



SLB Survey Report

Friday, November 18, 2022 12:55 PM Report by DrillOps

General Information			
Client:	CONFLUENCE DJ LLC	Well Name:	Middlepark 18-9-2
Field:	Wattenberg		

Job Location & Elevation			
Latitude:	40°18'22.212" N	Longitude:	104°22'15.672" W
Rig Type:	land	Log Measured From:	DrillFloor
Rig Floor above GL:	23.00 ft	Ground Level above MSL:	4563.00 ft
Depth Source:	23.00 DrillersDepth		

Tie In Point			
TIP_MD:	0.00 ft	TIP_NORTHING:	0.00 ft
TIP_INCL:	0.00 deg	TIP_EASTING:	0.00 ft
TIP_AZIM:	0.00 deg	TIP_ROAZ:	7.04 deg
TIP_TVD:	0.00 ft	NORTH_REF:	TrueNorth

MWD Survey Reference Criteria			
Run1			
Geomag Model:	HDGM 2022	Calculation Date:	10-Nov-2022
Location G:	999.06 mgn		
Location B:	51798.77 nT		
Magnetic Dip:	66.69 deg		
Magnetic dec (+E/W-):	7.72 deg		
Grid convergence (+E/W-):	0.00 deg		
GTotal az corr (+E/W-):	7.72 deg		

Survey List																
MD	Incl	Azim	TVD	V Sec	N-S	E-W	DLS	RE_DISTANCE	RE_AZIMUTH	GX	GY	GZ	BX	BY	BZ	
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(deg/100ft)	(ft)	(deg)	(mgn)	(mgn)	(mgn)	(nT)	(nT)	(nT)	(nT)
0	0	0	0	0	0	0	0	0	0	-999.25	-999.25	-999.25	-999.25	-999.25	-999.25	-999.25
19	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0
184	0.8	187.8	183.99	-1.15	-1.14	-0.16	0.48	1.15	187.8	0	0	0	0	0	0	0
274	2.4	162.1	273.96	-3.49	-3.56	0.34	1.91	3.57	174.58	0	0	0	0	0	0	0
364	3	134.8	363.86	-6.64	-7.01	2.59	1.56	7.47	159.74	0	0	0	0	0	0	0
454	3.4	133.6	453.72	-9.67	-10.51	6.19	0.45	12.2	149.5	0	0	0	0	0	0	0
544	4.2	123.2	543.52	-12.72	-14.16	10.88	1.17	17.85	142.45	0	0	0	0	0	0	0
634	5.7	122.2	633.18	-16.07	-18.34	17.42	1.67	25.3	136.47	0	0	0	0	0	0	0
724	7.7	124.7	722.57	-20.77	-24.16	26.16	2.25	35.61	132.72	0	0	0	0	0	0	0
814	8.5	130.6	811.67	-27.25	-31.92	36.17	1.28	48.24	131.43	0	0	0	0	0	0	0
904	8.2	131.9	900.71	-34.59	-40.53	46	0.39	61.31	131.39	0	0	0	0	0	0	0
994	8.4	130.6	989.77	-41.89	-49.1	55.77	0.3	74.3	131.36	0	0	0	0	0	0	0
1084	9.5	132.5	1078.67	-49.84	-58.39	66.23	1.27	88.3	131.4	0	0	0	0	0	0	0
1174	9.2	116.2	1167.49	-56.51	-66.59	78.17	2.95	102.68	130.43	0	0	0	0	0	0	0
1264	8.4	121.8	1256.44	-61.62	-73.23	90.21	1.3	116.19	129.07	0	0	0	0	0	0	0
1354	8.3	130.2	1345.49	-67.93	-80.89	100.76	1.36	129.21	128.76	0	0	0	0	0	0	0
1444	7.7	131.5	1434.61	-74.9	-89.07	110.24	0.7	141.73	128.94	0	0	0	0	0	0	0
1534	8.1	131.5	1523.76	-81.9	-97.27	119.5	0.44	154.08	129.14	0	0	0	0	0	0	0
1624	8.2	131.9	1612.85	-89.15	-105.76	129.03	0.13	166.83	129.34	0	0	0	0	0	0	0
1701	8.7	131.7	1689.01	-95.6	-113.3	137.46	0.65	178.14	129.5	0	0	0	0	0	0	0
