

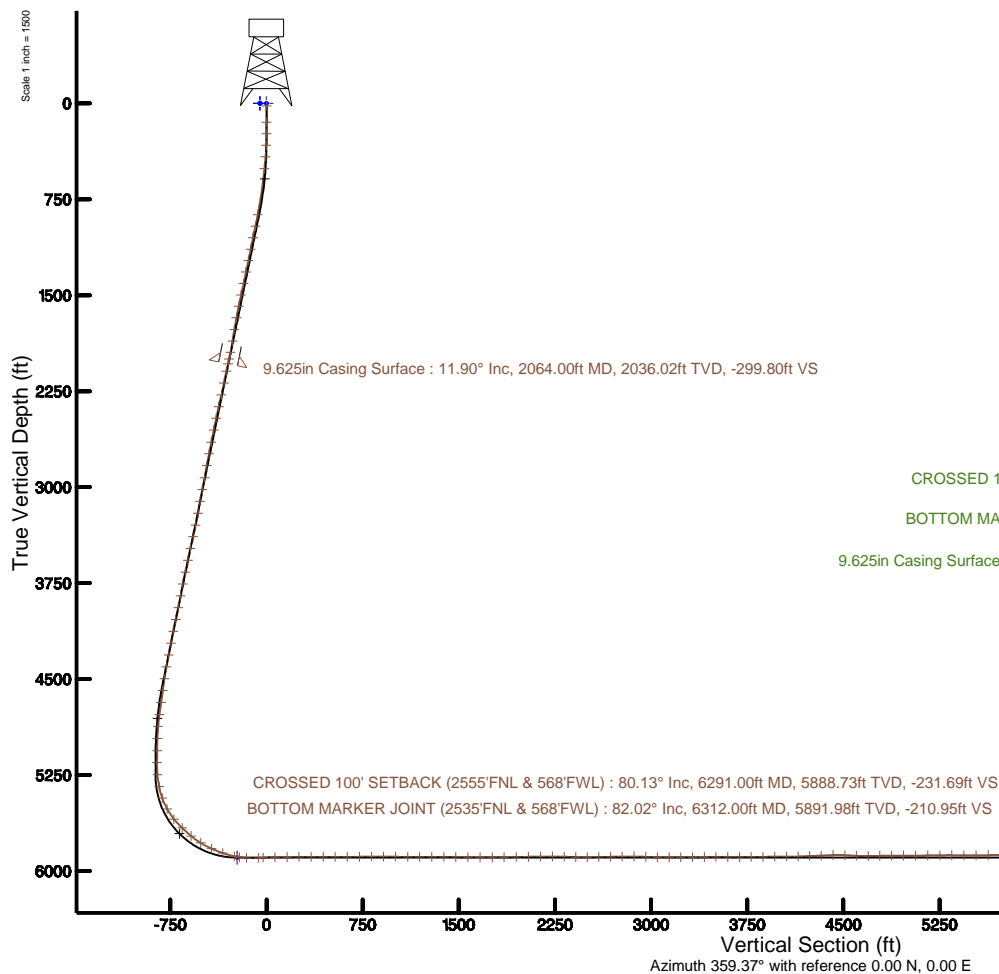
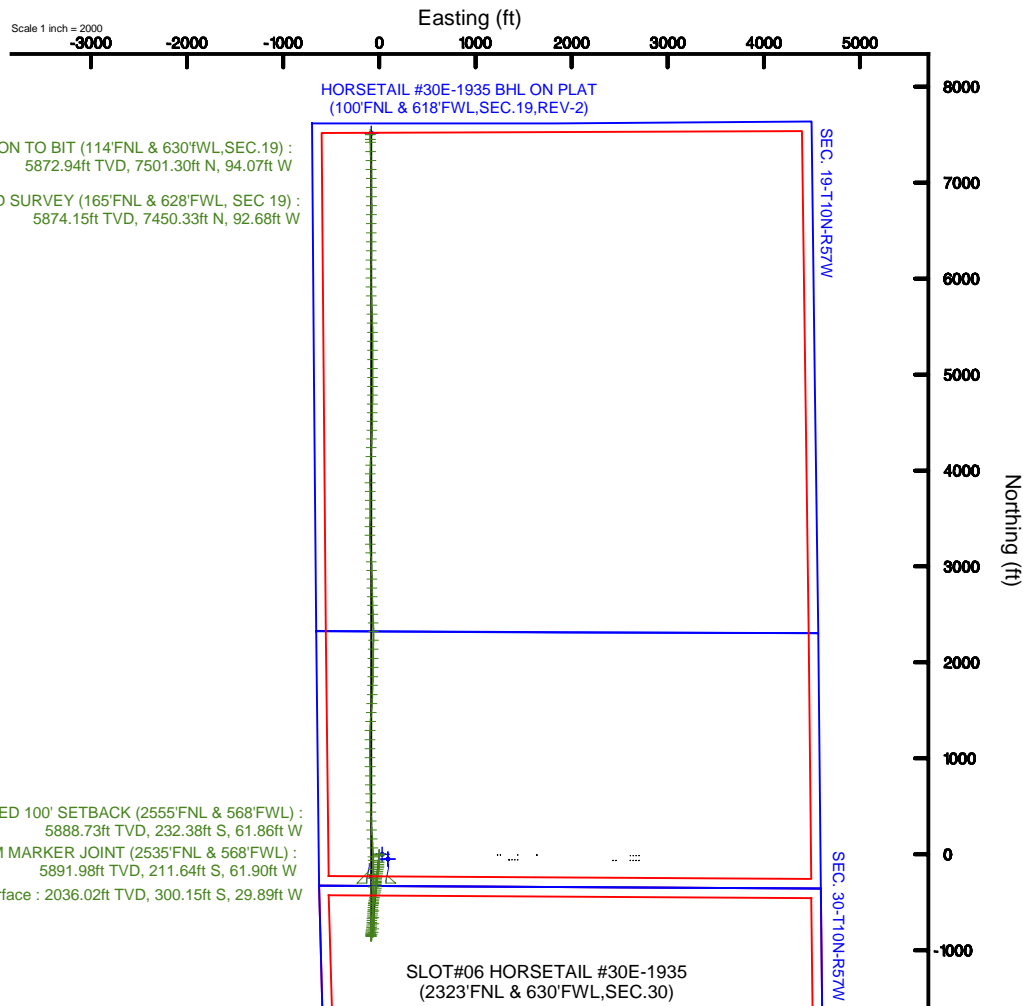
WHITING OIL & GAS CORPORATION

