

# BONANZA CREEK ENERGY

Location: COLORADO Slot: SLOT#10 MULE DEER O-32-29XRLNB (276°FNL & 2131°FEL,SEC.05)  
Field: WELD COUNTY (NAD83/TRUE) Well: MULE DEER O-32-29XRLNB  
Facility: SEC.05-T06N-R61W Wellbore: MULE DEER O-32-29XRLNB PWB

Plot reference wellpath is MULE DEER O-32-29XRLNB (REV-B.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (17) (RKB)	North Reference: True north
Reference wellpath measured depths are referenced to RIG (17) (RKB)	Scale: True distance
RIG (17) (RKB) to Mean Sea Level: 4676 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: SLOT#10 MULE DEER O-32-29XRLNB (276°FNL & 2131°FEL,SEC.05): 0 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: robak01 on 2020-03-12; Database: WellArchieID62

## Location Information

Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.05-T06N-R61W				3352971.931	1404526.872	40°26'12.8400"N	104°13'54.8760"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SLOT#10 MULE DEER O-32-29XRLNB (276°FNL & 2131°FEL,SEC.05)	-77.23	160.34	3353133.354	1404451.942	40°26'12.0768"N	104°13'52.8024"W	
RIG (17) (RKB) to Ground level (At Slot: SLOT#10 MULE DEER O-32-29XRLNB (276°FNL & 2131°FEL,SEC.05))				4676ft			
Mean Sea Level to Ground level (At Slot: SLOT#10 MULE DEER O-32-29XRLNB (276°FNL & 2131°FEL,SEC.05))				0ft			
RIG (17) (RKB) to Mean Sea Level				4676ft			

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1500.00	BH Navitrak (superseded model)	BH Navitrak (Rotating+Axial Corr)		MULE DEER O-32-29XRLNB PWB
1500.00	16112.48	BH AutoTrak Curve (superseded model)	BH AutoTrak Curve (Short)		MULE DEER O-32-29XRLNB PWB

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.29-T06N-R61W	N/A	-2.00	841.21	-607.94	3352513.47	1405284.33	40°26'20.3892"N	104°14'05.6648"W
SEC.32-T06N-R61W	N/A	-2.00	841.21	-607.94	3352513.47	1405284.33	40°26'20.3892"N	104°14'05.6648"W
SEC.05-T06N-R61W	N/A	0.00	-9855.79	-1941.14	3351333.48	1394569.78	40°24'34.6850"N	104°14'17.8960"W
MULE DEER O-32-29XRLNB (MLT 2680°FWL)	11306.74	6146.00	5548.89	-553.55	3352500.50	1409992.12	40°27'6.3084"N	104°13'59.9628"W
MULE DEER O-32-29XRLNB BHL REV-2 (470°FNL & 2663°FEL,SEC.29)	16112.48	6146.00	10354.58	-534.53	3352450.77	1414797.41	40°27'54.3960"N	104°13'59.7180"W
MULE DEER O-32-29XRLNB LP REV-1 (470°FSL & 2690°FWL,SEC.32)	6504.01	6146.00	746.16	-559.79	3352562.97	1405189.99	40°26'19.4500"N	104°14'04.0420"W

## Hole and Casing Sections

Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
13.5in Open Hole	17.00	1500.00	1483.00	17.00	1495.20	0.00	0.00	31.01	-90.24	MULE DEER O-32-29XRLNB PWB
9.625in Casing Surface	17.00	1500.00	1483.00	17.00	1495.20	0.00	0.00	31.01	-90.24	MULE DEER O-32-29XRLNB PWB
8.5in Open Hole	1500.00	16112.48	14612.48	1495.20	6146.00	31.01	-90.24	10354.58	-534.53	MULE DEER O-32-29XRLNB PWB

## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	288.963	17.00	0.00	0.00	0.00	0.00
End of Tangent	450.00	0.000	288.963	450.00	0.00	0.00	0.00	0.00
End of Build	755.14	6.103	288.963	754.56	5.28	-15.35	2.00	6.06
End of Tangent	5623.74	6.103	288.963	5595.57	173.47	-504.85	0.00	199.27
End of 3D Arc	6504.01	90.000	0.074	6146.00	746.16	-559.79	10.00	774.03
End of Tangent	11306.74	90.000	0.074	6146.00	5548.89	-553.55	0.00	5570.05
End of 3D Arc	11314.38	90.000	0.227	6146.00	5556.52	-553.53	2.00	5577.67
End of Tangent	16112.48	90.000	0.227	6146.00	10354.58	-534.53	0.00	10368.37

## Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
16112.48	90.000	0.227	6146.00	10354.58	-534.53	3352450.77	1414797.41	40°27'54.3960"N	104°13'59.7180"W

True Vertical Depth (ft)  
Scale 1 inch = 1000

End of Tangent : 6.10° Inc, 5623.74ft MD, 5595.57ft TVD, 199.27ft VS

10.00°/100ft

End of 3D Arc : 90.00° Inc, 6504.01ft MD, 6146.00ft TVD, 774.03ft VS

MULE DEER O-32-29XRLNB LP REV-1 (470°FSL & 2690°FWL,SEC.32)

