

EXTRACTION OIL & GAS

Location: COLORADO Slot: SLOT#14 WAAG 19 (365°FSL & 2423°FSL, SEC.19)
Field: WELD COUNTY (NAD83/TRUE NORTH) Well: WAAG 19
Facility: SEC.19-T07N-R65W Wellbore: WAAG 19 PWB

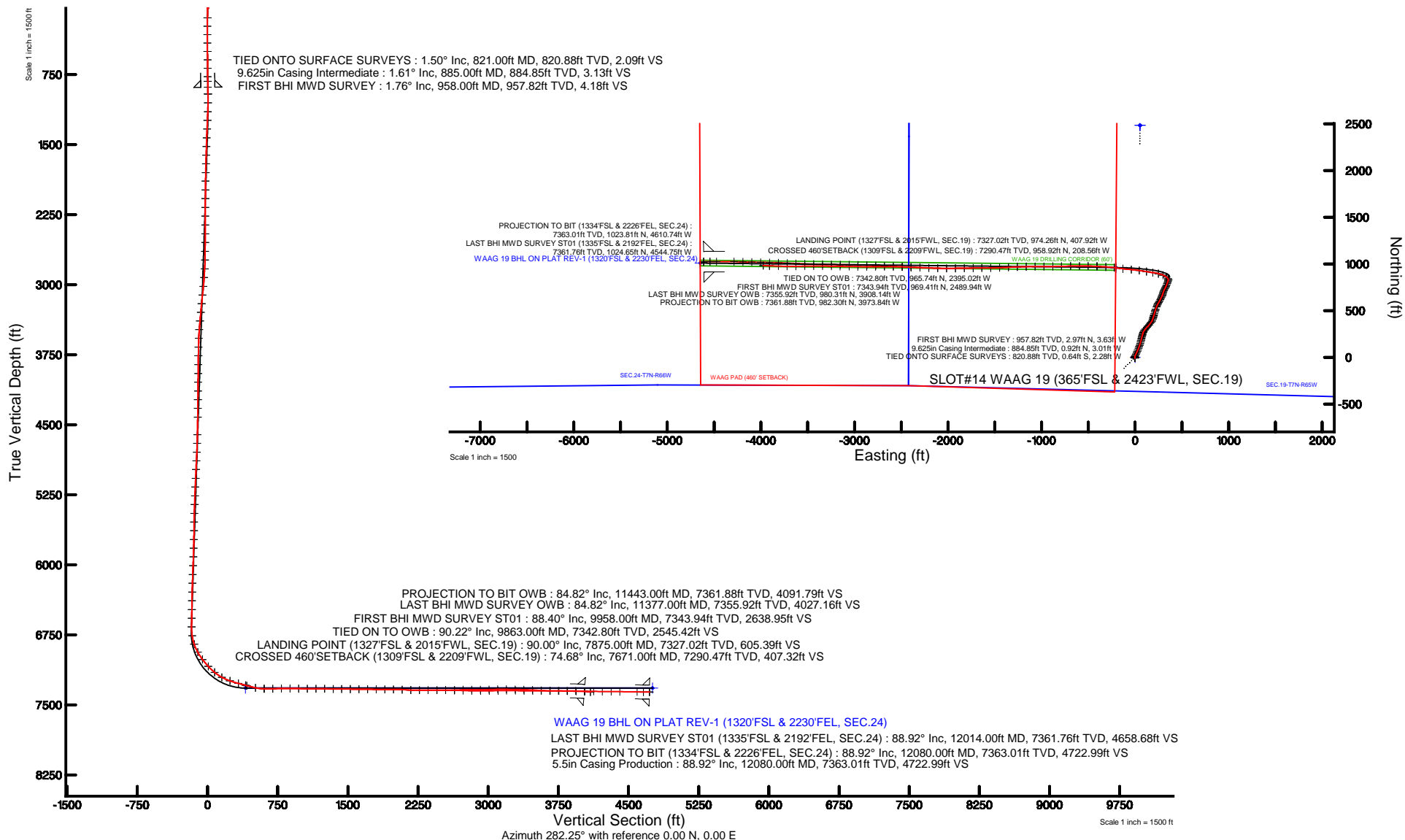
Plot reference wellpath is WAAG 19 PWP (REV-A.0)

