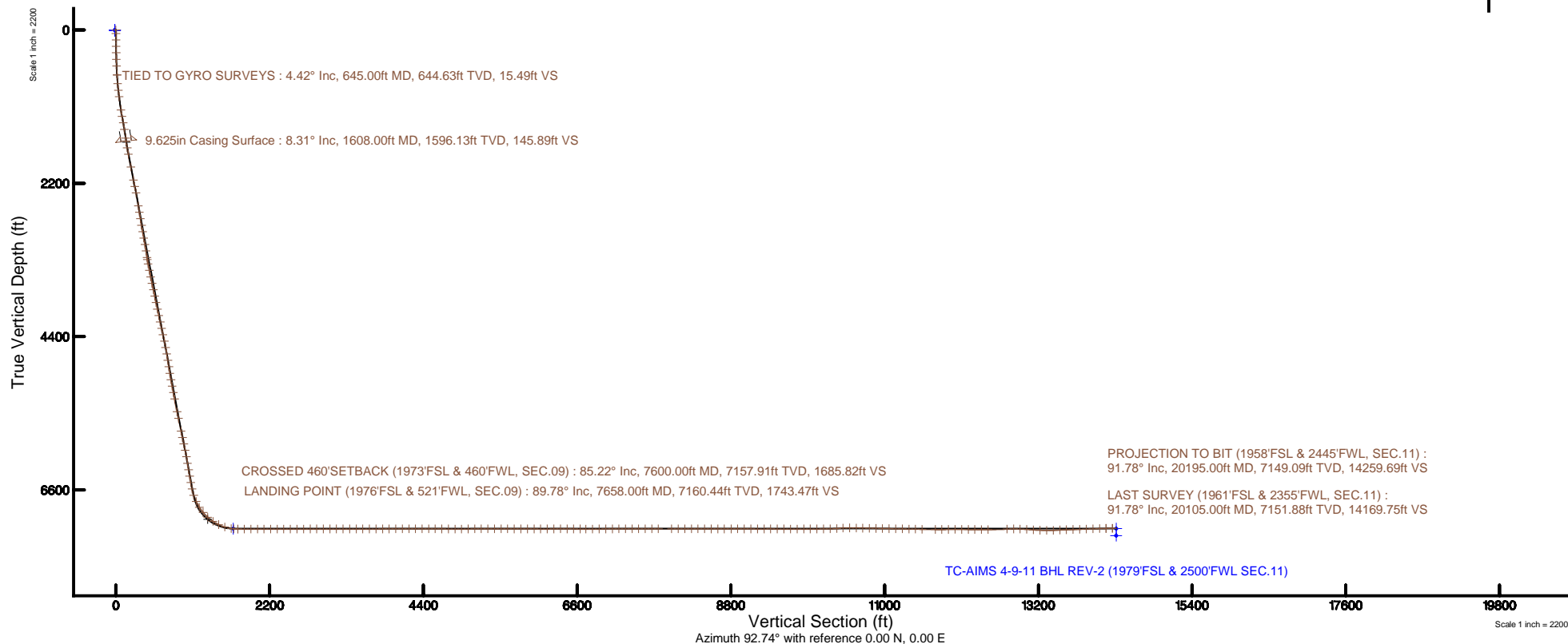
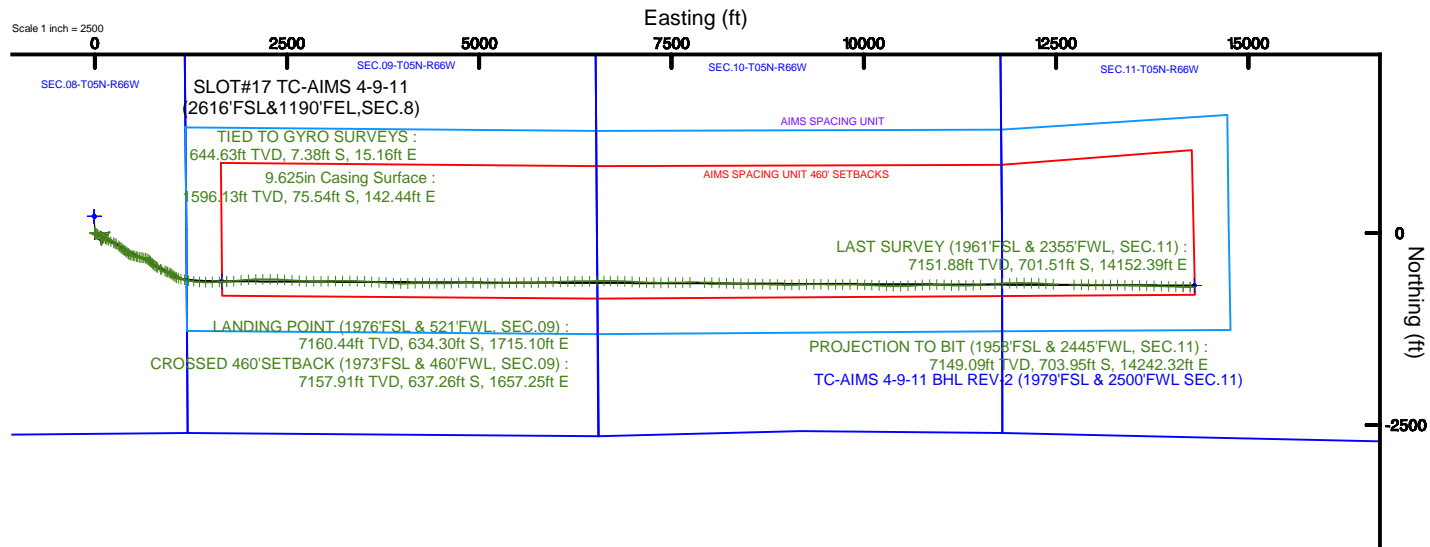