1873	10.8	132.91	1858.52	-112.45	-132.93	158.98	1.23	207.23	129.9	981.57	-31.96	184.5	44726.56	-19909.67	17346.19	
1963	12.99	139.81	1946.58	-124.26	-146.4	171.68	2.89	225.63	130.45	973.91	132.4	181.41	43530.27	1965.33	28344.73	
2053	11.28	132	2034.58	-136.17	-160.01	184.75	2.63	244.41	130.9	980.09	-120.45	153.88	44604.49	-26025.39	5834.96	
2143	11.48	127.94	2122.81	-145.81	-171.4	198.36	0.92	262.15	130.83	979.55	147.71	-133.34	44787.6	26403.81	-12.21	
2233	10.88	137.89	2211.11	-155.96	-183.21	211.12	2.24	279.53	130.95	981.43	-185.44	34.24	44421.39	-24450.68	-11389.16	
2322	11.73	130.42	2298.39	-166.43	-195.31	223.64	1.9	296.91	131.13	978.61	-199.54	38.54	44506.84	-23437.5	-13024.9	
2412	11.4	130.9	2386.56	-176.43	-207.07	237.33	0.38	314.96	131.1	979.69	-123	-154.69	44592.29	708.01	-26672.36	
2501	11.38	137.9	2473.81	-187.08	-219.34	249.87	1.55	332.48	131.28	979.96	136.29	-142.6	44226.07	26745.61	-5371.09	
2590	10.89	139.77	2561.13	-198.53	-232.28	261.18	0.68	349.53	131.65	981.43	39.48	184.63	44348.14	-10107.42	25097.66	
2679	11.34	139.73	2648.46	-210.16	-245.37	272.27	0.51	366.52	132.03	980.09	-144.48	-133.34	44128.42	-6457.52	-26708.98	
2769	10.78	136.19	2736.79	-221.48	-258.2	283.82	0.98	383.7	132.29	981.84	-183.56	35.85	44531.25	-24121.09	-11621.09	
2858	11.56	132.53	2824.1	-231.92	-270.24	296.16	1.18	400.92	132.38	979.28	-161.8	118.03	44458.01	-26867.68	-1184.08	
2948	11.38	138.12	2912.31	-242.99	-282.95	308.73	1.25	418.78	132.5	979.96	-25.65	-195.64	44189.45	12573.24	-24304.2	
3038	11.55	138.99	3000.51	-254.85	-296.36	320.57	0.26	436.57	132.75	979.42	48.47	194.17	44140.63	-9350.59	25769.04	
3127	11.16	134.96	3087.77	-266.1	-309.17	332.51	0.99	454.04	132.92	980.63	-44.31	188.26	44494.63	-20690.92	17065.43	
3217	11.54	138.45	3176.02	-277.4	-322.06	344.64	0.87	471.7	133.06	979.42	-0.4	-199.94	44128.42	15478.52	-22680.66	
3306	11.53	133.59	3263.22	-288.59	-334.85	356.99	1.09	489.46	133.17	979.42	-91.31	177.78	44421.39	-24426.27	11364.75	
3396	10.93	134.03	3351.5	-299.08	-346.99	369.64	0.68	506.99	133.19	981.43	96.28	163.28	44653.32	-3515.63	26342.77	
3485	11.38	138.9	3438.82	-310.02	-359.47	381.48	1.17	524.16	133.3	980.09	130.79	-147.71	44189.45	26562.5	-6738.28	
3575	11.29	138.91	3527.06	-321.83	-372.8	393.11	0.1	541.77	133.48	980.36	183.02	-69.29	44238.28	26538.09	6396.48	
3664	11.41	140.71	3614.32	-333.72	-386.18	404.41	0.42	559.18	133.68	979.82	-190.14	-54.38	44067.38	-18139.65	-20788.57	
3753	11.47	138.79	3701.55	-345.69	-399.65	415.81	0.43	576.74	133.86	979.69	-183.42	76.67	44152.83	-26879.88	-5493.16	