True vertical depths are referenced to SAVANNA 802 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to SAVANNA 802 (RKB)	North Reference: True north
SAVANNA 802 (RKB) to Mean Sea Level: 4888 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#14 WAAG 19 (365°FSL & 2423°FSL, SEC.19)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: ingmjmr on 10/16/2015



BGGM (1945.0 to 2017.0) Dip: 67.09° Field: 52677.8 nT
Magnetic North is 8.52 degrees East of True North (at 9/21/2015)

To correct azimuth from Magnetic to True add 8.52 degrees





Actual Wellpath Report

WAAG 19 AWP

Page 1 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 WAAG 19 (365'FSL & 2423'FWL, SEC.19)
Area	COLORADO	Well	WAAG 19
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WAAG 19 AWB
Facility	SEC.19-T07N-R65W		

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	0.999971	Report Generated	10/16/2015 at 11:11:12 AM
Convergence at slot	0.51° East	Database/Source file	WA_DEN_Denver_Defn/WAAG_19_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2626.76	-52.80	3220310.85	1445819.27	40°33'16.092"N	104°42'25.740"W
Facility Reference Pt			3220340.15	1448446.32	40°33'42.048"N	104°42'25.056"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 (RKB) to Facility Vertical Datum	4888.00ft
Horizontal Reference Pt	Slot	SAVANNA 802 (RKB) to Mean Sea Level	4888.00ft
Vertical Reference Pt	SAVANNA 802 (RKB)	SAVANNA 802 (RKB) to Mud Line at Slot (SLOT#14 WAAG 19 (365'FSL & 2423'FWL, SEC.19))	4888.00ft
MD Reference Pt	SAVANNA 802 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	283.88°



Actual Wellpath Report

WAAG 19 AWP

Page 2 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 WAAG 19 (365'FSL & 2423'FWL, SEC.19)
Area	COLORADO	Well	WAAG 19
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WAAG 19 AWB
Facility	SEC.19-T07N-R65W		

WELLPATH DATA (113 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
821.00	1.500	330.800	820.88	2.05	-0.64	-2.28	0.84	TIED ONTO SURFACE SURVEYS
958.00	1.760	346.800	957.82	4.24	2.97	-3.63	0.38	FIRST BHI MWD SURVEY
1053.00	5.570	14.580	1052.61	4.85	8.85	-2.80	4.31	
1148.00	9.810	25.160	1146.74	3.21	20.65	1.80	4.69	
1242.00	10.250	25.030	1239.31	0.02	35.47	8.74	0.47	
1337.00	9.850	26.540	1332.85	-3.39	50.40	15.95	0.50	
1432.00	9.870	24.600	1426.45	-6.68	65.07	22.97	0.35	
1527.00	10.520	22.320	1519.95	-9.47	80.50	29.65	0.81	
1622.00	10.990	21.440	1613.28	-11.93	96.95	36.26	0.52	
1716.00	11.190	19.530	1705.52	-14.01	113.89	42.58	0.44	
1811.00	10.790	18.800	1798.78	-15.68	130.99	48.53	0.45	
1905.00	10.570	16.990	1891.15	-16.90	147.57	53.88	0.43	
2000.00	9.780	15.210	1984.66	-17.56	163.69	58.55	0.89	
2095.00	9.500	14.690	2078.31	-17.85	179.06	62.65	0.31	
2190.00	9.000	13.310	2172.08	-17.89	193.87	66.35	0.58	
2285.00	8.540	14.130	2265.97	-17.85	207.94	69.78	0.50	
2380.00	8.040	12.930	2359.98	-17.76	221.26	72.99	0.56	
2475.00	7.770	14.290	2454.07	-17.70	233.96	76.06	0.35	
2570.00	7.260	15.680	2548.26	-17.93	245.96	79.27	0.57	
2664.00	6.540	18.250	2641.58	-18.53	256.76	82.55	0.83	
2759.00	6.340	17.660	2735.98	-19.28	266.90	85.84	0.22	
2854.00	9.450	34.090	2830.08	-22.32	278.36	91.80	4.01	
2949.00	9.220	32.740	2923.82	-27.48	291.22	100.29	0.33	
3044.00	12.840	41.510	3017.05	-34.83	305.53	111.41	4.19	
3139.00	11.880	42.000	3109.85	-44.34	320.70	124.95	1.02	
3233.00	10.730	43.510	3202.03	-53.22	334.24	137.45	1.26	
3328.00	11.880	36.760	3295.18	-61.40	348.49	149.39	1.84	
3423.00	11.620	39.510	3388.19	-69.34	363.70	161.33	0.65	
3517.00	9.390	40.790	3480.61	-76.90	376.82	172.36	2.39	
3612.00	11.140	23.090	3574.11	-81.88	391.13	181.03	3.78	
3707.00	9.680	18.740	3667.55	-84.02	407.14	187.19	1.74	
3802.00	8.000	18.460	3761.42	-85.22	420.97	191.85	1.77	
3897.00	6.900	16.080	3855.61	-85.97	432.73	195.52	1.20	
3992.00	7.300	15.760	3949.88	-86.39	444.02	198.74	0.42	
4087.00	7.470	18.890	4044.10	-87.12	455.67	202.38	0.46	
4182.00	10.470	15.770	4137.92	-87.95	469.82	206.73	3.20	
4277.00	10.370	14.830	4231.36	-88.37	486.39	211.26	0.21	
4371.00	8.920	16.150	4324.03	-88.80	501.57	215.46	1.56	
4466.00	7.670	16.860	4418.03	-89.42	514.72	219.34	1.32	
4655.00	8.790	22.560	4605.08	-92.25	540.12	228.54	0.73	
4750.00	8.190	21.740	4699.04	-94.27	553.11	233.83	0.64	
4845.00	10.240	26.220	4792.81	-97.00	566.97	240.07	2.28	
4939.00	8.170	32.190	4885.60	-100.88	580.12	247.32	2.42	
5034.00	6.730	34.140	4979.80	-104.93	590.44	254.04	1.54	
5128.00	10.040	26.770	5072.78	-108.67	602.32	260.83	3.70	



