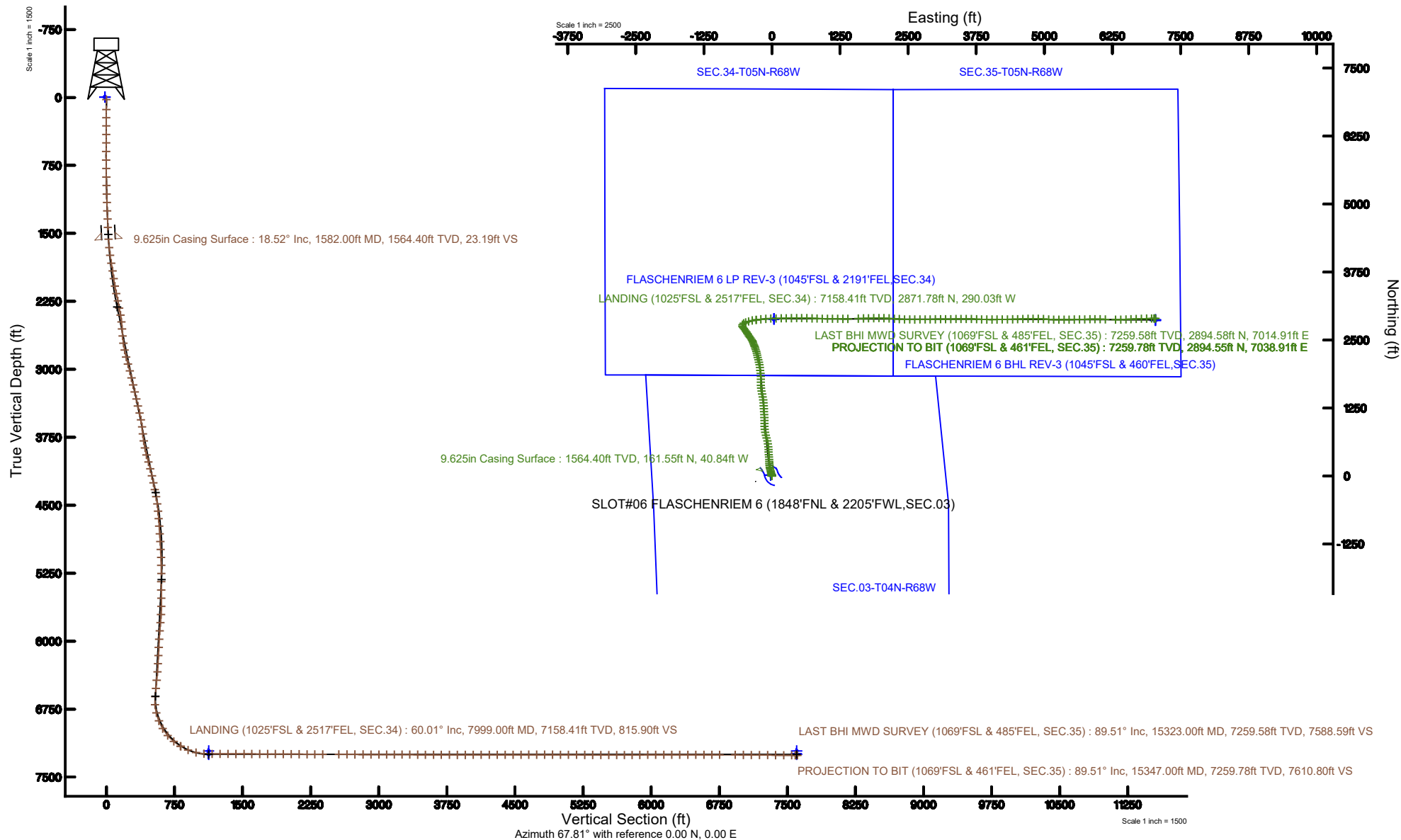
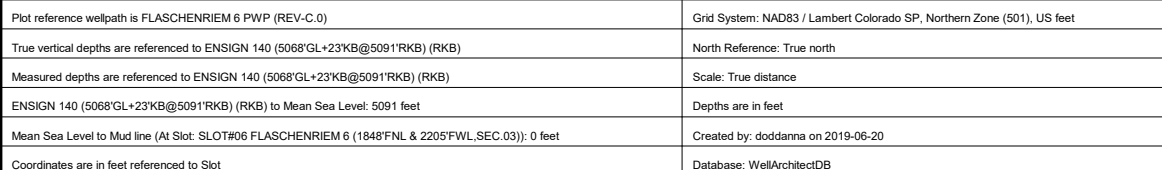