3843	11.55	137.93	3789.74	-357.55	-413.08	427.75	0.21	594.64	134	979.42	75.06	-185.57	44177.25	22937.01	-15014.65	
3932	11.47	138.13	3876.95	-369.2	-426.28	439.63	0.1	612.36	134.12	979.69	-198.73	-6.98	44165.04	-21972.66	-16406.25	
4021	11.55	137.43	3964.16	-380.8	-439.44	451.56	0.18	630.09	134.22	979.55	193.09	53.04	44238.28	17395.02	21057.13	
4111	11.42	135.69	4052.36	-392.2	-452.45	463.89	0.41	648	134.29	979.82	-40.55	193.76	44384.77	-20202.64	18017.58	
4201	11.63	138.32	4140.54	-403.76	-465.61	476.15	0.63	665.96	134.36	979.15	-117.9	163.55	44140.63	-25842.29	9313.96	
4290	11.14	139.33	4227.79	-415.46	-478.83	487.72	0.6	683.48	134.47	981.03	86.88	-172.55	44274.9	23791.5	-13269.04	
4380	11.66	138.48	4316.01	-427.33	-492.23	499.41	0.65	701.22	134.59	979.15	36.12	-198.73	44116.21	19360.35	-19628.91	
4470	11.69	138.32	4404.15	-439.36	-505.85	511.5	0.05	719.39	134.68	979.02	111.18	169.32	44152.83	-488.28	27453.61	
4560	10.93	139.08	4492.4	-451.09	-519.11	523.15	0.86	736.99	134.78	981.7	179.13	62.04	44409.18	16064.45	21765.14	
4650	11.24	137.28	4580.73	-462.47	-531.99	534.69	0.51	754.26	134.86	980.76	137.77	137.77	44384.77	4479.98	26708.98	
4739	11.69	135.89	4667.95	-473.73	-544.84	546.85	0.59	771.94	134.89	979.15	73.05	188.93	44287.11	-6994.63	26306.15	
4829	11.45	140.65	4756.12	-485.61	-558.29	558.86	1.09	789.94	134.97	979.96	105.41	168.25	44140.63	-378.42	27502.44	
4918	11.16	139.09	4843.4	-497.47	-571.64	570.1	0.48	807.33	135.08	981.03	141.93	-131.59	44299.32	26965.33	-4052.73	
5008	11.39	138.19	4931.66	-509.16	-584.84	581.73	0.32	824.89	135.15	980.09	-126.76	-151.33	44226.07	-2478.03	-27258.3	
5098	10.03	136.99	5020.09	-520.04	-597.2	593	1.52	841.6	135.2	984.52	43.64	168.65	44848.63	-10021.97	24340.82	
5188	6.63	132.29	5109.13	-528.07	-606.43	602.19	3.86	854.63	135.2	993.25	6.18	115.21	46179.2	-15869.14	17895.51	
5277	3.97	117.25	5197.74	-532.1	-611.29	608.73	3.34	862.69	135.12	997.55	-53.71	-43.64	47216.8	431.29	-21423.34	
5367	1.85	125.95	5287.62	-533.88	-613.57	612.68	2.4	867.09	135.04	999.29	-11.82	30.08	47497.56	-20849.61	3845.21	
5457	0.49	129.96	5377.6	-534.79	-614.68	614.15	1.51	868.91	135.02	999.83	-8.59	-0.4	47717.29	-10534.67	-17871.09	
5547	0.07	341.86	5467.6	-534.96	-614.88	614.43	0.61	869.25	135.02	999.83	-0.67	0.94	47851.56	17980.96	-9777.83	
5636	0.34	52.24	5556.6	-534.73	-614.67	614.62	0.36	869.24	135	999.69	5.64	-1.61	47937.01	-9790.04	17675.78	

5725	9.86	30.8	5645.15	-527.55	-607.94	618.74	10.73	867.43	134.5	984.92	133.47	107.29	50366.21	-13134.77	-244.14
5814	12.67	12.69	5732.45	-510.85	-591.87	624.79	5.04	860.62	133.45	975.53	-159.12	-150.93	51171.88	8032.23	5175.78
