

Location:	COLORADO	Slot:	SLOT#16 NORTH PLATTE FEDERAL 31-34-22HNB (373'FNL & 2404'FEL, SEC.22)
Field:	WELD COUNTY	Well:	NORTH PLATTE FEDERAL 31-34-22HNB
Facility:	SEC.22-T5N-R63W	Wellbore:	NORTH PLATTE FEDERAL 31-34-22HNB PWB

Location:	COLORADO	Slot:	SLOT#16 NORTH PLATTE FEDERAL 31-34-22HNB (373'FNL & 2404'FEL, SEC.22)
Field:	WELD COUNTY	Well:	NORTH PLATTE FEDERAL 31-34-22HNB
Facility:	SEC.22-T5N-R63W	Wellbore:	NORTH PLATTE FEDERAL 31-34-22HNB PWB

Plot reference wellpath is NORTH PLATTE FEDERAL 31-34-22HNB 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)		* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to XTREME 19 (17KB) (RKB)		North Reference: True north
XTREME 19 (17KB) (RKB) to Mean Sea Level: 4664 feet		Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOTF16 NORTH PLATTE FEDERAL 31-34-22HNB (373FNL & 2404FEL, SEC.22): 0 feet		Depths are in feet
Coordinates are in feet referenced to Slot		Created by: ingmjmr on 2017-12-29
		Database: Denver

