

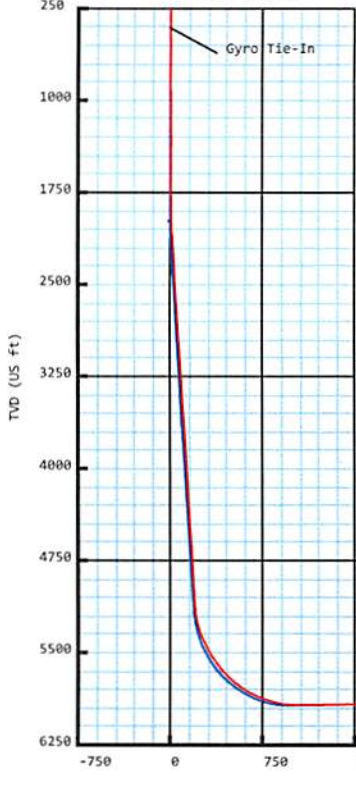


Mike Ryniawec BRK 3H  
 Brooke Co, WV  
 SDC 40  
 Plan vs Actual



Weatherford

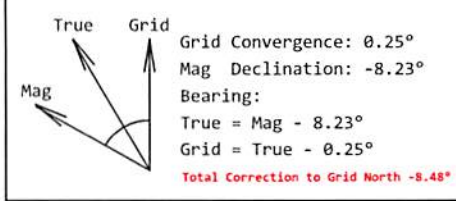
KB: 1173.4'  
 GL: 1147.4'



WV Department of Environmental Protection

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Plan Data for Mike Ryniawec BRK 3H

Plan Point Information:									
Dogleg Severity Unit: °/100.00ft				Position offsets from Slot centre					
MD	Inc	Az	TVD	+N/-S	+E/-W	VSec	DLS	Toolface	Comments
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(DLSU)	(°)	(°)
0.00	0.00	0.00	-0.00	-0.00	-0.00	-0.00	0.00	0.00	0.0
26.00	0.00	0.00	26.00	-0.00	-0.00	-0.00	0.00	0.0	0.0 KB Offset
2000.00	0.00	0.00	2000.00	-0.00	-0.00	-0.00	0.00	0.0	0.0 Nudge KOP
2200.00	4.00	10.00	2199.84	6.87	1.21	5.99	2.00	10.0	10.0 Hold
3488.00	4.00	10.00	3484.70	95.35	16.81	83.17	0.00	0.0	0.0 Turn
3657.97	4.00	319.67	3654.31	105.71	14.01	93.86	2.00	244.9	244.9 Hold
5181.93	4.00	319.67	5174.55	186.76	-54.79	194.04	0.00	0.0	0.0 Curve KOP 7° DLS
6127.99	70.00	338.69	5889.66	682.48	-261.19	730.75	7.00	19.5	19.5 Build/Turn 9° DLS
6359.07	90.79	339.22	5928.00	893.97	-342.52	957.34	9.00	1.5	1.5 Landing Point
16942.76	90.79	339.22	5782.00	10788.32	-4096.88	11540.03	0.00	0.0	0.0 PBHL Mike R3H

Target Set Information:

Name: Mike Ryniawec BRK 3H							
Position offsets from Slot centre							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Lat	Long
(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(°)	(°)
LP Mike R3H	5928.00	736.54	-282.75	14597156.34	1749270.94	40.192735	-80.610208
PBHL Mike R3H	5782.00	10788.32	-4096.88	14607208.12	1745456.81	40.220383	-80.623713

Plan Data for Mike Ryniawec BRK 3H

Field: SOUTHWESTERN\_BROOKE CO, WV UTM NAD 83 (17N)  
 Map Unit: USFT Vertical Reference Datum (VRD):  
 Projected Coordinate System: NAD83 / UTM zone 17N

Site: Mike Ryniawec Pad

Unit: USFeet TVD Reference:  
 Company Name: SOUTHWESTERN ENERGY  
 Position: Northing: 14596413.14USft Latitude: 40.190691°  
 Easting: 1749526.49USft Longitude: -80.609305°  
 North Reference: Grid Grid Convergence: 0.25°  
 Elevation Above VRD: 1173.00USft

Slot: Mike Ryniawec BRK 3H

Position:  
 Offset is from Site centre  
 +N/-S: 6.66USft Northing: 14596419.80USft Latitude: 40.190709°  
 +E/-W: 27.20USft Easting: 1749553.69USft Longitude: -80.609207°  
 Elevation Above VRD: 1147.40USft