5904	19.49	359.83	5818.9	-486.09	-567.18	626.92	8.51	845.41	132.14	942.49	200.34	-266.81	51892.09	-4089.36	781.25
5993	28.86	0.49	5900.01	-449.94	-530.78	627.06	10.52	821.54	130.25	875.62	284	390.08	51733.4	5163.57	2697.75
6082	34.62	356.94	5975.67	-403.67	-484.01	625.9	6.81	791.21	127.71	822.85	-60.29	-564.9	50793.46	-4931.64	-10241.7
6172	42.09	356.08	6046.2	-348.81	-428.3	622.47	8.32	755.59	124.53	741.88	665.08	-82.71	48974.61	16540.53	-6225.59
6261	49.63	358.43	6108.14	-285.91	-364.56	619.5	8.67	718.8	120.48	647.62	487.16	-585.45	46374.51	12426.76	-20092.77
6350	56.77	357.01	6161.42	-215.64	-293.4	616.63	8.12	682.87	115.45	547.99	219.01	807.14	43103.03	11254.88	26879.88
6439	64.14	0.71	6205.29	-139.06	-216.06	615.18	9.04	652.02	109.35	435.86	-755.44	-488.1	39172.36	-30041.5	-16430.66
6529	70.96	359.54	6239.64	-56.53	-132.93	615.34	7.67	629.54	102.19	326.16	832.12	448.49	34802.25	35351.56	15734.86
6620	78.56	359.68	6263.54	30.46	-45.2	614.74	8.34	616.4	94.21	198.33	959.28	-199	29394.53	41357.42	-11511.23
6709	85.78	0.53	6275.66	117.93	42.91	614.91	8.18	616.41	86.01	73.45	284.4	-955.11	23730.47	10742.19	-45031.74
6798	89.82	358.72	6279.07	206.1	131.82	614.33	4.97	628.32	77.89	3.22	952.29	-304.14	20336.91	44531.25	-17578.13
6888	90.01	358.85	6279.21	295.17	221.8	612.42	0.26	651.35	70.09	-0.13	-793.58	-607.87	20178.22	-39892.58	-26586.91
6977	89.76	2.26	6279.39	383.59	310.78	613.28	3.85	687.53	63.13	4.16	763.9	-644.53	20544.43	35253.91	-32287.6
7067	90.49	357.09	6279.19	472.81	400.75	612.77	5.81	732.18	56.82	-8.59	427	904.36	19738.77	23901.37	41760.25
7156	90.28	355.96	6278.59	560.32	489.58	607.38	1.29	780.13	51.13	-4.83	-262.65	-964.25	19750.98	-16613.77	-45166.02
7245	90.32	356.94	6278.13	647.8	578.41	601.87	1.1	834.75	46.14	-5.51	706.84	-706.7	19799.8	31213.38	-36608.89
7335	90.08	358.58	6277.82	736.62	668.34	598.35	1.84	897.05	41.84	-1.34	693.01	-720.4	20080.57	30847.17	-36743.16
7424	90.21	359.41	6277.6	824.74	757.32	596.79	0.95	964.21	38.24	-3.63	997.01	-49.41	20056.15	47705.08	-5322.27
7514	90.02	0.13	6277.42	914.02	847.32	596.43	0.82	1036.19	35.14	-0.4	772.5	635.4	20288.09	38647.46	28283.69
7602	90.4	0.91	6277.1	1001.45	935.32	597.23	0.99	1109.73	32.56	-6.98	-985.73	167.31	19995.12	-46838.38	10412.6
7692	90.39	0.31	6276.47	1090.88	1025.31	598.19	0.67	1187.05	30.26	-6.85	-853.6	521	19995.12	-39526.37	27221.68
7781	89.96	359.77	6276.2	1179.21	1114.31	598.25	0.77	1264.75	28.23	0.67	-33.3	999.83	20349.12	1245.12	47827.15