Location:	COLORADO	Slot:	SLOT#06 FLASCHENRIEM 6 (1848'FNL & 2205'FWL, SEC.03)
Field:	WELD COUNTY (NAD83/TRUE NORTH)	Well:	FLASCHENRIEM 6
Facility:	SEC.03-T04N-R68W	Wellbore:	FLASCHENRIEM 6 PWB



Actual Wellpath Report

FLASCHENRIEM 6 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	PETRO OPERATING CO, LLC	Slot	SLOT#06 FLASCHENRIEM 6 (1848'FNL & 2205'FWL,SEC.03)
Area	COLORADO	Well	FLASCHENRIEM 6
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	FLASCHENRIEM 6 AWP
Facility	SEC.03-T04N-R68W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Doddanna
Scale	0.999958	Report Generated	6/20/2019 at 1:37:41 PM
Convergence at slot	0.33° East	Database/Source file	WellArchitectDB/FLASCHENRIEM_6_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-14.68	25.20	3141751.85	1368615.68	40°20'38.887"N	104°59'29.227"W
Facility Reference Pt			3141726.57	1368630.22	40°20'39.033"N	104°59'29.552"W
Field Reference Pt			3141727.20	1368631.79	40°20'39.048"N	104°59'29.544"W

WELLPATH DATUM

Calculation method	Minimum curvature	ENSIGN 140 (5068'GL+23'KB@5091'RKB) (RKB) to Facility Vertical Datum	5091.00ft
Horizontal Reference Pt	Slot	ENSIGN 140 (5068'GL+23'KB@5091'RKB) (RKB) to Mean Sea Level	5091.00ft
Vertical Reference Pt	ENSIGN 140 (5068'GL+23'KB@5091'RKB) (RKB)	ENSIGN 140 (5068'GL+23'KB@5091'RKB) (RKB) to Mud Line at Slot (SLOT#06 FLASCHENRIEM 6 (1848'FNL & 2205'FWL,SEC.03))	5091.00ft
MD Reference Pt	ENSIGN 140 (5068'GL+23'KB@5091'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	67.81°

Actual Wellpath Report

FLASCHENRIEM 6 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETRO OPERATING CO, LLC	Slot	SLOT#06 FLASCHENRIEM 6 (1848'FNL & 2205'FWL,SEC.03)
Area	COLORADO	Well	FLASCHENRIEM 6
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	FLASCHENRIEM 6 AWP
Facility	SEC.03-T04N-R68W		

WELLPATH DATA (164 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	295.560	0.00	0.00	0.00	0.00	40°20'38.887"N	104°59'29.227"W	0.00	
23.00	0.000	295.560	23.00	0.00	0.00	0.00	40°20'38.887"N	104°59'29.227"W	0.00	
134.00	0.660	295.560	134.00	-0.43	0.28	-0.58	40°20'38.890"N	104°59'29.234"W	0.59	
223.00	0.740	340.380	222.99	-0.75	1.04	-1.23	40°20'38.898"N	104°59'29.243"W	0.61	
313.00	0.700	334.460	312.98	-0.75	2.08	-1.66	40°20'38.908"N	104°59'29.248"W	0.09	
408.00	1.500	312.120	407.97	-1.33	3.44	-2.84	40°20'38.921"N	104°59'29.263"W	0.94	
502.00	0.490	264.810	501.95	-2.25	4.23	-4.15	40°20'38.929"N	104°59'29.280"W	1.30	
597.00	0.280	301.660	596.95	-2.77	4.31	-4.75	40°20'38.930"N	104°59'29.288"W	0.33	
691.00	1.880	342.230	690.93	-2.79	5.90	-5.42	40°20'38.946"N	104°59'29.297"W	1.78	
785.00	3.410	351.960	784.83	-1.99	10.14	-6.28	40°20'38.988"N	104°59'29.308"W	1.69	
879.00	5.870	346.010	878.51	-0.62	17.57	-7.83	40°20'39.061"N	104°59'29.328"W	2.66	
973.00	7.640	347.690	971.86	1.14	28.34	-10.33	40°20'39.167"N	104°59'29.360"W	1.89	
1068.00	9.350	345.070	1065.81	3.20	41.97	-13.66	40°20'39.302"N	104°59'29.403"W	1.85	
1162.00	11.000	346.700	1158.33	5.55	58.08	-17.69	40°20'39.461"N	104°59'29.455"W	1.78	
1256.00	12.170	348.890	1250.41	8.84	76.53	-21.67	40°20'39.644"N	104°59'29.507"W	1.33	
1350.00	14.620	347.360	1341.85	12.71	97.83	-26.17	40°20'39.854"N	104°59'29.565"W	2.63	
1445.00	15.870	346.040	1433.51	16.56	122.13	-31.93	40°20'40.094"N	104°59'29.639"W	1.37	
1527.00	17.390	347.050	1512.07	20.13	144.96	-37.38	40°20'40.320"N	104°59'29.710"W	1.89	
1679.00	20.560	352.690	1655.81	30.63	193.58	-45.87	40°20'40.800"N	104°59'29.819"W	2.41	
1772.00	21.600	356.950	1742.59	40.43	226.88	-48.86	40°20'41.129"N	104°59'29.858"W	1.99	
1867.00	23.930	1.530	1830.19	53.92	263.61	-49.27	40°20'41.492"N	104°59'29.863"W	3.08	
1961.00	26.240	356.920	1915.33	68.39	303.42	-49.88	40°20'41.886"N	104°59'29.871"W	3.22	
2056.00	28.440	351.880	1999.72	80.77	346.80	-54.21	40°20'42.314"N	104°59'29.927"W	3.36	
2150.00	28.960	354.930	2082.18	92.91	391.63	-59.38	40°20'42.757"N	104°59'29.994"W	1.65	
2244.00	31.100	0.220	2163.57	108.86	438.59	-61.30	40°20'43.221"N	104°59'30.018"W	3.62	
2338.00	31.340	355.910	2243.97	125.71	487.26	-62.95	40°20'43.702"N	104°59'30.040"W	2.39	
2432.00	33.590	353.820	2323.27	140.48	537.50	-67.49	40°20'44.199"N	104°59'30.098"W	2.67	
2527.00	35.690	352.860	2401.43	154.92	591.13	-73.77	40°20'44.729"N	104°59'30.179"W	2.28	
2621.00	35.660	345.550	2477.82	165.73	644.89	-84.02	40°20'45.260"N	104°59'30.312"W	4.53	
2716.00	35.080	343.640	2555.29	172.23	697.91	-98.62	40°20'45.784"N	104°59'30.500"W	1.31	