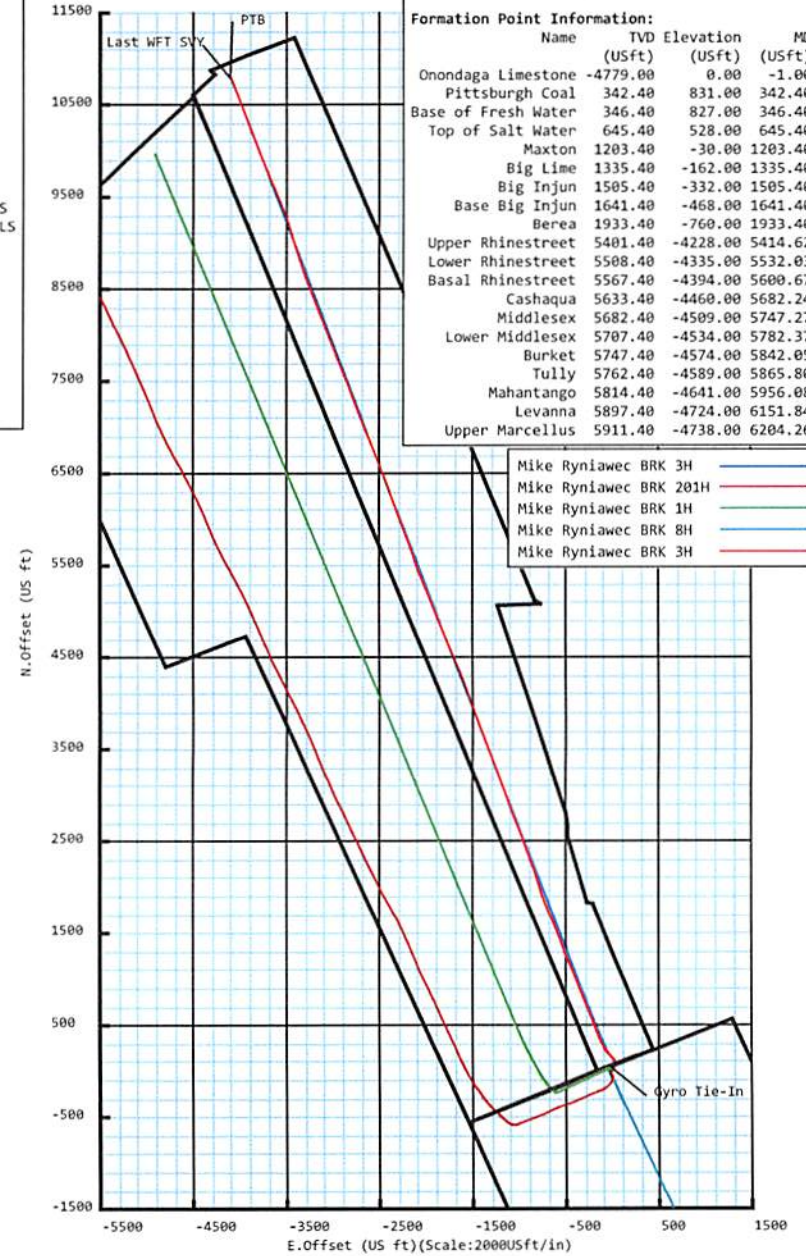
Well: Mike Ryniawec BRK 3H

Type: Main-Well  
 File Number:  
 Plan Folder: P1 Plan: P1:V2  
 Vertical Section: Position offset of origin from Slot centre:  
 +N/-S: 0.00USft Azimuth: 339.21°  
 +E/-W: 0.00USft  
 Magnetic Parameters:  
 Model: Field Strength: Declination: Dip: Date:  
 HDGM2016 52591(nT) -8.23° 67.60° 2018-03-20

Plan Data for Mike Ryniawec BRK 3H

Formation Point Information:

Name	TVD (USft)	Elevation (USft)	MD (USft)
Onondaga Limestone	-4779.00	0.00	-1.00
Pittsburgh Coal	342.40	831.00	342.40
Base of Fresh Water	346.40	827.00	346.40
Top of Salt Water	645.40	528.00	645.40
Maxton	1203.40	-30.00	1203.40
Big Lime	1335.40	-162.00	1335.40
Big Injun	1505.40	-332.00	1505.40
Base Big Injun	1641.40	-468.00	1641.40
Berea	1933.40	-760.00	1933.40
Upper Rhinestreet	5401.40	-4228.00	5414.62
Lower Rhinestreet	5508.40	-4335.00	5532.03
Basal Rhinestreet	5567.40	-4394.00	5600.67
Cashaqua	5633.40	-4460.00	5682.24
Middlesex	5682.40	-4509.00	5747.27
Lower Middlesex	5707.40	-4534.00	5782.37
Burket	5747.40	-4574.00	5842.05
Tully	5762.40	-4589.00	5865.80
Mahantango	5814.40	-4641.00	5956.08
Levanona	5897.40	-4724.00	6151.84
Upper Marcellus	5911.40	-4738.00	6204.26



