



Well Name: Melvin Kahle OHI 1H

47069003460000

LITHOLOGY/FORMATION	TOP DEPTH, MD (FT)	TOP DEPTH, TVD (FT)	BOTTOM DEPTH, MD (FT)	BOTTOM DEPTH, TVD (FT)	QUANTITY AND TYPE OF FLUID
Base of Fresh Water	0.00	0.00	369.00	369.00	
Top of Salt Water	766.00	766.00	NA	NA	
Pittsburgh Coal	591.00	591.00	602.00	602.00	
Pottsville (ss)	756.00	756.00	818.00	818.00	
Raven Cliff (ss)	1069.00	1069.00	1287.00	1287.00	
Maxton (ss)	1417.00	1415.00	1782.00	1775.00	
Big Injun (ss)	1782.00	1775.00	1973.00	1962.00	
Berea (siltstone)	2256.00	2236.00	3300.00	3247.00	
Rhonestreet (shale)	5982.00	5840.00	6322.00	6120.00	
Burket (shale)	6322.00	6120.00	6355.00	6142.00	
Tully (ls)	6355.00	6142.00	6413.00	6180.00	
Mahantango (shale)	6413.00	6180.00	6614.00	6276.00	
Marcellus (shale)	6614.00	6276.00	NA	NA	GAS

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Melvin Kahle OHI 1H
Field	Ohio	API	4706900346000
Facility	Melvin Kahle OHI Pad	Wellbore	Melvin Kahle OHI 1H AWB
Slot	1H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Tranlam
Scale	0.999613	Report Generated	3/1/2023 at 11:26:54 PM
Convergence at slot	0.24° East	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-36.16	21.88	1745275.23	14553109.70	40°04'18.5787"N	80°37'30.6505"W
Facility Reference Pt			1745253.36	14553145.85	40°04'18.9370"N	80°37'30.9300"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.4780"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Patterson 571 (KB) to Facility Vertical Datum	1302.20ft
Horizontal Reference Pt	Slot	Patterson 571 (KB) to Mean Sea Level	1302.20ft
Vertical Reference Pt	Patterson 571 (KB)	Patterson 571 (KB) to Ground Level at Slot (1H)	26.00ft
MD Reference Pt	Patterson 571 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	333.80°

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Slot	1H		

WELLPATH DATA (235 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Comments
0.00†	0.000	338.540	0.00	0.00	0.00	0.00	1745275.23	14553109.70	40°04'18.5787"N	80°37'30.6505"W	0.00	0.000	0.00	
26.00	0.000	338.540	26.00	0.00	0.00	0.00	1745275.23	14553109.70	40°04'18.5787"N	80°37'30.6505"W	0.00	0.000	0.00	
180.00	0.280	338.540	180.00	0.38	0.35	-0.14	1745275.09	14553110.05	40°04'18.5822"N	80°37'30.6523"W	0.38	338.540	0.18	
244.00	0.300	21.740	244.00	0.64	0.65	-0.13	1745275.10	14553110.35	40°04'18.5852"N	80°37'30.6522"W	0.66	348.475	0.33	
339.00	0.270	92.440	339.00	0.70	0.87	0.18	1745275.41	14553110.57	40°04'18.5873"N	80°37'30.6481"W	0.89	11.837	0.35	
433.00	0.200	152.260	433.00	0.43	0.72	0.48	1745275.71	14553110.42	40°04'18.5858"N	80°37'30.6443"W	0.86	33.787	0.26	
528.00	0.300	167.310	528.00	0.02	0.33	0.61	1745275.84	14553110.03	40°04'18.5819"N	80°37'30.6426"W	0.70	61.764	0.13	
622.00	0.800	172.160	621.99	-0.84	-0.56	0.76	1745275.99	14553109.14	40°04'18.5731"N	80°37'30.6408"W	0.94	126.595	0.53	
654.00	0.750	173.750	653.99	-1.25	-0.99	0.81	1745276.04	14553108.71	40°04'18.5689"N	80°37'30.6402"W	1.28	140.760	0.17	
719.00	0.850	224.690	718.98	-1.80	-1.76	0.52	1745275.75	14553107.94	40°04'18.5613"N	80°37'30.6440"W	1.83	163.614	1.07	
813.00	0.910	240.610	812.97	-2.07	-2.62	-0.62	1745274.61	14553107.08	40°04'18.5529"N	80°37'30.6587"W	2.69	193.409	0.27	
908.00	1.030	246.450	907.96	-2.08	-3.33	-2.06	1745273.17	14553106.37	40°04'18.5459"N	80°37'30.6773"W	3.92	211.796	0.16	
1002.00	2.110	246.850	1001.92	-1.95	-4.35	-4.43	1745270.80	14553105.35	40°04'18.5359"N	80°37'30.7077"W	6.21	225.537	1.15	
1096.00	3.640	243.410	1095.80	-1.87	-6.36	-8.69	1745266.54	14553103.34	40°04'18.5162"N	80°37'30.7626"W	10.77	233.783	1.64	
1190.00	5.030	243.090	1189.53	-1.94	-9.56	-15.03	1745260.20	14553100.14	40°04'18.4848"N	80°37'30.8444"W	17.82	237.534	1.48	
1285.00	4.670	240.220	1284.19	-2.24	-13.37	-22.10	1745253.14	14553096.33	40°04'18.4475"N	80°37'30.9356"W	25.83	238.830	0.46	
1379.00	4.440	235.050	1377.89	-3.03	-17.36	-28.41	1745246.83	14553092.35	40°04'18.4084"N	80°37'31.0169"W	33.29	238.577	0.50	
1473.00	6.710	227.050	1471.44	-5.17	-23.18	-35.41	1745239.83	14553086.53	40°04'18.3511"N	80°37'31.1073"W	42.32	236.788	2.55	
1568.00	10.040	219.840	1565.42	-10.13	-33.33	-44.78	1745230.47	14553076.39	40°04'18.2513"N	80°37'31.2283"W	55.82	233.343	3.67	
1662.00	10.600	212.110	1657.90	-18.00	-46.94	-54.63	1745220.63	14553062.78	40°04'18.1171"N	80°37'31.3557"W	72.02	229.327	1.59	
1757.00	11.110	200.740	1751.21	-28.84	-62.90	-62.51	1745212.74	14553046.82	40°04'17.9597"N	80°37'31.4580"W	88.68	224.821	2.31	
1851.00	12.230	202.530	1843.27	-41.59	-80.57	-69.53	1745205.72	14553029.16	40°04'17.7854"N	80°37'31.5493"W	106.43	220.795	1.25	
1946.00	13.040	203.450	1935.97	-55.17	-99.70	-77.66	1745197.60	14553010.04	40°04'17.5967"N	80°37'31.6548"W	126.37	217.915	0.88	
1970.00	13.290	203.090	1959.34	-58.72	-104.72	-79.81	1745195.45	14553005.02	40°04'17.5472"N	80°37'31.6829"W	131.67	217.314	1.10	
2060.00	14.050	200.030	2046.79	-73.03	-124.50	-87.61	1745187.65	14552985.25	40°04'17.3520"N	80°37'31.7842"W	152.24	215.135	1.17	
2154.00	14.790	202.260	2137.83	-88.88	-146.32	-96.07	1745179.20	14552963.43	40°04'17.1367"N	80°37'31.8942"W	175.04	213.286	0.98	
2248.00	15.200	202.940	2228.63	-104.89	-168.78	-105.42	1745169.86	14552940.99	40°04'16.9152"N	80°37'32.0156"W	198.99	211.988	0.47	
2342.00	14.760	207.550	2319.43	-120.04	-190.74	-115.76	1745159.52	14552919.03	40°04'16.6986"N	80°37'32.1498"W	223.12	211.253	1.35	
2436.00	13.580	209.300	2410.57	-133.37	-210.98	-126.70	1745148.58	14552898.80	40°04'16.4990"N	80°37'32.2916"W	246.10	210.985	1.34	
2530.00	13.800	208.030	2501.90	-146.17	-230.50	-137.37	1745137.92	14552879.29	40°04'16.3066"N	80°37'32.4299"W	268.33	210.792	0.40	

