



WHITING PETROLEUM CORP.

Project: Weld County, CO

Site: Sec 7-T10N-R57W

Well: Horsetail #07E-1836

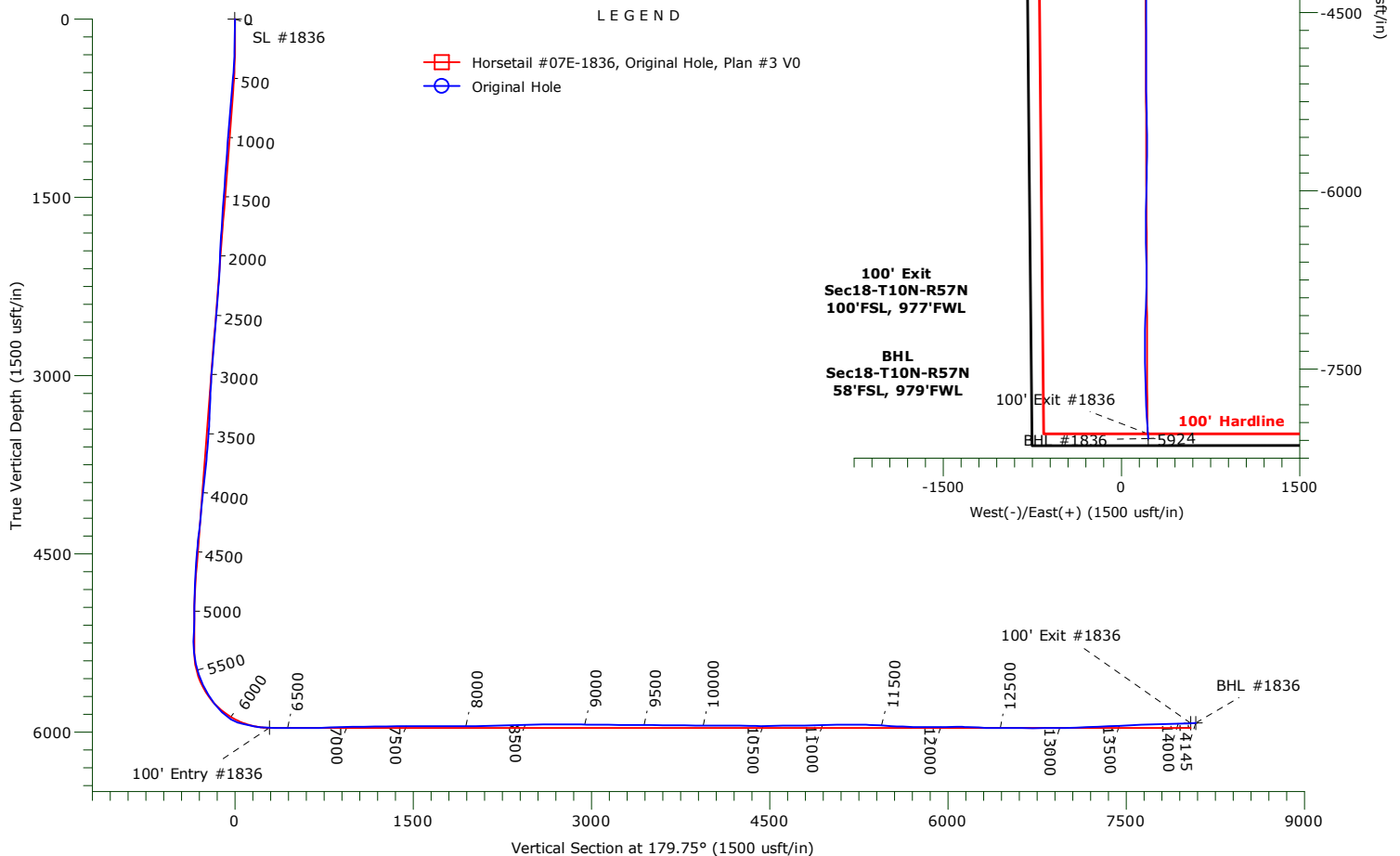
Wellbore: Original Hole

Design: Original Hole



Precision
Directional Services

TVD	MD	+N/-S	+E/-W	Annotation
5963.50	6347.00	-290.64	169.72	100' Entry
5926.01	14103.00	-8042.69	223.02	100' Exit



