

EXTRACTION OIL & GAS

Location: COLORADO Slot: SLOT#10 WINDER #10(910'FNL & 684'FEL,SEC.09)
Field: WELD COUNTY (NAD83/TRUE NORTH) Well: WINDER #10
Facility: SEC.09-T06N-R67W Wellbore: WINDER #10 PWB

Plot reference wellpath is WINDER #10 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#10 WINDER #10(910'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#10 WINDER #10(910'FNL & 684'FEL,SEC.09)	-234.18	-1.93	3169264.905	1427941.675	40°30'23.422"N	104°53'28.637"W	
SAVANNA 802 (15KB) (RKB) to Mud line (At Slot: SLOT#10 WINDER #10(910'FNL & 684'FEL,SEC.09))						4883ft	
Mean Sea Level to Mud line (At Slot: SLOT#10 WINDER #10(910'FNL & 684'FEL,SEC.09))						0ft	
SAVANNA 802 (15KB) (RKB) to Mean Sea Level						4883ft	

Targets

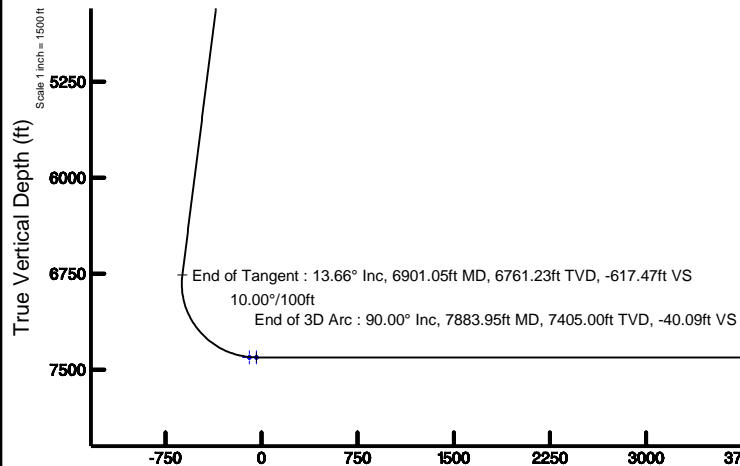
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
TWELL/WINDER 1/2 SECTION 08		47.00	-3100.01	-9582.77	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W
TWELL/WINDER 1/2 SECTION 09		47.00	-3100.01	-9582.77	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W
TWELL/WINDER SECTION 08		47.00	-3100.01	-9582.77	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W
TWELL/WINDER SECTION 09		47.00	-3100.01	-9582.77	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W
WINDER #10 BHL ON PLAT REV-1(1789'FNL & 460'FWL,SEC.08)	17394.89	7405.00	-1045.32	-9350.91	3159921.72	1426832.23	40°30'13.075"N	104°55'29.687"W
WINDER #10 LANDING POINT		7405.00	-1070.41	214.98	3169487.22	1426872.81	40°30'12.845"N	104°53'25.854"W
WINDER #10 LANDING POINT REV-1	7883.95	7405.00	-1070.39	160.00	3169432.24	1426872.45	40°30'12.845"N	104°53'26.566"W
WINDER PAD NORTH 1/2 HARDLINES(460' SETBACKS)		7437.00	-3100.01	-9582.77	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W