EXTRACTION OIL & GAS

Location: COLORADO Slot: SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8)
Field: WELD COUNTY (NAD83/TRUE NORTH) Well: TC-AIMS 4-9-11
Facility: SEC.08-T05N-R66W Wellbore: TC-AIMS 4-9-11 PWB

Plot reference wellpath is TC-AIMS 4-9-11 (REV-B.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to PATTERSON 341 (25KB) (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to PATTERSON 341 (25KB) (RKB)	North Reference: True north
PATTERSON 341 (25KB) (RKB) to Mean Sea Level: 4816 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: ingmjamm on 2017-06-09
	Database: WA_DEN_Denver_Defn





Actual Wellpath Report

TC-AIMS 4-9-11 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8)
Area	COLORADO	Well	TC-AIMS 4-9-11
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	TC-AIMS 4-9-11 AWB
Facility	SEC.08-T05N-R66W		

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	0.999961	Report Generated	6/9/2017 at 3:59:48 PM
Convergence at slot	0.46° East	Database/Source file	WA_DEN_Denver_Defn/TC-AIMS_4-9-11_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-174.87	5.57	3195287.99	1394443.77	40°24'50.508"N	104°47'55.176"W
Facility Reference Pt			3195281.04	1394618.58	40°24'52.236"N	104°47'55.248"W
Field Reference Pt			3185481.27	1419166.81	40°28'55.560"N	104°49'59.556"W

WELLPATH DATUM

Calculation method	Minimum curvature	PATTERSON 341 (25'KB) (RKB) to Facility Vertical Datum	4816.00ft
Horizontal Reference Pt	Slot	PATTERSON 341 (25'KB) (RKB) to Mean Sea Level	4816.00ft
Vertical Reference Pt	PATTERSON 341 (25'KB) (RKB)	PATTERSON 341 (25'KB) (RKB) to Mud Line at Slot (SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8))	4816.00ft
MD Reference Pt	PATTERSON 341 (25'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	92.74°

Actual Wellpath Report

TC-AIMS 4-9-11 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8)
Area	COLORADO	Well	TC-AIMS 4-9-11
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	TC-AIMS 4-9-11 AWB
Facility	SEC.08-T05N-R66W		

WELLPATH DATA (200 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
645.00	4.420	127.360	644.63	15.49	-7.38	15.16	40°24'50.435"N	104°47'54.980"W	1.38	TIED TO GYRO SURVEYS
772.00	6.056	130.353	771.09	24.83	-14.69	24.15	40°24'50.363"N	104°47'54.864"W	1.31	
867.00	7.147	117.751	865.47	34.15	-20.68	33.20	40°24'50.304"N	104°47'54.747"W	1.90	
962.00	7.676	114.530	959.67	45.40	-26.07	44.20	40°24'50.250"N	104°47'54.605"W	0.71	
1152.00	9.679	116.640	1147.49	71.79	-38.50	70.03	40°24'50.128"N	104°47'54.271"W	1.07	
1246.00	10.903	116.075	1239.97	87.18	-45.95	85.08	40°24'50.054"N	104°47'54.076"W	1.31	
1341.00	11.121	113.097	1333.23	104.01	-53.49	101.57	40°24'49.979"N	104°47'53.863"W	0.64	
1437.00	10.243	117.003	1427.56	120.48	-61.00	117.70	40°24'49.905"N	104°47'53.654"W	1.19	
1562.00	9.625	122.585	1550.69	139.67	-71.68	136.40	40°24'49.800"N	104°47'53.413"W	0.92	
1608.00	8.310	122.700	1596.13	145.89	-75.54	142.44	40°24'49.762"N	104°47'53.335"W	2.86	
1705.00	12.770	124.230	1691.47	161.11	-85.37	157.21	40°24'49.664"N	104°47'53.144"W	4.61	
1799.00	12.130	123.490	1783.26	178.46	-96.66	174.04	40°24'49.553"N	104°47'52.926"W	0.70	
1988.00	11.930	109.800	1968.14	214.21	-114.24	208.98	40°24'49.379"N	104°47'52.474"W	1.51	
2177.00	11.870	111.410	2153.08	251.30	-127.95	245.46	40°24'49.244"N	104°47'52.003"W	0.18	
2272.00	11.850	113.040	2246.05	269.70	-135.33	263.53	40°24'49.171"N	104°47'51.769"W	0.35	
2367.00	12.010	119.700	2339.01	287.66	-144.05	281.09	40°24'49.085"N	104°47'51.542"W	1.46	
2557.00	11.840	134.010	2524.95	319.94	-167.39	312.29	40°24'48.854"N	104°47'51.139"W	1.55	
2651.00	12.110	135.820	2616.90	334.39	-181.16	326.10	40°24'48.718"N	104°47'50.960"W	0.49	
2745.00	12.160	130.650	2708.80	349.40	-194.68	340.48	40°24'48.584"N	104°47'50.774"W	1.16	
2840.00	11.980	124.520	2801.71	365.68	-206.79	356.20	40°24'48.465"N	104°47'50.571"W	1.36	
2934.00	11.790	126.230	2893.69	381.98	-217.99	371.98	40°24'48.354"N	104°47'50.367"W	0.43	
3029.00	11.800	126.010	2986.69	398.20	-229.44	387.67	40°24'48.241"N	104°47'50.164"W	0.05	
3123.00	11.810	124.830	3078.70	414.38	-240.59	403.34	40°24'48.131"N	104°47'49.962"W	0.26	
3218.00	11.720	130.960	3171.71	430.20	-252.46	418.61	40°24'48.013"N	104°47'49.764"W	1.32	
3312.00	11.820	134.610	3263.73	444.87	-265.48	432.67	40°24'47.885"N	104°47'49.582"W	0.80	
3342.00	11.850	132.940	3293.09	449.51	-269.74	437.11	40°24'47.843"N	104°47'49.525"W	1.15	
3407.00	11.820	126.860	3356.71	460.12	-278.28	447.33	40°24'47.758"N	104°47'49.393"W	1.92	
3502.00	11.920	109.780	3449.71	477.56	-287.44	464.35	40°24'47.668"N	104°47'49.173"W	3.69	
3597.00	11.870	99.630	3542.68	496.64	-292.39	483.21	40°24'47.619"N	104°47'48.929"W	2.20	
3691.00	12.180	102.370	3634.62	516.02	-296.14	502.43	40°24'47.582"N	104°47'48.681"W	0.69	



