



Well Name:

Melvin Kahle OHI 201H

47069003470000

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	
Rhinestreet (shale)	5982.00	5840.00	6322.00	6120.00	
Burket (shale)	6324.00	5855.00	6355.00	5881.00	
Tully (ls)	6355.00	5881.00	6397.00	5917.00	
Mahantango (shale)	6397.00	5917.00	6620.00	6092.00	
Marcellus (shale)	6620.00	6092.00	NA	NA	GAS

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REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Melvin Kahle OHI 201H
Field	Ohio	API	47069003470000
Facility	Melvin Kahle OHI Pad	Wellbore	Melvin Kahle OHI 201H AWB
Slot	201H		

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	3/21/2023 at 10:08:16 AM
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	-47.99	29.20	1745282.55	14553097.88	40°04'18.4616"N	80°37'30.5570"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	1302.10ft
Horizontal Reference Pt	Slot	Patterson 571 (KB) to Mean Sea Level	1302.10ft
Vertical Reference Pt	Patterson 571 (KB)	Patterson 571 (KB) to Ground Level at Slot (201H)	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	332.89°

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Slot	201H			

WELLPATH DATA (265 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	316.060	0.00	0.00	0.00	0.00	1745282.55	14553097.88	40°04'18.4616"N	80°37'30.5570"W	0.00	0.000	0.00	
26.00	0.000	316.060	26.00	0.00	0.00	0.00	1745282.55	14553097.88	40°04'18.4616"N	80°37'30.5570"W	0.00	0.000	0.00	
184.00	0.150	316.060	184.00	0.20	0.15	-0.14	1745282.41	14553098.03	40°04'18.4630"N	80°37'30.5588"W	0.21	316.060	0.09	
247.00	0.350	176.300	247.00	0.10	0.02	-0.19	1745282.36	14553097.90	40°04'18.4617"N	80°37'30.5594"W	0.19	274.943	0.75	
342.00	0.060	145.750	342.00	-0.22	-0.31	-0.14	1745282.41	14553097.57	40°04'18.4585"N	80°37'30.5588"W	0.34	204.247	0.32	
437.00	0.210	172.910	437.00	-0.43	-0.53	-0.09	1745282.46	14553097.35	40°04'18.4563"N	80°37'30.5582"W	0.54	189.892	0.17	
532.00	0.340	195.450	532.00	-0.80	-0.97	-0.15	1745282.40	14553096.91	40°04'18.4519"N	80°37'30.5589"W	0.98	188.520	0.18	
626.00	0.260	334.570	626.00	-0.79	-1.05	-0.31	1745282.24	14553096.83	40°04'18.4512"N	80°37'30.5610"W	1.09	196.545	0.60	
657.00	0.290	351.960	657.00	-0.65	-0.91	-0.35	1745282.20	14553096.97	40°04'18.4526"N	80°37'30.5616"W	0.97	201.238	0.28	
721.00	1.060	346.890	720.99	0.08	-0.17	-0.51	1745282.04	14553097.71	40°04'18.4599"N	80°37'30.5635"W	0.54	251.476	1.21	
815.00	0.540	312.480	814.98	1.34	0.98	-1.03	1745281.52	14553098.85	40°04'18.4712"N	80°37'30.5702"W	1.42	313.334	0.73	
910.00	0.270	285.060	909.98	1.91	1.34	-1.58	1745280.97	14553099.22	40°04'18.4748"N	80°37'30.5772"W	2.07	310.211	0.34	
1004.00	0.360	326.710	1003.98	2.35	1.64	-1.96	1745280.59	14553099.52	40°04'18.4778"N	80°37'30.5820"W	2.55	309.981	0.25	
1098.00	1.930	288.840	1097.96	3.78	2.40	-3.62	1745278.94	14553100.28	40°04'18.4854"N	80°37'30.6034"W	4.34	303.551	1.77	
1192.00	3.140	282.260	1191.86	6.55	3.46	-7.63	1745274.92	14553101.33	40°04'18.4960"N	80°37'30.6549"W	8.38	294.368	1.32	
1287.00	4.410	284.420	1286.66	10.63	4.92	-13.71	1745268.85	14553102.80	40°04'18.5107"N	80°37'30.7331"W	14.57	289.734	1.34	
1381.00	6.560	272.730	1380.22	15.69	6.07	-22.58	1745259.98	14553103.95	40°04'18.5225"N	80°37'30.8470"W	23.38	285.059	2.57	
1475.00	8.060	263.520	1473.46	20.69	5.59	-34.49	1745248.08	14553103.46	40°04'18.5182"N	80°37'31.0003"W	34.94	279.200	2.02	
1570.00	8.670	248.850	1567.46	23.78	2.25	-47.78	1745234.78	14553100.13	40°04'18.4858"N	80°37'31.1715"W	47.84	272.696	2.33	
1664.00	9.590	235.150	1660.28	23.46	-4.78	-60.82	1745221.75	14553093.10	40°04'18.4168"N	80°37'31.3396"W	61.01	265.505	2.50	
1759.00	11.210	228.000	1753.72	20.02	-15.48	-74.18	1745208.40	14553082.40	40°04'18.3116"N	80°37'31.5120"W	75.78	258.210	2.18	
1858.00	12.620	223.160	1850.59	13.90	-29.81	-88.73	1745193.86	14553068.08	40°04'18.1706"N	80°37'31.6999"W	93.60	251.428	1.74	
1952.00	14.600	222.050	1941.94	6.21	-46.10	-103.69	1745178.90	14553051.80	40°04'18.0103"N	80°37'31.8932"W	113.48	246.029	2.12	
2017.00	15.490	219.510	2004.71	-0.14	-58.88	-114.70	1745167.90	14553039.02	40°04'17.8844"N	80°37'32.0355"W	128.93	242.826	1.70	
2075.00	17.300	218.570	2060.35	-6.77	-71.60	-125.00	1745157.60	14553026.31	40°04'17.7592"N	80°37'32.1688"W	144.06	240.196	3.15	
2161.00	19.600	216.510	2141.93	-18.45	-93.20	-141.56	1745141.05	14553004.72	40°04'17.5465"N	80°37'32.3829"W	169.48	236.641	2.78	
2255.00	22.430	215.730	2229.67	-33.64	-120.43	-161.42	1745121.20	14552977.50	40°04'17.2782"N	80°37'32.6398"W	201.39	233.274	3.03	
2349.00	24.660	216.670	2315.84	-50.49	-150.72	-183.60	1745099.02	14552947.22	40°04'16.9797"N	80°37'32.9268"W	237.54	230.617	2.41	
2443.00	26.510	216.040	2400.62	-68.63	-183.42	-207.66	1745074.97	14552914.53	40°04'16.6576"N	80°37'33.2380"W	277.06	228.547	1.99	
2536.00	25.970	213.920	2484.03	-87.87	-217.10	-231.23	1745051.41	14552880.87	40°04'16.3258"N	80°37'33.5431"W	317.18	226.806	1.16	

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Field	Ohio		API	47069003470000
Facility	Melvin Kahle OHI Pad		Wellbore	Melvin Kahle OHI 201H AWB
Slot	201H			

