

EXTRACTION OIL & GAS

Location: COLORADO Slot: SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09)
Field: WELD COUNTY (NAD83/TRUE NORTH) Well: WINDER #12
Facility: SEC.09-T06N-R67W Wellbore: WINDER #12 PWB

Plot reference wellpath is WINDER #12 PWP (REV-B.0)

True vertical depths are referenced to SAVANNA 802 (15KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to SAVANNA 802 (15KB) (RKB)	North Reference: True north
SAVANNA 802 (15KB) (RKB) to Mean Sea Level: 4883 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: ingmjamm on 7/20/2015

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.09-T06N-R67W			3169265.228	1428175.850	40°30'25.736"N	104°53'28.612"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09)	-285.99	-2.47	3169264.720	1427889.860	40°30'22.910"N	104°53'28.644"W
SAVANNA 802 (15KB) (RKB) to Mud line (At Slot: SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09))					4883ft	
Mean Sea Level to Mud line (At Slot: SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09))					0ft	
SAVANNA 802 (15KB) (RKB) to Mean Sea Level					4883ft	

Targets

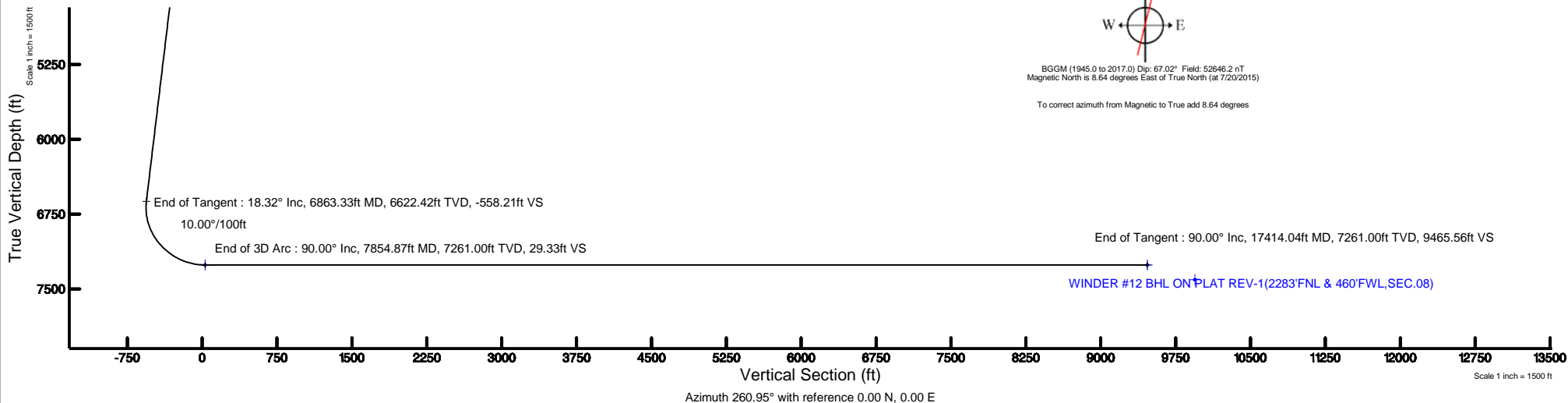
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
TWELL/WINDER 1/2 SECTION 08		47.00	-3048.19	-9582.23	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W
TWELL/WINDER 1/2 SECTION 09		47.00	-3048.19	-9582.23	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W
TWELL/WINDER SECTION 08		47.00	-3048.19	-9582.23	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W
TWELL/WINDER SECTION 09		47.00	-3048.19	-9582.23	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W
WINDER #12 BHL ON PLAT REV-1(2283'FNL & 460'FWL,SEC.08)	17414.04	7261.00	-1488.62	-9347.77	3159627.71	1426337.17	40°30'08.183"N	104°55'29.651"W
WINDER #12 LANDING POINT	7854.87	7261.00	-1513.70	211.36	3169486.45	1426377.70	40°30'07.952"N	104°53'25.908"W
TWELL/WINDER PAD CENTER SECTION HARDLINE(460'SETBACKS)	7409.00		-3048.19	-9582.23	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
15.00	17414.04	NaviTrak	NaviTrak (Standard)		WINDER #12 PWB

