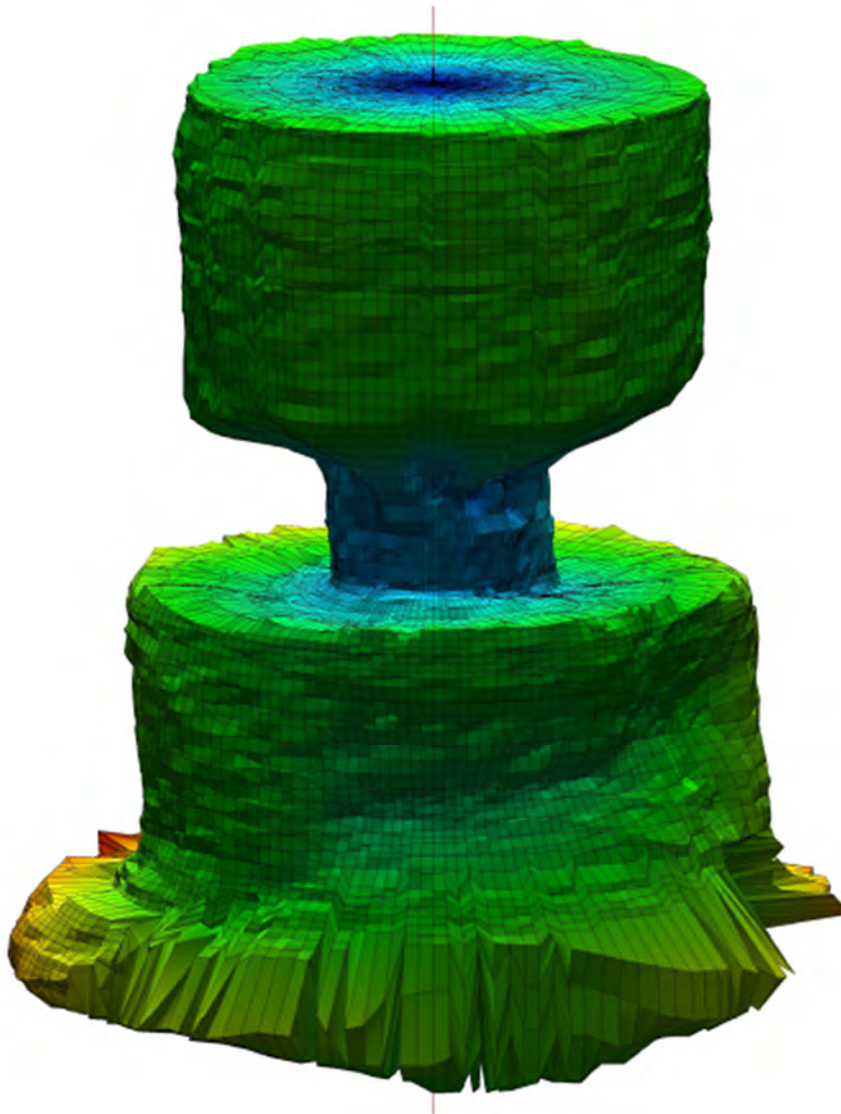


Westlake Chemicals
PPG No. 007B
Sulphur
Calcasieu Parish, Louisiana
July 26, 2023
Through Pipe Sonar Survey



Survey Conducted by: Richard Lawrence
Company Representative: Mr. Roger Dugas - Lonquist
Serving the Storage Well Industry Since 1978

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Well Information

Company: Westlake Chemicals
Well Number: PPG No. 007B
Field: Sulphur
State: Louisiana
Parish: Calcasieu
API No. 17-019-04012
Serial No. 67270

Cemented Casing: 7-5/8 in. @ 2501 ft.
Hanging String: 5-1/2 in. @ 2607 ft.
Total Depth: 3098.4 ft.

Permanent Datum: B.H.F
Depth Correction: -3.3 ft.

Total Volume BBL: 9,914,408.45
Total Volume Ft³: 55,665,272.44

Sonar Tool Orientation:

Sonar tool serial number SON-073-42 magnetic compass calibration performed on May 4, 2023.

The sonar survey was run using the fiber optic gyro which was set using the magnetic north of the internal compass at the depth of the cavern 2620 feet. This is in an open cavern away from any tubing to prevent any interference with the direction.

Operation No. 6 – Sonic Surveys / Flodim – 7/26/2023 Through Pipe
Operation No. 5 – Sonic Surveys / Flodim – 3/16/2023 Through Pipe
Operation No. 4 – Sonic Surveys / Flodim – 2/01/2023 Through Pipe
Operation No. 3 – Sonic Surveys / Flodim – 1/11/2023 Through Pipe

List of Acquired Measurements

Sonar survey from 2501 ft. to 3090 ft.

- Oriented circular horizontal sections from 2501 ft to 2504 ft, with a step of 3 feet.
- Oriented circular horizontal sections from 2504 ft to 2520 ft, with a step of 2 feet.
- Oriented circular horizontal sections from 2520 ft to 2600 ft, with a step of 10 feet.
- Oriented circular horizontal sections from 2600 ft to 2620 ft, with a step of 5 feet.
- Oriented circular horizontal sections from 2620 ft to 2830 ft, with a step of 10 feet.
- Oriented circular horizontal sections from 2830 ft to 2860 ft, with a step of 5 feet.
- Oriented circular horizontal sections from 2860 ft to 3000 ft, with a step of 10 feet.
- Oriented circular horizontal sections from 3000 ft to 3090 ft, with a step of 5 feet.
- Up-tilted orientated circular sections from 2615 ft 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45°, 50°, 55°, 60°, 65°, 70°, 75°, 80°, 85°, 89° with respect to the horizontal.
- Down-tilted orientated circular sections from 2900 ft -25°, -30°, -35°, -40°, -45°, -50°, -55°, -60°, -65°, -70° with respect to the horizontal.
- Up-tilted orientated circular sections from 2920 ft 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45°, 50°, 55°, 60°, 65°, 70°, 75°, 80°, 85° with respect to the horizontal.
- Up-tilted orientated circular sections from 3080 ft 3°, 6°, 9°, 12°, 15°, 18°, 21°, 24°, 27°, 30°, 33°, 36°, 39°, 42°, 45°, 48°, 51°, 55°, 60°, 65° with respect to the horizontal.
- Down-tilted orientated circular sections from 3050 ft -3°, -6°, -9°, -12°, -15°, -18°, -21°, -24°, -27°, -30°, -33°, -36°, -39°, -42°, -45°, -48°, -51°, -54°, -57°, -60°, -63°, -66°, -69°, -71°, -73°, -75°, -77°, -79°, -81°, -84°, -87° with respect to the horizontal.
- 1 complimentary measurement to determine the cavity floor depth.

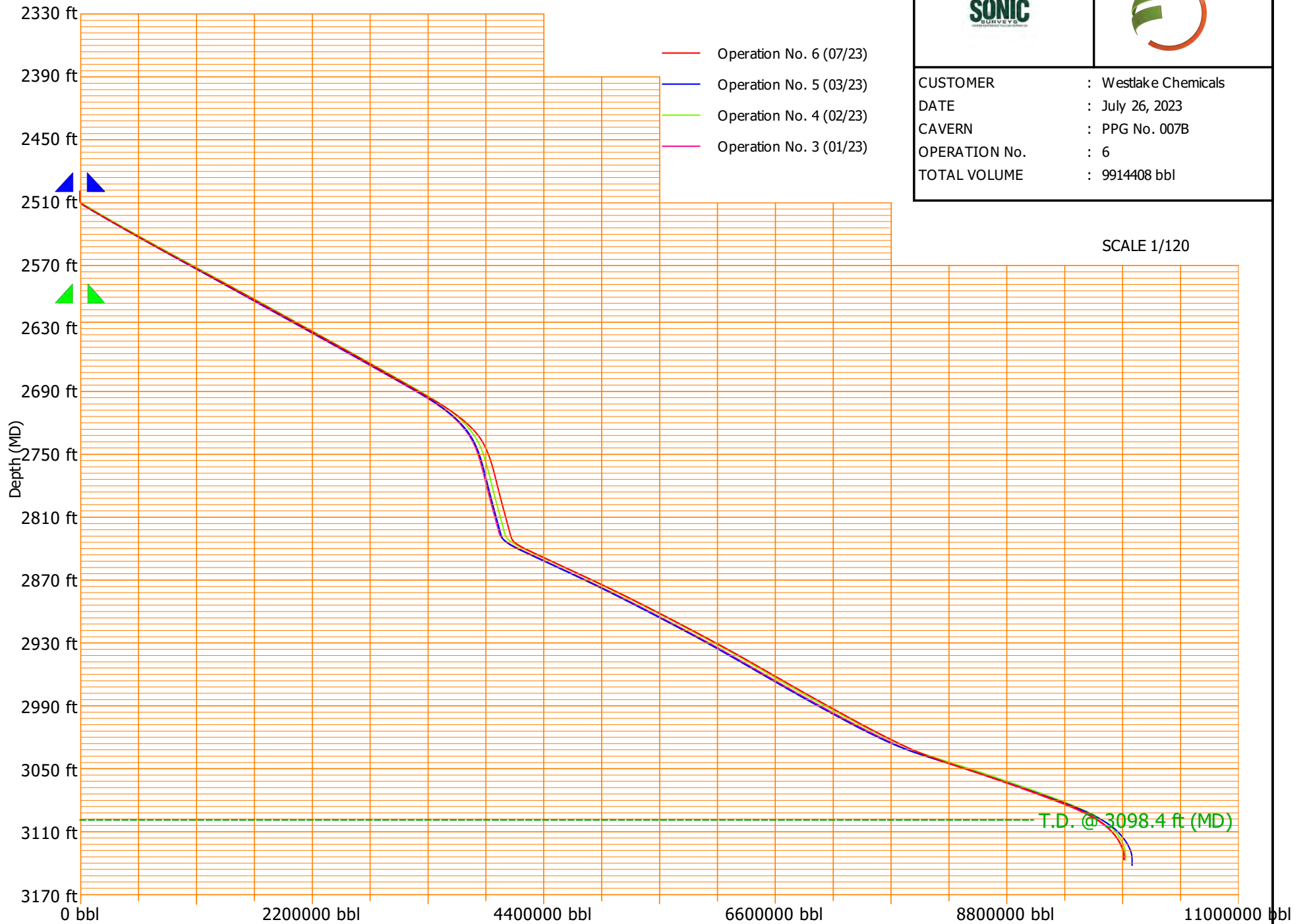
TOTAL VOLUME (bbl) VERSUS DEPTH (ft)

SONIC
CURVES
CORROSION PREVENTION SYSTEMS



CUSTOMER	: Westlake Chemicals
DATE	: July 26, 2023
CAVERN	: PPG No. 007B
OPERATION No.	: 6
TOTAL VOLUME	: 9914408 bbl

SCALE 1/120



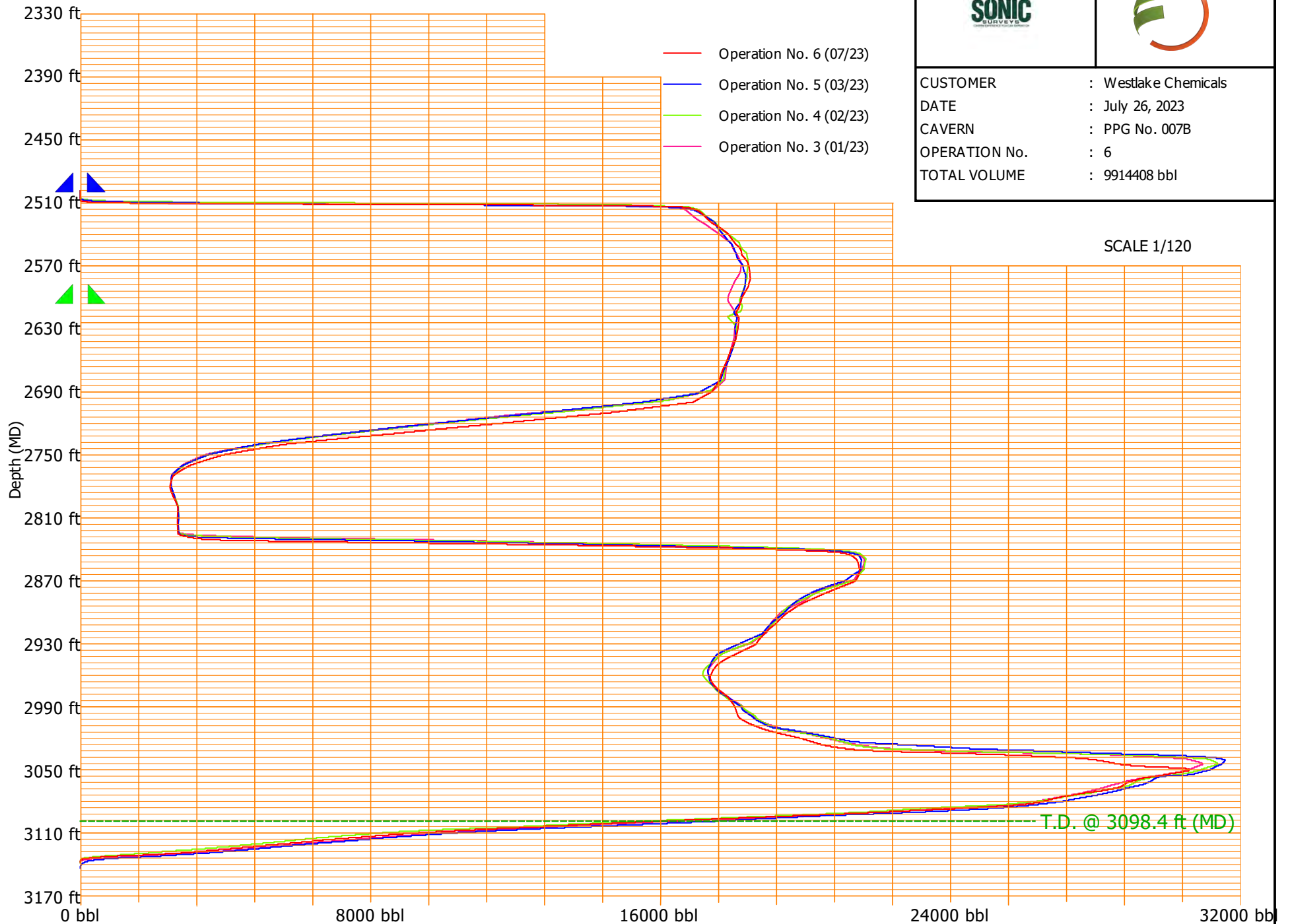
PARTIAL VOLUME (bbl) VERSUS DEPTH EACH 1 ft

SONIC
CURVES



CUSTOMER	: Westlake Chemicals
DATE	: July 26, 2023
CAVERN	: PPG No. 007B
OPERATION No.	: 6
TOTAL VOLUME	: 9914408 bbl

SCALE 1/120



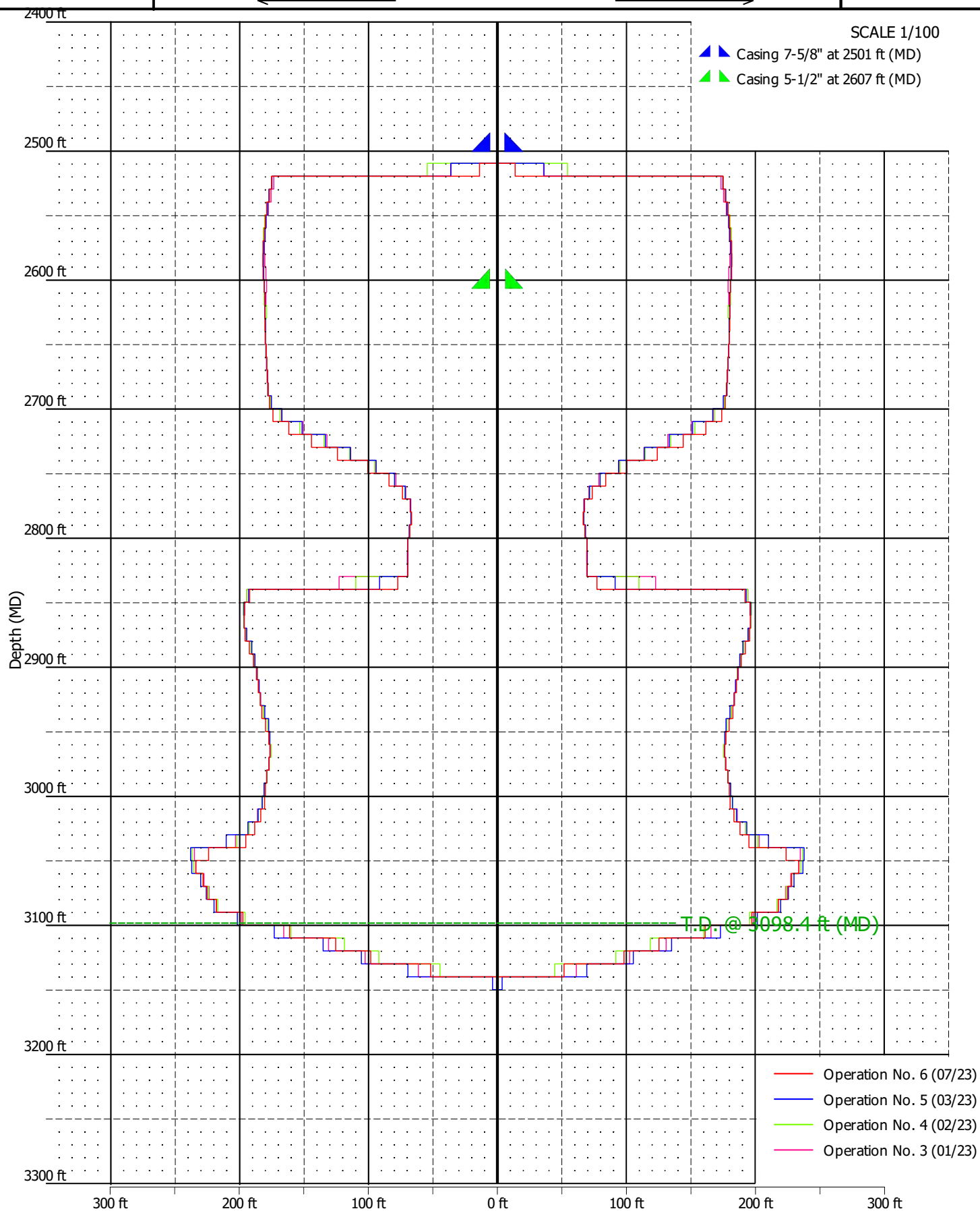


CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**MEAN RADIUS**

		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B				4 	
		DATE : July 26, 2023				OPERATION No. : 6					
		MAIN CHARACTERISTICS DATASHEET									
Depth	Cumulated Volume	Volume Section	Section Area	Mean Radius	Mean Diameter	Min Radius	Max Radius	Max Radius Orientation	Min Diameter	Max Diameter	Max Diam. Orientation
(ft)	(bbl)	(bbl)	(ft²)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(°)
2609.00	1749763.11	18185.57	-	-	-	-	-	-	-	-	-
2610.00	1767939.74	18176.63	102030.84	180.21	360.43	154.30	219.75	162.00	324.21	392.95	162.00
2611.00	1786101.44	18161.70	-	-	-	-	-	-	-	-	-
2612.00	1804246.59	18145.15	-	-	-	-	-	-	-	-	-
2613.00	1822375.05	18128.46	-	-	-	-	-	-	-	-	-
2614.00	1840486.66	18111.61	-	-	-	-	-	-	-	-	-
2615.00	1858582.14	18095.48	-	-	-	-	-	-	-	-	-
2616.00	1876687.13	18104.99	-	-	-	-	-	-	-	-	-
2617.00	1894809.41	18122.28	-	-	-	-	-	-	-	-	-
2618.00	1912949.04	18139.63	-	-	-	-	-	-	-	-	-
2619.00	1931106.09	18157.05	-	-	-	-	-	-	-	-	-
2620.00	1949280.63	18174.54	102071.09	180.25	360.50	153.89	221.16	162.00	325.28	393.81	162.00
2621.00	1967457.54	18176.91	-	-	-	-	-	-	-	-	-
2622.00	1985630.70	18173.16	-	-	-	-	-	-	-	-	-
2623.00	2003800.21	18169.51	-	-	-	-	-	-	-	-	-
2624.00	2021966.17	18165.96	-	-	-	-	-	-	-	-	-
2625.00	2040128.67	18162.50	-	-	-	-	-	-	-	-	-
2626.00	2058287.82	18159.15	-	-	-	-	-	-	-	-	-
2627.00	2076443.70	18155.89	-	-	-	-	-	-	-	-	-
2628.00	2094596.43	18152.73	-	-	-	-	-	-	-	-	-
2629.00	2112746.10	18149.67	-	-	-	-	-	-	-	-	-
2630.00	2130892.80	18146.70	101867.24	180.07	360.14	155.11	218.22	162.00	325.53	392.67	168.00
2631.00	2149034.83	18142.02	-	-	-	-	-	-	-	-	-
2632.00	2167170.87	18136.04	-	-	-	-	-	-	-	-	-
2633.00	2185300.98	18130.11	-	-	-	-	-	-	-	-	-
2634.00	2203425.21	18124.24	-	-	-	-	-	-	-	-	-
2635.00	2221543.64	18118.42	-	-	-	-	-	-	-	-	-
2636.00	2239656.30	18112.66	-	-	-	-	-	-	-	-	-
2637.00	2257763.26	18106.96	-	-	-	-	-	-	-	-	-
2638.00	2275864.57	18101.31	-	-	-	-	-	-	-	-	-
2639.00	2293960.30	18095.72	-	-	-	-	-	-	-	-	-
2640.00	2312050.96	18090.67	101566.38	179.80	359.61	154.55	218.41	168.00	325.79	391.82	174.00
2641.00	2330131.39	18080.43	-	-	-	-	-	-	-	-	-
2642.00	2348199.22	18067.83	-	-	-	-	-	-	-	-	-
2643.00	2366254.27	18055.06	-	-	-	-	-	-	-	-	-
2644.00	2384296.39	18042.12	-	-	-	-	-	-	-	-	-

		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B				5		
		DATE : July 26, 2023				OPERATION No. : 6						
MAIN CHARACTERISTICS DATASHEET												
Depth	Cumulated Volume	Volume Section	Section Area	Mean Radius	Mean Diameter	Min Radius	Max Radius	Max Radius Orientation	Min Diameter	Max Diameter	Max Diam. Orientation	
(ft)	(bbl)	(bbl)	(ft²)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(°)	
2645.00	2402325.40	18029.01	-	-	-	-	-	-	-	-	-	
2646.00	2420341.12	18015.73	-	-	-	-	-	-	-	-	-	
2647.00	2438343.40	18002.27	-	-	-	-	-	-	-	-	-	
2648.00	2456332.05	17988.65	-	-	-	-	-	-	-	-	-	
2649.00	2474306.91	17974.86	-	-	-	-	-	-	-	-	-	
2650.00	2492268.02	17961.11	100830.94	179.15	358.30	154.65	221.14	162.00	325.94	391.99	174.00	
2651.00	2510217.05	17949.02	-	-	-	-	-	-	-	-	-	
2652.00	2528154.54	17937.49	-	-	-	-	-	-	-	-	-	
2653.00	2546080.70	17926.16	-	-	-	-	-	-	-	-	-	
2654.00	2563995.73	17915.04	-	-	-	-	-	-	-	-	-	
2655.00	2581899.85	17904.12	-	-	-	-	-	-	-	-	-	
2656.00	2599793.25	17893.40	-	-	-	-	-	-	-	-	-	
2657.00	2617676.15	17882.89	-	-	-	-	-	-	-	-	-	
2658.00	2635548.73	17872.59	-	-	-	-	-	-	-	-	-	
2659.00	2653411.21	17862.48	-	-	-	-	-	-	-	-	-	
2660.00	2671263.80	17852.59	100218.37	178.61	357.21	154.89	219.19	162.00	322.85	390.58	162.00	
2661.00	2689104.31	17840.51	-	-	-	-	-	-	-	-	-	
2662.00	2706931.48	17827.17	-	-	-	-	-	-	-	-	-	
2663.00	2724745.33	17813.86	-	-	-	-	-	-	-	-	-	
2664.00	2742545.91	17800.58	-	-	-	-	-	-	-	-	-	
2665.00	2760333.24	17787.33	-	-	-	-	-	-	-	-	-	
2666.00	2778107.36	17774.12	-	-	-	-	-	-	-	-	-	
2667.00	2795868.30	17760.94	-	-	-	-	-	-	-	-	-	
2668.00	2813616.10	17747.79	-	-	-	-	-	-	-	-	-	
2669.00	2831350.78	17734.68	-	-	-	-	-	-	-	-	-	
2670.00	2849072.43	17721.66	99489.38	177.96	355.91	153.64	219.17	162.00	322.29	389.07	162.00	
2671.00	2866783.88	17711.44	-	-	-	-	-	-	-	-	-	
2672.00	2884485.93	17702.05	-	-	-	-	-	-	-	-	-	
2673.00	2902178.52	17692.60	-	-	-	-	-	-	-	-	-	
2674.00	2919861.61	17683.08	-	-	-	-	-	-	-	-	-	
2675.00	2937535.11	17673.50	-	-	-	-	-	-	-	-	-	
2676.00	2955198.97	17663.86	-	-	-	-	-	-	-	-	-	
2677.00	2972853.12	17654.16	-	-	-	-	-	-	-	-	-	
2678.00	2990497.51	17644.39	-	-	-	-	-	-	-	-	-	
2679.00	3008132.07	17634.56	-	-	-	-	-	-	-	-	-	
2680.00	3025755.94	17623.87	98934.56	177.46	354.92	153.67	218.67	162.00	324.01	389.04	162.00	

