.3	0.32	-0.24	
2,140.0	6.18	48.91	2,130.9	104.2	143.2	-98.4	0.44	-0.14	
2,233.0	5.68	46.46	2,223.4	110.7	150.3	-104.5	0.60	-0.54	
2,327.0	7.87	58.58	2,316.7	117.3	159.2	-110.7	2.77	2.33	
2,420.0	7.59	54.39	2,408.9	124.2	169.6	-117.2	0.68	-0.30	
2,514.0	6.99	49.87	2,502.1	131.5	179.0	-124.1	0.88	-0.64	
2,607.0	6.33	47.57	2,594.5	138.6	187.1	-130.9	0.77	-0.71	
2,701.0	8.48	54.55	2,687.7	146.1	196.6	-138.0	2.48	2.29	
2,794.0	7.87	49.38	2,779.8	154.2	207.0	-145.7	1.03	-0.66	
2,888.0	7.40	49.79	2,872.9	162.3	216.5	-153.4	0.50	-0.50	
2,981.0	7.12	49.36	2,965.2	169.9	225.5	-160.7	0.31	-0.30	
3,075.0	6.01	43.86	3,058.6	177.3	233.3	-167.7	1.36	-1.18	
3,168.0	7.55	53.33	3,150.9	184.4	241.6	-174.5	2.04	1.66	
3,262.0	6.20	52.31	3,244.2	191.2	250.6	-180.9	1.44	-1.44	
3,355.0	8.69	62.17	3,336.4	197.6	260.8	-186.8	3.00	2.68	
3,449.0	7.40	64.95	3,429.5	203.4	272.5	-192.2	1.43	-1.37	
3,543.0	6.88	61.52	3,522.8	208.7	283.0	-197.1	0.72	-0.55	
3,636.0	6.79	57.71	3,615.1	214.3	292.5	-202.3	0.50	-0.10	
3,730.0	6.89	53.47	3,708.5	220.6	301.7	-208.2	0.55	0.11	
3,823.0	6.90	53.11	3,800.8	227.3	310.7	-214.5	0.05	0.01	
3,917.0	6.55	50.61	3,894.1	234.1	319.3	-221.0	0.49	-0.37	
4,011.0	4.56	55.64	3,987.7	239.6	326.6	-226.2	2.18	-2.12	
4,104.0	6.65	45.90	4,080.2	245.4	333.5	-231.7	2.46	2.25	
4,198.0	6.32	44.59	4,173.6	252.9	341.0	-238.9	0.38	-0.35	
4,292.0	6.34	44.24	4,267.1	260.3	348.3	-246.0	0.05	0.02	
4,385.0	6.46	42.81	4,359.5	267.8	355.4	-253.2	0.21	0.13	
4,479.0	8.21	48.64	4,452.7	276.1	364.1	-261.2	2.02	1.86	
4,572.0	7.25	41.57	4,544.9	284.9	372.9	-269.6	1.45	-1.03	
4,666.0	7.46	57.88	4,638.1	292.6	382.0	-276.9	2.22	0.22	
4,759.0	4.46	83.01	4,730.6	296.2	390.7	-280.2	4.20	-3.23	
4,853.0	4.55	75.02	4,824.3	297.7	398.0	-281.3	0.67	0.10	
4,947.0	4.10	111.30	4,918.1	297.4	404.7	-280.8	2.90	-0.48	
5,040.0	2.25	187.92	5,011.0	294.4	407.6	-277.6	4.51	-1.99	
5,134.0	8.54	141.31	5,104.5	287.1	411.7	-270.2	7.64	6.69	
5,227.0	18.75	154.43	5,194.8	268.2	422.5	-250.8	11.40	10.98	
5,321.0	19.77	174.67	5,283.6	238.7	430.5	-221.1	7.15	1.09	
5,415.0	26.07	176.74	5,370.2	202.2	433.1	-184.5	6.76	6.70	
5,508.0	35.89	181.20	5,449.8	154.4	433.7	-136.7	10.84	10.56	
5,602.0	46.50	183.66	5,520.5	92.7	431.0	-75.1	11.42	11.29	
5,649.0	47.85	184.11	5,552.4	58.3	428.6	-40.9	2.96	2.87	