Actual Wellpath Report

TC-AIMS 4-9-11 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8)
Area	COLORADO	Well	TC-AIMS 4-9-11
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	TC-AIMS 4-9-11 AWB
Facility	SEC.08-T05N-R66W		

WELLPATH DATA (200 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3786.00	12.110	108.620	3727.50	535.48	-301.46	521.67	40°24'47.529"N	104°47'48.432"W	1.39	
3880.00	12.130	109.690	3819.40	554.41	-307.94	540.31	40°24'47.465"N	104°47'48.191"W	0.24	
3975.00	12.260	104.900	3912.26	573.82	-313.90	559.45	40°24'47.406"N	104°47'47.943"W	1.07	
4070.00	12.090	98.130	4005.13	593.59	-317.90	579.05	40°24'47.367"N	104°47'47.690"W	1.51	
4164.00	12.080	97.330	4097.05	613.19	-320.54	598.55	40°24'47.340"N	104°47'47.438"W	0.18	
4258.00	12.240	97.060	4188.94	632.93	-323.02	618.20	40°24'47.316"N	104°47'47.184"W	0.18	
4353.00	12.560	102.230	4281.72	653.17	-326.45	638.29	40°24'47.282"N	104°47'46.924"W	1.22	
4446.00	12.470	100.960	4372.51	673.08	-330.50	658.03	40°24'47.242"N	104°47'46.669"W	0.31	
4541.00	12.520	113.020	4465.28	692.89	-336.48	677.58	40°24'47.183"N	104°47'46.416"W	2.74	
4635.00	12.470	127.850	4557.08	710.75	-346.69	694.97	40°24'47.082"N	104°47'46.192"W	3.40	
4730.00	12.580	130.910	4649.82	727.28	-359.76	710.89	40°24'46.953"N	104°47'45.986"W	0.71	
4824.00	12.540	132.840	4741.57	743.13	-373.40	726.11	40°24'46.818"N	104°47'45.789"W	0.45	
4918.00	12.270	139.850	4833.38	757.74	-387.98	740.03	40°24'46.674"N	104°47'45.609"W	1.63	
5013.00	12.640	137.780	4926.14	771.95	-403.39	753.53	40°24'46.522"N	104°47'45.435"W	0.61	
5107.00	12.390	128.190	5017.92	787.44	-417.25	768.36	40°24'46.385"N	104°47'45.243"W	2.22	
5202.00	12.450	122.280	5110.70	804.65	-429.02	785.03	40°24'46.269"N	104°47'45.027"W	1.34	
5296.00	12.470	125.540	5202.49	822.00	-440.33	801.86	40°24'46.157"N	104°47'44.810"W	0.75	
5391.00	12.310	124.370	5295.28	839.24	-452.01	818.56	40°24'46.041"N	104°47'44.594"W	0.31	
5579.00	12.330	113.810	5478.97	875.04	-471.43	853.47	40°24'45.849"N	104°47'44.142"W	1.20	
5674.00	12.510	112.640	5571.75	894.18	-479.48	872.25	40°24'45.770"N	104°47'43.900"W	0.33	
5863.00	12.580	112.120	5756.23	932.84	-495.11	910.21	40°24'45.615"N	104°47'43.409"W	0.07	
5957.00	12.130	112.470	5848.06	951.80	-502.74	928.82	40°24'45.540"N	104°47'43.168"W	0.49	
6051.00	12.260	111.790	5939.94	970.53	-510.22	947.21	40°24'45.466"N	104°47'42.931"W	0.21	
6145.00	12.490	112.060	6031.75	989.55	-517.74	965.90	40°24'45.392"N	104°47'42.689"W	0.25	
6240.00	11.580	115.570	6124.66	1008.04	-525.72	984.02	40°24'45.313"N	104°47'42.455"W	1.23	
6334.00	11.190	123.500	6216.82	1024.57	-534.82	1000.14	40°24'45.223"N	104°47'42.246"W	1.71	
6428.00	11.050	128.530	6309.06	1039.72	-545.47	1014.79	40°24'45.118"N	104°47'42.057"W	1.04	
6523.00	12.290	132.890	6402.09	1054.83	-558.02	1029.32	40°24'44.994"N	104°47'41.869"W	1.60	
6617.00	12.480	126.620	6493.91	1070.91	-570.89	1044.81	40°24'44.866"N	104°47'41.669"W	1.44	
6712.00	12.490	119.650	6586.67	1088.59	-582.10	1061.97	40°24'44.756"N	104°47'41.447"W	1.59	