Survey Program

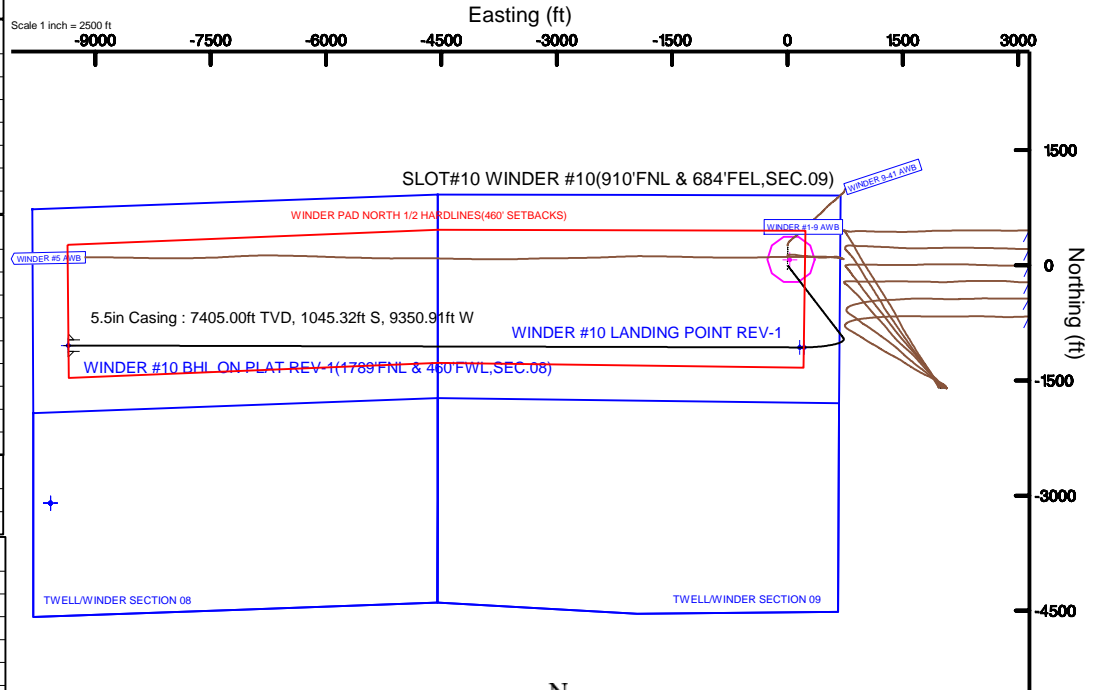
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
15.00	18991.00	NaviTrak	NaviTrak (Standard)		WINDER #10 PWB

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	142.506	15.00	0.00	0.00	0.00	0.00
End of Tangent	1500.00	0.000	142.506	1500.00	0.00	0.00	0.00	0.00
End of Build	2182.77	13.655	142.506	2176.33	-64.25	49.29	2.00	-41.85
End of Tangent	6901.05	13.655	142.506	6761.23	-948.04	727.29	0.00	-617.47
End of 3D Arc	7883.95	90.000	270.151	7405.00	-1070.39	160.00	10.00	-40.09
End of Tangent	17394.89	90.000	270.151	7405.00	-1045.32	-9350.91	0.00	9409.15



Azimuth 263.62° with reference 0.00 N, 0.00 E



BGGM (1945.0 to 2017.0) Dip: 67.02° Field: 52646.3 nT
Magnetic North is 8.64 degrees East of True North (at 7/20/2015)

To correct azimuth from Magnetic to True add 8.64 degrees

5.5in Casing : 90.00° Inc, 17394.89ft MD, 7405.00ft TVD, 9409.15ft VS

End of Tangent : 90.00° Inc, 17394.89ft MD, 7405.00ft TVD, 9409.15ft VS

WINDER #10 BHL ON PLAT REV-1(1789'FNL & 460'FWL,SEC.08)



Planned Wellpath Report

WINDER #10 PWP (REV-B.0)

Page 1 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#10 WINDER #10(910'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #10
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #10 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 11:04:01 AM
Convergence at slot	0.39° East	Database/Source file	Denver/WINDER_#10_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-234.18	-1.93	3169264.91	1427941.68	40°30'23.422"N	104°53'28.637"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#10 WINDER #10(910'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	263.62°



Planned Wellpath Report

WINDER #10 PWP (REV-B.0)