Actual Wellpath Report

FLASCHENRIEM 6 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETRO OPERATING CO, LLC	Slot	SLOT#06 FLASCHENRIEM 6 (1848'FNL & 2205'FWL,SEC.03)
Area	COLORADO	Well	FLASCHENRIEM 6
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	FLASCHENRIEM 6 AWP
Facility	SEC.03-T04N-R68W		

WELLPATH DATA (164 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2810.00	33.940	344.940	2632.75	178.23	749.17	-113.04	40°20'46.290"N	104°59'30.687"W	1.44	
2905.00	35.430	349.350	2710.88	187.03	801.85	-125.03	40°20'46.811"N	104°59'30.842"W	3.07	
2999.00	35.450	354.020	2787.48	200.09	855.75	-132.90	40°20'47.344"N	104°59'30.943"W	2.88	
3094.00	35.280	357.380	2864.95	216.97	910.56	-137.03	40°20'47.885"N	104°59'30.997"W	2.05	
3188.00	35.370	1.390	2941.66	236.94	964.88	-137.61	40°20'48.422"N	104°59'31.004"W	2.47	
3282.00	35.450	358.910	3018.27	257.64	1019.34	-137.47	40°20'48.960"N	104°59'31.002"W	1.53	
3376.00	35.370	357.120	3094.89	276.45	1073.76	-139.35	40°20'49.498"N	104°59'31.027"W	1.11	
3471.00	35.350	356.020	3172.37	294.12	1128.64	-142.64	40°20'50.040"N	104°59'31.069"W	0.67	
3566.00	34.400	357.890	3250.31	311.92	1182.88	-145.54	40°20'50.576"N	104°59'31.106"W	1.51	
3660.00	35.330	356.440	3327.43	329.72	1236.54	-148.20	40°20'51.107"N	104°59'31.141"W	1.33	
3754.00	35.170	355.890	3404.20	346.80	1290.67	-151.83	40°20'51.641"N	104°59'31.188"W	0.38	
3849.00	35.260	358.080	3481.81	364.79	1345.37	-154.71	40°20'52.182"N	104°59'31.225"W	1.33	
3943.00	35.570	351.420	3558.45	380.63	1399.54	-159.70	40°20'52.717"N	104°59'31.289"W	4.12	
4038.00	35.540	348.000	3635.75	392.01	1453.88	-169.56	40°20'53.254"N	104°59'31.417"W	2.09	
4132.00	35.500	347.580	3712.26	401.47	1507.25	-181.11	40°20'53.782"N	104°59'31.566"W	0.26	
4226.00	35.440	348.870	3788.81	411.33	1560.65	-192.24	40°20'54.309"N	104°59'31.710"W	0.80	
4321.00	34.840	353.820	3866.51	424.10	1614.66	-200.48	40°20'54.843"N	104°59'31.816"W	3.06	
4415.00	34.480	359.970	3943.86	441.54	1667.98	-203.39	40°20'55.370"N	104°59'31.854"W	3.74	
4510.00	35.390	1.280	4021.74	462.64	1722.38	-202.79	40°20'55.907"N	104°59'31.846"W	1.24	
4604.00	35.390	358.260	4098.37	482.99	1776.80	-203.01	40°20'56.445"N	104°59'31.849"W	1.86	
4698.00	35.400	356.900	4175.00	501.40	1831.19	-205.31	40°20'56.983"N	104°59'31.878"W	0.84	
4792.00	35.490	354.620	4251.59	518.19	1885.55	-209.34	40°20'57.520"N	104°59'31.931"W	1.41	
4886.00	35.300	353.620	4328.21	533.48	1939.71	-214.91	40°20'58.055"N	104°59'32.003"W	0.65	
4981.00	33.990	352.540	4406.37	547.71	1993.32	-221.41	40°20'58.585"N	104°59'32.087"W	1.52	
5076.00	32.030	349.940	4486.03	559.75	2044.46	-229.26	40°20'59.090"N	104°59'32.188"W	2.55	
5170.00	30.550	346.770	4566.36	568.71	2092.27	-239.08	40°20'59.563"N	104°59'32.315"W	2.35	
5264.00	28.470	345.570	4648.16	575.45	2137.23	-250.14	40°21'00.007"N	104°59'32.458"W	2.30	
5357.00	27.110	346.100	4730.44	581.50	2179.26	-260.75	40°21'00.422"N	104°59'32.595"W	1.49	
5451.00	25.050	346.620	4814.86	587.63	2219.42	-270.50	40°21'00.819"N	104°59'32.721"W	2.20	
5545.00	23.370	346.550	4900.59	593.51	2256.91	-279.44	40°21'01.190"N	104°59'32.836"W	1.79	

