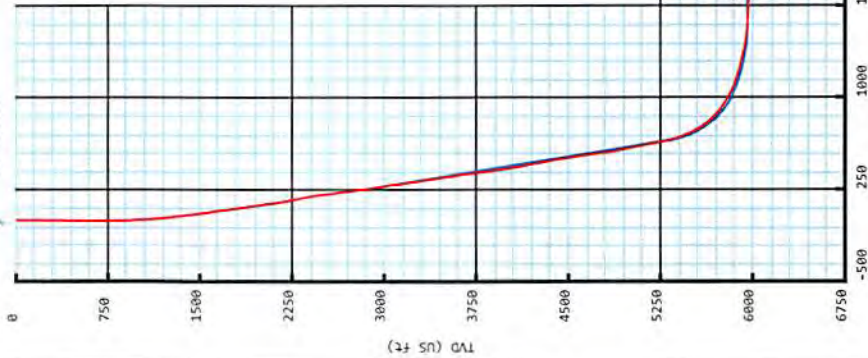




**Thurman Speece BRK 205H**  
 Brooke County, WV  
 Quail 9

**Plan vs Actual**



**Plan Data for Thurman Speece BRK 205H**

Dogleg Severity Unit: °/100.00ft  
 MD Inc Az (°) (USft) +N/-S (USft) +E/-W (USft) VSec (USft) (DLSU) Position offsets from Slot centre DLS Toolface Comments

MD (USft)	Inc (°)	Az (°)	+N/-S (USft)	+E/-W (USft)	VSec (USft)	(DLSU)	Position offsets from Slot centre	DLS	Toolface Comments
2878.00	19.03	49.24	2883.94	344.05	373.99	248.87	1.01	20.9	Last WFT SVV
5528.07	19.03	49.24	5389.18	908.21	1028.49	647.46	0.00	0.0	Curve KOP 7 DLS
6304.28	76.00	17.20	5849.96	1374.71	1248.97	1050.78	7.00	322.1	Build/Turn 9 DLS
6767.55	85.00	337.18	5954.00	1814.94	1222.67	1485.26	9.00	285.6	Build 4 DLS
6909.83	90.69	337.18	5959.35	1945.94	1167.54	1625.43	4.00	360.0	LP
16469.34	90.69	337.18	5844.00	10756.49	-2539.88	11052.29	0.00	0.0	PBHL TS205H

**Target Set Information:**

Name: Thurman Speece BRK 205H  
 Position offsets from Slot centre  
 Name TVD (USft) +N/-S (USft) +E/-W (USft) Northing (USft) Easting (USft) Lat (°) Long (°)  
 LP TS205H 5974.00 1698.25 1271.29 14597750.42 1756173.53 40.194281 -80.585481  
 PBHL TS205H 5844.00 10756.49 -2539.88 14666808.66 1752362.36 40.219283 -80.598982

**Plan Data for Thurman Speece BRK 205H**

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

**Site: Thurman Speece BRK Pad**

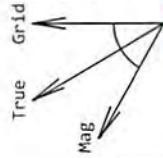
Unit: USFeet TVD Reference:  
 Company Name: SOUTHWESTERN ENERGY  
 Position: Northing: 14596029.99USft Latitude: 40.189573°  
 Easting: 1754875.81USft Longitude: -80.590157°  
 North Reference: Grid Grid Convergence: 0.26°  
 Elevation Above VRD: 1139.50USft

**Slot: Thurman Speece BRK 205H**

Position:  
 Offset is from Site centre  
 +N/-S: 22.18USft Northing: 14596052.17USft Latitude: 40.189634°  
 +E/-W: 26.43USft Easting: 1754902.24USft Longitude: -80.590062°  
 Elevation Above VRD: 1139.50USft