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL #1836	0.00	0.00	0.00	1558446.90	3470010.05	40.853953°N	103.800933°W	Point
BHL #1836	5924.46	-8084.57	225.77	1550368.14	3470390.67	40.831763°N	103.800118°W	Point
100' Exit #1836	5926.01	-8042.69	223.02	1550409.96	3470387.12	40.831878°N	103.800127°W	Point
100' Entry #1836	5963.50	-290.64	169.72	1558159.57	3470185.31	40.853155°N	103.800320°W	Point

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Weld County, CO

Sec 7-T10N-R57W

Horsetail #07E-1836

Original Hole

Design: Original Hole

Standard Survey Report

16 February, 2016

Precision Drilling Corporation

Survey Report

Company:	WHITING PETROLEUM CORP.	Local Co-ordinate Reference:	Well Horsetail #07E-1836
Project:	Weld County, CO	TVD Reference:	4925.6'+21'KB @ 4946.60usft (Unit 409)
Site:	Sec 7-T10N-R57W	MD Reference:	4925.6'+21'KB @ 4946.60usft (Unit 409)
Well:	Horsetail #07E-1836	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Compass_US

Project	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		Sec 7-T10N-R57W				
Site Position:		Northing:	1,558,398.04	usft	Latitude:	40.853825°N
From:	Lat/Long	Easting:	3,469,889.54	usft	Longitude:	103.801372°W
Position Uncertainty:		0.00	usft	Slot Radius:	13.20	in
					Grid Convergence:	1.10 °

Well		Horsetail #07E-1836				
Well Position	+N-S	0.00 usft	Northing:	1,558,446.91 usft	Latitude:	40.853953°N
	+E-W	0.00 usft	Easting:	3,470,010.05 usft	Longitude:	103.800934°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,925.60 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	02/07/16	7.86	67.40	52,879

Design	Original Hole				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)	
	0.00	0.00	0.00	179.75	

Survey Program	Date	02/16/16			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
130.00	14,084.00	Survey #1 (Original Hole)	MWD+IFR+MS	MWD + IFR + Multi Station	
14,145.00	14,145.00	Survey #2 (Original Hole)	BLIND	OWSG BLIND	

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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130.00	0.60	333.04	130.00	0.61	-0.31	-0.61	0.46	0.46	0.00	
279.00	0.80	315.79	278.99	2.05	-1.39	-2.05	0.19	0.13	-11.58	
313.00	2.52	17.61	312.97	2.93	-1.32	-2.94	6.64	5.08	181.82	
405.00	4.14	21.68	404.81	7.94	0.51	-7.94	1.77	1.76	4.43	
496.00	5.94	29.93	495.46	15.08	4.08	-15.06	2.13	1.98	9.07	
588.00	5.68	30.44	586.99	23.13	8.76	-23.09	0.28	-0.28	0.55	
680.00	5.50	27.83	678.55	30.95	13.12	-30.89	0.34	-0.20	-2.84	
770.00	5.61	32.30	768.13	38.48	17.49	-38.41	0.50	0.13	4.96	
862.00	5.40	29.83	859.70	46.04	22.04	-45.94	0.35	-0.24	-2.68	

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Site:	Sec 7-T10N-R57W	MD Reference:	4925.6'+21'KB @ 4946.60usft (Unit 409)
Well:	Horsetail #07E-1836	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Compass_US