		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B				9		
		DATE : July 26, 2023				OPERATION No. : 6						
MAIN CHARACTERISTICS DATASHEET												
Depth	Cumulated Volume	Volume Section	Section Area	Mean Radius	Mean Diameter	Min Radius	Max Radius	Max Radius Orientation	Min Diameter	Max Diameter	Max Diam. Orientation	
(ft)	(bbl)	(bbl)	(ft²)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(°)	
2789.00	3985599.39	2556.37	-	-	-	-	-	-	-	-	-	
2790.00	3988168.03	2568.64	14439.49	67.80	135.59	53.18	87.65	228.00	122.44	142.10	72.00	
2791.00	3990751.76	2583.73	-	-	-	-	-	-	-	-	-	
2792.00	3993350.63	2598.87	-	-	-	-	-	-	-	-	-	
2793.00	3995964.36	2613.73	-	-	-	-	-	-	-	-	-	
2794.00	3998593.15	2628.79	-	-	-	-	-	-	-	-	-	
2795.00	4001237.14	2643.99	-	-	-	-	-	-	-	-	-	
2796.00	4003893.48	2656.35	-	-	-	-	-	-	-	-	-	
2797.00	4006559.44	2665.96	-	-	-	-	-	-	-	-	-	
2798.00	4009235.10	2675.66	-	-	-	-	-	-	-	-	-	
2799.00	4011920.47	2685.38	-	-	-	-	-	-	-	-	-	
2800.00	4014616.01	2695.53	15148.38	69.44	138.88	53.62	92.40	228.00	122.01	147.27	54.00	
2801.00	4017312.98	2696.97	-	-	-	-	-	-	-	-	-	
2802.00	4020007.88	2694.90	-	-	-	-	-	-	-	-	-	
2803.00	4022700.67	2692.79	-	-	-	-	-	-	-	-	-	
2804.00	4025391.54	2690.87	-	-	-	-	-	-	-	-	-	
2805.00	4028080.67	2689.12	-	-	-	-	-	-	-	-	-	
2806.00	4030768.08	2687.41	-	-	-	-	-	-	-	-	-	
2807.00	4033454.03	2685.95	-	-	-	-	-	-	-	-	-	
2808.00	4036138.64	2684.62	-	-	-	-	-	-	-	-	-	
2809.00	4038822.10	2683.46	-	-	-	-	-	-	-	-	-	
2810.00	4041504.67	2682.57	15059.54	69.24	138.47	52.63	94.13	228.00	121.27	148.26	48.00	
2811.00	4044187.43	2682.76	-	-	-	-	-	-	-	-	-	
2812.00	4046870.63	2683.21	-	-	-	-	-	-	-	-	-	
2813.00	4049554.53	2683.90	-	-	-	-	-	-	-	-	-	
2814.00	4052239.58	2685.05	-	-	-	-	-	-	-	-	-	
2815.00	4054925.72	2686.13	-	-	-	-	-	-	-	-	-	
2816.00	4057612.89	2687.17	-	-	-	-	-	-	-	-	-	
2817.00	4060301.32	2688.44	-	-	-	-	-	-	-	-	-	
2818.00	4062990.66	2689.33	-	-	-	-	-	-	-	-	-	
2819.00	4065680.93	2690.27	-	-	-	-	-	-	-	-	-	
2820.00	4068372.71	2691.78	15115.86	69.37	138.73	52.89	91.43	234.00	121.02	148.07	54.00	
2821.00	4071064.40	2691.69	-	-	-	-	-	-	-	-	-	
2822.00	4073755.64	2691.24	-	-	-	-	-	-	-	-	-	
2823.00	4076447.30	2691.66	-	-	-	-	-	-	-	-	-	
2824.00	4079140.68	2693.39	-	-	-	-	-	-	-	-	-	

		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B				10 	
		DATE : July 26, 2023				OPERATION No. : 6					
MAIN CHARACTERISTICS DATASHEET											
Depth	Cumulated Volume	Volume Section	Section Area	Mean Radius	Mean Diameter	Min Radius	Max Radius	Max Radius Orientation	Min Diameter	Max Diameter	Max Diam. Orientation
(ft)	(bbl)	(bbl)	(ft²)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(°)
2825.00	4081835.92	2695.24	-	-	-	-	-	-	-	-	-
2826.00	4084585.81	2749.89	-	-	-	-	-	-	-	-	-
2827.00	4087427.59	2841.78	-	-	-	-	-	-	-	-	-
2828.00	4090387.96	2960.36	-	-	-	-	-	-	-	-	-
2829.00	4093508.01	3120.05	-	-	-	-	-	-	-	-	-
2830.00	4096852.72	3344.72	18710.62	77.17	154.35	53.69	228.53	186.00	122.84	313.26	3.00
2831.00	4100718.69	3865.97	-	-	-	-	-	-	-	-	-
2832.00	4105911.58	5192.88	-	-	-	-	-	-	-	-	-
2833.00	4113284.13	7372.55	-	-	-	-	-	-	-	-	-
2834.00	4122891.66	9607.53	-	-	-	-	-	-	-	-	-
2835.00	4134665.49	11773.83	-	-	-	-	-	-	-	-	-
2836.00	4148400.87	13735.38	-	-	-	-	-	-	-	-	-
2837.00	4163714.50	15313.64	-	-	-	-	-	-	-	-	-
2838.00	4180442.80	16728.30	-	-	-	-	-	-	-	-	-
2839.00	4198451.15	18008.35	-	-	-	-	-	-	-	-	-
2840.00	4217650.03	19198.88	109498.30	191.93	383.86	83.42	244.66	198.00	352.78	395.80	132.00
2841.00	4237683.23	20033.20	-	-	-	-	-	-	-	-	-
2842.00	4258307.75	20624.52	-	-	-	-	-	-	-	-	-
2843.00	4279281.67	20973.92	-	-	-	-	-	-	-	-	-
2844.00	4300411.16	21129.49	-	-	-	-	-	-	-	-	-
2845.00	4321638.50	21227.34	-	-	-	-	-	-	-	-	-
2846.00	4342927.94	21289.43	-	-	-	-	-	-	-	-	-
2847.00	4364260.60	21332.66	-	-	-	-	-	-	-	-	-
2848.00	4385629.95	21369.35	-	-	-	-	-	-	-	-	-
2849.00	4407034.69	21404.75	-	-	-	-	-	-	-	-	-
2850.00	4428466.09	21431.39	120334.06	195.71	391.43	146.99	249.71	198.00	361.69	401.89	132.00
2851.00	4449909.71	21443.63	-	-	-	-	-	-	-	-	-
2852.00	4471364.05	21454.34	-	-	-	-	-	-	-	-	-
2853.00	4492829.16	21465.11	-	-	-	-	-	-	-	-	-
2854.00	4514302.00	21472.84	-	-	-	-	-	-	-	-	-
2855.00	4535780.39	21478.38	-	-	-	-	-	-	-	-	-
2856.00	4557265.28	21484.89	-	-	-	-	-	-	-	-	-
2857.00	4578755.31	21490.03	-	-	-	-	-	-	-	-	-
2858.00	4600250.44	21495.13	-	-	-	-	-	-	-	-	-
2859.00	4621753.49	21503.05	-	-	-	-	-	-	-	-	-
2860.00	4643263.84	21510.35	120788.50	196.08	392.16	147.89	250.69	198.00	362.83	401.86	0.00

		CUSTOMER : Westlake Chemicals				CAVERN : PPG No. 007B				15 	
		DATE : July 26, 2023				OPERATION No. : 6					
MAIN CHARACTERISTICS DATASHEET											
Depth	Cumulated Volume	Volume Section	Section Area	Mean Radius	Mean Diameter	Min Radius	Max Radius	Max Radius Orientation	Min Diameter	Max Diameter	Max Diam. Orientation
(ft)	(bbl)	(bbl)	(ft²)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(°)
3005.00	7378060.85	18441.87	-	-	-	-	-	-	-	-	-
3006.00	7396575.34	18514.49	-	-	-	-	-	-	-	-	-
3007.00	7415164.87	18589.52	-	-	-	-	-	-	-	-	-
3008.00	7433826.44	18661.57	-	-	-	-	-	-	-	-	-
3009.00	7452559.07	18732.64	-	-	-	-	-	-	-	-	-
3010.00	7471365.90	18806.83	105556.61	183.30	366.60	125.72	241.63	228.00	324.38	406.98	54.00
3011.00	7490262.73	18896.83	-	-	-	-	-	-	-	-	-
3012.00	7509257.99	18995.26	-	-	-	-	-	-	-	-	-
3013.00	7528359.75	19101.76	-	-	-	-	-	-	-	-	-
3014.00	7547573.31	19213.56	-	-	-	-	-	-	-	-	-
3015.00	7566899.91	19326.60	-	-	-	-	-	-	-	-	-
3016.00	7586367.23	19467.32	-	-	-	-	-	-	-	-	-
3017.00	7605964.80	19597.57	-	-	-	-	-	-	-	-	-
3018.00	7625683.81	19719.02	-	-	-	-	-	-	-	-	-
3019.00	7645520.01	19836.20	-	-	-	-	-	-	-	-	-
3020.00	7665466.78	19946.77	111034.32	188.00	376.00	102.72	245.17	234.00	307.94	414.60	54.00
3021.00	7685512.92	20046.14	-	-	-	-	-	-	-	-	-
3022.00	7705651.17	20138.25	-	-	-	-	-	-	-	-	-
3023.00	7725886.13	20234.96	-	-	-	-	-	-	-	-	-
3024.00	7746219.80	20333.67	-	-	-	-	-	-	-	-	-
3025.00	7766648.14	20428.34	-	-	-	-	-	-	-	-	-
3026.00	7787208.34	20560.20	-	-	-	-	-	-	-	-	-
3027.00	7807918.41	20710.07	-	-	-	-	-	-	-	-	-
3028.00	7828809.77	20891.35	-	-	-	-	-	-	-	-	-
3029.00	7849919.58	21109.81	-	-	-	-	-	-	-	-	-
3030.00	7871273.20	21353.63	119330.81	194.92	389.84	70.85	275.45	150.00	304.91	463.47	150.00
3031.00	7893145.69	21872.49	-	-	-	-	-	-	-	-	-
3032.00	7915801.57	22655.88	-	-	-	-	-	-	-	-	-
3033.00	7939560.82	23759.25	-	-	-	-	-	-	-	-	-
3034.00	7964272.18	24711.36	-	-	-	-	-	-	-	-	-
3035.00	7989787.92	25515.75	-	-	-	-	-	-	-	-	-
3036.00	8016036.03	26248.10	-	-	-	-	-	-	-	-	-
3037.00	8042934.03	26898.00	-	-	-	-	-	-	-	-	-
3038.00	8070394.87	27460.84	-	-	-	-	-	-	-	-	-
3039.00	8098208.29	27813.42	-	-	-	-	-	-	-	-	-
3040.00	8126256.55	28048.26	157215.71	223.70	447.41	55.13	314.51	138.00	324.02	518.41	138.00



CUSTOMER : Westlake Chemicals

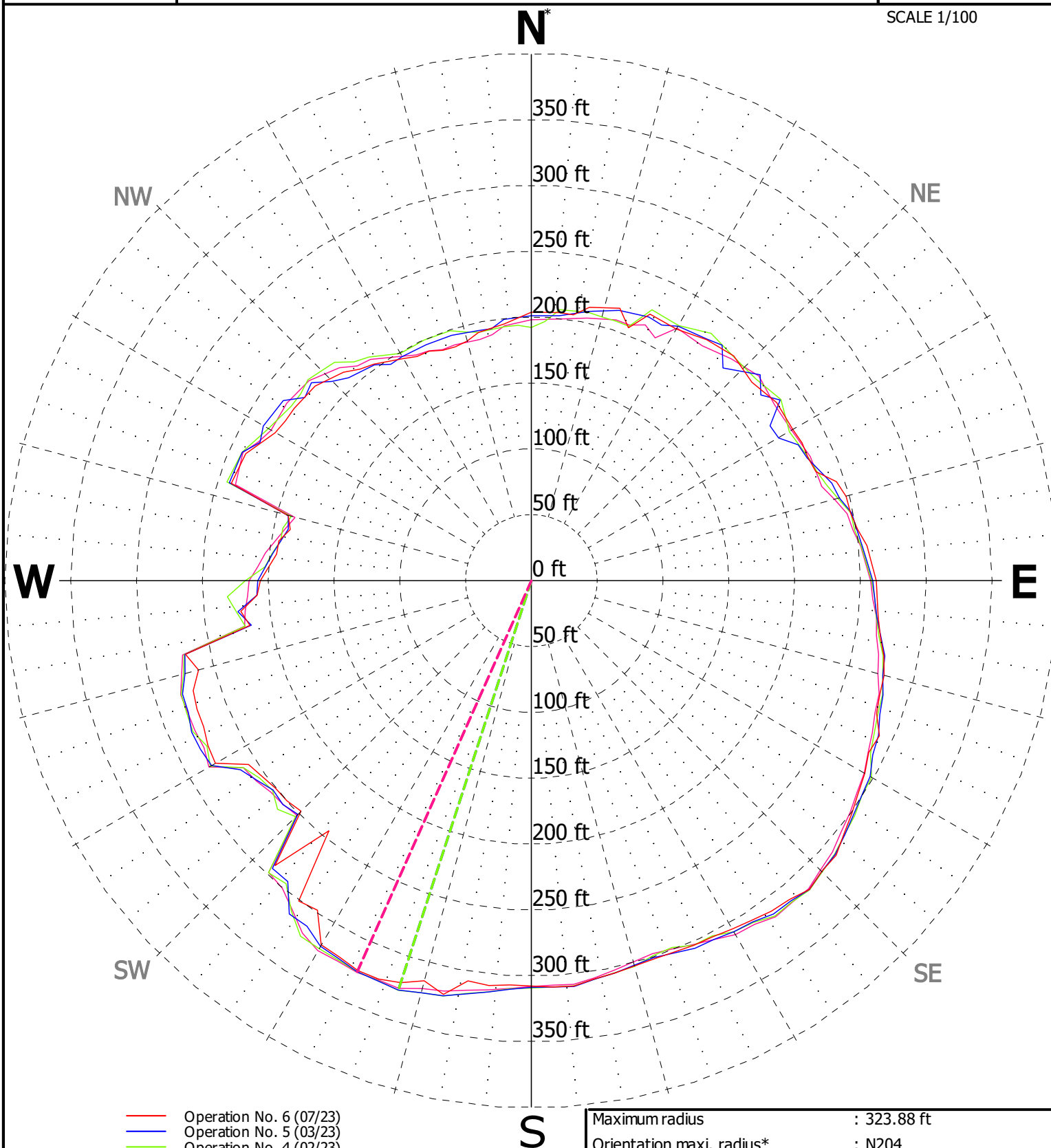
DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**MAXIMUM EXTENSION**

SCALE 1/100



- Operation No. 6 (07/23)
- Operation No. 5 (03/23)
- Operation No. 4 (02/23)
- Operation No. 3 (01/23)

Maximum radius	: 323.88 ft
Orientation maxi. radius*	: N204
Depth maxi. radius (MD)	: 3079.99 ft
Surface	: 205097.84 ft ²
Max distance between points	: 547.30 ft

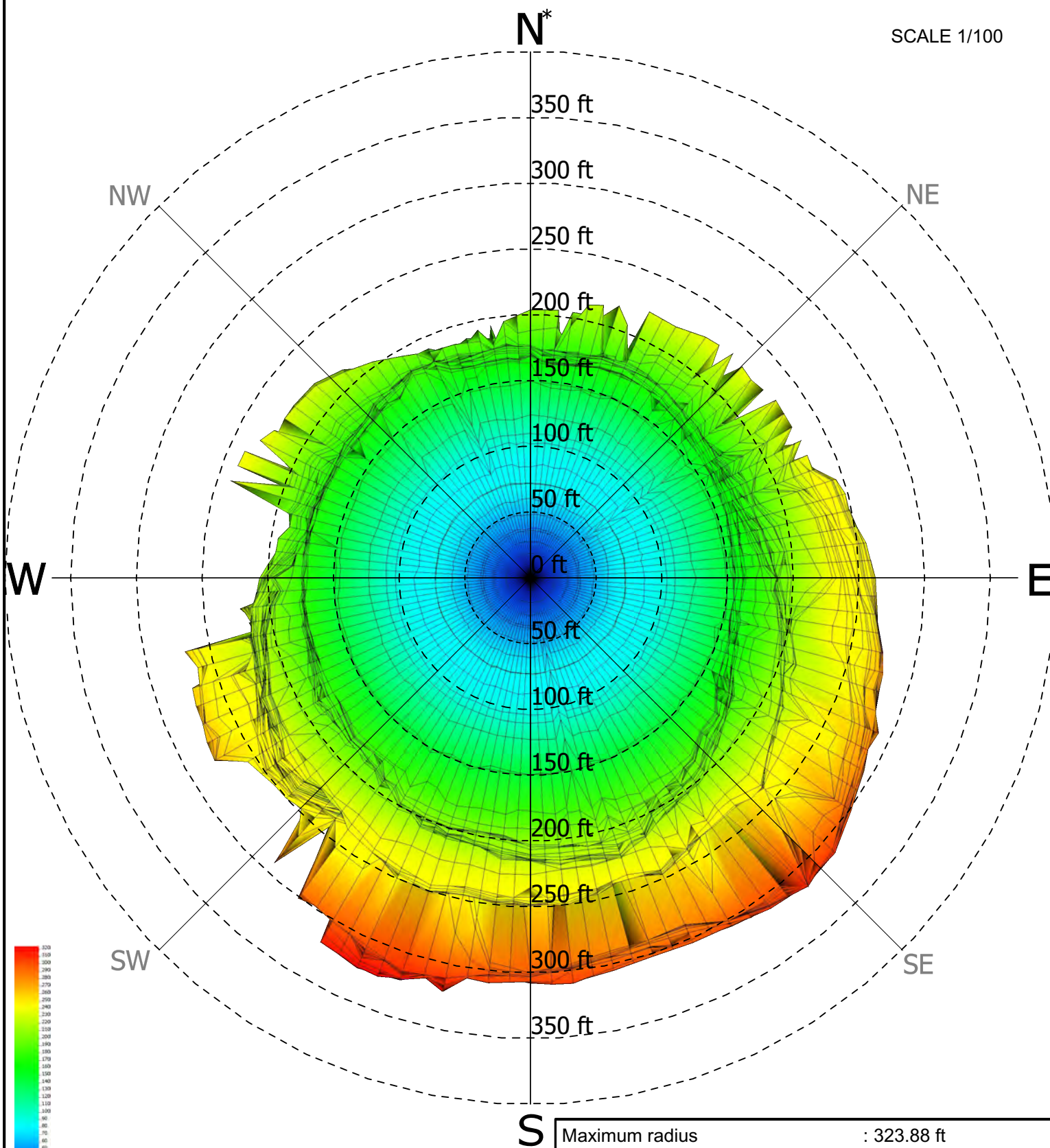
*All sections are oriented to Magnetic North.

Magnetic Declination= 0.7°



VIEW FROM ABOVE

SCALE 1/100



*All sections are oriented to Magnetic North.

Magnetic Declination= 0.7°

Maximum radius	: 323.88 ft
Orientation maxi. radius*	: N204
Depth maxi. radius	: 3079.99 ft
Surface	: 205097.84 ft²
Max distance between points	: 547.30 ft



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGE VS BEARING**

Bearing	0.0	3.0	6.0	9.0
0	176.9: 3030.07	173.9: 2560.07	174.0: 2570.14	174.0: 2580.03
12	175.1: 2580.03	174.4: 2560.07	178.7: 3035.03	180.1: 3035.03
24	182.0: 3035.03	182.9: 3035.03	195.4: 3040.04	195.0: 3040.04
36	195.1: 3040.04	183.9: 3035.03	183.6: 3035.03	180.7: 3035.03
48	178.4: 3035.03	174.8: 3040.04	173.3: 3040.04	177.3: 3040.04
60	183.7: 3035.03	185.0: 3035.03	216.0: 3054.97	219.9: 3054.97
72	236.4: 3074.88	240.1: 3074.88	246.7: 3085.06	248.1: 3085.06
84	250.2: 3085.06	253.8: 3085.06	258.1: 3085.06	258.7: 3085.06
96	261.6: 3079.99	265.7: 3079.99	271.3: 3085.06	274.4: 3085.06
108	278.2: 3079.99	280.7: 3085.06	285.1: 3074.88	287.3: 3085.06
120	291.4: 3085.06	295.6: 3085.06	300.7: 3085.06	305.4: 3085.06
132	311.1: 3070.01	311.9: 3085.06	314.9: 3054.97	312.2: 3065.16
144	313.2: 3059.86	307.3: 3059.86	305.2: 3085.06	299.4: 3079.99
156	300.7: 3079.99	299.6: 3079.99	299.3: 3079.99	300.5: 3079.99
168	302.4: 3079.99	305.4: 3079.99	309.4: 3079.99	307.4: 3079.99
180	307.6: 3085.06	307.2: 3079.99	308.9: 3079.99	307.5: 3079.99
192	310.4: 3054.97	314.4: 3070.01	320.8: 3079.99	321.9: 3079.99
204	323.9: 3079.99	320.7: 3079.99	318.3: 3079.99	301.5: 3065.16
216	300.5: 3065.16	250.5: 3054.97	242.6: 3050.15	246.2: 3045.03
228	252.0: 3045.03	250.9: 3045.03	251.1: 3040.04	254.7: 3045.03
240	279.6: 3050.15	277.2: 3059.86	276.5: 3059.86	275.0: 3059.86
252	274.3: 3059.86	270.5: 3059.86	267.6: 3059.86	216.3: 3014.97
264	220.7: 3014.97	208.4: 2989.97	205.8: 2989.97	199.7: 2989.97
276	194.5: 2989.97	190.5: 2989.97	195.1: 3005.01	191.0: 3005.01
288	188.8: 3009.94	188.6: 3009.94	196.6: 3014.97	193.2: 3014.97
300	190.4: 3014.97	188.4: 3014.97	187.0: 3014.97	185.6: 3014.97
312	187.6: 3020	185.9: 3020	184.6: 3020	182.6: 3020
324	181.1: 3020	180.1: 2630.18	181.7: 2599.99	180.7: 3025.02
336	180.6: 2590.01	179.4: 3025.02	178.9: 3025.02	176.8: 3025.02
348	178.9: 3030.07	178.8: 3030.07	179.3: 3030.07	177.8: 3030.07



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)**

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2501.1	0	0.60	0.60	0.62	0.60	0.62	0.63	0.60	0.61
2503.9	0	0.60	0.61	0.60	0.60	0.60	0.60	0.62	0.61
2506.0	0	0.60	0.60	0.60	0.61	0.60	0.60	0.60	0.60
2507.9	0	0.60	0.62	0.60	0.60	0.60	0.60	0.62	0.60
2510.1	0	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
2514.0	0	163.59	162.14	153.46	177.86	202.49	178.00	169.35	167.87
2516.1	0	168.53	159.13	154.01	178.97	203.86	178.82	171.54	168.70
2517.9	0	162.23	160.22	155.65	178.83	202.49	174.16	171.81	168.14
2520.0	0	164.42	162.26	154.41	179.27	202.49	175.93	174.00	170.06
2530.1	0	166.33	163.37	158.12	180.57	206.05	183.07	173.46	169.78
2539.9	0	169.07	165.12	161.13	185.46	208.79	185.66	173.73	172.67
2550.0	0	172.22	168.02	162.77	187.62	210.99	182.70	174.00	174.30
2560.1	0	174.84	168.67	162.78	189.03	213.74	181.16	172.65	174.98
2570.1	0	173.47	171.45	161.14	189.53	214.01	184.94	172.92	174.17
2580.0	0	172.37	169.92	162.51	193.59	214.29	183.90	173.74	176.92
2590.0	0	173.47	169.54	160.59	192.76	214.56	183.49	170.73	173.50
2600.0	0	172.17	169.63	159.96	189.68	214.16	183.98	169.79	171.78
2609.9	0	172.92	167.89	158.40	188.94	212.92	183.89	170.73	172.39
2614.9	0	171.00	167.48	159.77	186.25	214.01	185.40	169.63	171.03
2614.9	10	177.18	171.29	162.89	196.09	217.17	187.53	175.90	176.16
2614.9	15	178.90	172.98	166.89	196.93	220.17	190.41	178.09	181.00
2614.9	20	187.17	180.72	174.29	198.20	223.05	195.28	182.78	184.19
2614.9	25	187.17	181.75	178.13	199.81	223.88	201.56	190.73	190.37
2614.9	30	190.73	187.52	178.95	204.27	203.88	198.47	198.67	194.21
2614.9	35	182.78	179.03	181.14	177.57	179.21	177.56	175.58	177.72
2614.9	40	161.69	159.37	163.61	158.13	159.41	158.60	160.07	160.60
2614.9	45	143.61	144.19	146.07	142.82	146.20	145.42	144.55	143.09
2614.9	50	131.01	132.57	134.02	132.16	135.31	134.25	137.31	134.09
2614.9	55	124.70	127.17	126.40	126.70	125.74	124.86	125.08	126.27
2614.9	60	120.05	119.71	116.49	118.36	120.05	119.14	117.58	119.46
2614.9	65	113.20	113.58	113.20	113.69	115.12	113.44	114.02	111.39
2614.9	70	108.82	110.30	108.82	109.74	107.17	108.24	110.73	110.17
2614.9	75	105.80	105.38	107.72	104.97	107.99	105.52	106.62	106.19
2614.9	80	106.35	105.11	105.53	104.14	104.43	105.52	104.71	103.46
2614.9	85	102.24	104.15	103.61	102.24	103.61	103.74	103.34	102.65
2614.9	89	102.24	102.10	104.71	103.06	101.42	102.92	101.42	102.38
2620.0	0	170.14	169.14	158.14	194.19	213.42	184.02	171.90	172.03
2630.2	0	171.65	168.01	157.64	191.74	212.42	185.02	169.39	173.11