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	15.00	0.000	149.743	15.00	0.00	0.00	0.00	0.00
End of Tangent	1500.00	0.000	149.743	1500.00	0.00	0.00	0.00	0.00
End of Build	2415.96	18.319	149.743	2400.43	-125.41	73.15	2.00	-52.52
End of Tangent	6863.33	18.319	149.743	6622.42	-1332.84	777.49	0.00	-558.21
End of 3D Arc	7854.87	90.000	270.150	7261.00	-1513.70	211.36	10.00	29.33
End of Tangent	17414.04	90.000	270.150	7261.00	-1488.62	-9347.77	0.00	9465.56





Planned Wellpath Report

WINDER #12 PWP (REV-B.0)

Page 1 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #12
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #12 PWB
Facility	SEC.09-T06N-R67W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Ingmjmr
Scale	0.999967	Report Generated	7/20/2015 at 11:08:57 AM
Convergence at slot	0.39° East	Database/Source file	Denver/WINDER_#12_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-285.99	-2.47	3169264.72	1427889.86	40°30'22.910"N	104°53'28.644"W
Facility Reference Pt			3169265.23	1428175.85	40°30'25.736"N	104°53'28.612"W
Field Reference Pt			3185481.27	1419166.81	40°28'55.560"N	104°49'59.556"W

WELLPATH DATUM

Calculation method	Minimum curvature	SAVANNA 802 (15'KB) (RKB) to Facility Vertical Datum	4883.00ft
Horizontal Reference Pt	Slot	SAVANNA 802 (15'KB) (RKB) to Mean Sea Level	4883.00ft
Vertical Reference Pt	SAVANNA 802 (15'KB) (RKB)	SAVANNA 802 (15'KB) (RKB) to Mud Line at Slot (SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09))	4883.00ft
MD Reference Pt	SAVANNA 802 (15'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	260.95°



Planned Wellpath Report

WINDER #12 PWP (REV-B.0)

Page 2 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #12
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #12 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	149.743	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	149.743	15.00	0.00	0.00	0.00	0.00	Tie On
115.00†	0.000	149.743	115.00	0.00	0.00	0.00	0.00	
215.00†	0.000	149.743	215.00	0.00	0.00	0.00	0.00	
315.00†	0.000	149.743	315.00	0.00	0.00	0.00	0.00	
415.00†	0.000	149.743	415.00	0.00	0.00	0.00	0.00	
515.00†	0.000	149.743	515.00	0.00	0.00	0.00	0.00	
615.00†	0.000	149.743	615.00	0.00	0.00	0.00	0.00	
715.00†	0.000	149.743	715.00	0.00	0.00	0.00	0.00	
815.00†	0.000	149.743	815.00	0.00	0.00	0.00	0.00	
915.00†	0.000	149.743	915.00	0.00	0.00	0.00	0.00	
1015.00†	0.000	149.743	1015.00	0.00	0.00	0.00	0.00	
1115.00†	0.000	149.743	1115.00	0.00	0.00	0.00	0.00	
1215.00†	0.000	149.743	1215.00	0.00	0.00	0.00	0.00	
1315.00†	0.000	149.743	1315.00	0.00	0.00	0.00	0.00	
1415.00†	0.000	149.743	1415.00	0.00	0.00	0.00	0.00	
1500.00	0.000	149.743	1500.00	0.00	0.00	0.00	0.00	End of Tangent
1515.00†	0.300	149.743	1515.00	-0.01	-0.03	0.02	2.00	
1615.00†	2.300	149.743	1614.97	-0.83	-1.99	1.16	2.00	
1715.00†	4.300	149.743	1714.80	-2.92	-6.97	4.06	2.00	
1815.00†	6.300	149.743	1814.37	-6.26	-14.94	8.72	2.00	
1915.00†	8.300	149.743	1913.55	-10.86	-25.92	15.12	2.00	
2015.00†	10.300	149.743	2012.23	-16.70	-39.88	23.26	2.00	
2115.00†	12.300	149.743	2110.29	-23.79	-56.80	33.13	2.00	
2215.00†	14.300	149.743	2207.60	-32.11	-76.67	44.73	2.00	
2315.00†	16.300	149.743	2304.05	-41.66	-99.46	58.02	2.00	
2415.00†	18.300	149.743	2399.52	-52.41	-125.15	73.00	2.00	
2415.96	18.319	149.743	2400.43	-52.52	-125.41	73.15	2.00	End of Build
2515.00†	18.319	149.743	2494.45	-63.78	-152.30	88.84	0.00	
2615.00†	18.319	149.743	2589.39	-75.15	-179.45	104.68	0.00	