Location: COLORADO Slot: SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL,SEC.30)
Field: WELD COUNTY Well: HORSETAIL #30E-1935
Facility: SEC.30-T10N-R57W Wellbore: HORSETAIL #30E-1935 pwb

Plot reference wellpath is HORSETAIL #30E-1935 (REV-A.0) PWP		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to UNIT 406 (21') (RKB)		* - Wellpath was transformed from a different geodetic datum
Measured depths are referenced to UNIT 406 (21') (RKB)		North Reference: True north
UNIT 406 (21') (RKB) to Mean Sea Level: 4827 feet		Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL,SEC.30)): 0 feet		Depths are in feet
Coordinates are in feet referenced to Slot		Created by: ingmjpm on 2017-01-19
		Database: WellArchivedDB1

Location Information

Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.30-T10N-R57W				3470349.811	1542643.145	40°48'38.040"N	103°48'02.880"W
Slot	Local N (ft)	Local E (ft)		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL,SEC.30)	49.59	-49.20		3470259.879	1542691.018	40°48'38.530"N	103°48'04.040"W
UNIT 406 (21') (RKB) to Mud line (At Slot: SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL,SEC.30))						4827ft	
Mean Sea Level to Mud line (At Slot: SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL,SEC.30))						0ft	
UNIT 406 (21') (RKB) to Mean Sea Level						4827ft	





Actual Wellpath Report

HORSETAIL #30E-1935 AWP

Page 1 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL, SEC.30)
Area	COLORADO	Well	HORSETAIL #30E-1935
Field	WELD COUNTY	Wellbore	HORSETAIL #30E-1935 AWB
Facility	SEC.30-T10N-R57W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Ingmjmr
Scale	1.000005	Report Generated	1/19/2017 at 10:38:09 AM
Convergence at slot	1.10° East	Database/Source file	WellArchitectDB1/HORSETAIL_#30E-1935_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	49.59	-89.20	3470259.68	1542691.02	40°48'38.530"N	103°48'04.040"W
Facility Reference Pt			3470349.81	1542643.15	40°48'38.040"N	103°48'02.880"W
Field Reference Pt			3471270.16	1558347.59	40°51'13.010"N	103°47'46.990"W

WELLPATH DATUM

Calculation method	Minimum curvature	UNIT 406 (21') (RKB) to Facility Vertical Datum	4827.00ft
Horizontal Reference Pt	Slot	UNIT 406 (21') (RKB) to Mean Sea Level	4827.00ft
Vertical Reference Pt	UNIT 406 (21') (RKB)	UNIT 406 (21') (RKB) to Mud Line at Slot (SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL, SEC.30))	4827.00ft
MD Reference Pt	UNIT 406 (21') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.37°



Actual Wellpath Report

HORSETAIL #30E-1935 AWP

Page 2 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL,SEC.30)
Area	COLORADO	Well	HORSETAIL #30E-1935
Field	WELD COUNTY	Wellbore	HORSETAIL #30E-1935 AWB
Facility	SEC.30-T10N-R57W		