7871	89.85	359.4	6276.35	1268.45	1204.31	597.6	0.43	1344.43	26.39	2.69	425.93	-904.22	20324.71	17687.99	-44482.42
7960	90.06	1.18	6276.42	1356.83	1293.3	598.06	2.02	1424.89	24.82	-1.07	-936.18	-350.62	20251.46	-45617.68	-14599.61
8049	89.82	0.68	6276.52	1445.33	1382.29	599.51	0.63	1506.7	23.45	3.22	-173.49	-984.25	20410.16	-10754.39	-46606.45
8138	90.12	1.08	6276.57	1533.82	1471.28	600.88	0.57	1589.25	22.22	-2.15	-810.77	585.31	20239.26	-37365.72	29895.02
8228	90.12	0.51	6276.37	1623.28	1561.27	602.13	0.64	1673.36	21.09	-2.15	-894.69	446.87	19946.29	-41638.18	23632.81
8317	89.95	358.13	6276.32	1711.47	1650.26	601.07	2.69	1756.31	20.01	0.94	938.73	345.23	20227.05	46032.71	13293.46
8407	89.98	357.02	6276.37	1800.24	1740.17	597.26	1.23	1839.81	18.94	0.27	896.17	444.19	20129.39	44519.04	17822.27
8496	90.92	356.48	6275.67	1887.81	1829.03	592.21	1.21	1922.51	17.94	-15.98	790.89	-611.1	19262.7	35656.74	-32580.57
8585	90.96	357.73	6274.21	1975.46	1917.9	587.72	1.4	2005.93	17.04	-16.78	-141.26	-989.22	19299.32	-10314.94	-47180.18
8675	90.22	359.6	6273.29	2064.49	2007.86	585.62	2.23	2091.52	16.26	-3.76	-906.77	-420.96	20043.95	-44641.11	-17541.5
8764	89.84	0.95	6273.25	2152.87	2096.86	586.05	1.58	2177.22	15.62	2.82	-110.38	-993.25	20397.95	-7666.01	-47216.8
8853	89.64	0.42	6273.65	2241.32	2185.85	587.12	0.64	2263.33	15.03	6.31	999.69	16.11	20593.26	47729.49	-1831.05
8943	89.42	359.46	6274.4	2330.63	2275.85	587.02	1.1	2350.34	14.46	10.21	-990.97	-132.26	20727.54	-47558.59	-3381.35
9033	89.27	357.42	6275.43	2419.6	2365.81	584.56	2.27	2436.96	13.88	12.76	-557.92	829.97	20776.37	-23449.71	41455.08
9122	89.17	356.21	6276.64	2507.18	2454.66	579.62	1.36	2522.16	13.29	14.5	-207.59	-977.54	20690.92	-13854.98	-45642.09
9212	89.23	357.41	6277.9	2595.74	2544.51	574.62	1.33	2608.58	12.73	13.43	259.83	965.99	20812.99	15881.35	44909.67
9301	89.18	358.69	6279.14	2683.64	2633.45	571.59	1.44	2694.76	12.25	14.37	-944.37	328.44	20910.64	-43774.41	18627.93
9391	89.05	359.48	6280.53	2772.76	2723.42	570.15	0.89	2782.46	11.82	16.52	580.88	-813.18	20983.89	25207.52	-40319.82
9480	89.09	0.65	6281.97	2861.09	2812.41	570.25	1.31	2869.64	11.46	15.84	-105	994.73	21093.75	-2465.82	47399.9
9569	89	1.16	6283.45	2949.57	2901.39	571.65	0.58	2957.17	11.15	17.46	982.78	-183.42	21118.16	46203.61	-10998.54
9658	90.68	2.89	6283.7	3038.22	2990.32	574.79	2.72	3045.07	10.88	-11.95	572.56	820.3	19824.22	28881.84	38366.7
9747	90.12	3.88	6283.07	3127.04	3079.16	580.05	1.28	3133.32	10.67	-2.15	958.2	286.68	20288.09	46228.03	12402.34
