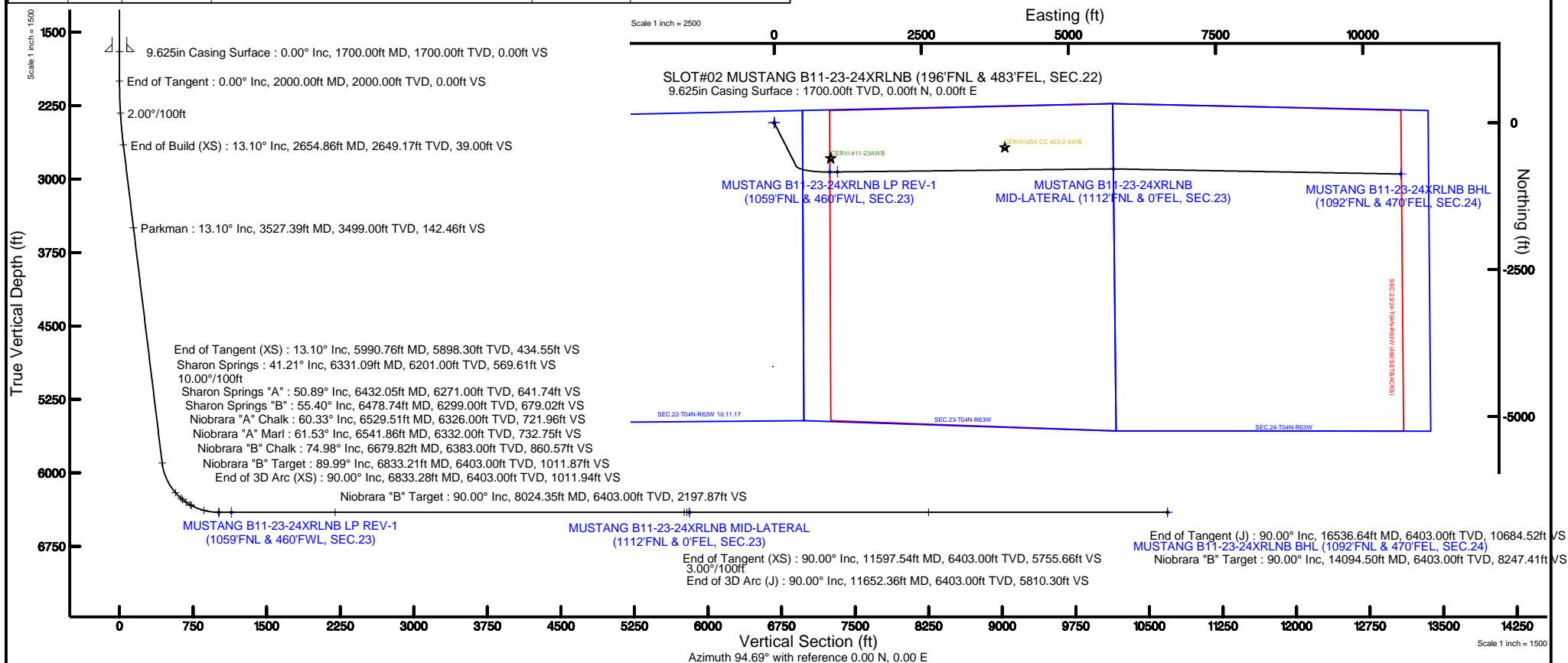


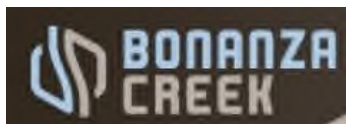
Location:	COLORADO	Slot:	SLOT#02 MUSTANG B11-23-24XRLNB (196'FNL & 483'FEL, SEC.22)
Field:	WELD COUNTY	Well:	MUSTANG B11-23-24XRLNB
Facility:	SEC.22-T04N-R63W	Wellbore:	MUSTANG B11-23-24XRLNB PWB

Plot reference wellpath is MUSTANG B11-23-24XRLNB PWP (REV-A.0)		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to XTREME 19 (17KB) (RKB)		North Reference: True north
Measured depths are referenced to XTREME 19 (17KB) (RKB)		Scale: True distance
XTREME 19 (17KB) (RKB) to Mean Sea Level: 4724 feet		Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#02 MUSTANG B11-23-24XRLNB (196FNL & 483FEL, SEC.22)): 0 feet		Created by: ingmjmr on 2017-10-11
Coordinates are in feet referenced to Slot		Database: WA_DEN_Denver_Defn

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC 22-T04N-R63W			3302249.740	1361530.969	40°17'35.620"N	104°24'59.190"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#02 MUSTANG B11-23-24XRLNB (196FNL & 483FEL SEC.22)	4150.05	20.14	3302219.174	1365680.759	40°18'16.830"N	104°24'58.930"W
XTREME 19 (17KB) (RKB) to Mud line (At Slot: SLOT#02 MUSTANG B11-23-24XRLNB (196FNL & 483FEL SEC.22))					472.4ft	
Mean Sea Level to Mud line (At Slot: SLOT#02 MUSTANG B11-23-24XRLNB (196FNL & 483FEL SEC.22))					0ft	
XTREME 19 (17KB) (RKB) to Mean Sea Level					472.4ft	