WELLPATH DATA (265 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
2630.00	26.880	214.030	2568.21	-108.10	-251.79	-254.61	1745028.04	14552846.19	40°04'15.9839"N	80°37'33.8457"W	358.08	225.320	0.97	
2725.00	28.310	214.480	2652.40	-129.18	-288.16	-279.38	1745003.27	14552809.84	40°04'15.6256"N	80°37'34.1663"W	401.36	224.114	1.52	
2819.00	27.260	215.140	2735.56	-149.81	-324.14	-304.39	1744978.27	14552773.87	40°04'15.2711"N	80°37'34.4899"W	444.66	223.201	1.16	
2913.00	27.250	215.610	2819.13	-169.70	-359.24	-329.32	1744953.36	14552738.78	40°04'14.9252"N	80°37'34.8124"W	487.34	222.512	0.23	
3008.00	27.060	215.760	2903.66	-189.52	-394.45	-354.61	1744928.08	14552703.58	40°04'14.5783"N	80°37'35.1396"W	530.41	221.955	0.21	
3107.00	27.740	214.850	2991.55	-210.62	-431.63	-380.93	1744901.77	14552666.41	40°04'14.2119"N	80°37'35.4802"W	575.69	221.430	0.81	
3201.00	26.370	214.560	3075.26	-230.81	-466.78	-405.28	1744877.43	14552631.28	40°04'13.8656"N	80°37'35.7952"W	618.17	220.966	1.46	
3296.00	26.910	215.910	3160.18	-250.58	-501.57	-429.85	1744852.86	14552596.51	40°04'13.5229"N	80°37'36.1133"W	660.56	220.597	0.85	
3391.00	26.250	211.950	3245.14	-271.13	-536.81	-453.58	1744829.14	14552561.28	40°04'13.1756"N	80°37'36.4204"W	702.78	220.196	1.99	
3485.00	27.190	215.280	3329.11	-291.78	-571.98	-476.99	1744805.75	14552526.12	40°04'12.8290"N	80°37'36.7233"W	744.77	219.825	1.88	
3580.00	27.700	217.670	3413.42	-311.24	-607.18	-503.02	1744779.73	14552490.94	40°04'12.4822"N	80°37'37.0601"W	788.48	219.640	1.28	
3675.00	26.840	216.610	3497.86	-330.15	-641.87	-529.30	1744753.45	14552456.26	40°04'12.1405"N	80°37'37.4000"W	831.96	219.510	1.04	
3769.00	27.470	217.050	3581.50	-348.99	-676.21	-555.02	1744727.74	14552421.93	40°04'11.8022"N	80°37'37.7327"W	874.82	219.379	0.70	
3863.00	27.330	215.680	3664.95	-368.31	-711.04	-580.67	1744702.11	14552387.11	40°04'11.4591"N	80°37'38.0644"W	918.02	219.237	0.69	
3957.00	26.760	215.360	3748.67	-387.96	-745.83	-605.50	1744677.28	14552352.34	40°04'11.1163"N	80°37'38.3857"W	960.67	219.072	0.63	
4052.00	25.860	214.590	3833.83	-407.67	-780.33	-629.64	1744653.15	14552317.86	40°04'10.7764"N	80°37'38.6981"W	1002.68	218.900	1.01	
4146.00	26.600	215.370	3918.15	-427.11	-814.37	-653.46	1744629.34	14552283.83	40°04'10.4410"N	80°37'39.0063"W	1044.13	218.744	0.87	
4240.00	25.410	212.840	4002.64	-446.93	-848.47	-676.58	1744606.23	14552249.74	40°04'10.1049"N	80°37'39.3055"W	1085.20	218.569	1.73	
4334.00	26.130	214.140	4087.29	-466.99	-882.55	-699.14	1744583.69	14552215.67	40°04'9.7691"N	80°37'39.5975"W	1125.92	218.385	0.97	
4429.00	27.560	215.810	4172.05	-487.06	-917.69	-723.74	1744559.09	14552180.55	40°04'9.4229"N	80°37'39.9158"W	1168.74	218.261	1.70	
4523.00	28.400	216.130	4255.06	-507.02	-953.38	-749.64	1744533.20	14552144.87	40°04'9.0712"N	80°37'40.2509"W	1212.80	218.178	0.91	
4622.00	27.470	213.820	4342.53	-528.72	-991.37	-776.23	1744506.62	14552106.90	40°04'8.6969"N	80°37'40.5950"W	1259.11	218.061	1.44	
4716.00	27.660	215.520	4425.86	-549.28	-1027.14	-800.98	1744481.88	14552071.14	40°04'8.3445"N	80°37'40.9152"W	1302.53	217.948	0.86	
4810.00	28.600	215.970	4508.75	-569.50	-1063.11	-826.87	1744456.00	14552035.19	40°04'7.9901"N	80°37'41.2501"W	1346.81	217.875	1.03	
4904.00	28.210	214.800	4591.44	-590.15	-1099.56	-852.76	1744430.12	14551998.75	40°04'7.6309"N	80°37'41.5852"W	1391.49	217.795	0.72	
4998.00	27.560	213.510	4674.52	-611.28	-1135.93	-877.45	1744405.44	14551962.39	40°04'7.2725"N	80°37'41.9046"W	1435.36	217.684	0.94	
5092.00	27.280	214.910	4757.96	-632.05	-1171.73	-901.78	1744381.12	14551926.60	40°04'6.9197"N	80°37'42.2195"W	1478.57	217.582	0.75	
5187.00	27.520	215.680	4842.31	-652.30	-1207.41	-927.04	1744355.87	14551890.94	40°04'6.5682"N	80°37'42.5464"W	1522.25	217.517	0.45	
5281.00	29.480	218.610	4924.92	-671.75	-1243.13	-954.15	1744328.77	14551855.23	40°04'6.2163"N	80°37'42.8969"W	1567.09	217.508	2.56	
5376.00	28.540	216.600	5008.00	-691.41	-1279.62	-982.27	1744300.67	14551818.76	40°04'5.8569"N	80°37'43.2605"W	1613.16	217.511	1.43	