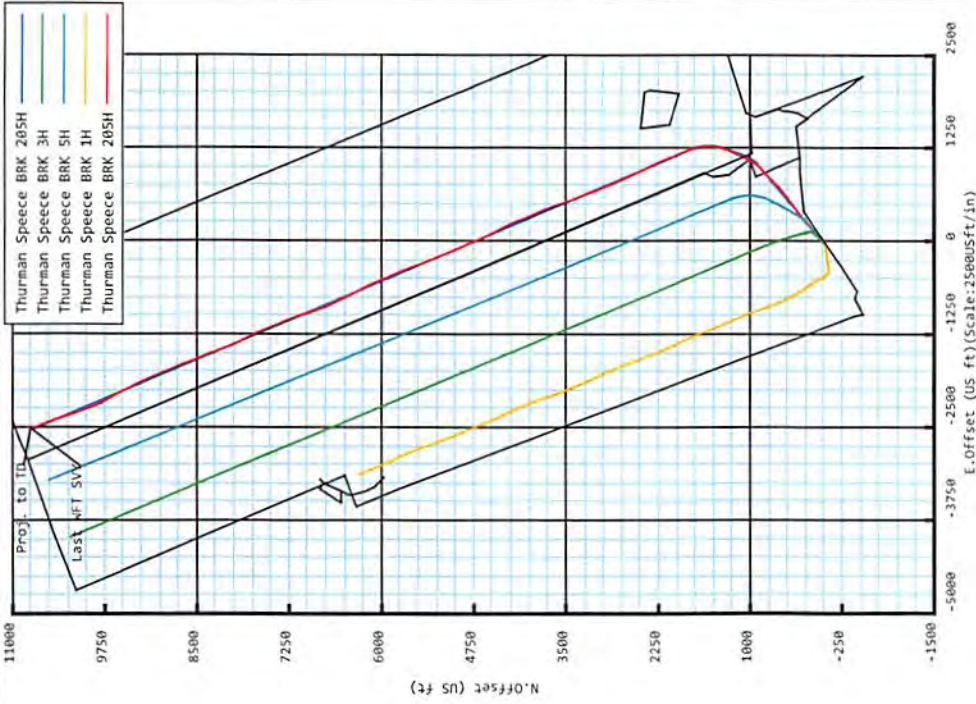
**Well: Thurman Speece BRK 205H**

Type: Main-Well  
 File Number:  
 Plan Folder: P2  
 Plan: P2-V1  
 Vertical Section: Position offset of origin from Slot centre:  
 +N/-S: -0.00USft Azimuth: 346.71°  
 +E/-W: -0.00USft  
 Magnetic Parameters:  
 Model: Field Strength: Declination: Dip: Date:  
 HDGM 52680(NT) -8.28° 67.67° 2017-08-11



**Total Correction to Grid North -8.54°**

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**Plan Data for Thurman Speece BRK 205H**

Formation Point Information:

Name	TVD (USft)	MD (USft)
Onondaga Limestone	-4824.00	0.00
Base of Fresh Water	263.50	902.00
Pittsburgh Coal	332.50	833.00
Top of Salt Water	474.50	691.00
Maxton	1114.50	51.00
Big Lime	1349.50	-184.00
Big Injun	1573.50	-488.00
Base Big Injun	1649.50	-484.00
Berea	1972.50	-807.00
Upper Rhinestreet	5418.50	-4253.00
Lower Rhinestreet	5525.50	-4360.00
Basal Rhinestreet	5586.50	-4421.00
Cashoga	5706.50	-4491.00
Middlesex	5706.50	-4541.00
Lower Middlesex	5730.50	-4565.00
Burket	5768.50	-4603.00
Tully	5784.50	-4619.00
Mahantango	5838.50	-4673.00
Levanna	5937.50	-4772.00
Upper Marcellus	5947.50	-4782.00

## Thurman Speece BRK 205H

<b>Field Name:</b>	<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	
SOUTHWESTER N_BROOKE CO, WV UTM NAD 83 (17N)	<b>Comment:</b>	
<b>Site:</b>	<b>Units:</b> US ft	<b>North Reference:</b> Grid
Thurman Speece BRK Pad	<b>Position:</b>	<b>Convergence Angle:</b> 0.26
	<b>Northing:</b> 14596029.99 US ft	<b>Latitude:</b> 40.189573
	<b>Easting:</b> 1754875.81 US ft	<b>Longitude:</b> -80.590157
	<b>Elevation above Field Reference:</b> 1139.50 US ft	
	<b>Comment:</b>	
<b>Slot:</b>	<b>Position (Relative to Site Centre)</b>	
Thurman Speece BRK 205H	<b>+N/-S:</b> 22.18 US ft	<b>Northing:</b> 14596052.17 US ft
	<b>+E/-W:</b> 26.43 US ft	<b>Easting:</b> 1754902.24 US ft
	<b>Elevation above Field Reference:</b> 1139.50 US ft	
	<b>Comment:</b>	
<b>Well:</b>	<b>Type:</b> Main well	<b>UWI:</b>
Thurman Speece BRK 205H	<b>File Number:</b>	<b>Comment:</b>
	<b>Closure Distance:</b> 11050.2 US ft	<b>Closure Azimuth:</b> 346.76°
	<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> 346.71°	