Actual Wellpath Report

WAAG 19 AWP

Page 3 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 WAAG 19 (365'FSL & 2423'FWL, SEC.19)
Area	COLORADO	Well	WAAG 19
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WAAG 19 AWB
Facility	SEC.19-T07N-R65W		

WELLPATH DATA (113 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
5224.00	9.950	25.400	5167.32	-112.19	617.29	268.15	0.26	
5319.00	8.120	28.130	5261.14	-115.48	630.62	274.84	1.98	
5414.00	9.810	24.600	5354.98	-118.63	643.89	281.37	1.87	
5508.00	7.640	25.470	5447.88	-121.38	656.82	287.39	2.31	
5603.00	10.280	17.880	5541.72	-123.24	670.59	292.71	3.04	
5697.00	8.350	14.550	5634.48	-123.90	685.18	297.00	2.13	
5792.00	9.660	19.930	5728.31	-124.82	699.35	301.45	1.64	
5887.00	8.970	22.200	5822.05	-126.73	713.70	306.97	0.82	
5981.00	6.640	26.870	5915.18	-129.01	725.34	312.19	2.57	
6077.00	9.960	28.340	6010.16	-132.33	737.60	318.64	3.47	
6171.00	7.550	27.160	6103.06	-135.78	750.25	325.32	2.57	
6266.00	9.350	22.150	6197.02	-138.32	762.95	331.08	2.05	
6361.00	7.380	23.110	6291.01	-140.41	775.71	336.39	2.08	
6456.00	10.120	18.940	6384.89	-142.13	789.22	341.49	2.96	
6551.00	7.810	17.120	6478.73	-143.23	803.29	346.10	2.45	
6645.00	9.460	19.330	6571.66	-144.32	816.68	350.54	1.79	
6739.00	6.430	18.730	6664.74	-145.50	828.96	354.79	3.22	
6834.00	11.510	327.350	6758.68	-139.05	842.00	351.37	9.48	
6928.00	21.120	309.400	6848.85	-116.90	860.70	333.18	11.43	
7023.00	29.600	293.220	6934.71	-78.19	880.88	298.28	11.45	
7117.00	36.390	283.060	7013.57	-27.30	896.36	249.69	9.30	
7212.00	43.060	279.200	7086.61	33.28	907.93	190.15	7.48	
7306.00	50.380	278.730	7151.00	101.41	918.57	122.60	7.80	
7401.00	61.770	278.380	7203.94	179.77	930.26	44.77	11.99	
7495.00	70.430	274.570	7242.00	264.88	939.84	-40.53	9.93	
7590.00	75.630	277.230	7269.72	354.82	949.21	-130.87	6.09	
7671.00†	74.684	277.017	7290.47	432.58	958.92	-208.56	1.20	CROSSED 460'SETBACK (1309'FSL & 2209'FWL, SEC.19)
7685.00	74.520	276.980	7294.19	445.98	960.56	-221.96	1.20	
7780.00	77.780	273.430	7316.93	537.13	968.91	-313.79	4.99	
7875.00	90.000	273.080	7327.02	629.79	974.26	-407.92	12.87	LANDING POINT (1327'FSL & 2015'FWL, SEC.19)
7969.00	90.650	270.320	7326.49	721.66	977.05	-501.86	3.02	
8063.00	90.890	269.920	7325.23	812.95	977.24	-595.86	0.50	
8158.00	89.630	269.570	7324.80	905.07	976.82	-690.85	1.38	
8253.00	89.110	268.640	7325.84	996.92	975.34	-785.83	1.12	
8347.00	89.820	269.400	7326.72	1087.77	973.73	-879.81	1.11	