5,695.0	51.71	185.48	5,582.1	23.3	425.7	-6.0	8.69	8.39	
5,742.0	55.34	183.80	5,610.0	-14.4	422.6	31.5	8.24	7.72	
5,789.0	59.69	185.95	5,635.3	-53.9	419.2	70.8	10.03	9.26	
5,836.0	63.92	184.43	5,657.5	-95.1	415.5	111.9	9.44	9.00	
5,882.0	65.49	182.38	5,677.1	-136.6	413.0	153.2	5.28	3.41	

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<b>Well:</b>	HORSETAIL 08D-1703	<b>North Reference:</b>	True
<b>Wellbore:</b>	HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
5,929.0	68.23	180.71	5,695.6	-179.8	411.9	196.4	6.68	5.83	
5,976.0	73.23	180.63	5,711.1	-224.2	411.4	240.6	10.64	10.64	
6,023.0	76.90	180.38	5,723.2	-269.6	411.0	286.0	7.83	7.81	
6,070.0	84.22	180.04	5,730.9	-315.9	410.8	332.3	15.59	15.57	
6,090.0	87.85	180.46	5,732.3	-335.9	410.7	352.2	18.27	18.15	
6,170.0	91.47	179.68	5,732.8	-415.8	410.6	432.1	4.63	4.52	
6,255.0	90.07	180.39	5,731.6	-500.8	410.6	517.0	1.85	-1.65	
6,349.0	88.89	179.74	5,732.5	-594.8	410.5	611.0	1.43	-1.26	
6,444.0	89.17	179.88	5,734.1	-689.8	410.8	705.9	0.33	0.29	
6,539.0	89.08	178.55	5,735.6	-784.8	412.1	800.8	1.40	-0.09	
6,633.0	89.42	177.69	5,736.8	-878.7	415.2	894.8	0.98	0.36	
6,728.0	89.65	177.29	5,737.6	-973.6	419.3	989.8	0.49	0.24	
6,823.0	89.81	177.26	5,738.0	-1,068.5	423.8	1,084.8	0.17	0.17	
6,917.0	90.26	178.60	5,737.9	-1,162.5	427.2	1,178.8	1.50	0.48	
7,012.0	89.89	179.51	5,737.8	-1,257.5	428.8	1,273.8	1.03	-0.39	
7,107.0	89.79	181.46	5,738.1	-1,352.4	428.0	1,368.7	2.06	-0.11	
7,202.0	89.80	182.44	5,738.4	-1,447.4	424.8	1,463.4	1.03	0.01	
7,296.0	89.17	181.04	5,739.3	-1,541.3	421.9	1,557.2	1.63	-0.67	
7,391.0	89.25	179.28	5,740.6	-1,636.3	421.6	1,652.1	1.85	0.08	
7,486.0	89.21	179.14	5,741.9	-1,731.3	422.9	1,747.0	0.15	-0.04	
7,581.0	89.40	179.09	5,743.0	-1,826.3	424.4	1,842.0	0.21	0.20	
7,675.0	89.49	178.85	5,743.9	-1,920.3	426.1	1,935.9	0.27	0.10	
7,770.0	89.97	179.68	5,744.4	-2,015.3	427.3	2,030.9	1.01	0.51	
7,864.0	90.94	180.38	5,743.6	-2,109.3	427.3	2,124.8	1.27	1.03	
7,959.0	90.01	181.30	5,742.8	-2,204.2	425.9	2,219.7	1.38	-0.98	
8,054.0	89.69	180.62	5,743.1	-2,299.2	424.3	2,314.5	0.79	-0.34	
8,149.0	89.96	180.39	5,743.4	-2,394.2	423.4	2,409.4	0.37	0.28	
8,243.0	89.97	180.04	5,743.4	-2,488.2	423.1	2,503.3	0.37	0.01	
8,338.0	89.37	178.94	5,744.0	-2,583.2	423.9	2,598.3	1.32	-0.63	