Actual Wellpath Report

TC-AIMS 4-9-11 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8)
Area	COLORADO	Well	TC-AIMS 4-9-11
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	TC-AIMS 4-9-11 AWB
Facility	SEC.08-T05N-R66W		

WELLPATH DATA (200 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
6806.00	19.430	104.780	6677.03	1112.99	-591.13	1085.96	40°24'44.666"N	104°47'41.137"W	8.51	
6901.00	25.500	103.000	6764.78	1148.60	-599.77	1121.20	40°24'44.581"N	104°47'40.681"W	6.43	
6996.00	31.850	102.580	6848.08	1193.46	-609.84	1165.64	40°24'44.482"N	104°47'40.107"W	6.69	
7090.00	40.230	100.690	6924.03	1248.06	-620.89	1219.77	40°24'44.372"N	104°47'39.407"W	8.99	
7185.00	48.130	98.210	6992.11	1313.77	-631.65	1285.03	40°24'44.266"N	104°47'38.563"W	8.51	
7280.00	56.370	92.980	7050.24	1388.69	-638.77	1359.70	40°24'44.196"N	104°47'37.598"W	9.70	
7374.00	64.000	90.450	7096.95	1470.16	-641.14	1441.15	40°24'44.172"N	104°47'36.545"W	8.45	
7468.00	71.580	89.070	7132.46	1557.00	-640.75	1528.11	40°24'44.176"N	104°47'35.421"W	8.18	
7563.00	82.310	88.270	7153.89	1649.18	-638.59	1620.49	40°24'44.197"N	104°47'34.227"W	11.32	
7600.00†	85.219	87.596	7157.91	1685.82	-637.26	1657.25	40°24'44.210"N	104°47'33.752"W	8.07	CROSSED 460'SETBACK (1973'FSL & 460'FWL, SEC.09)
7658.00	89.780	86.550	7160.44	1743.47	-634.30	1715.10	40°24'44.239"N	104°47'33.004"W	8.07	LANDING POINT (1976'FSL & 521'FWL, SEC.09)
7752.00	89.940	85.390	7160.67	1836.81	-627.70	1808.87	40°24'44.305"N	104°47'31.791"W	1.25	
7847.00	89.880	83.590	7160.82	1930.82	-618.58	1903.42	40°24'44.395"N	104°47'30.569"W	1.90	
7942.00	89.750	86.010	7161.12	2024.90	-609.97	1998.02	40°24'44.480"N	104°47'29.346"W	2.55	
8036.00	90.090	88.410	7161.25	2118.46	-605.39	2091.91	40°24'44.525"N	104°47'28.132"W	2.58	
8131.00	90.150	89.700	7161.05	2213.26	-603.83	2186.89	40°24'44.540"N	104°47'26.904"W	1.36	
8225.00	90.150	90.570	7160.81	2307.16	-604.05	2280.89	40°24'44.538"N	104°47'25.689"W	0.93	
8319.00	90.180	92.630	7160.54	2401.14	-606.67	2374.85	40°24'44.512"N	104°47'24.475"W	2.19	
8414.00	90.060	94.340	7160.34	2496.13	-612.45	2469.67	40°24'44.455"N	104°47'23.249"W	1.80	
8508.00	90.180	93.420	7160.14	2590.11	-618.81	2563.45	40°24'44.392"N	104°47'22.036"W	0.99	
8603.00	90.120	92.850	7159.89	2685.10	-624.00	2658.31	40°24'44.340"N	104°47'20.810"W	0.60	
8697.00	90.150	91.830	7159.67	2779.10	-627.84	2752.23	40°24'44.302"N	104°47'19.596"W	1.09	
8792.00	90.280	90.760	7159.32	2874.07	-629.99	2847.20	40°24'44.281"N	104°47'18.368"W	1.13	
8886.00	89.820	89.130	7159.23	2967.95	-629.90	2941.20	40°24'44.282"N	104°47'17.153"W	1.80	
8980.00	90.000	88.700	7159.38	3061.74	-628.12	3035.18	40°24'44.299"N	104°47'15.938"W	0.50	
9074.00	89.970	89.960	7159.41	3155.57	-627.02	3129.17	40°24'44.310"N	104°47'14.723"W	1.34	
9168.00	89.940	88.830	7159.48	3249.41	-626.02	3223.17	40°24'44.320"N	104°47'13.508"W	1.20	
9263.00	90.000	90.930	7159.53	3344.29	-625.83	3318.16	40°24'44.322"N	104°47'12.280"W	2.21	
9358.00	90.120	92.060	7159.43	3439.27	-628.30	3413.13	40°24'44.297"N	104°47'11.052"W	1.20	
9452.00	89.970	93.130	7159.36	3533.26	-632.56	3507.03	40°24'44.255"N	104°47'09.838"W	1.15	