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	2000.00	BHI NaviTrak	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		MUSTANG B11-23-24XRLNB PWB
2000.00	16536.64	BHI AutoTrak Curve	Custom BHI AutoTrak Curve (Short) (Rockies 0.03Gt model)		MUSTANG B11-23-24XRLNB PWB





# Planned Wellpath Report

## MUSTANG B11-23-24XRLNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 MUSTANG B11-23-24XRLNB (196'FNL & 483'FEL, SEC.22)
Area	COLORADO	Well	MUSTANG B11-23-24XRLNB
Field	WELD COUNTY	Wellbore	MUSTANG B11-23-24XRLNB PWB
Facility	SEC.22-T04N-R63W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Ingmjmr
Scale	0.999957	Report Generated	10/11/2017 at 3:27:36 PM
Convergence at slot	0.70° East	Database/Source file	WA_DEN_Denver_Defn/MUSTANG_B11-23-24XRLNB_PWP__REV-A.0_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	4150.05	20.14	3302219.17	1355680.76	40°18'16.830"N	104°24'58.930"W
Facility Reference Pt			3302249.74	1351530.96	40°17'35.820"N	104°24'59.190"W
Field Reference Pt			3224525.77	1254425.87	40°01'44.400"N	104°41'53.556"W

WELLPATH DATUM			
Calculation method	Minimum curvature	XTREME 19 (17'KB) (RKB) to Facility Vertical Datum	4724.00ft
Horizontal Reference Pt	Slot	XTREME 19 (17'KB) (RKB) to Mean Sea Level	4724.00ft
Vertical Reference Pt	XTREME 19 (17'KB) (RKB)	XTREME 19 (17'KB) (RKB) to Mud Line at Slot (SLOT#02 MUSTANG B11-23-24XRLNB (196'FNL & 483'FEL, SEC.22))	4724.00ft
MD Reference Pt	XTREME 19 (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	94.69°



# Planned Wellpath Report

## MUSTANG B11-23-24XRLNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 MUSTANG B11-23-24XRLNB (196'FNL & 483'FEL, SEC.22)
Area	COLORADO	Well	MUSTANG B11-23-24XRLNB
Field	WELD COUNTY	Wellbore	MUSTANG B11-23-24XRLNB PWB
Facility	SEC.22-T04N-R63W		

WELLPATH DATA (184 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	153.140	0.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
17.00	0.000	153.140	17.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	Tie On
117.00†	0.000	153.140	117.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
217.00†	0.000	153.140	217.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
317.00†	0.000	153.140	317.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
417.00†	0.000	153.140	417.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
517.00†	0.000	153.140	517.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
617.00†	0.000	153.140	617.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
717.00†	0.000	153.140	717.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
817.00†	0.000	153.140	817.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
917.00†	0.000	153.140	917.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
1017.00†	0.000	153.140	1017.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
1117.00†	0.000	153.140	1117.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
1217.00†	0.000	153.140	1217.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
1317.00†	0.000	153.140	1317.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
1417.00†	0.000	153.140	1417.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
1517.00†	0.000	153.140	1517.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
1617.00†	0.000	153.140	1617.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
1717.00†	0.000	153.140	1717.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
1817.00†	0.000	153.140	1817.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
1917.00†	0.000	153.140	1917.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	
2000.00	0.000	153.140	2000.00	0.00	0.00	0.00	40°18'16.830"N	104°24'58.930"W	0.00	End of Tangent
2017.00†	0.340	153.140	2017.00	0.03	-0.04	0.02	40°18'16.830"N	104°24'58.930"W	2.00	
2117.00†	2.340	153.140	2116.97	1.25	-2.13	1.08	40°18'16.809"N	104°24'58.916"W	2.00	
2217.00†	4.340	153.140	2216.79	4.30	-7.33	3.71	40°18'16.758"N	104°24'58.882"W	2.00	
2317.00†	6.340	153.140	2316.35	9.17	-15.63	7.92	40°18'16.676"N	104°24'58.828"W	2.00	
2417.00†	8.340	153.140	2415.53	15.85	-27.03	13.69	40°18'16.563"N	104°24'58.753"W	2.00	
2517.00†	10.340	153.140	2514.20	24.35	-41.50	21.02	40°18'16.420"N	104°24'58.659"W	2.00	
2617.00†	12.340	153.140	2612.24	34.63	-59.05	29.90	40°18'16.247"N	104°24'58.544"W	2.00	
2654.86	13.097	153.140	2649.17	39.00	-66.48	33.67	40°18'16.173"N	104°24'58.495"W	2.00	End of Build (XS)



# Planned Wellpath Report

MUSTANG B11-23-24XRLNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 MUSTANG B11-23-24XRLNB (196'FNL & 483'FEL, SEC.22)
Area	COLORADO	Well	MUSTANG B11-23-24XRLNB
Field	WELD COUNTY	Wellbore	MUSTANG B11-23-24XRLNB PWB
Facility	SEC.22-T04N-R63W		