WELLPATH DATA (153 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	120.960	0.00	0.00	0.00	0.00	40°48'38.530"N	103°48'04.040"W	0.00	
21.00	0.000	120.960	21.00	0.00	0.00	0.00	40°48'38.530"N	103°48'04.040"W	0.00	
147.00	0.390	120.960	147.00	-0.22	-0.22	0.37	40°48'38.528"N	103°48'04.035"W	0.31	
237.00	0.240	163.590	237.00	-0.57	-0.56	0.68	40°48'38.524"N	103°48'04.031"W	0.30	
328.00	2.370	196.750	327.97	-2.55	-2.54	0.20	40°48'38.505"N	103°48'04.037"W	2.39	
419.00	4.340	194.060	418.81	-7.67	-7.69	-1.18	40°48'38.454"N	103°48'04.055"W	2.17	
510.00	5.880	191.050	509.44	-15.57	-15.60	-2.91	40°48'38.376"N	103°48'04.078"W	1.72	
876.00	11.010	173.490	871.41	-68.74	-68.77	-2.54	40°48'37.850"N	103°48'04.073"W	1.55	
967.00	11.880	182.790	960.61	-86.73	-86.76	-2.01	40°48'37.673"N	103°48'04.066"W	2.24	
1058.00	11.510	183.320	1049.72	-105.14	-105.18	-3.00	40°48'37.491"N	103°48'04.079"W	0.42	
1150.00	11.270	181.840	1139.91	-123.28	-123.33	-3.82	40°48'37.311"N	103°48'04.090"W	0.41	
1241.00	12.090	189.670	1229.03	-141.54	-141.61	-5.70	40°48'37.131"N	103°48'04.114"W	1.96	
1333.00	11.880	192.130	1319.02	-160.26	-160.37	-9.31	40°48'36.945"N	103°48'04.161"W	0.60	
1424.00	12.260	191.640	1408.01	-178.83	-178.99	-13.23	40°48'36.761"N	103°48'04.212"W	0.43	
1516.00	12.590	191.270	1497.86	-198.19	-198.39	-17.16	40°48'36.570"N	103°48'04.263"W	0.37	
1607.00	11.960	191.090	1586.77	-217.13	-217.37	-20.91	40°48'36.382"N	103°48'04.312"W	0.69	
1699.00	10.770	190.700	1676.97	-234.89	-235.17	-24.34	40°48'36.206"N	103°48'04.357"W	1.30	
1792.00	9.250	189.760	1768.55	-250.76	-251.08	-27.22	40°48'36.049"N	103°48'04.394"W	1.64	
1883.00	9.300	183.070	1858.36	-265.30	-265.63	-28.86	40°48'35.905"N	103°48'04.415"W	1.19	
1973.00	11.420	181.560	1946.89	-281.46	-281.80	-29.49	40°48'35.746"N	103°48'04.423"W	2.37	
2026.00	11.650	181.370	1998.82	-292.05	-292.39	-29.76	40°48'35.641"N	103°48'04.427"W	0.44	
2124.00	12.300	179.240	2094.69	-312.38	-312.72	-29.86	40°48'35.440"N	103°48'04.428"W	0.80	
2218.00	11.730	178.920	2186.63	-331.94	-332.29	-29.54	40°48'35.247"N	103°48'04.424"W	0.61	
2312.00	13.070	191.600	2278.45	-351.89	-352.26	-31.50	40°48'35.049"N	103°48'04.450"W	3.22	
2406.00	12.690	189.260	2370.09	-372.45	-372.86	-35.30	40°48'34.846"N	103°48'04.499"W	0.69	
2500.00	12.120	191.290	2461.89	-392.28	-392.73	-38.89	40°48'34.649"N	103°48'04.546"W	0.76	
2595.00	11.870	191.510	2554.82	-411.59	-412.08	-42.80	40°48'34.458"N	103°48'04.597"W	0.27	
2690.00	11.340	191.970	2647.88	-430.25	-430.79	-46.68	40°48'34.273"N	103°48'04.647"W	0.57	
2784.00	11.240	190.300	2740.06	-448.27	-448.85	-50.24	40°48'34.095"N	103°48'04.693"W	0.36	
2878.00	10.930	190.540	2832.30	-466.01	-466.62	-53.50	40°48'33.919"N	103°48'04.736"W	0.33	



Actual Wellpath Report

HORSETAIL #30E-1935 AWP

Page 3 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL,SEC.30)
Area	COLORADO	Well	HORSETAIL #30E-1935
Field	WELD COUNTY	Wellbore	HORSETAIL #30E-1935 AWB
Facility	SEC.30-T10N-R57W		