8442.00	89.690	269.810	7327.13	1179.83	973.07	-974.81	0.45	
8536.00	89.110	269.450	7328.11	1270.93	972.47	-1068.80	0.73	
8631.00	89.630	269.090	7329.15	1362.85	971.26	-1163.79	0.67	
8725.00	89.480	267.970	7329.88	1453.50	968.85	-1257.75	1.20	
8820.00	89.380	267.000	7330.83	1544.62	964.68	-1352.66	1.03	
8915.00	89.820	267.370	7331.49	1635.62	960.01	-1447.54	0.61	
9010.00	88.890	269.930	7332.56	1727.26	957.77	-1542.50	2.87	
9105.00	89.630	269.810	7333.79	1819.43	957.56	-1637.49	0.79	
9199.00	89.600	268.870	7334.42	1910.41	956.48	-1731.48	1.00	
9294.00	90.710	269.930	7334.16	2002.39	955.48	-1826.47	1.62	



Actual Wellpath Report

WAAG 19 AWP

Page 4 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 WAAG 19 (365'FSL & 2423'FWL, SEC.19)
Area	COLORADO	Well	WAAG 19
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WAAG 19 AWB
Facility	SEC.19-T07N-R65W		

WELLPATH DATA (113 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
9388.00	86.550	268.270	7336.41	2093.23	954.01	-1920.41	4.76	
9483.00	87.750	270.500	7341.13	2185.08	952.99	-2015.28	2.66	
9578.00	90.190	271.820	7342.84	2277.72	954.91	-2110.23	2.92	
9673.00	90.620	272.280	7342.17	2370.70	958.31	-2205.17	0.66	
9768.00	89.200	272.350	7342.32	2463.77	962.15	-2300.09	1.50	
9863.00	90.220	271.980	7342.80	2556.78	965.74	-2395.02	1.14	
9958.00	92.410	271.970	7340.62	2649.71	969.01	-2489.93	2.31	
10053.00	90.340	269.840	7338.34	2742.25	970.51	-2584.88	3.13	
10147.00	89.910	269.840	7338.14	2833.44	970.25	-2678.88	0.46	
10242.00	90.060	270.600	7338.16	2925.75	970.61	-2773.88	0.82	
10336.00	92.470	269.990	7336.09	3017.08	971.10	-2867.85	2.64	
10431.00	91.200	270.670	7333.04	3109.39	971.64	-2962.80	1.52	
10525.00	88.710	270.810	7333.12	3200.92	972.86	-3056.78	2.65	
10621.00	89.260	270.850	7334.82	3294.42	974.25	-3152.76	0.57	
10715.00	88.150	270.970	7336.94	3386.00	975.74	-3246.72	1.19	
10810.00	87.630	270.500	7340.44	3478.44	976.96	-3341.65	0.74	
10904.00	86.640	270.170	7345.14	3569.71	977.51	-3435.52	1.11	
10999.00	88.400	268.970	7349.25	3661.67	976.79	-3530.43	2.24	
11094.00	90.560	268.940	7350.11	3753.45	975.06	-3625.40	2.27	
11188.00	90.000	270.840	7349.65	3844.66	974.88	-3719.40	2.11	
11282.00	88.800	272.010	7350.64	3936.44	977.22	-3813.36	1.78	
11377.00	84.820	271.730	7355.92	4029.19	980.31	-3908.14	4.20	LAST BHI MWD SURVEY OWB
11443.00	84.820	271.730	7361.88	4093.45	982.30	-3973.84	0.00	PROJECTION TO BIT OWB