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)**

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2640.0	0	168.39	165.91	158.39	190.26	212.67	183.40	170.14	172.03
2649.8	0	170.14	166.90	157.39	188.89	213.17	183.90	169.14	171.28
2660.1	0	169.64	166.16	156.89	189.04	211.92	182.15	168.89	171.14
2670.0	0	169.14	165.03	156.14	187.12	210.67	182.15	170.14	170.03
2679.8	0	169.64	164.89	156.89	186.83	210.42	181.39	168.64	169.53
2690.0	0	167.14	164.01	157.39	186.44	210.42	178.03	165.13	171.41
2700.0	0	152.14	162.54	157.14	185.94	210.67	177.99	152.18	167.88
2710.0	0	135.13	149.49	157.39	176.81	194.16	171.28	140.63	150.66
2719.9	0	110.42	124.29	152.85	152.00	169.98	150.67	135.36	129.19
2730.0	0	90.15	110.14	140.95	129.45	156.17	130.85	109.67	110.69
2739.7	0	74.89	87.60	131.16	112.77	140.46	101.00	96.48	84.49
2750.0	0	67.63	67.09	73.14	90.60	123.69	94.40	72.64	60.95
2760.0	0	54.87	60.49	69.38	76.19	107.64	92.13	63.88	43.55
2770.0	0	59.62	57.52	66.38	65.65	90.91	84.41	63.63	43.51
2780.0	0	61.13	55.79	64.88	63.76	80.15	84.86	60.37	48.79
2790.1	0	59.87	53.79	68.38	70.38	80.65	86.14	64.83	56.90
2800.0	0	59.38	54.16	64.38	67.17	87.41	89.19	66.39	55.54
2810.1	0	59.13	53.29	63.88	67.17	85.66	90.26	63.88	54.53
2819.9	0	58.38	53.66	64.89	66.93	88.17	90.49	66.64	54.54
2825.0	0	59.63	53.80	63.64	67.05	87.92	91.67	66.39	52.92
2829.9	0	63.89	58.26	64.14	68.30	87.17	92.04	68.14	53.42
2835.1	0	90.67	68.92	71.77	67.30	86.42	92.66	68.39	60.46
2840.0	0	98.18	78.62	81.12	118.49	86.42	92.15	72.38	160.62
2845.0	0	104.94	86.77	91.37	128.31	88.67	95.28	183.79	159.03
2849.9	0	152.77	151.30	180.05	144.23	150.80	225.55	186.08	160.30
2855.0	0	151.75	151.49	184.83	233.76	247.72	229.67	186.32	162.85
2860.0	0	152.95	152.13	184.54	232.94	248.91	226.59	185.43	163.29
2870.0	0	151.47	153.77	186.64	230.59	247.74	226.49	180.68	161.68
2879.9	0	150.58	154.97	185.45	225.42	247.45	222.96	180.38	157.49
2890.1	0	142.53	153.49	185.75	216.00	238.78	221.59	171.44	154.00
2900.1	-65	165.82	169.74	226.18	249.80	226.18	205.22	192.98	159.90
2900.1	-60	161.65	166.80	237.59	266.37	254.54	222.81	192.63	160.18
2900.1	-55	278.05	243.69	236.55	279.82	255.40	236.42	189.52	152.44
2900.1	-50	282.55	250.99	252.90	300.61	293.27	241.62	190.90	199.26
2900.1	-45	287.68	277.22	292.52	322.28	317.59	242.25	185.75	279.02
2900.1	-40	244.89	296.03	300.33	339.48	321.66	245.19	185.76	282.26
2900.1	-35	235.62	192.63	319.02	252.41	352.55	253.70	190.62	261.32
2900.1	-25	137.23	171.21	197.68	184.01	204.74	267.71	229.44	162.40



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)**

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2900.1	-20	130.61	165.63	196.35	185.46	206.06	253.07	214.88	141.66
2900.1	0	140.48	155.17	186.99	212.02	231.30	224.84	166.71	148.46
2910.2	0	133.62	153.82	184.01	210.20	228.43	225.04	171.48	146.34
2919.8	10	141.07	157.26	188.18	216.51	248.90	223.71	174.46	149.58
2919.8	15	145.84	162.33	192.65	240.58	254.66	231.86	188.18	159.77
2919.8	20	164.03	160.82	194.14	245.04	260.63	238.72	196.82	174.55
2919.8	25	167.01	167.10	194.44	194.67	169.69	199.72	200.10	178.58
2919.8	30	172.08	159.48	161.27	154.63	158.07	164.15	175.63	171.30
2919.8	35	149.12	140.69	146.54	147.16	134.51	144.58	148.53	147.75
2919.8	40	130.94	121.30	123.78	133.66	122.83	121.89	131.83	136.73
2919.8	45	124.97	116.40	117.81	120.71	126.07	129.10	117.22	126.88
2919.8	50	120.68	114.17	114.54	114.03	132.43	138.45	111.26	118.19
2919.8	55	113.94	110.31	109.17	117.15	151.93	152.84	115.14	107.48
2919.8	60	114.57	109.71	131.45	130.68	157.47	167.30	126.47	108.16
2919.8	65	140.43	127.56	153.72	151.59	165.22	184.69	148.83	130.16
2919.8	70	162.57	247.99	179.07	164.80	435.21	433.43	172.00	150.70
2919.8	75	423.48	421.97	424.46	423.20	423.48	421.48	421.16	162.78
2919.8	80	415.17	413.19	412.72	412.22	413.21	413.68	414.68	412.89
2919.8	85	408.81	409.29	408.81	409.54	410.28	409.05	409.30	409.78
2920.0	0	136.30	154.71	185.79	207.37	226.04	223.97	176.25	138.41
2929.9	0	132.13	157.41	184.90	208.43	220.97	228.40	175.96	136.84
2940.2	0	131.53	154.35	185.79	190.01	220.68	227.41	178.94	125.10
2950.0	0	121.71	154.88	184.32	181.06	200.43	230.84	187.15	128.16
2960.1	0	123.80	153.11	180.15	178.35	195.06	225.80	199.23	137.16
2970.0	0	123.50	156.30	181.64	173.21	191.18	233.66	199.23	142.42
2980.2	0	133.34	153.40	181.34	173.02	194.16	233.07	201.92	151.13
2990.0	0	141.89	152.36	180.75	172.16	189.66	232.63	205.79	157.50
3000.1	0	148.56	153.71	180.76	170.67	188.52	236.70	176.59	170.07
3005.0	0	157.50	154.15	181.95	169.27	184.64	237.80	166.75	171.14
3009.9	0	156.91	156.23	182.55	170.80	185.23	237.48	158.10	177.83
3015.0	0	162.73	155.49	184.34	169.42	182.25	237.91	159.59	182.95
3020.0	0	166.69	157.86	184.04	172.39	181.06	237.30	157.71	185.87
3025.0	0	171.00	165.06	184.94	172.74	182.85	238.40	144.38	89.93
3030.1	0	176.89	168.89	198.36	225.08	186.13	238.08	136.93	81.97
3035.0	0	74.00	180.69	195.97	228.28	190.90	241.92	139.01	81.95
3040.0	0	72.82	100.00	197.94	227.79	190.90	244.60	130.96	80.62
3045.0	0	74.36	74.47	235.63	228.96	195.37	246.21	129.47	70.30
3050.0	-87	49.88	49.25	48.96	47.66	46.60	46.60	47.67	48.84



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)**

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
3050.0	-84	50.68	47.40	49.31	47.51	47.67	45.85	47.35	48.53
3050.0	-81	52.40	46.81	48.85	47.51	47.56	45.20	45.52	50.35
3050.0	-78	52.40	47.13	49.07	46.65	47.56	44.99	43.38	50.34
3050.0	-75	52.50	46.69	49.20	46.84	46.81	45.93	43.16	50.08
3050.0	-72	52.61	48.97	49.18	48.33	47.99	45.07	44.13	50.46
3050.0	-69	54.87	49.54	47.35	50.19	48.12	47.87	44.02	51.68
3050.0	-66	55.62	49.72	48.10	50.33	47.89	49.59	44.13	51.40
3050.0	-63	48.85	52.05	49.80	57.01	51.54	51.66	45.10	51.23
3050.0	-60	47.56	56.63	50.03	62.65	52.50	50.70	47.56	49.43
3050.0	-57	47.56	61.43	50.25	65.63	55.73	51.78	49.18	49.04
3050.0	-54	48.64	63.06	52.65	66.97	60.28	54.09	49.60	49.35
3050.0	-51	49.28	64.27	54.22	68.45	62.06	54.78	52.72	49.30
3050.0	-48	49.71	64.92	63.24	71.80	66.57	55.95	58.73	50.48
3050.0	-45	50.89	66.52	70.76	76.73	67.97	59.17	61.31	50.75
3050.0	-42	53.79	66.68	75.28	85.07	70.62	59.60	64.80	50.42
3050.0	-39	53.74	62.48	82.34	103.91	75.65	61.71	67.33	50.63
3050.0	-36	55.57	62.06	85.59	130.39	84.29	63.82	66.32	50.86
3050.0	-33	55.77	64.68	106.07	147.00	98.22	67.37	67.68	51.24
3050.0	-30	56.38	62.87	109.11	161.27	106.48	71.82	69.77	51.55
3050.0	-27	56.38	61.99	127.36	177.06	147.65	77.66	77.27	54.48
3050.0	-24	57.12	68.83	134.91	186.40	150.82	81.72	74.66	53.77
3050.0	-21	58.46	61.16	136.60	225.27	195.10	92.69	82.32	56.69
3050.0	-18	60.36	64.64	142.86	246.73	236.51	139.45	85.60	58.34
3050.0	-15	58.30	68.87	147.07	264.75	249.13	144.89	88.90	59.47
3050.0	-12	66.40	67.79	177.55	276.82	281.09	161.78	97.24	58.42
3050.0	-9	63.55	68.08	257.87	305.01	310.62	165.13	98.82	57.01
3050.0	-6	65.75	68.04	260.62	312.75	311.02	168.07	106.30	60.78
3050.0	-3	65.35	64.89	251.57	309.80	309.23	179.51	106.30	63.68
3050.2	0	69.94	68.95	240.50	310.12	300.36	232.27	130.13	62.97
3055.0	0	66.48	73.14	241.54	310.79	300.70	202.66	109.04	64.57
3059.9	0	67.09	67.25	238.78	306.65	300.70	212.35	106.96	58.39
3065.2	0	60.25	66.22	245.00	308.73	301.05	185.43	108.34	57.43
3070.0	0	58.87	66.52	250.19	310.48	298.97	182.18	109.04	56.69
3074.9	0	53.45	65.24	254.69	309.26	300.70	178.15	88.28	51.00
3079.9	3	51.61	65.30	254.37	311.87	301.05	175.98	85.16	48.23
3079.9	6	53.09	64.04	247.77	312.36	304.51	191.24	107.31	52.41
3079.9	9	58.62	66.65	240.36	234.03	303.13	250.30	105.80	53.43
3079.9	12	59.72	69.91	206.25	232.43	203.49	247.78	111.11	56.49



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)**

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
3079.9	15	50.14	70.69	204.87	223.56	193.45	247.52	107.65	62.07
3079.9	18	63.41	68.57	196.86	201.10	192.76	249.00	109.04	61.17
3079.9	21	80.32	72.70	194.14	183.60	199.07	254.13	150.90	66.34
3079.9	24	76.86	75.42	199.33	188.33	201.06	256.17	154.10	65.15
3079.9	27	76.68	73.20	200.72	191.79	211.61	265.36	196.22	73.30
3079.9	30	79.63	177.87	208.29	199.64	221.48	262.80	232.20	79.95
3079.9	33	87.24	184.87	214.90	206.18	234.97	270.97	233.24	84.45
3079.9	36	168.20	191.03	227.83	225.03	284.79	277.39	237.39	182.89
3079.9	39	168.20	194.67	239.62	268.55	294.13	284.96	237.39	184.29
3079.9	42	168.20	206.06	252.61	281.81	333.92	293.44	235.32	182.39
3079.9	45	168.95	215.42	264.28	328.36	342.17	319.19	244.14	185.34
3079.9	48	185.84	228.82	272.88	330.35	335.87	328.95	256.74	186.88
3079.9	51	216.46	239.68	290.60	314.64	315.88	318.17	294.14	220.28
3079.9	55	266.38	263.40	297.69	298.73	298.47	296.76	302.41	281.61
3079.9	60	286.27	278.87	282.73	272.19	276.03	282.41	289.42	285.17
3079.9	65	265.40	261.99	266.38	268.29	262.25	266.07	268.55	271.24
3080.0	0	51.24	56.27	252.61	309.44	306.35	172.31	83.09	44.72
3085.1	0	39.15	50.61	258.15	311.86	307.62	158.29	80.32	38.89