MULE DEER O-32-29XRLNB (MLT 2680°FWL)

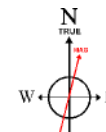
End of 3D Arc : 90.00° Inc, 11314.38ft MD, 6146.00ft TVD, 5577.67ft VS

2.00°/100ft

End of Tangent : 90.00° Inc, 11306.74ft MD, 6146.00ft TVD, 5570.05ft VS

Vertical Section (ft)

Azimuth 357.04° with reference 0.00 N, 0.00 E



BGGM (1900.0 to 2021.0) Dip: 66.89° Field: 51965 nT  
Magnetic North is 7.89 degrees East of True North (at 3/12/2020)

To correct azimuth from Magnetic to True add 7.89 degrees

Scale 1 inch = 2500  
-7500 -5000 -2500 0 2500

Easting (ft)

MULE DEER O-32-29XRLNB BHL REV-2  
(470°FNL & 2663°FEL,SEC.29)

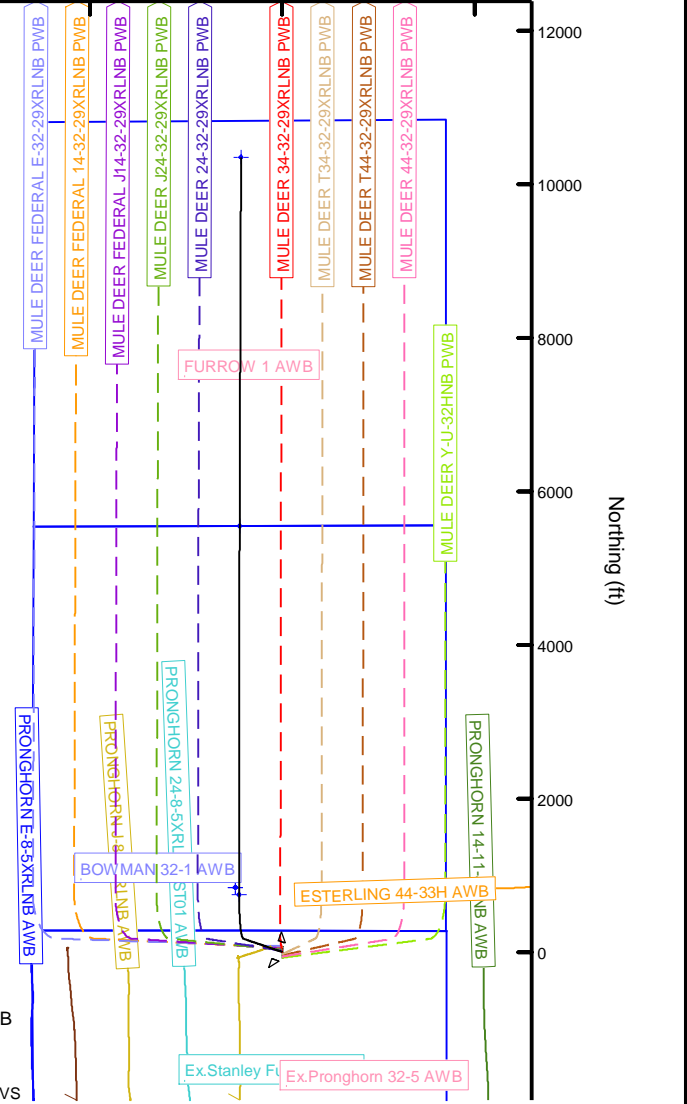
SEC.29-T06N-R61W

MULE DEER O-32-29XRLNB  
(MLT 2680°FWL)

SEC.32-T06N-R61W

MULE DEER O-32-29XRLNB LP REV-1  
(470°FSL & 2690°FWL,SEC.32)

9.625in Casing Surface :  
1495.20ft TVD, 31.01ft N, 90.24ft W  
SLOT#10 MULE DEER O-32-29XRLNB  
(276°FNL & 2131°FEL,SEC.05)



Scale 1 inch = 1500



Planned Wellpath Report

MULE DEER O-32-29XRLNB (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	MULE DEER O-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.05-T05N-R61W	Wellbore	MULE DEER O-32-29XRLNB PWB
Slot	SLOT#10 MULE DEER O-32-29XRLNB (276'FNL & 2131'FEL,SEC.05)		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	True	User	Robiale01
Scale	0.999962	Report Generated	3/12/2020 at 10:55:11 AM
Convergence at slot	0.82° East	Database	WellArchitectDB2

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-77.23	160.34	3353133.35	1404451.94	40°26'12.0768"N	104°13'52.8024"W
Facility Reference Pt			3352971.93	1404526.87	40°26'12.8400"N	104°13'54.8760"W
Field Reference Pt			3224525.77	1254425.87	40°01'44.4000"N	104°41'53.5560"W

WELLPATH DATUM			
Calculation method	Minimum curvature	RIG (17') (RKB) to Facility Vertical Datum	4676.00ft
Horizontal Reference Pt	Slot	RIG (17') (RKB) to Mean Sea Level	4676.00ft
Vertical Reference Pt	RIG (17') (RKB)	RIG (17') (RKB) to Ground Level at Slot (SLOT#10 MULE DEER O-32-29XRLNB (276'FNL & 2131'FEL,SEC.05))	4676.00ft
MD Reference Pt	RIG (17') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	357.04°