9837	90.15	5.68	6282.85	3216.96	3168.85	587.54	1.99	3222.86	10.5	-2.69	-986.54	-162.48	20275.88	-47326.66	-7055.66
9927	90.2	3.78	6282.57	3306.88	3258.54	594.96	2.11	3312.41	10.35	-3.49	839.64	543.55	20239.26	40942.38	24829.1
10016	88.42	1.13	6283.64	3395.58	3347.44	598.77	3.58	3400.57	10.14	27.53	-969.89	241.43	21606.45	-45214.84	13671.88
10105	86.59	357.71	6287.52	3483.7	3436.33	597.87	4.36	3487.95	9.87	59.48	-915.1	398.67	22924.8	-41174.32	21813.96
10194	88.88	357.61	6291.04	3571.43	3525.18	594.23	2.57	3574.92	9.57	19.6	997.82	-63.92	21020.51	47070.31	-6604
10284	89.87	357.46	6292.02	3660.19	3615.09	590.37	1.12	3662.98	9.27	2.28	-266.41	-963.44	20166.02	-16235.35	-45092.77
10373	90.02	357.36	6292.11	3747.94	3704	586.35	0.2	3750.12	9	-0.27	-727.25	-685.89	20056.15	-37316.89	-30151.37
10463	87.98	356.64	6293.68	3836.54	3793.86	581.64	2.39	3838.19	8.72	35.18	-996.47	-74.52	21704.1	-47204.59	402.83
10552	88.14	357.24	6296.7	3924.11	3882.68	576.89	0.69	3925.31	8.45	32.5	-817.35	-574.57	21618.65	-40686.04	-24060.06
10641	88.04	358.39	6299.67	4011.91	3971.57	573.5	1.3	4012.76	8.22	34.24	-848.9	-526.9	21777.34	-41760.25	-22021.48
10731	90.03	359.18	6301.18	4100.96	4061.53	571.59	2.38	4101.55	8.01	-0.54	-366.17	-930	20129.39	-20349.12	-43420.41
10820	90.25	359.14	6300.97	4189.12	4150.52	570.28	0.25	4189.51	7.82	-4.3	-882.2	470.78	20043.95	-40771.48	25219.73
10910	90.29	358.69	6300.55	4278.22	4240.5	568.58	0.51	4278.45	7.64	-5.1	612.84	790.76	19982.91	31872.56	35876.46
10999	89.92	358.56	6300.38	4366.26	4329.47	566.45	0.45	4366.37	7.45	1.48	-763.37	-645.47	20239.26	-38586.43	-28369.14
11088	90.82	358.94	6299.82	4454.32	4418.45	564.51	1.1	4454.36	7.28	-14.23	-342.14	-938.87	19482.42	-19396.97	-44128.42
11178	92.59	358.97	6297.15	4543.39	4508.39	562.86	1.97	4543.39	7.12	-45.12	-655.41	754.24	18054.2	-29541.02	38745.12
11268	92.71	358.45	6292.99	4632.34	4598.27	560.84	0.59	4632.35	6.95	-47.27	995	-87.28	17883.3	48205.57	-7531.74
11357	92.72	358.41	6288.77	4720.24	4687.14	558.4	0.05	4720.28	6.79	-47.53	-844.47	533.48	17932.13	-39355.47	28784.18
11446	92.56	358.56	6284.66	4808.16	4776.01	556.05	0.25	4808.27	6.64	-44.71	931.21	-361.47	17993.16	44165.04	-20629.88
11536	93.19	358.99	6280.15	4897.11	4865.88	554.13	0.84	4897.33	6.5	-55.59	122.06	991.5	17553.71	9045.41	48046.88
11625	91.34	357.48	6276.64	4984.99	4954.76	551.39	2.68	4985.35	6.35	-23.36	-245.86	-968.41	18957.52	-15393.07	-45886.23
11664	91.51	357.67	6275.67	5023.45	4993.71	549.74	0.64	5023.88	6.28	-26.32	-479.91	877.1	18920.9	-20031.74	44067.38
11695	91.51	357.67	6274.85	5054.02	5024.68	548.48	0.01	5054.52</							