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

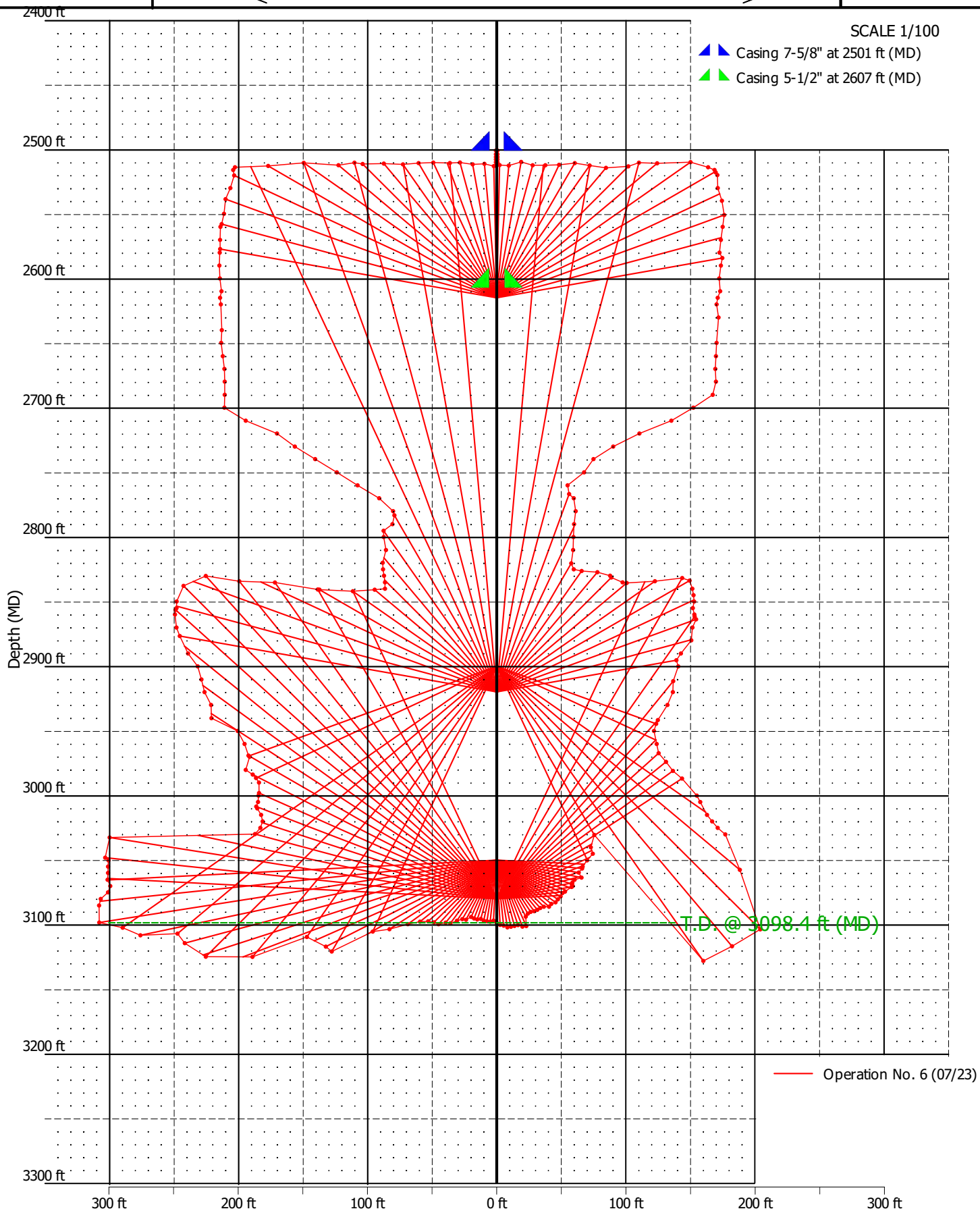
CAVERN : PPG No. 007B

OPERATION No. : 6



TILOED SECTIONS POSITION

← N180 1 N0 →





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

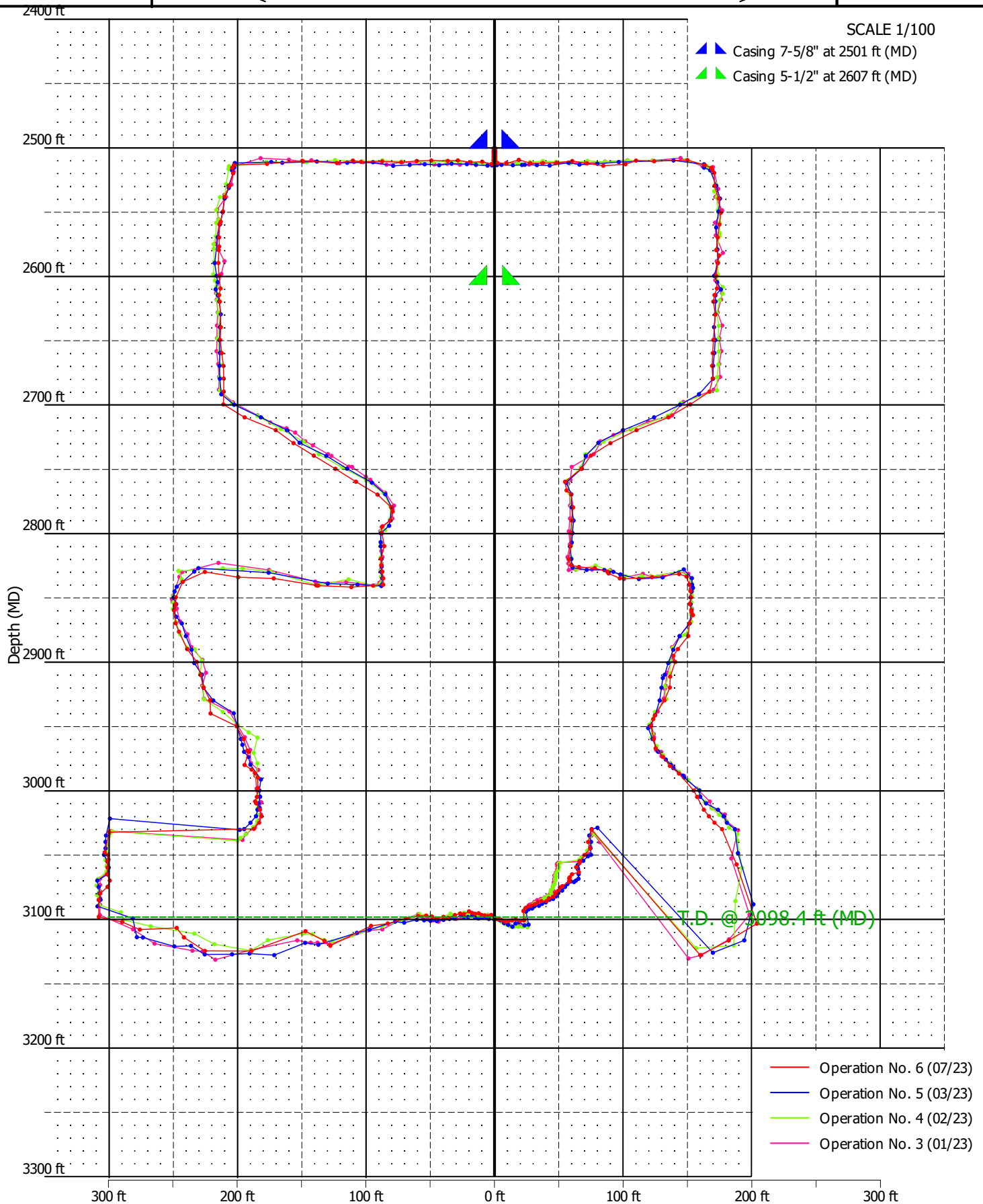
OPERATION No. : 6

**VERTICAL SECTION**

← N180

1

→ N0 →





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

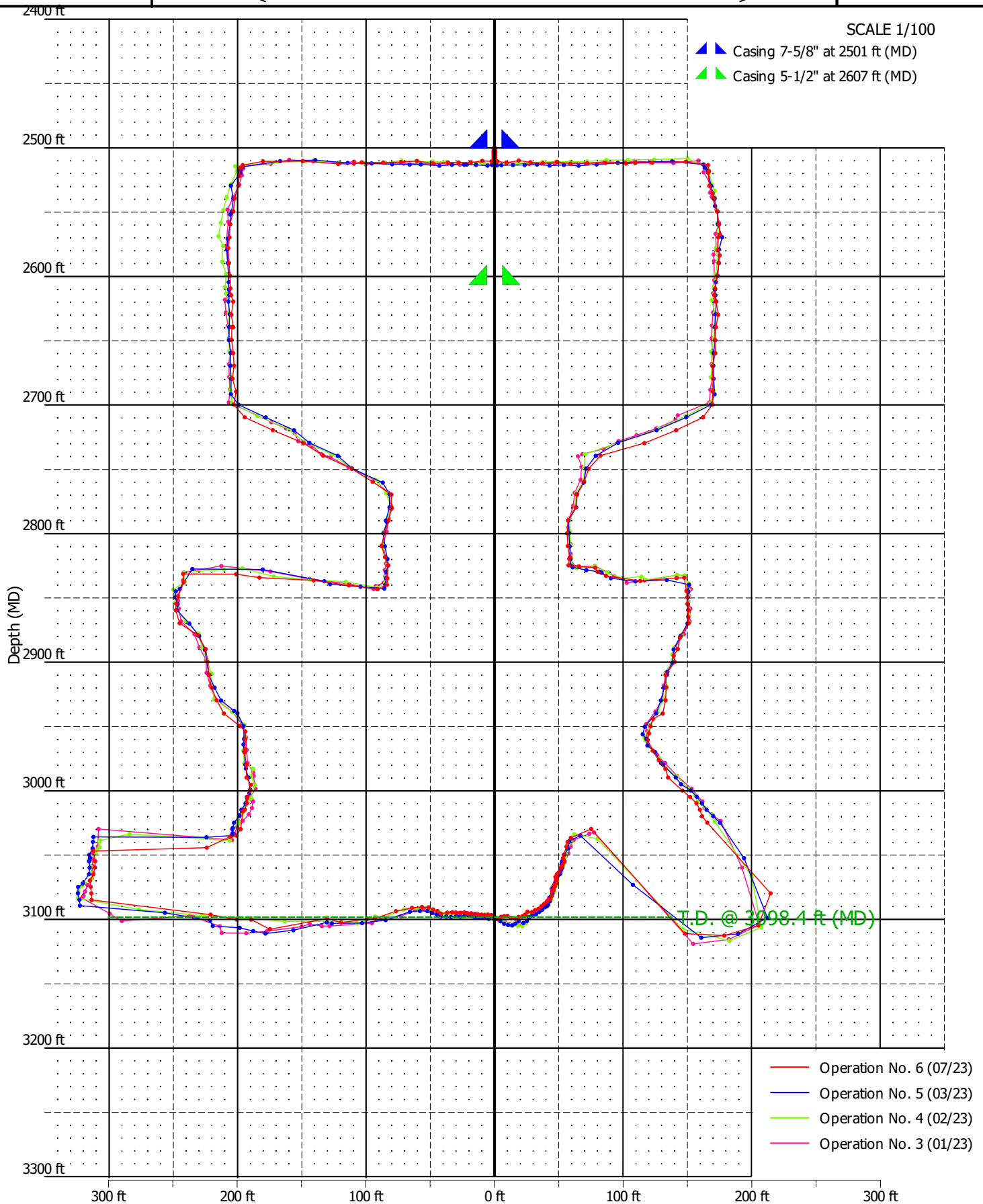
OPERATION No. : 6

**VERTICAL SECTION**

← N195

2

N15 →





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

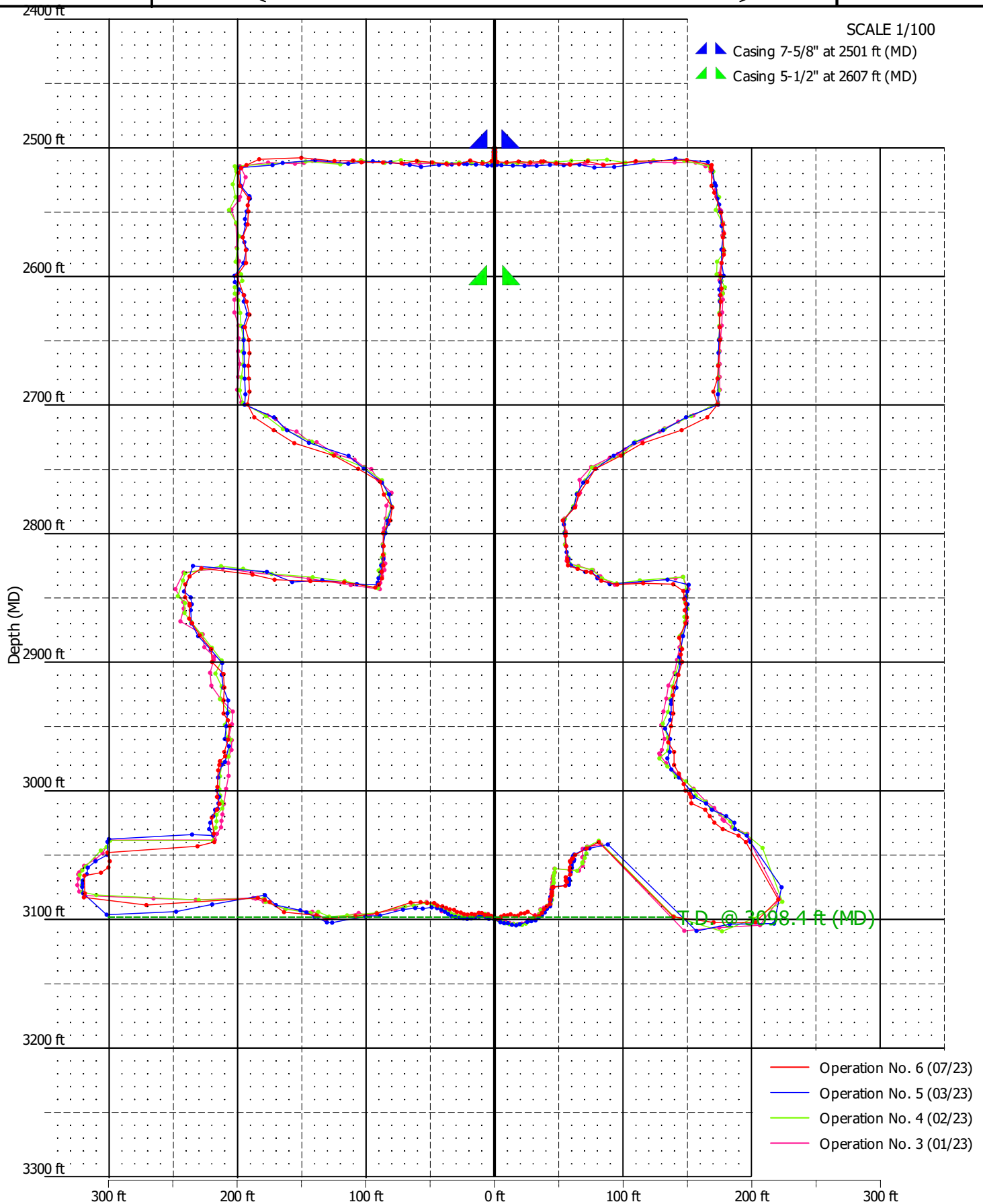
OPERATION No. : 6

**VERTICAL SECTION**

← N210

3

N30 →





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

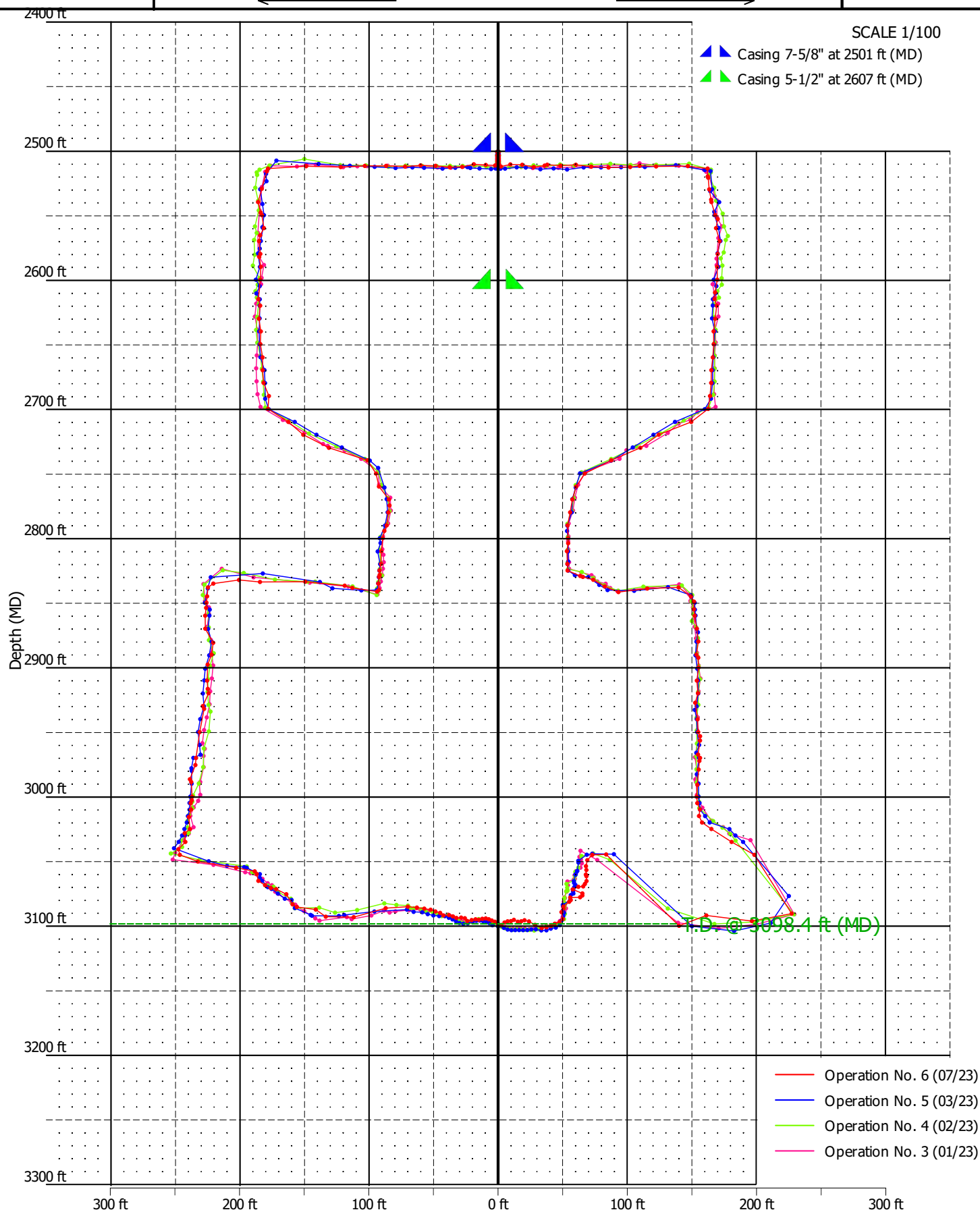
OPERATION No. : 6

**VERTICAL SECTION**

← N225

4

N45 →





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**VERTICAL SECTION**

← N240

5

N60 →





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

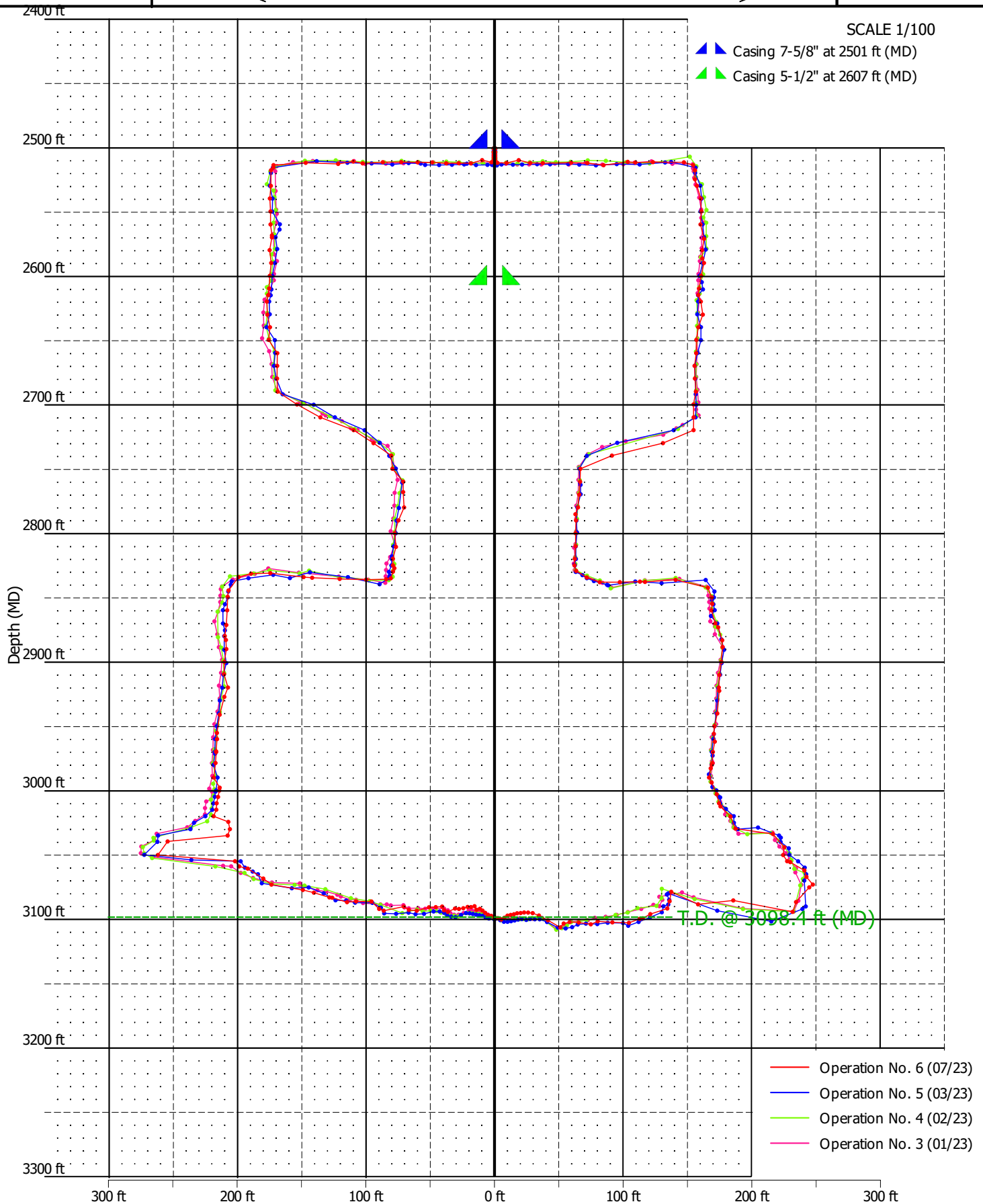
OPERATION No. : 6

**VERTICAL SECTION**

← N255

6

N75 →





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

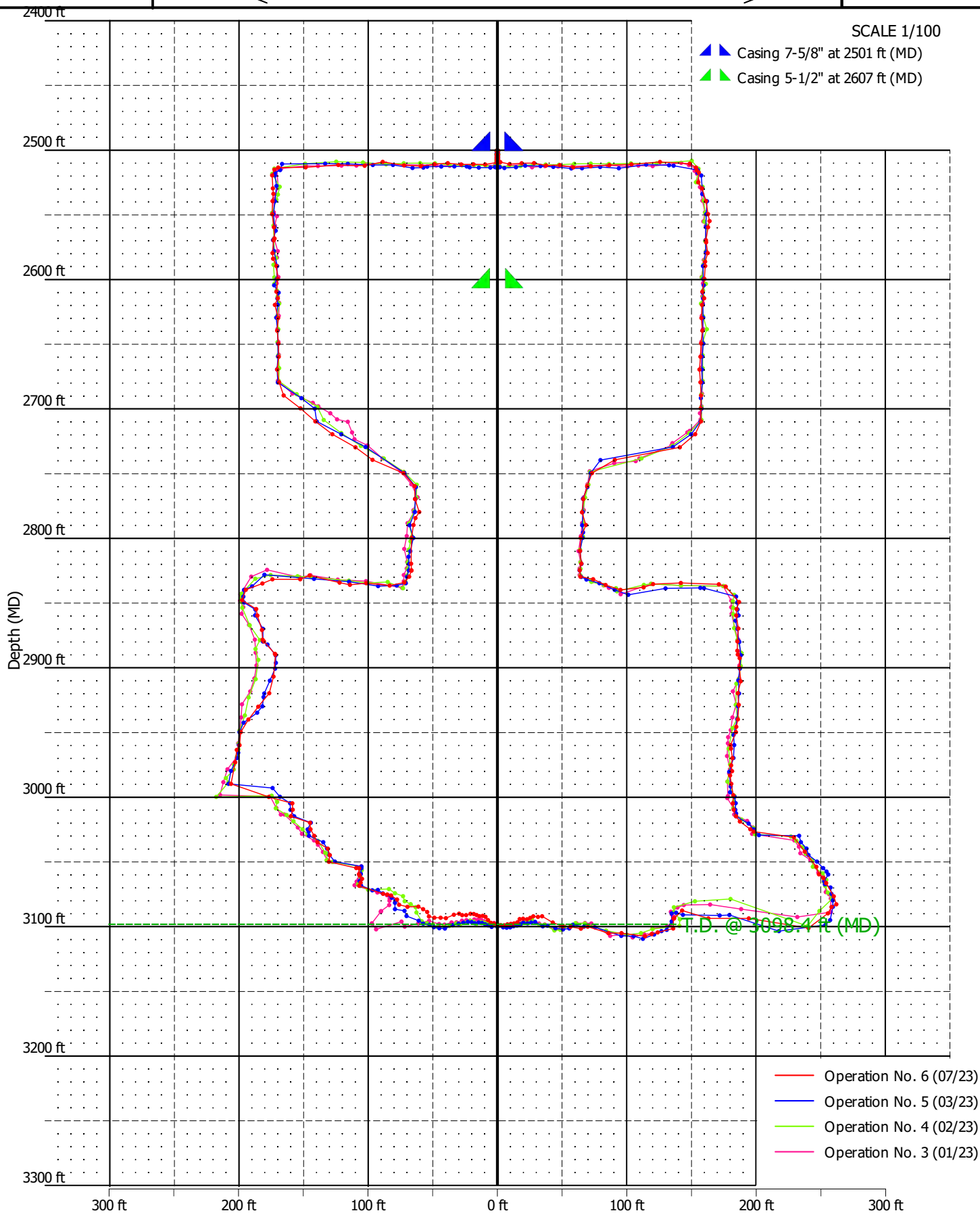
OPERATION No. : 6

**VERTICAL SECTION**

← N270

7

N90 →





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

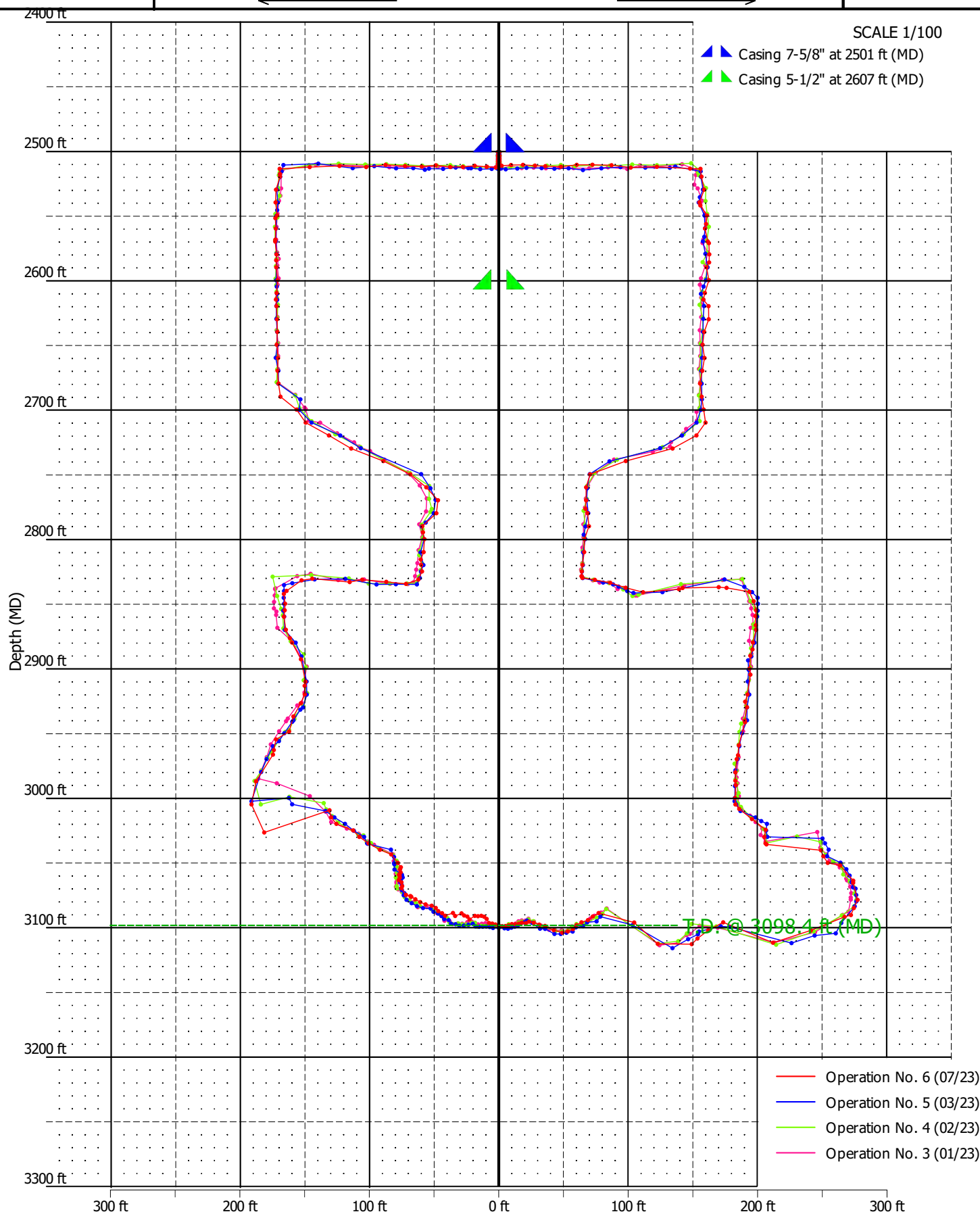
OPERATION No. : 6

**VERTICAL SECTION**

← N285

8

N105 →





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

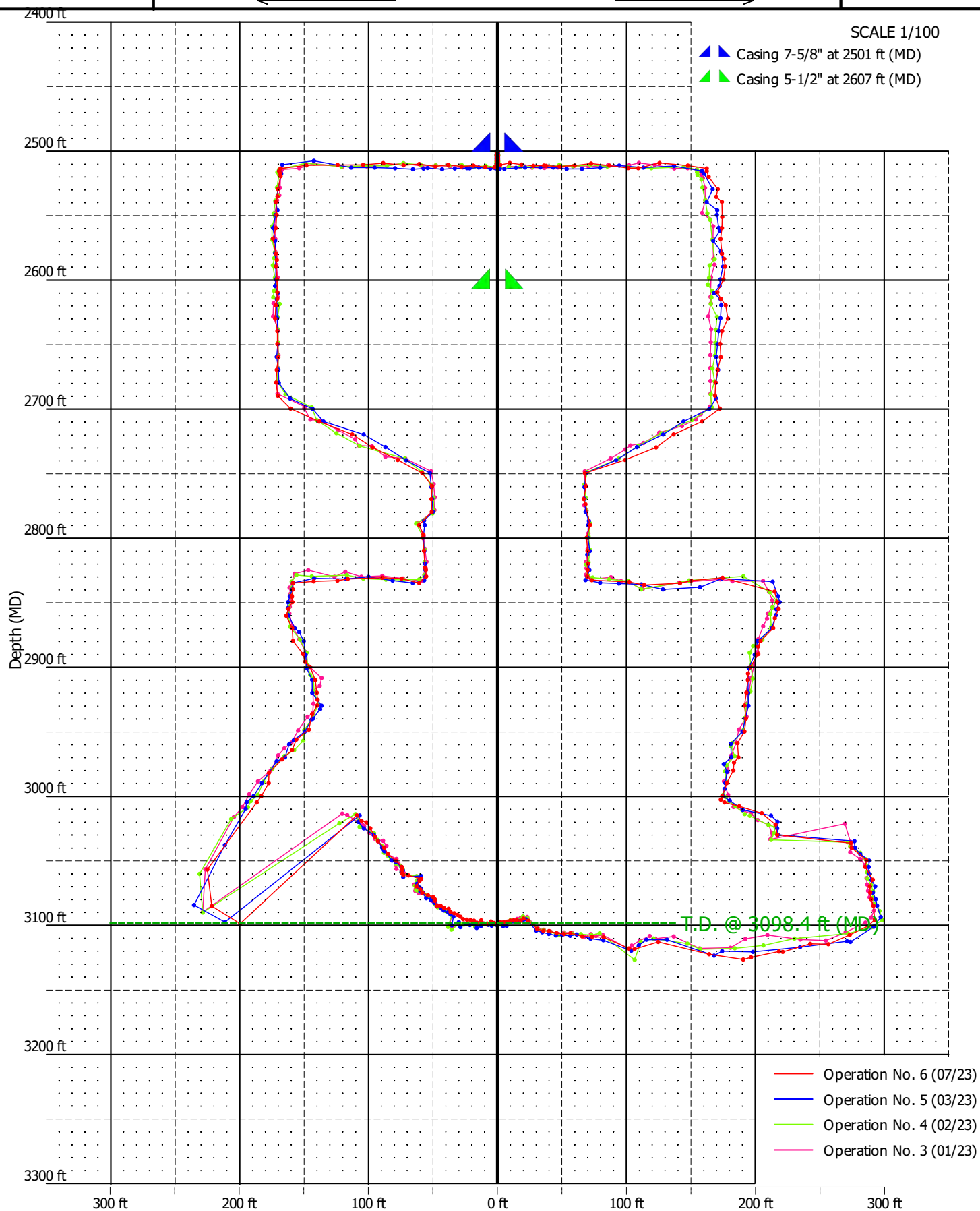
OPERATION No. : 6

**VERTICAL SECTION**

N300

9

N120





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

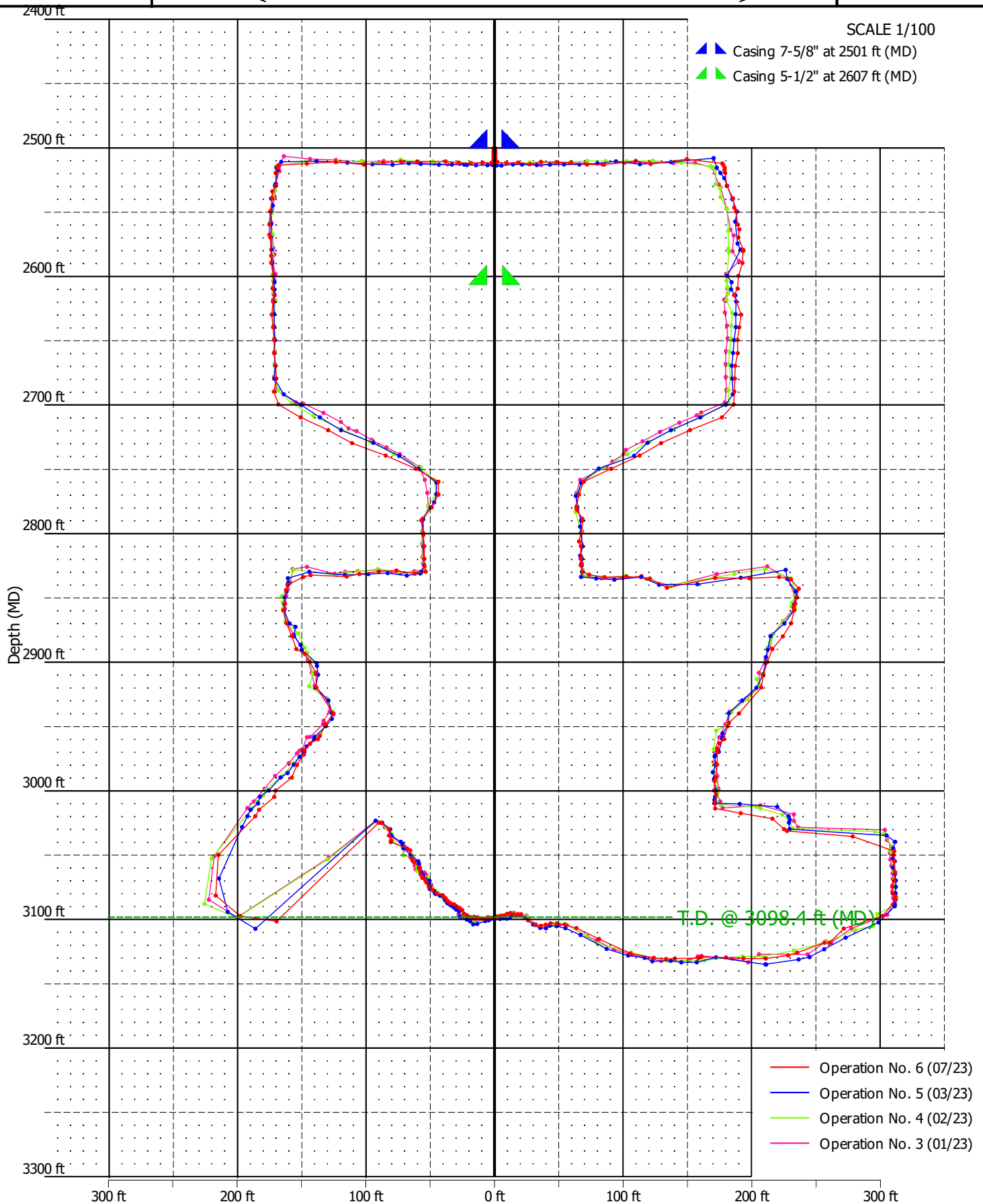


VERTICAL SECTION

10

← N315

N135 →





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

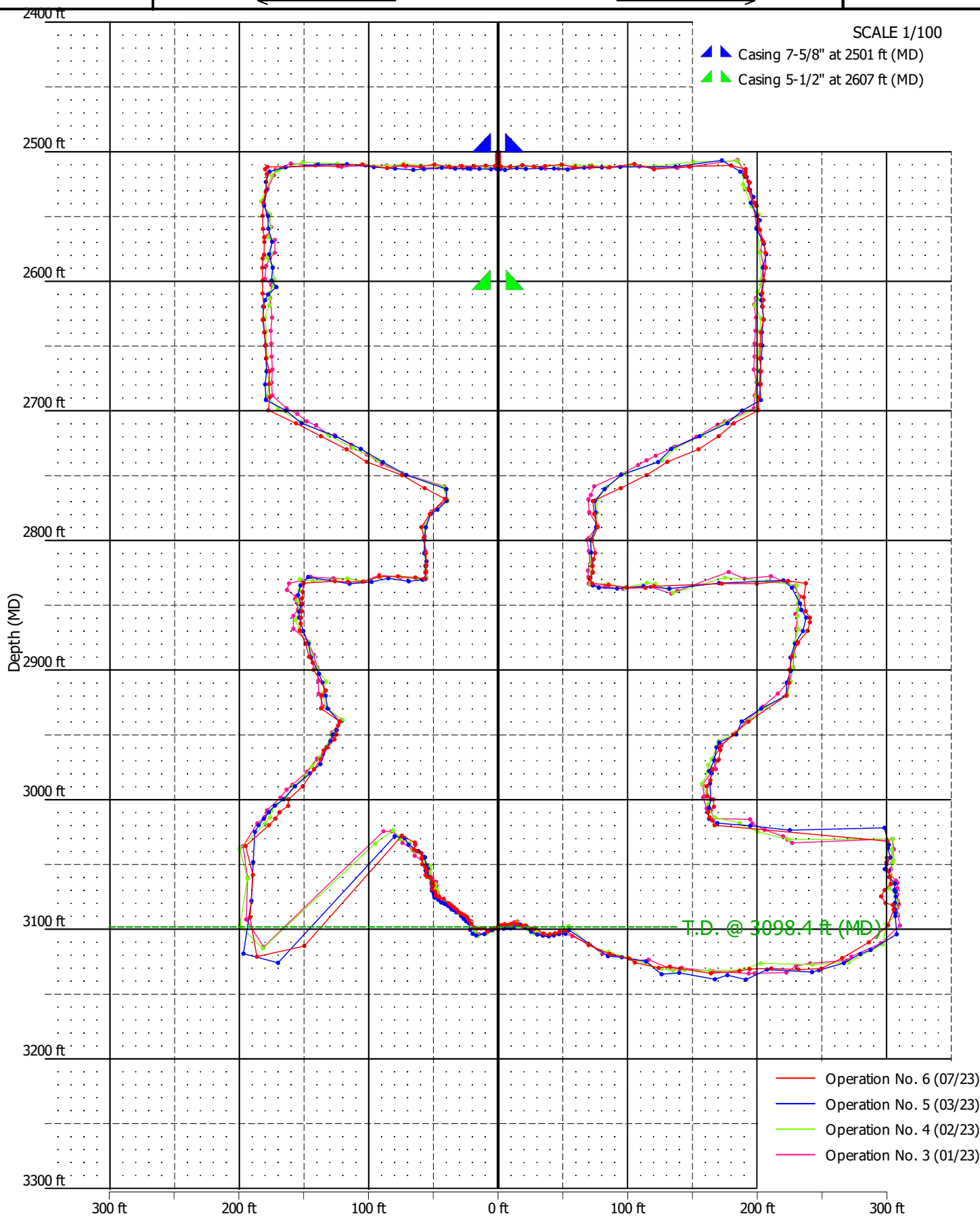
CAVERN : PPG No. 007B

OPERATION No. : 6

**VERTICAL SECTION****11**

← N330

N150 →





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

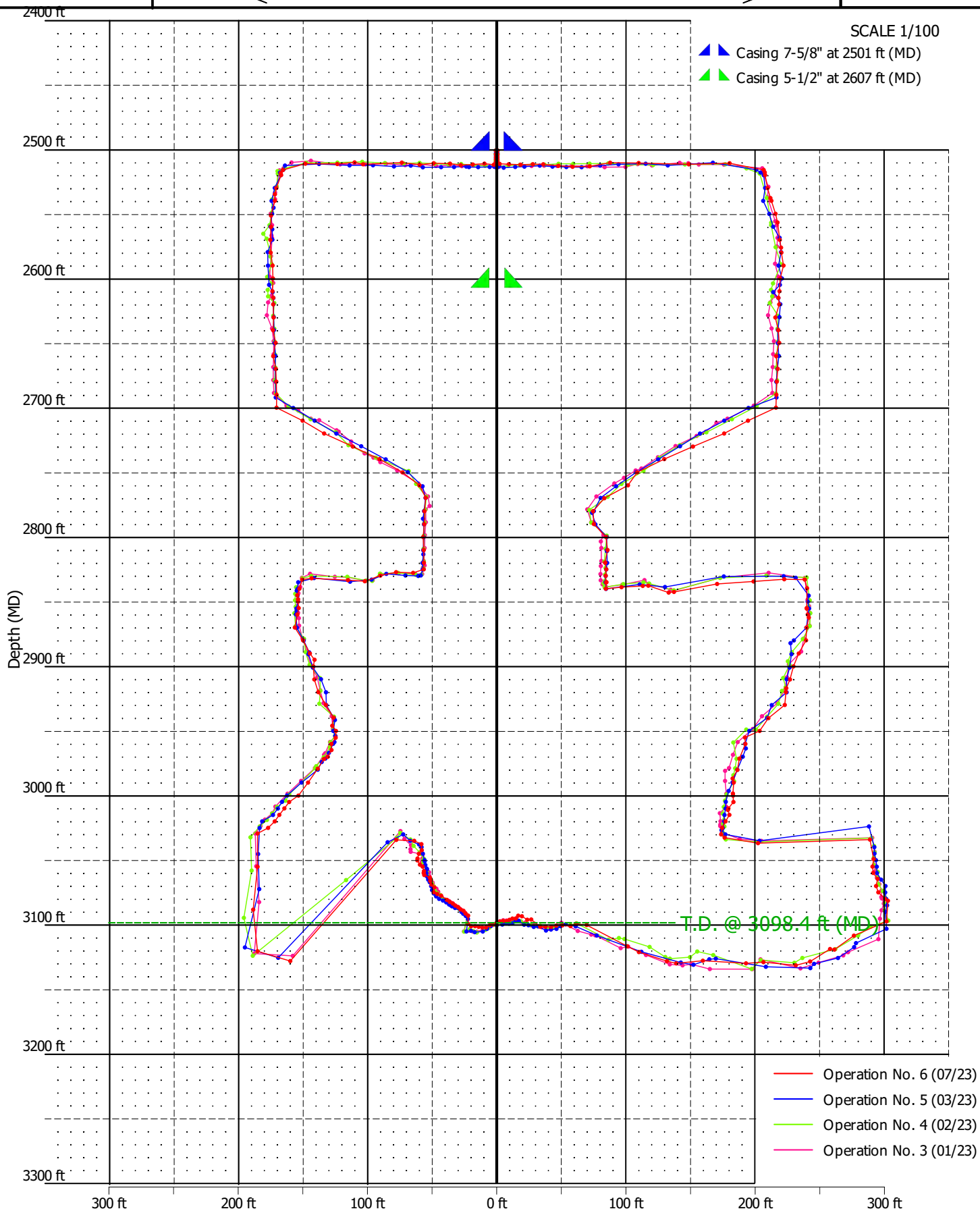
OPERATION No. : 6

**VERTICAL SECTION**

← N345

12

N165 →





CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

CAVERN : PPG No. 007B
OPERATION No. : 6



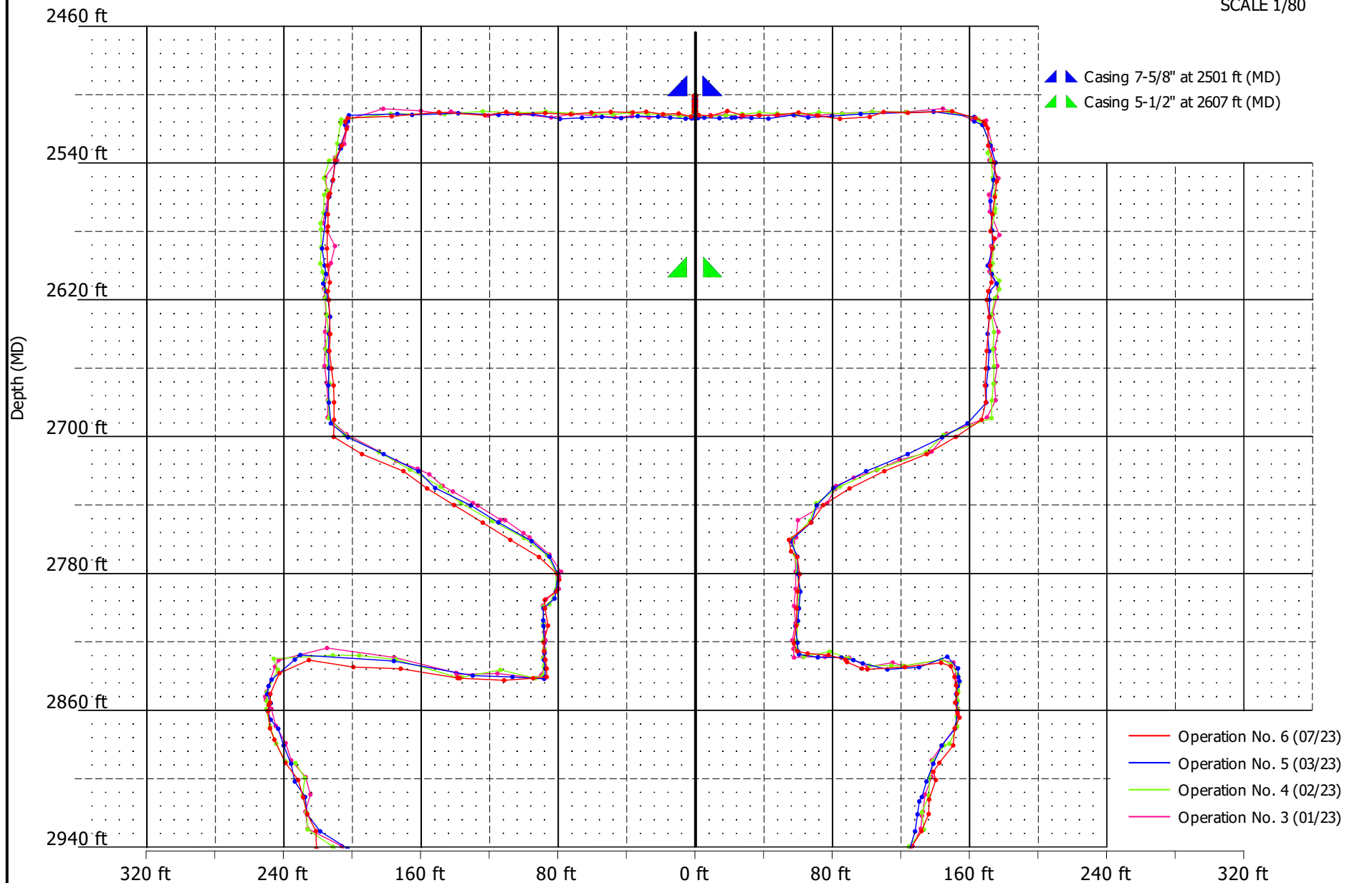
VERTICAL SECTION

← N180

1

N0 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

CAVERN : PPG No. 007B
OPERATION No. : 6



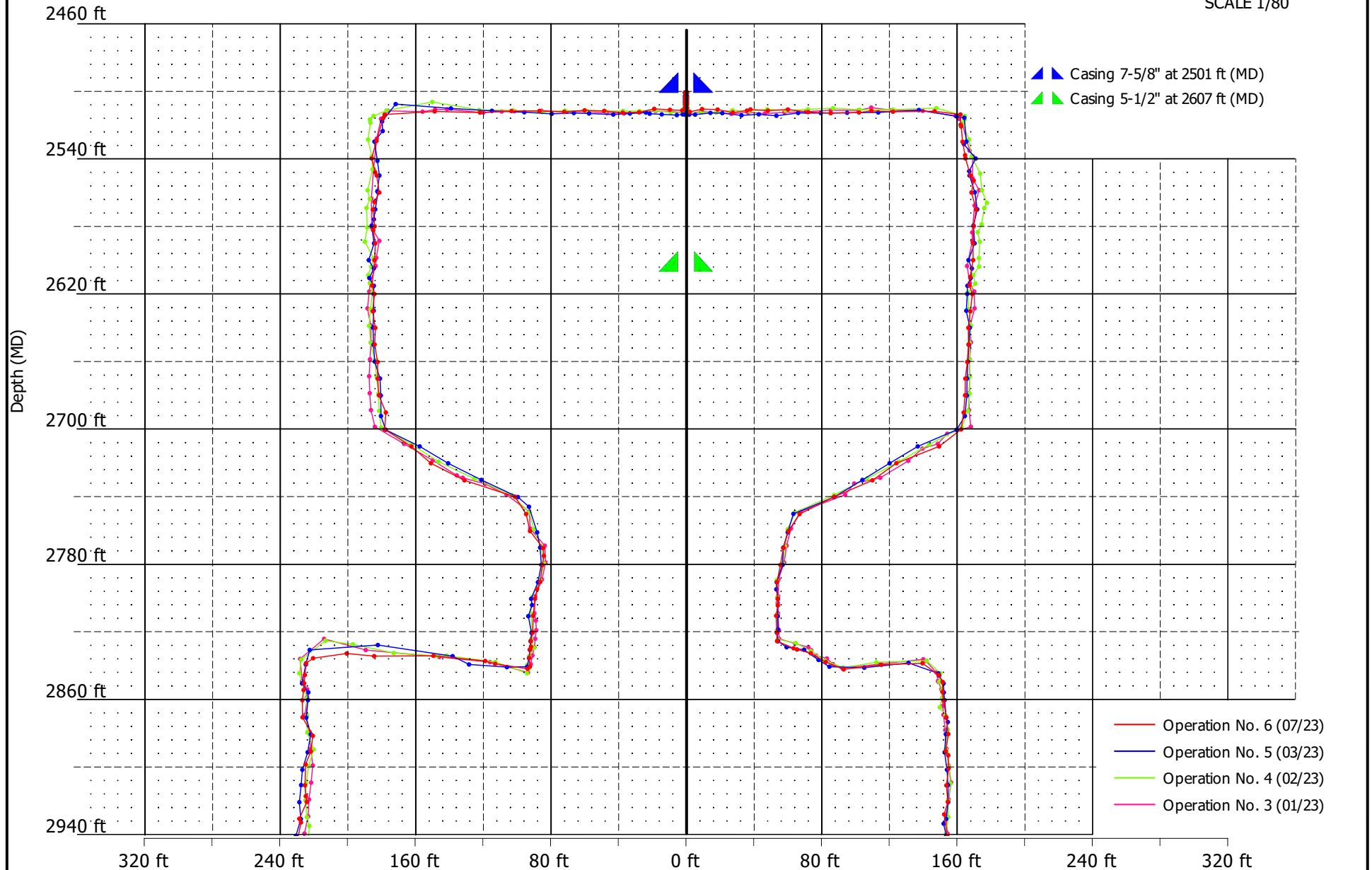