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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
5470.00	28.500	215.030	5090.59	-711.84	-1316.01	-1008.53	1744274.41	14551782.38	40°04'5.4983"N	80°37'43.6003"W	1658.02	217.465	0.80	
5564.00	27.260	212.440	5173.68	-733.23	-1352.55	-1032.95	1744250.00	14551745.86	40°04'5.1383"N	80°37'43.9164"W	1701.87	217.369	1.84	
5658.00	26.410	209.880	5257.56	-755.53	-1388.84	-1054.91	1744228.05	14551709.58	40°04'4.7805"N	80°37'44.2008"W	1744.05	217.219	1.53	
5742.00	26.350	211.040	5332.82	-775.54	-1421.01	-1073.83	1744209.13	14551677.42	40°04'4.4634"N	80°37'44.4459"W	1781.12	217.078	0.62	
5836.00	26.490	215.680	5417.01	-796.14	-1455.92	-1096.82	1744186.16	14551642.53	40°04'4.1194"N	80°37'44.7434"W	1822.83	216.993	2.20	
5931.00	25.530	223.830	5502.41	-812.52	-1487.91	-1123.36	1744159.62	14551610.55	40°04'3.8044"N	80°37'45.0865"W	1864.35	217.053	3.89	
6025.00	23.170	240.430	5588.15	-819.94	-1511.68	-1153.52	1744129.48	14551586.79	40°04'3.5707"N	80°37'45.4756"W	1901.52	217.346	7.67	
6120.00	25.410	262.020	5674.90	-814.05	-1523.76	-1190.03	1744092.98	14551574.72	40°04'3.4529"N	80°37'45.9460"W	1933.39	217.989	9.59	
6215.00	27.190	267.880	5760.08	-798.20	-1527.39	-1231.92	1744051.11	14551571.08	40°04'3.4187"N	80°37'46.4849"W	1962.28	218.888	3.31	
6309.00	30.260	276.640	5842.54	-775.95	-1525.44	-1276.94	1744006.11	14551573.03	40°04'3.4398"N	80°37'47.0638"W	1989.36	219.932	5.54	
6403.00	33.270	280.860	5922.46	-746.92	-1517.85	-1325.80	1743957.27	14551580.63	40°04'3.5169"N	80°37'47.6919"W	2015.34	221.136	3.98	
6497.00	37.210	288.140	5999.25	-710.84	-1504.13	-1378.18	1743904.91	14551594.34	40°04'3.6546"N	80°37'48.3649"W	2040.04	222.498	6.12	
6591.00	41.560	298.520	6071.97	-664.84	-1480.35	-1432.67	1743850.44	14551618.10	40°04'3.8917"N	80°37'49.0645"W	2060.09	224.062	8.38	
6685.00	47.180	305.490	6139.18	-608.42	-1445.40	-1488.21	1743794.92	14551653.04	40°04'4.2394"N	80°37'49.7770"W	2074.60	225.836	7.91	
6778.00	54.790	313.950	6197.74	-542.04	-1399.11	-1543.48	1743739.67	14551699.31	40°04'4.6991"N	80°37'50.4854"W	2083.23	227.809	10.80	
6873.00	63.600	320.640	6246.39	-463.53	-1339.11	-1598.55	1743684.62	14551759.29	40°04'5.2943"N	80°37'51.1906"W	2085.33	230.047	11.06	
6967.00	72.240	325.870	6281.71	-377.75	-1269.34	-1650.50	1743632.70	14551829.03	40°04'5.9859"N	80°37'51.8550"W	2082.15	232.437	10.54	
7061.00	79.540	331.010	6304.62	-286.95	-1191.71	-1698.10	1743585.11	14551906.64	40°04'6.7551"N	80°37'52.4632"W	2074.54	234.939	9.40	
7156.00	88.000	334.980	6314.93	-192.62	-1107.65	-1740.92	1743542.31	14551990.66	40°04'7.5875"N	80°37'53.0094"W	2063.41	237.534	9.82	
7251.00	91.050	335.060	6315.71	-97.70	-1021.55	-1781.03	1743502.22	14552076.73	40°04'8.4400"N	80°37'53.5207"W	2053.20	240.163	3.21	
7345.00	91.140	335.490	6313.92	-3.80	-936.18	-1820.34	1743462.92	14552162.06	40°04'9.2852"N	80°37'54.0218"W	2046.96	242.784	0.47	
7440.00	91.110	334.660	6312.05	91.11	-850.05	-1860.37	1743422.91	14552248.16	40°04'10.1380"N	80°37'54.5321"W	2045.37	245.443	0.87	
7534.00	90.950	334.730	6310.36	185.05	-765.08	-1900.54	1743382.75	14552333.10	40°04'10.9793"N	80°37'55.0443"W	2048.75	248.072	0.19	
7628.00	90.620	333.430	6309.08	279.02	-680.55	-1941.62	1743341.68	14552417.60	40°04'11.8164"N	80°37'55.5683"W	2057.43	250.684	1.43	
7723.00	91.450	334.350	6307.36	373.99	-595.26	-1983.42	1743299.90	14552502.86	40°04'12.6609"N	80°37'56.1014"W	2070.82	253.295	1.30	
7816.00	91.380	334.920	6305.06	466.92	-511.25	-2023.25	1743260.09	14552586.83	40°04'13.4927"N	80°37'56.6092"W	2086.84	255.819	0.62	
7910.00	90.710	335.050	6303.35	560.84	-426.08	-2062.99	1743220.36	14552671.97	40°04'14.3360"N	80°37'57.1159"W	2106.53	258.331	0.73	
8005.00	91.050	332.320	6301.89	655.81	-340.94	-2105.10	1743178.27	14552757.07	40°04'15.1791"N	80°37'57.6530"W	2132.53	260.800	2.90	
8099.00	90.850	332.210	6300.35	749.80	-257.38	-2148.11	1743135.28	14552840.60	40°04'16.0066"N	80°37'58.2018"W	2163.47	263.168	0.98	
8193.00	90.830	332.820	6298.99	843.78	-173.43	-2190.39	1743093.01	14552924.51	40°04'16.8379"N	80°37'58.7412"W	2197.25	265.473	0.12	

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REFERENCE WELLPATH IDENTIFICATION				
Operator	SWN PRODUCTION COMPANY, LLC		Well	Melvin Kahle OHI 201H
Field	Ohio		API	47069003470000
Facility	Melvin Kahle OHI Pad		Wellbore	Melvin Kahle OHI 201H AWB
Slot	201H			