<b>Drill floor: Survey Name: Definitive Survey</b>			
<b>Rig Height (Drill Floor):</b> 26.00 US ft	<b>Elevation above Field Reference:</b> 1165.50 US ft	<b>Inclination:</b> 0.00°	<b>Azimuth:</b> 0.00°

### Survey Name: Definitive Survey

<b>Date:</b> 10/Aug/2017	<b>Survey Tool:</b> See Survey Tool Ranges below.	<b>Comment:</b>	<b>Company:</b>
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### Magnetic Model:

<b>Model Name:</b> HDGM	<b>Date:</b> 11/Aug/2017	<b>Field Strength:</b> 52680.0nT	<b>Declination:</b> -8.28°	<b>Dip:</b> 67.67°
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### Tie Point:

<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
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### Survey Tool Ranges:

Name	Start MD(USft)	End MD(USft)	Source Survey
MFAC_US_V2	0.00	354.00	WFT MWD_01-MFAC
MFAC_US_V2	354.00	510.00	WFT MWD_02-MFAC
MWD	510.00	952.00	WFT MWD_02-MWD
MFAC_US_V2	952.00	1127.00	WFT MWD_02-MFAC
MWD	1127.00	1631.00	WFT MWD_02-MWD2
MWD	1631.00	3933.00	WFT MWD_03
MWD	3933.00	4903.00	WFT MWD_04
MWD	4903.00	16460.00	WFT MWD_05

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## Wellpath created using minimum curvature.