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Field	Ohio		API	4706900346000
Facility	Melvin Kahle OHI Pad		Wellbore	Melvin Kahle OHI 1H AWB
Slot	1H			

WELLPATH DATA (235 stations)														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Comments
2623.00	14.760	205.670	2592.03	-159.97	-250.97	-147.71	1745127.58	14552858.83	40°04'16.1047"N	80°37'32.5641"W	291.21	210.479	1.21	
2718.00	15.040	205.920	2683.84	-175.01	-272.96	-158.34	1745116.95	14552836.84	40°04'15.8878"N	80°37'32.7020"W	315.57	210.117	0.30	
2812.00	14.430	208.250	2774.74	-189.31	-294.25	-169.22	1745106.08	14552815.56	40°04'15.6779"N	80°37'32.8431"W	339.44	209.902	0.90	
2907.00	13.970	209.140	2866.84	-202.71	-314.69	-180.40	1745094.90	14552795.13	40°04'15.4764"N	80°37'32.9881"W	362.74	209.824	0.54	
3001.00	14.380	209.180	2957.98	-215.80	-334.80	-191.62	1745083.69	14552775.03	40°04'15.2782"N	80°37'33.1334"W	385.75	209.784	0.44	
3095.00	14.700	206.890	3048.97	-229.59	-355.62	-202.70	1745072.61	14552754.21	40°04'15.0728"N	80°37'33.2771"W	409.34	209.683	0.70	
3190.00	15.360	206.140	3140.72	-244.52	-377.67	-213.70	1745061.62	14552732.18	40°04'14.8554"N	80°37'33.4197"W	433.94	209.503	0.72	
3285.00	14.660	207.340	3232.48	-259.35	-399.64	-224.76	1745050.55	14552710.21	40°04'14.6387"N	80°37'33.5633"W	458.51	209.354	0.81	
3379.00	15.340	209.610	3323.27	-273.41	-421.02	-236.37	1745038.95	14552688.84	40°04'14.4280"N	80°37'33.7137"W	482.83	209.311	0.96	
3474.00	14.250	206.560	3415.12	-287.54	-442.41	-247.81	1745027.52	14552667.47	40°04'14.2171"N	80°37'33.8620"W	507.08	209.255	1.41	
3568.00	14.070	208.700	3506.27	-301.12	-462.78	-258.47	1745016.86	14552647.10	40°04'14.0163"N	80°37'34.0002"W	530.06	209.184	0.59	
3663.00	14.920	209.730	3598.24	-314.61	-483.53	-270.08	1745005.26	14552626.36	40°04'13.8117"N	80°37'34.1507"W	553.84	209.186	0.93	
3762.00	14.950	209.340	3693.90	-328.97	-505.72	-282.65	1744992.69	14552604.17	40°04'13.5928"N	80°37'34.3136"W	579.35	209.201	0.11	
3856.00	14.950	207.360	3784.72	-343.03	-527.06	-294.17	1744981.18	14552582.84	40°04'13.3824"N	80°37'34.4629"W	603.60	209.167	0.54	
3951.00	14.030	206.400	3876.70	-357.31	-548.26	-304.92	1744970.43	14552561.65	40°04'13.1734"N	80°37'34.6023"W	627.35	209.081	1.00	
4045.00	14.520	204.990	3967.79	-371.61	-569.15	-314.96	1744960.39	14552540.77	40°04'12.9674"N	80°37'34.7327"W	650.49	208.960	0.64	
4139.00	15.560	203.840	4058.57	-387.10	-591.36	-325.04	1744950.32	14552518.57	40°04'12.7483"N	80°37'34.8634"W	674.80	208.795	1.15	
4233.00	15.730	204.240	4149.09	-403.31	-614.51	-335.37	1744939.99	14552495.43	40°04'12.5200"N	80°37'34.9975"W	700.07	208.623	0.21	
4327.00	15.050	206.570	4239.72	-418.81	-637.05	-346.06	1744929.31	14552472.90	40°04'12.2977"N	80°37'35.1362"W	724.97	208.512	0.98	
4422.00	14.350	206.700	4331.61	-433.37	-658.59	-356.86	1744918.51	14552451.36	40°04'12.0852"N	80°37'35.2764"W	749.06	208.451	0.74	
4516.00	14.480	208.270	4422.65	-447.23	-679.35	-367.66	1744907.71	14552430.61	40°04'11.8806"N	80°37'35.4165"W	772.46	208.422	0.44	
4610.00	13.420	209.800	4513.88	-460.16	-699.17	-378.65	1744896.73	14552410.80	40°04'11.6852"N	80°37'35.5588"W	795.12	208.439	1.19	
4709.00	14.230	210.880	4610.01	-473.19	-719.58	-390.61	1744884.78	14552390.40	40°04'11.4840"N	80°37'35.7137"W	818.76	208.494	0.86	
4803.00	14.290	207.090	4701.11	-486.41	-739.82	-401.82	1744873.57	14552370.16	40°04'11.2844"N	80°37'35.8590"W	841.90	208.508	1.00	
4897.00	14.400	203.670	4792.19	-500.88	-760.86	-411.79	1744863.60	14552349.14	40°04'11.0769"N	80°37'35.9885"W	865.15	208.423	0.91	
4992.00	15.260	205.460	4884.02	-516.25	-782.97	-421.91	1744853.48	14552327.04	40°04'10.8589"N	80°37'36.1198"W	889.41	208.319	1.03	
5085.00	15.360	206.350	4973.72	-531.33	-805.05	-432.64	1744842.76	14552304.96	40°04'10.6411"N	80°37'36.2590"W	913.94	208.254	0.27	
5180.00	15.250	203.080	5065.35	-547.13	-827.82	-443.12	1744832.28	14552282.20	40°04'10.4165"N	80°37'36.3951"W	938.96	208.160	0.92	
5274.00	14.970	202.210	5156.10	-563.25	-850.44	-452.56	1744822.85	14552259.60	40°04'10.1934"N	80°37'36.5176"W	963.35	208.020	0.38	
5369.00	14.240	204.570	5248.03	-578.79	-872.42	-462.05	1744813.36	14552237.62	40°04'9.9765"N	80°37'36.6410"W	987.22	207.907	0.99	