Actual Wellpath Report

FLASCHENRIEM 6 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETRO OPERATING CO, LLC	Slot	SLOT#06 FLASCHENRIEM 6 (1848'FNL & 2205'FWL,SEC.03)
Area	COLORADO	Well	FLASCHENRIEM 6
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	FLASCHENRIEM 6 AWP
Facility	SEC.03-T04N-R68W		

WELLPATH DATA (164 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5640.00	21.960	344.450	4988.25	598.43	2292.35	-288.59	40°21'01.540"N	104°59'32.954"W	1.71	
5734.00	20.500	342.450	5075.87	601.79	2324.98	-298.27	40°21'01.862"N	104°59'33.079"W	1.73	
5828.00	19.480	341.580	5164.21	604.15	2355.55	-308.18	40°21'02.164"N	104°59'33.207"W	1.13	
5922.00	17.990	337.450	5253.23	605.09	2383.83	-318.70	40°21'02.444"N	104°59'33.343"W	2.12	
6017.00	16.540	334.190	5343.95	604.14	2409.55	-330.22	40°21'02.698"N	104°59'33.492"W	1.83	
6112.00	16.920	340.420	5434.93	603.91	2434.75	-340.74	40°21'02.947"N	104°59'33.628"W	1.93	
6207.00	16.460	341.840	5525.93	605.49	2460.57	-349.57	40°21'03.202"N	104°59'33.742"W	0.65	
6301.00	16.910	334.210	5615.99	605.56	2485.53	-359.67	40°21'03.449"N	104°59'33.872"W	2.38	
6396.00	16.810	324.220	5706.92	601.47	2509.12	-373.71	40°21'03.682"N	104°59'34.054"W	3.05	
6490.00	16.940	322.950	5796.87	594.76	2531.08	-389.91	40°21'03.899"N	104°59'34.263"W	0.42	
6584.00	16.930	322.720	5886.80	587.68	2552.90	-406.45	40°21'04.114"N	104°59'34.477"W	0.07	
6679.00	17.010	325.450	5977.66	581.11	2575.35	-422.71	40°21'04.336"N	104°59'34.687"W	0.84	
6773.00	16.990	330.520	6067.56	576.42	2598.63	-437.27	40°21'04.566"N	104°59'34.875"W	1.58	
6868.00	16.890	328.960	6158.44	572.53	2622.54	-451.21	40°21'04.803"N	104°59'35.055"W	0.49	
6963.00	16.760	327.010	6249.37	567.84	2645.85	-465.79	40°21'05.033"N	104°59'35.243"W	0.61	
7057.00	16.910	322.860	6339.35	561.77	2668.12	-481.42	40°21'05.253"N	104°59'35.445"W	1.29	
7152.00	16.710	319.240	6430.29	553.86	2689.48	-498.68	40°21'05.464"N	104°59'35.668"W	1.12	
7246.00	16.960	320.460	6520.26	545.46	2710.29	-516.23	40°21'05.670"N	104°59'35.895"W	0.46	
7340.00	16.800	319.490	6610.21	537.10	2731.19	-533.78	40°21'05.876"N	104°59'36.121"W	0.34	
7435.00	15.010	352.820	6701.76	535.97	2753.88	-544.26	40°21'06.100"N	104°59'36.257"W	9.66	
7529.00	21.430	17.220	6791.13	550.06	2782.43	-540.69	40°21'06.383"N	104°59'36.210"W	10.47	
7624.00	22.360	54.860	6879.70	578.83	2809.54	-520.68	40°21'06.650"N	104°59'35.952"W	14.58	
7719.00	30.710	75.480	6964.80	620.64	2826.08	-482.27	40°21'06.814"N	104°59'35.456"W	12.97	
7813.00	41.060	70.790	7040.87	675.42	2842.31	-429.73	40°21'06.974"N	104°59'34.777"W	11.39	
7908.00	50.910	78.310	7106.85	743.04	2860.10	-363.95	40°21'07.150"N	104°59'33.928"W	11.81	
7999.00†	60.006	83.448	7158.41	815.90	2871.78	-290.03	40°21'07.266"N	104°59'32.973"W	11.02	LANDING (1025'FSL & 2517'FEL, SEC.34)
8003.00	60.410	83.650	7160.40	819.24	2872.17	-286.58	40°21'07.269"N	104°59'32.928"W	11.02	
8096.00	68.240	84.680	7200.66	899.60	2880.66	-203.26	40°21'07.353"N	104°59'31.852"W	8.48	
8191.00	77.780	84.360	7228.39	986.52	2889.34	-112.93	40°21'07.439"N	104°59'30.685"W	10.05	
8285.00	86.400	88.300	7241.32	1074.69	2895.25	-20.12	40°21'07.498"N	104°59'29.487"W	10.06	

Actual Wellpath Report

FLASCHENRIEM 6 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETRO OPERATING CO, LLC	Slot	SLOT#06 FLASCHENRIEM 6 (1848'FNL & 2205'FWL,SEC.03)
Area	COLORADO	Well	FLASCHENRIEM 6
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	FLASCHENRIEM 6 AWP
Facility	SEC.03-T04N-R68W		