WELLPATH DATA (265 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
8287.00	90.920	333.190	6297.55	937.77	-89.50	-2232.69	1743050.73	14553008.42	40°04'17.6690"N	80°37'59.2808"W	2234.48	267.704	0.17	
8380.00	90.800	333.310	6296.15	1030.76	-6.46	-2274.54	1743008.89	14553091.42	40°04'18.4913"N	80°37'59.8148"W	2274.55	269.837	0.18	
8474.00	90.740	333.810	6294.89	1124.74	77.70	-2316.39	1742967.06	14553175.55	40°04'19.3247"N	80°38'0.3487"W	2317.70	271.921	0.54	
8568.00	91.200	333.520	6293.30	1218.72	161.93	-2358.09	1742925.38	14553259.75	40°04'20.1588"N	80°38'0.8805"W	2363.64	273.928	0.58	
8662.00	90.740	333.690	6291.71	1312.70	246.12	-2399.87	1742883.61	14553343.90	40°04'20.9925"N	80°38'1.4135"W	2412.46	275.855	0.52	
8756.00	91.020	333.670	6290.26	1406.68	330.36	-2441.54	1742841.96	14553428.11	40°04'21.8267"N	80°38'1.9451"W	2463.79	277.706	0.30	
8851.00	91.110	333.630	6288.50	1501.65	415.48	-2483.70	1742799.82	14553513.20	40°04'22.6695"N	80°38'2.4829"W	2518.21	279.497	0.10	
8945.00	90.580	333.510	6287.11	1595.64	499.64	-2525.54	1742758.00	14553597.33	40°04'23.5029"N	80°38'3.0166"W	2574.49	281.191	0.58	
9040.00	90.710	334.320	6286.04	1690.62	584.96	-2567.31	1742716.24	14553682.61	40°04'24.3478"N	80°38'3.5493"W	2633.10	282.836	0.86	
9133.00	90.520	333.320	6285.04	1783.60	668.41	-2608.33	1742675.23	14553766.03	40°04'25.1741"N	80°38'4.0727"W	2692.62	284.373	1.09	
9228.00	90.830	333.540	6283.93	1878.59	753.38	-2650.82	1742632.76	14553850.96	40°04'26.0154"N	80°38'4.6148"W	2755.80	285.865	0.40	
9321.00	91.050	333.870	6282.40	1971.56	836.74	-2692.02	1742591.58	14553934.29	40°04'26.8409"N	80°38'5.1402"W	2819.06	287.266	0.43	
9416.00	91.320	334.100	6280.44	2066.53	922.10	-2733.68	1742549.94	14554019.62	40°04'27.6861"N	80°38'5.6716"W	2885.00	288.640	0.37	
9511.00	90.550	334.260	6278.88	2161.49	1007.60	-2775.05	1742508.58	14554105.09	40°04'28.5328"N	80°38'6.1993"W	2952.31	289.956	0.83	
9605.00	90.830	333.560	6277.75	2255.47	1092.02	-2816.38	1742467.26	14554189.47	40°04'29.3686"N	80°38'6.7266"W	3020.68	291.193	0.80	
9700.00	90.310	333.370	6276.81	2350.46	1177.00	-2858.82	1742424.84	14554274.43	40°04'30.2102"N	80°38'7.2680"W	3091.63	292.377	0.58	
9795.00	90.680	333.610	6275.99	2445.45	1262.01	-2901.22	1742382.46	14554359.40	40°04'31.0520"N	80°38'7.8090"W	3163.82	293.509	0.46	
9889.00	90.680	333.400	6274.87	2539.43	1346.13	-2943.15	1742340.54	14554443.49	40°04'31.8850"N	80°38'8.3439"W	3236.39	294.578	0.22	
9984.00	91.170	333.700	6273.34	2634.42	1431.18	-2985.46	1742298.25	14554528.50	40°04'32.7271"N	80°38'8.8837"W	3310.78	295.612	0.60	
10078.00	91.020	334.100	6271.54	2728.38	1515.58	-3026.81	1742256.92	14554612.87	40°04'33.5628"N	80°38'9.4111"W	3385.05	296.598	0.45	
10172.00	91.020	334.230	6269.87	2822.35	1600.17	-3067.77	1742215.98	14554697.43	40°04'34.4004"N	80°38'9.9335"W	3460.02	297.547	0.14	
10266.00	90.710	333.900	6268.45	2916.31	1684.69	-3108.87	1742174.89	14554781.92	40°04'35.2374"N	80°38'10.4579"W	3536.00	298.453	0.48	
10359.00	90.430	333.700	6267.52	3009.30	1768.13	-3149.93	1742133.85	14554865.32	40°04'36.0636"N	80°38'10.9817"W	3612.25	299.307	0.37	
10454.00	90.860	334.110	6266.45	3104.28	1853.44	-3191.72	1742092.08	14554950.60	40°04'36.9083"N	80°38'11.5147"W	3690.84	300.144	0.63	
10548.00	90.280	333.520	6265.52	3198.26	1937.79	-3233.19	1742050.62	14555034.92	40°04'37.7435"N	80°38'12.0438"W	3769.43	300.936	0.88	
10642.00	90.620	333.680	6264.78	3292.25	2021.99	-3274.99	1742008.84	14555119.08	40°04'38.5772"N	80°38'12.5770"W	3848.89	301.691	0.40	
10737.00	90.800	333.740	6263.60	3387.23	2107.15	-3317.06	1741966.78	14555204.21	40°04'39.4206"N	80°38'13.1138"W	3929.76	302.426	0.20	
10831.00	90.890	333.860	6262.22	3481.21	2191.49	-3358.56	1741925.30	14555288.51	40°04'40.2556"N	80°38'13.6432"W	4010.30	303.125	0.16	
10926.00	90.890	333.840	6260.74	3576.18	2276.75	-3400.42	1741883.45	14555373.74	40°04'41.0999"N	80°38'14.1773"W	4092.24	303.804	0.02	
11020.00	90.680	334.300	6259.45	3670.16	2361.28	-3441.52	1741842.37	14555458.24	40°04'41.9369"N	80°38'14.7016"W	4173.69	304.455	0.54	

REFERENCE WELLPATH IDENTIFICATION				
Operator	SWN PRODUCTION COMPANY, LLC		Well	Melvin Kahle OHI 201H
Field	Ohio		API	47069003470000
Facility	Melvin Kahle OHI Pad		Wellbore	Melvin Kahle OHI 201H AWB
Slot	201H			

WELLPATH DATA (265 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
11114.00	90.150	333.290	6258.77	3764.14	2445.62	-3483.03	1741800.88	14555542.54	40°04'42.7720"N	80°38'15.2311"W	4255.88	305.075	1.21	
11209.00	90.490	333.520	6258.24	3859.13	2530.56	-3525.56	1741758.37	14555627.46	40°04'43.6131"N	80°38'15.7738"W	4339.73	305.670	0.43	
11303.00	90.550	333.140	6257.39	3953.13	2614.56	-3567.75	1741716.19	14555711.42	40°04'44.4449"N	80°38'16.3121"W	4423.20	306.235	0.41	
11397.00	90.770	333.340	6256.31	4047.12	2698.48	-3610.07	1741673.89	14555795.31	40°04'45.2760"N	80°38'16.8522"W	4507.15	306.778	0.32	
11492.00	90.980	333.850	6254.86	4142.10	2783.56	-3652.31	1741631.66	14555880.36	40°04'46.1184"N	80°38'17.3911"W	4592.12	307.312	0.58	
11586.00	90.860	333.560	6253.35	4236.08	2867.83	-3693.95	1741590.04	14555964.59	40°04'46.9528"N	80°38'17.9224"W	4676.50	307.824	0.33	
11680.00	90.650	333.130	6252.11	4330.07	2951.83	-3736.11	1741547.89	14556048.56	40°04'47.7846"N	80°38'18.4604"W	4761.49	308.312	0.51	
11775.00	90.770	333.630	6250.93	4425.06	3036.75	-3778.68	1741505.35	14556133.45	40°04'48.6255"N	80°38'19.0035"W	4847.71	308.787	0.54	
11869.00	91.080	333.180	6249.41	4519.04	3120.79	-3820.75	1741463.29	14556217.46	40°04'49.4577"N	80°38'19.5404"W	4933.31	309.242	0.58	
11964.00	91.450	334.050	6247.32	4614.01	3205.88	-3862.96	1741421.09	14556302.51	40°04'50.3002"N	80°38'20.0790"W	5019.97	309.689	0.99	
12058.00	92.030	333.490	6244.46	4707.95	3290.16	-3904.49	1741379.58	14556386.76	40°04'51.1348"N	80°38'20.6088"W	5105.89	310.120	0.86	
12153.00	91.600	334.300	6241.45	4802.89	3375.42	-3946.27	1741337.82	14556471.99	40°04'51.9790"N	80°38'21.1418"W	5192.93	310.542	0.96	
12247.00	91.110	333.560	6239.23	4896.85	3459.83	-3987.56	1741296.54	14556556.37	40°04'52.8149"N	80°38'21.6687"W	5279.31	310.947	0.94	
12341.00	91.390	333.670	6237.18	4990.82	3544.02	-4029.33	1741254.79	14556640.52	40°04'53.6485"N	80°38'22.2016"W	5366.15	311.333	0.32	
12435.00	91.480	333.940	6234.83	5084.78	3628.34	-4070.81	1741213.33	14556724.81	40°04'54.4834"N	80°38'22.7309"W	5453.10	311.711	0.30	
12530.00	91.420	334.060	6232.42	5179.73	3713.70	-4112.44	1741171.71	14556810.13	40°04'55.3286"N	80°38'23.2620"W	5541.09	312.083	0.14	
12625.00	91.230	333.930	6230.22	5274.68	3799.06	-4154.08	1741130.08	14556895.46	40°04'56.1738"N	80°38'23.7933"W	5629.32	312.444	0.24	
12719.00	90.800	333.700	6228.56	5368.66	3883.40	-4195.56	1741088.63	14556979.77	40°04'57.0089"N	80°38'24.3225"W	5716.95	312.787	0.52	
12814.00	90.740	333.310	6227.28	5463.64	3968.41	-4237.93	1741046.27	14557064.75	40°04'57.8507"N	80°38'24.8632"W	5805.89	313.119	0.42	
12908.00	90.250	334.420	6226.47	5557.62	4052.80	-4279.34	1741004.88	14557149.10	40°04'58.6862"N	80°38'25.3915"W	5893.89	313.443	1.29	
13003.00	90.340	333.790	6225.98	5652.60	4138.26	-4320.82	1740963.41	14557234.53	40°04'59.5324"N	80°38'25.9208"W	5982.87	313.764	0.67	
13097.00	90.830	333.600	6225.02	5746.59	4222.52	-4362.48	1740921.77	14557318.75	40°05'0.3668"N	80°38'26.4523"W	6071.32	314.066	0.56	
13191.00	91.050	333.890	6223.48	5840.56	4306.81	-4404.06	1740880.21	14557403.01	40°05'1.2014"N	80°38'26.9828"W	6159.89	314.360	0.39	
13286.00	90.990	333.640	6221.79	5935.54	4392.01	-4446.04	1740838.24	14557488.18	40°05'2.0450"N	80°38'27.5186"W	6249.56	314.650	0.27	
13381.00	90.770	333.690	6220.33	6030.52	4477.14	-4488.18	1740796.12	14557573.28	40°05'2.8880"N	80°38'28.0563"W	6339.44	314.929	0.24	
13475.00	91.850	333.710	6218.18	6124.48	4561.39	-4529.82	1740754.49	14557657.49	40°05'3.7222"N	80°38'28.5876"W	6428.49	315.199	1.15	
13570.00	91.290	333.830	6215.58	6219.43	4646.57	-4571.79	1740712.54	14557742.64	40°05'4.5657"N	80°38'29.1232"W	6518.58	315.465	0.60	
13665.00	91.420	333.840	6213.33	6314.39	4731.81	-4613.67	1740670.68	14557827.85	40°05'5.4097"N	80°38'29.6576"W	6608.78	315.724	0.14	
13759.00	91.510	334.210	6210.93	6408.35	4816.29	-4654.83	1740629.54	14557912.29	40°05'6.2461"N	80°38'30.1827"W	6698.06	315.977	0.40	
13853.00	91.140	333.840	6208.75	6502.30	4900.77	-4695.99	1740588.39	14557996.74	40°05'7.0826"N	80°38'30.7078"W	6787.48	316.222	0.56	