Planned Wellpath Report

WINDER #12 PWP (REV-B.0)

Page 3 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #12
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #12 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2715.00†	18.319	149.743	2684.32	-86.52	-206.60	120.52	0.00	
2815.00†	18.319	149.743	2779.25	-97.90	-233.75	136.35	0.00	
2915.00†	18.319	149.743	2874.18	-109.27	-260.90	152.19	0.00	
3015.00†	18.319	149.743	2969.11	-120.64	-288.04	168.03	0.00	
3115.00†	18.319	149.743	3064.05	-132.01	-315.19	183.86	0.00	
3215.00†	18.319	149.743	3158.98	-143.38	-342.34	199.70	0.00	
3315.00†	18.319	149.743	3253.91	-154.75	-369.49	215.54	0.00	
3415.00†	18.319	149.743	3348.84	-166.12	-396.64	231.38	0.00	
3515.00†	18.319	149.743	3443.77	-177.49	-423.79	247.21	0.00	
3615.00†	18.319	149.743	3538.71	-188.86	-450.94	263.05	0.00	
3715.00†	18.319	149.743	3633.64	-200.23	-478.09	278.89	0.00	
3815.00†	18.319	149.743	3728.57	-211.60	-505.24	294.72	0.00	
3915.00†	18.319	149.743	3823.50	-222.97	-532.39	310.56	0.00	
4015.00†	18.319	149.743	3918.44	-234.34	-559.54	326.40	0.00	
4115.00†	18.319	149.743	4013.37	-245.71	-586.69	342.24	0.00	
4215.00†	18.319	149.743	4108.30	-257.08	-613.84	358.07	0.00	
4315.00†	18.319	149.743	4203.23	-268.45	-640.99	373.91	0.00	
4415.00†	18.319	149.743	4298.16	-279.82	-668.14	389.75	0.00	
4515.00†	18.319	149.743	4393.10	-291.19	-695.28	405.58	0.00	
4615.00†	18.319	149.743	4488.03	-302.56	-722.43	421.42	0.00	
4715.00†	18.319	149.743	4582.96	-313.93	-749.58	437.26	0.00	
4815.00†	18.319	149.743	4677.89	-325.30	-776.73	453.10	0.00	
4915.00†	18.319	149.743	4772.82	-336.67	-803.88	468.93	0.00	
5015.00†	18.319	149.743	4867.76	-348.04	-831.03	484.77	0.00	
5115.00†	18.319	149.743	4962.69	-359.41	-858.18	500.61	0.00	
5215.00†	18.319	149.743	5057.62	-370.79	-885.33	516.44	0.00	
5315.00†	18.319	149.743	5152.55	-382.16	-912.48	532.28	0.00	
5415.00†	18.319	149.743	5247.48	-393.53	-939.63	548.12	0.00	
5515.00†	18.319	149.743	5342.42	-404.90	-966.78	563.96	0.00	
5615.00†	18.319	149.743	5437.35	-416.27	-993.93	579.79	0.00	