WELLPATH DATA (153 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2973.00	10.900	188.090	2925.58	-483.72	-484.37	-56.42	40°48'33.744"N	103°48'04.774"W	0.49	
3067.00	10.250	188.030	3017.99	-500.77	-501.45	-58.84	40°48'33.575"N	103°48'04.805"W	0.69	
3161.00	10.730	188.990	3110.42	-517.67	-518.37	-61.37	40°48'33.408"N	103°48'04.838"W	0.54	
3255.00	9.760	187.990	3202.92	-534.18	-534.91	-63.85	40°48'33.245"N	103°48'04.870"W	1.05	
3350.00	12.640	184.540	3296.10	-552.49	-553.25	-65.79	40°48'33.063"N	103°48'04.896"W	3.11	
3444.00	12.660	184.910	3387.82	-572.99	-573.76	-67.48	40°48'32.861"N	103°48'04.918"W	0.09	
3538.00	12.480	182.800	3479.56	-593.38	-594.17	-68.86	40°48'32.659"N	103°48'04.936"W	0.52	
3632.00	12.570	182.850	3571.33	-613.73	-614.53	-69.87	40°48'32.458"N	103°48'04.949"W	0.10	
3727.00	12.090	183.580	3664.14	-633.97	-634.78	-71.00	40°48'32.258"N	103°48'04.963"W	0.53	
3821.00	11.410	186.540	3756.17	-653.01	-653.85	-72.68	40°48'32.069"N	103°48'04.985"W	0.97	
3915.00	9.940	188.000	3848.54	-670.26	-671.12	-74.86	40°48'31.899"N	103°48'05.014"W	1.59	
4010.00	12.540	181.180	3941.71	-688.68	-689.55	-76.22	40°48'31.717"N	103°48'05.031"W	3.07	
4105.00	11.980	182.280	4034.54	-708.83	-709.72	-76.82	40°48'31.517"N	103°48'05.039"W	0.64	
4199.00	11.210	182.500	4126.63	-727.70	-728.59	-77.61	40°48'31.331"N	103°48'05.049"W	0.82	
4293.00	10.300	182.330	4218.97	-745.22	-746.12	-78.35	40°48'31.158"N	103°48'05.059"W	0.97	
4387.00	10.990	189.340	4311.36	-762.43	-763.36	-80.15	40°48'30.987"N	103°48'05.082"W	1.56	
4481.00	10.460	189.850	4403.72	-779.65	-780.61	-83.06	40°48'30.817"N	103°48'05.120"W	0.57	
4575.00	9.600	188.480	4496.28	-795.78	-796.77	-85.67	40°48'30.657"N	103°48'05.154"W	0.95	
4669.00	7.300	186.270	4589.25	-809.45	-810.46	-87.48	40°48'30.522"N	103°48'05.178"W	2.47	
4764.00	8.240	185.560	4683.38	-822.21	-823.23	-88.80	40°48'30.396"N	103°48'05.195"W	0.99	
4858.00	6.840	180.850	4776.57	-834.50	-835.53	-89.54	40°48'30.274"N	103°48'05.204"W	1.63	
4952.00	5.720	176.250	4870.00	-844.78	-845.81	-89.31	40°48'30.173"N	103°48'05.201"W	1.31	
5047.00	2.640	139.560	4964.75	-851.19	-852.20	-87.58	40°48'30.109"N	103°48'05.179"W	4.14	
5141.00	0.900	133.260	5058.70	-853.36	-854.35	-85.64	40°48'30.088"N	103°48'05.154"W	1.86	
5235.00	1.210	110.920	5152.69	-854.24	-855.21	-84.18	40°48'30.080"N	103°48'05.135"W	0.54	
5329.00	5.560	18.400	5246.53	-850.29	-851.24	-81.81	40°48'30.119"N	103°48'05.104"W	6.11	
5423.00	12.110	28.450	5339.37	-837.36	-838.24	-75.67	40°48'30.247"N	103°48'05.024"W	7.13	
5518.00	20.650	21.500	5430.44	-813.08	-813.84	-64.76	40°48'30.488"N	103°48'04.882"W	9.21	
5612.00	29.280	5.020	5515.68	-774.74	-775.40	-56.65	40°48'30.868"N	103°48'04.777"W	11.71	
5707.00	38.740	357.650	5594.37	-721.76	-722.42	-55.83	40°48'31.392"N	103°48'04.766"W	10.85	



Actual Wellpath Report

HORSETAIL #30E-1935 AWP

Page 4 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL, SEC.30)
Area	COLORADO	Well	HORSETAIL #30E-1935
Field	WELD COUNTY	Wellbore	HORSETAIL #30E-1935 AWB
Facility	SEC.30-T10N-R57W		