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Melvin Kahle OHI 201H
Field	Ohio	API	47069003470000
Facility	Melvin Kahle OHI Pad	Wellbore	Melvin Kahle OHI 201H AWB
Slot	201H		

WELLPATH DATA (265 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
13948.00	91.290	333.830	6206.74	6597.27	4986.02	-4737.87	1740546.53	14558081.96	40°05'7.9267"N	80°38'31.2423"W	6878.06	316.462	0.16	
14043.00	91.290	333.900	6204.60	6692.23	5071.28	-4779.70	1740504.71	14558167.19	40°05'8.7710"N	80°38'31.7761"W	6968.75	316.695	0.07	
14137.00	91.050	332.880	6202.68	6786.21	5155.31	-4821.80	1740462.63	14558251.18	40°05'9.6030"N	80°38'32.3133"W	7058.82	316.915	1.11	
14232.00	91.290	332.920	6200.74	6881.19	5239.86	-4865.07	1740419.38	14558335.70	40°05'10.4403"N	80°38'32.8656"W	7150.17	317.124	0.26	
14326.00	90.920	332.740	6198.93	6975.17	5323.47	-4907.98	1740376.48	14558419.28	40°05'11.2682"N	80°38'33.4134"W	7240.69	317.325	0.44	
14420.00	90.860	333.080	6197.47	7069.16	5407.15	-4950.78	1740333.70	14558502.92	40°05'12.0968"N	80°38'33.9598"W	7331.27	317.523	0.37	
14514.00	91.050	332.850	6195.90	7163.14	5490.87	-4993.50	1740290.99	14558586.61	40°05'12.9258"N	80°38'34.5051"W	7421.90	317.716	0.32	
14608.00	91.480	332.980	6193.83	7257.12	5574.54	-5036.29	1740248.22	14558670.25	40°05'13.7544"N	80°38'35.0513"W	7512.64	317.904	0.48	
14703.00	91.230	332.870	6191.58	7352.09	5659.10	-5079.52	1740205.01	14558754.78	40°05'14.5918"N	80°38'35.6031"W	7604.40	318.089	0.29	
14798.00	91.200	332.950	6189.57	7447.07	5743.66	-5122.77	1740161.77	14558839.30	40°05'15.4291"N	80°38'36.1552"W	7696.26	318.270	0.09	
14892.00	91.230	332.890	6187.57	7541.05	5827.34	-5165.55	1740119.01	14558922.95	40°05'16.2577"N	80°38'36.7013"W	7787.22	318.445	0.07	
14986.00	91.390	332.710	6185.42	7635.03	5910.92	-5208.51	1740076.07	14559006.50	40°05'17.0854"N	80°38'37.2497"W	7878.30	318.615	0.26	
15081.00	91.480	332.810	6183.05	7730.00	5995.36	-5251.98	1740032.62	14559090.90	40°05'17.9215"N	80°38'37.8046"W	7970.42	318.781	0.14	
15176.00	91.570	333.130	6180.52	7824.96	6079.95	-5295.14	1739989.47	14559175.46	40°05'18.7592"N	80°38'38.3556"W	8062.52	318.947	0.35	
15270.00	91.540	333.550	6177.97	7918.92	6163.93	-5337.30	1739947.33	14559259.41	40°05'19.5907"N	80°38'38.8937"W	8153.57	319.111	0.45	
15365.00	91.320	333.430	6175.60	8013.89	6248.91	-5379.69	1739904.96	14559344.36	40°05'20.4322"N	80°38'39.4347"W	8245.60	319.275	0.26	
15459.00	91.320	333.080	6173.43	8107.86	6332.83	-5421.98	1739862.68	14559428.25	40°05'21.2632"N	80°38'39.9745"W	8336.82	319.431	0.37	
15554.00	91.420	333.000	6171.16	8202.83	6417.48	-5465.04	1739819.64	14559512.86	40°05'22.1014"N	80°38'40.5242"W	8429.16	319.583	0.13	
15648.00	91.290	333.180	6168.94	8296.81	6501.28	-5507.57	1739777.13	14559596.63	40°05'22.9312"N	80°38'41.0671"W	8520.56	319.730	0.24	
15743.00	91.350	332.450	6166.75	8391.78	6585.76	-5550.96	1739733.75	14559681.08	40°05'23.7678"N	80°38'41.6210"W	8613.10	319.873	0.77	
15838.00	91.290	333.400	6164.56	8486.76	6670.33	-5594.19	1739690.54	14559765.61	40°05'24.6052"N	80°38'42.1729"W	8705.64	320.015	1.00	
15932.00	90.950	332.840	6162.72	8580.74	6754.16	-5636.68	1739648.07	14559849.41	40°05'25.4352"N	80°38'42.7153"W	8797.20	320.153	0.70	
16026.00	91.320	333.180	6160.86	8674.72	6837.90	-5679.33	1739605.43	14559933.12	40°05'26.2645"N	80°38'43.2598"W	8888.85	320.288	0.53	
16120.00	91.050	332.980	6158.92	8768.70	6921.70	-5721.88	1739562.90	14560016.88	40°05'27.0942"N	80°38'43.8030"W	8980.52	320.421	0.36	
16214.00	90.980	332.770	6157.25	8862.68	7005.35	-5764.73	1739520.06	14560100.50	40°05'27.9226"N	80°38'44.3500"W	9072.32	320.549	0.24	
16308.00	91.200	332.890	6155.46	8956.66	7088.96	-5807.65	1739477.17	14560184.08	40°05'28.7505"N	80°38'44.8979"W	9164.17	320.674	0.27	
16402.00	91.200	332.850	6153.49	9050.64	7172.60	-5850.50	1739434.33	14560267.69	40°05'29.5787"N	80°38'45.4450"W	9256.05	320.797	0.04	
16497.00	91.420	332.780	6151.32	9145.62	7257.08	-5893.89	1739390.95	14560352.14	40°05'30.4153"N	80°38'45.9990"W	9348.97	320.918	0.24	
16592.00	91.140	332.820	6149.20	9240.60	7341.56	-5937.31	1739347.56	14560436.58	40°05'31.2518"N	80°38'46.5533"W	9441.93	321.037	0.30	
16686.00	91.170	332.920	6147.30	9334.58	7425.20	-5980.16	1739304.72	14560520.18	40°05'32.0800"N	80°38'47.1004"W	9533.93	321.152	0.11	