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8)
Area	COLORADO	Well	TC-AIMS 4-9-11
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	TC-AIMS 4-9-11 AWB
Facility	SEC.08-T05N-R66W		

WELLPATH DATA (200 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
9546.00	90.000	93.460	7159.38	3627.26	-637.96	3600.87	40°24'44.201"N	104°47'08.625"W	0.35	
9640.00	90.090	93.390	7159.31	3721.25	-643.58	3694.70	40°24'44.146"N	104°47'07.412"W	0.12	
9734.00	90.090	93.640	7159.16	3815.24	-649.34	3788.53	40°24'44.089"N	104°47'06.199"W	0.27	
9829.00	90.280	93.040	7158.85	3910.24	-654.88	3883.37	40°24'44.034"N	104°47'04.973"W	0.66	
9923.00	90.180	91.130	7158.47	4004.23	-658.30	3977.30	40°24'44.000"N	104°47'03.759"W	2.03	
10017.00	90.180	87.530	7158.18	4098.04	-657.20	4071.28	40°24'44.011"N	104°47'02.544"W	3.83	
10112.00	90.120	87.190	7157.93	4192.62	-652.82	4166.17	40°24'44.054"N	104°47'01.317"W	0.36	
10206.00	89.850	90.400	7157.96	4286.39	-650.84	4260.14	40°24'44.073"N	104°47'00.102"W	3.43	
10301.00	89.970	92.090	7158.10	4381.35	-652.91	4355.11	40°24'44.052"N	104°46'58.874"W	1.78	
10395.00	89.880	91.440	7158.23	4475.34	-655.80	4449.07	40°24'44.024"N	104°46'57.660"W	0.70	
10489.00	89.720	88.850	7158.56	4569.23	-656.04	4543.06	40°24'44.021"N	104°46'56.445"W	2.76	
10583.00	90.000	87.890	7158.79	4662.96	-653.37	4637.02	40°24'44.047"N	104°46'55.230"W	1.06	
10678.00	89.290	88.420	7159.37	4757.65	-650.31	4731.97	40°24'44.077"N	104°46'54.002"W	0.93	
10772.00	90.060	89.420	7159.91	4851.44	-648.54	4825.95	40°24'44.095"N	104°46'52.788"W	1.34	
10866.00	89.750	91.330	7160.06	4945.36	-649.15	4919.94	40°24'44.088"N	104°46'51.572"W	2.06	
10960.00	90.800	92.850	7159.61	5039.34	-652.58	5013.87	40°24'44.054"N	104°46'50.358"W	1.97	
11055.00	91.230	89.690	7157.93	5134.29	-654.69	5108.82	40°24'44.033"N	104°46'49.131"W	3.36	
11149.00	90.000	89.170	7156.92	5228.12	-653.75	5202.81	40°24'44.042"N	104°46'47.916"W	1.42	
11244.00	89.820	89.020	7157.07	5322.93	-652.25	5297.80	40°24'44.057"N	104°46'46.688"W	0.25	
11338.00	89.510	89.180	7157.62	5416.74	-650.77	5391.79	40°24'44.071"N	104°46'45.473"W	0.37	
11432.00	89.910	88.640	7158.09	5510.53	-648.99	5485.77	40°24'44.089"N	104°46'44.258"W	0.71	
11526.00	89.850	89.420	7158.29	5604.33	-647.39	5579.75	40°24'44.104"N	104°46'43.043"W	0.83	
11621.00	89.720	88.960	7158.65	5699.14	-646.05	5674.74	40°24'44.118"N	104°46'41.815"W	0.50	
11716.00	90.120	88.940	7158.78	5793.94	-644.31	5769.73	40°24'44.135"N	104°46'40.587"W	0.42	
11811.00	89.910	88.310	7158.76	5888.69	-642.03	5864.70	40°24'44.157"N	104°46'39.359"W	0.70	
11906.00	89.910	88.150	7158.90	5983.40	-639.10	5959.65	40°24'44.186"N	104°46'38.131"W	0.17	
12000.00	89.750	88.350	7159.18	6077.11	-636.23	6053.61	40°24'44.214"N	104°46'36.917"W	0.27	
12095.00	90.120	88.360	7159.29	6171.83	-633.50	6148.57	40°24'44.240"N	104°46'35.689"W	0.39	
12190.00	90.460	89.080	7158.81	6266.59	-631.38	6243.54	40°24'44.261"N	104°46'34.461"W	0.84	
12285.00	89.940	89.850	7158.48	6361.44	-630.49	6338.54	40°24'44.270"N	104°46'33.233"W	0.98	



Actual Wellpath Report

TC-AIMS 4-9-11 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8)
Area	COLORADO	Well	TC-AIMS 4-9-11
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	TC-AIMS 4-9-11 AWB
Facility	SEC.08-T05N-R66W		