Planned Wellpath Report

WINDER #12 PWP (REV-B.0)

Page 4 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #12
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #12 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
5715.00†	18.319	149.743	5532.28	-427.64	-1021.08	595.63	0.00	
5815.00†	18.319	149.743	5627.21	-439.01	-1048.23	611.47	0.00	
5915.00†	18.319	149.743	5722.14	-450.38	-1075.38	627.30	0.00	
6015.00†	18.319	149.743	5817.08	-461.75	-1102.52	643.14	0.00	
6115.00†	18.319	149.743	5912.01	-473.12	-1129.67	658.98	0.00	
6215.00†	18.319	149.743	6006.94	-484.49	-1156.82	674.82	0.00	
6315.00†	18.319	149.743	6101.87	-495.86	-1183.97	690.65	0.00	
6415.00†	18.319	149.743	6196.80	-507.23	-1211.12	706.49	0.00	
6515.00†	18.319	149.743	6291.74	-518.60	-1238.27	722.33	0.00	
6615.00†	18.319	149.743	6386.67	-529.97	-1265.42	738.16	0.00	
6715.00†	18.319	149.743	6481.60	-541.34	-1292.57	754.00	0.00	
6815.00†	18.319	149.743	6576.53	-552.71	-1319.72	769.84	0.00	
6863.33	18.319	149.743	6622.42	-558.21	-1332.84	777.49	0.00	End of Tangent
6915.00†	16.415	165.906	6671.75	-561.79	-1346.95	783.37	10.00	
7015.00†	17.006	201.138	6767.77	-555.66	-1374.36	781.53	10.00	
7115.00†	22.443	226.417	6862.04	-532.53	-1401.23	762.38	10.00	
7215.00†	30.214	240.787	6951.69	-493.08	-1426.73	726.50	10.00	
7315.00†	38.941	249.457	7034.00	-438.53	-1450.10	674.98	10.00	
7415.00†	48.102	255.306	7106.46	-370.53	-1470.62	609.39	10.00	
7515.00†	57.485	259.663	7166.88	-291.14	-1487.67	531.71	10.00	
7558.66†	61.623	261.277	7189.00	-253.51	-1493.89	494.60	10.00	NIO A
7615.00†	66.989	263.185	7213.42	-202.77	-1500.73	444.32	10.00	
7715.00†	76.561	266.238	7244.66	-108.12	-1509.40	349.85	10.00	
7757.11†	80.603	267.442	7253.00	-67.07	-1511.67	308.65	10.00	NIO B
7815.00†	86.166	269.054	7259.67	-10.06	-1513.43	251.20	10.00	
7854.87	90.000	270.150	7261.00 ¹	29.33	-1513.70	211.36	10.00	End of 3D Arc
7915.00†	90.000	270.150	7261.00	88.68	-1513.54	151.23	0.00	
8015.00†	90.000	270.150	7261.00	187.40	-1513.28	51.23	0.00	
8115.00†	90.000	270.150	7261.00	286.11	-1513.02	-48.77	0.00	
8215.00†	90.000	270.150	7261.00	384.83	-1512.76	-148.77	0.00	



Planned Wellpath Report

WINDER #12 PWP (REV-B.0)