WELLPATH DATA (153 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5801.00	46.230	359.260	5663.65	-658.33	-659.00	-57.48	40°48'32.018"N	103°48'04.788"W	8.05	
5895.00	50.020	358.950	5726.38	-588.35	-589.03	-58.58	40°48'32.710"N	103°48'04.802"W	4.04	
5989.00	58.400	356.600	5781.31	-512.21	-512.92	-61.62	40°48'33.462"N	103°48'04.841"W	9.14	
6083.00	66.120	1.340	5825.05	-429.12	-429.83	-62.99	40°48'34.283"N	103°48'04.859"W	9.34	
6178.00	70.580	0.060	5860.09	-340.86	-341.56	-61.93	40°48'35.155"N	103°48'04.845"W	4.86	
6272.00	78.420	0.030	5885.19	-250.36	-251.05	-61.86	40°48'36.049"N	103°48'04.844"W	8.34	
6291.00†	80.132	359.940	5888.73	-231.69	-232.38	-61.86	40°48'36.234"N	103°48'04.844"W	9.02	CROSSED 100' SETBACK (2555'FNL & 568'FWL)
6312.00†	82.024	359.843	5891.98	-210.95	-211.64	-61.90	40°48'36.439"N	103°48'04.845"W	9.02	BOTTOM MARKER JOINT (2535'FNL & 568'FWL)
6367.00	86.980	359.590	5897.25	-156.22	-156.91	-62.17	40°48'36.980"N	103°48'04.849"W	9.02	
6461.00	92.810	358.300	5897.42	-62.27	-62.97	-63.90	40°48'37.908"N	103°48'04.871"W	6.35	
6496.00	93.150	358.330	5895.60	-27.32	-28.03	-64.93	40°48'38.253"N	103°48'04.884"W	0.98	
6590.00	90.650	356.850	5892.49	66.57	65.82	-68.88	40°48'39.180"N	103°48'04.936"W	3.09	
6684.00	90.340	356.670	5891.67	160.47	159.67	-74.19	40°48'40.108"N	103°48'05.005"W	0.38	
6778.00	90.860	355.950	5890.69	254.33	253.47	-80.24	40°48'41.035"N	103°48'05.084"W	0.94	
6872.00	89.720	358.910	5890.21	348.26	347.36	-84.46	40°48'41.962"N	103°48'05.138"W	3.37	
6966.00	90.060	358.520	5890.39	442.26	441.34	-86.57	40°48'42.891"N	103°48'05.166"W	0.55	
7060.00	90.180	358.770	5890.20	536.25	535.31	-88.79	40°48'43.819"N	103°48'05.195"W	0.30	
7154.00	90.520	358.300	5889.62	630.24	629.28	-91.19	40°48'44.748"N	103°48'05.226"W	0.62	
7248.00	90.430	359.960	5888.84	724.23	723.26	-92.62	40°48'45.676"N	103°48'05.245"W	1.77	
7343.00	90.590	359.590	5888.00	819.22	818.25	-92.99	40°48'46.615"N	103°48'05.249"W	0.42	
7437.00	90.000	358.030	5887.51	913.21	912.23	-94.94	40°48'47.544"N	103°48'05.275"W	1.77	
7531.00	88.920	0.250	5888.40	1007.20	1006.21	-96.36	40°48'48.472"N	103°48'05.293"W	2.63	
7626.00	89.380	359.410	5889.81	1102.19	1101.20	-96.64	40°48'49.411"N	103°48'05.297"W	1.01	
7719.00	90.250	359.710	5890.11	1195.19	1194.19	-97.35	40°48'50.330"N	103°48'05.306"W	0.99	
7814.00	89.570	2.820	5890.26	1290.12	1289.16	-95.25	40°48'51.268"N	103°48'05.279"W	3.35	
7908.00	89.850	3.620	5890.74	1383.91	1383.01	-89.97	40°48'52.195"N	103°48'05.210"W	0.90	
8002.00	89.380	3.770	5891.37	1477.64	1476.81	-83.92	40°48'53.122"N	103°48'05.131"W	0.52	
8096.00	88.770	3.030	5892.88	1571.39	1570.63	-78.34	40°48'54.049"N	103°48'05.059"W	1.02	
8190.00	90.090	2.800	5893.82	1665.21	1664.50	-73.56	40°48'54.977"N	103°48'04.997"W	1.43	
8285.00	90.060	2.250	5893.70	1760.06	1759.41	-69.38	40°48'55.915"N	103°48'04.942"W	0.58	



Actual Wellpath Report

HORSETAIL #30E-1935 AWP

Page 5 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL,SEC.30)
Area	COLORADO	Well	HORSETAIL #30E-1935
Field	WELD COUNTY	Wellbore	HORSETAIL #30E-1935 AWB
Facility	SEC.30-T10N-R57W		