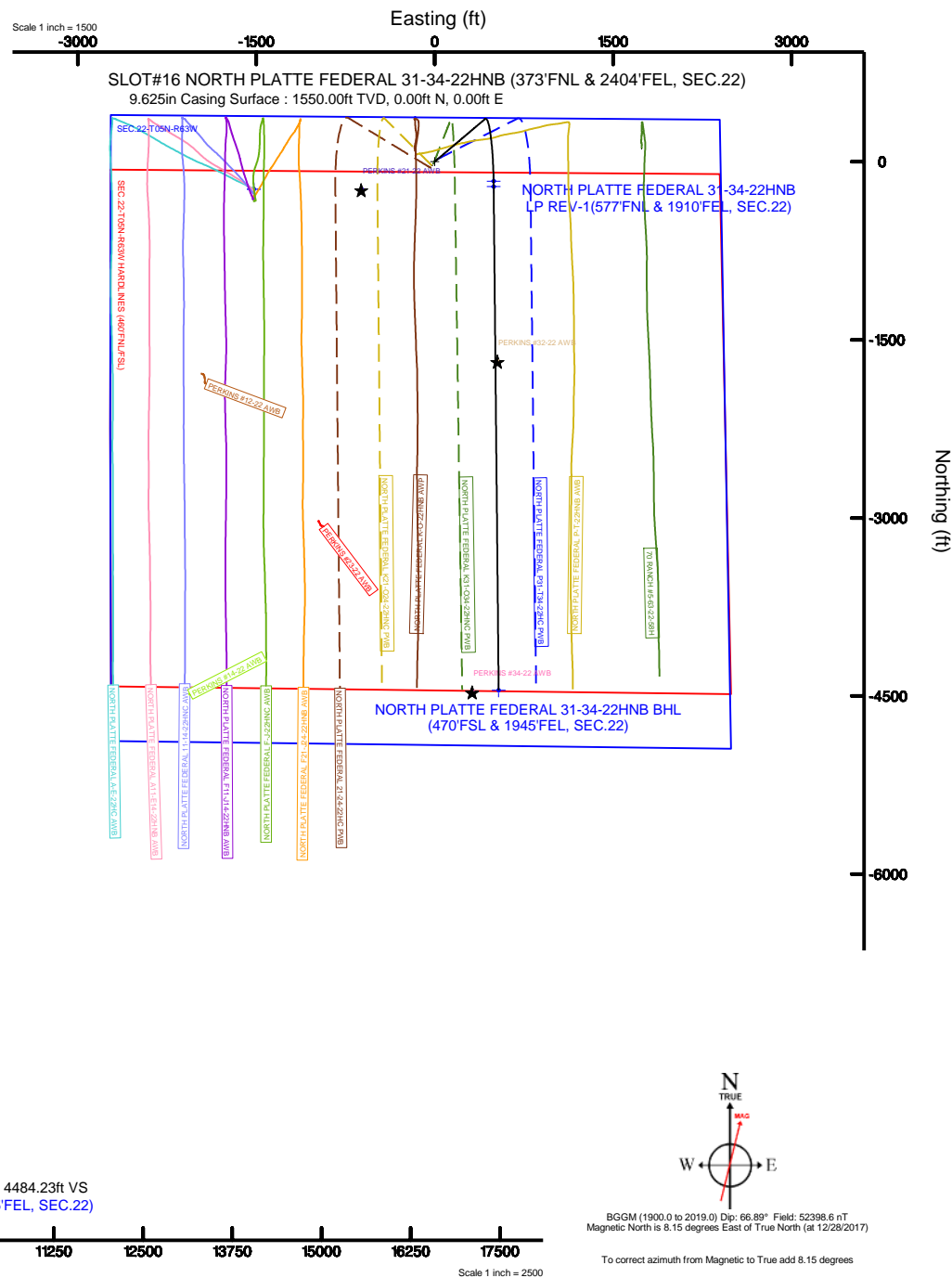
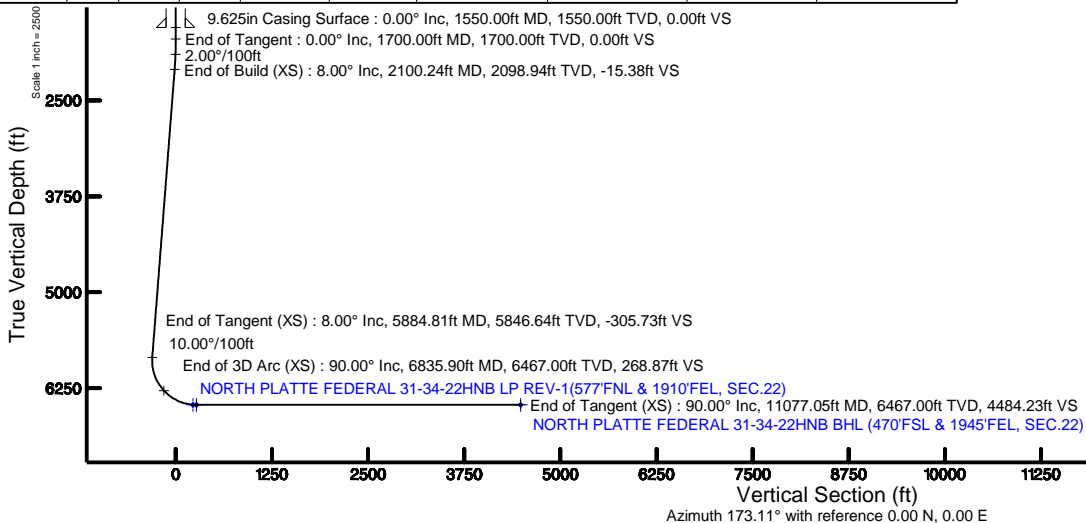
Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC 22-TSN R63W			3300293.873	1387201.531	40°22'28.532"N	104°25'18.833"W
Sht	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOTS16 NORTH PLATTE FEDERAL 31-34-22NH(373FN, & 2404FEL, SEC 22)	-61.53	149.88	3300444.484	1387141.853	40°22'27.024"N	104°25'18.896"W
XTREME 19 (17KS) (RKB) to Mud line (At Sht. SLOTS16 NORTH PLATTE FEDERAL 31-34-22NH(373FN, & 2404FEL, SEC 22))					-666.4ft	
Mean Sea Level to Mud line (At Sht. SLOTS16 NORTH PLATTE FEDERAL 31-34-22NH(373FN, & 2404FEL, SEC 22))					0ft	
XTREME 19 (17KS) (RKB) to Mean Sea Level					-666.4ft	

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	49.683	17.00	0.00	0.00	0.00	0.00
End of Tangent	1700.00	0.000	49.683	1700.00	0.00	0.00	0.00	0.00
End of Build (XS)	2100.24	8.005	49.683	2098.94	18.06	21.28	2.00	-15.38
End of Tangent (XS)	5884.81	8.005	49.683	5846.64	359.06	423.13	0.00	-305.73
End of 3D Arc (XS)	6835.90	90.000	179.434	6467.00	-210.94	495.84	10.00	268.87
End of Tangent (XS)	11077.05	90.000	179.434	6467.00	-4451.88	537.72	0.00	4484.23