Page 5 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #12
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #12 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8315.00†	90.000	270.150	7261.00	483.54	-1512.49	-248.77	0.00	
8415.00†	90.000	270.150	7261.00	582.25	-1512.23	-348.77	0.00	
8515.00†	90.000	270.150	7261.00	680.97	-1511.97	-448.77	0.00	
8615.00†	90.000	270.150	7261.00	779.68	-1511.71	-548.77	0.00	
8715.00†	90.000	270.150	7261.00	878.40	-1511.45	-648.77	0.00	
8815.00†	90.000	270.150	7261.00	977.11	-1511.18	-748.77	0.00	
8915.00†	90.000	270.150	7261.00	1075.82	-1510.92	-848.77	0.00	
9015.00†	90.000	270.150	7261.00	1174.54	-1510.66	-948.77	0.00	
9115.00†	90.000	270.150	7261.00	1273.25	-1510.40	-1048.77	0.00	
9215.00†	90.000	270.150	7261.00	1371.97	-1510.13	-1148.77	0.00	
9315.00†	90.000	270.150	7261.00	1470.68	-1509.87	-1248.77	0.00	
9415.00†	90.000	270.150	7261.00	1569.39	-1509.61	-1348.77	0.00	
9515.00†	90.000	270.150	7261.00	1668.11	-1509.35	-1448.77	0.00	
9615.00†	90.000	270.150	7261.00	1766.82	-1509.08	-1548.77	0.00	
9715.00†	90.000	270.150	7261.00	1865.54	-1508.82	-1648.77	0.00	
9815.00†	90.000	270.150	7261.00	1964.25	-1508.56	-1748.77	0.00	
9915.00†	90.000	270.150	7261.00	2062.96	-1508.30	-1848.77	0.00	
10015.00†	90.000	270.150	7261.00	2161.68	-1508.03	-1948.76	0.00	
10115.00†	90.000	270.150	7261.00	2260.39	-1507.77	-2048.76	0.00	
10215.00†	90.000	270.150	7261.00	2359.11	-1507.51	-2148.76	0.00	
10315.00†	90.000	270.150	7261.00	2457.82	-1507.25	-2248.76	0.00	
10415.00†	90.000	270.150	7261.00	2556.53	-1506.98	-2348.76	0.00	
10515.00†	90.000	270.150	7261.00	2655.25	-1506.72	-2448.76	0.00	
10615.00†	90.000	270.150	7261.00	2753.96	-1506.46	-2548.76	0.00	
10715.00†	90.000	270.150	7261.00	2852.68	-1506.20	-2648.76	0.00	
10815.00†	90.000	270.150	7261.00	2951.39	-1505.93	-2748.76	0.00	
10915.00†	90.000	270.150	7261.00	3050.10	-1505.67	-2848.76	0.00	
11015.00†	90.000	270.150	7261.00	3148.82	-1505.41	-2948.76	0.00	
11115.00†	90.000	270.150	7261.00	3247.53	-1505.15	-3048.76	0.00	
11215.00†	90.000	270.150	7261.00	3346.25	-1504.88	-3148.76	0.00	



Planned Wellpath Report

WINDER #12 PWP (REV-B.0)