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	MULE DEER O-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.05-T05N-R61W	Wellbore	MULE DEER O-32-29XRLNB PWB
Slot	SLOT#10 MULE DEER O-32-29XRLNB (276'FNL & 2131'FEL,SEC.05)		

WELLPATH DATA (169 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	288.963	0.00	0.00	0.00	0.00	40°26'12.0768"N	104°13'52.8024"W	0.00	
17.00	0.000	288.963	17.00	0.00	0.00	0.00	40°26'12.0768"N	104°13'52.8024"W	0.00	Tie On
117.00†	0.000	288.963	117.00	0.00	0.00	0.00	40°26'12.0768"N	104°13'52.8024"W	0.00	
217.00†	0.000	288.963	217.00	0.00	0.00	0.00	40°26'12.0768"N	104°13'52.8024"W	0.00	
317.00†	0.000	288.963	317.00	0.00	0.00	0.00	40°26'12.0768"N	104°13'52.8024"W	0.00	
417.00†	0.000	288.963	417.00	0.00	0.00	0.00	40°26'12.0768"N	104°13'52.8024"W	0.00	
450.00	0.000	288.963	450.00	0.00	0.00	0.00	40°26'12.0768"N	104°13'52.8024"W	0.00	End of Tangent
517.00†	1.340	288.963	516.99	0.29	0.25	-0.74	40°26'12.0793"N	104°13'52.8120"W	2.00	
617.00†	3.340	288.963	616.91	1.82	1.58	-4.60	40°26'12.0924"N	104°13'52.8619"W	2.00	
717.00†	5.340	288.963	716.61	4.64	4.04	-11.76	40°26'12.1167"N	104°13'52.9545"W	2.00	
755.14	6.103	288.963	754.56	6.06	5.28	-15.35	40°26'12.1289"N	104°13'53.0010"W	2.00	End of Build
817.00†	6.103	288.963	816.07	8.52	7.41	-21.57	40°26'12.1501"N	104°13'53.0814"W	0.00	
917.00†	6.103	288.963	915.51	12.48	10.87	-31.63	40°26'12.1842"N	104°13'53.2114"W	0.00	
1017.00†	6.103	288.963	1014.94	16.45	14.32	-41.68	40°26'12.2183"N	104°13'53.3414"W	0.00	
1117.00†	6.103	288.963	1114.37	20.42	17.78	-51.74	40°26'12.2525"N	104°13'53.4715"W	0.00	
1217.00†	6.103	288.963	1213.81	24.39	21.23	-61.79	40°26'12.2866"N	104°13'53.6015"W	0.00	
1317.00†	6.103	288.963	1313.24	28.36	24.69	-71.84	40°26'12.3207"N	104°13'53.7315"W	0.00	
1417.00†	6.103	288.963	1412.67	32.33	28.14	-81.90	40°26'12.3549"N	104°13'53.8615"W	0.00	
1517.00†	6.103	288.963	1512.11	36.29	31.60	-91.95	40°26'12.3890"N	104°13'53.9916"W	0.00	
1617.00†	6.103	288.963	1611.54	40.26	35.05	-102.01	40°26'12.4232"N	104°13'54.1216"W	0.00	
1717.00†	6.103	288.963	1710.97	44.23	38.51	-112.06	40°26'12.4573"N	104°13'54.2516"W	0.00	
1817.00†	6.103	288.963	1810.41	48.20	41.96	-122.11	40°26'12.4914"N	104°13'54.3816"W	0.00	
1917.00†	6.103	288.963	1909.84	52.17	45.42	-132.17	40°26'12.5256"N	104°13'54.5117"W	0.00	
2017.00†	6.103	288.963	2009.27	56.14	48.87	-142.22	40°26'12.5597"N	104°13'54.6417"W	0.00	
2117.00†	6.103	288.963	2108.71	60.11	52.32	-152.28	40°26'12.5938"N	104°13'54.7717"W	0.00	
2217.00†	6.103	288.963	2208.14	64.07	55.78	-162.33	40°26'12.6280"N	104°13'54.9017"W	0.00	
2317.00†	6.103	288.963	2307.57	68.04	59.23	-172.39	40°26'12.6621"N	104°13'55.0318"W	0.00	
2417.00†	6.103	288.963	2407.01	72.01	62.69	-182.44	40°26'12.6963"N	104°13'55.1618"W	0.00	
2517.00†	6.103	288.963	2506.44	75.98	66.14	-192.49	40°26'12.7304"N	104°13'55.2918"W	0.00	
2617.00†	6.103	288.963	2605.87	79.95	69.60	-202.55	40°26'12.7645"N	104°13'55.4218"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	MULE DEER O-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.05-T05N-R61W	Wellbore	MULE DEER O-32-29XRLNB PWB
Slot	SLOT#10 MULE DEER O-32-29XRLNB (276'FNL & 2131'FEL,SEC.05)		