Page 2 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#10 WINDER #10(910'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #10
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #10 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (185 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	142.506	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	142.506	15.00	0.00	0.00	0.00	0.00	Tie On
115.00†	0.000	142.506	115.00	0.00	0.00	0.00	0.00	
215.00†	0.000	142.506	215.00	0.00	0.00	0.00	0.00	
315.00†	0.000	142.506	315.00	0.00	0.00	0.00	0.00	
415.00†	0.000	142.506	415.00	0.00	0.00	0.00	0.00	
515.00†	0.000	142.506	515.00	0.00	0.00	0.00	0.00	
615.00†	0.000	142.506	615.00	0.00	0.00	0.00	0.00	
715.00†	0.000	142.506	715.00	0.00	0.00	0.00	0.00	
815.00†	0.000	142.506	815.00	0.00	0.00	0.00	0.00	
915.00†	0.000	142.506	915.00	0.00	0.00	0.00	0.00	
1015.00†	0.000	142.506	1015.00	0.00	0.00	0.00	0.00	
1115.00†	0.000	142.506	1115.00	0.00	0.00	0.00	0.00	
1215.00†	0.000	142.506	1215.00	0.00	0.00	0.00	0.00	
1315.00†	0.000	142.506	1315.00	0.00	0.00	0.00	0.00	
1415.00†	0.000	142.506	1415.00	0.00	0.00	0.00	0.00	
1500.00	0.000	142.506	1500.00	0.00	0.00	0.00	0.00	End of Tangent
1515.00†	0.300	142.506	1515.00	-0.02	-0.03	0.02	2.00	
1615.00†	2.300	142.506	1614.97	-1.19	-1.83	1.40	2.00	
1715.00†	4.300	142.506	1714.80	-4.17	-6.40	4.91	2.00	
1815.00†	6.300	142.506	1814.37	-8.94	-13.73	10.53	2.00	
1915.00†	8.300	142.506	1913.55	-15.51	-23.81	18.26	2.00	
2015.00†	10.300	142.506	2012.23	-23.86	-36.63	28.10	2.00	
2115.00†	12.300	142.506	2110.29	-33.98	-52.17	40.03	2.00	
2182.77	13.655	142.506	2176.33	-41.85	-64.25	49.29	2.00	End of Build
2215.00†	13.655	142.506	2207.64	-45.78	-70.29	53.92	0.00	
2315.00†	13.655	142.506	2304.82	-57.98	-89.02	68.29	0.00	
2415.00†	13.655	142.506	2401.99	-70.18	-107.75	82.66	0.00	
2515.00†	13.655	142.506	2499.16	-82.38	-126.48	97.03	0.00	
2615.00†	13.655	142.506	2596.34	-94.58	-145.21	111.40	0.00	



Planned Wellpath Report

WINDER #10 PWP (REV-B.0)

Page 3 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#10 WINDER #10(910'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #10
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #10 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (185 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2715.00†	13.655	142.506	2693.51	-106.78	-163.94	125.77	0.00	
2815.00†	13.655	142.506	2790.68	-118.98	-182.67	140.14	0.00	
2915.00†	13.655	142.506	2887.86	-131.18	-201.41	154.51	0.00	
3015.00†	13.655	142.506	2985.03	-143.38	-220.14	168.88	0.00	
3115.00†	13.655	142.506	3082.20	-155.58	-238.87	183.25	0.00	
3215.00†	13.655	142.506	3179.38	-167.78	-257.60	197.62	0.00	
3315.00†	13.655	142.506	3276.55	-179.98	-276.33	211.99	0.00	
3415.00†	13.655	142.506	3373.72	-192.18	-295.06	226.36	0.00	
3515.00†	13.655	142.506	3470.90	-204.38	-313.79	240.73	0.00	
3615.00†	13.655	142.506	3568.07	-216.58	-332.52	255.10	0.00	
3715.00†	13.655	142.506	3665.24	-228.78	-351.26	269.47	0.00	
3815.00†	13.655	142.506	3762.42	-240.98	-369.99	283.84	0.00	
3915.00†	13.655	142.506	3859.59	-253.18	-388.72	298.21	0.00	
4015.00†	13.655	142.506	3956.76	-265.38	-407.45	312.58	0.00	
4115.00†	13.655	142.506	4053.94	-277.58	-426.18	326.95	0.00	
4215.00†	13.655	142.506	4151.11	-289.78	-444.91	341.32	0.00	
4315.00†	13.655	142.506	4248.28	-301.98	-463.64	355.69	0.00	
4415.00†	13.655	142.506	4345.46	-314.18	-482.37	370.06	0.00	
4515.00†	13.655	142.506	4442.63	-326.38	-501.10	384.43	0.00	
4615.00†	13.655	142.506	4539.80	-338.57	-519.84	398.80	0.00	
4715.00†	13.655	142.506	4636.98	-350.77	-538.57	413.17	0.00	
4815.00†	13.655	142.506	4734.15	-362.97	-557.30	427.53	0.00	
4915.00†	13.655	142.506	4831.32	-375.17	-576.03	441.90	0.00	
5015.00†	13.655	142.506	4928.50	-387.37	-594.76	456.27	0.00	
5115.00†	13.655	142.506	5025.67	-399.57	-613.49	470.64	0.00	
5215.00†	13.655	142.506	5122.84	-411.77	-632.22	485.01	0.00	
5315.00†	13.655	142.506	5220.02	-423.97	-650.95	499.38	0.00	
5415.00†	13.655	142.506	5317.19	-436.17	-669.69	513.75	0.00	
5515.00†	13.655	142.506	5414.36	-448.37	-688.42	528.12	0.00	
5615.00†	13.655	142.506	5511.54	-460.57	-707.15	542.49	0.00	