WELLPATH DATA (164 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8380.00	89.820	89.560	7244.45	1163.25	2897.03	74.80	40°21'07.515"N	104°59'28.261"W	3.84	
8474.00	89.970	88.650	7244.63	1250.83	2898.49	168.78	40°21'07.530"N	104°59'27.047"W	0.98	
8568.00	89.940	89.040	7244.70	1338.57	2900.39	262.76	40°21'07.548"N	104°59'25.833"W	0.42	
8663.00	89.940	88.460	7244.80	1427.30	2902.46	357.74	40°21'07.569"N	104°59'24.606"W	0.61	
8757.00	89.850	89.300	7244.97	1515.01	2904.30	451.72	40°21'07.587"N	104°59'23.392"W	0.90	
8851.00	89.940	90.750	7245.14	1602.03	2904.26	545.72	40°21'07.586"N	104°59'22.178"W	1.55	
8946.00	89.940	91.450	7245.24	1689.30	2902.43	640.70	40°21'07.568"N	104°59'20.951"W	0.74	
9041.00	90.030	93.520	7245.27	1775.62	2898.32	735.61	40°21'07.528"N	104°59'19.726"W	2.18	
9135.00	89.750	91.240	7245.45	1861.10	2894.41	829.52	40°21'07.489"N	104°59'18.513"W	2.44	
9229.00	89.510	90.930	7246.06	1947.45	2892.63	923.50	40°21'07.471"N	104°59'17.299"W	0.42	
9324.00	89.540	89.660	7246.84	2035.23	2892.14	1018.49	40°21'07.467"N	104°59'16.072"W	1.34	
9418.00	89.570	90.560	7247.57	2122.20	2891.96	1112.49	40°21'07.465"N	104°59'14.858"W	0.96	
9513.00	89.750	91.340	7248.14	2209.55	2890.39	1207.47	40°21'07.449"N	104°59'13.631"W	0.84	
9607.00	89.820	90.150	7248.49	2296.12	2889.17	1301.46	40°21'07.437"N	104°59'12.417"W	1.27	
9701.00	89.910	89.930	7248.71	2383.14	2889.10	1395.46	40°21'07.436"N	104°59'11.203"W	0.25	
9891.00	89.750	87.300	7249.28	2560.74	2893.69	1585.39	40°21'07.482"N	104°59'08.750"W	1.39	
9986.00	89.780	87.910	7249.66	2650.12	2897.66	1680.31	40°21'07.521"N	104°59'07.524"W	0.64	
10080.00	89.750	88.700	7250.05	2738.17	2900.44	1774.26	40°21'07.548"N	104°59'06.310"W	0.84	
10174.00	89.820	89.350	7250.40	2825.81	2902.04	1868.25	40°21'07.564"N	104°59'05.096"W	0.70	
10268.00	89.750	89.860	7250.76	2913.09	2902.69	1962.25	40°21'07.570"N	104°59'03.882"W	0.55	
10363.00	89.820	91.320	7251.11	3000.68	2901.71	2057.24	40°21'07.560"N	104°59'02.655"W	1.54	
10458.00	89.820	93.780	7251.41	3086.95	2897.49	2152.14	40°21'07.519"N	104°59'01.429"W	2.59	
10552.00	90.000	94.070	7251.56	3171.36	2891.05	2245.91	40°21'07.455"N	104°59'00.218"W	0.36	
10646.00	89.720	93.590	7251.79	3255.83	2884.77	2339.70	40°21'07.393"N	104°58'59.007"W	0.59	
10740.00	89.720	91.660	7252.25	3341.15	2880.47	2433.60	40°21'07.350"N	104°58'57.794"W	2.05	
10834.00	89.690	90.990	7252.73	3427.34	2878.29	2527.57	40°21'07.329"N	104°58'56.580"W	0.71	
10928.00	89.720	89.940	7253.22	3514.09	2877.53	2621.57	40°21'07.321"N	104°58'55.366"W	1.12	
11023.00	89.750	89.840	7253.66	3602.12	2877.71	2716.57	40°21'07.323"N	104°58'54.139"W	0.11	
11117.00	89.720	89.470	7254.09	3689.38	2878.28	2810.56	40°21'07.328"N	104°58'52.925"W	0.39	
11211.00	89.750	88.650	7254.52	3776.98	2879.82	2904.55	40°21'07.343"N	104°58'51.711"W	0.87	

Actual Wellpath Report

FLASCHENRIEM 6 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETRO OPERATING CO, LLC	Slot	SLOT#06 FLASCHENRIEM 6 (1848'FNL & 2205'FWL,SEC.03)
Area	COLORADO	Well	FLASCHENRIEM 6
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	FLASCHENRIEM 6 AWP
Facility	SEC.03-T04N-R68W		