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
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	40.189634	-80.590062	0.00	
26.00	0.00	0.00	26.00	0.00	-0.00	-0.00	40.189634	-80.590062	0.00	
154.00	0.19	359.29	154.00	0.21	0.21	-0.00	40.189634	-80.590062	0.15	
241.00	0.38	185.47	241.00	0.07	0.07	-0.03	40.189634	-80.590062	0.65	
328.00	0.50	189.29	328.00	-0.55	-0.59	-0.12	40.189632	-80.590062	0.14	
354.00	0.47	179.24	354.00	-0.76	-0.81	-0.14	40.189631	-80.590062	0.35	
422.00	0.59	181.73	421.99	-1.37	-1.44	-0.14	40.189630	-80.590062	0.18	
510.00	0.97	192.57	509.98	-2.48	-2.62	-0.32	40.189626	-80.590063	0.46	
600.00	0.94	177.46	599.97	-3.89	-4.10	-0.45	40.189622	-80.590063	0.28	
688.00	0.97	112.01	687.96	-5.03	-5.10	0.27	40.189620	-80.590061	1.17	
776.00	1.56	55.99	775.94	-5.03	-4.71	1.95	40.189621	-80.590055	1.47	
863.00	2.59	42.87	862.89	-3.52	-2.61	4.27	40.189626	-80.590046	1.30	
952.00	3.87	39.74	951.74	-0.59	1.18	7.56	40.189637	-80.590035	1.45	
1040.00	5.24	35.15	1039.46	3.86	6.75	11.77	40.189652	-80.590019	1.61	
1084.00	6.00	35.44	1083.25	6.71	10.26	14.26	40.189662	-80.590010	1.73	
1127.00	7.09	32.77	1125.97	10.03	14.32	17.00	40.189673	-80.590001	2.63	
1171.00	8.56	35.67	1169.56	14.07	19.27	20.38	40.189686	-80.589988	3.46	
1214.00	10.02	33.11	1211.99	18.75	25.00	24.29	40.189702	-80.589974	3.53	
1258.00	11.53	39.64	1255.22	24.04	31.60	29.19	40.189720	-80.589957	4.41	
1301.00	12.66	41.48	1297.26	29.35	38.43	35.05	40.189739	-80.589936	2.78	
1346.00	12.47	45.30	1341.19	34.72	45.55	41.77	40.189758	-80.589911	1.89	
1389.00	12.84	47.60	1383.14	39.47	52.03	48.60	40.189776	-80.589887	1.45	
1476.00	14.44	47.27	1467.69	49.50	65.91	63.71	40.189814	-80.589832	1.84	
1564.00	13.56	42.49	1553.07	60.70	80.97	78.74	40.189855	-80.589778	1.65	
1631.00	14.33	41.03	1618.10	69.95	93.01	89.48	40.189888	-80.589740	1.26	
1735.00	13.49	38.99	1719.05	84.88	112.15	105.57	40.189940	-80.589682	0.94	
1823.00	13.10	39.18	1804.69	97.24	127.86	118.32	40.189983	-80.589636	0.45	
1912.00	14.47	43.24	1891.13	109.51	143.78	132.31	40.190027	-80.589586	1.88	
2000.00	16.02	48.58	1976.03	121.30	159.82	148.95	40.190071	-80.589526	2.37	
2088.00	17.16	50.78	2060.37	132.70	176.07	168.12	40.190115	-80.589457	1.48	
2175.00	18.83	48.98	2143.11	144.85	193.40	188.65	40.190162	-80.589383	2.02	
2264.00	20.64	46.70	2226.88	159.38	213.58	210.91	40.190217	-80.589303	2.21	
2352.00	22.05	46.85	2308.84	175.36	235.52	234.25	40.190277	-80.589219	1.60	
2440.00	21.55	49.93	2390.55	190.87	257.22	258.67	40.190337	-80.589131	1.42	
2484.00	20.75	53.67	2431.59	197.56	267.04	271.13	40.190363	-80.589086	3.56	
2529.00	20.14	57.31	2473.76	203.25	275.95	284.08	40.190388	-80.589040	3.13	
2616.00	19.24	57.12	2555.67	213.04	291.82	308.72	40.190431	-80.588951	1.04	
2703.00	18.57	52.44	2637.98	223.54	308.05	331.74	40.190475	-80.588869	1.90	
2790.00	18.20	48.27	2720.54	235.70	325.54	352.86	40.190523	-80.588793	1.57	
2878.00	19.03	49.24	2803.94	248.87	344.05	373.99	40.190574	-80.588717	1.01	
2967.00	18.89	50.33	2888.11	261.96	362.72	396.07	40.190625	-80.588638	0.43	
3055.00	19.02	51.83	2971.34	274.32	380.68	418.31	40.190674	-80.588558	0.57	
3143.00	18.90	52.59	3054.56	286.18	398.20	440.90	40.190721	-80.588476	0.31	
3231.00	18.84	52.75	3137.83	297.77	415.46	463.53	40.190769	-80.588395	0.09	
3317.00	19.20	52.09	3219.14	309.30	432.55	485.74	40.190815	-80.588315	0.49	
3406.00	21.10	52.67	3302.69	321.93	451.26	510.03	40.190866	-80.588228	2.15	
3493.00	20.81	52.63	3383.93	334.61	470.14	534.76	40.190918	-80.588139	0.33	
3580.00	19.45	51.00	3465.62	347.20	488.63	558.30	40.190968	-80.588055	1.69	
3668.00	17.62	49.33	3549.05	359.69	506.53	579.79	40.191017	-80.587977	2.17	
3756.00	17.80	52.10	3632.88	371.41	523.48	600.51	40.191063	-80.587903	0.98	
3845.00	17.80	53.15	3717.62	382.51	539.99	622.13	40.191108	-80.587825	0.36	
3933.00	18.74	54.05	3801.18	393.34	556.36	644.34	40.191153	-80.587745	1.12	
4036.00	16.57	51.38	3899.33	406.00	575.24	669.21	40.191205	-80.587656	2.25	
4132.00	18.40	50.34	3990.89	418.58	593.46	691.57	40.191254	-80.587576	1.93	
4228.00	20.24	46.71	4081.48	433.62	614.51	715.32	40.191312	-80.587490	2.29	
4324.00	19.35	44.86	4171.81	450.31	637.18	738.63	40.191374	-80.587406	1.13	
4421.00	19.78	43.75	4263.21	467.72	660.42	761.32	40.191437	-80.587325	0.59	