VERTICAL SECTION

← N225

2

N45 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

CAVERN : PPG No. 007B
OPERATION No. : 6



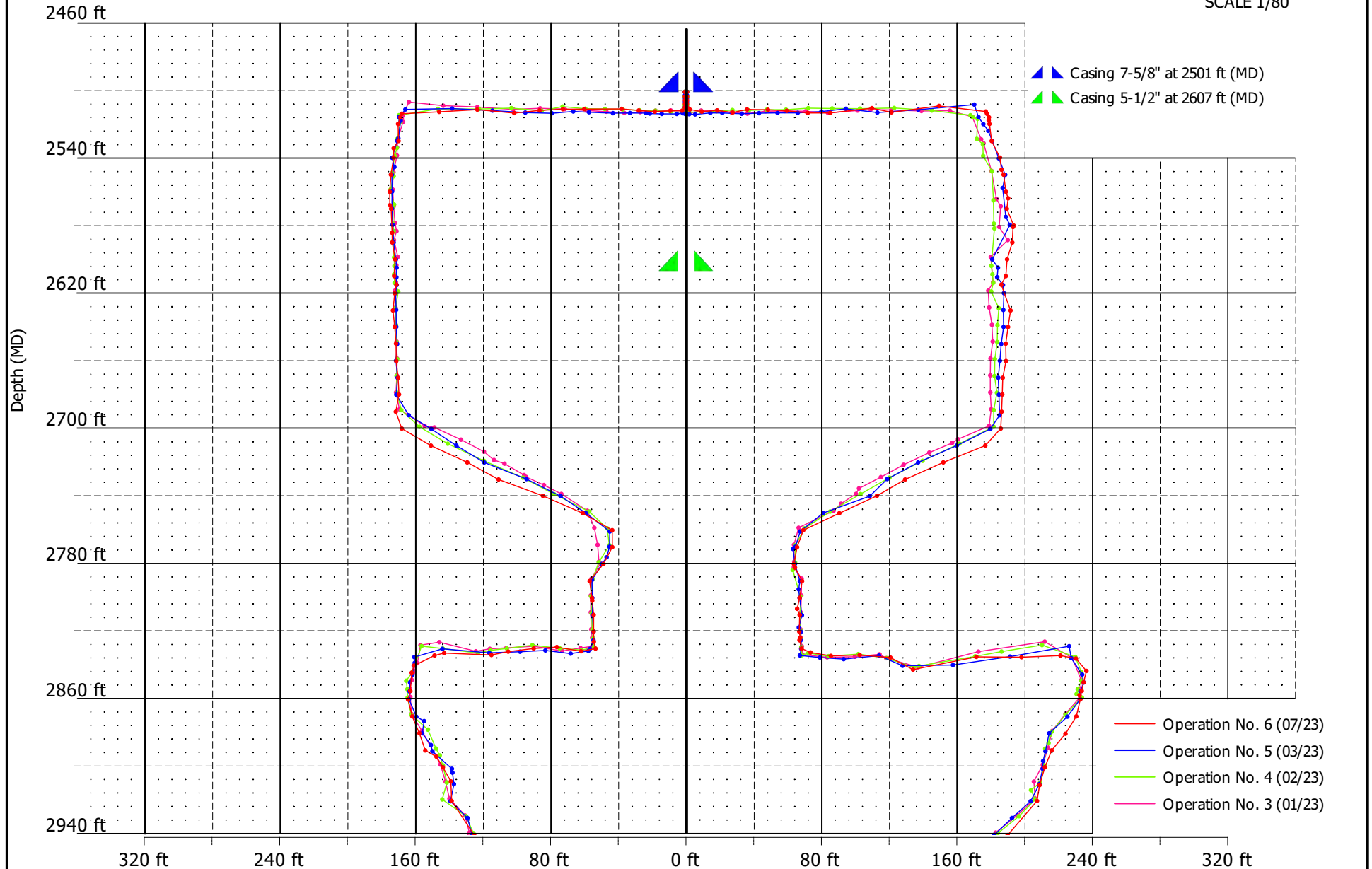
VERTICAL SECTION

← N315

4

N135 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

CAVERN : PPG No. 007B
OPERATION No. : 6



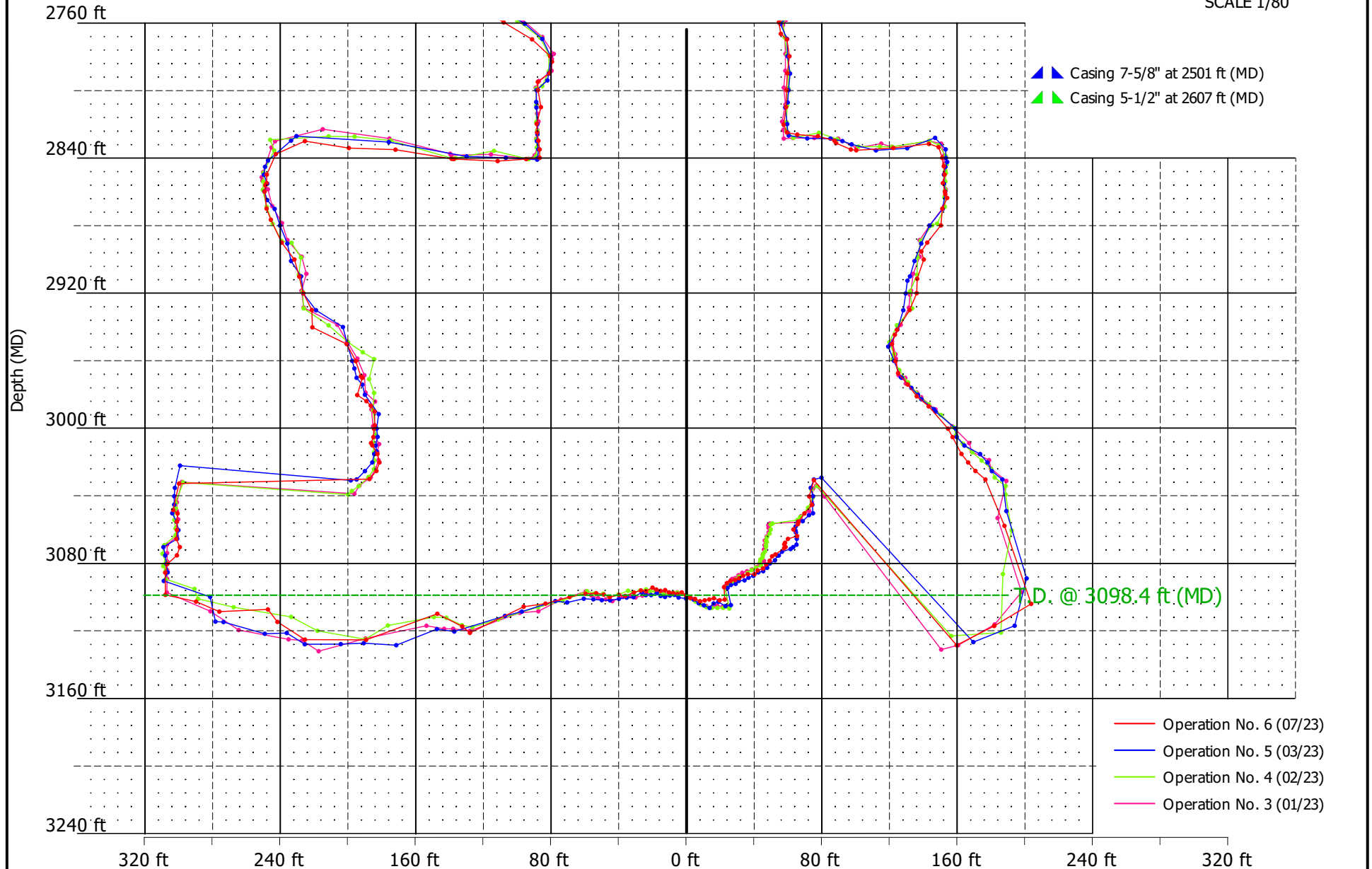
VERTICAL SECTION

← N180

1

N0 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

CAVERN : PPG No. 007B
OPERATION No. : 6



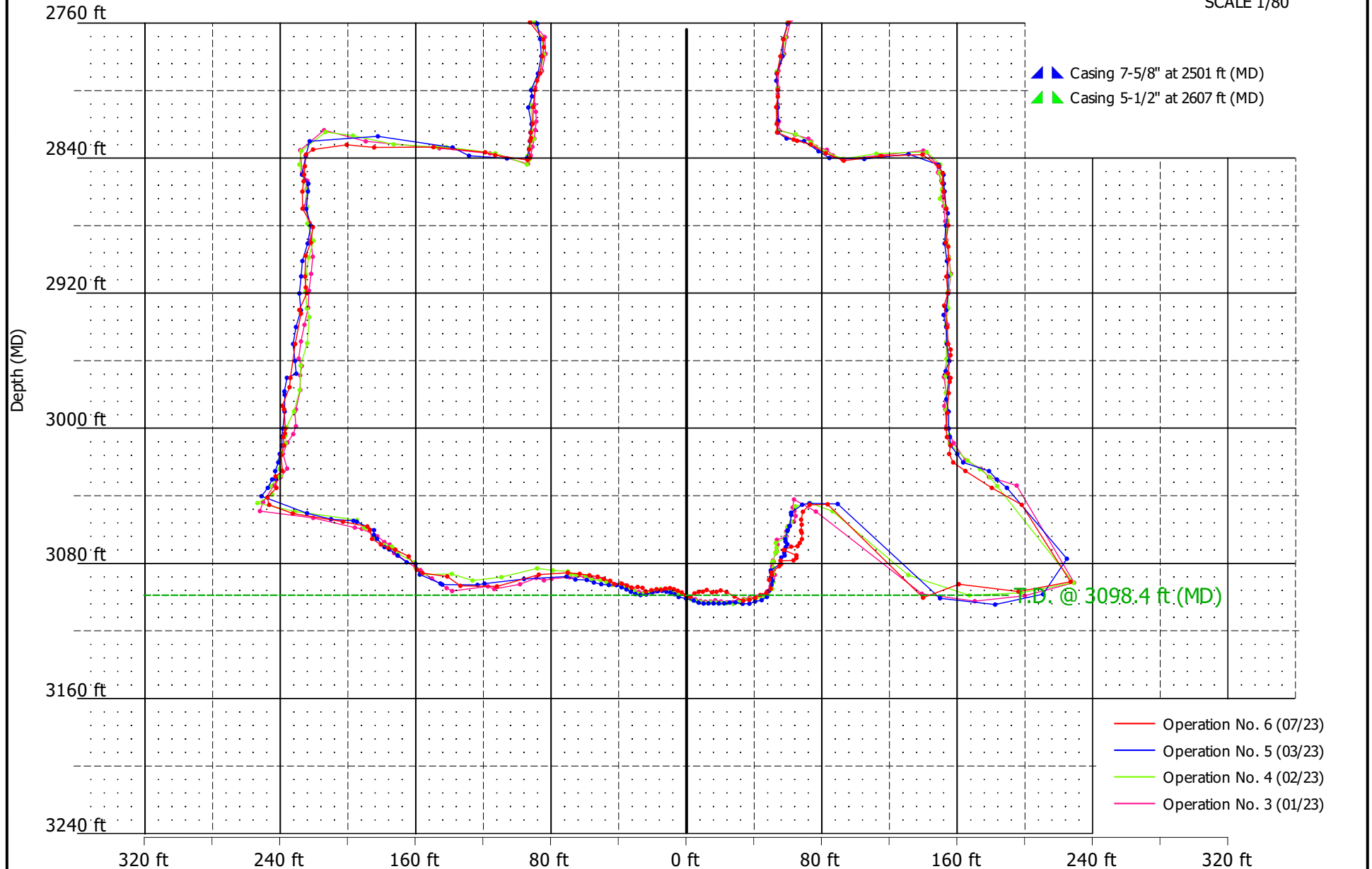
VERTICAL SECTION

← N225

2

N45 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

CAVERN : PPG No. 007B
OPERATION No. : 6



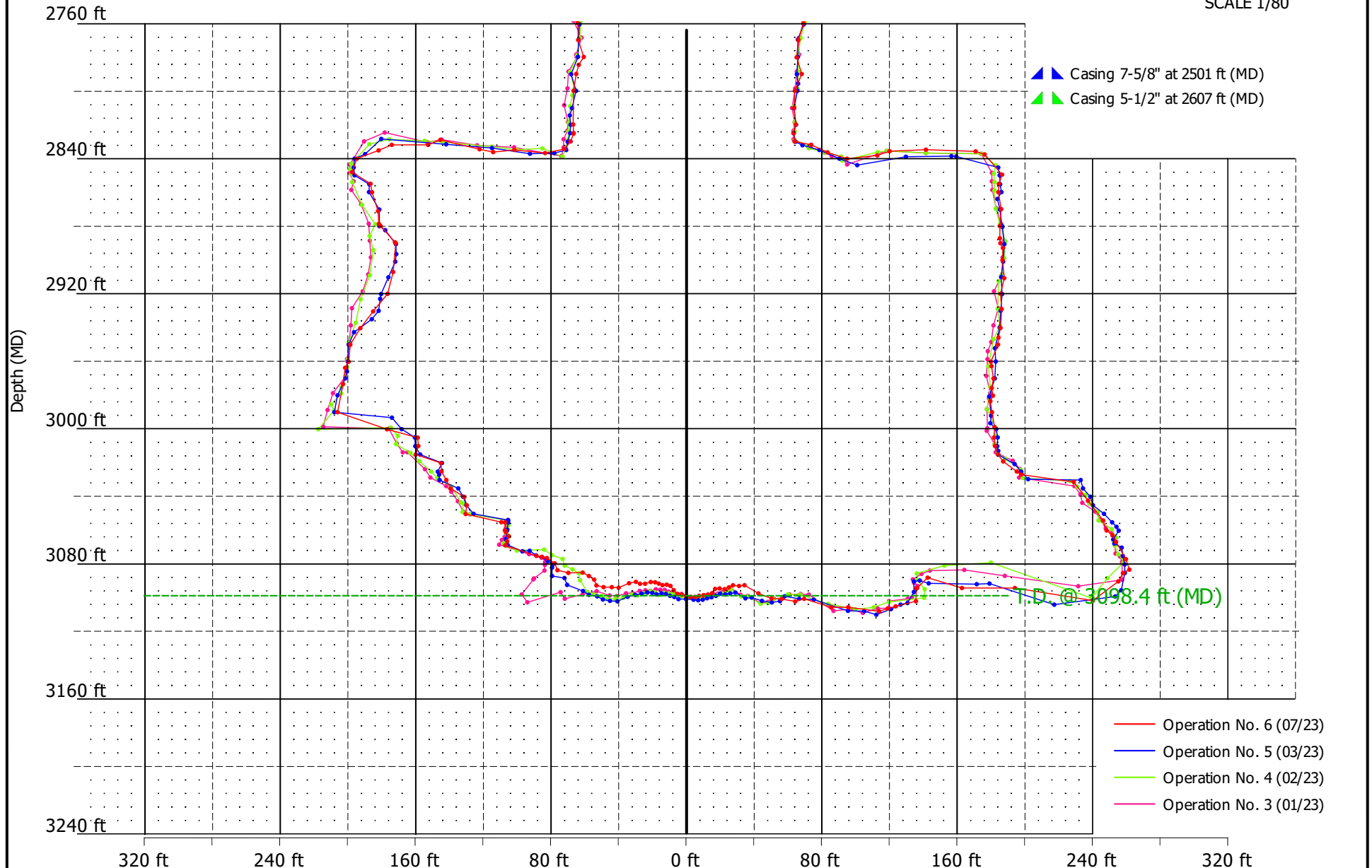
VERTICAL SECTION

← N270

3

N90 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

CAVERN : PPG No. 007B
OPERATION No. : 6



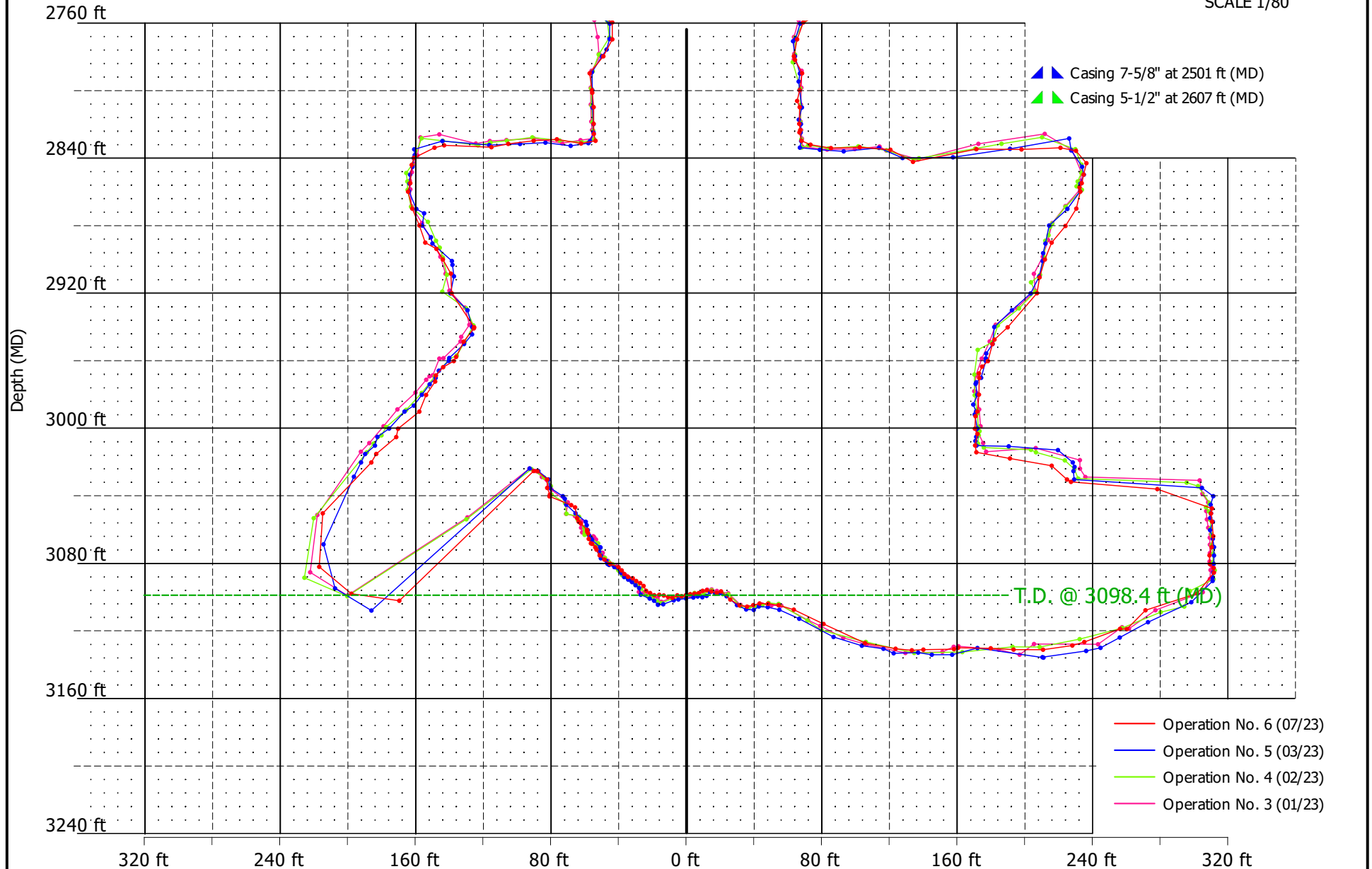
VERTICAL SECTION

← N315

4

N135 →

SCALE 1/80





CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

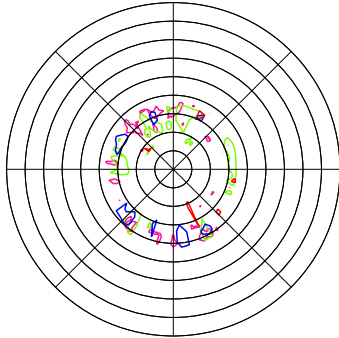
CAVERN : PPG No. 007B
OPERATION No. : 6



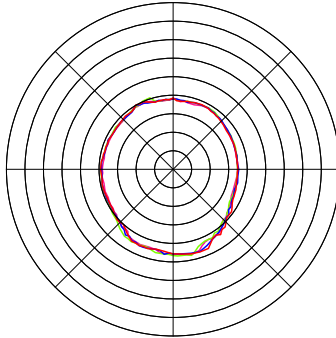
HORIZONTAL SECTIONS between 2510 ft and 2620 ft

— Operation No. 6 (07/23) — Operation No. 5 (03/23) — Operation No. 4 (02/23) — Operation No. 3 (01/23)

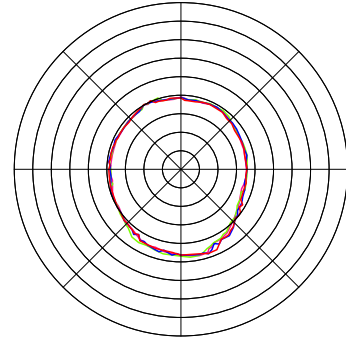
SCALE 50.0 ft per division



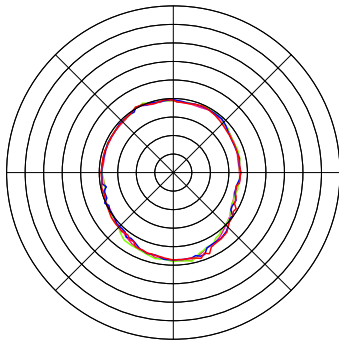
2510 ft / 596.93 ft²



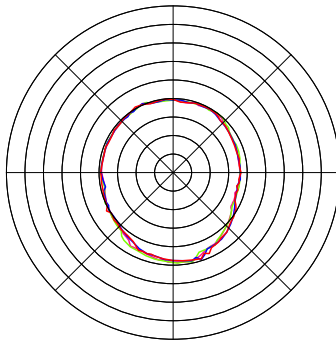
2520 ft / 96179.10 ft²



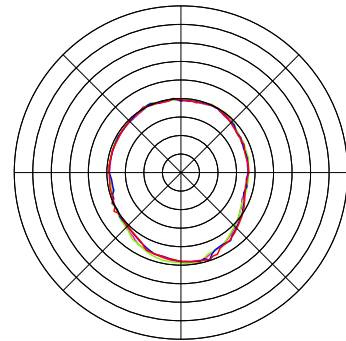
2530 ft / 97887.56 ft²



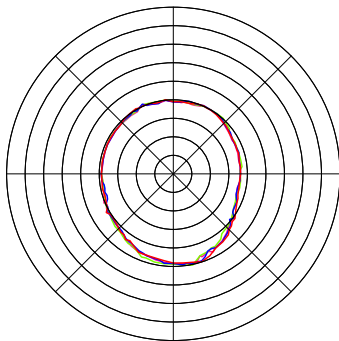
2540 ft / 100346.81 ft²



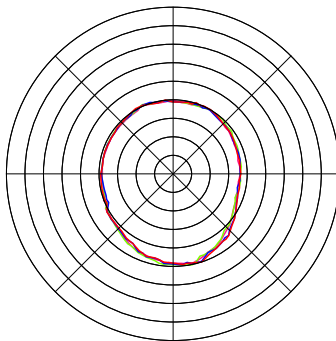
2550 ft / 101532.09 ft²



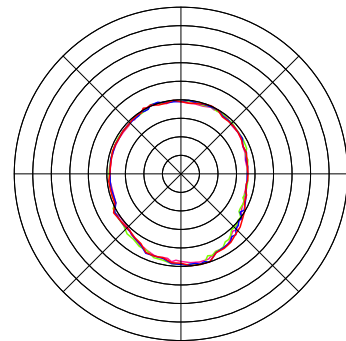
2560 ft / 102460.01 ft²



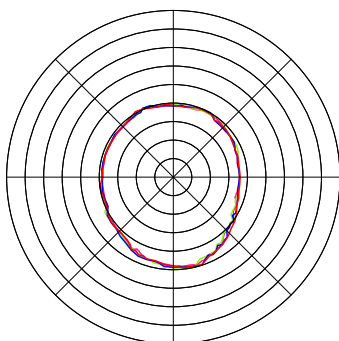
2570 ft / 103551.82 ft²



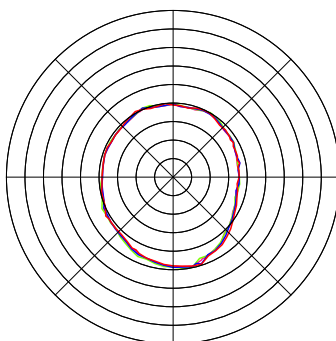
2580 ft / 103745.95 ft²



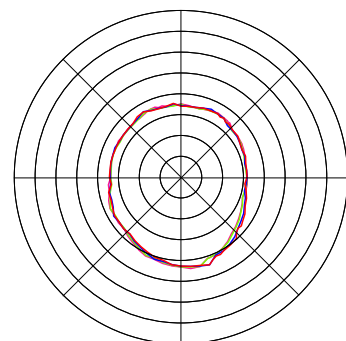
2590 ft / 103540.53 ft²



2600 ft / 102513.19 ft²



2610 ft / 102030.84 ft²



2620 ft / 102071.09 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.7°



CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

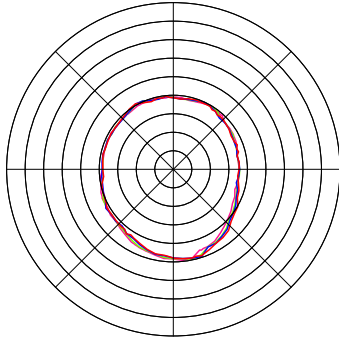
CAVERN : PPG No. 007B
OPERATION No. : 6



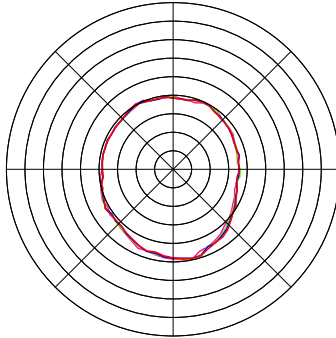
HORIZONTAL SECTIONS between 2630 ft and 2740 ft