Drawing By: Vilaphanh (Cot) Sinakone  
 Date: 20 March 2018  
 Office Name: Weatherford Drilling Services  
 Address: 12101 Cutten Road  
 Houston, TX 77066  
 Phone: 281-701-4760





# Weatherford®

## Mike Ryniawec BRK 3H

<b>Field Name:</b> SOUTHWESTER N_BROOKE CO, WV UTM NAD 83 (17N)	<b>Map Units:</b> US ft	<b>Company Name:</b> SOUTHWESTERN ENERGY	
	<b>Vertical Reference Datum (VRD):</b>		
	<b>Projected Coordinate System:</b> NAD83 / UTM zone 17N		
<b>Site:</b> Mike Ryniawec Pad	<b>Units:</b> US ft		<b>North Reference:</b> Grid
	<b>Position:</b>		<b>Convergence Angle:</b> 0.25
	<b>Northing:</b> 14596413.14 US ft	<b>Latitude:</b> 40.190691	<b>Longitude:</b> -80.609305
	<b>Easting:</b> 1749526.49 US ft	<b>Elevation above Field Reference:</b> 1173.00 US ft	
<b>Slot:</b> Mike Ryniawec BRK 3H	<b>Position (Relative to Site Centre)</b>		
	<b>+N/-S:</b> 6.66 US ft	<b>Northing:</b> 14596419.80 US ft	<b>Latitude:</b> 40.190709
	<b>+E/-W:</b> 27.20 US ft	<b>Easting:</b> 1749553.69 US ft	<b>Longitude:</b> -80.609207
	<b>Elevation above Field Reference:</b> 1147.40 US ft		
<b>Well:</b> Mike Ryniawec BRK 3H	<b>Type:</b> Main well	<b>UWI:</b>	
	<b>File Number:</b>	<b>Comment:</b>	
	<b>Closure Distance:</b> 11544.1 US ft	<b>Closure Azimuth:</b> 339.22°	
	<b>Vertical Section: Position of Origin (Relative to Slot centre)</b>		
	<b>+N/-S:</b> -0.00 US ft	<b>+E/-W:</b> -0.00 US ft	<b>Az:</b> 339.21°

<b>Drill floor: Survey Name:</b> Definitive Survey			
<b>Rig Height (Well TVD Reference):</b> 26.00 US ft	<b>Elevation above Field Reference:</b> 1173.40 US ft	<b>Inclination:</b> 0.00°	<b>Azimuth:</b> 0.00°

<b>Survey Name:</b> Definitive Survey			
<b>Date:</b> 09/Feb/2018	<b>Survey Tool:</b> See Survey Tool Ranges below.	<b>Comment:</b>	<b>Company:</b>

<b>Magnetic Model:</b>				
<b>Model Name:</b> HDGM2016	<b>Date:</b> 20/Mar/2018	<b>Field Strength:</b> 52591.0 nT	<b>Declination:</b> -8.23°	<b>Dip:</b> 67.60°

<b>Tie Point:</b>					
<b>MD:</b> 0.00 US ft	<b>Inclination:</b> 0.00°	<b>Azimuth:</b> 0.00°	<b>TVD:</b> -0.00 US ft	<b>North Offset:</b> -0.00 US ft	<b>East Offset:</b> -0.00 US ft

<b>Survey Tool Ranges:</b>			
Name	Start MD(USft)	End MD(USft)	Source Survey
GYRO_GC_WIR+DPIPE_GYD	0.00	414.00	Gyro

## 5D Survey Report

Survey Tool Ranges:			
Name	Start MD(USFt)	End MD(USFt)	Source Survey
MWD	414.00	1640.00	WFT MWD_01
MWD	1640.00	4787.00	WFT MWD_02
MWD	4787.00	5575.00	WFT MWD_03
MWD	5575.00	7121.00	WFT MWD_04
MWD	7121.00	16917.00	WFT MWD_05

Wellpath created using minimum curvature.

Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (° ' ")	Longitude (° ' ")	DLS (°/100US ft)	Comment
0.00	0.00	0.00	-0.00	0.00	-0.00	-0.00	40.190709	-80.609207	0.00	
50.00	0.47	20.13	50.00	0.15	0.19	0.07	40.190710	-80.609207	0.94	
100.00	0.41	346.03	100.00	0.49	0.56	0.10	40.190711	-80.609207	0.53	
150.00	0.13	343.31	150.00	0.72	0.79	0.04	40.190711	-80.609207	0.56	
200.00	0.55	71.92	200.00	0.77	0.92	0.25	40.190712	-80.609206	1.12	
250.00	0.79	64.05	249.99	0.79	1.14	0.79	40.190712	-80.609204	0.51	
300.00	1.03	63.03	299.99	0.87	1.50	1.50	40.190713	-80.609202	0.48	
350.00	1.02	53.66	349.98	1.03	1.96	2.26	40.190715	-80.609199	0.34	
400.00	0.98	49.26	399.97	1.30	2.51	2.94	40.190716	-80.609196	0.17	
414.00	0.70	45.02	413.97	1.37	2.64	3.09	40.190717	-80.609196	2.05	Gyro Tie-In
506.00	0.91	83.81	505.96	1.42	3.12	4.22	40.190718	-80.609192	0.62	
596.00	1.04	91.39	595.95	0.93	3.18	5.74	40.190718	-80.609186	0.20	
687.00	0.55	74.34	686.94	0.58	3.28	6.99	40.190718	-80.609182	0.59	
777.00	0.47	32.74	776.94	0.76	3.70	7.60	40.190719	-80.609180	0.41	
870.00	0.60	23.83	869.93	1.34	4.47	8.01	40.190721	-80.609178	0.17	
962.00	0.51	27.86	961.93	1.95	5.27	8.39	40.190724	-80.609177	0.11	
1055.00	0.72	12.66	1054.92	2.71	6.21	8.71	40.190726	-80.609176	0.28	
1145.00	0.75	28.57	1144.92	3.56	7.28	9.12	40.190729	-80.609174	0.23	
1238.00	0.39	38.94	1237.91	4.12	8.06	9.61	40.190731	-80.609172	0.40	
1330.00	0.16	115.22	1329.91	4.19	8.25	9.92	40.190732	-80.609171	0.42	
1423.00	0.50	130.34	1422.91	3.74	7.93	10.35	40.190731	-80.609170	0.37	
1516.00	0.13	268.80	1515.91	3.42	7.66	10.55	40.190730	-80.609169	0.65	
1605.00	0.34	308.86	1604.91	3.68	7.83	10.25	40.190731	-80.609170	0.29	
1640.00	0.14	321.36	1639.91	3.81	7.93	10.14	40.190731	-80.609171	0.59	
1727.00	0.23	22.29	1726.91	4.04	8.17	10.14	40.190732	-80.609171	0.23	
1819.00	0.27	38.54	1818.90	4.28	8.51	10.34	40.190733	-80.609170	0.09	
1912.00	0.32	12.55	1911.90	4.61	8.94	10.54	40.190734	-80.609169	0.15	
2005.00	2.49	353.88	2004.87	6.78	11.20	10.38	40.190740	-80.609170	2.35	
2098.00	4.74	356.56	2097.68	12.41	17.04	9.93	40.190756	-80.609171	2.43	
2190.00	4.97	356.14	2189.35	19.85	24.81	9.44	40.190777	-80.609173	0.25	
2283.00	3.52	11.19	2282.09	26.12	31.63	9.72	40.190796	-80.609172	1.95	
2376.00	3.13	11.32	2374.94	30.69	36.92	10.77	40.190811	-80.609168	0.42	
2468.00	2.77	8.64	2466.82	34.76	41.58	11.60	40.190823	-80.609165	0.42	
2561.00	4.05	2.97	2559.65	39.72	47.09	12.11	40.190838	-80.609163	1.42	
2654.00	4.09	358.69	2652.41	45.85	53.68	12.20	40.190857	-80.609162	0.33	
2747.00	3.84	355.72	2745.19	51.97	60.10	11.89	40.190874	-80.609163	0.35	
2839.00	3.94	2.51	2836.98	57.82	66.33	11.80	40.190891	-80.609164	0.51	
2932.00	4.50	16.65	2929.73	63.65	73.02	12.99	40.190910	-80.609159	1.27	
3025.00	4.44	17.75	3022.45	69.37	79.94	15.13	40.190929	-80.609152	0.11	
3117.00	4.04	14.31	3114.20	74.80	86.48	17.02	40.190947	-80.609145	0.52	
3210.00	3.64	9.71	3206.99	80.03	92.56	18.32	40.190963	-80.609140	0.54	
3303.00	3.33	2.72	3299.82	85.05	98.17	18.95	40.190979	-80.609138	0.56	
3396.00	3.10	336.28	3392.67	90.03	103.17	18.07	40.190992	-80.609141	1.60	
3488.00	4.32	327.86	3484.48	95.92	108.38	15.22	40.191007	-80.609151	1.45	
3581.00	4.76	325.96	3577.19	103.11	114.54	11.20	40.191024	-80.609165	0.50	
3674.00	4.50	325.39	3669.88	110.41	120.74	6.97	40.191041	-80.609180	0.28	
3767.00	4.16	320.69	3762.62	117.15	126.36	2.76	40.191056	-80.609195	0.53	
3859.00	3.63	317.33	3854.41	123.01	131.08	-1.33	40.191069	-80.609210	0.63	