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## 5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
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
4517.00	19.72	44.72	4353.56	485.14	683.66	783.94	40.191501	-80.587243	0.35	
4614.00	17.90	45.30	4445.38	501.58	705.78	806.06	40.191561	-80.587164	1.89	
4710.00	16.40	42.65	4537.11	516.86	726.13	825.73	40.191617	-80.587093	1.76	
4771.00	15.99	45.98	4595.69	525.98	738.30	837.60	40.191650	-80.587050	1.66	
4806.00	15.19	48.12	4629.40	530.64	744.71	844.48	40.191668	-80.587026	2.81	
4903.00	15.22	46.93	4723.01	543.04	761.89	863.25	40.191715	-80.586958	0.32	
4997.00	15.18	47.06	4813.72	555.26	778.70	881.27	40.191761	-80.586893	0.06	
5093.00	20.05	46.74	4905.19	569.71	798.55	902.47	40.191815	-80.586817	5.07	
5189.00	20.89	45.83	4995.13	586.71	821.76	926.73	40.191878	-80.586730	0.94	
5286.00	20.91	46.02	5085.74	604.42	845.83	951.59	40.191944	-80.586640	0.07	
5382.00	20.99	46.53	5175.40	621.81	869.55	976.40	40.192009	-80.586551	0.21	
5479.00	21.06	46.51	5265.94	639.31	893.50	1001.65	40.192074	-80.586460	0.07	
5527.00	21.63	42.03	5310.65	648.68	906.00	1013.83	40.192109	-80.586416	3.60	
5574.00	23.44	36.40	5354.07	659.66	919.97	1025.18	40.192147	-80.586376	5.99	
5622.00	26.12	31.95	5397.65	673.28	936.62	1036.44	40.192192	-80.586335	6.80	
5670.00	28.81	30.40	5440.23	689.09	955.57	1047.88	40.192244	-80.586294	5.80	
5718.00	32.04	31.35	5481.62	706.51	976.42	1060.37	40.192301	-80.586249	6.80	
5766.00	35.62	31.46	5521.48	725.51	999.22	1074.29	40.192364	-80.586198	7.46	
5814.00	39.15	29.91	5559.62	746.49	1024.29	1089.14	40.192432	-80.586145	7.61	
5863.00	43.17	26.98	5596.51	770.56	1052.65	1104.47	40.192510	-80.586089	9.10	
5911.00	46.66	25.65	5630.49	796.68	1083.03	1119.48	40.192593	-80.586035	7.53	
5959.00	50.26	25.47	5662.32	824.65	1115.43	1134.98	40.192682	-80.585979	7.51	
6007.00	53.89	24.40	5691.82	854.40	1149.77	1150.93	40.192776	-80.585921	7.76	
6056.00	57.32	24.22	5719.49	886.43	1186.61	1167.57	40.192877	-80.585861	7.01	
6104.00	60.09	24.10	5744.42	918.99	1224.03	1184.36	40.192980	-80.585801	5.77	
6151.00	62.06	23.96	5767.15	951.70	1261.60	1201.11	40.193083	-80.585740	4.20	
6199.00	63.86	22.39	5788.98	986.08	1300.90	1217.93	40.193190	-80.585679	4.75	
6247.00	65.35	19.25	5809.56	1021.98	1341.42	1233.33	40.193301	-80.585623	6.67	
6295.00	66.80	16.28	5829.03	1059.57	1383.20	1246.71	40.193416	-80.585575	6.41	
6343.00	69.80	12.52	5846.78	1099.05	1426.39	1257.78	40.193534	-80.585534	9.59	
6391.00	71.83	7.32	5862.57	1140.70	1471.03	1265.57	40.193657	-80.585506	11.07	
6439.00	73.57	3.16	5876.85	1184.14	1516.65	1269.75	40.193782	-80.585490	9.03	
6487.00	74.97	359.41	5889.86	1228.85	1562.83	1270.78	40.193909	-80.585485	8.07	
6535.00	75.94	355.84	5901.92	1274.46	1609.24	1268.85	40.194036	-80.585492	7.48	
6583.00	76.90	351.94	5913.20	1320.75	1655.63	1263.88	40.194164	-80.585509	8.15	
6632.00	77.70	348.53	5923.97	1368.45	1702.73	1255.77	40.194293	-80.585537	6.98	
6680.00	78.59	345.14	5933.83	1415.42	1748.46	1245.08	40.194419	-80.585574	7.16	
6728.00	80.28	341.97	5942.64	1462.52	1793.71	1231.72	40.194543	-80.585621	7.39	
6776.00	82.52	339.05	5949.82	1509.70	1838.44	1215.88	40.194666	-80.585677	7.61	
6824.00	85.87	337.77	5954.67	1556.94	1882.83	1198.31	40.194789	-80.585740	7.47	
6872.00	84.94	337.45	5958.52	1604.19	1927.07	1180.09	40.194910	-80.585804	2.05	
6920.00	86.85	337.68	5961.95	1651.45	1971.32	1161.82	40.195032	-80.585869	4.01	
6964.00	87.04	337.89	5964.30	1694.86	2012.00	1145.20	40.195144	-80.585928	0.64	
7007.00	86.85	337.94	5966.59	1737.29	2051.79	1129.06	40.195253	-80.585985	0.46	
7050.00	87.90	338.59	5968.56	1779.78	2091.69	1113.15	40.195363	-80.586041	2.87	
7093.00	90.06	338.63	5969.32	1822.34	2131.72	1097.47	40.195473	-80.586096	5.02	
7180.00	91.23	337.20	5968.34	1908.31	2212.33	1064.77	40.195695	-80.586212	2.12	
7267.00	91.05	335.84	5966.61	1993.92	2292.10	1030.11	40.195915	-80.586335	1.58	
7354.00	90.99	333.08	5965.06	2078.92	2370.58	992.61	40.196131	-80.586468	3.17	
7441.00	91.66	334.58	5963.05	2163.70	2448.64	954.25	40.196345	-80.586604	1.89	
7526.00	91.54	335.10	5960.68	2246.85	2525.55	918.13	40.196557	-80.586732	0.63	
7613.00	90.92	334.85	5958.81	2332.01	2604.36	881.34	40.196774	-80.586863	0.77	
7700.00	90.74	335.12	5957.55	2417.19	2683.19	844.55	40.196991	-80.586993	0.37	
7786.00	90.74	336.78	5956.44	2501.67	2761.72	809.51	40.197207	-80.587117	1.93	
7873.00	90.37	338.70	5955.60	2587.59	2842.22	776.55	40.197428	-80.587234	2.25	
7960.00	90.31	337.61	5955.08	2673.62	2922.98	744.18	40.197651	-80.587348	1.25	
8047.00	91.17	337.48	5953.96	2759.50	3003.37	710.96	40.197872	-80.587466	1.00	
8133.00	91.36	338.64	5952.06	2844.50	3083.12	678.83	40.198091	-80.587580	1.37	
8220.00	91.54	340.08	5949.86	2930.76	3164.51	648.17	40.198315	-80.587688	1.67	