WELLPATH DATA (169 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2717.00†	6.103	288.963	2705.31	83.92	73.05	-212.60	40°26'12.7987"N	104°13'55.5519"W	0.00	
2817.00†	6.103	288.963	2804.74	87.88	76.51	-222.66	40°26'12.8328"N	104°13'55.6819"W	0.00	
2917.00†	6.103	288.963	2904.17	91.85	79.96	-232.71	40°26'12.8669"N	104°13'55.8119"W	0.00	
3017.00†	6.103	288.963	3003.61	95.82	83.42	-242.76	40°26'12.9011"N	104°13'55.9419"W	0.00	
3117.00†	6.103	288.963	3103.04	99.79	86.87	-252.82	40°26'12.9352"N	104°13'56.0720"W	0.00	
3217.00†	6.103	288.963	3202.47	103.76	90.33	-262.87	40°26'12.9694"N	104°13'56.2020"W	0.00	
3317.00†	6.103	288.963	3301.91	107.73	93.78	-272.93	40°26'13.0035"N	104°13'56.3320"W	0.00	
3417.00†	6.103	288.963	3401.34	111.70	97.24	-282.98	40°26'13.0376"N	104°13'56.4620"W	0.00	
3517.00†	6.103	288.963	3500.77	115.66	100.69	-293.03	40°26'13.0718"N	104°13'56.5921"W	0.00	
3617.00†	6.103	288.963	3600.20	119.63	104.15	-303.09	40°26'13.1059"N	104°13'56.7221"W	0.00	
3717.00†	6.103	288.963	3699.64	123.60	107.60	-313.14	40°26'13.1400"N	104°13'56.8521"W	0.00	
3817.00†	6.103	288.963	3799.07	127.57	111.05	-323.20	40°26'13.1742"N	104°13'56.9821"W	0.00	
3917.00†	6.103	288.963	3898.50	131.54	114.51	-333.25	40°26'13.2083"N	104°13'57.1122"W	0.00	
4017.00†	6.103	288.963	3997.94	135.51	117.96	-343.31	40°26'13.2425"N	104°13'57.2422"W	0.00	
4117.00†	6.103	288.963	4097.37	139.47	121.42	-353.36	40°26'13.2766"N	104°13'57.3722"W	0.00	
4217.00†	6.103	288.963	4196.80	143.44	124.87	-363.41	40°26'13.3107"N	104°13'57.5022"W	0.00	
4317.00†	6.103	288.963	4296.24	147.41	128.33	-373.47	40°26'13.3449"N	104°13'57.6323"W	0.00	
4417.00†	6.103	288.963	4395.67	151.38	131.78	-383.52	40°26'13.3790"N	104°13'57.7623"W	0.00	
4517.00†	6.103	288.963	4495.10	155.35	135.24	-393.58	40°26'13.4131"N	104°13'57.8923"W	0.00	
4617.00†	6.103	288.963	4594.54	159.32	138.69	-403.63	40°26'13.4473"N	104°13'58.0223"W	0.00	
4717.00†	6.103	288.963	4693.97	163.29	142.15	-413.68	40°26'13.4814"N	104°13'58.1524"W	0.00	
4817.00†	6.103	288.963	4793.40	167.25	145.60	-423.74	40°26'13.5155"N	104°13'58.2824"W	0.00	
4917.00†	6.103	288.963	4892.84	171.22	149.06	-433.79	40°26'13.5497"N	104°13'58.4124"W	0.00	
5017.00†	6.103	288.963	4992.27	175.19	152.51	-443.85	40°26'13.5838"N	104°13'58.5424"W	0.00	
5117.00†	6.103	288.963	5091.70	179.16	155.97	-453.90	40°26'13.6180"N	104°13'58.6725"W	0.00	
5217.00†	6.103	288.963	5191.14	183.13	159.42	-463.95	40°26'13.6521"N	104°13'58.8025"W	0.00	
5317.00†	6.103	288.963	5290.57	187.10	162.88	-474.01	40°26'13.6862"N	104°13'58.9325"W	0.00	
5417.00†	6.103	288.963	5390.00	191.06	166.33	-484.06	40°26'13.7204"N	104°13'59.0625"W	0.00	
5517.00†	6.103	288.963	5489.44	195.03	169.79	-494.12	40°26'13.7545"N	104°13'59.1926"W	0.00	
5617.00†	6.103	288.963	5588.87	199.00	173.24	-504.17	40°26'13.7886"N	104°13'59.3226"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	MULE DEER O-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.05-T05N-R61W	Wellbore	MULE DEER O-32-29XRLNB PWB
Slot	SLOT#10 MULE DEER O-32-29XRLNB (276'FNL & 2131'FEL,SEC.05)		