— Operation No. 6 (07/23) — Operation No. 5 (03/23) — Operation No. 4 (02/23) — Operation No. 3 (01/23)

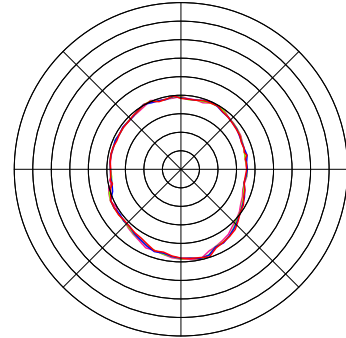
SCALE 50.0 ft per division



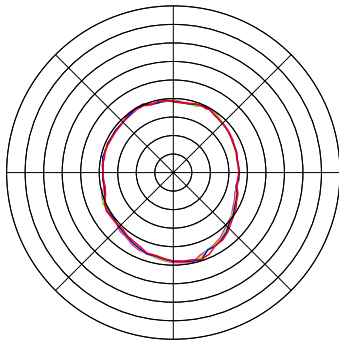
2630 ft / 101867.24 ft²



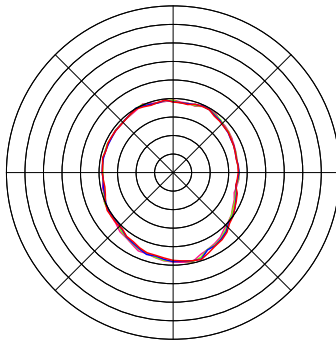
2640 ft / 101566.38 ft²



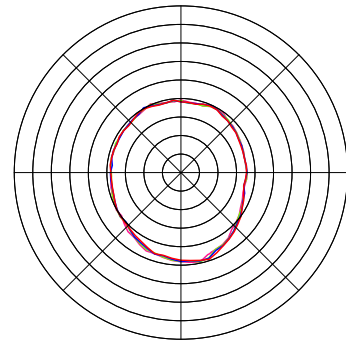
2650 ft / 100830.94 ft²



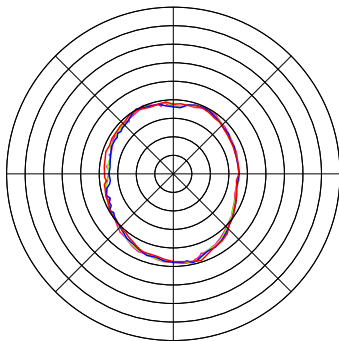
2660 ft / 100218.37 ft²



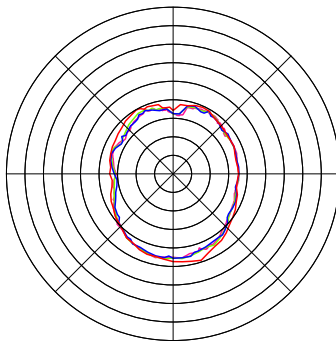
2670 ft / 99489.38 ft²



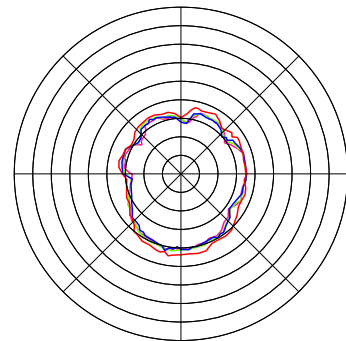
2680 ft / 98934.56 ft²



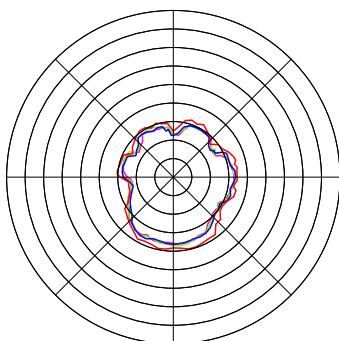
2690 ft / 97905.21 ft²



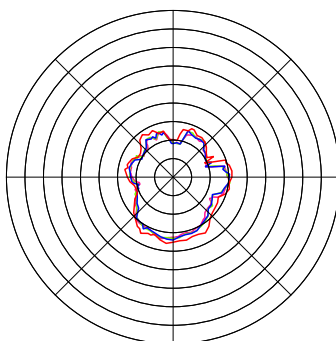
2700 ft / 94950.06 ft²



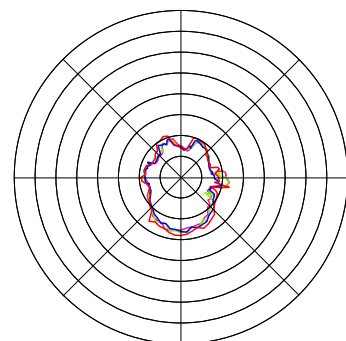
2710 ft / 82028.24 ft²



2720 ft / 65145.46 ft²



2730 ft / 48235.02 ft²



2740 ft / 31633.28 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.7°



CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

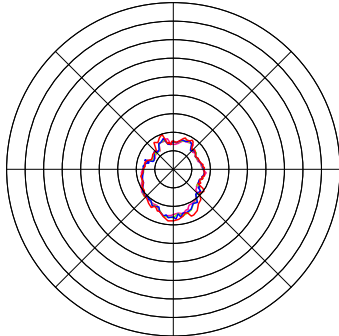
CAVERN : PPG No. 007B
OPERATION No. : 6



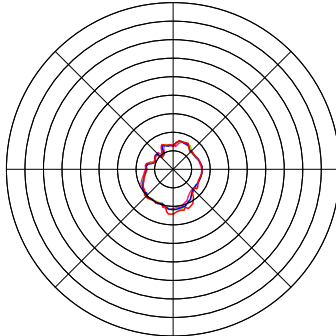
HORIZONTAL SECTIONS between 2750 ft and 2860 ft

— Operation No. 6 (07/23) — Operation No. 5 (03/23) — Operation No. 4 (02/23) — Operation No. 3 (01/23)

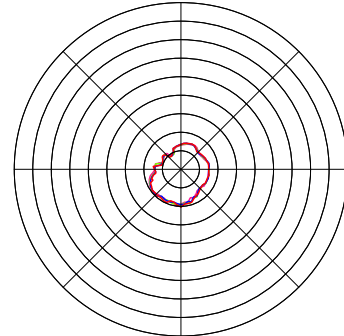
SCALE 50.0 ft per division



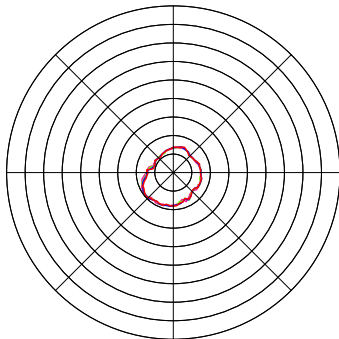
2750 ft / 22137.40 ft²



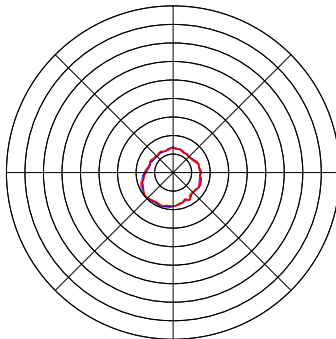
2760 ft / 16974.34 ft²



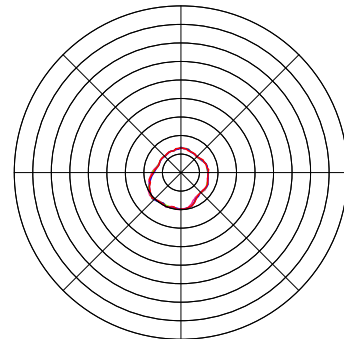
2770 ft / 14351.85 ft²



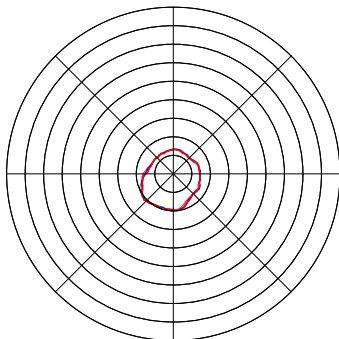
2780 ft / 13877.19 ft²



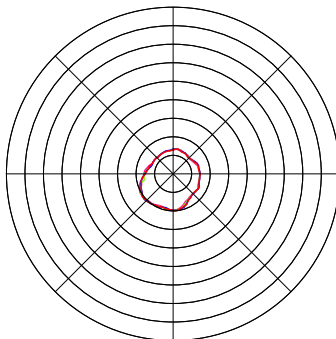
2790 ft / 14439.49 ft²



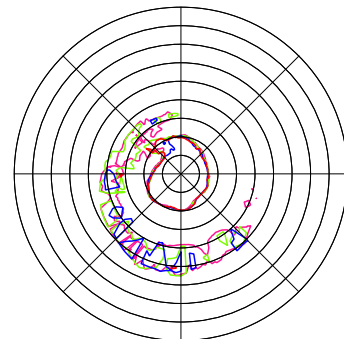
2800 ft / 15148.38 ft²



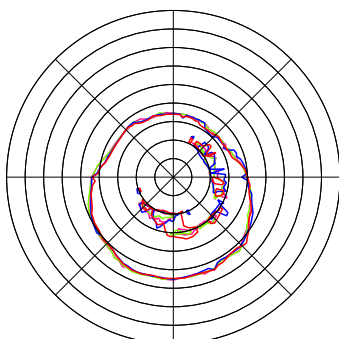
2810 ft / 15059.54 ft²



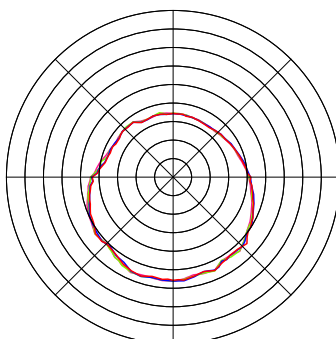
2820 ft / 15115.86 ft²



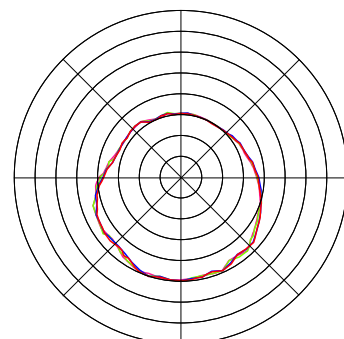
2830 ft / 18710.62 ft²



2840 ft / 109498.30 ft²



2850 ft / 120334.06 ft²



2860 ft / 120788.50 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.7°



CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

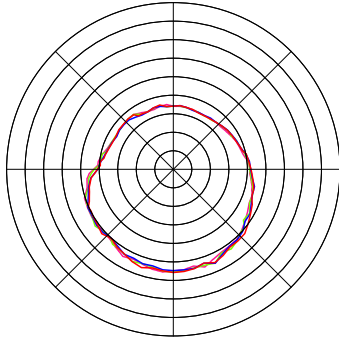
CAVERN : PPG No. 007B
OPERATION No. : 6



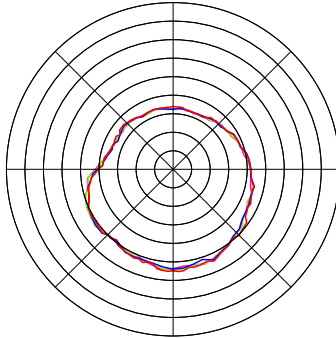
HORIZONTAL SECTIONS between 2870 ft and 2980 ft

— Operation No. 6 (07/23) — Operation No. 5 (03/23) — Operation No. 4 (02/23) — Operation No. 3 (01/23)