8,434.0	90.53	179.54	5,744.1	-2,679.2	425.2	2,694.2	1.36	1.21	
8,528.0	91.04	178.93	5,742.8	-2,773.2	426.5	2,788.2	0.85	0.54	
8,623.0	88.75	180.13	5,743.0	-2,868.2	427.2	2,883.1	2.72	-2.41	
8,718.0	88.80	182.65	5,745.0	-2,963.1	424.9	2,977.9	2.65	0.05	
8,813.0	87.97	182.12	5,747.7	-3,058.0	421.0	3,072.5	1.04	-0.87	
8,907.0	89.03	182.77	5,750.1	-3,151.9	417.0	3,166.2	1.32	1.13	
9,002.0	88.50	181.70	5,752.2	-3,246.8	413.3	3,260.8	1.26	-0.56	
9,097.0	89.66	181.16	5,753.7	-3,341.7	410.9	3,355.6	1.35	1.22	
9,191.0	88.76	180.18	5,755.0	-3,435.7	409.8	3,449.5	1.42	-0.96	
9,286.0	90.26	179.83	5,755.8	-3,530.7	409.8	3,544.4	1.62	1.58	
9,381.0	90.99	180.09	5,754.8	-3,625.7	409.9	3,639.3	0.82	0.77	
9,475.0	90.02	179.32	5,753.9	-3,719.7	410.4	3,733.3	1.32	-1.03	
9,570.0	91.28	180.78	5,752.9	-3,814.7	410.3	3,828.2	2.03	1.33	
9,665.0	89.81	178.19	5,752.0	-3,909.7	411.1	3,923.1	3.13	-1.55	
9,760.0	91.80	180.34	5,750.6	-4,004.6	412.3	4,018.0	3.08	2.09	
9,854.0	90.08	178.44	5,749.1	-4,098.6	413.3	4,112.0	2.73	-1.83	
9,949.0	90.36	180.01	5,748.7	-4,193.6	414.6	4,206.9	1.68	0.29	
10,044.0	91.62	180.84	5,747.1	-4,288.6	413.9	4,301.8	1.59	1.33	
10,138.0	90.60	180.04	5,745.3	-4,382.6	413.2	4,395.7	1.38	-1.09	
10,233.0	89.90	177.72	5,744.8	-4,477.5	415.1	4,490.7	2.55	-0.74	
10,328.0	90.10	179.88	5,744.8	-4,572.5	417.1	4,585.6	2.28	0.21	
10,422.0	89.46	178.75	5,745.2	-4,666.5	418.2	4,679.6	1.38	-0.68	
10,517.0	91.07	179.82	5,744.8	-4,761.5	419.4	4,774.6	2.03	1.69	
10,612.0	90.52	178.84	5,743.4	-4,856.5	420.5	4,869.5	1.18	-0.58	

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<b>Wellbore:</b>	HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
10,706.0	90.13	179.09	5,742.9	-4,950.4	422.2	4,963.5	0.49	-0.41	
10,801.0	89.22	178.21	5,743.4	-5,045.4	424.4	5,058.5	1.33	-0.96	
10,894.0	89.60	180.42	5,744.4	-5,138.4	425.5	5,151.4	2.41	0.41	
10,987.0	91.76	182.50	5,743.3	-5,231.4	423.1	5,244.2	3.22	2.32	
11,079.0	91.44	181.95	5,740.7	-5,323.2	419.6	5,335.9	0.69	-0.35	
11,172.0	90.56	181.47	5,739.1	-5,416.2	416.8	5,428.6	1.08	-0.95	
11,266.0	89.84	180.79	5,738.8	-5,510.2	415.0	5,522.5	1.05	-0.77	
11,359.0	89.38	180.02	5,739.4	-5,603.2	414.3	5,615.3	0.96	-0.49	
11,452.0	88.96	179.26	5,740.8	-5,696.2	414.9	5,708.3	0.93	-0.45	
11,545.0	90.05	181.56	5,741.6	-5,789.1	414.2	5,801.2	2.74	1.17	