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
9.625in Casing Surface	17.00	1550.00	1533.00	17.00	1550.00	0.00	0.00	0.00	0.00	NORTH PLATTE FEDERAL 31-34-22HNS PWB

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NavTrak	BHI NavTrak (Rotating+Axial Corr)		NORTH PLATTE FEDERAL 31-34-22HNS PWB
1550.00	11077.05	BHI AutoTrak Curve	BHI AutoTrak Curve (Axial Corr, Short spacing)		NORTH PLATTE FEDERAL 31-34-22HNS PWB

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
11077.05	90.000	179.434	6467.00	-4451.88	537.72	3301036.29	1382697.01	40°22'43.932"N	104°25'09.948"W





Planned Wellpath Report

NORTH PLATTE FEDERAL 31-34-22HNB PWP (REV-A.0)

Page 1 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 NORTH PLATTE FEDERAL 31-34-22HNB (373'FNL & 2404'FEL, SEC.22)
Area	COLORADO	Well	NORTH PLATTE FEDERAL 31-34-22HNB
Field	WELD COUNTY	Wellbore	NORTH PLATTE FEDERAL 31-34-22HNB PWB
Facility	SEC.22-T5N-R63W		

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	0.999960	Report Generated	12/29/2017 at 2:14:45 PM
Convergence at slot	0.70° East	Database/Source file	Denver/NORTH_PLATTE_FEDERAL_31-34-22HNB_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	-61.53	149.88	3300444.48	1387141.83	40°23'27.924"N	104°25'16.896"W
Facility Reference Pt			3300293.87	1387201.53	40°23'28.532"N	104°25'18.833"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	4664.00ft
Horizontal Reference Pt	Slot	XTREME 19 (17'KB) (RKB) to Mean Sea Level	4664.00ft
Vertical Reference Pt	XTREME 19 (17'KB) (RKB)	XTREME 19 (17'KB) (RKB) to Mud Line at Slot (SLOT#16 NORTH PLATTE FEDERAL 31-34-22HNB (373'FNL & 2404'FEL, SEC.22))	4664.00ft
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	173.11°



Planned Wellpath Report

NORTH PLATTE FEDERAL 31-34-22HNB PWP (REV-A.0)

Page 2 of 8



REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 NORTH PLATTE FEDERAL 31-34-22HNB (373'FNL & 2404'FEL, SEC.22)
Area	COLORADO	Well	NORTH PLATTE FEDERAL 31-34-22HNB
Field	WELD COUNTY	Wellbore	NORTH PLATTE FEDERAL 31-34-22HNB PWB
Facility	SEC.22-T5N-R63W		

WELLPATH DATA (125 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	49.683	0.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
17.00	0.000	49.683	17.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	Tie On
117.00†	0.000	49.683	117.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
217.00†	0.000	49.683	217.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
317.00†	0.000	49.683	317.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
417.00†	0.000	49.683	417.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
517.00†	0.000	49.683	517.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
617.00†	0.000	49.683	617.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
717.00†	0.000	49.683	717.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
817.00†	0.000	49.683	817.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
917.00†	0.000	49.683	917.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
1017.00†	0.000	49.683	1017.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
1117.00†	0.000	49.683	1117.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
1217.00†	0.000	49.683	1217.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
1317.00†	0.000	49.683	1317.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
1417.00†	0.000	49.683	1417.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
1517.00†	0.000	49.683	1517.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
1617.00†	0.000	49.683	1617.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	
1700.00	0.000	49.683	1700.00	0.00	0.00	0.00	40°23'27.924"N	104°25'16.896"W	0.00	End of Tangent
1717.00†	0.340	49.683	1717.00	-0.03	0.03	0.04	40°23'27.924"N	104°25'16.896"W	2.00	
1817.00†	2.340	49.683	1816.97	-1.32	1.55	1.82	40°23'27.939"N	104°25'16.872"W	2.00	
1917.00†	4.340	49.683	1916.79	-4.53	5.31	6.26	40°23'27.977"N	104°25'16.815"W	2.00	
2017.00†	6.340	49.683	2016.35	-9.65	11.34	13.36	40°23'28.036"N	104°25'16.723"W	2.00	
2100.24	8.005	49.683	2098.94	-15.38	18.06	21.28	40°23'28.102"N	104°25'16.621"W	2.00	End of Build (XS)
2117.00†	8.005	49.683	2115.54	-16.66	19.57	23.06	40°23'28.117"N	104°25'16.598"W	0.00	
2217.00†	8.005	49.683	2214.56	-24.34	28.58	33.68	40°23'28.206"N	104°25'16.461"W	0.00	
2317.00†	8.005	49.683	2313.59	-32.01	37.59	44.30	40°23'28.295"N	104°25'16.323"W	0.00	
2417.00†	8.005	49.683	2412.61	-39.68	46.60	54.92	40°23'28.384"N	104°25'16.186"W	0.00	
2517.00†	8.005	49.683	2511.64	-47.35	55.61	65.54	40°23'28.474"N	104°25'16.049"W	0.00	
2617.00†	8.005	49.683	2610.66	-55.02	64.62	76.15	40°23'28.563"N	104°25'15.912"W	0.00	