Planned Wellpath Report

WINDER #10 PWP (REV-B.0)

Page 4 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#10 WINDER #10(910'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #10
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #10 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (185 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
5715.00†	13.655	142.506	5608.71	-472.77	-725.88	556.86	0.00	
5815.00†	13.655	142.506	5705.88	-484.97	-744.61	571.23	0.00	
5915.00†	13.655	142.506	5803.06	-497.17	-763.34	585.60	0.00	
6015.00†	13.655	142.506	5900.23	-509.37	-782.07	599.97	0.00	
6115.00†	13.655	142.506	5997.40	-521.57	-800.80	614.34	0.00	
6215.00†	13.655	142.506	6094.58	-533.77	-819.54	628.71	0.00	
6315.00†	13.655	142.506	6191.75	-545.97	-838.27	643.08	0.00	
6415.00†	13.655	142.506	6288.92	-558.17	-857.00	657.45	0.00	
6515.00†	13.655	142.506	6386.10	-570.37	-875.73	671.82	0.00	
6615.00†	13.655	142.506	6483.27	-582.57	-894.46	686.19	0.00	
6715.00†	13.655	142.506	6580.44	-594.77	-913.19	700.56	0.00	
6815.00†	13.655	142.506	6677.62	-606.97	-931.92	714.93	0.00	
6901.05	13.655	142.506	6761.23	-617.47	-948.04	727.29	0.00	End of Tangent
6915.00†	12.866	147.526	6774.81	-619.00	-950.66	729.13	10.00	
7015.00†	11.318	196.172	6872.83	-620.14	-969.52	732.38	10.00	
7115.00†	16.977	231.093	6969.93	-604.03	-988.16	718.25	10.00	
7215.00†	25.414	246.268	7063.15	-571.15	-1006.01	687.17	10.00	
7315.00†	34.655	253.993	7149.66	-522.52	-1022.53	640.08	10.00	
7364.27†	39.332	256.573	7189.00	-493.19	-1030.03	611.41	10.00	NIO A
7415.00†	44.196	258.740	7226.83	-459.60	-1037.22	578.41	10.00	
7452.69†	47.832	260.117	7253.00	-432.56	-1042.18	551.76	10.00	NIO B
7515.00†	53.875	262.080	7292.32	-384.30	-1049.62	504.03	10.00	
7544.30†	56.727	262.899	7309.00	-360.22	-1052.76	480.15	10.00	NIO C
7615.00†	63.627	264.678	7344.14	-298.93	-1059.36	419.21	10.00	
7672.17†	69.221	265.965	7367.00	-246.57	-1063.62	367.01	10.00	FORT HAYS
7715.00†	73.418	266.867	7380.72	-206.06	-1066.15	326.53	10.00	
7738.63†	75.735	267.348	7387.00	-183.32	-1067.30	303.77	10.00	CODELL
7815.00†	83.230	268.842	7400.93	-108.52	-1069.79	228.79	10.00	
7883.95	90.000	270.151	7405.00 ¹	-40.09	-1070.39	160.00	10.00	End of 3D Arc
7915.00†	90.000	270.151	7405.00	-9.25	-1070.31	128.95	0.00	



Planned Wellpath Report

WINDER #10 PWP (REV-B.0)