WELLPATH DATA (164 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11306.00	89.910	89.600	7254.81	3865.49	2881.27	2999.54	40°21'07.358"N	104°58'50.484"W	1.01	
11400.00	90.060	89.700	7254.83	3952.74	2881.85	3093.53	40°21'07.363"N	104°58'49.270"W	0.19	
11495.00	90.090	89.650	7254.71	4040.91	2882.38	3188.53	40°21'07.368"N	104°58'48.043"W	0.06	
11589.00	90.000	88.930	7254.63	4128.38	2883.55	3282.53	40°21'07.380"N	104°58'46.829"W	0.77	
11684.00	89.970	88.030	7254.66	4217.27	2886.07	3377.49	40°21'07.404"N	104°58'45.602"W	0.95	
11778.00	90.060	89.490	7254.63	4305.05	2888.10	3471.47	40°21'07.424"N	104°58'44.389"W	1.56	
11873.00	90.150	90.460	7254.46	4393.03	2888.15	3566.46	40°21'07.425"N	104°58'43.162"W	1.03	
11967.00	90.120	91.100	7254.24	4479.58	2886.87	3660.46	40°21'07.412"N	104°58'41.948"W	0.68	
12062.00	90.580	92.630	7253.66	4566.33	2883.77	3755.40	40°21'07.381"N	104°58'40.721"W	1.68	
12157.00	90.220	92.020	7252.99	4652.77	2879.92	3850.32	40°21'07.343"N	104°58'39.495"W	0.75	
12251.00	90.030	90.920	7252.79	4738.87	2877.51	3944.29	40°21'07.319"N	104°58'38.282"W	1.19	
12345.00	90.000	89.790	7252.76	4825.68	2876.93	4038.28	40°21'07.313"N	104°58'37.068"W	1.20	
12440.00	89.850	89.590	7252.89	4913.84	2877.44	4133.28	40°21'07.318"N	104°58'35.840"W	0.26	
12534.00	89.600	89.780	7253.34	5001.07	2877.96	4227.28	40°21'07.323"N	104°58'34.626"W	0.33	
12629.00	89.570	88.960	7254.03	5089.43	2879.00	4322.27	40°21'07.333"N	104°58'33.399"W	0.86	
12724.00	89.540	88.110	7254.77	5178.28	2881.43	4417.24	40°21'07.357"N	104°58'32.173"W	0.90	
12819.00	89.940	88.270	7255.20	5267.33	2884.43	4512.19	40°21'07.386"N	104°58'30.946"W	0.45	
12913.00	89.880	87.930	7255.34	5355.50	2887.55	4606.13	40°21'07.417"N	104°58'29.733"W	0.37	
13008.00	89.750	88.980	7255.65	5444.40	2890.11	4701.10	40°21'07.442"N	104°58'28.506"W	1.11	
13102.00	89.850	89.840	7255.98	5531.80	2891.08	4795.09	40°21'07.452"N	104°58'27.292"W	0.92	
13197.00	89.820	91.420	7256.25	5619.36	2890.03	4890.08	40°21'07.441"N	104°58'26.065"W	1.66	
13291.00	90.150	93.640	7256.28	5704.75	2885.88	4983.98	40°21'07.400"N	104°58'24.853"W	2.39	
13386.00	90.460	93.430	7255.77	5790.33	2880.03	5078.80	40°21'07.342"N	104°58'23.628"W	0.39	
13480.00	90.280	92.080	7255.16	5875.56	2875.51	5172.69	40°21'07.297"N	104°58'22.415"W	1.45	