REFERENCE WELLPATH IDENTIFICATION				
Operator	SWN PRODUCTION COMPANY, LLC		Well	Melvin Kahle OHI 201H
Field	Ohio		API	47069003470000
Facility	Melvin Kahle OHI Pad		Wellbore	Melvin Kahle OHI 201H AWB
Slot	201H			

WELLPATH DATA (265 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
16780.00	91.230	332.640	6145.34	9428.56	7508.77	-6023.15	1739261.75	14560603.72	40°05'32.9076"N	80°38'47.6493"W	9626.00	321.265	0.30	
16875.00	91.200	332.850	6143.32	9523.53	7593.20	-6066.65	1739218.27	14560688.12	40°05'33.7437"N	80°38'48.2046"W	9719.10	321.377	0.22	
16970.00	91.110	333.130	6141.41	9618.51	7677.82	-6109.78	1739175.15	14560772.71	40°05'34.5816"N	80°38'48.7553"W	9812.15	321.488	0.31	
17063.00	91.050	333.210	6139.65	9711.50	7760.80	-6151.75	1739133.20	14560855.65	40°05'35.4032"N	80°38'49.2911"W	9903.23	321.597	0.11	
17157.00	91.020	332.920	6137.96	9805.48	7844.59	-6194.32	1739090.64	14560939.41	40°05'36.2329"N	80°38'49.8346"W	9995.36	321.704	0.31	
17252.00	91.290	333.320	6136.04	9900.46	7929.30	-6237.26	1739047.72	14561024.10	40°05'37.0717"N	80°38'50.3828"W	10088.47	321.811	0.51	
17346.00	90.800	333.110	6134.33	9994.44	8013.20	-6279.62	1739005.38	14561107.96	40°05'37.9025"N	80°38'50.9235"W	10180.62	321.916	0.57	
17441.00	90.550	332.810	6133.21	10089.44	8097.81	-6322.80	1738962.21	14561192.54	40°05'38.7403"N	80°38'51.4749"W	10273.87	322.017	0.41	
17536.00	90.740	332.960	6132.14	10184.43	8182.37	-6366.10	1738918.93	14561277.06	40°05'39.5776"N	80°38'52.0277"W	10367.18	322.116	0.25	
17629.00	90.680	332.950	6130.99	10277.42	8265.19	-6408.38	1738876.66	14561359.85	40°05'40.3977"N	80°38'52.5675"W	10458.52	322.212	0.07	
17724.00	90.620	332.700	6129.91	10372.42	8349.70	-6451.77	1738833.30	14561444.33	40°05'41.2345"N	80°38'53.1214"W	10551.91	322.307	0.27	
17817.00	90.620	333.100	6128.90	10465.41	8432.48	-6494.13	1738790.95	14561527.08	40°05'42.0543"N	80°38'53.6623"W	10643.33	322.399	0.43	
17911.00	90.460	332.650	6128.02	10559.41	8516.14	-6536.98	1738748.11	14561610.70	40°05'42.8826"N	80°38'54.2095"W	10735.77	322.490	0.51	
18006.00	90.770	332.720	6127.00	10654.40	8600.54	-6580.58	1738704.54	14561695.07	40°05'43.7184"N	80°38'54.7661"W	10829.28	322.579	0.33	
18100.00	90.710	332.570	6125.78	10748.39	8684.02	-6623.77	1738661.36	14561778.52	40°05'44.5451"N	80°38'55.3176"W	10921.84	322.665	0.17	
18194.00	90.800	333.020	6124.54	10842.38	8767.62	-6666.74	1738618.41	14561862.08	40°05'45.3728"N	80°38'55.8663"W	11014.38	322.751	0.49	
18289.00	90.710	332.790	6123.29	10937.37	8852.18	-6710.00	1738575.16	14561946.62	40°05'46.2102"N	80°38'56.4188"W	11107.89	322.838	0.26	
18384.00	90.580	333.030	6122.22	11032.37	8936.76	-6753.26	1738531.92	14562031.16	40°05'47.0477"N	80°38'56.9711"W	11201.44	322.923	0.29	
18478.00	90.680	332.670	6121.19	11126.36	9020.39	-6796.15	1738489.04	14562114.76	40°05'47.8758"N	80°38'57.5188"W	11294.03	323.005	0.40	
18573.00	90.770	332.850	6119.99	11221.35	9104.85	-6839.63	1738445.58	14562199.19	40°05'48.7122"N	80°38'58.0740"W	11387.66	323.086	0.21	
18668.00	90.830	332.800	6118.66	11316.34	9189.36	-6883.02	1738402.21	14562283.66	40°05'49.5489"N	80°38'58.6279"W	11481.30	323.166	0.08	
18762.00	90.740	332.830	6117.37	11410.34	9272.97	-6925.96	1738359.29	14562367.23	40°05'50.3768"N	80°38'59.1763"W	11573.97	323.244	0.10	
18857.00	90.490	332.490	6116.35	11505.33	9357.35	-6969.58	1738315.68	14562451.59	40°05'51.2124"N	80°38'59.7334"W	11667.69	323.320	0.44	
18952.00	90.740	332.820	6115.33	11600.32	9441.73	-7013.22	1738272.06	14562535.93	40°05'52.0480"N	80°39'0.2906"W	11761.44	323.395	0.44	
19046.00	90.220	332.650	6114.55	11694.32	9525.28	-7056.28	1738229.02	14562619.45	40°05'52.8753"N	80°39'0.8405"W	11854.20	323.469	0.58	
19141.00	90.460	332.980	6113.98	11789.32	9609.79	-7099.68	1738185.63	14562703.92	40°05'53.7121"N	80°39'1.3947"W	11947.95	323.543	0.43	
19234.00	90.310	332.700	6113.36	11882.31	9692.53	-7142.13	1738143.20	14562786.63	40°05'54.5314"N	80°39'1.9368"W	12039.73	323.615	0.34	
19329.00	90.520	333.310	6112.67	11977.31	9777.18	-7185.25	1738100.09	14562871.25	40°05'55.3696"N	80°39'2.4874"W	12133.47	323.688	0.68	
19422.00	90.280	332.840	6112.02	12070.31	9860.09	-7227.37	1738058.00	14562954.13	40°05'56.1906"N	80°39'3.0251"W	12225.23	323.759	0.57	
19516.00	89.940	332.930	6111.84	12164.31	9943.76	-7270.21	1738015.17	14563037.77	40°05'57.0191"N	80°39'3.5722"W	12318.05	323.828	0.37	