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Slot	1H			

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5463.00	14.120	200.180	5339.17	-594.01	-893.70	-470.82	1744804.60	14552216.35	40°04'9.7666"N	80°37'36.7548"W	1010.13	207.781	1.15	
5557.00	13.120	200.800	5430.53	-609.20	-914.43	-478.56	1744796.86	14552195.62	40°04'9.5620"N	80°37'36.8556"W	1032.09	207.625	1.08	
5651.00	11.540	226.740	5522.43	-619.24	-930.86	-489.21	1744786.22	14552179.20	40°04'9.4001"N	80°37'36.9934"W	1051.58	207.724	6.07	
5746.00	12.610	258.160	5615.42	-619.46	-939.51	-506.29	1744769.13	14552170.55	40°04'9.3153"N	80°37'37.2136"W	1067.25	208.320	6.92	
5840.00	15.910	283.420	5706.60	-608.68	-938.63	-528.90	1744746.54	14552171.44	40°04'9.3250"N	80°37'37.5043"W	1077.38	209.400	7.41	
5935.00	21.000	293.790	5796.71	-587.32	-928.73	-557.16	1744718.28	14552181.33	40°04'9.4240"N	80°37'37.8674"W	1083.04	210.960	6.36	
6029.00	25.400	306.730	5883.14	-556.43	-909.86	-588.77	1744686.69	14552200.20	40°04'9.6118"N	80°37'38.2729"W	1083.74	212.907	7.14	
6124.00	31.940	315.170	5966.49	-514.41	-879.81	-622.87	1744652.61	14552230.24	40°04'9.9102"N	80°37'38.7098"W	1077.97	215.297	8.08	
6219.00	38.290	315.220	6044.16	-462.65	-841.05	-661.35	1744614.13	14552268.97	40°04'10.2948"N	80°37'39.2028"W	1069.93	218.179	6.68	
6313.00	45.020	319.770	6114.36	-402.71	-794.94	-703.40	1744572.11	14552315.07	40°04'10.7522"N	80°37'39.7411"W	1061.46	221.504	7.85	
6407.00	51.300	317.830	6177.04	-335.12	-742.31	-749.54	1744525.98	14552367.68	40°04'11.2742"N	80°37'40.3318"W	1054.91	225.278	6.85	
6501.00	60.780	318.600	6229.49	-260.10	-684.22	-801.41	1744474.13	14552425.74	40°04'11.8503"N	80°37'40.9959"W	1053.77	229.510	10.11	
6595.00	67.110	323.510	6270.78	-177.79	-618.55	-854.37	1744421.19	14552491.39	40°04'12.5016"N	80°37'41.6735"W	1054.77	234.096	8.21	
6689.00	75.570	326.760	6300.83	-89.83	-545.52	-905.17	1744370.41	14552564.40	40°04'13.2254"N	80°37'42.3231"W	1056.85	238.924	9.58	
6782.00	84.510	329.360	6316.90	1.21	-467.86	-953.55	1744322.05	14552642.03	40°04'13.9948"N	80°37'42.9412"W	1062.14	243.865	10.00	
6876.00	91.510	332.720	6320.17	94.97	-385.72	-999.00	1744276.62	14552724.13	40°04'14.8084"N	80°37'43.5214"W	1070.88	248.888	8.26	
6971.00	90.620	331.040	6318.40	189.90	-301.95	-1043.77	1744231.87	14552807.87	40°04'15.6380"N	80°37'44.0927"W	1086.56	253.865	2.00	
7065.00	90.890	331.180	6317.16	283.79	-219.66	-1089.18	1744186.48	14552890.13	40°04'16.4531"N	80°37'44.6724"W	1111.10	258.598	0.32	
7159.00	90.550	330.790	6315.98	377.67	-137.46	-1134.77	1744140.91	14552972.29	40°04'17.2673"N	80°37'45.2544"W	1143.06	263.093	0.55	
7254.00	90.800	330.880	6314.86	472.53	-54.51	-1181.06	1744094.63	14553055.21	40°04'18.0889"N	80°37'45.8454"W	1182.32	267.357	0.28	
7349.00	90.920	330.920	6313.44	567.40	28.49	-1227.26	1744048.45	14553138.18	40°04'18.9110"N	80°37'46.4352"W	1227.59	271.330	0.13	
7444.00	91.850	332.000	6311.14	662.29	111.92	-1272.63	1744003.10	14553221.57	40°04'19.7373"N	80°37'47.0144"W	1277.54	275.026	1.50	
7538.00	90.430	331.580	6309.27	756.21	194.73	-1317.05	1743958.69	14553304.36	40°04'20.5576"N	80°37'47.5814"W	1331.37	278.411	1.58	
7632.00	90.890	331.570	6308.19	850.14	277.40	-1361.80	1743913.96	14553386.99	40°04'21.3763"N	80°37'48.1525"W	1389.76	281.514	0.49	
7727.00	92.150	332.420	6305.67	945.05	361.24	-1406.39	1743869.39	14553470.80	40°04'22.2067"N	80°37'48.7216"W	1452.04	284.405	1.60	
7820.00	90.490	331.370	6303.53	1037.97	443.25	-1450.18	1743825.61	14553552.77	40°04'23.0189"N	80°37'49.2806"W	1516.41	286.996	2.11	
7914.00	90.980	331.390	6302.32	1131.88	525.75	-1495.21	1743780.61	14553635.25	40°04'23.8361"N	80°37'49.8553"W	1584.95	289.373	0.52	
8008.00	91.080	331.450	6300.63	1225.78	608.29	-1540.17	1743735.66	14553717.75	40°04'24.6535"N	80°37'50.4292"W	1655.94	291.552	0.12	
8102.00	90.980	331.480	6298.94	1319.69	690.86	-1585.06	1743690.78	14553800.29	40°04'25.4713"N	80°37'51.0024"W	1729.08	293.550	0.11	
8197.00	91.050	332.330	6297.26	1414.62	774.65	-1629.79	1743646.07	14553884.05	40°04'26.3012"N	80°37'51.5733"W	1804.52	295.422	0.90	