Planned Wellpath Report

NORTH PLATTE FEDERAL 31-34-22HNB PWP (REV-A.0)

Page 3 of 8



REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 NORTH PLATTE FEDERAL 31-34-22HNB (373'FNL & 2404'FEL, SEC.22)
Area	COLORADO	Well	NORTH PLATTE FEDERAL 31-34-22HNB
Field	WELD COUNTY	Wellbore	NORTH PLATTE FEDERAL 31-34-22HNB PWB
Facility	SEC.22-T5N-R63W		

WELLPATH DATA (125 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2717.00†	8.005	49.683	2709.69	-62.70	73.63	86.77	40°23'28.652"N	104°25'15.775"W	0.00	
2817.00†	8.005	49.683	2808.72	-70.37	82.64	97.39	40°23'28.741"N	104°25'15.637"W	0.00	
2917.00†	8.005	49.683	2907.74	-78.04	91.65	108.01	40°23'28.830"N	104°25'15.500"W	0.00	
3017.00†	8.005	49.683	3006.77	-85.71	100.66	118.63	40°23'28.919"N	104°25'15.363"W	0.00	
3117.00†	8.005	49.683	3105.79	-93.38	109.67	129.24	40°23'29.008"N	104°25'15.226"W	0.00	
3217.00†	8.005	49.683	3204.82	-101.05	118.68	139.86	40°23'29.097"N	104°25'15.088"W	0.00	
3317.00†	8.005	49.683	3303.84	-108.73	127.69	150.48	40°23'29.186"N	104°25'14.951"W	0.00	
3417.00†	8.005	49.683	3402.87	-116.40	136.70	161.10	40°23'29.275"N	104°25'14.814"W	0.00	
3478.73†	8.005	49.683	3464.00	-121.13	142.26	167.65	40°23'29.330"N	104°25'14.729"W	0.00	Parkman
3517.00†	8.005	49.683	3501.89	-124.07	145.71	171.72	40°23'29.364"N	104°25'14.677"W	0.00	
3617.00†	8.005	49.683	3600.92	-131.74	154.72	182.33	40°23'29.453"N	104°25'14.540"W	0.00	
3717.00†	8.005	49.683	3699.95	-139.41	163.73	192.95	40°23'29.542"N	104°25'14.402"W	0.00	
3817.00†	8.005	49.683	3798.97	-147.09	172.74	203.57	40°23'29.631"N	104°25'14.265"W	0.00	
3917.00†	8.005	49.683	3898.00	-154.76	181.75	214.19	40°23'29.720"N	104°25'14.128"W	0.00	
4017.00†	8.005	49.683	3997.02	-162.43	190.76	224.81	40°23'29.809"N	104°25'13.991"W	0.00	
4117.00†	8.005	49.683	4096.05	-170.10	199.77	235.42	40°23'29.898"N	104°25'13.853"W	0.00	
4217.00†	8.005	49.683	4195.07	-177.77	208.78	246.04	40°23'29.987"N	104°25'13.716"W	0.00	
4317.00†	8.005	49.683	4294.10	-185.45	217.79	256.66	40°23'30.076"N	104°25'13.579"W	0.00	
4417.00†	8.005	49.683	4393.13	-193.12	226.80	267.28	40°23'30.165"N	104°25'13.442"W	0.00	
4517.00†	8.005	49.683	4492.15	-200.79	235.81	277.90	40°23'30.254"N	104°25'13.305"W	0.00	
4617.00†	8.005	49.683	4591.18	-208.46	244.82	288.52	40°23'30.343"N	104°25'13.167"W	0.00	
4717.00†	8.005	49.683	4690.20	-216.13	253.83	299.13	40°23'30.432"N	104°25'13.030"W	0.00	
4817.00†	8.005	49.683	4789.23	-223.81	262.84	309.75	40°23'30.521"N	104°25'12.893"W	0.00	
4917.00†	8.005	49.683	4888.25	-231.48	271.85	320.37	40°23'30.610"N	104°25'12.756"W	0.00	
5017.00†	8.005	49.683	4987.28	-239.15	280.87	330.99	40°23'30.699"N	104°25'12.618"W	0.00	
5117.00†	8.005	49.683	5086.30	-246.82	289.88	341.61	40°23'30.788"N	104°25'12.481"W	0.00	
5217.00†	8.005	49.683	5185.33	-254.49	298.89	352.22	40°23'30.877"N	104°25'12.344"W	0.00	
5317.00†	8.005	49.683	5284.36	-262.16	307.90	362.84	40°23'30.966"N	104°25'12.207"W	0.00	
5417.00†	8.005	49.683	5383.38	-269.84	316.91	373.46	40°23'31.056"N	104°25'12.069"W	0.00	
5517.00†	8.005	49.683	5482.41	-277.51	325.92	384.08	40°23'31.145"N	104°25'11.932"W	0.00	