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Melvin Kahle OHI 201H
Field	Ohio	API	47069003470000
Facility	Melvin Kahle OHI Pad	Wellbore	Melvin Kahle OHI 201H AWB
Slot	201H		

WELLPATH DATA (265 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
19610.00	90.400	332.930	6111.56	12258.31	10027.46	-7312.99	1737972.41	14563121.44	40°05'57.8479"N	80°39'4.1184"W	12410.87	323.897	0.49	
19705.00	90.060	330.500	6111.18	12353.28	10111.11	-7358.00	1737927.42	14563205.06	40°05'58.6762"N	80°39'4.6934"W	12504.99	323.956	2.58	
19798.00	90.310	330.590	6110.88	12446.20	10192.09	-7403.73	1737881.70	14563286.00	40°05'59.4783"N	80°39'5.2778"W	12597.38	324.005	0.29	
19893.00	90.310	330.800	6110.36	12541.13	10274.93	-7450.23	1737835.22	14563368.81	40°06'0.2987"N	80°39'5.8720"W	12691.73	324.055	0.22	
19987.00	90.430	330.770	6109.76	12635.06	10356.97	-7496.11	1737789.36	14563450.82	40°06'1.1112"N	80°39'6.4583"W	12785.09	324.104	0.13	
20081.00	90.370	331.050	6109.10	12729.01	10439.11	-7541.81	1737743.68	14563532.93	40°06'1.9247"N	80°39'7.0422"W	12878.43	324.154	0.30	
20176.00	90.490	330.830	6108.39	12823.95	10522.15	-7587.95	1737697.56	14563615.93	40°06'2.7471"N	80°39'7.6318"W	12972.77	324.203	0.26	
20270.00	90.400	330.940	6107.66	12917.89	10604.27	-7633.68	1737651.84	14563698.02	40°06'3.5604"N	80°39'8.2162"W	13066.13	324.251	0.15	
20365.00	90.490	330.620	6106.92	13012.82	10687.18	-7680.06	1737605.48	14563780.90	40°06'4.3815"N	80°39'8.8088"W	13160.51	324.298	0.35	
20458.00	90.400	331.050	6106.20	13105.76	10768.39	-7725.38	1737560.18	14563862.07	40°06'5.1857"N	80°39'9.3880"W	13252.91	324.344	0.47	
20553.00	90.550	330.430	6105.41	13200.69	10851.26	-7771.81	1737513.77	14563944.92	40°06'6.0065"N	80°39'9.9813"W	13347.32	324.389	0.67	
20647.00	90.280	329.640	6104.73	13294.57	10932.70	-7818.76	1737466.84	14564026.32	40°06'6.8130"N	80°39'10.5814"W	13440.86	324.429	0.89	
20742.00	90.520	329.790	6104.07	13389.42	11014.73	-7866.67	1737418.95	14564108.32	40°06'7.6255"N	80°39'11.1938"W	13535.46	324.466	0.30	
20836.00	90.310	329.640	6103.39	13483.27	11095.90	-7914.07	1737371.56	14564189.46	40°06'8.4295"N	80°39'11.7997"W	13629.07	324.502	0.27	
20930.00	90.340	329.860	6102.85	13577.13	11177.10	-7961.42	1737324.23	14564270.62	40°06'9.2337"N	80°39'12.4050"W	13722.67	324.538	0.24	
21024.00	90.430	329.750	6102.22	13670.99	11258.34	-8008.70	1737276.97	14564351.84	40°06'10.0384"N	80°39'13.0093"W	13816.28	324.574	0.15	
21119.00	90.680	329.690	6101.30	13765.84	11340.38	-8056.60	1737229.09	14564433.84	40°06'10.8509"N	80°39'13.6216"W	13910.89	324.609	0.27	
21214.00	90.680	329.610	6100.17	13860.68	11422.35	-8104.60	1737181.11	14564515.78	40°06'11.6628"N	80°39'14.2352"W	14005.52	324.643	0.08	
21309.00	90.680	329.290	6099.05	13955.50	11504.16	-8152.88	1737132.84	14564597.56	40°06'12.4731"N	80°39'14.8525"W	14100.18	324.675	0.34	
21403.00	90.740	329.590	6097.88	14049.33	11585.10	-8200.67	1737085.07	14564678.46	40°06'13.2748"N	80°39'15.4635"W	14193.85	324.707	0.33	
21498.00	90.620	329.460	6096.75	14144.16	11666.97	-8248.85	1737036.91	14564760.30	40°06'14.0857"N	80°39'16.0794"W	14288.51	324.739	0.19	
21593.00	90.340	329.760	6095.96	14239.00	11748.91	-8296.90	1736988.88	14564842.21	40°06'14.8973"N	80°39'16.6937"W	14383.17	324.771	0.43	
21687.00	90.340	329.800	6095.40	14332.86	11830.13	-8344.22	1736941.58	14564923.41	40°06'15.7018"N	80°39'17.2985"W	14476.81	324.803	0.04	
21782.00	90.090	329.060	6095.04	14427.68	11911.93	-8392.53	1736893.29	14565005.17	40°06'16.5119"N	80°39'17.9162"W	14571.50	324.833	0.82	
21876.00	90.280	329.600	6094.74	14521.50	11992.78	-8440.48	1736845.36	14565085.99	40°06'17.3127"N	80°39'18.5292"W	14665.21	324.862	0.61	
21971.00	90.310	329.270	6094.25	14616.33	12074.58	-8488.79	1736797.07	14565167.76	40°06'18.1229"N	80°39'19.1468"W	14759.91	324.892	0.35	
22065.00	90.310	329.260	6093.74	14710.14	12155.37	-8536.83	1736749.05	14565248.52	40°06'18.9232"N	80°39'19.7611"W	14853.64	324.919	0.01	
22160.00	90.310	329.620	6093.23	14804.96	12237.18	-8585.13	1736700.76	14565330.29	40°06'19.7334"N	80°39'20.3786"W	14948.34	324.948	0.38	
22254.00	90.890	329.390	6092.24	14898.79	12318.17	-8632.83	1736653.08	14565411.25	40°06'20.5356"N	80°39'20.9884"W	15042.04	324.976	0.66	
22349.00	90.860	329.910	6090.79	14993.63	12400.14	-8680.82	1736605.11	14565493.19	40°06'21.3475"N	80°39'21.6020"W	15136.72	325.006	0.55	

REFERENCE WELLPATH IDENTIFICATION				
Operator	SWN PRODUCTION COMPANY, LLC		Well	Melvin Kahle OHI 201H
Field	Ohio		API	47069003470000
Facility	Melvin Kahle OHI Pad		Wellbore	Melvin Kahle OHI 201H AWB
Slot	201H			