REFERENCE WELLPATH IDENTIFICATION				
Operator	SWN PRODUCTION COMPANY, LLC		Well	Melvin Kahle OHI 1H
Field	Ohio		API	4706900346000
Facility	Melvin Kahle OHI Pad		Wellbore	Melvin Kahle OHI 1H AWB
Slot	1H			

WELLPATH DATA (235 stations)														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Comments
8290.00	90.280	330.140	6296.18	1507.52	856.16	-1674.54	1743601.34	14553965.53	40°04'27.1085"N	80°37'52.1445"W	1880.72	297.080	2.50	
8384.00	90.620	329.430	6295.44	1601.28	937.39	-1721.84	1743554.06	14554046.72	40°04'27.9131"N	80°37'52.7487"W	1960.47	298.564	0.84	
8478.00	91.940	332.870	6293.34	1695.14	1019.68	-1767.18	1743508.74	14554128.99	40°04'28.7283"N	80°37'53.3275"W	2040.27	299.985	3.92	
8571.00	90.000	332.380	6291.76	1788.10	1102.25	-1809.94	1743466.00	14554211.53	40°04'29.5460"N	80°37'53.8731"W	2119.16	301.341	2.15	
8666.00	90.000	330.070	6291.76	1883.00	1185.52	-1855.66	1743420.29	14554294.76	40°04'30.3707"N	80°37'54.4569"W	2202.03	302.573	2.43	
8760.00	90.860	332.950	6291.06	1976.91	1268.12	-1900.50	1743375.47	14554377.33	40°04'31.1888"N	80°37'55.0292"W	2284.74	303.714	3.20	
8854.00	90.710	330.270	6289.77	2070.83	1350.80	-1945.18	1743330.80	14554459.98	40°04'32.0077"N	80°37'55.5996"W	2368.21	304.777	2.86	
8949.00	90.890	332.560	6288.44	2165.73	1434.21	-1990.63	1743285.38	14554543.35	40°04'32.8338"N	80°37'56.1798"W	2453.48	305.772	2.42	
9043.00	90.060	331.720	6287.66	2259.69	1517.31	-2034.55	1743241.47	14554626.42	40°04'33.6568"N	80°37'56.7404"W	2538.04	306.714	1.26	
9137.00	90.370	331.170	6287.31	2353.61	1599.87	-2079.49	1743196.55	14554708.95	40°04'34.4745"N	80°37'57.3140"W	2623.71	307.573	0.67	
9231.00	90.490	331.620	6286.61	2447.52	1682.40	-2124.49	1743151.57	14554791.44	40°04'35.2919"N	80°37'57.8886"W	2709.97	308.376	0.50	
9325.00	90.710	330.330	6285.62	2541.40	1764.59	-2170.09	1743105.98	14554873.60	40°04'36.1059"N	80°37'58.4709"W	2796.97	309.116	1.39	
9420.00	90.920	330.660	6284.27	2636.23	1847.26	-2216.88	1743059.22	14554956.24	40°04'36.9248"N	80°37'59.0683"W	2885.64	309.803	0.41	
9514.00	90.890	330.420	6282.79	2730.07	1929.09	-2263.10	1743013.01	14555038.04	40°04'37.7354"N	80°37'59.6586"W	2973.72	310.445	0.26	
9609.00	91.450	331.190	6280.85	2824.92	2012.01	-2309.43	1742966.70	14555120.92	40°04'38.5566"N	80°38'0.2502"W	3062.95	311.063	1.00	
9704.00	90.620	331.090	6279.13	2919.80	2095.19	-2355.28	1742920.87	14555204.08	40°04'39.3806"N	80°38'0.8355"W	3152.33	311.655	0.88	
9798.00	90.460	331.540	6278.24	3013.70	2177.65	-2400.39	1742875.77	14555286.50	40°04'40.1973"N	80°38'1.4115"W	3241.00	312.215	0.51	
9893.00	91.020	329.290	6277.02	3108.52	2260.25	-2447.29	1742828.89	14555369.07	40°04'41.0155"N	80°38'2.0104"W	3331.36	312.725	2.44	
9987.00	90.280	330.710	6275.95	3202.31	2341.65	-2494.28	1742781.92	14555450.44	40°04'41.8218"N	80°38'2.6107"W	3421.23	313.192	1.70	
10082.00	91.020	330.130	6274.87	3297.14	2424.26	-2541.18	1742735.04	14555533.02	40°04'42.6401"N	80°38'3.2096"W	3512.07	313.651	0.99	
10176.00	90.520	329.860	6273.61	3390.92	2505.66	-2588.18	1742688.06	14555614.38	40°04'43.4463"N	80°38'3.8099"W	3602.36	314.072	0.60	
10269.00	90.830	330.440	6272.51	3483.72	2586.31	-2634.46	1742641.79	14555695.01	40°04'44.2452"N	80°38'4.4011"W	3691.81	314.472	0.71	
10363.00	90.800	330.650	6271.18	3577.56	2668.16	-2680.68	1742595.59	14555776.82	40°04'45.0559"N	80°38'4.9913"W	3782.21	314.866	0.23	
10457.00	90.860	330.290	6269.82	3671.39	2749.94	-2727.01	1742549.28	14555858.57	40°04'45.8659"N	80°38'5.5830"W	3872.82	315.240	0.39	
10551.00	91.200	330.600	6268.13	3765.22	2831.69	-2773.37	1742502.94	14555940.29	40°04'46.6757"N	80°38'6.1750"W	3963.59	315.596	0.49	
10646.00	91.170	330.730	6266.16	3860.06	2914.49	-2819.90	1742456.43	14556023.06	40°04'47.4958"N	80°38'6.7693"W	4055.38	315.945	0.14	
10740.00	90.800	331.030	6264.55	3953.92	2996.60	-2865.64	1742410.71	14556105.13	40°04'48.3091"N	80°38'7.3533"W	4146.26	316.280	0.51	
10835.00	91.050	330.620	6263.01	4048.78	3079.54	-2911.94	1742364.42	14556188.04	40°04'49.1305"N	80°38'7.9447"W	4238.27	316.602	0.51	
10929.00	90.980	330.570	6261.35	4142.62	3161.41	-2958.09	1742318.30	14556269.88	40°04'49.9415"N	80°38'8.5340"W	4329.53	316.903	0.09	
11023.00	91.080	331.480	6259.66	4236.49	3243.63	-3003.61	1742272.79	14556352.07	40°04'50.7559"N	80°38'9.1154"W	4420.73	317.200	0.97	