Planned Wellpath Report

NORTH PLATTE FEDERAL 31-34-22HNB PWP (REV-A.0)

Page 4 of 8



REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 NORTH PLATTE FEDERAL 31-34-22HNB (373'FNL & 2404'FEL, SEC.22)
Area	COLORADO	Well	NORTH PLATTE FEDERAL 31-34-22HNB
Field	WELD COUNTY	Wellbore	NORTH PLATTE FEDERAL 31-34-22HNB PWB
Facility	SEC.22-T5N-R63W		

WELLPATH DATA (125 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5617.00†	8.005	49.683	5581.43	-285.18	334.93	394.70	40°23'31.234"N	104°25'11.795"W	0.00	
5717.00†	8.005	49.683	5680.46	-292.85	343.94	405.31	40°23'31.323"N	104°25'11.658"W	0.00	
5817.00†	8.005	49.683	5779.48	-300.52	352.95	415.93	40°23'31.412"N	104°25'11.521"W	0.00	
5884.81	8.005	49.683	5846.64	-305.73	359.06	423.13	40°23'31.472"N	104°25'11.427"W	0.00	End of Tangent (XS)
5917.00†	6.453	72.367	5878.57	-307.30	361.05	426.57	40°23'31.492"N	104°25'11.383"W	10.00	
6017.00†	10.178	142.405	5977.72	-300.73	355.74	437.34	40°23'31.439"N	104°25'11.244"W	10.00	
6117.00†	19.099	161.239	6074.43	-277.07	333.19	448.02	40°23'31.216"N	104°25'11.106"W	10.00	
6217.00†	28.725	168.056	6165.75	-237.02	294.09	458.28	40°23'30.830"N	104°25'10.973"W	10.00	
6295.67†	36.432	171.011	6232.00	-194.78	252.46	465.85	40°23'30.419"N	104°25'10.875"W	10.00	Sharon Springs
6317.00†	38.531	171.631	6248.93	-181.81	239.63	467.81	40°23'30.292"N	104°25'10.850"W	10.00	
6382.84†	45.029	173.234	6298.00	-137.97	196.16	473.54	40°23'29.862"N	104°25'10.776"W	10.00	Sharon Springs "A"
6417.00†	48.407	173.927	6321.42	-113.10	171.46	476.32	40°23'29.618"N	104°25'10.740"W	10.00	
6436.32†	50.320	174.288	6334.00	-98.44	156.87	477.83	40°23'29.474"N	104°25'10.721"W	10.00	Sharon Springs "B"
6500.22†	56.652	175.354	6372.00	-47.14	105.75	482.44	40°23'28.969"N	104°25'10.661"W	10.00	Niobrara "A" Chalk
6517.00†	58.316	175.608	6381.02	-33.00	91.65	483.55	40°23'28.830"N	104°25'10.647"W	10.00	
6528.57†	59.464	175.778	6387.00	-23.10	81.77	484.30	40°23'28.732"N	104°25'10.637"W	10.00	Niobrara "A" Marl
6617.00†	68.243	176.961	6425.93	56.06	2.63	489.29	40°23'27.950"N	104°25'10.573"W	10.00	
6691.48†	75.644	177.849	6449.00	126.63	-68.07	492.48	40°23'27.251"N	104°25'10.531"W	10.00	Niobrara "B" Chalk
6717.00†	78.180	178.138	6454.78	151.39	-92.90	493.35	40°23'27.006"N	104°25'10.520"W	10.00	
6817.00†	88.121	179.231	6466.69	250.08	-192.04	495.62	40°23'26.026"N	104°25'10.491"W	10.00	
6835.90†	90.000	179.434	6467.00	268.87	-210.93	495.84	40°23'25.840"N	104°25'10.488"W	10.00	Niobrara "B" Target
6835.90	90.000	179.434	6467.00†	268.87	-210.94	495.84	40°23'25.840"N	104°25'10.488"W	10.00	End of 3D Arc (XS)
6917.00†	90.000	179.434	6467.00	349.47	-292.03	496.64	40°23'25.038"N	104°25'10.478"W	0.00	
7017.00†	90.000	179.434	6467.00	448.87	-392.02	497.63	40°23'24.050"N	104°25'10.465"W	0.00	
7117.00†	90.000	179.434	6467.00	548.26	-492.02	498.61	40°23'23.062"N	104°25'10.452"W	0.00	
7217.00†	90.000	179.434	6467.00	647.65	-592.01	499.60	40°23'22.074"N	104°25'10.439"W	0.00	
7317.00†	90.000	179.434	6467.00	747.04	-692.01	500.59	40°23'21.086"N	104°25'10.427"W	0.00	
7417.00†	90.000	179.434	6467.00	846.43	-792.00	501.58	40°23'20.098"N	104°25'10.414"W	0.00	
7517.00†	90.000	179.434	6467.00	945.83	-892.00	502.56	40°23'19.110"N	104°25'10.401"W	0.00	
7617.00†	90.000	179.434	6467.00	1045.22	-991.99	503.55	40°23'18.121"N	104°25'10.389"W	0.00	



Planned Wellpath Report

NORTH PLATTE FEDERAL 31-34-22HNB PWP (REV-A.0)

Page 5 of 8



REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 NORTH PLATTE FEDERAL 31-34-22HNB (373'FNL & 2404'FEL, SEC.22)
Area	COLORADO	Well	NORTH PLATTE FEDERAL 31-34-22HNB
Field	WELD COUNTY	Wellbore	NORTH PLATTE FEDERAL 31-34-22HNB PWB
Facility	SEC.22-T5N-R63W		