WELLPATH DATA (200 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12380.00	89.780	89.000	7158.71	6456.28	-629.54	6433.53	40°24'44.279"N	104°46'32.005"W	0.91	
12474.00	89.750	88.850	7159.10	6550.07	-627.77	6527.52	40°24'44.296"N	104°46'30.790"W	0.16	
12569.00	89.690	89.800	7159.56	6644.90	-626.65	6622.51	40°24'44.307"N	104°46'29.562"W	1.00	
12650.00	89.720	90.380	7159.98	6725.81	-626.78	6703.50	40°24'44.305"N	104°46'28.515"W	0.72	
12745.00	90.250	91.290	7160.00	6820.75	-628.17	6798.49	40°24'44.291"N	104°46'27.287"W	1.11	
12839.00	90.280	92.650	7159.57	6914.74	-631.40	6892.43	40°24'44.259"N	104°46'26.073"W	1.45	
12933.00	90.310	93.450	7159.08	7008.74	-636.40	6986.30	40°24'44.210"N	104°46'24.859"W	0.85	
13028.00	90.150	93.170	7158.70	7103.73	-641.88	7081.14	40°24'44.155"N	104°46'23.633"W	0.34	
13122.00	90.220	92.000	7158.40	7197.73	-646.12	7175.04	40°24'44.113"N	104°46'22.419"W	1.25	
13216.00	90.180	90.870	7158.07	7291.70	-648.48	7269.01	40°24'44.089"N	104°46'21.204"W	1.20	
13310.00	89.910	90.010	7158.00	7385.63	-649.20	7363.01	40°24'44.082"N	104°46'19.989"W	0.96	
13404.00	89.910	89.700	7158.15	7479.51	-648.96	7457.01	40°24'44.084"N	104°46'18.774"W	0.33	
13499.00	89.970	88.840	7158.24	7574.33	-647.75	7552.00	40°24'44.096"N	104°46'17.546"W	0.91	
13593.00	90.000	88.610	7158.27	7668.10	-645.66	7645.97	40°24'44.116"N	104°46'16.331"W	0.25	
13687.00	90.090	89.810	7158.20	7761.92	-644.36	7739.96	40°24'44.129"N	104°46'15.116"W	1.28	
13876.00	89.970	90.980	7158.10	7950.76	-645.67	7928.96	40°24'44.115"N	104°46'12.673"W	0.62	
13970.00	90.030	91.870	7158.10	8044.73	-648.00	8022.93	40°24'44.092"N	104°46'11.458"W	0.95	
14065.00	90.090	92.190	7158.00	8139.73	-651.37	8117.87	40°24'44.058"N	104°46'10.231"W	0.34	
14160.00	90.060	92.040	7157.87	8234.72	-654.87	8212.80	40°24'44.023"N	104°46'09.003"W	0.16	
14254.00	89.850	91.810	7157.95	8328.71	-658.03	8306.75	40°24'43.992"N	104°46'07.789"W	0.33	
14348.00	89.600	92.250	7158.40	8422.70	-661.36	8400.69	40°24'43.959"N	104°46'06.574"W	0.54	
14443.00	89.970	90.800	7158.75	8517.68	-663.89	8495.65	40°24'43.933"N	104°46'05.347"W	1.58	
14538.00	90.000	91.690	7158.78	8612.64	-665.95	8590.63	40°24'43.913"N	104°46'04.119"W	0.94	
14632.00	90.060	90.680	7158.73	8706.61	-667.90	8684.61	40°24'43.893"N	104°46'02.904"W	1.08	
14728.00	90.000	91.370	7158.68	8802.56	-669.62	8780.59	40°24'43.876"N	104°46'01.663"W	0.72	
14822.00	90.060	91.470	7158.63	8896.54	-671.94	8874.56	40°24'43.852"N	104°46'00.448"W	0.12	
14917.00	89.720	92.100	7158.81	8991.53	-674.90	8969.51	40°24'43.823"N	104°45'59.221"W	0.75	
15012.00	89.940	89.280	7159.09	9086.46	-676.05	9064.50	40°24'43.811"N	104°45'57.993"W	2.98	
15107.00	89.910	87.530	7159.22	9181.18	-673.40	9159.46	40°24'43.837"N	104°45'56.765"W	1.84	
15202.00	90.120	87.950	7159.19	9275.82	-669.66	9254.38	40°24'43.874"N	104°45'55.538"W	0.49	



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REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8)
Area	COLORADO	Well	TC-AIMS 4-9-11
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	TC-AIMS 4-9-11 AWB
Facility	SEC.08-T05N-R66W		