WELLPATH DATA (169 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5623.74	6.103	288.963	5595.57	199.27	173.47	-504.85	40°26'13.7909"N	104°13'59.3313"W	0.00	End of Tangent
5717.00†	12.672	333.338	5687.64	210.51	184.25	-514.15	40°26'13.8974"N	104°13'59.4516"W	10.00	
5817.00†	22.033	345.599	5783.01	239.01	212.29	-523.76	40°26'14.1745"N	104°13'59.5759"W	10.00	
5917.00†	31.774	350.675	5872.09	283.67	256.55	-532.71	40°26'14.6119"N	104°13'59.6917"W	10.00	
6017.00†	41.629	353.539	5952.17	343.14	315.69	-540.74	40°26'15.1962"N	104°13'59.7955"W	10.00	
6117.00†	51.531	355.464	6020.83	415.61	387.90	-547.59	40°26'15.9098"N	104°13'59.8841"W	10.00	
6217.00†	61.458	356.920	6075.96	498.88	470.99	-553.06	40°26'16.7309"N	104°13'59.9549"W	10.00	
6317.00†	71.397	358.123	6115.90	590.41	562.45	-556.98	40°26'17.6346"N	104°14'0.0057"W	10.00	
6417.00†	81.343	359.192	6139.44	687.44	659.48	-559.24	40°26'18.5935"N	104°14'0.0348"W	10.00	
6504.01	90.000	0.074	6146.00†	774.03	746.16	-559.79	40°26'19.4500"N	104°14'0.0420"W	10.00	End of 3D Arc
6517.00†	90.000	0.074	6146.00	787.00	759.15	-559.77	40°26'19.5783"N	104°14'0.0418"W	0.00	
6617.00†	90.000	0.074	6146.00	886.86	859.15	-559.64	40°26'20.5665"N	104°14'0.0401"W	0.00	
6717.00†	90.000	0.074	6146.00	986.72	959.15	-559.51	40°26'21.5546"N	104°14'0.0385"W	0.00	
6817.00†	90.000	0.074	6146.00	1086.58	1059.15	-559.38	40°26'22.5428"N	104°14'0.0368"W	0.00	
6917.00†	90.000	0.074	6146.00	1186.44	1159.15	-559.25	40°26'23.5309"N	104°14'0.0352"W	0.00	
7017.00†	90.000	0.074	6146.00	1286.30	1259.15	-559.12	40°26'24.5191"N	104°14'0.0335"W	0.00	
7117.00†	90.000	0.074	6146.00	1386.16	1359.15	-558.99	40°26'25.5072"N	104°14'0.0319"W	0.00	
7217.00†	90.000	0.074	6146.00	1486.02	1459.15	-558.86	40°26'26.4954"N	104°14'0.0302"W	0.00	
7317.00†	90.000	0.074	6146.00	1585.88	1559.15	-558.73	40°26'27.4836"N	104°14'0.0286"W	0.00	
7417.00†	90.000	0.074	6146.00	1685.74	1659.15	-558.60	40°26'28.4717"N	104°14'0.0269"W	0.00	
7517.00†	90.000	0.074	6146.00	1785.60	1759.15	-558.47	40°26'29.4599"N	104°14'0.0253"W	0.00	
7617.00†	90.000	0.074	6146.00	1885.46	1859.15	-558.34	40°26'30.4480"N	104°14'0.0236"W	0.00	
7717.00†	90.000	0.074	6146.00	1985.32	1959.15	-558.21	40°26'31.4362"N	104°14'0.0220"W	0.00	
7817.00†	90.000	0.074	6146.00	2085.18	2059.15	-558.08	40°26'32.4243"N	104°14'0.0204"W	0.00	
7917.00†	90.000	0.074	6146.00	2185.04	2159.15	-557.95	40°26'33.4125"N	104°14'0.0187"W	0.00	
8017.00†	90.000	0.074	6146.00	2284.90	2259.15	-557.82	40°26'34.4006"N	104°14'0.0171"W	0.00	
8117.00†	90.000	0.074	6146.00	2384.76	2359.15	-557.69	40°26'35.3888"N	104°14'0.0154"W	0.00	
8217.00†	90.000	0.074	6146.00	2484.62	2459.15	-557.56	40°26'36.3770"N	104°14'0.0138"W	0.00	
8317.00†	90.000	0.074	6146.00	2584.48	2559.15	-557.43	40°26'37.3651"N	104°14'0.0121"W	0.00	
8417.00†	90.000	0.074	6146.00	2684.34	2659.15	-557.30	40°26'38.3533"N	104°14'0.0105"W	0.00	





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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	MULE DEER O-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.05-T05N-R61W	Wellbore	MULE DEER O-32-29XRLNB PWB
Slot	SLOT#10 MULE DEER O-32-29XRLNB (276'FNL & 2131'FEL,SEC.05)		