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## 5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (° ' ")	Longitude (° ' ")	DLS (°/100US ft)	Comment
3952.00	3.67	314.77	3947.22	128.46	135.34	-5.44	40.191081	-80.609224	0.18	
4045.00	3.11	304.00	4040.06	133.23	138.85	-9.64	40.191091	-80.609239	0.91	
4138.00	3.67	321.55	4132.90	138.13	142.59	-13.59	40.191101	-80.609253	1.26	
4230.00	3.94	318.50	4224.69	143.89	147.26	-17.51	40.191114	-80.609267	0.37	
4323.00	3.58	316.93	4317.49	149.56	151.78	-21.61	40.191126	-80.609282	0.40	
4416.00	3.18	311.33	4410.33	154.53	155.60	-25.53	40.191137	-80.609296	0.56	
4509.00	3.60	331.38	4503.17	159.70	159.87	-28.87	40.191149	-80.609308	1.34	
4601.00	3.71	330.52	4594.98	165.51	165.00	-31.72	40.191163	-80.609318	0.13	
4694.00	3.49	325.31	4687.80	171.23	169.94	-34.81	40.191176	-80.609329	0.42	
4787.00	3.42	322.52	4780.63	176.63	174.47	-38.11	40.191189	-80.609341	0.20	
4880.00	3.26	321.09	4873.47	181.80	178.73	-41.46	40.191201	-80.609353	0.19	
4972.00	3.29	319.05	4965.32	186.77	182.76	-44.83	40.191212	-80.609365	0.13	
5065.00	4.27	316.39	5058.12	192.47	187.28	-48.97	40.191224	-80.609379	1.07	
5158.00	6.08	317.24	5150.74	200.23	193.40	-54.70	40.191241	-80.609400	1.95	
5204.00	9.47	320.60	5196.31	206.07	198.12	-58.76	40.191254	-80.609414	7.43	
5251.00	12.78	324.72	5242.42	214.77	205.35	-64.21	40.191274	-80.609434	7.24	
5297.00	16.16	327.16	5286.95	225.96	214.89	-70.63	40.191300	-80.609457	7.46	
5343.00	19.68	327.75	5330.72	239.82	226.82	-78.23	40.191333	-80.609484	7.66	
5390.00	22.92	329.77	5374.50	256.61	241.42	-87.07	40.191373	-80.609515	7.07	
5436.00	25.60	332.59	5416.43	275.32	257.99	-96.15	40.191419	-80.609547	6.35	
5483.00	28.34	332.67	5458.32	296.49	276.92	-105.95	40.191471	-80.609582	5.83	
5529.00	30.72	332.18	5498.34	319.00	297.01	-116.45	40.191526	-80.609619	5.20	
5575.00	32.99	332.96	5537.41	343.12	318.56	-127.63	40.191586	-80.609659	5.02	
5649.00	36.96	335.99	5598.04	385.38	356.84	-145.85	40.191691	-80.609724	5.85	
5696.00	40.55	337.66	5634.69	414.77	383.89	-157.41	40.191765	-80.609765	7.95	
5739.00	44.24	339.10	5666.44	443.75	410.84	-168.07	40.191840	-80.609802	8.87	
5785.00	46.62	339.16	5698.72	476.52	441.46	-179.75	40.191924	-80.609844	5.17	
5832.00	48.80	339.57	5730.34	511.28	474.00	-192.00	40.192013	-80.609887	4.68	
5878.00	51.51	339.43	5759.81	546.60	507.07	-204.36	40.192104	-80.609931	5.90	
5925.00	54.60	339.61	5788.06	584.15	542.26	-217.50	40.192201	-80.609977	6.58	
5971.00	59.44	338.72	5813.09	622.73	578.31	-231.23	40.192300	-80.610026	10.65	
6017.00	63.73	338.40	5834.97	663.18	615.96	-246.02	40.192404	-80.610078	9.35	
6064.00	66.67	337.40	5854.69	705.83	655.48	-262.07	40.192512	-80.610135	6.55	
6110.00	69.87	337.08	5871.71	748.53	694.88	-278.60	40.192621	-80.610194	6.99	
6156.00	72.54	337.97	5886.53	792.05	735.12	-295.25	40.192732	-80.610253	6.09	
6203.00	74.40	338.72	5899.91	837.10	776.99	-311.87	40.192847	-80.610312	4.24	
6249.00	77.58	339.78	5911.04	881.72	818.72	-327.68	40.192962	-80.610367	7.27	
6296.00	82.03	339.58	5919.36	927.97	862.09	-343.74	40.193081	-80.610424	9.48	
6339.00	85.56	339.04	5924.00	970.71	902.08	-358.84	40.193191	-80.610478	8.30	
6385.00	88.50	338.83	5926.39	1016.64	944.94	-375.35	40.193309	-80.610536	6.41	
6432.00	90.25	337.93	5926.90	1063.63	988.63	-392.67	40.193429	-80.610597	4.19	
6478.00	91.54	338.48	5926.18	1109.62	1031.34	-409.74	40.193546	-80.610658	3.05	
6571.00	90.55	337.89	5924.49	1202.59	1117.66	-444.30	40.193784	-80.610780	1.24	
6661.00	90.49	335.21	5923.67	1292.48	1200.22	-480.11	40.194011	-80.610907	2.98	
6753.00	91.11	338.90	5922.38	1384.39	1284.91	-515.96	40.194244	-80.611034	4.07	
6846.00	91.29	340.33	5920.44	1477.36	1372.07	-548.35	40.194484	-80.611149	1.55	
6939.00	91.15	340.06	5918.46	1570.33	1459.55	-579.85	40.194724	-80.611260	0.33	
7028.00	90.62	338.97	5917.08	1659.32	1542.91	-611.00	40.194954	-80.611371	1.36	
7121.00	93.58	336.52	5913.67	1752.21	1628.91	-646.19	40.195190	-80.611495	4.13	
7214.00	92.28	337.26	5908.92	1845.01	1714.33	-682.64	40.195425	-80.611624	1.61	
7307.00	89.94	338.50	5907.12	1937.95	1800.46	-717.65	40.195662	-80.611748	2.85	
7400.00	89.88	340.26	5907.26	2030.95	1887.50	-750.40	40.195901	-80.611864	1.89	
7492.00	90.37	344.21	5907.06	2122.80	1975.09	-778.46	40.196142	-80.611964	4.33	
7585.00	90.18	343.23	5906.62	2215.51	2064.36	-804.53	40.196388	-80.612055	1.07	
7678.00	90.62	340.38	5905.97	2308.40	2152.70	-833.57	40.196631	-80.612158	3.10	
7770.00	90.62	340.22	5904.97	2400.38	2239.31	-864.58	40.196869	-80.612268	0.17	
7863.00	90.74	340.74	5903.87	2493.35	2326.96	-895.65	40.197110	-80.612378	0.57	
7956.00	90.62	340.76	5902.76	2586.31	2414.75	-926.31	40.197351	-80.612486	0.13	
8049.00	90.86	339.61	5901.56	2679.29	2502.24	-957.83	40.197592	-80.612598	1.26	