Page 5 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#10 WINDER #10(910'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #10
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #10 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (185 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8015.00†	90.000	270.151	7405.00	90.10	-1070.04	28.95	0.00	
8115.00†	90.000	270.151	7405.00	189.46	-1069.78	-71.05	0.00	
8215.00†	90.000	270.151	7405.00	288.81	-1069.52	-171.05	0.00	
8315.00†	90.000	270.151	7405.00	388.16	-1069.25	-271.05	0.00	
8415.00†	90.000	270.151	7405.00	487.51	-1068.99	-371.05	0.00	
8515.00†	90.000	270.151	7405.00	586.86	-1068.72	-471.05	0.00	
8615.00†	90.000	270.151	7405.00	686.21	-1068.46	-571.05	0.00	
8715.00†	90.000	270.151	7405.00	785.56	-1068.20	-671.05	0.00	
8815.00†	90.000	270.151	7405.00	884.92	-1067.93	-771.05	0.00	
8915.00†	90.000	270.151	7405.00	984.27	-1067.67	-871.05	0.00	
9015.00†	90.000	270.151	7405.00	1083.62	-1067.41	-971.04	0.00	
9115.00†	90.000	270.151	7405.00	1182.97	-1067.14	-1071.04	0.00	
9215.00†	90.000	270.151	7405.00	1282.32	-1066.88	-1171.04	0.00	
9315.00†	90.000	270.151	7405.00	1381.67	-1066.62	-1271.04	0.00	
9415.00†	90.000	270.151	7405.00	1481.02	-1066.35	-1371.04	0.00	
9515.00†	90.000	270.151	7405.00	1580.37	-1066.09	-1471.04	0.00	
9615.00†	90.000	270.151	7405.00	1679.73	-1065.83	-1571.04	0.00	
9715.00†	90.000	270.151	7405.00	1779.08	-1065.56	-1671.04	0.00	
9815.00†	90.000	270.151	7405.00	1878.43	-1065.30	-1771.04	0.00	
9915.00†	90.000	270.151	7405.00	1977.78	-1065.03	-1871.04	0.00	
10015.00†	90.000	270.151	7405.00	2077.13	-1064.77	-1971.04	0.00	
10115.00†	90.000	270.151	7405.00	2176.48	-1064.51	-2071.04	0.00	
10215.00†	90.000	270.151	7405.00	2275.83	-1064.24	-2171.04	0.00	
10315.00†	90.000	270.151	7405.00	2375.19	-1063.98	-2271.04	0.00	
10415.00†	90.000	270.151	7405.00	2474.54	-1063.72	-2371.04	0.00	
10515.00†	90.000	270.151	7405.00	2573.89	-1063.45	-2471.04	0.00	
10615.00†	90.000	270.151	7405.00	2673.24	-1063.19	-2571.04	0.00	
10715.00†	90.000	270.151	7405.00	2772.59	-1062.93	-2671.04	0.00	
10815.00†	90.000	270.151	7405.00	2871.94	-1062.66	-2771.04	0.00	
10915.00†	90.000	270.151	7405.00	2971.29	-1062.40	-2871.04	0.00	



Planned Wellpath Report

WINDER #10 PWP (REV-B.0)