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)
954.00	5.41	31.14	951.30	53.51	26.44	-53.39	0.14	0.02	1.43
1,045.00	5.13	31.48	1,041.91	60.65	30.78	-60.51	0.31	-0.31	0.37
1,137.00	4.79	29.71	1,133.57	67.50	34.84	-67.34	0.40	-0.37	-1.92
1,229.00	4.60	31.68	1,225.26	73.98	38.68	-73.81	0.27	-0.21	2.14
1,321.00	4.70	34.13	1,316.95	80.24	42.73	-80.05	0.24	0.10	2.66
1,413.00	5.08	33.82	1,408.62	86.74	47.12	-86.54	0.42	0.42	-0.33
1,505.00	5.21	36.76	1,500.25	93.47	51.89	-93.25	0.32	0.14	3.20
1,597.00	5.24	40.28	1,591.86	100.03	57.10	-99.78	0.35	0.04	3.82
1,689.00	5.54	42.41	1,683.46	106.52	62.82	-106.24	0.39	0.32	2.32
1,780.00	4.87	38.33	1,774.08	112.79	68.18	-112.49	0.85	-0.74	-4.48
1,872.00	3.69	29.71	1,865.83	118.42	72.06	-118.11	1.45	-1.28	-9.37
1,963.00	3.25	38.64	1,956.66	122.98	75.12	-122.65	0.77	-0.49	9.82
2,119.00	2.21	29.09	2,112.48	129.06	79.34	-128.71	0.73	-0.67	-6.13
2,214.00	3.85	12.37	2,207.35	133.77	80.92	-133.42	1.95	1.73	-17.59
2,308.00	5.04	8.29	2,301.06	140.95	82.19	-140.59	1.31	1.27	-4.34
2,402.00	5.09	2.26	2,394.70	149.20	82.95	-148.84	0.57	0.05	-6.42
2,497.00	4.74	359.93	2,489.35	157.34	83.11	-156.98	0.42	-0.37	-2.45
2,591.00	4.38	14.06	2,583.05	164.71	83.98	-164.34	1.25	-0.38	15.03
2,686.00	4.16	9.21	2,677.79	171.63	85.41	-171.26	0.44	-0.23	-5.10
2,780.00	5.65	28.60	2,771.45	179.06	88.17	-178.68	2.35	1.58	20.63
2,874.00	5.30	26.31	2,865.02	187.01	92.31	-186.61	0.44	-0.38	-2.44
2,968.00	5.80	48.49	2,958.59	194.05	97.79	-193.62	2.33	0.54	23.59
3,063.00	4.11	41.91	3,053.23	199.77	103.66	-199.31	1.88	-1.78	-6.92
3,157.00	4.12	41.30	3,146.99	204.81	108.14	-204.34	0.05	0.02	-0.65
3,250.00	3.01	37.57	3,239.81	209.26	111.83	-208.77	1.23	-1.20	-4.01
3,345.00	2.37	43.58	3,334.70	212.65	114.70	-212.15	0.73	-0.67	6.32
3,439.00	4.68	43.11	3,428.52	216.86	118.66	-216.34	2.46	2.46	-0.50
3,533.00	5.94	37.22	3,522.11	223.52	124.22	-222.98	1.46	1.34	-6.26
3,628.00	5.52	37.96	3,616.64	231.04	130.00	-230.47	0.44	-0.44	0.78
3,722.00	7.23	33.64	3,710.06	239.53	136.06	-238.93	1.88	1.81	-4.60
3,816.00	6.81	31.21	3,803.35	249.21	142.22	-248.59	0.54	-0.44	-2.58
3,910.00	6.43	22.78	3,896.73	258.83	147.15	-258.19	1.11	-0.41	-8.98
4,005.00	6.09	13.41	3,991.16	268.64	150.37	-267.98	1.13	-0.36	-9.86
4,125.00	5.84	356.55	4,110.52	280.92	151.48	-280.26	1.47	-0.21	-14.05
4,218.00	5.41	352.12	4,203.08	289.98	150.60	-289.32	0.66	-0.46	-4.76
4,312.00	6.38	2.00	4,296.58	299.58	150.17	-298.92	1.49	1.04	10.51
4,407.00	6.47	24.47	4,391.00	309.73	152.58	-309.06	2.63	0.10	23.66
4,501.00	4.91	20.13	4,484.53	318.33	156.16	-317.65	1.72	-1.66	-4.63
4,595.00	4.30	28.12	4,578.23	325.22	159.20	-324.52	0.94	-0.65	8.50
4,689.00	3.57	14.81	4,672.01	331.15	161.61	-330.45	1.24	-0.78	-14.16
4,784.00	4.14	47.98	4,766.81	336.31	164.91	-335.58	2.38	0.60	34.91
4,878.00	4.01	82.34	4,860.58	339.02	170.69	-338.27	2.56	-0.14	36.56
4,973.00	3.30	73.42	4,955.39	340.24	176.60	-339.47	0.95	-0.74	-9.39