WELLPATH DATA (169 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8517.00†	90.000	0.074	6146.00	2784.20	2759.15	-557.17	40°26'39.3414"N	104°14'0.0088"W	0.00	
8617.00†	90.000	0.074	6146.00	2884.06	2859.15	-557.04	40°26'40.3296"N	104°14'0.0072"W	0.00	
8717.00†	90.000	0.074	6146.00	2983.92	2959.15	-556.92	40°26'41.3177"N	104°14'0.0055"W	0.00	
8817.00†	90.000	0.074	6146.00	3083.78	3059.15	-556.79	40°26'42.3059"N	104°14'0.0039"W	0.00	
8917.00†	90.000	0.074	6146.00	3183.64	3159.15	-556.66	40°26'43.2940"N	104°14'0.0022"W	0.00	
9017.00†	90.000	0.074	6146.00	3283.50	3259.15	-556.53	40°26'44.2822"N	104°14'0.0006"W	0.00	
9117.00†	90.000	0.074	6146.00	3383.36	3359.15	-556.40	40°26'45.2704"N	104°13'59.9989"W	0.00	
9217.00†	90.000	0.074	6146.00	3483.22	3459.15	-556.27	40°26'46.2585"N	104°13'59.9973"W	0.00	
9317.00†	90.000	0.074	6146.00	3583.08	3559.15	-556.14	40°26'47.2467"N	104°13'59.9956"W	0.00	
9417.00†	90.000	0.074	6146.00	3682.94	3659.15	-556.01	40°26'48.2348"N	104°13'59.9940"W	0.00	
9517.00†	90.000	0.074	6146.00	3782.80	3759.15	-555.88	40°26'49.2230"N	104°13'59.9923"W	0.00	
9617.00†	90.000	0.074	6146.00	3882.66	3859.15	-555.75	40°26'50.2111"N	104°13'59.9907"W	0.00	
9717.00†	90.000	0.074	6146.00	3982.52	3959.15	-555.62	40°26'51.1993"N	104°13'59.9890"W	0.00	
9817.00†	90.000	0.074	6146.00	4082.38	4059.15	-555.49	40°26'52.1874"N	104°13'59.9874"W	0.00	
9917.00†	90.000	0.074	6146.00	4182.25	4159.15	-555.36	40°26'53.1756"N	104°13'59.9857"W	0.00	
10017.00†	90.000	0.074	6146.00	4282.11	4259.15	-555.23	40°26'54.1637"N	104°13'59.9841"W	0.00	
10117.00†	90.000	0.074	6146.00	4381.97	4359.15	-555.10	40°26'55.1519"N	104°13'59.9824"W	0.00	
10217.00†	90.000	0.074	6146.00	4481.83	4459.14	-554.97	40°26'56.1400"N	104°13'59.9808"W	0.00	
10317.00†	90.000	0.074	6146.00	4581.69	4559.14	-554.84	40°26'57.1282"N	104°13'59.9791"W	0.00	
10417.00†	90.000	0.074	6146.00	4681.55	4659.14	-554.71	40°26'58.1164"N	104°13'59.9775"W	0.00	
10517.00†	90.000	0.074	6146.00	4781.41	4759.14	-554.58	40°26'59.1045"N	104°13'59.9758"W	0.00	
10617.00†	90.000	0.074	6146.00	4881.27	4859.14	-554.45	40°27'0.0927"N	104°13'59.9742"W	0.00	
10717.00†	90.000	0.074	6146.00	4981.13	4959.14	-554.32	40°27'1.0808"N	104°13'59.9725"W	0.00	
10817.00†	90.000	0.074	6146.00	5080.99	5059.14	-554.19	40°27'2.0690"N	104°13'59.9709"W	0.00	
10917.00†	90.000	0.074	6146.00	5180.85	5159.14	-554.06	40°27'3.0571"N	104°13'59.9692"W	0.00	
11017.00†	90.000	0.074	6146.00	5280.71	5259.14	-553.93	40°27'4.0453"N	104°13'59.9676"W	0.00	
11117.00†	90.000	0.074	6146.00	5380.57	5359.14	-553.80	40°27'5.0334"N	104°13'59.9659"W	0.00	
11217.00†	90.000	0.074	6146.00	5480.43	5459.14	-553.67	40°27'6.0216"N	104°13'59.9643"W	0.00	
11306.74	90.000	0.074	6146.00 <sup>2</sup>	5570.05	5548.89	-553.55	40°27'6.9084"N	104°13'59.9628"W	0.00	End of Tangent
11314.38	90.000	0.227	6146.00	5577.67	5556.52	-553.53	40°27'6.9838"N	104°13'59.9625"W	2.00	End of 3D Arc



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	MULE DEER O-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.05-T05N-R61W	Wellbore	MULE DEER O-32-29XRLNB PWB
Slot	SLOT#10 MULE DEER O-32-29XRLNB (276'FNL & 2131'FEL,SEC.05)		