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8307.00	91.11	338.57	5947.85	3017.01	3245.88	617.47	40.198539	-80.587797	1.80	
8393.00	90.86	335.98	5946.37	3101.83	3325.19	584.25	40.198757	-80.587914	3.03	
8480.00	90.92	339.67	5945.01	3187.76	3405.73	551.42	40.198979	-80.588031	4.24	
8567.00	91.11	341.48	5943.47	3274.24	3487.76	522.50	40.199204	-80.588133	2.09	
8654.00	90.68	341.72	5942.11	3360.89	3570.30	495.04	40.199431	-80.588230	0.57	
8740.00	91.05	341.26	5940.82	3446.52	3651.84	467.74	40.199656	-80.588326	0.69	
8827.00	90.25	339.39	5939.83	3532.97	3733.75	438.45	40.199881	-80.588430	2.34	
8914.00	90.43	338.06	5939.31	3619.12	3814.82	406.89	40.200104	-80.588541	1.54	
9000.00	90.31	335.84	5938.76	3703.87	3893.95	373.22	40.200322	-80.588661	2.59	
9090.00	90.37	336.95	5938.22	3792.41	3976.42	337.18	40.200549	-80.588788	1.24	
9178.00	91.17	339.23	5937.04	3879.41	4058.05	304.35	40.200773	-80.588905	2.75	
9265.00	90.74	339.20	5935.59	3965.65	4139.37	273.48	40.200997	-80.589014	0.50	
9352.00	90.55	336.22	5934.61	4051.56	4219.86	240.49	40.201218	-80.589131	3.43	
9439.00	90.49	333.34	5933.82	4136.67	4298.55	203.42	40.201435	-80.589262	3.31	
9526.00	90.99	331.77	5932.70	4221.02	4375.75	163.33	40.201647	-80.589404	1.89	
9615.00	90.18	333.53	5931.79	4307.35	4454.80	122.44	40.201865	-80.589550	2.18	
9701.00	90.49	334.48	5931.29	4391.24	4532.09	84.75	40.202078	-80.589683	1.16	
9788.00	90.37	336.29	5930.63	4476.54	4611.18	48.52	40.202295	-80.589812	2.08	
9875.00	90.55	337.59	5929.93	4562.27	4691.23	14.44	40.202516	-80.589932	1.51	
9962.00	90.80	337.69	5928.91	4648.18	4771.68	-18.65	40.202737	-80.590050	0.31	
10049.00	90.43	335.42	5927.98	4733.80	4851.49	-53.26	40.202957	-80.590172	2.64	
10135.00	90.62	335.15	5927.19	4818.10	4929.61	-89.22	40.203172	-80.590300	0.38	
10222.00	90.25	336.59	5926.53	4903.54	5009.00	-124.78	40.203390	-80.590426	1.71	
10309.00	89.88	338.28	5926.43	4989.40	5089.34	-158.17	40.203611	-80.590544	1.99	
10396.00	89.82	337.45	5926.66	5075.36	5169.92	-190.95	40.203833	-80.590660	0.96	
10482.00	90.55	337.71	5926.38	5160.27	5249.42	-223.75	40.204051	-80.590776	0.90	
10569.00	90.37	337.70	5925.68	5246.20	5329.91	-256.75	40.204273	-80.590893	0.21	
10655.00	90.31	338.98	5925.17	5331.28	5409.84	-288.49	40.204493	-80.591005	1.49	
10744.00	90.68	338.89	5924.40	5419.46	5492.89	-320.48	40.204721	-80.591119	0.43	
10831.00	90.86	339.50	5923.23	5505.70	5574.21	-351.38	40.204945	-80.591228	0.73	