Page 6 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #12
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #12 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
11315.00†	90.000	270.150	7261.00	3444.96	-1504.62	-3248.76	0.00	
11415.00†	90.000	270.150	7261.00	3543.67	-1504.36	-3348.76	0.00	
11515.00†	90.000	270.150	7261.00	3642.39	-1504.10	-3448.76	0.00	
11615.00†	90.000	270.150	7261.00	3741.10	-1503.83	-3548.76	0.00	
11715.00†	90.000	270.150	7261.00	3839.82	-1503.57	-3648.76	0.00	
11815.00†	90.000	270.150	7261.00	3938.53	-1503.31	-3748.76	0.00	
11915.00†	90.000	270.150	7261.00	4037.24	-1503.05	-3848.76	0.00	
12015.00†	90.000	270.150	7261.00	4135.96	-1502.78	-3948.76	0.00	
12115.00†	90.000	270.150	7261.00	4234.67	-1502.52	-4048.76	0.00	
12215.00†	90.000	270.150	7261.00	4333.39	-1502.26	-4148.76	0.00	
12315.00†	90.000	270.150	7261.00	4432.10	-1502.00	-4248.76	0.00	
12415.00†	90.000	270.150	7261.00	4530.81	-1501.73	-4348.76	0.00	
12515.00†	90.000	270.150	7261.00	4629.53	-1501.47	-4448.76	0.00	
12615.00†	90.000	270.150	7261.00	4728.24	-1501.21	-4548.76	0.00	
12715.00†	90.000	270.150	7261.00	4826.96	-1500.95	-4648.76	0.00	
12815.00†	90.000	270.150	7261.00	4925.67	-1500.69	-4748.76	0.00	
12915.00†	90.000	270.150	7261.00	5024.38	-1500.42	-4848.75	0.00	
13015.00†	90.000	270.150	7261.00	5123.10	-1500.16	-4948.75	0.00	
13115.00†	90.000	270.150	7261.00	5221.81	-1499.90	-5048.75	0.00	
13215.00†	90.000	270.150	7261.00	5320.53	-1499.64	-5148.75	0.00	
13315.00†	90.000	270.150	7261.00	5419.24	-1499.37	-5248.75	0.00	
13415.00†	90.000	270.150	7261.00	5517.95	-1499.11	-5348.75	0.00	
13515.00†	90.000	270.150	7261.00	5616.67	-1498.85	-5448.75	0.00	
13615.00†	90.000	270.150	7261.00	5715.38	-1498.59	-5548.75	0.00	
13715.00†	90.000	270.150	7261.00	5814.10	-1498.32	-5648.75	0.00	
13815.00†	90.000	270.150	7261.00	5912.81	-1498.06	-5748.75	0.00	
13915.00†	90.000	270.150	7261.00	6011.52	-1497.80	-5848.75	0.00	
14015.00†	90.000	270.150	7261.00	6110.24	-1497.54	-5948.75	0.00	
14115.00†	90.000	270.150	7261.00	6208.95	-1497.27	-6048.75	0.00	
14215.00†	90.000	270.150	7261.00	6307.67	-1497.01	-6148.75	0.00	



Planned Wellpath Report

WINDER #12 PWP (REV-B.0)

Page 7 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #12
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #12 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
14315.00†	90.000	270.150	7261.00	6406.38	-1496.75	-6248.75	0.00	
14415.00†	90.000	270.150	7261.00	6505.09	-1496.49	-6348.75	0.00	
14515.00†	90.000	270.150	7261.00	6603.81	-1496.22	-6448.75	0.00	
14615.00†	90.000	270.150	7261.00	6702.52	-1495.96	-6548.75	0.00	
14715.00†	90.000	270.150	7261.00	6801.24	-1495.70	-6648.75	0.00	
14815.00†	90.000	270.150	7261.00	6899.95	-1495.44	-6748.75	0.00	
14915.00†	90.000	270.150	7261.00	6998.66	-1495.17	-6848.75	0.00	
15015.00†	90.000	270.150	7261.00	7097.38	-1494.91	-6948.75	0.00	
15115.00†	90.000	270.150	7261.00	7196.09	-1494.65	-7048.75	0.00	
15215.00†	90.000	270.150	7261.00	7294.81	-1494.39	-7148.75	0.00	
15315.00†	90.000	270.150	7261.00	7393.52	-1494.12	-7248.75	0.00	
15415.00†	90.000	270.150	7261.00	7492.23	-1493.86	-7348.75	0.00	
15515.00†	90.000	270.150	7261.00	7590.95	-1493.60	-7448.75	0.00	
15615.00†	90.000	270.150	7261.00	7689.66	-1493.34	-7548.75	0.00	
15715.00†	90.000	270.150	7261.00	7788.38	-1493.07	-7648.75	0.00	
15815.00†	90.000	270.150	7261.00	7887.09	-1492.81	-7748.74	0.00	
15915.00†	90.000	270.150	7261.00	7985.80	-1492.55	-7848.74	0.00	
16015.00†	90.000	270.150	7261.00	8084.52	-1492.29	-7948.74	0.00	
16115.00†	90.000	270.150	7261.00	8183.23	-1492.02	-8048.74	0.00	
16215.00†	90.000	270.150	7261.00	8281.95	-1491.76	-8148.74	0.00	
16315.00†	90.000	270.150	7261.00	8380.66	-1491.50	-8248.74	0.00	
16415.00†	90.000	270.150	7261.00	8479.37	-1491.24	-8348.74	0.00	
16515.00†	90.000	270.150	7261.00	8578.09	-1490.97	-8448.74	0.00	
16615.00†	90.000	270.150	7261.00	8676.80	-1490.71	-8548.74	0.00	
16715.00†	90.000	270.150	7261.00	8775.52	-1490.45	-8648.74	0.00	
16815.00†	90.000	270.150	7261.00	8874.23	-1490.19	-8748.74	0.00	
16915.00†	90.000	270.150	7261.00	8972.94	-1489.93	-8848.74	0.00	
17015.00†	90.000	270.150	7261.00	9071.66	-1489.66	-8948.74	0.00	
17115.00†	90.000	270.150	7261.00	9170.37	-1489.40	-9048.74	0.00	
17215.00†	90.000	270.150	7261.00	9269.09	-1489.14	-9148.74	0.00	