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Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
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Survey

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5,067.00	2.57	72.82	5,049.27	341.63	181.20	-340.84	0.78	-0.78	-0.64
5,161.00	2.64	28.77	5,143.18	344.15	184.25	-343.35	2.08	0.08	-46.86
5,255.00	2.63	24.16	5,237.08	348.02	186.18	-347.20	0.23	-0.02	-4.91
5,350.00	5.24	167.47	5,331.97	345.76	188.01	-344.94	7.91	2.75	150.86
5,444.00	13.83	166.12	5,424.58	330.63	191.65	-329.79	9.14	9.14	-1.43
5,539.00	19.51	171.54	5,515.56	303.90	196.71	-303.04	6.19	5.97	5.70
5,634.00	25.27	182.38	5,603.40	267.90	198.20	-267.03	7.44	6.07	11.41
5,728.00	30.95	188.22	5,686.29	223.89	193.91	-223.04	6.70	6.04	6.21
5,822.00	38.40	185.84	5,763.54	170.85	187.47	-170.03	8.06	7.93	-2.53
5,917.00	44.97	182.86	5,834.46	107.89	182.79	-107.09	7.22	6.92	-3.14
6,011.00	57.85	181.45	5,892.97	34.62	180.12	-33.84	13.75	13.70	-1.50
6,058.00	69.13	182.34	5,913.92	-7.34	178.71	8.12	24.06	24.00	1.89
6,105.00	77.08	182.74	5,927.56	-52.23	176.72	53.00	16.94	16.92	0.84
6,140.00	76.94	183.43	5,935.43	-86.29	174.89	87.05	1.97	-0.40	1.98
6,199.00	77.08	182.61	5,948.69	-143.70	171.86	144.45	1.37	0.24	-1.38
6,246.00	82.20	181.09	5,957.14	-189.89	170.37	190.63	11.35	10.89	-3.25
6,294.00	87.49	180.18	5,961.45	-237.68	169.84	238.42	11.18	11.03	-1.88
6,347.00	88.08	180.08	5,963.50	-290.64	169.72	291.37	1.13	1.11	-0.20
100' Entry - 100' Entry #1836									
6,388.00	88.54	180.00	5,964.70	-331.62	169.69	332.36	1.13	1.11	-0.20
6,482.00	90.10	180.62	5,965.82	-425.61	169.19	426.34	1.79	1.66	0.67
6,577.00	89.43	180.26	5,966.22	-520.60	168.45	521.33	0.80	-0.70	-0.38
6,671.00	89.96	179.71	5,966.71	-614.60	168.47	615.33	0.82	0.57	-0.59
6,766.00	92.21	179.05	5,964.90	-709.57	169.49	710.30	2.47	2.37	-0.69
6,860.00	91.99	178.70	5,961.46	-803.49	171.33	804.23	0.45	-0.24	-0.38
6,954.00	91.91	179.56	5,958.26	-897.42	172.75	898.17	0.92	-0.08	0.92
7,048.00	90.92	179.37	5,955.94	-991.39	173.63	992.14	1.08	-1.06	-0.21
7,141.00	89.77	179.52	5,955.38	-1,084.38	174.53	1,085.13	1.24	-1.23	0.16
7,236.00	90.89	179.76	5,954.83	-1,179.38	175.13	1,180.13	1.20	1.18	0.25
7,330.00	91.46	180.97	5,952.90	-1,273.35	174.53	1,274.10	1.43	0.61	1.29
7,425.00	90.09	181.03	5,951.62	-1,368.33	172.88	1,369.07	1.44	-1.44	0.06
7,519.00	90.86	180.43	5,950.84	-1,462.32	171.69	1,463.05	1.04	0.82	-0.64
7,613.00	90.57	181.70	5,949.67	-1,556.29	169.95	1,557.02	1.39	-0.31	1.35
7,708.00	89.29	180.02	5,949.79	-1,651.28	168.53	1,651.99	2.22	-1.35	-1.77
7,802.00	90.00	179.70	5,950.37	-1,745.27	168.76	1,745.99	0.83	0.76	-0.33
7,896.00	90.48	177.45	5,949.97	-1,839.24	171.10	1,839.97	2.45	0.51	-2.40
7,991.00	89.54	177.17	5,949.94	-1,934.13	175.55	1,934.88	1.03	-0.99	-0.29
8,084.00	90.01	179.35	5,950.31	-2,027.08	178.37	2,027.84	2.40	0.50	2.35
8,179.00	91.76	179.55	5,948.84	-2,122.06	179.28	2,122.82	1.86	1.85	0.20
8,273.00	91.05	179.87	5,946.54	-2,216.03	179.76	2,216.79	0.83	-0.76	0.34
8,367.00	92.18	179.79	5,943.89	-2,309.99	180.04	2,310.76	1.21	1.20	-0.08
8,462.00	91.72	180.46	5,940.65	-2,404.94	179.82	2,405.70	0.85	-0.48	0.70
8,556.00	92.34	178.09	5,937.32	-2,498.86	181.01	2,499.63	2.61	0.65	-2.53