11,639.0	91.60	184.47	5,740.2	-5,883.0	409.3	5,894.7	3.51	1.65	
11,732.0	91.14	182.14	5,738.0	-5,975.8	403.9	5,987.3	2.55	-0.49	
11,826.0	89.03	178.76	5,737.8	-6,069.8	403.2	6,081.1	4.24	-2.24	
11,919.0	88.66	178.74	5,739.7	-6,162.7	405.2	6,174.1	0.40	-0.40	
12,013.0	90.68	180.40	5,740.3	-6,256.7	405.9	6,268.0	2.78	2.15	
12,106.0	91.31	182.89	5,738.6	-6,349.7	403.2	6,360.8	2.76	0.68	
12,199.0	89.02	180.25	5,738.4	-6,442.6	400.7	6,453.6	3.76	-2.46	
12,293.0	89.02	182.28	5,740.0	-6,536.6	398.6	6,547.4	2.16	0.00	
12,386.0	88.74	182.82	5,741.8	-6,629.5	394.5	6,640.0	0.65	-0.30	
12,480.0	89.09	180.00	5,743.6	-6,723.4	392.2	6,733.8	3.02	0.37	
12,573.0	89.78	179.45	5,744.5	-6,816.4	392.6	6,826.7	0.95	0.74	
12,667.0	89.82	178.64	5,744.8	-6,910.4	394.2	6,920.7	0.86	0.04	
12,760.0	89.31	177.59	5,745.5	-7,003.3	397.2	7,013.7	1.26	-0.55	
12,854.0	90.72	180.00	5,745.5	-7,097.3	399.2	7,107.6	2.97	1.50	
12,947.0	89.74	179.69	5,745.1	-7,190.3	399.5	7,200.6	1.11	-1.05	
13,041.0	88.78	179.65	5,746.4	-7,284.3	400.0	7,294.5	1.02	-1.02	
13,135.0	89.95	181.09	5,747.4	-7,378.3	399.4	7,388.4	1.97	1.24	
13,228.0	90.59	181.92	5,747.0	-7,471.2	397.0	7,481.2	1.13	0.69	
13,322.0	91.17	181.52	5,745.5	-7,565.2	394.1	7,574.9	0.75	0.62	
13,415.0	91.55	180.72	5,743.3	-7,658.1	392.3	7,667.7	0.95	0.41	
13,509.0	89.84	180.25	5,742.2	-7,752.1	391.5	7,761.6	1.89	-1.82	
13,603.0	90.26	179.76	5,742.1	-7,846.1	391.5	7,855.5	0.69	0.45	
13,696.0	90.19	178.83	5,741.7	-7,939.1	392.7	7,948.5	1.00	-0.08	
13,790.0	89.32	178.19	5,742.1	-8,033.1	395.1	8,042.5	1.15	-0.93	
13,884.0	88.66	177.67	5,743.8	-8,127.0	398.5	8,136.5	0.89	-0.70	
13,977.0	88.89	180.24	5,745.8	-8,220.0	400.2	8,229.4	2.77	0.25	
14,071.0	90.66	177.98	5,746.1	-8,313.9	401.7	8,323.4	3.05	1.88	
14,164.0	91.68	178.26	5,744.2	-8,406.9	404.7	8,416.4	1.14	1.10	
14,258.0	91.35	177.69	5,741.8	-8,500.8	408.0	8,510.3	0.70	-0.35	
14,352.0	91.80	180.05	5,739.2	-8,594.7	409.9	8,604.3	2.55	0.48	
14,445.0	87.66	178.81	5,739.6	-8,687.7	410.8	8,697.2	4.65	-4.45	
14,539.0	88.93	178.30	5,742.4	-8,781.6	413.2	8,791.1	1.46	1.35	
14,632.0	88.09	176.89	5,746.4	-8,875.4	419.6	8,884.1	1.07	-0.55	
14,725.0	86.24	177.95	5,751.0	-8,969.2	423.8	8,977.0	2.29	-1.99	
14,819.0	86.90	179.54	5,756.6	-9,063.0	425.8	9,069.8	1.83	0.70	