10918.00	90.86	339.09	5921.93	5591.96	5655.58	-382.14	40.205169	-80.591337	0.47	
11004.00	90.55	338.26	5920.87	5677.11	5735.68	-413.41	40.205389	-80.591447	1.03	
11091.00	90.37	337.27	5920.17	5763.05	5816.21	-446.33	40.205611	-80.591564	1.16	
11178.00	90.55	336.78	5919.47	5848.81	5896.31	-480.28	40.205831	-80.591684	0.60	
11265.00	90.43	337.78	5918.73	5934.63	5976.55	-513.88	40.206052	-80.591803	1.16	
11351.00	91.11	337.28	5917.57	6019.52	6056.02	-546.75	40.206270	-80.591920	0.98	
11438.00	90.99	335.14	5915.98	6105.04	6135.60	-581.84	40.206489	-80.592044	2.46	
11525.00	91.05	333.08	5914.43	6189.93	6213.86	-619.82	40.206705	-80.592179	2.37	
11612.00	90.92	331.64	5912.93	6274.20	6290.91	-660.17	40.206917	-80.592322	1.66	
11698.00	90.86	333.59	5911.60	6357.59	6367.26	-699.72	40.207127	-80.592462	2.27	
11785.00	91.11	334.96	5910.10	6442.54	6445.63	-737.48	40.207343	-80.592596	1.60	
11872.00	90.99	333.82	5908.51	6527.52	6524.07	-775.08	40.207559	-80.592730	1.32	
11958.00	90.37	334.84	5907.49	6611.51	6601.57	-812.33	40.207772	-80.592862	1.39	
12045.00	90.68	335.64	5906.69	6696.77	6680.57	-848.76	40.207989	-80.592991	0.99	
12132.00	90.55	337.56	5905.75	6782.41	6760.41	-883.31	40.208209	-80.593114	2.21	
12219.00	90.49	340.28	5904.96	6868.60	6841.57	-914.60	40.208432	-80.593224	3.13	
12305.00	90.49	341.43	5904.23	6954.14	6922.81	-942.80	40.208656	-80.593324	1.34	
12392.00	90.86	342.92	5903.20	7040.86	7005.63	-969.43	40.208883	-80.593418	1.76	
12479.00	90.86	341.69	5901.90	7127.59	7088.50	-995.87	40.209111	-80.593511	1.41	
12566.00	90.99	339.97	5900.49	7214.12	7170.66	-1024.43	40.209337	-80.593612	1.98	
12653.00	90.74	338.82	5899.18	7300.40	7252.09	-1055.05	40.209561	-80.593721	1.35	
12739.00	90.80	337.04	5898.02	7385.38	7331.77	-1087.36	40.209781	-80.593835	2.07	
12826.00	90.71	336.83	5896.88	7471.11	7411.81	-1121.44	40.210001	-80.593956	0.26	
12913.00	90.12	338.62	5896.25	7557.04	7492.31	-1154.41	40.210222	-80.594073	2.17	
13000.00	90.35	338.24	5895.89	7643.13	7573.22	-1186.40	40.210445	-80.594186	0.51	
13087.00	90.37	337.99	5895.34	7729.15	7653.95	-1218.82	40.210667	-80.594301	0.29	
13173.00	90.74	334.41	5894.51	7813.69	7732.62	-1253.52	40.210883	-80.594424	4.18	
13260.00	90.68	332.32	5893.43	7898.33	7810.38	-1292.52	40.211097	-80.594562	2.40	
13347.00	90.92	332.92	5892.22	7982.70	7887.62	-1332.53	40.211310	-80.594704	0.74	