WELLPATH DATA (153 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8378.00	91.170	0.950	5892.70	1852.98	1852.36	-66.78	40°48'56.833"N	103°48'04.909"W	1.84	
8473.00	91.170	0.640	5890.76	1947.93	1947.33	-65.46	40°48'57.771"N	103°48'04.891"W	0.33	
8567.00	91.170	359.760	5888.84	2041.90	2041.31	-65.14	40°48'58.700"N	103°48'04.887"W	0.94	
8662.00	90.620	1.340	5887.35	2136.87	2136.29	-64.22	40°48'59.639"N	103°48'04.875"W	1.76	
8756.00	90.370	2.800	5886.54	2230.76	2230.23	-60.83	40°49'00.567"N	103°48'04.831"W	1.58	
8847.00	87.720	358.120	5888.06	2321.70	2321.18	-60.10	40°49'01.465"N	103°48'04.822"W	5.91	
8937.00	87.600	357.430	5891.73	2411.59	2411.03	-63.59	40°49'02.353"N	103°48'04.867"W	0.78	
9028.00	91.110	358.250	5892.76	2502.53	2501.95	-67.02	40°49'03.252"N	103°48'04.912"W	3.96	
9119.00	91.170	357.880	5890.95	2593.49	2592.88	-70.09	40°49'04.150"N	103°48'04.952"W	0.41	
9210.00	91.330	357.900	5888.96	2684.44	2683.79	-73.44	40°49'05.048"N	103°48'04.995"W	0.18	
9301.00	90.280	357.970	5887.68	2775.40	2774.73	-76.72	40°49'05.947"N	103°48'05.038"W	1.16	
9393.00	90.930	0.270	5886.71	2867.39	2866.70	-78.13	40°49'06.856"N	103°48'05.056"W	2.60	
9484.00	86.050	358.130	5889.11	2958.32	2957.63	-79.40	40°49'07.754"N	103°48'05.073"W	5.85	
9576.00	89.540	356.380	5892.65	3050.17	3049.44	-83.80	40°49'08.661"N	103°48'05.130"W	4.24	
9667.00	89.570	356.000	5893.36	3141.03	3140.23	-89.85	40°49'09.558"N	103°48'05.209"W	0.42	
9758.00	90.650	358.370	5893.18	3231.96	3231.12	-94.32	40°49'10.456"N	103°48'05.267"W	2.86	
9850.00	90.520	358.550	5892.24	3323.94	3323.08	-96.79	40°49'11.365"N	103°48'05.299"W	0.24	
9941.00	90.310	1.600	5891.58	3414.92	3414.07	-96.67	40°49'12.264"N	103°48'05.297"W	3.36	
10033.00	90.520	1.830	5890.92	3506.84	3506.02	-93.92	40°49'13.173"N	103°48'05.262"W	0.34	
10124.00	89.170	359.680	5891.16	3597.80	3597.01	-92.72	40°49'14.072"N	103°48'05.246"W	2.79	
10216.00	90.770	359.690	5891.21	3689.80	3689.00	-93.22	40°49'14.981"N	103°48'05.253"W	1.74	
10307.00	90.190	359.400	5890.45	3780.80	3779.99	-93.95	40°49'15.880"N	103°48'05.262"W	0.71	
10399.00	91.020	358.660	5889.48	3872.79	3871.98	-95.50	40°49'16.789"N	103°48'05.282"W	1.21	
10492.00	90.180	2.410	5888.50	3965.75	3964.95	-94.63	40°49'17.707"N	103°48'05.271"W	4.13	
10583.00	90.120	2.380	5888.26	4056.62	4055.87	-90.83	40°49'18.606"N	103°48'05.221"W	0.07	
10673.00	92.190	2.690	5886.45	4146.46	4145.76	-86.85	40°49'19.494"N	103°48'05.170"W	2.33	
10765.00	92.040	2.120	5883.06	4238.27	4237.61	-82.99	40°49'20.401"N	103°48'05.120"W	0.64	
10855.00	92.380	2.190	5879.58	4328.09	4327.48	-79.61	40°49'21.289"N	103°48'05.076"W	0.39	
10947.00	91.690	2.160	5876.32	4419.93	4419.36	-76.12	40°49'22.197"N	103°48'05.030"W	0.75	
11038.00	87.530	0.530	5876.94	4510.85	4510.31	-73.99	40°49'23.096"N	103°48'05.002"W	4.91	



Actual Wellpath Report

HORSETAIL #30E-1935 AWP

Page 6 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL,SEC.30)
Area	COLORADO	Well	HORSETAIL #30E-1935
Field	WELD COUNTY	Wellbore	HORSETAIL #30E-1935 AWB
Facility	SEC.30-T10N-R57W		