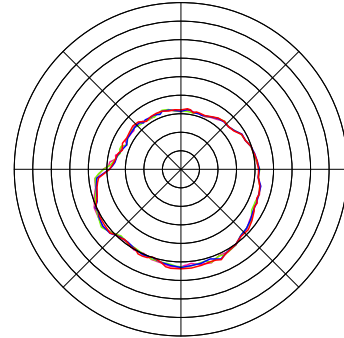
SCALE 50.0 ft per division



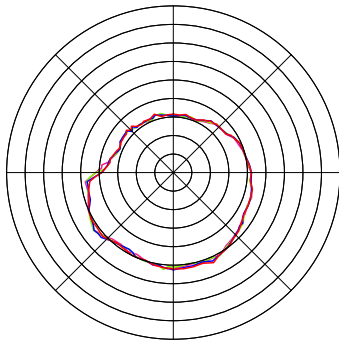
2870 ft / 120021.67 ft²



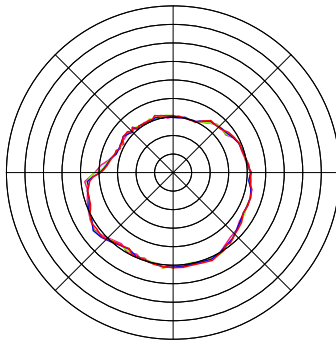
2880 ft / 115994.64 ft²



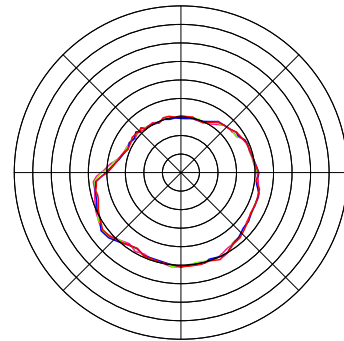
2890 ft / 112191.05 ft²



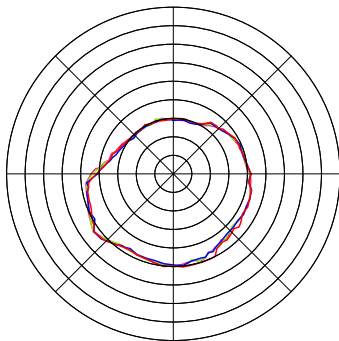
2900 ft / 109497.11 ft²



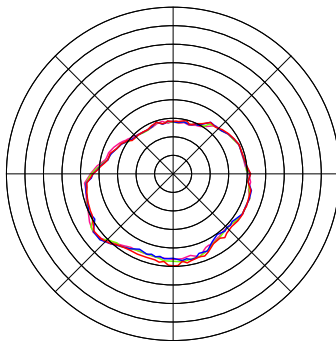
2910 ft / 107786.99 ft²



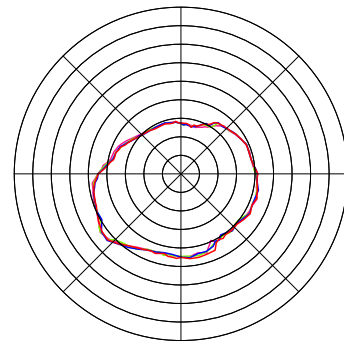
2920 ft / 105939.09 ft²



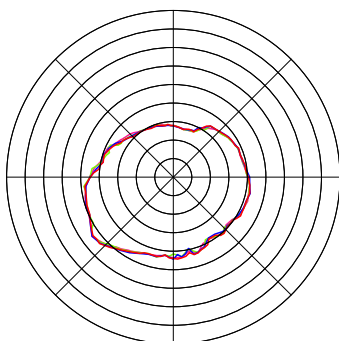
2930 ft / 104637.66 ft²



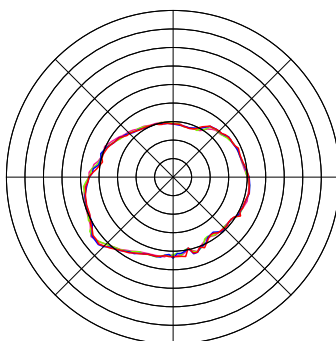
2940 ft / 101320.73 ft²



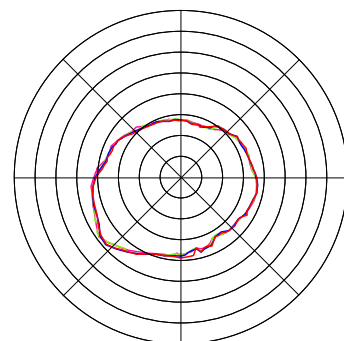
2950 ft / 98566.44 ft²



2960 ft / 97586.53 ft²



2970 ft / 98312.20 ft²



2980 ft / 100338.38 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.7°



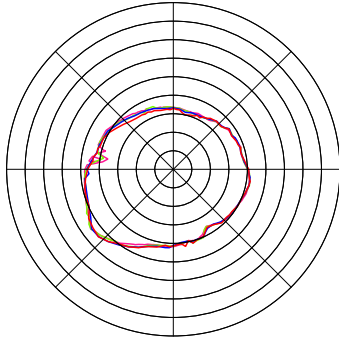
CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

CAVERN : PPG No. 007B
OPERATION No. : 6

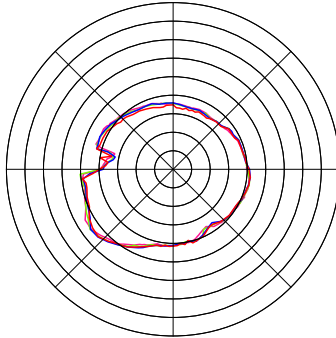


HORIZONTAL SECTIONS between 2990 ft and 3100 ft

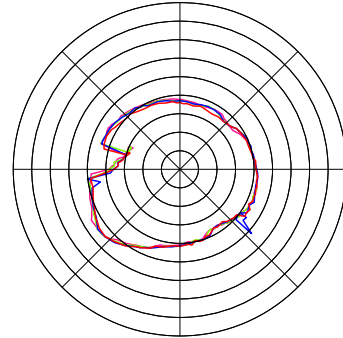
— Operation No. 6 (07/23) — Operation No. 5 (03/23) — Operation No. 4 (02/23) — Operation No. 3 (01/23) SCALE 50.0 ft per division



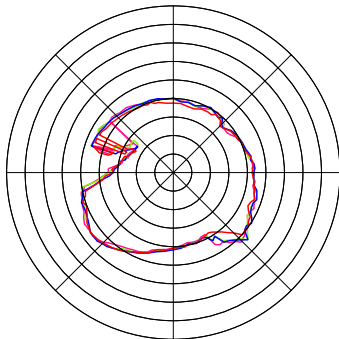
2990 ft / 101446.43 ft²



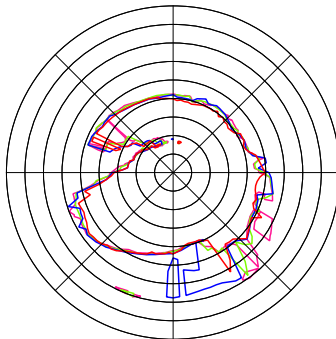
3000 ft / 102185.21 ft²



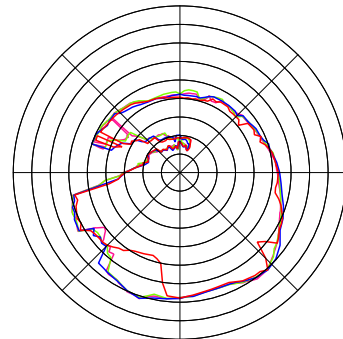
3010 ft / 105556.61 ft²



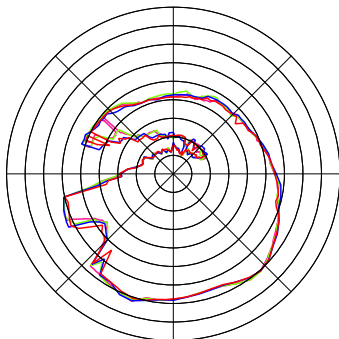
3020 ft / 111034.32 ft²



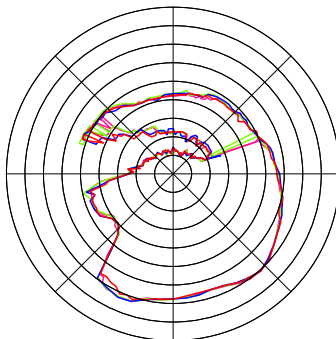
3030 ft / 119330.81 ft²



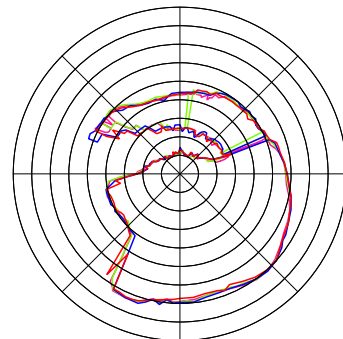
3040 ft / 157215.71 ft²



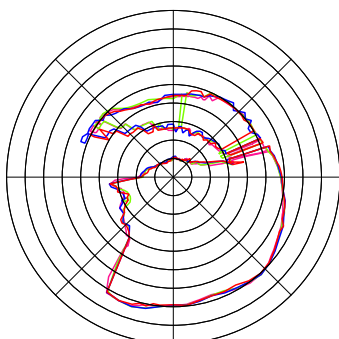
3050 ft / 171522.76 ft²



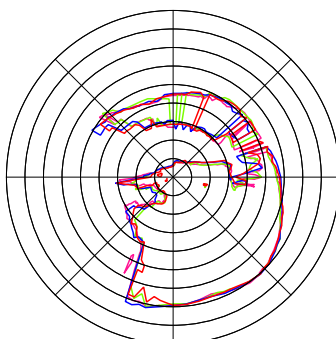
3060 ft / 163240.79 ft²



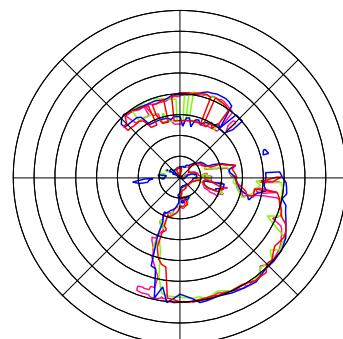
3070 ft / 158759.02 ft²



3080 ft / 148893.69 ft²



3090 ft / 122013.19 ft²



3100 ft / 80751.38 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 0.7°



CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

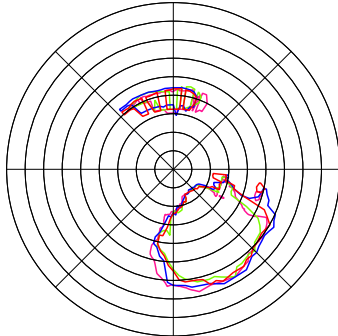
CAVERN : PPG No. 007B
OPERATION No. : 6



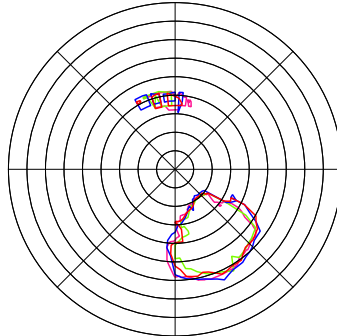
HORIZONTAL SECTIONS between 3110 ft and 3130 ft

— Operation No. 6 (07/23) — Operation No. 5 (03/23) — Operation No. 4 (02/23) — Operation No. 3 (01/23)

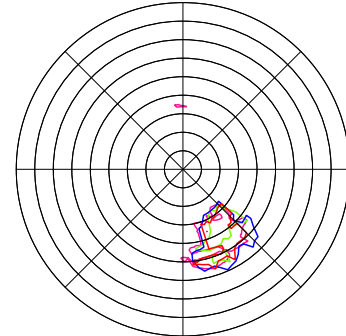
SCALE 50.0 ft per division



3110 ft / 49280.52 ft²



3120 ft / 30250.61 ft²



3130 ft / 8387.15 ft²



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2501.1		TILT	0		VOS	5955.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2503.9		TILT	0		VOS	5955.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6

DEPTH	2506.0		TILT	0		VOS	5955.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2507.9		TILT	0		VOS	5955.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2510.1		TILT	0		VOS	5955.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6

DEPTH	2514.0		TILT	0		VOS	5955.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	163.6	163.1	163.0	163.5	164.4	166.0	168.0	167.5
24	167.4	167.9	168.8	167.6	157.1	164.4	162.5	162.1
48	154.3	152.1	46.5	157.1	156.2	156.0	156.2	156.0
72	156.2	154.5	153.2	154.5	151.0	151.2	153.5	154.1
96	155.1	154.3	154.0	155.9	152.7	154.8	153.9	154.3
120	162.2	167.2	172.9	172.8	173.2	177.9	183.3	184.6
144	186.3	188.4	191.0	190.9	191.3	199.7	175.6	196.0
168	46.7	180.2	203.6	202.8	202.5	199.0	196.2	195.8
192	195.9	195.7	195.9	195.7	196.0	194.1	192.8	184.0
216	176.4	176.6	177.3	178.0	179.2	175.6	172.6	172.7
240	173.2	172.7	172.7	172.0	171.8	171.7	172.1	172.0
264	172.4	170.6	169.3	169.5	170.2	169.8	169.9	169.3
288	169.1	168.6	168.5	168.0	168.0	168.4	154.6	167.7
312	166.6	167.9	169.6	168.8	168.5	173.7	179.8	178.7
336	164.3	84.2	159.0	157.9	164.1	164.3	165.0	164.1



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2516.1		TILT	0		VOS	5955.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	168.5	164.9	163.5	164.0	164.9	166.2	168.0	168.1
24	168.7	167.5	168.3	166.2	164.7	164.5	163.0	162.2
48	158.7	158.3	158.4	157.8	157.6	157.4	157.6	156.0
72	156.2	155.2	154.8	154.1	153.7	153.7	154.0	154.6
96	155.7	154.1	154.5	156.1	157.3	157.9	158.9	160.3
120	162.2	168.1	174.8	174.4	174.6	179.0	184.1	184.8
144	190.5	188.5	190.9	192.9	195.6	203.1	190.4	206.6
168	204.7	204.4	204.7	204.0	203.9	199.8	196.5	196.2
192	196.5	197.4	198.8	198.3	198.4	197.4	197.0	187.4
216	188.1	178.6	178.4	178.8	179.8	177.0	174.8	173.0
240	173.1	172.6	172.6	172.2	173.0	172.1	173.2	172.3
264	171.8	171.6	172.5	170.5	171.5	170.7	170.3	169.1
288	170.1	169.7	169.7	168.7	169.1	167.6	166.6	167.5
312	168.8	168.7	170.0	171.4	168.8	174.6	179.0	177.9
336	174.4	167.4	166.2	165.3	165.0	165.3	166.1	165.0

DEPTH	2517.9		TILT	0		VOS	5955.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	169.4	164.8	164.0	164.4	165.3	166.5	168.0	168.5
24	169.5	168.9	168.7	165.8	165.5	164.6	163.4	162.2
48	159.5	158.3	157.6	156.8	157.7	157.3	157.8	157.6
72	156.2	155.8	154.9	154.3	153.7	154.5	155.7	154.5
96	155.3	154.3	154.9	156.4	157.3	157.3	159.3	161.0
120	162.9	168.9	173.7	173.7	174.1	178.8	184.4	185.1
144	194.2	188.6	190.4	196.0	202.6	206.0	198.9	207.4
168	207.9	204.7	204.7	203.7	203.5	200.1	197.2	196.5
192	195.6	197.7	199.3	198.4	200.7	197.3	198.0	190.3
216	188.4	180.7	178.3	179.4	180.3	177.5	175.3	173.1
240	173.1	172.6	172.5	172.4	173.5	173.6	174.3	172.5
264	171.9	172.2	173.2	172.0	172.7	171.5	170.7	169.0
288	170.2	169.6	169.9	168.8	168.3	167.7	167.7	168.0
312	168.9	169.3	170.6	171.0	169.1	173.4	178.4	177.2
336	176.4	170.7	167.7	166.7	167.1	167.1	167.6	165.9

DEPTH	2520.0		TILT	0		VOS	5955.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.8	164.7	164.4	164.8	166.6	166.1	168.2	168.7
24	169.6	168.9	168.7	166.2	166.1	164.7	163.9	162.3
48	161.1	159.3	157.8	157.6	157.8	157.2	157.7	157.4
72	156.2	155.8	155.0	154.6	154.4	154.7	155.5	154.4
96	154.9	154.6	155.4	156.7	158.4	158.9	159.8	160.8
120	163.6	168.5	173.2	172.9	173.2	179.3	186.3	186.1
144	193.8	188.2	190.7	198.7	208.0	208.0	208.5	207.7
168	207.4	205.8	204.7	203.3	203.1	200.4	198.1	196.7
192	195.9	198.0	199.9	198.5	200.2	198.7	199.1	193.5
216	188.8	183.0	178.1	180.0	180.8	178.1	175.8	173.2
240	173.1	172.5	172.4	172.7	173.5	173.7	174.2	172.3
264	172.1	172.8	174.0	173.4	173.2	170.6	171.0	169.0
288	169.9	168.8	170.1	168.9	168.0	168.0	168.5	168.6
312	169.1	170.1	171.5	170.6	170.2	172.5	178.5	176.0
336	177.0	172.9	169.3	166.8	167.8	168.2	168.4	166.9



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**WALL RANGES VS DEPTH**

DEPTH	2530.1		TILT	0		VOS	5955.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.0	165.7	165.5	165.3	165.5	167.0	169.0	169.4
24	170.2	169.2	168.7	168.7	169.1	166.1	163.6	163.4
48	163.6	160.9	158.7	158.3	158.4	158.7	159.5	159.0
72	158.9	157.3	156.2	156.3	156.7	157.2	158.1	156.8
96	155.9	157.6	159.8	158.8	158.2	158.8	159.8	160.8
120	170.8	166.9	175.8	177.5	175.4	180.6	186.6	188.8
144	194.3	194.6	193.5	201.7	211.3	211.5	212.4	209.6
168	207.4	206.2	205.5	205.5	206.1	203.0	200.6	199.6
192	199.2	199.1	199.5	198.4	197.8	197.6	197.9	186.9
216	190.4	186.4	184.9	182.9	183.6	180.7	178.4	177.7
240	177.5	175.8	174.6	174.0	174.0	173.8	174.0	173.3
264	173.1	173.0	173.5	171.0	173.3	170.6	172.5	172.1
288	172.1	170.1	170.9	169.0	169.9	169.7	169.9	168.8
312	168.3	169.8	171.8	172.9	174.6	175.7	179.2	177.0
336	180.4	171.6	171.8	170.5	169.6	172.4	171.9	171.3

DEPTH	2539.9		TILT	0		VOS	5955.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	174.3	169.4	170.2	169.4	169.1	170.2	171.8	172.8
24	174.3	173.4	172.3	171.0	170.1	168.1	167.0	165.1
48	163.8	162.5	161.7	162.0	160.9	160.8	161.1	160.5
72	160.3	160.4	160.9	160.2	160.0	160.3	161.1	160.6
96	160.6	160.5	154.4	155.1	156.2	161.1	163.2	164.5
120	174.0	171.3	177.0	178.1	179.8	185.5	192.1	193.7
144	195.9	196.6	197.8	200.7	213.2	207.4	216.2	212.5
168	209.6	209.4	209.9	209.1	209.9	207.8	206.1	204.0
192	203.9	201.9	203.7	200.2	200.3	199.8	190.9	192.1
216	185.5	185.8	186.6	185.7	185.2	184.3	183.9	181.4
240	179.5	178.3	177.6	175.5	174.0	174.6	175.6	173.9
264	172.6	172.9	173.7	172.5	171.8	172.0	172.6	172.4
288	172.6	170.6	171.2	170.6	171.5	171.4	171.8	171.9
312	172.4	172.7	173.5	173.8	174.6	177.5	181.1	179.9
336	179.2	175.6	172.6	171.6	173.0	174.8	175.7	174.7

DEPTH	2550.0		TILT	0		VOS	5955.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	175.9	172.3	169.9	170.5	171.5	172.9	174.8	174.4
24	174.6	175.3	175.7	174.9	174.5	172.0	168.5	168.0
48	168.0	166.1	164.7	163.2	162.2	161.3	160.9	160.2
72	160.0	160.8	162.0	160.5	159.5	160.9	162.8	160.4
96	158.5	160.7	155.9	160.9	158.8	160.1	162.0	168.7
120	174.2	176.5	179.9	181.2	183.6	187.6	192.4	193.5
144	195.1	199.2	200.6	202.4	212.8	207.5	217.6	215.7
168	214.5	213.4	212.8	211.6	211.0	209.5	208.5	206.7
192	205.5	202.9	204.7	202.3	204.4	197.3	191.3	188.5
216	186.3	185.4	185.0	182.7	181.0	181.9	178.9	177.1
240	184.5	177.6	176.5	175.7	175.4	174.0	173.2	173.3
264	173.3	172.5	174.0	172.7	171.8	171.4	171.5	171.2
288	172.5	173.2	171.0	170.8	171.0	172.2	174.4	173.0
312	173.2	174.3	175.9	176.2	176.9	179.0	181.7	179.9
336	178.6	176.0	174.0	174.3	175.5	176.2	177.3	176.3



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**WALL RANGES VS DEPTH**

DEPTH	2560.1		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	174.8	173.9	173.5	173.0	172.9	174.4	176.5	176.6
24	177.3	177.2	177.6	174.3	171.6	171.1	171.0	168.7
48	166.9	165.4	164.4	163.2	165.2	163.7	165.5	162.7
72	160.3	160.1	160.4	161.1	162.2	162.3	162.8	160.6
96	158.9	158.2	157.9	159.4	161.4	163.7	166.6	170.0
120	174.0	176.7	180.0	182.6	185.8	189.0	192.9	196.1
144	200.0	201.3	202.1	204.9	214.5	214.6	220.7	217.7
168	215.4	215.0	215.2	213.4	213.7	211.1	209.1	208.8
192	206.5	205.6	205.3	204.4	204.2	197.5	191.8	188.8
216	186.3	184.2	182.5	181.2	180.3	179.4	178.9	179.0
240	185.8	177.8	176.6	175.2	174.3	174.0	174.3	173.1
264	172.4	172.3	172.6	172.8	173.5	172.5	172.1	172.3
288	172.9	172.1	171.8	171.5	171.6	172.5	174.0	173.2
312	172.9	175.0	177.6	176.9	176.8	178.8	181.4	178.5
336	176.2	176.0	176.2	174.6	173.5	175.7	178.4	176.4

DEPTH	2570.1		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	173.5	173.5	174.0	173.5	173.5	173.9	177.4	177.3
24	178.9	177.1	177.6	176.2	175.4	173.6	172.4	171.4
48	171.0	168.3	166.1	165.2	164.7	164.3	164.4	163.0
72	164.3	162.6	161.5	160.8	161.7	161.2	161.1	160.2
96	159.8	160.0	160.7	161.5	162.8	166.0	167.1	169.8
120	173.1	177.5	182.5	181.8	187.2	189.5	197.0	199.1
144	201.7	202.9	204.7	209.5	215.1	218.0	221.7	219.0
168	217.0	215.8	215.1	214.3	214.0	211.5	209.6	207.8
192	206.6	205.9	205.8	205.5	205.8	200.3	195.7	191.3
216	195.0	187.9	188.5	184.9	182.0	180.3	179.2	179.2
240	185.8	177.6	175.9	173.8	172.1	172.9	174.3	172.9
264	172.1	172.3	172.9	172.3	172.1	173.1	172.7	172.7
288	172.6	172.8	173.5	173.3	173.5	173.0	173.5	172.8
312	172.6	174.2	176.2	177.1	178.4	179.1	180.3	177.4
336	178.6	177.9	177.7	175.1	174.5	176.5	179.0	175.6

DEPTH	2580.0		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.4	172.7	173.5	174.0	175.1	173.4	179.9	176.1
24	178.7	178.2	178.1	176.4	175.2	172.9	171.0	169.9
48	169.3	168.9	169.0	167.6	166.7	165.1	164.0	162.5
72	161.4	161.5	162.0	161.6	161.7	161.9	162.5	160.6
96	159.2	160.8	162.8	162.7	163.0	165.0	167.4	170.4
120	174.0	177.8	182.2	185.2	188.8	193.6	199.2	201.6
144	201.0	203.4	206.4	208.9	211.9	216.8	222.5	220.3
168	218.7	217.1	218.8	216.1	214.3	213.4	213.2	209.0
192	206.5	206.8	207.7	204.1	201.4	196.9	193.2	192.0
216	190.7	187.5	184.7	183.9	183.6	183.1	183.1	182.9
240	183.3	178.5	174.3	174.6	175.4	174.7	174.6	174.1
264	174.0	173.6	173.7	171.8	170.5	170.8	171.6	171.7
288	172.4	171.6	171.3	171.2	171.6	171.3	171.6	174.1
312	173.4	173.7	174.5	175.4	177.3	178.7	180.6	179.9
336	179.8	177.9	176.5	174.9	173.7	175.8	178.4	175.1



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**WALL RANGES VS DEPTH**

DEPTH	2590.0		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	173.5	171.9	170.7	171.4	172.6	174.3	176.5	177.3
24	178.7	177.3	176.5	172.3	168.8	169.0	169.6	169.5
48	169.9	169.3	169.1	167.8	166.9	164.6	162.8	163.4
72	164.4	162.8	161.7	160.8	160.3	160.2	160.6	160.2
96	160.3	158.2	159.8	160.5	165.2	165.8	166.9	171.3
120	176.5	179.2	182.5	186.3	190.7	192.8	195.4	198.9
144	203.1	204.5	206.6	206.6	207.2	214.1	222.2	221.9
168	222.2	221.8	222.0	217.9	214.6	214.3	214.6	209.8
192	205.8	206.3	207.4	206.7	206.6	199.3	193.1	190.8
216	189.1	186.2	183.9	183.5	183.6	183.6	184.2	185.3
240	186.9	180.0	174.0	173.6	173.7	173.5	173.7	173.9
264	174.6	172.4	170.7	170.5	170.7	170.6	171.0	171.9
288	173.2	172.7	172.6	171.9	171.6	172.0	172.9	172.5
312	172.6	173.5	174.8	175.3	176.2	174.9	181.8	178.1
336	180.6	176.9	173.7	173.4	173.5	175.3	177.6	175.3