13575.00	90.460	90.330	7254.55	5962.75	2873.51	5267.66	40°21'07.277"N	104°58'21.189"W	1.85	
13670.00	89.940	89.340	7254.22	6050.81	2873.78	5362.66	40°21'07.280"N	104°58'19.962"W	1.18	
13764.00	90.000	88.950	7254.27	6138.37	2875.19	5456.65	40°21'07.293"N	104°58'18.748"W	0.42	
13859.00	90.060	88.830	7254.22	6227.02	2877.03	5551.63	40°21'07.311"N	104°58'17.521"W	0.14	
13953.00	90.120	88.940	7254.07	6314.73	2878.86	5645.61	40°21'07.329"N	104°58'16.307"W	0.13	
14048.00	90.060	89.060	7253.92	6403.31	2880.51	5740.60	40°21'07.345"N	104°58'15.080"W	0.14	

Actual Wellpath Report

FLASCHENRIEM 6 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETRO OPERATING CO, LLC	Slot	SLOT#06 FLASCHENRIEM 6 (1848'FNL & 2205'FWL,SEC.03)
Area	COLORADO	Well	FLASCHENRIEM 6
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	FLASCHENRIEM 6 AWB
Facility	SEC.03-T04N-R68W		

WELLPATH DATA (164 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14143.00	89.820	89.140	7254.02	6491.83	2882.01	5835.59	40°21'07.360"N	104°58'13.853"W	0.27	
14238.00	89.750	88.600	7254.38	6580.49	2883.88	5930.57	40°21'07.378"N	104°58'12.626"W	0.57	
14333.00	89.750	91.230	7254.79	6668.50	2884.02	6025.56	40°21'07.379"N	104°58'11.399"W	2.77	
14427.00	90.340	93.830	7254.72	6753.88	2879.87	6119.46	40°21'07.338"N	104°58'10.187"W	2.84	
14616.00	89.660	90.000	7254.72	6926.37	2873.56	6308.32	40°21'07.275"N	104°58'07.747"W	2.06	
14711.00	89.750	87.790	7255.21	7015.00	2875.39	6403.29	40°21'07.293"N	104°58'06.521"W	2.33	
14805.00	89.540	87.040	7255.79	7103.55	2879.63	6497.19	40°21'07.335"N	104°58'05.308"W	0.83	
14900.00	89.570	87.670	7256.53	7193.08	2884.01	6592.09	40°21'07.378"N	104°58'04.082"W	0.66	
14995.00	89.690	87.900	7257.14	7282.36	2887.68	6687.02	40°21'07.414"N	104°58'02.856"W	0.27	
15090.00	89.600	88.280	7257.73	7371.47	2890.85	6781.96	40°21'07.445"N	104°58'01.630"W	0.41	
15184.00	89.510	88.810	7258.46	7459.38	2893.24	6875.93	40°21'07.468"N	104°58'00.416"W	0.57	
15279.00	89.570	89.680	7259.22	7547.81	2894.49	6970.92	40°21'07.480"N	104°57'59.189"W	0.92	
15323.00	89.510	90.080	7259.58	7588.59	2894.58	7014.91	40°21'07.481"N	104°57'58.621"W	0.92	LAST BHI MWD SURVEY (1069'FSL & 485'FEL, SEC.35)
15347.00	89.510	90.080	7259.78	7610.80	2894.55	7038.91	40°21'07.481"N	104°57'58.311"W	0.00	PROJECTION TO BIT (1069'FSL & 461'FEL, SEC.35)