WELLPATH DATA (153 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11130.00	87.440	0.310	5880.97	4602.74	4602.22	-73.31	40°49'24.004"N	103°48'04.994"W	0.26	
11221.00	90.430	1.000	5882.67	4693.69	4693.18	-72.27	40°49'24.903"N	103°48'04.980"W	3.37	
11312.00	90.990	0.870	5881.54	4784.65	4784.16	-70.79	40°49'25.802"N	103°48'04.961"W	0.63	
11404.00	91.170	0.350	5879.80	4876.61	4876.14	-69.81	40°49'26.711"N	103°48'04.948"W	0.60	
11496.00	89.720	359.500	5879.09	4968.60	4968.14	-69.93	40°49'27.620"N	103°48'04.950"W	1.83	
11590.00	89.880	359.630	5879.42	5062.60	5062.13	-70.64	40°49'28.548"N	103°48'04.959"W	0.22	
11685.00	90.860	0.610	5878.80	5157.59	5157.13	-70.44	40°49'29.487"N	103°48'04.956"W	1.46	
11780.00	91.230	0.610	5877.07	5252.55	5252.11	-69.43	40°49'30.426"N	103°48'04.943"W	0.39	
11874.00	89.600	359.570	5876.39	5346.54	5346.10	-69.29	40°49'31.354"N	103°48'04.941"W	2.06	
11968.00	89.810	358.700	5876.87	5440.54	5440.09	-70.70	40°49'32.283"N	103°48'04.960"W	0.95	
12063.00	90.250	358.690	5876.82	5535.53	5535.06	-72.87	40°49'33.221"N	103°48'04.988"W	0.46	
12158.00	90.220	357.890	5876.43	5630.51	5630.02	-75.70	40°49'34.160"N	103°48'05.025"W	0.84	
12252.00	90.310	357.960	5876.00	5724.48	5723.96	-79.11	40°49'35.088"N	103°48'05.069"W	0.12	
12346.00	90.340	357.150	5875.47	5818.43	5817.87	-83.12	40°49'36.016"N	103°48'05.121"W	0.86	
12440.00	88.670	359.930	5876.28	5912.40	5911.82	-85.51	40°49'36.944"N	103°48'05.152"W	3.45	
12534.00	88.610	359.580	5878.51	6006.37	6005.79	-85.91	40°49'37.873"N	103°48'05.158"W	0.38	
12628.00	87.040	0.370	5882.08	6100.30	6099.72	-85.95	40°49'38.801"N	103°48'05.158"W	1.87	
12722.00	90.280	0.490	5884.28	6194.24	6193.68	-85.25	40°49'39.729"N	103°48'05.149"W	3.45	
12817.00	90.460	0.340	5883.66	6289.23	6288.68	-84.56	40°49'40.668"N	103°48'05.140"W	0.25	
12911.00	91.910	0.920	5881.72	6383.18	6382.65	-83.53	40°49'41.596"N	103°48'05.127"W	1.66	
13005.00	91.760	0.230	5878.71	6477.11	6476.59	-82.59	40°49'42.525"N	103°48'05.114"W	0.75	
13100.00	91.140	359.800	5876.30	6572.07	6571.56	-82.56	40°49'43.463"N	103°48'05.114"W	0.79	
13194.00	88.980	0.660	5876.21	6666.06	6665.56	-82.18	40°49'44.392"N	103°48'05.109"W	2.47	
13288.00	88.340	359.720	5878.40	6760.02	6759.53	-81.87	40°49'45.320"N	103°48'05.105"W	1.21	
13382.00	89.140	0.080	5880.47	6853.99	6853.50	-82.04	40°49'46.249"N	103°48'05.107"W	0.93	
13477.00	90.830	359.620	5880.50	6948.99	6948.50	-82.28	40°49'47.187"N	103°48'05.110"W	1.84	
13571.00	90.710	359.230	5879.23	7042.98	7042.49	-83.23	40°49'48.116"N	103°48'05.123"W	0.43	
13665.00	90.060	358.750	5878.60	7136.97	7136.47	-84.88	40°49'49.045"N	103°48'05.144"W	0.86	
13759.00	90.490	358.470	5878.15	7230.96	7230.44	-87.16	40°49'49.973"N	103°48'05.174"W	0.55	
13853.00	91.050	358.610	5876.89	7324.94	7324.40	-89.56	40°49'50.902"N	103°48'05.205"W	0.61	



Actual Wellpath Report

HORSETAIL #30E-1935 AWP

Page 7 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL,SEC.30)
Area	COLORADO	Well	HORSETAIL #30E-1935
Field	WELD COUNTY	Wellbore	HORSETAIL #30E-1935 AWB
Facility	SEC.30-T10N-R57W		

WELLPATH DATA (153 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13947.00	91.360	358.590	5874.91	7418.91	7418.35	-91.86	40°49'51.830"N	103°48'05.235"W	0.33	
13979.00	91.360	358.440	5874.15	7450.90	7450.33	-92.68	40°49'52.146"N	103°48'05.246"W	0.47	BHI LAST MWD SURVEY (165'FNL & 628'FWL, SEC 19)
14030.00	91.360	358.440	5872.94	7501.88	7501.30	-94.07	40°49'52.650"N	103°48'05.264"W	0.00	PROJECTION TO BIT (114'FNL & 630'FWL, SEC. 19)