WELLPATH DATA (265 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
22443.00	90.980	329.770	6089.28	15087.48	12481.40	-8728.04	1736557.90	14565574.42	40°06'22.1524"N	80°39'22.2057"W	15230.37	325.036	0.20	
22536.00	90.370	329.710	6088.19	15180.34	12561.73	-8774.91	1736511.06	14565654.71	40°06'22.9479"N	80°39'22.8048"W	15323.05	325.064	0.66	
22630.00	90.340	330.560	6087.61	15274.23	12643.24	-8821.71	1736464.27	14565736.20	40°06'23.7552"N	80°39'23.4031"W	15416.68	325.095	0.90	
22725.00	90.460	333.420	6086.94	15369.20	12727.10	-8866.32	1736419.68	14565820.03	40°06'24.5857"N	80°39'23.9730"W	15510.99	325.137	3.01	
22819.00	90.490	333.870	6086.16	15463.19	12811.33	-8908.05	1736377.97	14565904.22	40°06'25.4196"N	80°39'24.5059"W	15603.96	325.188	0.48	
22914.00	90.370	333.710	6085.45	15558.18	12896.56	-8950.01	1736336.03	14565989.42	40°06'26.2634"N	80°39'25.0416"W	15697.89	325.240	0.21	
23008.00	90.340	333.810	6084.87	15652.16	12980.87	-8991.57	1736294.49	14566073.70	40°06'27.0982"N	80°39'25.5723"W	15790.86	325.290	0.11	
23102.00	90.520	333.820	6084.16	15746.15	13065.22	-9033.04	1736253.02	14566158.01	40°06'27.9333"N	80°39'26.1019"W	15883.82	325.341	0.19	
23197.00	90.490	333.600	6083.32	15841.14	13150.39	-9075.12	1736210.96	14566243.15	40°06'28.7766"N	80°39'26.6392"W	15977.82	325.390	0.23	
23291.00	90.430	333.500	6082.57	15935.13	13234.55	-9116.99	1736169.11	14566327.28	40°06'29.6099"N	80°39'27.1739"W	16070.87	325.438	0.12	
23386.00	90.580	333.780	6081.73	16030.11	13319.67	-9159.17	1736126.95	14566412.36	40°06'30.4526"N	80°39'27.7125"W	16164.90	325.486	0.33	
23480.00	90.340	334.260	6080.98	16124.09	13404.17	-9200.34	1736085.79	14566496.83	40°06'31.2892"N	80°39'28.2382"W	16257.86	325.535	0.57	
23575.00	90.430	334.140	6080.34	16219.07	13489.69	-9241.69	1736044.46	14566582.32	40°06'32.1360"N	80°39'28.7661"W	16351.78	325.585	0.16	
23670.00	90.400	333.710	6079.65	16314.05	13575.02	-9283.44	1736002.72	14566667.62	40°06'32.9808"N	80°39'29.2993"W	16445.78	325.633	0.45	
23764.00	90.490	333.720	6078.92	16408.03	13659.30	-9325.07	1735961.11	14566751.86	40°06'33.8152"N	80°39'29.8308"W	16538.85	325.679	0.10	
23857.00	90.520	333.110	6078.10	16501.03	13742.46	-9366.69	1735919.51	14566834.99	40°06'34.6386"N	80°39'30.3624"W	16631.00	325.722	0.66	
23952.00	90.580	333.300	6077.19	16596.02	13827.26	-9409.51	1735876.70	14566919.75	40°06'35.4782"N	80°39'30.9093"W	16725.19	325.765	0.21	
24047.00	90.400	333.580	6076.38	16691.01	13912.23	-9451.99	1735834.24	14567004.69	40°06'36.3195"N	80°39'31.4518"W	16819.34	325.808	0.35	
24141.00	90.400	333.460	6075.72	16785.00	13996.37	-9493.90	1735792.35	14567088.80	40°06'37.1525"N	80°39'31.9871"W	16912.49	325.850	0.13	
24235.00	90.520	333.740	6074.97	16878.99	14080.56	-9535.69	1735750.57	14567172.96	40°06'37.9861"N	80°39'32.5208"W	17005.64	325.893	0.32	
24330.00	90.580	333.410	6074.05	16973.98	14165.63	-9577.97	1735708.31	14567257.99	40°06'38.8284"N	80°39'33.0607"W	17099.78	325.936	0.35	
24423.00	90.460	333.630	6073.21	17066.97	14248.87	-9619.44	1735666.86	14567341.20	40°06'39.6525"N	80°39'33.5903"W	17191.97	325.977	0.27	
24518.00	90.180	333.310	6072.68	17161.97	14333.87	-9661.87	1735624.44	14567426.16	40°06'40.4941"N	80°39'34.1322"W	17286.16	326.018	0.45	
24586.00	90.400	333.550	6072.34	17229.96	14394.68	-9692.28	1735594.04	14567486.96	40°06'41.0962"N	80°39'34.5207"W	17353.60	326.047	0.48	
24611.00†	90.400	333.550	6072.16	17254.96	14417.07	-9703.42	1735582.91	14567509.33	40°06'41.3178"N	80°39'34.6629"W	17378.38	326.057	0.00	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Melvin Kahle OHI 201H
Field	Ohio	API	47069003470000
Facility	Melvin Kahle OHI Pad	Wellbore	Melvin Kahle OHI 201H AWB
Slot	201H		

HOLE & CASING SECTIONS - Ref Wellbore: Melvin Kahle OHI 201H AWB Ref Wellpath: Melvin Kahle OHI 201H awp Proj: 24611'									
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	7063.00	7037.00	26.00	6304.98	0.00	0.00	-1189.99	-1699.06
9.625in Casing	26.00	2085.00	2059.00	26.00	2069.89	0.00	0.00	-73.95	-126.87

TARGETS									
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape	
Melvin Kahle OHI 201H BHL Rev 4	6052.00	14427.58	-9683.34	1735602.98	14567519.84	40°06'41.4209"N	80°39'34.4040"W	point	
Melvin Kahle OHI 201H wp4	6067.10	13487.06	-9232.14	1736054.01	14566579.69	40°06'32.1096"N	80°39'28.6433"W	point	
Melvin Kahle OHI 201H wp3	6081.64	12611.69	-8803.02	1736482.96	14565704.66	40°06'23.4427"N	80°39'23.1641"W	point	
Melvin Kahle OHI 201H wp2	6126.87	9995.82	-7264.96	1738020.42	14563089.81	40°05'57.5333"N	80°39'3.5020"W	point	
Melvin Kahle OHI 201H wp1	6207.15	5176.55	-4862.02	1740422.42	14558272.42	40°05'9.8145"N	80°38'32.8297"W	point	
Melvin Kahle OHI 201H LP Rev 4	6316.00	-1041.23	-1763.48	1743519.75	14552057.05	40°04'8.2447"N	80°37'53.2961"W	point	

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Field	Ohio	API	47069003470000
Facility	Melvin Kahle OHI Pad	Wellbore	Melvin Kahle OHI 201H AWB
Slot	201H		

WELLPATH COMPOSITION - Ref Wellbore: Melvin Kahle OHI 201H AWB Ref Wellpath: Melvin Kahle OHI 201H awp Proj: 24611'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	657.00	OWSG MWD rev2 + HRGM	1 Tally OWSG MWD HRGM 17.5" 184' - 657'	Melvin Kahle OHI 201H AWB	3/7/2023
657.00	2075.00	OWSG MWD rev2 + HRGM	2 Tally OWSG MWD HRGM 12.25" 721' - 2075'	Melvin Kahle OHI 201H AWB	3/7/2023
2075.00	5658.00	OWSG MWD rev2 + HRGM	3 Tally OWSG MWD HRGM 8.75" 2161' - 5658'	Melvin Kahle OHI 201H AWB	3/7/2023
5658.00	24611.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	4 BH ATC HRGM Short spacing 8.75" 5742' - 24586'	Melvin Kahle OHI 201H AWB	3/7/2023

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