HOLE & CASING SECTIONS - Ref Wellbore: FLASCHENRIEM 6 AWB Ref Wellpath: FLASCHENRIEM 6 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]
9.625in Casing Surface	23.00	1582.00	1559.00	23.00	1564.40	0.00	0.00	161.55	-40.84

Actual Wellpath Report

FLASCHENRIEM 6 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETRO OPERATING CO, LLC	Slot	SLOT#06 FLASCHENRIEM 6 (1848'FNL & 2205'FWL,SEC.03)
Area	COLORADO	Well	FLASCHENRIEM 6
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	FLASCHENRIEM 6 AWB
Facility	SEC.03-T04N-R68W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.03-T04N-R68W	-5.00	16.25	-24.56	3141727.20	1368631.79	40°20'39.048"N	104°59'29.544"W	polygon
SEC.34-T05N-R68W	-5.00	16.25	-24.56	3141727.20	1368631.79	40°20'39.048"N	104°59'29.544"W	polygon
SEC.35-T05N-R68W	-5.00	16.25	-24.56	3141727.20	1368631.79	40°20'39.048"N	104°59'29.544"W	polygon
FLASCHENRIEM 6 BHL REV-2 (1045'FSL & 460'FEL,SEC.35)	7211.00	2871.00	7039.84	3148774.81	1371526.87	40°21'07.248"N	104°57'58.299"W	point
FLASCHENRIEM 6 LP REV-2 (1045'FSL & 2191'FEL,SEC.34)	7211.00	2892.25	36.09	3141771.35	1371507.97	40°21'07.468"N	104°59'28.761"W	point
FLASCHENRIEM 6 BHL ON PLAT (1033'FSL & 460'FEL,SEC.35)	7241.00	2859.19	7039.93	3148774.96	1371515.07	40°21'07.131"N	104°57'58.298"W	point
FLASCHENRIEM 6 LP ON PLAT (1033'FSL & 2191'FEL,SEC.34)	7241.00	2880.45	36.12	3141771.45	1371496.16	40°21'07.351"N	104°59'28.760"W	point
FLASCHENRIEM 6 BHL REV-3 (1045'FSL & 460'FEL,SEC.35)	7250.00	2870.99	7039.84	3148774.81	1371526.87	40°21'07.248"N	104°57'58.299"W	point
FLASCHENRIEM 6 LP REV-3 (1045'FSL & 2191'FEL,SEC.34)	7250.00	2892.25	36.09	3141771.35	1371507.97	40°21'07.468"N	104°59'28.761"W	point

WELLPATH COMPOSITION - Ref Wellbore: FLASCHENRIEM 6 AWB					Ref Wellpath: FLASCHENRIEM 6 AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore	
23.00	1527.00	BHI NaviTrak (Rotating+Axial Corr)	BHI NAVITRAK 13.5" (ROTATING & AXIAL)<134-1527>		FLASCHENRIEM 6 AWB	
1527.00	15323.00	BHI AutoTrak Curve (Short)	BHI ATC 8.5" (SHORT)<1679-15323>		FLASCHENRIEM 6 AWB	
15323.00	15347.00	Blind Drilling (std)	Projection to bit		FLASCHENRIEM 6 AWB	

Actual Wellpath Report

FLASCHENRIEM 6 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETRO OPERATING CO, LLC	Slot	SLOT#06 FLASCHENRIEM 6 (1848'FNL & 2205'FWL,SEC.03)
Area	COLORADO	Well	FLASCHENRIEM 6
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	FLASCHENRIEM 6 AWB
Facility	SEC.03-T04N-R68W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7999.00	60.006	83.448	7158.41	LANDING (1025'FSL & 2517'FEL, SEC.34)
15323.00	89.510	90.080	7259.58	LAST BHI MWD SURVEY (1069'FSL & 485'FEL, SEC.35)
15347.00	89.510	90.080	7259.78	PROJECTION TO BIT (1069'FSL & 461'FEL, SEC.35)