Page 6 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#10 WINDER #10(910'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #10
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #10 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (185 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
11015.00†	90.000	270.151	7405.00	3070.65	-1062.14	-2971.04	0.00	
11115.00†	90.000	270.151	7405.00	3170.00	-1061.87	-3071.04	0.00	
11215.00†	90.000	270.151	7405.00	3269.35	-1061.61	-3171.04	0.00	
11315.00†	90.000	270.151	7405.00	3368.70	-1061.34	-3271.04	0.00	
11415.00†	90.000	270.151	7405.00	3468.05	-1061.08	-3371.04	0.00	
11515.00†	90.000	270.151	7405.00	3567.40	-1060.82	-3471.04	0.00	
11615.00†	90.000	270.151	7405.00	3666.75	-1060.55	-3571.04	0.00	
11715.00†	90.000	270.151	7405.00	3766.10	-1060.29	-3671.04	0.00	
11815.00†	90.000	270.151	7405.00	3865.46	-1060.03	-3771.03	0.00	
11915.00†	90.000	270.151	7405.00	3964.81	-1059.76	-3871.03	0.00	
12015.00†	90.000	270.151	7405.00	4064.16	-1059.50	-3971.03	0.00	
12115.00†	90.000	270.151	7405.00	4163.51	-1059.24	-4071.03	0.00	
12215.00†	90.000	270.151	7405.00	4262.86	-1058.97	-4171.03	0.00	
12315.00†	90.000	270.151	7405.00	4362.21	-1058.71	-4271.03	0.00	
12415.00†	90.000	270.151	7405.00	4461.56	-1058.45	-4371.03	0.00	
12515.00†	90.000	270.151	7405.00	4560.92	-1058.18	-4471.03	0.00	
12615.00†	90.000	270.151	7405.00	4660.27	-1057.92	-4571.03	0.00	
12715.00†	90.000	270.151	7405.00	4759.62	-1057.65	-4671.03	0.00	
12815.00†	90.000	270.151	7405.00	4858.97	-1057.39	-4771.03	0.00	
12915.00†	90.000	270.151	7405.00	4958.32	-1057.13	-4871.03	0.00	
13015.00†	90.000	270.151	7405.00	5057.67	-1056.86	-4971.03	0.00	
13115.00†	90.000	270.151	7405.00	5157.02	-1056.60	-5071.03	0.00	
13215.00†	90.000	270.151	7405.00	5256.37	-1056.34	-5171.03	0.00	
13315.00†	90.000	270.151	7405.00	5355.73	-1056.07	-5271.03	0.00	
13415.00†	90.000	270.151	7405.00	5455.08	-1055.81	-5371.03	0.00	
13515.00†	90.000	270.151	7405.00	5554.43	-1055.55	-5471.03	0.00	
13615.00†	90.000	270.151	7405.00	5653.78	-1055.28	-5571.03	0.00	
13715.00†	90.000	270.151	7405.00	5753.13	-1055.02	-5671.03	0.00	
13815.00†	90.000	270.151	7405.00	5852.48	-1054.76	-5771.03	0.00	
13915.00†	90.000	270.151	7405.00	5951.83	-1054.49	-5871.03	0.00	



Planned Wellpath Report

WINDER #10 PWP (REV-B.0)

Page 7 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#10 WINDER #10(910'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #10
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #10 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (185 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
14015.00†	90.000	270.151	7405.00	6051.19	-1054.23	-5971.03	0.00	
14115.00†	90.000	270.151	7405.00	6150.54	-1053.96	-6071.03	0.00	
14215.00†	90.000	270.151	7405.00	6249.89	-1053.70	-6171.03	0.00	
14315.00†	90.000	270.151	7405.00	6349.24	-1053.44	-6271.03	0.00	
14415.00†	90.000	270.151	7405.00	6448.59	-1053.17	-6371.03	0.00	
14515.00†	90.000	270.151	7405.00	6547.94	-1052.91	-6471.03	0.00	
14615.00†	90.000	270.151	7405.00	6647.29	-1052.65	-6571.03	0.00	
14715.00†	90.000	270.151	7405.00	6746.64	-1052.38	-6671.02	0.00	
14815.00†	90.000	270.151	7405.00	6846.00	-1052.12	-6771.02	0.00	
14915.00†	90.000	270.151	7405.00	6945.35	-1051.86	-6871.02	0.00	
15015.00†	90.000	270.151	7405.00	7044.70	-1051.59	-6971.02	0.00	
15115.00†	90.000	270.151	7405.00	7144.05	-1051.33	-7071.02	0.00	
15215.00†	90.000	270.151	7405.00	7243.40	-1051.07	-7171.02	0.00	
15315.00†	90.000	270.151	7405.00	7342.75	-1050.80	-7271.02	0.00	
15415.00†	90.000	270.151	7405.00	7442.10	-1050.54	-7371.02	0.00	
15515.00†	90.000	270.151	7405.00	7541.46	-1050.27	-7471.02	0.00	
15615.00†	90.000	270.151	7405.00	7640.81	-1050.01	-7571.02	0.00	
15715.00†	90.000	270.151	7405.00	7740.16	-1049.75	-7671.02	0.00	
15815.00†	90.000	270.151	7405.00	7839.51	-1049.48	-7771.02	0.00	
15915.00†	90.000	270.151	7405.00	7938.86	-1049.22	-7871.02	0.00	
16015.00†	90.000	270.151	7405.00	8038.21	-1048.96	-7971.02	0.00	
16115.00†	90.000	270.151	7405.00	8137.56	-1048.69	-8071.02	0.00	
16215.00†	90.000	270.151	7405.00	8236.91	-1048.43	-8171.02	0.00	
16315.00†	90.000	270.151	7405.00	8336.27	-1048.17	-8271.02	0.00	
16415.00†	90.000	270.151	7405.00	8435.62	-1047.90	-8371.02	0.00	
16515.00†	90.000	270.151	7405.00	8534.97	-1047.64	-8471.02	0.00	
16615.00†	90.000	270.151	7405.00	8634.32	-1047.38	-8571.02	0.00	
16715.00†	90.000	270.151	7405.00	8733.67	-1047.11	-8671.02	0.00	
16815.00†	90.000	270.151	7405.00	8833.02	-1046.85	-8771.02	0.00	
16915.00†	90.000	270.151	7405.00	8932.37	-1046.58	-8871.02	0.00	