WELLPATH DATA (184 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2717.00†	13.097	153.140	2709.70	46.36	-79.04	40.03	40°18'16.049"N	104°24'58.413"W	0.00	
2817.00†	13.097	153.140	2807.09	58.22	-99.26	50.27	40°18'15.849"N	104°24'58.281"W	0.00	
2917.00†	13.097	153.140	2904.49	70.08	-119.47	60.51	40°18'15.649"N	104°24'58.149"W	0.00	
3017.00†	13.097	153.140	3001.89	81.94	-139.69	70.75	40°18'15.450"N	104°24'58.017"W	0.00	
3117.00†	13.097	153.140	3099.29	93.79	-159.91	80.98	40°18'15.250"N	104°24'57.885"W	0.00	
3217.00†	13.097	153.140	3196.69	105.65	-180.12	91.22	40°18'15.050"N	104°24'57.753"W	0.00	
3317.00†	13.097	153.140	3294.09	117.51	-200.34	101.46	40°18'14.850"N	104°24'57.620"W	0.00	
3417.00†	13.097	153.140	3391.49	129.37	-220.55	111.70	40°18'14.651"N	104°24'57.488"W	0.00	
3517.00†	13.097	153.140	3488.89	141.22	-240.77	121.94	40°18'14.451"N	104°24'57.356"W	0.00	
3527.39†	13.097	153.140	3499.00	142.46	-242.87	123.00	40°18'14.430"N	104°24'57.342"W	0.00	Parkman
3617.00†	13.097	153.140	3586.28	153.08	-260.98	132.18	40°18'14.251"N	104°24'57.224"W	0.00	
3717.00†	13.097	153.140	3683.68	164.94	-281.20	142.41	40°18'14.051"N	104°24'57.092"W	0.00	
3817.00†	13.097	153.140	3781.08	176.80	-301.42	152.65	40°18'13.851"N	104°24'56.960"W	0.00	
3917.00†	13.097	153.140	3878.48	188.66	-321.63	162.89	40°18'13.652"N	104°24'56.828"W	0.00	
4017.00†	13.097	153.140	3975.88	200.51	-341.85	173.13	40°18'13.452"N	104°24'56.695"W	0.00	
4117.00†	13.097	153.140	4073.28	212.37	-362.06	183.37	40°18'13.252"N	104°24'56.563"W	0.00	
4217.00†	13.097	153.140	4170.68	224.23	-382.28	193.60	40°18'13.052"N	104°24'56.431"W	0.00	
4317.00†	13.097	153.140	4268.07	236.09	-402.49	203.84	40°18'12.853"N	104°24'56.299"W	0.00	
4417.00†	13.097	153.140	4365.47	247.94	-422.71	214.08	40°18'12.653"N	104°24'56.167"W	0.00	
4517.00†	13.097	153.140	4462.87	259.80	-442.92	224.32	40°18'12.453"N	104°24'56.035"W	0.00	
4617.00†	13.097	153.140	4560.27	271.66	-463.14	234.56	40°18'12.253"N	104°24'55.903"W	0.00	
4717.00†	13.097	153.140	4657.67	283.52	-483.36	244.79	40°18'12.054"N	104°24'55.770"W	0.00	
4817.00†	13.097	153.140	4755.07	295.37	-503.57	255.03	40°18'11.854"N	104°24'55.638"W	0.00	
4917.00†	13.097	153.140	4852.47	307.23	-523.79	265.27	40°18'11.654"N	104°24'55.506"W	0.00	
5017.00†	13.097	153.140	4949.87	319.09	-544.00	275.51	40°18'11.454"N	104°24'55.374"W	0.00	
5117.00†	13.097	153.140	5047.26	330.95	-564.22	285.75	40°18'11.254"N	104°24'55.242"W	0.00	
5217.00†	13.097	153.140	5144.66	342.80	-584.43	295.99	40°18'11.055"N	104°24'55.110"W	0.00	
5317.00†	13.097	153.140	5242.06	354.66	-604.65	306.22	40°18'10.855"N	104°24'54.978"W	0.00	
5417.00†	13.097	153.140	5339.46	366.52	-624.87	316.46	40°18'10.655"N	104°24'54.845"W	0.00	
5517.00†	13.097	153.140	5436.86	378.38	-645.08	326.70	40°18'10.455"N	104°24'54.713"W	0.00	



# Planned Wellpath Report

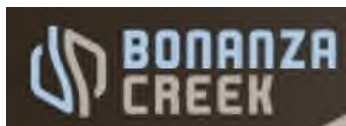
## MUSTANG B11-23-24XRLNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 MUSTANG B11-23-24XRLNB (196'FNL & 483'FEL, SEC.22)
Area	COLORADO	Well	MUSTANG B11-23-24XRLNB
Field	WELD COUNTY	Wellbore	MUSTANG B11-23-24XRLNB PWB
Facility	SEC.22-T04N-R63W		