WELLPATH DATA (169 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11317.00†	90.000	0.227	6146.00	5580.29	5559.14	-553.52	40°27'7.0097"N	104°13'59.9624"W	0.00	
11417.00†	90.000	0.227	6146.00	5680.13	5659.14	-553.13	40°27'7.9979"N	104°13'59.9573"W	0.00	
11517.00†	90.000	0.227	6146.00	5779.98	5759.14	-552.73	40°27'8.9860"N	104°13'59.9522"W	0.00	
11617.00†	90.000	0.227	6146.00	5879.83	5859.14	-552.34	40°27'9.9742"N	104°13'59.9471"W	0.00	
11717.00†	90.000	0.227	6146.00	5979.67	5959.14	-551.94	40°27'10.9623"N	104°13'59.9420"W	0.00	
11817.00†	90.000	0.227	6146.00	6079.52	6059.14	-551.54	40°27'11.9505"N	104°13'59.9369"W	0.00	
11917.00†	90.000	0.227	6146.00	6179.36	6159.14	-551.15	40°27'12.9386"N	104°13'59.9318"W	0.00	
12017.00†	90.000	0.227	6146.00	6279.21	6259.14	-550.75	40°27'13.9268"N	104°13'59.9267"W	0.00	
12117.00†	90.000	0.227	6146.00	6379.05	6359.14	-550.36	40°27'14.9149"N	104°13'59.9216"W	0.00	
12217.00†	90.000	0.227	6146.00	6478.90	6459.14	-549.96	40°27'15.9030"N	104°13'59.9165"W	0.00	
12317.00†	90.000	0.227	6146.00	6578.75	6559.14	-549.56	40°27'16.8912"N	104°13'59.9115"W	0.00	
12417.00†	90.000	0.227	6146.00	6678.59	6659.14	-549.17	40°27'17.8793"N	104°13'59.9064"W	0.00	
12517.00†	90.000	0.227	6146.00	6778.44	6759.13	-548.77	40°27'18.8675"N	104°13'59.9013"W	0.00	
12617.00†	90.000	0.227	6146.00	6878.28	6859.13	-548.37	40°27'19.8556"N	104°13'59.8962"W	0.00	
12717.00†	90.000	0.227	6146.00	6978.13	6959.13	-547.98	40°27'20.8438"N	104°13'59.8911"W	0.00	
12817.00†	90.000	0.227	6146.00	7077.98	7059.13	-547.58	40°27'21.8319"N	104°13'59.8860"W	0.00	
12917.00†	90.000	0.227	6146.00	7177.82	7159.13	-547.19	40°27'22.8201"N	104°13'59.8809"W	0.00	
13017.00†	90.000	0.227	6146.00	7277.67	7259.13	-546.79	40°27'23.8082"N	104°13'59.8758"W	0.00	
13117.00†	90.000	0.227	6146.00	7377.51	7359.13	-546.39	40°27'24.7964"N	104°13'59.8707"W	0.00	
13217.00†	90.000	0.227	6146.00	7477.36	7459.13	-546.00	40°27'25.7845"N	104°13'59.8656"W	0.00	
13317.00†	90.000	0.227	6146.00	7577.20	7559.13	-545.60	40°27'26.7726"N	104°13'59.8605"W	0.00	
13417.00†	90.000	0.227	6146.00	7677.05	7659.13	-545.20	40°27'27.7608"N	104°13'59.8554"W	0.00	
13517.00†	90.000	0.227	6146.00	7776.90	7759.13	-544.81	40°27'28.7489"N	104°13'59.8503"W	0.00	
13617.00†	90.000	0.227	6146.00	7876.74	7859.13	-544.41	40°27'29.7371"N	104°13'59.8452"W	0.00	
13717.00†	90.000	0.227	6146.00	7976.59	7959.13	-544.02	40°27'30.7252"N	104°13'59.8401"W	0.00	
13817.00†	90.000	0.227	6146.00	8076.43	8059.12	-543.62	40°27'31.7134"N	104°13'59.8350"W	0.00	
13917.00†	90.000	0.227	6146.00	8176.28	8159.12	-543.22	40°27'32.7015"N	104°13'59.8299"W	0.00	
14017.00†	90.000	0.227	6146.00	8276.12	8259.12	-542.83	40°27'33.6897"N	104°13'59.8248"W	0.00	
14117.00†	90.000	0.227	6146.00	8375.97	8359.12	-542.43	40°27'34.6778"N	104°13'59.8197"W	0.00	
14217.00†	90.000	0.227	6146.00	8475.82	8459.12	-542.04	40°27'35.6660"N	104°13'59.8146"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	MULE DEER O-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.05-T05N-R61W	Wellbore	MULE DEER O-32-29XRLNB PWB
Slot	SLOT#10 MULE DEER O-32-29XRLNB (276'FNL & 2131'FEL,SEC.05)		