WELLPATH DATA (125 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	179.434	6467.00	1144.61	-1091.99	504.54	40°23'17.133"N	104°25'10.376"W	0.00	
7817.00†	90.000	179.434	6467.00	1244.00	-1191.98	505.53	40°23'16.145"N	104°25'10.363"W	0.00	
7917.00†	90.000	179.434	6467.00	1343.39	-1291.98	506.51	40°23'15.157"N	104°25'10.350"W	0.00	
8017.00†	90.000	179.434	6467.00	1442.79	-1391.98	507.50	40°23'14.169"N	104°25'10.338"W	0.00	
8117.00†	90.000	179.434	6467.00	1542.18	-1491.97	508.49	40°23'13.181"N	104°25'10.325"W	0.00	
8217.00†	90.000	179.434	6467.00	1641.57	-1591.97	509.47	40°23'12.193"N	104°25'10.312"W	0.00	
8317.00†	90.000	179.434	6467.00	1740.96	-1691.96	510.46	40°23'11.205"N	104°25'10.299"W	0.00	
8417.00†	90.000	179.434	6467.00	1840.35	-1791.96	511.45	40°23'10.216"N	104°25'10.287"W	0.00	
8517.00†	90.000	179.434	6467.00	1939.75	-1891.95	512.44	40°23'09.228"N	104°25'10.274"W	0.00	
8617.00†	90.000	179.434	6467.00	2039.14	-1991.95	513.42	40°23'08.240"N	104°25'10.261"W	0.00	
8717.00†	90.000	179.434	6467.00	2138.53	-2091.94	514.41	40°23'07.252"N	104°25'10.248"W	0.00	
8817.00†	90.000	179.434	6467.00	2237.92	-2191.94	515.40	40°23'06.264"N	104°25'10.236"W	0.00	
8917.00†	90.000	179.434	6467.00	2337.31	-2291.93	516.39	40°23'05.276"N	104°25'10.223"W	0.00	
9017.00†	90.000	179.434	6467.00	2436.71	-2391.93	517.37	40°23'04.288"N	104°25'10.210"W	0.00	
9117.00†	90.000	179.434	6467.00	2536.10	-2491.92	518.36	40°23'03.300"N	104°25'10.198"W	0.00	
9217.00†	90.000	179.434	6467.00	2635.49	-2591.92	519.35	40°23'02.312"N	104°25'10.185"W	0.00	
9317.00†	90.000	179.434	6467.00	2734.88	-2691.91	520.34	40°23'01.323"N	104°25'10.172"W	0.00	
9417.00†	90.000	179.434	6467.00	2834.28	-2791.91	521.32	40°23'00.335"N	104°25'10.159"W	0.00	
9517.00†	90.000	179.434	6467.00	2933.67	-2891.90	522.31	40°22'59.347"N	104°25'10.147"W	0.00	
9617.00†	90.000	179.434	6467.00	3033.06	-2991.90	523.30	40°22'58.359"N	104°25'10.134"W	0.00	
9717.00†	90.000	179.434	6467.00	3132.45	-3091.89	524.29	40°22'57.371"N	104°25'10.121"W	0.00	
9817.00†	90.000	179.434	6467.00	3231.84	-3191.89	525.27	40°22'56.383"N	104°25'10.108"W	0.00	
9917.00†	90.000	179.434	6467.00	3331.24	-3291.88	526.26	40°22'55.395"N	104°25'10.096"W	0.00	
10017.00†	90.000	179.434	6467.00	3430.63	-3391.88	527.25	40°22'54.407"N	104°25'10.083"W	0.00	
10117.00†	90.000	179.434	6467.00	3530.02	-3491.87	528.24	40°22'53.418"N	104°25'10.070"W	0.00	
10217.00†	90.000	179.434	6467.00	3629.41	-3591.87	529.22	40°22'52.430"N	104°25'10.057"W	0.00	
10317.00†	90.000	179.434	6467.00	3728.80	-3691.86	530.21	40°22'51.442"N	104°25'10.045"W	0.00	
10417.00†	90.000	179.434	6467.00	3828.20	-3791.86	531.20	40°22'50.454"N	104°25'10.032"W	0.00	
10517.00†	90.000	179.434	6467.00	3927.59	-3891.85	532.19	40°22'49.466"N	104°25'10.019"W	0.00	
10617.00†	90.000	179.434	6467.00	4026.98	-3991.85	533.17	40°22'48.478"N	104°25'10.007"W	0.00	



Planned Wellpath Report

NORTH PLATTE FEDERAL 31-34-22HNB PWP (REV-A.0)

Page 6 of 8



REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 NORTH PLATTE FEDERAL 31-34-22HNB (373'FNL & 2404'FEL, SEC.22)
Area	COLORADO	Well	NORTH PLATTE FEDERAL 31-34-22HNB
Field	WELD COUNTY	Wellbore	NORTH PLATTE FEDERAL 31-34-22HNB PWB
Facility	SEC.22-T5N-R63W		

WELLPATH DATA (125 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10717.00†	90.000	179.434	6467.00	4126.37	-4091.84	534.16	40°22'47.490"N	104°25'09.994"W	0.00	
10817.00†	90.000	179.434	6467.00	4225.76	-4191.84	535.15	40°22'46.502"N	104°25'09.981"W	0.00	
10917.00†	90.000	179.434	6467.00	4325.16	-4291.83	536.13	40°22'45.513"N	104°25'09.968"W	0.00	
11017.00†	90.000	179.434	6467.00	4424.55	-4391.83	537.12	40°22'44.525"N	104°25'09.956"W	0.00	
11077.05	90.000	179.434	6467.00 ²	4484.23	-4451.88	537.72	40°22'43.932"N	104°25'09.948"W	0.00	End of Tangent (XS)