HOLE & CASING SECTIONS - Ref Wellbore: WAAG 19 AWB Ref Wellpath: WAAG 19 AWP

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 Intermediate	20.00	885.00	865.00	20.00	884.85	-0.04	0.01	0.92	-3.01
7.875in Open Hole	885.00	11377.00	10492.00	884.85	7355.92	0.92	-3.01	980.31	-3908.14
5.5in Casing Production	20.00	11377.00	11357.00	20.00	7355.92	-0.04	0.01	980.31	-3908.14



Actual Wellpath Report

WAAG 19 AWP

Page 5 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 WAAG 19 (365'FSL & 2423'FWL, SEC.19)
Area	COLORADO	Well	WAAG 19
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WAAG 19 AWB
Facility	SEC.19-T07N-R65W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.19-T7N-R65W	-23.00	2484.68	52.79	3220341.42	1448304.24	40°33'40.644"N	104°42'25.056"W	polygon
SEC.24-T7N-R66W	-23.00	2484.68	52.79	3220341.42	1448304.24	40°33'40.644"N	104°42'25.056"W	polygon
WAAG PAD (460' SETBACK)	7145.00	2484.68	52.79	3220341.42	1448304.24	40°33'40.644"N	104°42'25.056"W	polygon
WAAG 19 BHL ON PLAT REV-1 (1320'FSL & 2230'FEL, SEC.24)	7320.00	1009.61	-4648.82	3215653.34	1446787.24	40°33'26.064"N	104°43'25.968"W	point
WAAG 19 DRILLING CORRIDOR (60')	7320.00	0.00	0.00	3220310.85	1445819.27	40°33'16.092"N	104°42'25.740"W	polygon
WAAG 19 LANDING POINT	7320.00	961.81	-205.63	3220096.64	1446779.17	40°33'25.596"N	104°42'28.404"W	point

WELLPATH COMPOSITION - Ref Wellbore: WAAG 19 AWB					Ref Wellpath: WAAG 19 AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore	
0.00	821.00	ISCWSA MWD, Rev. 3 (Standard)	NEWSCO SURVEYS <141-821>		WAAG 19 AWB	
821.00	11377.00	NaviTrak (Standard)	BHI MWD/NAVITRAK (STD) 7.875" HOLE <958-11377>		WAAG 19 AWB	
11377.00	11443.00	Blind Drilling (std)	Projection to bit		WAAG 19 AWB	



Actual Wellpath Report

WAAG 19 AWP

Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION

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Area	COLORADO	Well	WAAG 19
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WAAG 19 AWB
Facility	SEC.19-T07N-R65W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
821.00	1.500	330.800	820.88	TIED ONTO SURFACE SURVEYS
958.00	1.760	346.800	957.82	FIRST BHI MWD SURVEY
7671.00	74.684	277.017	7290.47	CROSSED 460'SETBACK (1309'FSL & 2209'FWL, SEC.19)
7875.00	90.000	273.080	7327.02	LANDING POINT (1327'FSL & 2015'FWL, SEC.19)
11377.00	84.820	271.730	7355.92	LAST BHI MWD SURVEY OWB
11443.00	84.820	271.730	7361.88	PROJECTION TO BIT OWB