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Survey Report

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Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Compass_US

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)
8,650.00	90.80	178.83	5,934.75	-2,592.79	183.54	2,593.57	1.82	-1.64	0.79
8,744.00	89.99	179.09	5,934.10	-2,686.77	185.25	2,687.55	0.90	-0.86	0.28
8,835.00	89.49	179.01	5,934.51	-2,777.76	186.76	2,778.55	0.55	-0.55	-0.09
8,926.00	88.66	179.47	5,935.97	-2,868.74	187.97	2,869.53	1.05	-0.92	0.51
9,018.00	89.79	178.97	5,937.22	-2,960.72	189.22	2,961.51	1.34	1.22	-0.55
9,109.00	88.72	179.24	5,938.40	-3,051.70	190.65	3,052.50	1.21	-1.17	0.30
9,201.00	89.78	179.59	5,939.60	-3,143.68	191.59	3,144.49	1.22	1.16	0.39
9,292.00	89.31	180.26	5,940.33	-3,234.68	191.71	3,235.48	0.90	-0.52	0.73
9,385.00	90.31	178.82	5,940.64	-3,327.67	192.46	3,328.48	1.88	1.07	-1.55
9,475.00	89.75	178.66	5,940.59	-3,417.65	194.44	3,418.47	0.64	-0.61	-0.18
9,567.00	89.18	178.98	5,941.45	-3,509.63	196.34	3,510.45	0.72	-0.62	0.35
9,658.00	88.68	179.47	5,943.15	-3,600.60	197.57	3,601.43	0.77	-0.55	0.55
9,750.00	90.14	178.23	5,944.10	-3,692.57	199.41	3,693.41	2.09	1.59	-1.36
9,842.00	90.06	177.74	5,943.94	-3,784.52	202.65	3,785.36	0.53	-0.09	-0.53
9,934.00	89.24	177.14	5,944.51	-3,876.42	206.75	3,877.29	1.10	-0.89	-0.65
10,026.00	90.00	178.91	5,945.12	-3,968.36	209.91	3,969.24	2.10	0.83	1.93
10,118.00	89.85	179.32	5,945.23	-4,060.35	211.33	4,061.23	0.47	-0.16	0.44
10,210.00	89.97	180.54	5,945.38	-4,152.35	211.45	4,153.23	1.34	0.13	1.33
10,302.00	89.25	180.79	5,946.00	-4,244.34	210.38	4,245.22	0.83	-0.78	0.27
10,393.00	88.43	180.53	5,947.84	-4,335.31	209.33	4,336.18	0.94	-0.90	-0.29
10,484.00	89.87	181.16	5,949.19	-4,426.29	207.99	4,427.16	1.73	1.58	0.69
10,577.00	91.17	179.78	5,948.35	-4,519.28	207.23	4,520.14	2.03	1.39	-1.48
10,668.00	90.32	180.26	5,947.17	-4,610.27	207.20	4,611.13	1.07	-0.93	0.53