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Melvin Kahle OHI 1H
Field	Ohio	API	4706900346000
Facility	Melvin Kahle OHI Pad	Wellbore	Melvin Kahle OHI 1H AWB
Slot	1H		

WELLPATH DATA (235 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Comments
11118.00	90.740	330.980	6258.15	4331.38	3326.90	-3049.33	1742227.09	14556435.30	40°04'51.5805"N	80°38'9.6991"W	4512.94	317.493	0.64	
11212.00	90.370	330.520	6257.24	4425.24	3408.91	-3095.26	1742181.18	14556517.28	40°04'52.3928"N	80°38'10.2857"W	4604.48	317.761	0.63	
11307.00	90.920	331.360	6256.17	4520.12	3491.94	-3141.40	1742135.05	14556600.28	40°04'53.2152"N	80°38'10.8749"W	4697.02	318.025	1.06	
11401.00	91.110	331.210	6254.50	4614.01	3574.37	-3186.56	1742089.92	14556682.67	40°04'54.0316"N	80°38'11.4515"W	4788.55	318.283	0.26	
11495.00	90.580	330.990	6253.12	4707.90	3656.65	-3231.98	1742044.51	14556764.93	40°04'54.8466"N	80°38'12.0315"W	4880.24	318.528	0.61	
11590.00	90.460	330.510	6252.25	4802.76	3739.53	-3278.40	1741998.11	14556847.78	40°04'55.6675"N	80°38'12.6243"W	4973.13	318.759	0.52	
11684.00	90.860	331.060	6251.17	4896.62	3821.57	-3324.27	1741952.25	14556929.78	40°04'56.4801"N	80°38'13.2102"W	5065.10	318.981	0.72	
11778.00	90.550	329.700	6250.02	4990.45	3903.28	-3370.73	1741905.82	14557011.46	40°04'57.2894"N	80°38'13.8036"W	5157.27	319.187	1.48	
11873.00	90.800	330.670	6248.90	5085.25	3985.70	-3417.96	1741858.60	14557093.85	40°04'58.1058"N	80°38'14.4069"W	5250.54	319.385	1.05	
11967.00	91.230	330.370	6247.23	5179.08	4067.51	-3464.21	1741812.37	14557175.63	40°04'58.9162"N	80°38'14.9976"W	5342.79	319.580	0.56	
12062.00	90.550	330.780	6245.76	5273.92	4150.25	-3510.88	1741765.72	14557258.33	40°04'59.7356"N	80°38'15.5936"W	5436.07	319.771	0.84	
12156.00	90.800	330.990	6244.65	5367.79	4232.37	-3556.61	1741720.01	14557340.42	40°05'0.5489"N	80°38'16.1777"W	5528.33	319.958	0.35	
12250.00	90.430	331.050	6243.64	5461.67	4314.59	-3602.15	1741674.48	14557422.61	40°05'1.3633"N	80°38'16.7593"W	5620.60	320.142	0.40	
12345.00	90.680	330.930	6242.72	5556.55	4397.67	-3648.22	1741628.43	14557505.66	40°05'2.1862"N	80°38'17.3476"W	5713.93	320.322	0.29	
12439.00	90.620	330.710	6241.65	5650.42	4479.73	-3694.05	1741582.62	14557587.69	40°05'2.9990"N	80°38'17.9329"W	5806.37	320.491	0.24	
12534.00	91.080	331.550	6240.24	5745.31	4562.92	-3739.91	1741536.78	14557670.84	40°05'3.8228"N	80°38'18.5186"W	5899.76	320.661	1.01	
12628.00	91.570	331.560	6238.07	5839.21	4645.55	-3784.67	1741492.03	14557753.44	40°05'4.6412"N	80°38'19.0902"W	5992.06	320.831	0.52	
12723.00	91.020	332.420	6235.92	5934.14	4729.40	-3829.27	1741447.45	14557837.25	40°05'5.4716"N	80°38'19.6596"W	6085.27	321.004	1.07	
12817.00	90.550	330.490	6234.63	6028.04	4811.96	-3874.18	1741402.55	14557919.78	40°05'6.2893"N	80°38'20.2331"W	6177.72	321.162	2.11	
12912.00	90.580	330.910	6233.70	6122.90	4894.80	-3920.67	1741356.08	14558002.59	40°05'7.1098"N	80°38'20.8269"W	6271.42	321.306	0.44	
13007.00	91.850	330.730	6231.68	6217.75	4977.72	-3966.98	1741309.80	14558085.48	40°05'7.9311"N	80°38'21.4183"W	6365.11	321.447	1.35	
13101.00	91.380	331.180	6229.03	6311.59	5059.87	-4012.60	1741264.19	14558167.60	40°05'8.7447"N	80°38'22.0010"W	6457.80	321.585	0.69	
13195.00	91.230	330.520	6226.89	6405.44	5141.94	-4058.37	1741218.44	14558249.64	40°05'9.5576"N	80°38'22.5856"W	6550.57	321.717	0.72	
13290.00	91.660	331.560	6224.50	6500.30	5225.03	-4104.36	1741172.47	14558332.70	40°05'10.3806"N	80°38'23.1729"W	6644.30	321.850	1.18	
13384.00	91.820	331.550	6221.64	6594.19	5307.65	-4149.11	1741127.74	14558415.28	40°05'11.1988"N	80°38'23.7444"W	6736.93	321.984	0.17	
13479.00	90.090	329.620	6220.06	6689.02	5390.38	-4195.76	1741081.11	14558497.98	40°05'12.0182"N	80°38'24.3402"W	6830.86	322.104	2.73	
13573.00	90.800	331.320	6219.33	6782.85	5472.17	-4242.08	1741034.80	14558579.73	40°05'12.8283"N	80°38'24.9320"W	6923.86	322.217	1.96	
13668.00	91.110	330.880	6217.75	6877.73	5555.32	-4287.99	1740988.91	14558662.86	40°05'13.6519"N	80°38'25.5183"W	7017.72	322.337	0.57	
13763.00	91.050	333.350	6215.96	6972.67	5639.27	-4332.41	1740944.51	14558746.77	40°05'14.4832"N	80°38'26.0854"W	7111.34	322.466	2.60	
13857.00	92.530	335.380	6213.02	7066.61	5723.97	-4373.05	1740903.88	14558831.44	40°05'15.3218"N	80°38'26.6040"W	7203.29	322.621	2.67	

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Melvin Kahle OHI 1H
Field	Ohio	API	4706900346000
Facility	Melvin Kahle OHI Pad	Wellbore	Melvin Kahle OHI 1H AWB
Slot	1H		