HOLE & CASING SECTIONS									
- Ref Wellbore: NORTH PLATTE FEDERAL 31-34-22HNB PWB					Ref Wellpath: NORTH PLATTE FEDERAL 31-34-22HNB 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	1550.00	1533.00	17.00	1550.00	0.00	0.00	0.00	0.00

TARGETS										
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape	
SEC.22-T05N-R63W		-11.00	-233.11	-1520.94	3298926.55	1386890.25	40°23'25.620"N	104°25'36.552"W	polygon	
2) NORTH PLATTE FEDERAL 31-34-22HNB BHL (470'FSL & 1945'FEL, SEC.22)	11077.05	6467.00	-4451.88	537.72	3301036.29	1382697.01	40°22'43.932"N	104°25'09.948"W	point	
NORTH PLATTE FEDERAL 31-34-22HNB LP (531'FNL & 1910'FEL, SEC.22)		6467.00	-163.94	495.84	3300942.26	1386983.95	40°23'26.304"N	104°25'10.488"W	point	
1) NORTH PLATTE FEDERAL 31-34-22HNB LP REV-1(577'FNL & 1910'FEL, SEC.22)	6835.90	6467.00	-210.94	495.84	3300942.83	1386936.95	40°23'25.840"N	104°25'10.488"W	point	
SEC.22-T05N-R63W HARDLINES (460'FNL/FSL)		6615.00	-233.11	-1520.94	3298926.55	1386890.25	40°23'25.620"N	104°25'36.552"W	polygon	



Planned Wellpath Report

NORTH PLATTE FEDERAL 31-34-22HNB PWP (REV-A.0)

Page 7 of 8



REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 NORTH PLATTE FEDERAL 31-34-22HNB (373'FNL & 2404'FEL, SEC.22)
Area	COLORADO	Well	NORTH PLATTE FEDERAL 31-34-22HNB
Field	WELD COUNTY	Wellbore	NORTH PLATTE FEDERAL 31-34-22HNB PWB
Facility	SEC.22-T5N-R63W		

SURVEY PROGRAM -				
Ref Wellbore: NORTH PLATTE FEDERAL 31-34-22HNB PWB Ref Wellpath: NORTH PLATTE FEDERAL 31-34-22HNB PWP (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1550.00	BHI NaviTrak (Rotating+Axial Corr)		NORTH PLATTE FEDERAL 31-34-22HNB PWB
1550.00	11077.05	BHI AutoTrak Curve (Axial Corr, Short spacing)		NORTH PLATTE FEDERAL 31-34-22HNB PWB



Planned Wellpath Report

NORTH PLATTE FEDERAL 31-34-22HNB PWP (REV-A.0)

Page 8 of 8



REFERENCE WELLPATH IDENTIFICATION			
Operator	BONANZA CREEK OIL COMPANY	Slot	SLOT#16 NORTH PLATTE FEDERAL 31-34-22HNB (373'FNL & 2404'FEL, SEC.22)
Area	COLORADO	Well	NORTH PLATTE FEDERAL 31-34-22HNB
Field	WELD COUNTY	Wellbore	NORTH PLATTE FEDERAL 31-34-22HNB PWB
Facility	SEC.22-T5N-R63W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
3478.73	8.005	49.683	3464.00	Parkman
6295.67	36.432	171.011	6232.00	Sharon Springs
6382.84	45.029	173.234	6298.00	Sharon Springs "A"
6436.32	50.320	174.288	6334.00	Sharon Springs "B"
6500.22	56.652	175.354	6372.00	Niobrara "A" Chalk
6528.57	59.464	175.778	6387.00	Niobrara "A" Marl
6691.48	75.644	177.849	6449.00	Niobrara "B" Chalk
6835.90	90.000	179.434	6467.00	Niobrara "B" Target

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	49.683	17.00	Tie On
1700.00	0.000	49.683	1700.00	End of Tangent
2100.24	8.005	49.683	2098.94	End of Build (XS)
5884.81	8.005	49.683	5846.64	End of Tangent (XS)
6835.90	90.000	179.434	6467.00	End of 3D Arc (XS)
11077.05	90.000	179.434	6467.00	End of Tangent (XS)