## 5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (° ' ")	Longitude (° ' ")	DLS (°/100US ft)	Comment
8141.00	90.92	338.93	5900.13	2771.28	2588.27	-990.39	40.197829	-80.612713	0.74	
8234.00	90.86	338.24	5898.69	2864.26	2674.84	-1024.35	40.198067	-80.612833	0.74	
8327.00	90.80	339.91	5897.34	2957.25	2761.69	-1057.56	40.198306	-80.612951	1.80	
8420.00	90.80	340.26	5896.04	3050.23	2849.12	-1089.23	40.198546	-80.613063	0.38	
8512.00	90.86	340.57	5894.71	3142.20	2935.79	-1120.07	40.198785	-80.613172	0.34	
8605.00	90.68	339.83	5893.46	3235.17	3023.29	-1151.57	40.199025	-80.613283	0.82	
8698.00	90.92	339.47	5892.16	3328.16	3110.47	-1183.90	40.199265	-80.613398	0.47	
8788.00	90.68	340.34	5890.91	3418.14	3194.98	-1214.82	40.199497	-80.613507	1.00	
8880.00	90.74	339.33	5889.77	3510.13	3281.34	-1246.53	40.199735	-80.613619	1.10	
8973.00	90.86	338.73	5888.47	3603.12	3368.17	-1279.81	40.199974	-80.613737	0.66	
9066.00	90.74	339.06	5887.17	3696.11	3454.92	-1313.30	40.200212	-80.613856	0.38	
9159.00	90.99	339.72	5885.77	3789.10	3541.96	-1346.03	40.200452	-80.613972	0.76	
9252.00	90.99	338.86	5884.16	3882.08	3628.94	-1378.91	40.200691	-80.614088	0.92	
9344.00	90.92	340.02	5882.62	3974.07	3715.06	-1411.22	40.200928	-80.614202	1.26	
9437.00	90.93	339.16	5881.12	4067.05	3802.21	-1443.65	40.201168	-80.614317	0.92	
9530.00	90.86	340.67	5879.67	4160.03	3889.54	-1475.58	40.201408	-80.614430	1.63	
9623.00	90.93	340.69	5878.22	4252.99	3977.29	-1506.34	40.201649	-80.614539	0.08	
9716.00	90.68	339.91	5876.91	4345.96	4064.84	-1537.69	40.201890	-80.614650	0.88	
9808.00	90.68	340.87	5875.82	4437.94	4151.50	-1568.56	40.202128	-80.614759	1.04	
9901.00	90.74	340.29	5874.67	4530.90	4239.20	-1599.48	40.202369	-80.614868	0.63	
9993.00	90.74	337.93	5873.48	4622.89	4325.14	-1632.28	40.202606	-80.614985	2.57	
10086.00	90.68	336.81	5872.33	4715.83	4410.97	-1668.06	40.202842	-80.615111	1.21	
10179.00	90.74	337.92	5871.17	4808.77	4496.80	-1703.85	40.203078	-80.615238	1.20	
10272.00	90.74	337.13	5869.97	4901.73	4582.73	-1739.40	40.203315	-80.615364	0.85	
10364.00	90.74	338.53	5868.78	4993.69	4667.92	-1774.11	40.203549	-80.615487	1.52	
10457.00	90.68	338.30	5867.63	5086.67	4754.39	-1808.32	40.203787	-80.615608	0.26	
10550.00	90.80	338.02	5866.43	5179.65	4840.71	-1842.92	40.204024	-80.615731	0.33	
10642.00	90.92	338.38	5865.05	5271.63	4926.12	-1877.08	40.204259	-80.615852	0.41	
10735.00	90.80	337.70	5863.65	5364.60	5012.36	-1911.85	40.204496	-80.615975	0.74	