WELLPATH DATA (235 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Comments
13951.00	91.200	337.270	6209.96	7160.46	5810.01	-4410.78	1740866.17	14558917.44	40°05'16.1736"N	80°38'27.0848"W	7294.60	322.795	2.46	
14046.00	91.880	336.570	6207.41	7255.29	5897.37	-4448.00	1740828.96	14559004.77	40°05'17.0384"N	80°38'27.5593"W	7386.73	322.975	1.03	
14141.00	91.720	338.310	6204.42	7350.04	5985.05	-4484.43	1740792.54	14559092.42	40°05'17.9063"N	80°38'28.0234"W	7478.70	323.157	1.84	
14235.00	91.570	336.540	6201.72	7443.81	6071.81	-4520.50	1740756.49	14559179.15	40°05'18.7651"N	80°38'28.4830"W	7569.80	323.332	1.89	
14329.00	91.510	337.530	6199.20	7537.63	6158.33	-4557.16	1740719.84	14559265.63	40°05'19.6216"N	80°38'28.9502"W	7661.12	323.499	1.05	
14423.00	91.110	334.500	6197.05	7631.52	6244.18	-4595.36	1740681.66	14559351.45	40°05'20.4715"N	80°38'29.4372"W	7752.88	323.649	3.25	
14518.00	91.260	334.170	6195.08	7726.50	6329.79	-4636.50	1740640.54	14559437.02	40°05'21.3191"N	80°38'29.9620"W	7846.23	323.778	0.38	
14612.00	91.140	335.020	6193.11	7820.47	6414.68	-4676.81	1740600.24	14559521.88	40°05'22.1596"N	80°38'30.4764"W	7938.56	323.905	0.91	
14707.00	91.570	335.190	6190.87	7915.42	6500.83	-4716.79	1740560.27	14559608.00	40°05'23.0125"N	80°38'30.9863"W	8031.74	324.037	0.49	
14801.00	91.420	335.330	6188.42	8009.35	6586.17	-4756.12	1740520.96	14559693.31	40°05'23.8575"N	80°38'31.4879"W	8123.94	324.166	0.22	
14895.00	91.380	335.000	6186.12	8103.30	6671.45	-4795.59	1740481.51	14559778.56	40°05'24.7018"N	80°38'31.9913"W	8216.20	324.291	0.35	
14990.00	91.290	334.620	6183.91	8198.26	6757.40	-4836.01	1740441.10	14559864.46	40°05'25.5527"N	80°38'32.5069"W	8309.60	324.410	0.41	
15085.00	91.510	334.800	6181.58	8293.22	6843.26	-4876.58	1740400.55	14559950.30	40°05'26.4029"N	80°38'33.0245"W	8403.06	324.526	0.30	
15179.00	91.480	334.090	6179.13	8387.18	6928.04	-4917.12	1740360.03	14560035.04	40°05'27.2422"N	80°38'33.5417"W	8495.63	324.635	0.76	
15274.00	91.420	335.480	6176.73	8482.13	7013.96	-4957.58	1740319.58	14560120.93	40°05'28.0929"N	80°38'34.0578"W	8589.13	324.747	1.46	
15369.00	91.450	334.690	6174.35	8577.08	7100.09	-4997.58	1740279.59	14560207.02	40°05'28.9456"N	80°38'34.5681"W	8682.58	324.859	0.83	
15463.00	91.570	334.960	6171.87	8671.03	7185.13	-5037.56	1740239.63	14560292.03	40°05'29.7876"N	80°38'35.0780"W	8775.14	324.965	0.31	
15557.00	91.170	335.300	6169.62	8764.98	7270.39	-5077.08	1740200.13	14560377.26	40°05'30.6317"N	80°38'35.5822"W	8867.65	325.073	0.56	
15652.00	90.740	335.380	6168.04	8859.93	7356.71	-5116.71	1740160.51	14560463.55	40°05'31.4863"N	80°38'36.0876"W	8961.13	325.181	0.46	
15747.00	90.990	335.070	6166.61	8954.89	7442.96	-5156.52	1740120.72	14560549.76	40°05'32.3402"N	80°38'36.5954"W	9054.68	325.286	0.42	
15841.00	91.880	335.440	6164.25	9048.83	7528.30	-5195.85	1740081.40	14560635.07	40°05'33.1851"N	80°38'37.0971"W	9147.25	325.388	1.03	
15936.00	91.420	334.790	6161.52	9143.76	7614.44	-5235.81	1740041.46	14560721.18	40°05'34.0380"N	80°38'37.6068"W	9240.86	325.487	0.84	
16029.00	91.170	335.180	6159.42	9236.72	7698.70	-5275.12	1740002.16	14560805.40	40°05'34.8721"N	80°38'38.1083"W	9332.57	325.581	0.50	
16124.00	90.980	335.300	6157.63	9331.67	7784.95	-5314.90	1739962.40	14560891.62	40°05'35.7261"N	80°38'38.6157"W	9426.22	325.678	0.24	
16218.00	90.650	336.670	6156.30	9425.59	7870.80	-5353.16	1739924.16	14560977.44	40°05'36.5760"N	80°38'39.1035"W	9518.71	325.779	1.50	
16311.00	91.110	336.030	6154.87	9518.49	7955.98	-5390.46	1739886.87	14561062.58	40°05'37.4192"N	80°38'39.5791"W	9610.13	325.881	0.85	
16406.00	91.320	335.550	6152.85	9613.41	8042.60	-5429.41	1739847.94	14561149.17	40°05'38.2768"N	80°38'40.0758"W	9703.71	325.977	0.55	
16501.00	90.980	335.750	6150.95	9708.34	8129.14	-5468.57	1739808.79	14561235.67	40°05'39.1334"N	80°38'40.5752"W	9797.35	326.071	0.42	
16595.00	90.770	335.610	6149.51	9802.28	8214.78	-5507.28	1739770.10	14561321.29	40°05'39.9813"N	80°38'41.0689"W	9890.03	326.162	0.27	
16690.00	90.710	335.870	6148.28	9897.22	8301.39	-5546.31	1739731.08	14561407.85	40°05'40.8387"N	80°38'41.5667"W	9983.71	326.252	0.28	

REFERENCE WELLPATH IDENTIFICATION				
Operator	SWN PRODUCTION COMPANY, LLC		Well	Melvin Kahle OHI 1H
Field	Ohio		API	4706900346000
Facility	Melvin Kahle OHI Pad		Wellbore	Melvin Kahle OHI 1H AWB
Slot	1H			