Actual Wellpath Report

WAAG 19 ST01 AWP

Page 1 of 4



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 WAAG 19 (365'FSL & 2423'FWL, SEC.19)
Area	COLORADO	Well	WAAG 19
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WAAG 19 ST01 AWB
Facility	SEC.19-T07N-R65W	Sidetrack from	WAAG 19 AWB at 9863.00 MD

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	0.999971	Report Generated	10/16/2015 at 11:12:33 AM
Convergence at slot	0.51° East	Database/Source file	WA_DEN_Denver_Defn/WAAG_19_ST01_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2626.76	-52.80	3220310.85	1445819.27	40°33'16.092"N	104°42'25.740"W
Facility Reference Pt			3220340.15	1448446.32	40°33'42.048"N	104°42'25.056"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 (RKB) to Facility Vertical Datum	4888.00ft
Horizontal Reference Pt	Slot	SAVANNA 802 (RKB) to Mean Sea Level	4888.00ft
Vertical Reference Pt	SAVANNA 802 (RKB)	SAVANNA 802 (RKB) to Mud Line at Slot (SLOT#14 WAAG 19 (365'FSL & 2423'FWL, SEC.19))	4888.00ft
MD Reference Pt	SAVANNA 802 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	282.25°



Actual Wellpath Report

WAAG 19 ST01 AWP

Page 2 of 4



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 WAAG 19 (365'FSL & 2423'FWL, SEC.19)
Area	COLORADO	Well	WAAG 19
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WAAG 19 ST01 AWP
Facility	SEC.19-T07N-R65W	Sidetrack from	WAAG 19 AWP at 9863.00 MD

WELLPATH DATA (24 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
9863.00	90.220	271.980	7342.80	2545.42	965.74	-2395.02	1.14	TIED ON TO OWB
9958.00	88.400	272.450	7343.94	2638.95	969.41	-2489.94	1.98	FIRST BHI MWD SURVEY ST01
10053.00	88.060	272.590	7346.88	2732.54	973.58	-2584.80	0.39	
10147.00	89.040	272.720	7349.26	2825.19	977.94	-2678.67	1.05	
10241.00	89.850	272.390	7350.17	2917.85	982.13	-2772.57	0.93	
10336.00	91.050	272.390	7349.42	3011.44	986.09	-2867.48	1.26	
10431.00	90.430	271.610	7348.20	3104.91	989.40	-2962.42	1.05	
10525.00	90.280	270.680	7347.61	3197.15	991.28	-3056.39	1.00	
10621.00	89.080	271.110	7348.15	3291.26	992.78	-3152.38	1.33	
10715.00	89.480	271.380	7349.33	3383.53	994.82	-3246.35	0.51	
10810.00	90.430	271.430	7349.40	3476.83	997.15	-3341.32	1.00	
10904.00	90.280	270.650	7348.82	3569.03	998.86	-3435.30	0.84	
10999.00	89.720	272.460	7348.82	3662.38	1001.44	-3530.26	1.99	
11094.00	88.490	272.490	7350.31	3755.98	1005.54	-3625.16	1.30	
11188.00	88.800	272.460	7352.53	3848.59	1009.60	-3719.05	0.33	
11282.00	89.510	272.120	7353.92	3941.16	1013.35	-3812.96	0.84	
11377.00	89.750	271.030	7354.53	4034.51	1015.96	-3907.92	1.17	
11472.00	89.050	271.050	7355.52	4127.69	1017.69	-4002.90	0.74	
11566.00	89.940	271.510	7356.35	4219.97	1019.79	-4096.87	1.07	
11661.00	89.050	271.590	7357.19	4313.31	1022.36	-4191.83	0.94	
11755.00	89.600	271.260	7358.30	4405.63	1024.69	-4285.79	0.68	
11944.00	89.050	269.260	7360.52	4590.49	1025.55	-4474.77	1.10	
12014.00	88.920	269.270	7361.76	4658.68	1024.65	-4544.75	0.19	LAST BHI MWD SURVEY ST01 (1335'FSL & 2192'FEL, SEC.24)
12080.00	88.920	269.270	7363.01	4722.99	1023.81	-4610.74	0.00	PROJECTION TO BIT (1334'FSL & 2226'FEL, SEC.24)