Planned Wellpath Report

WINDER #12 PWP (REV-B.0)

Page 8 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #12
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #12 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
17315.00†	90.000	270.150	7261.00	9367.80	-1488.88	-9248.74	0.00	
17414.04	90.000	270.150	7261.00 ²	9465.56	-1488.62	-9347.77	0.00	End of Tangent

HOLE & CASING SECTIONS - Ref Wellbore: WINDER #12 PWB Ref Wellpath: WINDER #12 PWP (REV-B.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]
7.875in Open Hole	1500.00	17414.04	15914.04	1500.00	N/A	0.00	0.00	N/A	N/A
5.5in Casing	15.00	17414.04	17399.04	15.00	N/A	0.00	0.00	N/A	N/A



Planned Wellpath Report

WINDER #12 PWP (REV-B.0)

Page 9 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #12
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #12 PWB
Facility	SEC.09-T06N-R67W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
TWELL/WINDER 1/2 SECTION 08		47.00	-3048.19	-9582.23	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon
TWELL/WINDER 1/2 SECTION 09		47.00	-3048.19	-9582.23	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon
TWELL/WINDER SECTION 08		47.00	-3048.19	-9582.23	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon
TWELL/WINDER SECTION 09		47.00	-3048.19	-9582.23	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon
2) WINDER #12 BHL ON PLAT REV-1(2283'FNL & 460'FWL,SEC.08)	17414.04	7261.00	-1488.62	-9347.77	3159927.71	1426337.17	40°30'08.183"N	104°55'29.651"W	point
1) WINDER #12 LANDING POINT	7854.87	7261.00	-1513.70	211.36	3169486.45	1426377.70	40°30'07.952"N	104°53'25.908"W	point
TWELL/WINDER PAD CENTER SECTION HARDLINES (460'SETBACKS)		7409.00	-3048.19	-9582.23	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon

SURVEY PROGRAM - Ref Wellbore: WINDER #12 PWB Ref Wellpath: WINDER #12 PWP (REV-B.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	17414.04	NaviTrak (Standard)		WINDER #12 PWB



Planned Wellpath Report

WINDER #12 PWP (REV-B.0)

Page 10 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#12 WINDER #12(962'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #12
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #12 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7558.66	61.623	261.277	7189.00	NIO A
7757.11	80.603	267.442	7253.00	NIO B

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
15.00	0.000	149.743	15.00	Tie On
1500.00	0.000	149.743	1500.00	End of Tangent
2415.96	18.319	149.743	2400.43	End of Build
6863.33	18.319	149.743	6622.42	End of Tangent
7854.87	90.000	270.150	7261.00	End of 3D Arc
17414.04	90.000	270.150	7261.00	End of Tangent