WELLPATH DATA (184 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5617.00†	13.097	153.140	5534.26	390.23	-665.30	336.94	40°18'10.256"N	104°24'54.581"W	0.00	
5717.00†	13.097	153.140	5631.66	402.09	-685.51	347.18	40°18'10.056"N	104°24'54.449"W	0.00	
5817.00†	13.097	153.140	5729.06	413.95	-705.73	357.41	40°18'09.856"N	104°24'54.317"W	0.00	
5917.00†	13.097	153.140	5826.45	425.81	-725.94	367.65	40°18'09.656"N	104°24'54.185"W	0.00	
5990.76	13.097	153.140	5898.30	434.55	-740.85	375.20	40°18'09.509"N	104°24'54.087"W	0.00	End of Tangent (XS)
6017.00†	14.424	143.603	5923.79	438.26	-746.14	378.49	40°18'09.457"N	104°24'54.045"W	10.00	
6117.00†	21.718	120.968	6018.90	463.10	-765.73	401.80	40°18'09.263"N	104°24'53.744"W	10.00	
6217.00†	30.534	110.090	6108.65	504.28	-784.03	441.62	40°18'09.082"N	104°24'53.230"W	10.00	
6317.00†	39.873	103.837	6190.29	560.56	-800.46	496.75	40°18'08.920"N	104°24'52.519"W	10.00	
6331.09†	41.211	103.156	6201.00	569.61	-802.60	505.65	40°18'08.899"N	104°24'52.404"W	10.00	Sharon Springs
6417.00†	49.437	99.660	6261.36	630.23	-814.54	565.49	40°18'08.781"N	104°24'51.631"W	10.00	
6432.05†	50.887	99.139	6271.00	641.74	-816.42	576.89	40°18'08.762"N	104°24'51.484"W	10.00	Sharon Springs "A"
6478.74†	55.401	97.647	6299.00	679.02	-821.86	613.84	40°18'08.708"N	104°24'51.007"W	10.00	Sharon Springs "B"
6517.00†	59.113	96.541	6319.69	711.16	-825.83	645.77	40°18'08.669"N	104°24'50.595"W	10.00	
6529.51†	60.329	96.198	6326.00	721.96	-827.02	656.51	40°18'08.657"N	104°24'50.457"W	10.00	Niobrara "A" Chalk
6541.86†	61.529	95.868	6332.00	732.75	-828.16	667.24	40°18'08.646"N	104°24'50.318"W	10.00	Niobrara "A" Marl
6617.00†	68.850	94.000	6363.51	800.91	-833.99	735.14	40°18'08.589"N	104°24'49.442"W	10.00	
6679.82†	74.985	92.578	6383.00	860.57	-837.40	794.73	40°18'08.555"N	104°24'48.673"W	10.00	Niobrara "B" Chalk
6717.00†	78.620	91.777	6391.49	896.73	-838.77	830.90	40°18'08.541"N	104°24'48.206"W	10.00	
6817.00†	88.406	89.702	6402.77	995.73	-840.04	930.13	40°18'08.529"N	104°24'46.925"W	10.00	
6833.21†	89.993	89.371	6403.00	1011.87	-839.91	946.33	40°18'08.530"N	104°24'46.716"W	10.00	Niobrara "B" Target
6833.28	90.000	89.369	6403.00 <sup>†</sup>	1011.94	-839.90	946.41	40°18'08.530"N	104°24'46.715"W	10.00	End of 3D Arc (XS)
6917.00†	90.000	89.369	6403.00	1095.30	-838.98	1030.12	40°18'08.539"N	104°24'45.635"W	0.00	
7017.00†	90.000	89.369	6403.00	1194.87	-837.88	1130.11	40°18'08.550"N	104°24'44.344"W	0.00	
7117.00†	90.000	89.369	6403.00	1294.44	-836.78	1230.11	40°18'08.561"N	104°24'43.053"W	0.00	
7217.00†	90.000	89.369	6403.00	1394.01	-835.68	1330.10	40°18'08.572"N	104°24'41.763"W	0.00	
7317.00†	90.000	89.369	6403.00	1493.57	-834.58	1430.09	40°18'08.582"N	104°24'40.472"W	0.00	
7417.00†	90.000	89.369	6403.00	1593.14	-833.48	1530.09	40°18'08.593"N	104°24'39.182"W	0.00	
7517.00†	90.000	89.369	6403.00	1692.71	-832.38	1630.08	40°18'08.604"N	104°24'37.891"W	0.00	
7617.00†	90.000	89.369	6403.00	1792.28	-831.28	1730.07	40°18'08.615"N	104°24'36.600"W	0.00	



# Planned Wellpath Report

MUSTANG B11-23-24XRLNB PWP (REV-A.0)

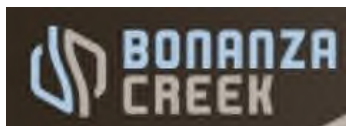
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 MUSTANG B11-23-24XRLNB (196'FNL & 483'FEL, SEC.22)
Area	COLORADO	Well	MUSTANG B11-23-24XRLNB
Field	WELD COUNTY	Wellbore	MUSTANG B11-23-24XRLNB PWB
Facility	SEC.22-T04N-R63W		