10828.00	90.86	338.96	5862.31	5457.57	5098.78	-1946.19	40.204734	-80.616097	1.36	
10921.00	90.92	338.59	5860.86	5550.56	5185.46	-1979.86	40.204972	-80.616216	0.40	
11013.00	90.99	336.94	5859.33	5642.51	5270.60	-2014.66	40.205207	-80.616339	1.79	
11106.00	90.93	337.30	5857.77	5735.44	5356.27	-2050.82	40.205442	-80.616467	0.39	
11199.00	90.80	339.38	5856.37	5828.41	5442.69	-2085.14	40.205680	-80.616589	2.24	
11292.00	91.06	341.82	5854.86	5921.37	5530.39	-2116.02	40.205921	-80.616698	2.64	
11385.00	90.93	342.42	5853.24	6014.23	5618.89	-2144.57	40.206165	-80.616799	0.66	
11477.00	90.68	340.59	5851.95	6106.14	5706.12	-2173.75	40.206405	-80.616902	2.01	
11570.00	90.99	337.75	5850.59	6199.12	5793.03	-2206.81	40.206644	-80.617019	3.07	
11663.00	90.80	339.89	5849.14	6292.11	5879.73	-2240.41	40.206882	-80.617138	2.31	
11756.00	90.74	339.70	5847.89	6385.09	5967.00	-2272.53	40.207122	-80.617252	0.21	
11846.00	90.93	340.27	5846.58	6475.07	6051.55	-2303.33	40.207355	-80.617361	0.67	
11938.00	90.80	339.92	5845.19	6567.05	6138.05	-2334.65	40.207593	-80.617472	0.41	
12028.00	90.68	340.58	5844.03	6657.03	6222.74	-2365.06	40.207825	-80.617580	0.75	
12121.00	90.68	340.95	5842.92	6749.99	6310.55	-2395.69	40.208067	-80.617688	0.40	
12211.00	90.55	339.13	5841.96	6839.97	6395.13	-2426.41	40.208300	-80.617797	2.03	
12303.00	90.68	338.98	5840.97	6931.96	6481.05	-2459.30	40.208536	-80.617913	0.22	
12396.00	90.49	338.01	5840.02	7024.95	6567.57	-2493.39	40.208774	-80.618034	1.06	
12489.00	90.68	338.94	5839.07	7117.94	6654.08	-2527.51	40.209012	-80.618155	1.02	
12582.00	90.86	338.90	5837.82	7210.93	6740.85	-2560.95	40.209251	-80.618273	0.20	
12674.00	90.80	338.30	5836.49	7302.91	6826.49	-2594.52	40.209486	-80.618392	0.66	
12767.00	90.56	336.51	5835.39	7395.86	6912.35	-2630.25	40.209722	-80.618519	1.94	
12860.00	90.68	338.87	5834.38	7488.81	6998.37	-2665.55	40.209959	-80.618644	2.54	
12953.00	90.43	338.30	5833.48	7581.80	7084.95	-2699.50	40.210197	-80.618764	0.67	
13045.00	90.62	339.92	5832.64	7673.79	7170.89	-2732.30	40.210433	-80.618880	1.77	
13138.00	90.99	338.96	5831.33	7766.78	7257.96	-2764.96	40.210673	-80.618996	1.11	
13231.00	90.74	338.67	5829.92	7859.77	7344.66	-2798.56	40.210911	-80.619115	0.41	
13324.00	90.74	338.17	5828.72	7952.75	7431.14	-2832.77	40.211149	-80.619236	0.54	
13416.00	91.05	338.36	5827.29	8044.73	7516.59	-2866.83	40.211384	-80.619357	0.40	
13509.00	90.86	338.18	5825.74	8137.70	7602.97	-2901.26	40.211622	-80.619479	0.28	