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13434.00	90.86	335.59	5890.87	8067.64	7965.97	-1370.31	40.211526	-80.594838	3.07	
13520.00	91.05	338.46	5889.43	8152.39	8045.13	-1403.87	40.211743	-80.594957	3.34	
13607.00	90.92	338.13	5887.94	8238.44	8125.95	-1436.04	40.211966	-80.595071	0.41	
13693.00	90.55	340.05	5886.83	8323.67	8206.27	-1466.73	40.212187	-80.595179	2.27	
13780.00	90.92	340.77	5885.72	8410.14	8288.23	-1495.89	40.212412	-80.595283	0.93	
13867.00	90.31	337.48	5884.78	8496.36	8369.50	-1526.89	40.212636	-80.595392	3.85	
13953.00	90.68	336.52	5884.04	8581.12	8448.66	-1560.49	40.212853	-80.595511	1.20	
14041.00	90.55	338.63	5883.10	8668.00	8530.00	-1594.06	40.213077	-80.595630	2.40	
14127.00	90.49	340.25	5882.32	8753.30	8610.52	-1624.26	40.213299	-80.595737	1.88	
14214.00	90.43	339.56	5881.62	8839.68	8692.22	-1654.15	40.213523	-80.595843	0.80	
14300.00	90.43	337.26	5880.97	8924.78	8772.17	-1685.79	40.213743	-80.595955	2.67	
14387.00	90.86	337.47	5879.99	9010.62	8852.47	-1719.27	40.213964	-80.596073	0.55	
14474.00	90.55	336.47	5878.92	9096.35	8932.53	-1753.30	40.214185	-80.596194	1.20	
14562.00	90.92	337.02	5877.79	9183.02	9013.37	-1788.04	40.214407	-80.596317	0.75	
14649.00	90.49	337.07	5876.72	9268.78	9093.47	-1821.97	40.214627	-80.596437	0.50	
14735.00	90.74	336.45	5875.80	9353.48	9172.49	-1855.90	40.214845	-80.596558	0.78	
14822.00	90.86	334.72	5874.58	9438.83	9251.70	-1891.86	40.215063	-80.596685	1.99	
14909.00	90.68	333.94	5873.42	9523.80	9330.11	-1929.54	40.215279	-80.596819	0.92	
14995.00	90.55	333.52	5872.49	9607.60	9407.22	-1967.60	40.215491	-80.596954	0.51	
15082.00	90.86	333.49	5871.42	9692.29	9485.08	-2006.41	40.215705	-80.597092	0.36	
15168.00	90.62	334.18	5870.31	9776.12	9562.26	-2044.33	40.215917	-80.597226	0.85	
15255.00	90.25	332.70	5869.65	9860.79	9640.07	-2083.23	40.216132	-80.597364	1.75	
15342.00	90.62	329.81	5868.99	9944.64	9716.34	-2125.06	40.216342	-80.597513	3.35	
15428.00	90.79	333.30	5867.93	10027.63	9791.94	-2166.02	40.216550	-80.597658	4.06	
15515.00	90.31	336.90	5867.10	10112.83	9870.84	-2202.64	40.216767	-80.597788	4.17	
15605.00	90.43	339.79	5866.51	10201.86	9954.47	-2235.85	40.216997	-80.597906	3.21	
15692.00	90.37	340.41	5865.91	10288.28	10036.28	-2265.46	40.217222	-80.598011	0.72	
15778.00	89.82	340.45	5865.76	10373.76	10117.31	-2294.27	40.217445	-80.598113	0.64	
15865.00	90.18	340.00	5865.76	10460.20	10199.18	-2323.70	40.217670	-80.598217	0.66	
15952.00	89.82	342.76	5865.76	10546.82	10281.61	-2351.48	40.217897	-80.598315	3.20	
16039.00	90.12	342.43	5865.81	10633.60	10364.63	-2377.50	40.218125	-80.598407	0.51	
16125.00	90.62	340.41	5865.25	10719.22	10446.14	-2404.90	40.218349	-80.598504	2.42	
16212.00	91.05	339.64	5863.99	10805.62	10527.90	-2434.62	40.218574	-80.598609	1.01	
16299.00	90.92	336.57	5862.49	10891.62	10608.60	-2467.05	40.218796	-80.598724	3.53	
16385.00	90.92	336.28	5861.11	10976.23	10687.41	-2501.44	40.219013	-80.598845	0.34	
16437.00	90.49	337.59	5860.47	11027.47	10735.25	-2521.81	40.219144	-80.598918	2.65	Last WFT SVY
16460.00	90.49	337.59	5860.27	11050.17	10756.51	-2530.58	40.219203	-80.598949	0.00	Proj. to TD

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