WELLPATH DATA (235 stations)														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Comments
16784.00	90.800	335.870	6147.05	9991.15	8387.17	-5584.73	1739692.67	14561493.60	40°05'41.6879"N	80°38'42.0567"W	10076.40	326.342	0.10	
16879.00	90.620	336.680	6145.87	10086.05	8474.13	-5622.95	1739654.47	14561580.53	40°05'42.5488"N	80°38'42.5440"W	10169.98	326.434	0.87	
16973.00	90.490	337.010	6144.96	10179.91	8560.55	-5659.91	1739617.52	14561666.92	40°05'43.4043"N	80°38'43.0152"W	10262.44	326.529	0.38	
17067.00	90.520	336.700	6144.13	10273.77	8646.98	-5696.86	1739580.59	14561753.32	40°05'44.2598"N	80°38'43.4861"W	10354.93	326.622	0.33	
17161.00	90.860	336.820	6143.00	10367.64	8733.35	-5733.94	1739543.52	14561839.65	40°05'45.1148"N	80°38'43.9589"W	10447.47	326.713	0.38	
17255.00	90.550	337.050	6141.84	10461.49	8819.83	-5770.77	1739506.71	14561926.10	40°05'45.9708"N	80°38'44.4283"W	10539.98	326.803	0.41	
17350.00	90.250	337.300	6141.18	10556.33	8907.39	-5807.62	1739469.87	14562013.62	40°05'46.8375"N	80°38'44.8980"W	10633.44	326.896	0.41	
17445.00	90.650	336.710	6140.43	10651.18	8994.84	-5844.73	1739432.78	14562101.03	40°05'47.7032"N	80°38'45.3711"W	10726.97	326.985	0.75	
17539.00	90.340	336.910	6139.62	10745.04	9081.24	-5881.74	1739395.78	14562187.40	40°05'48.5585"N	80°38'45.8429"W	10819.60	327.070	0.39	
17633.00	90.460	336.920	6138.96	10838.90	9167.71	-5918.60	1739358.93	14562273.84	40°05'49.4144"N	80°38'46.3128"W	10912.23	327.154	0.13	
17728.00	90.430	337.040	6138.23	10933.75	9255.14	-5955.75	1739321.80	14562361.24	40°05'50.2799"N	80°38'46.7863"W	11005.84	327.238	0.13	
17821.00	90.370	337.330	6137.58	11026.59	9340.86	-5991.81	1739285.75	14562446.93	40°05'51.1284"N	80°38'47.2460"W	11097.46	327.321	0.32	
17915.00	90.370	336.690	6136.97	11120.44	9427.39	-6028.52	1739249.06	14562533.42	40°05'51.9850"N	80°38'47.7140"W	11190.12	327.402	0.68	
18009.00	89.940	336.790	6136.71	11214.31	9513.75	-6065.64	1739211.95	14562619.75	40°05'52.8398"N	80°38'48.1872"W	11282.89	327.480	0.47	
18104.00	89.780	336.710	6136.95	11309.19	9601.04	-6103.14	1739174.46	14562707.00	40°05'53.7039"N	80°38'48.6653"W	11376.66	327.557	0.19	
18198.00	90.430	337.210	6136.77	11403.04	9687.54	-6139.93	1739137.69	14562793.47	40°05'54.5601"N	80°38'49.1343"W	11469.40	327.634	0.87	
18293.00	90.460	337.170	6136.04	11497.87	9775.11	-6176.76	1739100.87	14562881.00	40°05'55.4269"N	80°38'49.6037"W	11563.09	327.712	0.05	
18388.00	90.550	337.060	6135.20	11592.71	9862.63	-6213.70	1739063.95	14562968.49	40°05'56.2932"N	80°38'50.0746"W	11656.82	327.788	0.15	
18482.00	90.620	337.120	6134.24	11686.55	9949.21	-6250.29	1739027.37	14563055.03	40°05'57.1503"N	80°38'50.5411"W	11749.59	327.862	0.10	
18577.00	90.490	337.280	6133.32	11781.38	10036.78	-6287.11	1738990.57	14563142.57	40°05'58.0171"N	80°38'51.0103"W	11843.34	327.937	0.22	
18672.00	90.430	336.840	6132.56	11876.22	10124.26	-6324.13	1738953.56	14563230.02	40°05'58.8831"N	80°38'51.4823"W	11937.14	328.009	0.47	
18766.00	90.650	337.000	6131.67	11970.08	10210.74	-6360.98	1738916.73	14563316.46	40°05'59.7391"N	80°38'51.9521"W	12030.01	328.078	0.29	
18860.00	90.430	337.480	6130.79	12063.90	10297.41	-6397.34	1738880.38	14563403.10	40°06'0.5970"N	80°38'52.4156"W	12122.82	328.149	0.56	
18955.00	90.340	337.250	6130.15	12158.72	10385.09	-6433.91	1738843.83	14563490.75	40°06'1.4649"N	80°38'52.8816"W	12216.60	328.220	0.26	
19050.00	90.430	336.770	6129.51	12253.57	10472.55	-6471.01	1738806.74	14563578.17	40°06'2.3306"N	80°38'53.3546"W	12310.49	328.288	0.51	
19144.00	90.550	336.720	6128.70	12347.44	10558.91	-6508.12	1738769.64	14563664.49	40°06'3.1854"N	80°38'53.8278"W	12403.47	328.352	0.14	
19238.00	90.400	337.290	6127.93	12441.29	10645.43	-6544.84	1738732.94	14563750.99	40°06'4.0419"N	80°38'54.2959"W	12496.41	328.417	0.63	
19332.00	90.340	337.130	6127.32	12535.12	10732.09	-6581.25	1738696.54	14563837.61	40°06'4.8997"N	80°38'54.7601"W	12589.31	328.482	0.18	
19426.00	90.620	337.410	6126.53	12628.94	10818.79	-6617.57	1738660.24	14563924.28	40°06'5.7579"N	80°38'55.2231"W	12682.21	328.547	0.42	
19520.00	90.520	336.870	6125.60	12722.78	10905.40	-6654.09	1738623.74	14564010.85	40°06'6.6152"N	80°38'55.6886"W	12775.16	328.610	0.58	

REFERENCE WELLPATH IDENTIFICATION				
Operator	SWN PRODUCTION COMPANY, LLC		Well	Melvin Kahle OHI 1H
Field	Ohio		API	4706900346000
Facility	Melvin Kahle OHI Pad		Wellbore	Melvin Kahle OHI 1H AWB
Slot	1H			