WELLPATH DATA (184 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	90.000	89.369	6403.00	1891.85	-830.18	1830.07	40°18'08.626"N	104°24'35.310"W	0.00	
7817.00†	90.000	89.369	6403.00	1991.42	-829.08	1930.06	40°18'08.636"N	104°24'34.019"W	0.00	
7917.00†	90.000	89.369	6403.00	2090.99	-827.98	2030.06	40°18'08.647"N	104°24'32.729"W	0.00	
8017.00†	90.000	89.369	6403.00	2190.56	-826.87	2130.05	40°18'08.658"N	104°24'31.438"W	0.00	
8024.35†	90.000	89.369	6403.00	2197.87	-826.79	2137.40	40°18'08.659"N	104°24'31.343"W	0.00	Niobrara "B" Target
8117.00†	90.000	89.369	6403.00	2290.12	-825.77	2230.04	40°18'08.669"N	104°24'30.147"W	0.00	
8217.00†	90.000	89.369	6403.00	2389.69	-824.67	2330.04	40°18'08.680"N	104°24'28.857"W	0.00	
8317.00†	90.000	89.369	6403.00	2489.26	-823.57	2430.03	40°18'08.690"N	104°24'27.566"W	0.00	
8417.00†	90.000	89.369	6403.00	2588.83	-822.47	2530.03	40°18'08.701"N	104°24'26.276"W	0.00	
8517.00†	90.000	89.369	6403.00	2688.40	-821.37	2630.02	40°18'08.712"N	104°24'24.985"W	0.00	
8617.00†	90.000	89.369	6403.00	2787.97	-820.27	2730.01	40°18'08.723"N	104°24'23.694"W	0.00	
8717.00†	90.000	89.369	6403.00	2887.54	-819.17	2830.01	40°18'08.734"N	104°24'22.404"W	0.00	
8817.00†	90.000	89.369	6403.00	2987.11	-818.07	2930.00	40°18'08.744"N	104°24'21.113"W	0.00	
8917.00†	90.000	89.369	6403.00	3086.67	-816.97	3030.00	40°18'08.755"N	104°24'19.823"W	0.00	
9017.00†	90.000	89.369	6403.00	3186.24	-815.87	3129.99	40°18'08.766"N	104°24'18.532"W	0.00	
9117.00†	90.000	89.369	6403.00	3285.81	-814.77	3229.98	40°18'08.777"N	104°24'17.241"W	0.00	
9217.00†	90.000	89.369	6403.00	3385.38	-813.67	3329.98	40°18'08.787"N	104°24'15.951"W	0.00	
9317.00†	90.000	89.369	6403.00	3484.95	-812.57	3429.97	40°18'08.798"N	104°24'14.660"W	0.00	
9417.00†	90.000	89.369	6403.00	3584.52	-811.46	3529.97	40°18'08.809"N	104°24'13.370"W	0.00	
9517.00†	90.000	89.369	6403.00	3684.09	-810.36	3629.96	40°18'08.820"N	104°24'12.079"W	0.00	
9617.00†	90.000	89.369	6403.00	3783.65	-809.26	3729.95	40°18'08.830"N	104°24'10.788"W	0.00	
9717.00†	90.000	89.369	6403.00	3883.22	-808.16	3829.95	40°18'08.841"N	104°24'09.498"W	0.00	
9817.00†	90.000	89.369	6403.00	3982.79	-807.06	3929.94	40°18'08.852"N	104°24'08.207"W	0.00	
9917.00†	90.000	89.369	6403.00	4082.36	-805.96	4029.94	40°18'08.862"N	104°24'06.917"W	0.00	
10017.00†	90.000	89.369	6403.00	4181.93	-804.86	4129.93	40°18'08.873"N	104°24'05.626"W	0.00	
10117.00†	90.000	89.369	6403.00	4281.50	-803.76	4229.92	40°18'08.884"N	104°24'04.335"W	0.00	
10217.00†	90.000	89.369	6403.00	4381.07	-802.66	4329.92	40°18'08.895"N	104°24'03.045"W	0.00	
10317.00†	90.000	89.369	6403.00	4480.64	-801.56	4429.91	40°18'08.905"N	104°24'01.754"W	0.00	
10417.00†	90.000	89.369	6403.00	4580.20	-800.46	4529.91	40°18'08.916"N	104°24'00.464"W	0.00	
10517.00†	90.000	89.369	6403.00	4679.77	-799.36	4629.90	40°18'08.927"N	104°23'59.173"W	0.00	





# Planned Wellpath Report

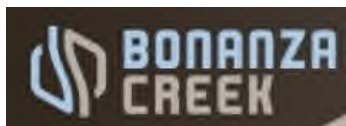
## MUSTANG B11-23-24XRLNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 MUSTANG B11-23-24XRLNB (196'FNL & 483'FEL, SEC.22)
Area	COLORADO	Well	MUSTANG B11-23-24XRLNB
Field	WELD COUNTY	Wellbore	MUSTANG B11-23-24XRLNB PWB
Facility	SEC.22-T04N-R63W		