HOLE & CASING SECTIONS - Ref Wellbore: HORSETAIL #30E-1935 AWB Ref Wellpath: HORSETAIL #30E-1935 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
13.5in Open Hole	21.00	2080.00	2059.00	21.00	2051.67	0.00	0.00	-303.46	-29.91
9.625in Casing Surface	21.00	2064.00	2043.00	21.00	2036.02	0.00	0.00	-300.15	-29.89
8.5in Open Hole	2080.00	13840.00	11760.00	2051.67	5877.12	-303.46	-29.91	7311.41	-89.24



Actual Wellpath Report

HORSETAIL #30E-1935 AWP

Page 8 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL,SEC.30)
Area	COLORADO	Well	HORSETAIL #30E-1935
Field	WELD COUNTY	Wellbore	HORSETAIL #30E-1935 AWB
Facility	SEC.30-T10N-R57W		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC. 19-T10N-R57W	0.00	0.00	29.99	3470289.66	1542691.59	40°48'38.530"N	103°48'03.650"W	polygon
SEC. 30-T10N-R57W NORTHERN	0.00	-49.59	89.20	3470349.81	1542643.15	40°48'38.040"N	103°48'02.880"W	polygon
SEC. 30-T10N-R57W SOUTHERN	0.00	-49.59	89.20	3470349.81	1542643.15	40°48'38.040"N	103°48'02.880"W	polygon
SEC. 31-T10N-R57W	0.00	-49.59	89.20	3470349.81	1542643.15	40°48'38.040"N	103°48'02.880"W	polygon
HORSETAIL #30E-1903 NORTHERN SETBACKS 100'N/S/E & 500'W	5600.00	0.00	29.99	3470289.66	1542691.59	40°48'38.530"N	103°48'03.650"W	polygon
HORSETAIL #30E SOUTHERN SETBACKS (100' N/S/E 100' & 500' W)	5606.00	-49.59	89.20	3470349.81	1542643.15	40°48'38.040"N	103°48'02.880"W	polygon
HORSETAIL #30E-1935 BHL ON PLAT (100'FNL & 618'FWL,SEC.19,REV-1)	5820.00	7515.51	-82.25	3470033.46	1550203.59	40°49'52.790"N	103°48'05.110"W	point
HORSETAIL #30E-1935 BHL ON PLAT (100'FNL & 618'FWL,SEC.19,REV-2)	5895.00	7515.51	-82.25	3470033.46	1550203.59	40°49'52.790"N	103°48'05.110"W	point
HORSETAIL #30E-1935 LANDING POINT REV-1 (2553'FNL & 548'FWL,SEC.30)	5895.00	-230.00	-82.25	3470181.85	1542459.48	40°48'36.257"N	103°48'05.110"W	point

WELLPATH COMPOSITION - Ref Wellbore: HORSETAIL #30E-1935 AWB Ref Wellpath: HORSETAIL #30E-1935 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
21.00	2026.00	Custom BHI NaviTrak (IFR1, Standard Rotating, SAG) (Rockies 0.03Gt model)	BHI NAVITRAK MWD ROCKIES GT, SURCON IFR & SAG 13 1/2" <21-2026>	HORSETAIL #30E-1935 AWB
2026.00	13979.00	Custom BHI NaviTrak (IFR1, Standard Rotating, SAG) (Rockies 0.03Gt model)	BHI NAVITRAK MWD ROCKIES GT, SURCON IFR & SAG 8 1/2" <2124-13979>	HORSETAIL #30E-1935 AWB
13979.00	14030.00	Blind Drilling (std)	Projection to bit	HORSETAIL #30E-1935 AWB



Actual Wellpath Report

HORSETAIL #30E-1935 AWP

Page 9 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	WHITING OIL & GAS CORPORATION	Slot	SLOT#06 HORSETAIL #30E-1935 (2323'FNL & 630'FWL,SEC.30)
Area	COLORADO	Well	HORSETAIL #30E-1935
Field	WELD COUNTY	Wellbore	HORSETAIL #30E-1935 AWB
Facility	SEC.30-T10N-R57W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
6291.00	80.132	359.940	5888.73	CROSSED 100' SETBACK (2555'FNL & 568'FWL)
6312.00	82.024	359.843	5891.98	BOTTOM MARKER JOINT (2535'FNL & 568'FWL)
13979.00	91.360	358.440	5874.15	BHI LAST MWD SURVEY (165'FNL & 628'FWL, SEC 19)
14030.00	91.360	358.440	5872.94	PROJECTION TO BIT (114'FNL & 630'FWL,SEC.19)