WELLPATH DATA (235 stations) † = interpolated, ‡ = extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Comments
19614.00	90.770	336.950	6124.54	12816.64	10991.86	-6690.95	1738586.89	14564097.28	40°06'7.4711"N	80°38'56.1585"W	12868.17	328.670	0.28	
19708.00	90.590	337.220	6123.42	12910.47	11078.44	-6727.55	1738550.30	14564183.83	40°06'8.3281"N	80°38'56.6251"W	12961.16	328.731	0.35	
19802.00	90.250	336.560	6122.73	13004.33	11164.89	-6764.44	1738513.42	14564270.25	40°06'9.1839"N	80°38'57.0955"W	13054.21	328.790	0.79	
19896.00	90.430	337.250	6122.18	13098.19	11251.36	-6801.31	1738476.57	14564356.68	40°06'10.0398"N	80°38'57.5656"W	13147.28	328.848	0.76	
19990.00	90.800	337.730	6121.17	13191.99	11338.19	-6837.30	1738440.60	14564443.48	40°06'10.8993"N	80°38'58.0243"W	13240.21	328.909	0.64	
20085.00	90.220	336.930	6120.32	13286.81	11425.85	-6873.91	1738404.00	14564531.10	40°06'11.7669"N	80°38'58.4910"W	13334.19	328.968	1.04	
20179.00	90.460	337.720	6119.76	13380.63	11512.58	-6910.15	1738367.78	14564617.80	40°06'12.6254"N	80°38'58.9529"W	13427.20	329.027	0.88	
20274.00	90.830	337.250	6118.69	13475.43	11600.33	-6946.52	1738331.41	14564705.52	40°06'13.4940"N	80°38'59.4166"W	13521.16	329.086	0.63	
20368.00	90.370	337.800	6117.71	13569.22	11687.19	-6982.45	1738295.50	14564792.34	40°06'14.3537"N	80°38'59.8746"W	13614.15	329.144	0.76	
20462.00	90.430	336.220	6117.05	13663.07	11773.72	-7019.16	1738258.80	14564878.83	40°06'15.2102"N	80°39'0.3427"W	13707.26	329.198	1.68	
20557.00	90.370	335.320	6116.39	13758.01	11860.34	-7058.15	1738219.83	14564965.43	40°06'16.0678"N	80°39'0.8400"W	13801.64	329.243	0.95	
20650.00	90.370	335.560	6115.79	13850.97	11944.93	-7096.81	1738181.19	14565049.98	40°06'16.9052"N	80°39'1.3332"W	13894.10	329.284	0.26	
20745.00	90.650	336.030	6114.94	13945.91	12031.57	-7135.75	1738142.25	14565136.59	40°06'17.7629"N	80°39'1.8301"W	13988.49	329.328	0.58	
20840.00	90.180	336.000	6114.26	14040.83	12118.37	-7174.37	1738103.65	14565223.35	40°06'18.6221"N	80°39'2.3226"W	14082.84	329.373	0.50	
20934.00	90.180	335.510	6113.96	14134.78	12204.08	-7212.97	1738065.07	14565309.02	40°06'19.4706"N	80°39'2.8151"W	14176.26	329.416	0.52	
21028.00	90.580	335.440	6113.34	14228.74	12289.59	-7251.99	1738026.07	14565394.51	40°06'20.3172"N	80°39'3.3129"W	14269.74	329.455	0.43	
21123.00	90.280	335.160	6112.62	14323.70	12375.90	-7291.68	1737986.39	14565480.78	40°06'21.1716"N	80°39'3.8194"W	14364.24	329.494	0.43	
21218.00	90.460	335.040	6112.01	14418.67	12462.07	-7331.68	1737946.40	14565566.91	40°06'22.0247"N	80°39'4.3298"W	14458.79	329.531	0.23	
21312.00	90.340	335.120	6111.35	14512.65	12547.31	-7371.29	1737906.81	14565652.13	40°06'22.8686"N	80°39'4.8352"W	14552.35	329.567	0.15	
21407.00	90.280	334.970	6110.84	14607.62	12633.44	-7411.37	1737866.75	14565738.22	40°06'23.7213"N	80°39'5.3467"W	14646.92	329.602	0.17	
21501.00	90.220	334.870	6110.43	14701.60	12718.58	-7451.21	1737826.92	14565823.33	40°06'24.5642"N	80°39'5.8552"W	14740.52	329.636	0.12	
21596.00	90.250	334.720	6110.04	14796.59	12804.53	-7491.67	1737786.48	14565909.25	40°06'25.4152"N	80°39'6.3715"W	14835.13	329.669	0.16	
21691.00	90.250	334.950	6109.63	14891.57	12890.52	-7532.06	1737746.10	14565995.20	40°06'26.2664"N	80°39'6.8870"W	14929.75	329.702	0.24	
21731.00	90.460	334.910	6109.38	14931.56	12926.75	-7549.01	1737729.16	14566031.41	40°06'26.6251"N	80°39'7.1033"W	14969.58	329.716	0.53	
21756.00‡	90.460	334.910	6109.18	14956.56	12949.39	-7559.61	1737718.56	14566054.04	40°06'26.8493"N	80°39'7.2386"W	14994.48	329.724	0.00	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Melvin Kahle OHI 1H
Field	Ohio	API	4706900346000
Facility	Melvin Kahle OHI Pad	Wellbore	Melvin Kahle OHI 1H AWB
Slot	1H		

HOLE & CASING SECTIONS - Ref Wellbore: Melvin Kahle OHI 1H AWB Ref Wellpath: Melvin Kahle OHI 1H awp Proj: 21756'									
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]
13.375in Casing	26.00	704.00	678.00	26.00	703.98	0.00	0.00	-1.59	0.65
9.625in Casing	26.00	2040.00	2014.00	26.00	2027.38	0.00	0.00	-119.97	-85.94
5.5in Casing	26.00	21756.00	21730.00	26.00	6109.18	0.00	0.00	12949.39	-7559.61

TARGETS									
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape	
Melvin Kahle OHI 1H BHL Rev-3	6077.00	12949.88	-7559.64	1737718.53	14566054.53	40°06'26.8541"N	80°39'7.2389"W	point	
Melvin Kahle OHI 1H wp1	6310.60	5447.13	-4249.13	1741027.76	14558554.71	40°05'12.5811"N	80°38'25.0239"W	point	
Melvin Kahle OHI 1H LP Rev 4	6320.00	-406.60	-988.01	1744287.61	14552703.26	40°04'14.6016"N	80°37'43.3811"W	point	

WELLPATH COMPOSITION - Ref Wellbore: Melvin Kahle OHI 1H AWB Ref Wellpath: Melvin Kahle OHI 1H awp Proj: 21756'						
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date	
26.00	654.00	OWSG MWD rev2 + HRGM	1 Tally MWD OWSG HRGM 17.5" 180' - 654'	Melvin Kahle OHI 1H AWB	2/20/2023	
654.00	1970.00	OWSG MWD rev2 + HRGM	2 Tally MWD OWSG HRGM 12.25" 719' - 1970'	Melvin Kahle OHI 1H AWB	2/20/2023	
1970.00	5369.00	OWSG MWD rev2 + HRGM	3 Tally MWD OWSG HRGM 12.25" 2060' - 5369'	Melvin Kahle OHI 1H AWB	2/20/2023	
5369.00	21756.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	4 BH ATC MWD Short spacing 8.5" 5463' - 21731'	Melvin Kahle OHI 1H AWB	2/20/2023	

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