WELLPATH DATA (184 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10617.00†	90.000	89.369	6403.00	4779.34	-798.26	4729.89	40°18'08.937"N	104°23'57.882"W	0.00	
10717.00†	90.000	89.369	6403.00	4878.91	-797.15	4829.89	40°18'08.948"N	104°23'56.592"W	0.00	
10817.00†	90.000	89.369	6403.00	4978.48	-796.05	4929.88	40°18'08.959"N	104°23'55.301"W	0.00	
10917.00†	90.000	89.369	6403.00	5078.05	-794.95	5029.88	40°18'08.969"N	104°23'54.011"W	0.00	
11017.00†	90.000	89.369	6403.00	5177.62	-793.85	5129.87	40°18'08.980"N	104°23'52.720"W	0.00	
11117.00†	90.000	89.369	6403.00	5277.19	-792.75	5229.86	40°18'08.991"N	104°23'51.429"W	0.00	
11217.00†	90.000	89.369	6403.00	5376.75	-791.65	5329.86	40°18'09.001"N	104°23'50.139"W	0.00	
11317.00†	90.000	89.369	6403.00	5476.32	-790.55	5429.85	40°18'09.012"N	104°23'48.848"W	0.00	
11417.00†	90.000	89.369	6403.00	5575.89	-789.45	5529.84	40°18'09.023"N	104°23'47.558"W	0.00	
11517.00†	90.000	89.369	6403.00	5675.46	-788.35	5629.84	40°18'09.033"N	104°23'46.267"W	0.00	
11597.54	90.000	89.369	6403.00	5755.66	-787.46	5710.38	40°18'09.042"N	104°23'45.227"W	0.00	End of Tangent (XS)
11617.00†	90.000	89.953	6403.00	5775.04	-787.35	5729.83	40°18'09.043"N	104°23'44.976"W	3.00	
11652.36	90.000	91.014	6403.00 <sup>2</sup>	5810.30	-787.65	5765.19	40°18'09.040"N	104°23'44.520"W	3.00	End of 3D Arc (J)
11717.00†	90.000	91.014	6403.00	5874.81	-788.79	5829.82	40°18'09.029"N	104°23'43.686"W	0.00	
11817.00†	90.000	91.014	6403.00	5974.60	-790.56	5929.81	40°18'09.011"N	104°23'42.395"W	0.00	
11917.00†	90.000	91.014	6403.00	6074.40	-792.33	6029.79	40°18'08.993"N	104°23'41.105"W	0.00	
12017.00†	90.000	91.014	6403.00	6174.19	-794.10	6129.77	40°18'08.975"N	104°23'39.814"W	0.00	
12117.00†	90.000	91.014	6403.00	6273.99	-795.87	6229.76	40°18'08.958"N	104°23'38.524"W	0.00	
12217.00†	90.000	91.014	6403.00	6373.78	-797.64	6329.74	40°18'08.940"N	104°23'37.233"W	0.00	
12317.00†	90.000	91.014	6403.00	6473.57	-799.41	6429.73	40°18'08.922"N	104°23'35.943"W	0.00	
12417.00†	90.000	91.014	6403.00	6573.37	-801.17	6529.71	40°18'08.904"N	104°23'34.653"W	0.00	
12517.00†	90.000	91.014	6403.00	6673.16	-802.94	6629.70	40°18'08.887"N	104°23'33.362"W	0.00	
12617.00†	90.000	91.014	6403.00	6772.96	-804.71	6729.68	40°18'08.869"N	104°23'32.072"W	0.00	
12717.00†	90.000	91.014	6403.00	6872.75	-806.48	6829.66	40°18'08.851"N	104°23'30.781"W	0.00	
12817.00†	90.000	91.014	6403.00	6972.54	-808.25	6929.65	40°18'08.833"N	104°23'29.491"W	0.00	
12917.00†	90.000	91.014	6403.00	7072.34	-810.02	7029.63	40°18'08.816"N	104°23'28.200"W	0.00	
13017.00†	90.000	91.014	6403.00	7172.13	-811.79	7129.62	40°18'08.798"N	104°23'26.910"W	0.00	
13117.00†	90.000	91.014	6403.00	7271.92	-813.56	7229.60	40°18'08.780"N	104°23'25.619"W	0.00	
13217.00†	90.000	91.014	6403.00	7371.72	-815.33	7329.59	40°18'08.762"N	104°23'24.329"W	0.00	
13317.00†	90.000	91.014	6403.00	7471.51	-817.10	7429.57	40°18'08.745"N	104°23'23.038"W	0.00	



# Planned Wellpath Report

MUSTANG B11-23-24XRLNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 MUSTANG B11-23-24XRLNB (196'FNL & 483'FEL, SEC.22)
Area	COLORADO	Well	MUSTANG B11-23-24XRLNB
Field	WELD COUNTY	Wellbore	MUSTANG B11-23-24XRLNB PWB
Facility	SEC.22-T04N-R63W		