14,912.0	88.53	181.00	5,760.3	-9,156.9	425.4	9,162.6	2.35	1.75	
15,006.0	92.13	182.99	5,759.8	-9,250.7	422.1	9,255.5	4.38	3.83	
15,099.0	92.13	182.19	5,756.3	-9,344.5	417.9	9,349.9	0.86	0.00	
15,193.0	92.44	181.20	5,752.6	-9,438.3	415.1	9,444.1	1.10	0.33	
15,286.0	92.35	180.08	5,748.6	-9,532.1	414.1	9,538.4	1.19	-0.10	
15,380.0	89.76	181.11	5,746.9	-9,625.9	413.1	9,632.3	3.00	-2.78	
15,473.0	89.89	179.74	5,747.2	-9,719.7	412.4	9,726.1	1.46	0.14	
15,567.0	90.11	179.14	5,747.2	-9,813.5	413.3	9,819.9	0.69	0.24	

## Survey Report

<b>Company:</b>	Whiting Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well HORSETAIL 08D-1703
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	18.5' KB @ 4976.7usft (UNIT 406)
<b>Site:</b>	S8-T10N-R57W	<b>MD Reference:</b>	18.5' KB @ 4976.7usft (UNIT 406)
<b>Well:</b>	HORSETAIL 08D-1703	<b>North Reference:</b>	True
<b>Wellbore:</b>	HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
15,721.0	90.73	179.41	5,746.5	-9,962.4	414.5	9,971.1	0.72	0.66	
15,825.0	91.43	179.12	5,744.6	-10,066.4	415.9	10,075.0	0.73	0.67	LAST CES SURVEY @ 15,825' MD
15,875.0	91.43	179.12	5,743.3	-10,116.4	416.6	10,125.0	0.00	0.00	TD @ 134' FSL & 830' FWL - PTB @ 15,875' MD

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
HORSETAIL 08D-1703 F - actual wellpath misses target center by 34.2usft at 15875.0usft MD (5743.3 TVD, -10116.4 N, 416.6 E) - Point	0.00	0.00	5,740.0	-10,150.0	411.3	1,550,516.09	3,475,429.43	40.831903	-103.781903
HORSETAIL 08D-1703 F - actual wellpath misses target center by 178.0usft at 15875.0usft MD (5743.3 TVD, -10116.4 N, 416.6 E) - Point	0.00	0.00	5,918.0	-10,150.0	411.3	1,550,516.09	3,475,429.43	40.831903	-103.781903
HORSETAIL 08D-1704 F - actual wellpath misses target center by 393.6usft at 15875.0usft MD (5743.3 TVD, -10116.4 N, 416.6 E) - Point	0.00	0.00	5,964.0	-10,148.0	741.0	1,550,524.50	3,475,759.11	40.831908	-103.780711

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
6,130.0	5,733.2	7" (758' FNL & 963' FWL)		0	0

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
15,825.0	5,744.6	-10,066.4	415.9	LAST CES SURVEY @ 15,825' MD	
15,875.0	5,743.3	-10,116.4	416.6	TD @ 134' FSL & 830' FWL	
15,875.0	5,743.3	-10,116.4	416.6	PTB @ 15,875' MD	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