10,758.00	89.52	179.57	5,947.29	-4,700.27	207.33	4,701.13	1.18	-0.89	-0.77
10,850.00	91.44	180.37	5,946.52	-4,792.26	207.38	4,793.12	2.25	2.08	0.86
10,941.00	91.71	179.73	5,944.02	-4,883.23	207.31	4,884.08	0.76	0.30	-0.70
11,032.00	91.48	179.83	5,941.49	-4,974.19	207.66	4,975.05	0.27	-0.25	0.12
11,124.00	91.17	179.68	5,939.36	-5,066.16	208.05	5,067.02	0.37	-0.34	-0.16
11,216.00	90.06	179.02	5,938.38	-5,158.15	209.10	5,159.01	1.41	-1.21	-0.72
11,308.00	90.09	178.50	5,938.26	-5,250.13	211.09	5,251.00	0.56	0.03	-0.56
11,400.00	87.50	179.30	5,940.20	-5,342.08	212.85	5,342.96	2.94	-2.81	0.87
11,491.00	87.14	179.54	5,944.45	-5,432.98	213.77	5,433.86	0.48	-0.40	0.26
11,583.00	86.16	179.37	5,949.83	-5,524.82	214.65	5,525.70	1.08	-1.07	-0.18
11,675.00	87.70	179.69	5,954.76	-5,616.68	215.40	5,617.56	1.71	1.67	0.35
11,766.00	88.63	180.33	5,957.67	-5,707.63	215.38	5,708.52	1.24	1.02	0.71
11,858.00	90.23	181.03	5,958.59	-5,799.62	214.29	5,800.50	1.90	1.74	0.75
11,949.00	90.73	181.40	5,957.82	-5,890.59	212.37	5,891.46	0.68	0.55	0.41
12,041.00	90.48	181.20	5,956.85	-5,982.56	210.28	5,983.42	0.35	-0.27	-0.21
12,132.00	90.41	181.75	5,956.15	-6,073.53	207.93	6,074.38	0.61	-0.07	0.60
12,225.00	87.76	180.03	5,957.63	-6,166.49	206.49	6,167.34	3.41	-2.86	-1.86
12,316.00	87.02	180.29	5,961.78	-6,257.40	206.24	6,258.24	0.86	-0.81	0.29
12,406.00	89.53	179.87	5,964.50	-6,347.35	206.11	6,348.19	2.83	2.79	-0.46
12,498.00	89.97	179.39	5,964.90	-6,439.35	206.70	6,440.19	0.71	0.48	-0.53
12,590.00	89.69	178.78	5,965.17	-6,531.33	208.17	6,532.18	0.72	-0.30	-0.66

Precision Drilling Corporation

Survey Report

Company:	WHITING PETROLEUM CORP.	Local Co-ordinate Reference:	Well Horsetail #07E-1836
Project:	Weld County, CO	TVD Reference:	4925.6'+21'KB @ 4946.60usft (Unit 409)
Site:	Sec 7-T10N-R57W	MD Reference:	4925.6'+21'KB @ 4946.60usft (Unit 409)
Well:	Horsetail #07E-1836	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Compass_US