WELLPATH DATA (184 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13417.00†	90.000	91.014	6403.00	7571.31	-818.87	7529.56	40°18'08.727"N	104°23'21.748"W	0.00	
13517.00†	90.000	91.014	6403.00	7671.10	-820.64	7629.54	40°18'08.709"N	104°23'20.457"W	0.00	
13617.00†	90.000	91.014	6403.00	7770.89	-822.41	7729.52	40°18'08.691"N	104°23'19.167"W	0.00	
13717.00†	90.000	91.014	6403.00	7870.69	-824.18	7829.51	40°18'08.673"N	104°23'17.876"W	0.00	
13817.00†	90.000	91.014	6403.00	7970.48	-825.95	7929.49	40°18'08.656"N	104°23'16.586"W	0.00	
13917.00†	90.000	91.014	6403.00	8070.28	-827.72	8029.48	40°18'08.638"N	104°23'15.296"W	0.00	
14017.00†	90.000	91.014	6403.00	8170.07	-829.48	8129.46	40°18'08.620"N	104°23'14.005"W	0.00	
14094.50†	90.000	91.014	6403.00	8247.41	-830.86	8206.95	40°18'08.606"N	104°23'13.005"W	0.00	Niobrara "B" Target
14117.00†	90.000	91.014	6403.00	8269.86	-831.25	8229.45	40°18'08.602"N	104°23'12.715"W	0.00	
14217.00†	90.000	91.014	6403.00	8369.66	-833.02	8329.43	40°18'08.584"N	104°23'11.424"W	0.00	
14317.00†	90.000	91.014	6403.00	8469.45	-834.79	8429.41	40°18'08.567"N	104°23'10.134"W	0.00	
14417.00†	90.000	91.014	6403.00	8569.25	-836.56	8529.40	40°18'08.549"N	104°23'08.843"W	0.00	
14517.00†	90.000	91.014	6403.00	8669.04	-838.33	8629.38	40°18'08.531"N	104°23'07.553"W	0.00	
14617.00†	90.000	91.014	6403.00	8768.83	-840.10	8729.37	40°18'08.513"N	104°23'06.262"W	0.00	
14717.00†	90.000	91.014	6403.00	8868.63	-841.87	8829.35	40°18'08.495"N	104°23'04.972"W	0.00	
14817.00†	90.000	91.014	6403.00	8968.42	-843.64	8929.34	40°18'08.477"N	104°23'03.681"W	0.00	
14917.00†	90.000	91.014	6403.00	9068.22	-845.41	9029.32	40°18'08.460"N	104°23'02.391"W	0.00	
15017.00†	90.000	91.014	6403.00	9168.01	-847.18	9129.30	40°18'08.442"N	104°23'01.100"W	0.00	
15117.00†	90.000	91.014	6403.00	9267.80	-848.95	9229.29	40°18'08.424"N	104°22'59.810"W	0.00	
15217.00†	90.000	91.014	6403.00	9367.60	-850.72	9329.27	40°18'08.406"N	104°22'58.519"W	0.00	
15317.00†	90.000	91.014	6403.00	9467.39	-852.49	9429.26	40°18'08.388"N	104°22'57.229"W	0.00	
15417.00†	90.000	91.014	6403.00	9567.19	-854.26	9529.24	40°18'08.370"N	104°22'55.939"W	0.00	
15517.00†	90.000	91.014	6403.00	9666.98	-856.02	9629.23	40°18'08.352"N	104°22'54.648"W	0.00	
15617.00†	90.000	91.014	6403.00	9766.77	-857.79	9729.21	40°18'08.335"N	104°22'53.358"W	0.00	
15717.00†	90.000	91.014	6403.00	9866.57	-859.56	9829.20	40°18'08.317"N	104°22'52.067"W	0.00	
15817.00†	90.000	91.014	6403.00	9966.36	-861.33	9929.18	40°18'08.299"N	104°22'50.777"W	0.00	
15917.00†	90.000	91.014	6403.00	10066.16	-863.10	10029.16	40°18'08.281"N	104°22'49.486"W	0.00	
16017.00†	90.000	91.014	6403.00	10165.95	-864.87	10129.15	40°18'08.263"N	104°22'48.196"W	0.00	
16117.00†	90.000	91.014	6403.00	10265.74	-866.64	10229.13	40°18'08.245"N	104°22'46.905"W	0.00	
16217.00†	90.000	91.014	6403.00	10365.54	-868.41	10329.12	40°18'08.227"N	104°22'45.615"W	0.00	





# Planned Wellpath Report

MUSTANG B11-23-24XRLNB PWP (REV-A.0)

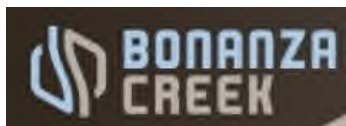
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 MUSTANG B11-23-24XRLNB (196'FNL & 483'FEL, SEC.22)
Area	COLORADO	Well	MUSTANG B11-23-24XRLNB
Field	WELD COUNTY	Wellbore	MUSTANG B11-23-24XRLNB PWB
Facility	SEC.22-T04N-R63W		