WELLPATH DATA (200 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
15296.00	89.940	89.450	7159.14	9369.58	-667.52	9348.36	40°24'43.894"N	104°45'54.323"W	1.61	
15389.00	89.910	91.420	7159.27	9462.50	-668.23	9441.35	40°24'43.887"N	104°45'53.121"W	2.12	
15484.00	89.820	91.580	7159.49	9557.48	-670.72	9536.32	40°24'43.862"N	104°45'51.893"W	0.19	
15579.00	89.850	90.940	7159.76	9652.45	-672.81	9631.29	40°24'43.841"N	104°45'50.666"W	0.67	
15674.00	90.090	89.890	7159.81	9747.37	-673.49	9726.29	40°24'43.834"N	104°45'49.437"W	1.13	
15769.00	90.220	89.530	7159.56	9842.23	-673.01	9821.29	40°24'43.838"N	104°45'48.209"W	0.40	
15863.00	90.060	91.310	7159.33	9936.15	-673.70	9915.28	40°24'43.831"N	104°45'46.994"W	1.90	
15958.00	90.000	92.330	7159.28	10031.14	-676.72	10010.23	40°24'43.801"N	104°45'45.767"W	1.08	
16053.00	90.680	92.730	7158.71	10126.14	-680.91	10105.13	40°24'43.759"N	104°45'44.540"W	0.83	
16147.00	91.450	92.620	7156.97	10220.12	-685.30	10199.02	40°24'43.715"N	104°45'43.326"W	0.83	
16242.00	93.360	92.840	7152.98	10315.03	-689.82	10293.82	40°24'43.670"N	104°45'42.101"W	2.02	
16332.00	93.940	91.780	7147.25	10404.84	-693.44	10383.56	40°24'43.634"N	104°45'40.941"W	1.34	
16427.00	89.010	88.230	7144.80	10499.66	-693.45	10478.49	40°24'43.634"N	104°45'39.713"W	6.39	
16521.00	89.050	87.100	7146.40	10593.28	-689.62	10572.39	40°24'43.671"N	104°45'38.499"W	1.20	
16616.00	88.920	86.260	7148.08	10687.73	-684.12	10667.22	40°24'43.725"N	104°45'37.273"W	0.89	
16710.00	88.860	86.640	7149.90	10781.14	-678.30	10761.02	40°24'43.782"N	104°45'36.061"W	0.41	
16805.00	88.980	88.330	7151.69	10875.73	-674.13	10855.91	40°24'43.823"N	104°45'34.834"W	1.78	
16899.00	88.920	90.720	7153.41	10969.55	-673.35	10949.88	40°24'43.830"N	104°45'33.619"W	2.54	
16994.00	88.890	93.470	7155.23	11064.52	-676.82	11044.79	40°24'43.796"N	104°45'32.392"W	2.89	
17089.00	88.980	92.770	7157.00	11159.50	-681.99	11139.63	40°24'43.744"N	104°45'31.166"W	0.74	
17183.00	89.020	91.330	7158.64	11253.48	-685.35	11233.56	40°24'43.710"N	104°45'29.952"W	1.53	
17278.00	89.080	88.290	7160.21	11348.33	-685.04	11328.53	40°24'43.713"N	104°45'28.724"W	3.20	
17372.00	89.110	86.940	7161.70	11441.94	-681.13	11422.44	40°24'43.751"N	104°45'27.510"W	1.44	
17467.00	88.890	86.390	7163.35	11536.39	-675.60	11517.26	40°24'43.805"N	104°45'26.284"W	0.62	
17656.00	89.110	86.570	7166.65	11724.24	-664.00	11705.88	40°24'43.919"N	104°45'23.846"W	0.15	
17750.00	90.460	86.620	7167.01	11817.69	-658.42	11799.71	40°24'43.974"N	104°45'22.633"W	1.44	
17845.00	90.520	88.820	7166.19	11912.32	-654.64	11894.62	40°24'44.011"N	104°45'21.406"W	2.32	
17940.00	89.820	89.420	7165.91	12007.13	-653.18	11989.61	40°24'44.025"N	104°45'20.178"W	0.97	
18035.00	89.820	90.560	7166.21	12102.02	-653.16	12084.61	40°24'44.024"N	104°45'18.950"W	1.20	
18130.00	89.820	91.340	7166.51	12196.97	-654.74	12179.59	40°24'44.008"N	104°45'17.722"W	0.82	

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REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8)
Area	COLORADO	Well	TC-AIMS 4-9-11
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	TC-AIMS 4-9-11 AWB
Facility	SEC.08-T05N-R66W		

WELLPATH DATA (200 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
18224.00	89.850	92.380	7166.78	12290.96	-657.79	12273.54	40°24'43.978"N	104°45'16.507"W	1.11	
18318.00	89.780	94.150	7167.08	12384.95	-663.14	12367.39	40°24'43.924"N	104°45'15.294"W	1.88	
18413.00	89.850	93.940	7167.39	12479.92	-669.84	12462.15	40°24'43.858"N	104°45'14.069"W	0.23	
18684.00	92.500	88.800	7161.83	12750.67	-676.32	12732.90	40°24'43.792"N	104°45'10.569"W	2.13	
18779.00	91.160	88.490	7158.79	12845.38	-674.08	12827.82	40°24'43.814"N	104°45'09.342"W	1.45	
18873.00	87.120	91.040	7160.21	12939.22	-673.69	12921.78	40°24'43.817"N	104°45'08.127"W	5.08	
18968.00	86.600	90.700	7165.41	13034.02	-675.13	13016.63	40°24'43.803"N	104°45'06.901"W	0.65	
19063.00	85.930	90.950	7171.60	13128.77	-676.50	13111.42	40°24'43.789"N	104°45'05.676"W	0.75	
19158.00	87.300	90.250	7177.21	13223.53	-677.49	13206.24	40°24'43.778"N	104°45'04.450"W	1.62	
19252.00	89.450	91.210	7179.87	13317.43	-678.69	13300.19	40°24'43.766"N	104°45'03.235"W	2.50	
19347.00	92.480	91.560	7178.27	13412.38	-680.98	13395.14	40°24'43.743"N	104°45'02.008"W	3.21	
19442.00	92.440	91.480	7174.20	13507.27	-683.50	13490.02	40°24'43.718"N	104°45'00.781"W	0.09	
19537.00	92.180	91.560	7170.37	13602.17	-686.02	13584.91	40°24'43.692"N	104°44'59.554"W	0.29	
19631.00	92.000	91.650	7166.94	13696.09	-688.65	13678.81	40°24'43.666"N	104°44'58.341"W	0.21	
19726.00	91.960	91.390	7163.66	13791.01	-691.17	13773.72	40°24'43.640"N	104°44'57.114"W	0.28	
19821.00	91.780	91.480	7160.56	13885.94	-693.55	13868.64	40°24'43.616"N	104°44'55.887"W	0.21	
19915.00	91.780	91.560	7157.64	13979.87	-696.04	13962.56	40°24'43.591"N	104°44'54.672"W	0.09	
20010.00	91.690	91.740	7154.76	14074.81	-698.77	14057.48	40°24'43.563"N	104°44'53.445"W	0.21	
20105.00	91.780	91.560	7151.88	14169.75	-701.51	14152.39	40°24'43.536"N	104°44'52.218"W	0.21	LAST SURVEY (1961'FSL & 2355'FWL, SEC.11)
20195.00	91.780	91.560	7149.09	14259.69	-703.95	14242.32	40°24'43.511"N	104°44'51.056"W	0.00	PROJECTION TO BIT (1958'FSL & 2445'FWL, SEC.11)