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)
12,683.00	89.44	178.93	5,965.88	-6,624.31	210.03	6,625.17	0.32	-0.27	0.16
12,773.00	88.96	179.38	5,967.13	-6,714.29	211.35	6,715.15	0.73	-0.53	0.50
12,865.00	91.37	182.04	5,966.86	-6,806.27	210.21	6,807.12	3.90	2.62	2.89
12,956.00	89.32	181.59	5,966.30	-6,897.22	207.33	6,898.06	2.31	-2.25	-0.49
13,047.00	91.33	182.37	5,965.78	-6,988.16	204.18	6,988.98	2.37	2.21	0.85
13,138.00	92.42	182.76	5,962.80	-7,079.02	200.11	7,079.82	1.27	1.20	0.43
13,230.00	92.57	180.28	5,958.80	-7,170.89	197.68	7,171.68	2.70	0.16	-2.70
13,321.00	91.76	179.71	5,955.36	-7,261.82	197.69	7,262.62	1.09	-0.89	-0.63
13,413.00	92.58	179.76	5,951.87	-7,353.76	198.12	7,354.55	0.89	0.89	0.05
13,503.00	92.64	178.88	5,947.78	-7,443.65	199.19	7,444.45	0.98	0.07	-0.97
13,595.00	92.76	178.91	5,943.44	-7,535.54	200.96	7,536.34	0.14	0.13	0.03
13,687.00	92.11	178.34	5,939.54	-7,627.43	203.17	7,628.24	0.94	-0.71	-0.62
13,779.00	91.77	178.24	5,936.43	-7,719.33	205.92	7,720.16	0.38	-0.37	-0.11
13,871.00	91.84	177.38	5,933.53	-7,811.22	209.44	7,812.06	0.93	0.08	-0.93
13,962.00	91.81	176.55	5,930.63	-7,902.04	214.26	7,902.90	0.92	-0.04	-0.92
14,054.00	91.80	176.46	5,927.73	-7,993.83	219.87	7,994.71	0.09	-0.01	-0.09
14,084.00	92.11	176.24	5,926.71	-8,023.75	221.77	8,024.64	1.27	1.05	-0.72
14,103.00	92.11	176.24	5,926.01	-8,042.69	223.02	8,043.59	0.00	0.00	0.00
100' Exit - 100' Exit #1836									
14,145.00	92.11	176.24	5,924.46	-8,084.58	225.77	8,085.48	0.01	-0.01	-0.01
BHL #1836									

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
SL #1836 - actual wellpath hits target center - Point	0.00	0.00	0.00	0.00	0.00	1,558,446.91	3,470,010.05	40.853953°N	103.800934°W
BHL #1836 - actual wellpath hits target center - Point	0.00	0.00	5,924.46	-8,084.58	225.77	1,550,368.14	3,470,390.67	40.831763°N	103.800118°W
100' Exit #1836 - actual wellpath hits target center - Point	0.00	0.00	5,926.01	-8,042.69	223.02	1,550,409.96	3,470,387.12	40.831878°N	103.800128°W
100' Entry #1836 - actual wellpath hits target center - Point	0.00	0.00	5,963.50	-290.64	169.72	1,558,159.58	3,470,185.31	40.853155°N	103.800320°W

Precision Drilling Corporation

Survey Report

Company:	WHITING PETROLEUM CORP.	Local Co-ordinate Reference:	Well Horsetail #07E-1836
Project:	Weld County, CO	TVD Reference:	4925.6'+21'KB @ 4946.60usft (Unit 409)
Site:	Sec 7-T10N-R57W	MD Reference:	4925.6'+21'KB @ 4946.60usft (Unit 409)
Well:	Horsetail #07E-1836	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Compass_US

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,347.00	5,963.50	-290.64	169.72	100' Entry
14,103.00	5,926.01	-8,042.69	223.02	100' Exit