WELLPATH DATA (184 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16317.00†	90.000	91.014	6403.00	10465.33	-870.18	10429.10	40°18'08.209"N	104°22'44.324"W	0.00	
16417.00†	90.000	91.014	6403.00	10565.13	-871.95	10529.09	40°18'08.191"N	104°22'43.034"W	0.00	
16517.00†	90.000	91.014	6403.00	10664.92	-873.72	10629.07	40°18'08.174"N	104°22'41.743"W	0.00	
16536.64	90.000	91.014	6403.00 <sup>3</sup>	10684.52	-874.07	10648.71	40°18'08.170"N	104°22'41.490"W	0.00	End of Tangent (J)

HOLE & CASING SECTIONS									
- Ref Wellbore: MUSTANG B11-23-24XRLNB PWB					Ref Wellpath: MUSTANG B11-23-24XRLNB PWP (REV-A.0)				
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	17.00	1700.00	1683.00	17.00	1700.00	0.00	0.00	0.00	0.00
8.5in Open Hole	1700.00	16536.64	14836.64	1700.00	6403.00	0.00	0.00	-874.07	10648.71



# Planned Wellpath Report

## MUSTANG B11-23-24XRLNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 MUSTANG B11-23-24XRLNB (196'FNL & 483'FEL, SEC.22)
Area	COLORADO	Well	MUSTANG B11-23-24XRLNB
Field	WELD COUNTY	Wellbore	MUSTANG B11-23-24XRLNB PWB
Facility	SEC.22-T04N-R63W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.22-T04N-R63W 10.11.17		0.00	0.00	0.00	3302219.17	1355680.76	40°18'16.830"N	104°24'58.930"W	polygon
SEC.23-T04N-R63W		0.00	0.00	0.00	3302219.17	1355680.76	40°18'16.830"N	104°24'58.930"W	polygon
SEC.24-T04N-R63W		0.00	0.00	0.00	3302219.17	1355680.76	40°18'16.830"N	104°24'58.930"W	polygon
3) MUSTANG B11-23-24XRLNB BHL (1092'FNL & 470'FEL, SEC.24)	16536.64	6403.00	-874.07	10648.71	3312877.29	1354936.92	40°18'08.170"N	104°22'41.490"W	point
MUSTANG B11-23-24XRLNB LP (1059'FNL & 589'FWL, SEC.23)		6403.00	-839.90	1075.41	3303304.72	1354854.10	40°18'08.530"N	104°24'45.050"W	point
1) MUSTANG B11-23-24XRLNB LP REV-1 (1059'FNL & 460'FWL, SEC.23)	6833.28	6403.00	-839.90	946.41	3303175.73	1354852.52	40°18'08.530"N	104°24'46.715"W	point
2) MUSTANG B11-23-24XRLNB MID-LATERAL (1112'FNL & 0'FEL, SEC.23)	11652.36	6403.00	-787.65	5765.19	3307993.30	1354963.65	40°18'09.040"N	104°23'44.520"W	point
SEC.23/24-T04N-R63W (460'SETBACKS)		6403.00	0.00	0.00	3302219.17	1355680.76	40°18'16.830"N	104°24'58.930"W	polygon

SURVEY PROGRAM -				
Ref Wellbore: MUSTANG B11-23-24XRLNB PWB		Ref Wellpath: MUSTANG B11-23-24XRLNB PWP (REV-A.0)		
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	2000.00	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		MUSTANG B11-23-24XRLNB PWB
2000.00	16536.64	Custom BHI AutoTrak Curve (Short) (Rockies 0.03Gt model)		MUSTANG B11-23-24XRLNB PWB



# Planned Wellpath Report

## MUSTANG B11-23-24XRLNB PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION				
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#02 MUSTANG B11-23-24XRLNB (196'FNL & 483'FEL, SEC.22)	
Area	COLORADO	Well	MUSTANG B11-23-24XRLNB	
Field	WELD COUNTY	Wellbore	MUSTANG B11-23-24XRLNB PWB	
Facility	SEC.22-T04N-R63W			

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
3527.39	13.097	153.140	3499.00	Parkman
6331.09	41.211	103.156	6201.00	Sharon Springs
6432.05	50.887	99.139	6271.00	Sharon Springs "A"
6478.74	55.401	97.647	6299.00	Sharon Springs "B"
6529.51	60.329	96.198	6326.00	Niobrara "A" Chalk
6541.86	61.529	95.868	6332.00	Niobrara "A" Marl
6679.82	74.985	92.578	6383.00	Niobrara "B" Chalk
6833.21	89.993	89.371	6403.00	Niobrara "B" Target
8024.35	90.000	89.369	6403.00	Niobrara "B" Target
14094.50	90.000	91.014	6403.00	Niobrara "B" Target

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	153.140	17.00	Tie On
2000.00	0.000	153.140	2000.00	End of Tangent
2654.86	13.097	153.140	2649.17	End of Build (XS)
5990.76	13.097	153.140	5898.30	End of Tangent (XS)
6833.28	90.000	89.369	6403.00	End of 3D Arc (XS)
11597.54	90.000	89.369	6403.00	End of Tangent (XS)
11652.36	90.000	91.014	6403.00	End of 3D Arc (J)
16536.64	90.000	91.014	6403.00	End of Tangent (J)