HOLE & CASING SECTIONS - Ref Wellbore: WAAG 19 ST01 AWP Ref Wellpath: WAAG 19 ST01 AWP

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 Intermediate	20.00	885.00	865.00	20.00	884.85	-0.04	0.01	0.92	-3.01
7.875in Open Hole	885.00	9863.00	8978.00	884.85	7342.80	0.92	-3.01	965.74	-2395.02
5.5in Casing Production	20.00	9863.00	9843.00	20.00	7342.80	-0.04	0.01	965.74	-2395.02
7.875in Open Hole	9863.00	12080.00	2217.00	7342.80	7363.01	965.74	-2395.02	1023.81	-4610.74
5.5in Casing Production	20.00	12080.00	12060.00	20.00	7363.01	-0.04	0.01	1023.81	-4610.74



Actual Wellpath Report

WAAG 19 ST01 AWP

Page 3 of 4



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 WAAG 19 (365'FSL & 2423'FWL, SEC.19)
Area	COLORADO	Well	WAAG 19
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WAAG 19 ST01 AWB
Facility	SEC.19-T07N-R65W	Sidetrack from	WAAG 19 AWB at 9863.00 MD

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.19-T7N-R65W	-23.00	2484.68	52.79	3220341.42	1448304.24	40°33'40.644"N	104°42'25.056"W	polygon
SEC.24-T7N-R66W	-23.00	2484.68	52.79	3220341.42	1448304.24	40°33'40.644"N	104°42'25.056"W	polygon
WAAG PAD (460' SETBACK)	7145.00	2484.68	52.79	3220341.42	1448304.24	40°33'40.644"N	104°42'25.056"W	polygon
WAAG 19 BHL ON PLAT REV-1 (1320'FSL & 2230'FEL, SEC.24)	7320.00	1009.61	-4648.82	3215653.34	1446787.24	40°33'26.064"N	104°43'25.968"W	point
WAAG 19 DRILLING CORRIDOR (60')	7320.00	0.00	0.00	3220310.85	1445819.27	40°33'16.092"N	104°42'25.740"W	polygon
WAAG 19 LANDING POINT	7320.00	961.81	-205.63	3220096.64	1446779.17	40°33'25.596"N	104°42'28.404"W	point

WELLPATH COMPOSITION - Ref Wellbore: WAAG 19 ST01 AWB Ref Wellpath: WAAG 19 ST01 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	821.00	ISCWSA MWD, Rev. 3 (Standard)	NEWSO SURVEYS <141-821>	WAAG 19 AWB
821.00	9863.00	NaviTrak (Standard)	BHI MWD/NAVITRAK (STD) 7.875" HOLE <958-11377>	WAAG 19 AWB
9863.00	12014.00	NaviTrak (Standard)	BHI MWD/NAVITRAK (STD) 7.875" HOLE <9958-12014>	WAAG 19 ST01 AWB
12014.00	12080.00	Blind Drilling (std)	Projection to bit	WAAG 19 ST01 AWB



Actual Wellpath Report

WAAG 19 ST01 AWP

Page 4 of 4



REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 WAAG 19 (365'FSL & 2423'FWL, SEC.19)
Area	COLORADO	Well	WAAG 19
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WAAG 19 ST01 AWB
Facility	SEC.19-T07N-R65W	Sidetrack from	WAAG 19 AWB at 9863.00 MD

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
821.00	1.500	330.800	820.88	TIED ONTO SURFACE SURVEYS
958.00	1.760	346.800	957.82	FIRST BHI MWD SURVEY
7671.00	74.684	277.017	7290.47	CROSSED 460'SETBACK (1309'FSL & 2209'FWL, SEC.19)
7875.00	90.000	273.080	7327.02	LANDING POINT (1327'FSL & 2015'FWL, SEC.19)
9863.00	90.220	271.980	7342.80	TIED ON TO OWB
9958.00	88.400	272.450	7343.94	FIRST BHI MWD SURVEY ST01
12014.00	88.920	269.270	7361.76	LAST BHI MWD SURVEY ST01 (1335'FSL & 2192'FEL, SEC.24)
12080.00	88.920	269.270	7363.01	PROJECTION TO BIT (1334'FSL & 2226'FEL, SEC.24)