WELLPATH DATA (169 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14317.00†	90.000	0.227	6146.00	8575.66	8559.12	-541.64	40°27'36.6541"N	104°13'59.8095"W	0.00	
14417.00†	90.000	0.227	6146.00	8675.51	8659.12	-541.24	40°27'37.6422"N	104°13'59.8044"W	0.00	
14517.00†	90.000	0.227	6146.00	8775.35	8759.12	-540.85	40°27'38.6304"N	104°13'59.7993"W	0.00	
14617.00†	90.000	0.227	6146.00	8875.20	8859.12	-540.45	40°27'39.6185"N	104°13'59.7942"W	0.00	
14717.00†	90.000	0.227	6146.00	8975.05	8959.12	-540.05	40°27'40.6067"N	104°13'59.7891"W	0.00	
14817.00†	90.000	0.227	6146.00	9074.89	9059.12	-539.66	40°27'41.5948"N	104°13'59.7840"W	0.00	
14917.00†	90.000	0.227	6146.00	9174.74	9159.12	-539.26	40°27'42.5830"N	104°13'59.7789"W	0.00	
15017.00†	90.000	0.227	6146.00	9274.58	9259.11	-538.87	40°27'43.5711"N	104°13'59.7738"W	0.00	
15117.00†	90.000	0.227	6146.00	9374.43	9359.11	-538.47	40°27'44.5592"N	104°13'59.7687"W	0.00	
15217.00†	90.000	0.227	6146.00	9474.27	9459.11	-538.07	40°27'45.5474"N	104°13'59.7636"W	0.00	
15317.00†	90.000	0.227	6146.00	9574.12	9559.11	-537.68	40°27'46.5355"N	104°13'59.7585"W	0.00	
15417.00†	90.000	0.227	6146.00	9673.97	9659.11	-537.28	40°27'47.5237"N	104°13'59.7535"W	0.00	
15517.00†	90.000	0.227	6146.00	9773.81	9759.11	-536.89	40°27'48.5118"N	104°13'59.7484"W	0.00	
15617.00†	90.000	0.227	6146.00	9873.66	9859.11	-536.49	40°27'49.5000"N	104°13'59.7433"W	0.00	
15717.00†	90.000	0.227	6146.00	9973.50	9959.11	-536.09	40°27'50.4881"N	104°13'59.7382"W	0.00	
15817.00†	90.000	0.227	6146.00	10073.35	10059.11	-535.70	40°27'51.4763"N	104°13'59.7331"W	0.00	
15917.00†	90.000	0.227	6146.00	10173.20	10159.11	-535.30	40°27'52.4644"N	104°13'59.7280"W	0.00	
16017.00†	90.000	0.227	6146.00	10273.04	10259.11	-534.90	40°27'53.4525"N	104°13'59.7229"W	0.00	
16112.48	90.000	0.227	6146.00 <sup>‡</sup>	10368.37	10354.58	-534.53	40°27'54.3960"N	104°13'59.7180"W	0.00	End of Tangent

HOLE & CASING SECTIONS - Ref Wellbore: MULE DEER O-32-29XRLNB PWB      Ref Wellpath: MULE DEER O-32-29XRLNB (REV-B.0) PWP									
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	17.00	1500.00	1483.00	17.00	1495.20	0.00	0.00	31.01	-90.24
9.625in Casing Surface	17.00	1500.00	1483.00	17.00	1495.20	0.00	0.00	31.01	-90.24
8.5in Open Hole	1500.00	16112.48	14612.48	1495.20	6146.00	31.01	-90.24	10354.58	-534.53





Planned Wellpath Report

MULE DEER O-32-29XRLNB (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	MULE DEER O-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.05-T05N-R61W	Wellbore	MULE DEER O-32-29XRLNB PWB
Slot	SLOT#10 MULE DEER O-32-29XRLNB (276'FNL & 2131'FEL,SEC.05)		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.29-T06N-R61W	N/A	-2.00	841.21	-607.94	3352513.47	1405284.33	40°26'20.3892"N	104°14'0.6648"W	polygon
	2D Polygon: dimensions not calculated								
SEC.32-T06N-R61W	N/A	-2.00	841.21	-607.94	3352513.47	1405284.33	40°26'20.3892"N	104°14'0.6648"W	polygon
	2D Polygon: dimensions not calculated								
SEC.05-T05N-R61W	N/A	0.00	-9855.79	-1941.14	3351333.48	1394569.78	40°24'34.6850"N	104°14'17.8960"W	polygon
	2D Polygon: dimensions not calculated								
2) MULE DEER O-32-29XRLNB (MLT 2680'FWL)	11306.74	6146.00	5548.89	-553.55	3352500.50	1409992.12	40°27'6.9084"N	104°13'59.9628"W	point
3) MULE DEER O-32-29XRLNB BHL REV-2 (470'FNL & 2663'FEL,SEC.29)	16112.48	6146.00	10354.58	-534.53	3352450.77	1414797.41	40°27'54.3960"N	104°13'59.7180"W	point
1) MULE DEER O-32-29XRLNB LP REV-1 (470'FSL & 2690'FWL,SEC.32)	6504.01	6146.00	746.16	-559.79	3352562.97	1405189.99	40°26'19.4500"N	104°14'0.0420"W	point

SURVEY PROGRAM - Ref Wellbore: MULE DEER O-32-29XRLNB PWB    Ref Wellpath: MULE DEER O-32-29XRLNB (REV-B.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1500.00	BHI NaviTrak (Rotating+Axial Corr)		MULE DEER O-32-29XRLNB PWB
1500.00	16112.48	BH AutoTrak Curve (Short)		MULE DEER O-32-29XRLNB PWB



Planned Wellpath Report  
MULE DEER O-32-29XRLNB (REV-B.0) PWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK ENERGY	Well	MULE DEER O-32-29XRLNB
Field	WELD COUNTY (NAD83/TRUE)	API/Legal	
Facility	SEC.05-T05N-R61W	Wellbore	MULE DEER O-32-29XRLNB PWB
Slot	SLOT#10 MULE DEER O-32-29XRLNB (276'FNL & 2131'FEL,SEC.05)		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	288.963	17.00	Tie On
450.00	0.000	288.963	450.00	End of Tangent
755.14	6.103	288.963	754.56	End of Build
5623.74	6.103	288.963	5595.57	End of Tangent
6504.01	90.000	0.074	6146.00	End of 3D Arc
11306.74	90.000	0.074	6146.00	End of Tangent
11314.38	90.000	0.227	6146.00	End of 3D Arc
16112.48	90.000	0.227	6146.00	End of Tangent