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13602.00	91.60	338.29	5823.74	8230.67	7689.32	-2935.74	40.211859	-80.619601	0.80	
13695.00	91.05	338.92	5821.59	8323.64	7775.88	-2969.65	40.212098	-80.619721	0.90	
13788.00	91.05	339.91	5819.89	8416.62	7862.93	-3002.34	40.212337	-80.619837	1.06	
13880.00	90.88	337.42	5818.34	8508.60	7948.61	-3035.81	40.212573	-80.619955	2.71	
13973.00	90.86	340.05	5816.92	8601.57	8035.26	-3069.53	40.212811	-80.620075	2.83	
14066.00	90.80	339.33	5815.58	8694.56	8122.46	-3101.81	40.213051	-80.620189	0.78	
14158.00	90.68	338.35	5814.39	8786.55	8208.25	-3135.01	40.213287	-80.620307	1.07	
14248.00	90.74	338.55	5813.27	8876.53	8291.96	-3168.07	40.213517	-80.620424	0.23	
14338.00	90.74	339.19	5812.11	8966.53	8375.90	-3200.51	40.213748	-80.620539	0.71	
14430.00	90.49	338.09	5811.12	9058.51	8461.57	-3234.02	40.213984	-80.620658	1.23	
14523.00	90.62	339.76	5810.22	9151.51	8548.34	-3267.46	40.214222	-80.620776	1.80	
14613.00	90.62	340.87	5809.25	9241.48	8633.08	-3297.77	40.214455	-80.620883	1.23	
14706.00	90.49	341.26	5808.35	9334.43	8721.04	-3327.95	40.214697	-80.620990	0.44	
14798.00	90.62	341.75	5807.46	9426.35	8808.28	-3357.13	40.214937	-80.621093	0.55	
14891.00	90.25	341.03	5806.75	9519.28	8896.42	-3386.81	40.215179	-80.621198	0.87	
14984.00	90.49	342.83	5806.15	9612.17	8984.83	-3415.65	40.215423	-80.621300	1.95	
15077.00	90.62	343.30	5805.25	9704.95	9073.79	-3442.74	40.215667	-80.621396	0.52	
15170.00	90.92	343.03	5804.00	9797.72	9162.79	-3469.67	40.215912	-80.621491	0.43	
15262.00	90.68	341.18	5802.71	9889.59	9250.33	-3497.94	40.216153	-80.621591	2.03	
15352.00	90.55	339.05	5801.75	9979.57	9334.96	-3528.55	40.216385	-80.621699	2.37	
15445.00	90.55	338.07	5800.86	10072.56	9421.52	-3562.54	40.216623	-80.621820	1.05	
15538.00	90.37	337.09	5800.11	10165.52	9507.48	-3598.01	40.216860	-80.621945	1.07	
15630.00	90.43	337.50	5799.47	10257.46	9592.35	-3633.52	40.217093	-80.622071	0.45	
15723.00	90.37	337.34	5798.82	10350.42	9678.22	-3669.22	40.217330	-80.622198	0.18	
15816.00	90.62	337.56	5798.01	10443.37	9764.11	-3704.89	40.217566	-80.622324	0.36	
15909.00	90.62	337.89	5797.01	10536.33	9850.16	-3740.14	40.217803	-80.622449	0.35	
15998.00	90.56	336.89	5796.09	10625.28	9932.31	-3774.35	40.218029	-80.622571	1.13	
16091.00	90.93	339.29	5794.88	10718.25	10018.58	-3809.05	40.218266	-80.622694	2.61	
16184.00	90.19	339.18	5793.97	10811.24	10105.54	-3842.02	40.218505	-80.622810	0.80	
16277.00	90.56	339.85	5793.36	10904.24	10192.65	-3874.56	40.218745	-80.622926	0.82	
16369.00	90.55	340.02	5792.47	10996.23	10279.07	-3906.13	40.218982	-80.623037	0.19	
16462.00	90.12	339.74	5791.93	11089.22	10366.39	-3938.12	40.219223	-80.623151	0.55	
16555.00	90.12	338.63	5791.73	11182.22	10453.32	-3971.16	40.219462	-80.623268	1.19	
16648.00	90.25	339.57	5791.43	11275.22	10540.20	-4004.34	40.219701	-80.623385	1.02	
16741.00	90.43	339.84	5790.88	11368.21	10627.42	-4036.60	40.219940	-80.623499	0.35	
16833.00	90.80	341.29	5789.89	11460.18	10714.17	-4067.21	40.220179	-80.623608	1.63	
16894.00	90.68	340.53	5789.11	11521.14	10771.81	-4087.15	40.220338	-80.623678	1.26	Last WFT SVY
16917.00	90.68	340.53	5788.83	11544.14	10793.50	-4094.82	40.220397	-80.623705	0.00	PTB

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