Planned Wellpath Report

WINDER #10 PWP (REV-B.0)

Page 8 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#10 WINDER #10(910'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #10
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #10 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH DATA (185 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
17015.00†	90.000	270.151	7405.00	9031.73	-1046.32	-8971.02	0.00	
17115.00†	90.000	270.151	7405.00	9131.08	-1046.06	-9071.02	0.00	
17215.00†	90.000	270.151	7405.00	9230.43	-1045.79	-9171.02	0.00	
17315.00†	90.000	270.151	7405.00	9329.78	-1045.53	-9271.02	0.00	
17394.89	90.000	270.151	7405.00 ²	9409.15	-1045.32	-9350.91	0.00	End of Tangent

HOLE & CASING SECTIONS - Ref Wellbore: WINDER #10 PWB Ref Wellpath: WINDER #10 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	17394.89	15894.89	1500.00	7405.00	0.00	0.00	-1045.32	-9350.91
5.5in Casing	15.00	17394.89	17379.89	15.00	7405.00	0.00	0.00	-1045.32	-9350.91



Planned Wellpath Report

WINDER #10 PWP (REV-B.0)

Page 9 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#10 WINDER #10(910'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #10
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #10 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	-3100.01	-9582.77	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon
TWELL/WINDER 1/2 SECTION 09		47.00	-3100.01	-9582.77	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon
TWELL/WINDER SECTION 08		47.00	-3100.01	-9582.77	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon
TWELL/WINDER SECTION 09		47.00	-3100.01	-9582.77	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon
2) WINDER #10 BHL ON PLAT REV-1(1789'FNL & 460'FWL,SEC.08)	17394.89	7405.00	-1045.32	-9350.91	3159921.72	1426832.23	40°30'13.075"N	104°55'29.687"W	point
WINDER #10 LANDING POINT		7405.00	-1070.41	214.98	3169487.22	1426872.81	40°30'12.845"N	104°53'25.854"W	point
1) WINDER #10 LANDING POINT REV-1	7883.95	7405.00	-1070.39	160.00	3169432.24	1426872.45	40°30'12.845"N	104°53'26.566"W	point
WINDER PAD NORTH 1/2 HARDLINES(460' SETBACKS)		7437.00	-3100.01	-9582.77	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon

SURVEY PROGRAM - Ref Wellbore: WINDER #10 PWB Ref Wellpath: WINDER #10 PWP (REV-B.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	18991.00	NaviTrak (Standard)		WINDER #10 PWB



Planned Wellpath Report

WINDER #10 PWP (REV-B.0)

Page 10 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#10 WINDER #10(910'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #10
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #10 PWB
Facility	SEC.09-T06N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7364.27	39.332	256.573	7189.00	NIO A
7452.69	47.832	260.117	7253.00	NIO B
7544.30	56.727	262.899	7309.00	NIO C
7672.17	69.221	265.965	7367.00	FORT HAYS
7738.63	75.735	267.348	7387.00	CODELL

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
15.00	0.000	142.506	15.00	Tie On
1500.00	0.000	142.506	1500.00	End of Tangent
2182.77	13.655	142.506	2176.33	End of Build
6901.05	13.655	142.506	6761.23	End of Tangent
7883.95	90.000	270.151	7405.00	End of 3D Arc
17394.89	90.000	270.151	7405.00	End of Tangent