HOLE & CASING SECTIONS - Ref Wellbore: TC-AIMS 4-9-11 AWB Ref Wellpath: TC-AIMS 4-9-11 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	25.00	1618.00	1593.00	25.00	1606.02	0.01	0.04	-76.35	143.69
9.625in Casing Surface	25.00	1608.00	1583.00	25.00	1596.13	0.01	0.04	-75.54	142.44
8.5in Open Hole	1608.00	20195.00	18587.00	1596.13	7149.09	-75.54	142.44	-703.95	14242.32



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REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8)
Area	COLORADO	Well	TC-AIMS 4-9-11
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	TC-AIMS 4-9-11 AWB
Facility	SEC.08-T05N-R66W		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
AIMS SPACING UNIT	4.00	214.94	-5.57	3195280.72	1394658.65	40°24'52.632"N	104°47'55.248"W	polygon
SEC.08-T05N-R66W	4.00	214.94	-5.57	3195280.72	1394658.65	40°24'52.632"N	104°47'55.248"W	polygon
SEC.09-T05N-R66W	4.00	214.94	-5.57	3195280.72	1394658.65	40°24'52.632"N	104°47'55.248"W	polygon
SEC.10-T05N-R66W	4.00	214.94	-5.57	3195280.72	1394658.65	40°24'52.632"N	104°47'55.248"W	polygon
SEC.11-T05N-R66W	4.00	214.94	-5.57	3195280.72	1394658.65	40°24'52.632"N	104°47'55.248"W	polygon
TC-AIMS 4-9-11 BHL REV-2 (1979'FSL & 2500'FWL SEC.11)	7155.00	-684.41	14296.75	3209589.12	1393872.47	40°24'43.704"N	104°44'50.352"W	point
TC-AIMS 4-9-11 LANDING POINT REV-2 (1980'FSL & 460'FWL SEC.9)	7155.00	-630.21	1651.34	3196944.19	1393826.67	40°24'44.280"N	104°47'33.828"W	point
TC-AIMS 4-9-11 REV-1 BHL FROM PLAT (1979'FSL&2500'FWL,SEC.11)	7255.00	-684.41	14296.75	3209589.12	1393872.47	40°24'43.704"N	104°44'50.352"W	point
TC-AIMS 4-9-11 REV-1 LANDING POINT (1980'FSL&460'FWL,SEC.9)	7255.00	-630.21	1651.33	3196944.19	1393826.67	40°24'44.280"N	104°47'33.828"W	point
AIMS SPACING UNIT 460' SETBACKS	7308.00	214.94	-5.57	3195280.72	1394658.65	40°24'52.632"N	104°47'55.248"W	polygon



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TC-AIMS 4-9-11 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8)
Area	COLORADO	Well	TC-AIMS 4-9-11
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	TC-AIMS 4-9-11 AWB
Facility	SEC.08-T05N-R66W		

WELLPATH COMPOSITION - Ref Wellbore: TC-AIMS 4-9-11 AWB Ref Wellpath: TC-AIMS 4-9-11 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	645.00	Gyrodata standard - Drop gyro or Multi-shot	GYRODATA SURFACE SURVEYS <52-645>	TC-AIMS 4-9-11 AWB
645.00	1562.00	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)	BHI NAVITRAK 13.2" (STD ROTATING, AXIAL, ROCKIES GT <772-1562>	TC-AIMS 4-9-11 AWB
1562.00	20105.00	Custom BHI AutoTrak Curve (Short) (Rockies 0.03Gt model)	BHI ATC 8.5" (SHORT, ROCKIES GT)<1608-20105>	TC-AIMS 4-9-11 AWB
20105.00	20195.00	Blind Drilling (std)	Projection to bit	TC-AIMS 4-9-11 AWB



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TC-AIMS 4-9-11 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 TC-AIMS 4-9-11 (2616'FSL&1190'FEL,SEC.8)
Area	COLORADO	Well	TC-AIMS 4-9-11
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	TC-AIMS 4-9-11 AWB
Facility	SEC.08-T05N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
645.00	4.420	127.360	644.63	TIED TO GYRO SURVEYS
7600.00	85.219	87.596	7157.91	CROSSED 460'SETBACK (1973'FSL & 460'FWL, SEC.09)
7658.00	89.780	86.550	7160.44	LANDING POINT (1976'FSL & 521'FWL, SEC.09)
20105.00	91.780	91.560	7151.88	LAST SURVEY (1961'FSL & 2355'FWL, SEC.11)
20195.00	91.780	91.560	7149.09	PROJECTION TO BIT (1958'FSL & 2445'FWL, SEC.11)