DEPTH	2600.0		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.2	171.2	170.7	170.4	170.7	172.9	175.7	175.7
24	176.0	175.7	175.7	174.4	168.2	171.4	169.7	169.6
48	170.0	168.6	167.7	165.7	164.1	162.9	162.1	162.2
72	162.6	160.6	159.1	159.1	159.7	159.6	160.0	159.7
96	160.0	160.0	160.6	162.4	164.7	165.1	165.9	170.2
120	175.1	178.1	181.7	183.5	185.9	189.7	194.2	196.9
144	200.2	202.2	204.9	206.7	209.1	214.6	221.0	219.3
168	218.3	217.9	218.0	215.8	214.2	212.2	210.9	207.7
192	205.2	205.5	206.4	202.5	204.5	198.5	200.2	193.1
216	187.1	185.5	184.4	184.0	184.1	184.0	184.4	182.0
240	180.2	177.2	174.8	174.2	174.0	174.6	175.7	175.9
264	176.6	172.9	169.8	169.9	170.4	170.1	170.4	170.9
288	171.9	171.3	171.3	170.7	170.7	170.7	171.3	171.5
312	172.2	171.8	171.9	173.5	175.7	178.4	181.7	180.1
336	179.0	176.4	174.3	173.1	172.5	174.0	176.0	173.8

DEPTH	2609.9		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.9	172.4	172.4	170.6	169.4	171.6	174.3	175.3
24	176.8	176.4	176.5	173.7	171.6	169.1	167.2	167.9
48	169.1	167.6	166.6	163.9	166.7	161.9	162.5	162.2
72	162.2	158.9	163.0	157.2	158.7	158.3	158.4	156.1
96	154.3	156.0	158.1	159.3	160.9	163.3	166.3	168.1
120	170.5	173.6	177.3	181.2	185.8	188.9	192.7	196.2
144	200.3	201.8	203.9	205.3	207.3	213.0	219.8	218.8
168	218.4	216.3	214.8	213.6	212.9	211.5	210.7	208.2
192	206.3	205.2	204.7	202.3	200.6	196.0	196.6	192.6
216	189.3	187.0	185.3	184.9	185.0	184.3	184.0	183.6
240	186.6	181.9	177.9	176.5	175.7	175.1	175.1	173.1
264	171.6	170.9	170.7	170.1	169.9	170.2	171.0	171.6
288	172.6	172.8	173.5	171.7	170.5	170.8	171.6	171.0
312	171.0	172.4	174.3	175.4	177.0	179.1	181.7	179.8
336	178.4	175.5	173.2	173.5	174.3	175.7	177.6	175.0



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**WALL RANGES VS DEPTH**

DEPTH	2614.9		TILT	89		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	102.2	102.9	103.6	103.5	103.3	103.5	103.6	104.0
24	104.4	103.7	103.1	102.8	102.5	102.4	102.2	102.1
48	102.0	102.2	102.5	102.9	103.3	103.5	103.6	103.1
72	102.5	102.4	102.2	101.8	104.3	104.3	104.7	104.4
96	104.2	104.2	104.2	102.9	101.7	102.2	102.8	103.1
120	103.3	102.5	101.7	102.6	103.6	103.1	102.5	103.1
144	103.6	103.1	102.5	102.8	103.1	102.6	102.2	103.2
168	104.2	102.9	101.7	101.6	101.4	102.8	104.2	104.0
192	103.9	103.5	103.1	102.6	102.2	102.9	103.6	102.6
216	101.7	102.2	102.8	102.9	103.1	102.4	101.7	101.6
240	101.4	101.8	102.2	103.2	104.2	102.8	101.4	102.8
264	104.2	102.8	104.1	104.2	104.2	102.8	104.1	101.6
288	101.4	102.2	103.1	102.2	101.4	101.4	101.4	101.7
312	102.0	102.4	102.8	102.7	102.5	102.8	103.1	102.4
336	101.7	102.1	102.5	102.5	102.5	103.3	104.2	103.2

DEPTH	2614.9		TILT	85		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	102.2	103.1	103.9	103.5	103.1	102.8	102.5	102.8
24	103.1	103.1	103.1	103.9	104.7	104.8	105.0	104.2
48	103.3	104.0	102.4	102.7	101.4	102.8	104.2	103.7
72	103.3	102.6	102.0	103.2	104.4	104.0	103.6	104.6
96	105.5	104.4	103.3	103.9	104.4	103.0	101.7	103.4
120	105.3	104.3	103.3	102.6	102.0	102.2	102.5	103.1
144	103.6	103.1	102.5	102.6	102.8	103.6	104.4	103.3
168	102.2	103.2	104.2	103.9	103.6	103.6	103.6	103.9
192	104.2	104.3	104.4	103.5	102.5	102.4	102.2	102.1
216	102.0	103.3	104.7	103.7	102.8	102.5	102.2	102.5
240	102.8	102.9	103.1	104.0	105.0	104.8	104.7	104.3
264	103.9	103.6	103.3	103.6	103.9	103.6	103.3	102.5
288	101.7	102.8	103.9	102.9	102.0	102.8	103.6	102.9
312	102.2	102.6	103.1	102.4	101.7	102.6	103.6	103.7
336	103.9	103.9	103.9	103.7	103.6	103.6	103.6	102.9

DEPTH	2614.9		TILT	80		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	106.3	106.1	105.8	105.9	106.1	105.8	105.5	104.1
24	102.8	103.9	105.0	105.7	106.3	105.8	105.3	105.1
48	105.0	104.0	103.1	103.2	103.3	103.3	103.3	104.3
72	105.3	106.1	103.2	104.9	103.1	104.3	105.5	105.1
96	104.7	105.1	105.5	105.2	105.0	104.3	103.6	104.4
120	105.3	104.4	103.6	103.3	103.1	104.1	105.3	104.6
144	103.9	104.6	105.3	105.8	106.3	105.7	105.0	104.1
168	103.3	103.7	104.2	104.3	104.4	104.0	103.6	104.3
192	105.0	104.1	103.3	104.3	105.3	105.5	105.8	104.6
216	103.3	104.1	105.0	105.5	106.1	104.5	103.1	104.1
240	105.3	105.4	105.5	104.1	102.8	103.6	104.4	104.8
264	105.3	105.0	104.7	105.0	105.3	105.8	103.5	104.5
288	102.8	103.1	103.3	103.9	104.4	104.4	104.4	104.4
312	104.4	103.5	102.5	102.8	103.1	103.7	104.4	103.9
336	103.3	104.0	104.7	104.3	104.0	104.6	105.3	105.8



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2614.9		TILT	75		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	105.8	105.5	105.3	106.1	106.9	106.5	106.1	106.1
24	106.1	106.2	106.3	106.9	107.4	106.2	105.0	105.4
48	105.8	105.7	105.5	105.9	106.3	106.5	106.6	106.6
72	106.6	105.9	105.3	106.6	105.2	107.8	107.7	107.4
96	107.2	107.6	108.0	106.7	105.5	105.7	105.8	106.1
120	106.3	106.7	107.2	106.1	105.0	105.0	105.0	106.1
144	107.2	106.6	106.1	107.0	108.0	108.0	108.0	106.6
168	105.3	105.9	106.6	107.3	108.0	107.7	107.4	106.3
192	105.3	106.3	107.4	106.9	106.3	105.7	105.0	105.5
216	106.1	105.7	105.3	105.5	105.8	105.4	105.0	105.9
240	106.9	106.5	106.1	106.1	106.1	105.8	105.5	106.3
264	107.2	106.9	106.6	106.5	106.3	105.4	104.4	105.8
288	107.2	106.2	105.3	105.5	105.8	106.5	107.2	107.3
312	107.4	106.2	105.0	106.3	107.7	107.2	106.6	106.3
336	106.1	106.3	106.6	105.9	105.3	105.8	106.3	106.1

DEPTH	2614.9		TILT	70		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	108.8	109.6	110.5	110.0	109.6	108.8	109.7	109.8
24	110.0	110.3	110.2	109.1	110.2	109.2	108.2	110.3
48	109.4	109.9	108.4	109.1	109.4	109.9	110.5	110.3
72	110.2	108.8	107.4	107.8	108.3	108.5	108.8	109.2
96	109.6	110.2	110.7	109.2	111.0	110.6	110.2	109.8
120	109.4	110.7	110.1	109.5	108.9	109.8	110.7	110.4
144	110.1	109.9	109.8	110.1	110.3	110.0	109.6	109.4
168	108.8	109.7	110.7	110.4	110.7	109.4	109.1	109.9
192	108.2	109.2	109.4	109.2	109.1	108.7	108.3	108.2
216	108.3	108.8	109.4	108.2	110.0	108.7	107.4	108.4
240	109.4	109.6	109.9	108.9	108.0	108.7	109.4	109.2
264	109.1	109.9	110.7	109.7	108.8	108.4	108.0	108.7
288	109.4	109.8	110.2	110.2	110.2	110.0	109.9	109.9
312	109.9	110.2	110.5	110.0	109.6	109.3	109.1	108.9
336	108.8	108.7	110.2	110.1	110.2	108.8	107.4	108.1

DEPTH	2614.9		TILT	65		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	113.2	113.6	114.0	113.9	113.7	113.9	114.2	113.7
24	113.2	112.9	112.7	113.6	114.6	114.1	113.7	113.6
48	113.5	112.2	111.0	112.1	113.2	113.4	113.7	112.3
72	114.1	113.0	112.0	112.2	113.7	113.4	113.2	112.3
96	111.6	111.7	111.8	112.9	114.0	113.4	112.9	112.9
120	112.9	113.4	114.0	113.0	112.1	113.7	115.4	114.7
144	114.0	114.5	115.1	114.0	112.9	113.3	113.7	112.3
168	111.0	112.6	114.3	114.7	115.1	114.0	112.9	113.2
192	113.5	112.6	111.8	111.7	111.6	112.5	113.5	113.7
216	114.0	113.6	113.2	113.4	113.7	112.2	110.7	112.9
240	115.1	114.8	114.6	114.1	113.7	113.4	113.2	112.2
264	111.3	112.6	114.0	112.5	111.0	113.1	115.4	114.1
288	112.9	113.8	114.8	113.8	112.9	112.9	112.9	111.8
312	114.2	114.2	114.2	113.0	114.0	114.5	115.1	113.8
336	112.7	113.6	114.6	114.5	114.6	113.5	112.5	112.8



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2614.9		TILT	60		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	120.0	118.8	117.6	116.9	116.2	117.5	119.0	118.8
24	118.7	117.7	116.8	117.7	118.7	120.0	121.4	119.7
48	118.1	119.4	117.6	119.3	117.9	118.4	119.0	119.0
72	119.2	118.5	117.9	117.8	117.9	117.1	116.5	116.3
96	116.2	117.7	119.2	119.9	120.6	120.4	120.3	119.6
120	119.0	117.4	119.5	117.1	118.4	118.4	118.4	119.7
144	121.1	119.4	117.9	117.8	117.9	117.4	117.0	116.7
168	116.5	117.5	118.7	119.3	120.0	119.5	119.0	119.2
192	119.5	120.0	120.6	119.2	117.9	118.9	120.0	119.2
216	118.5	118.8	119.1	119.1	119.2	120.1	117.0	119.2
240	117.3	117.8	118.4	118.6	119.0	118.8	118.8	119.3
264	119.8	118.6	117.6	118.8	117.0	118.1	119.3	118.4
288	117.9	117.7	117.6	118.9	120.3	120.0	119.8	119.7
312	119.8	119.5	119.2	118.1	117.0	117.8	118.7	119.2
336	119.8	120.0	120.3	118.6	117.0	118.5	120.0	120.0

DEPTH	2614.9		TILT	55		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	124.7	124.1	124.2	124.4	124.8	124.7	124.8	124.5
24	124.3	125.3	126.4	125.7	124.4	125.5	126.7	124.8
48	124.8	125.3	125.9	125.0	124.2	125.3	126.5	125.3
72	124.3	125.0	126.0	125.0	124.2	124.1	124.2	124.7
96	125.4	126.2	127.2	126.8	126.5	125.6	124.9	126.2
120	127.6	127.2	127.4	125.0	123.7	123.7	123.7	124.2
144	124.9	125.0	125.4	124.7	124.2	124.2	124.2	123.8
168	123.6	124.4	125.4	126.3	125.7	125.7	125.7	126.0
192	126.4	125.9	125.5	123.9	127.7	126.2	124.8	124.5
216	124.3	123.9	124.8	124.9	125.1	125.0	125.1	125.0
240	125.1	125.7	126.4	126.3	126.3	125.8	125.4	125.5
264	125.7	125.4	125.1	124.9	124.8	124.5	124.4	125.6
288	126.9	126.8	126.7	126.3	126.1	127.0	128.0	127.9
312	128.0	126.3	124.7	125.7	126.7	126.7	126.7	126.3
336	126.1	126.7	127.4	127.4	127.4	126.1	125.0	124.8

DEPTH	2614.9		TILT	50		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	131.0	132.7	134.6	133.4	132.4	133.8	135.4	134.3
24	133.5	132.4	131.6	133.0	134.6	133.4	132.4	132.6
48	132.9	132.7	132.6	132.6	132.6	133.3	134.0	133.4
72	132.9	131.5	134.6	131.3	132.6	133.3	134.0	134.1
96	134.3	135.2	136.2	135.2	134.3	134.4	134.6	134.5
120	134.6	134.4	134.3	133.4	132.6	132.2	131.8	131.6
144	131.6	132.4	133.5	135.7	138.1	137.1	136.2	136.1
168	133.3	135.7	135.3	135.2	135.3	136.1	137.0	135.9
192	135.0	134.1	133.5	134.5	135.7	134.9	134.3	134.1
216	134.0	134.1	134.3	134.2	134.3	134.2	134.3	134.2
240	134.3	134.8	135.4	134.8	134.3	134.5	134.8	135.4
264	136.2	136.7	137.3	134.4	131.8	132.4	133.2	135.5
288	134.6	136.1	134.3	135.6	137.0	136.8	136.8	135.5
312	134.3	134.1	134.0	133.9	134.0	133.3	132.6	132.4
336	132.4	131.3	135.4	135.4	135.7	135.4	131.6	131.2



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

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**WALL RANGES VS DEPTH**

DEPTH	2614.9		TILT	45		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	143.6	144.5	145.5	145.3	145.3	144.2	146.4	146.0
24	145.8	145.7	145.8	145.4	144.9	144.4	144.2	144.2
48	144.4	144.9	145.5	145.4	145.5	145.6	145.9	146.3
72	146.9	146.1	145.5	145.3	145.2	145.5	146.1	146.0
96	146.1	146.1	146.3	143.9	145.0	145.4	146.1	146.5
120	143.1	144.5	146.1	144.0	146.7	146.2	143.6	144.3
144	145.2	146.6	148.3	146.5	149.6	148.0	146.6	147.3
168	145.9	146.1	146.5	146.3	146.2	145.6	145.2	145.4
192	145.9	145.6	145.5	144.8	144.2	144.9	145.8	146.0
216	146.3	145.7	145.3	145.4	145.8	144.9	144.2	144.1
240	144.2	144.3	144.6	144.5	144.6	144.5	144.6	144.5
264	144.6	144.5	144.6	144.5	144.6	144.5	144.6	144.5
288	144.6	144.4	144.4	145.4	146.6	144.7	143.1	143.5
312	144.2	143.1	142.2	143.9	145.8	146.7	147.7	147.8
336	148.0	146.6	145.5	145.8	146.2	147.3	143.7	145.9

DEPTH	2614.9		TILT	40		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	161.7	161.0	160.6	160.0	159.7	159.9	160.4	159.0
24	162.4	162.2	162.3	159.4	161.4	160.8	159.2	159.4
48	159.8	158.1	159.3	157.3	158.1	159.5	161.1	160.8
72	160.7	160.4	160.4	159.8	159.5	161.4	163.6	162.0
96	160.6	160.2	160.1	159.3	158.7	159.8	161.1	162.2
120	163.6	162.4	161.4	160.6	160.1	158.1	156.5	158.0
144	159.8	158.1	156.8	158.1	164.0	161.9	160.2	161.3
168	162.0	160.9	160.1	159.6	159.4	158.8	158.4	158.5
192	158.7	158.3	158.1	158.6	159.4	160.5	162.0	160.2
216	158.7	159.2	160.0	158.6	157.4	160.0	160.4	160.1
240	159.9	159.9	160.2	158.3	158.4	158.3	158.4	158.9
264	159.7	159.8	160.1	159.9	160.0	160.7	161.7	160.3
288	159.2	159.3	159.7	160.3	161.1	161.0	161.1	160.7
312	160.6	160.6	160.9	159.6	158.7	159.6	160.7	160.3
336	160.1	160.6	161.4	160.7	160.3	158.8	157.6	159.5

DEPTH	2614.9		TILT	35		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	182.8	179.7	177.0	177.3	177.9	180.3	177.9	178.1
24	184.2	183.4	182.8	180.3	180.3	178.8	177.6	179.0
48	180.9	178.9	177.3	178.0	178.9	179.1	179.5	179.7
72	180.2	179.5	179.2	179.5	180.2	180.5	181.1	181.5
96	182.2	183.2	184.4	176.3	179.0	182.1	180.2	179.9
120	179.9	180.3	181.1	178.2	183.6	183.5	179.9	179.0
144	178.4	178.8	179.5	178.7	182.6	180.1	178.0	179.7
168	181.9	180.1	182.2	180.5	181.8	180.4	179.3	178.0
192	177.1	181.2	185.6	180.8	178.2	180.8	185.7	181.7
216	177.8	177.8	178.0	178.8	180.1	180.1	180.2	180.1
240	180.2	180.5	181.0	178.8	178.5	178.9	179.5	179.2
264	179.2	177.2	176.6	176.1	177.7	176.9	178.9	178.1
288	177.6	177.3	177.3	178.6	180.2	179.1	178.4	178.1
312	178.2	177.7	177.6	177.6	177.9	176.9	179.6	178.1
336	176.8	178.8	181.1	180.6	180.3	179.6	179.2	180.8



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2614.9		TILT	30		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	195.1	190.0	189.6	190.1	191.0	192.2	193.7	194.4
24	195.4	194.8	194.6	191.4	191.3	190.0	188.9	187.5
48	186.9	185.7	184.8	183.5	182.5	181.8	181.4	181.0
72	180.9	179.7	178.9	179.2	179.8	179.2	178.9	177.9
96	177.3	180.0	181.3	181.6	181.1	181.5	182.2	185.3
120	188.8	194.6	200.2	200.1	200.6	204.3	208.5	208.7
144	209.2	208.1	207.4	211.3	207.6	207.7	202.0	207.9
168	207.9	202.5	207.6	205.5	203.9	203.1	207.9	206.7
192	205.9	207.5	209.6	208.4	200.7	199.6	210.9	201.7
216	201.9	201.8	202.0	202.0	202.4	201.8	200.1	199.4
240	199.7	199.2	199.1	198.6	199.2	198.2	199.2	198.6
264	198.2	197.9	198.7	196.8	197.7	197.0	196.5	194.9
288	196.5	196.1	196.2	195.0	194.0	193.5	193.5	193.8
312	194.8	195.1	196.2	197.6	194.9	201.3	205.2	202.3
336	199.8	195.9	193.5	192.7	193.2	193.1	193.5	191.9

DEPTH	2614.9		TILT	25		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	190.1	186.4	186.1	185.3	185.0	186.9	189.4	190.6
24	192.4	190.1	188.3	186.8	185.8	184.1	182.8	181.8
48	181.1	179.6	178.4	178.5	177.3	177.2	177.6	176.9
72	176.7	176.8	177.3	176.6	176.3	176.7	177.6	177.1
96	176.9	176.9	169.9	171.7	174.0	177.6	179.5	180.8
120	186.9	190.4	194.6	196.5	194.6	199.3	205.6	206.8
144	213.2	213.4	214.0	219.7	226.7	227.8	226.3	228.7
168	229.4	225.9	225.6	224.2	223.9	221.2	219.1	218.0
192	217.3	218.8	220.8	219.0	220.2	218.8	219.1	207.6
216	209.3	205.0	203.6	201.6	202.2	199.4	197.5	195.4
240	196.1	194.5	194.3	192.1	190.5	191.9	192.4	191.3
264	190.6	189.8	190.7	190.6	191.0	188.2	190.2	189.9
288	189.9	187.8	188.8	188.0	187.7	188.0	188.8	189.0
312	189.6	190.4	191.5	192.6	194.0	195.6	197.6	195.8
336	199.0	190.2	189.4	189.1	189.4	191.7	191.2	190.6

DEPTH	2614.9		TILT	20		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	187.2	183.9	181.1	182.8	182.7	184.2	186.1	185.8
24	186.6	186.7	187.2	186.4	186.1	183.7	181.8	180.7
48	180.0	178.4	177.3	176.4	175.9	173.0	175.9	174.6
72	170.3	170.5	171.1	171.1	172.6	173.3	174.3	172.6
96	171.3	169.4	168.0	170.3	173.2	174.7	176.8	180.7
120	185.2	188.0	191.3	192.5	194.3	198.2	202.8	205.5
144	208.8	210.2	212.1	213.2	226.2	220.6	227.2	225.2
168	223.9	223.2	223.1	222.8	223.1	220.9	219.2	217.1
192	216.9	214.9	217.0	213.3	213.8	211.8	203.9	201.2
216	199.0	196.9	195.4	195.3	195.7	193.8	190.2	188.2
240	196.4	188.8	187.6	186.8	186.3	185.1	184.4	184.2
264	184.4	183.4	184.8	183.6	183.1	183.4	184.2	183.5
288	183.3	184.6	182.0	181.8	182.0	183.4	185.8	184.2
312	184.1	185.5	187.2	187.4	188.1	190.3	193.1	191.6
336	189.9	187.2	185.0	185.7	186.9	187.5	188.5	187.6



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2614.9		TILT	15		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	179.7	178.8	179.1	179.4	180.2	181.3	182.9	183.8
24	185.2	184.7	184.7	181.2	180.7	179.2	178.1	177.1
48	176.5	174.0	171.9	171.0	170.5	170.1	170.1	169.0
72	170.3	168.5	167.2	167.4	167.9	167.2	166.9	165.8
96	165.1	165.1	165.4	168.0	168.4	171.8	172.9	175.6
120	178.9	183.5	188.9	190.6	192.9	196.9	201.7	204.7
144	208.4	208.5	209.2	212.0	221.5	221.2	227.9	224.9
168	222.4	222.3	222.7	221.1	220.2	218.4	217.2	215.1
192	213.7	212.8	212.4	211.5	211.3	204.9	199.7	198.0
216	198.2	194.0	190.4	190.4	187.6	186.2	187.1	184.8
240	191.9	183.8	182.2	180.0	178.6	178.9	179.6	178.4
264	177.6	177.6	178.1	178.3	178.2	179.0	178.9	178.5
288	178.6	179.0	179.9	179.7	179.9	179.5	179.6	178.8
312	178.4	181.0	184.2	185.4	184.1	185.2	186.7	185.3
336	184.4	184.0	184.2	181.1	180.7	182.8	185.4	181.9

DEPTH	2614.9		TILT	10		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	177.2	176.1	175.4	174.9	174.9	177.6	180.9	179.2
24	182.9	181.7	180.9	178.0	175.6	172.8	172.9	172.3
48	172.6	171.5	170.9	169.4	168.4	166.0	164.1	164.3
72	164.9	163.9	163.4	162.5	163.2	162.3	162.9	161.2
96	162.3	160.7	161.9	165.0	168.6	169.8	171.4	174.6
120	178.4	181.6	185.4	188.9	193.2	196.1	202.2	204.5
144	203.9	206.4	209.4	212.6	216.4	221.0	226.4	223.3
168	220.9	220.6	220.9	218.7	217.2	215.8	214.9	212.0
192	209.7	210.0	210.9	207.3	204.7	199.9	196.1	195.0
216	192.9	190.2	188.2	187.5	187.4	185.3	186.1	186.3
240	188.2	185.1	176.8	176.8	177.3	176.8	175.9	175.5
264	175.6	175.5	175.9	173.6	171.9	173.6	175.9	174.5
288	173.6	173.7	174.1	173.5	173.4	175.0	177.1	176.5
312	176.4	176.2	176.4	177.3	178.6	181.2	184.4	181.9
336	182.7	180.2	178.0	176.8	176.2	178.5	181.2	178.9

DEPTH	2614.9		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.0	170.8	171.0	170.2	169.9	170.8	172.1	173.2
24	174.8	175.0	175.7	173.6	172.1	169.1	166.6	167.5
48	168.8	167.6	166.9	167.2	168.0	161.6	159.8	160.1
72	160.9	158.4	156.5	157.4	158.7	159.0	159.8	156.9
96	154.6	154.8	155.4	158.1	161.4	163.6	166.3	169.5
120	173.2	174.7	176.8	179.1	182.0	186.2	191.3	194.5
144	198.4	201.2	204.7	204.7	205.2	211.7	219.2	218.0
168	217.3	216.7	216.8	215.1	214.0	211.8	210.2	207.0
192	204.4	204.7	205.5	202.3	199.8	197.0	194.8	192.4
216	190.5	187.8	185.8	185.4	185.5	184.4	183.8	183.6
240	188.8	183.6	179.2	177.0	175.4	175.8	176.8	172.2
264	168.3	168.7	169.6	169.7	170.2	170.9	172.1	172.1
288	172.6	172.5	172.9	171.4	170.5	171.2	172.4	171.0
312	170.2	171.0	172.4	175.4	178.0	179.3	181.2	178.5
336	176.4	174.4	173.5	172.8	172.6	173.9	175.7	173.1



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**WALL RANGES VS DEPTH**

DEPTH	2620.0		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.1	170.3	170.9	170.6	170.9	172.3	174.1	173.9
24	174.1	174.8	175.9	171.8	174.8	169.6	171.4	169.1
48	167.4	167.4	167.8	165.1	162.9	161.4	160.4	161.3
72	162.6	160.4	158.6	158.2	158.1	157.9	158.1	155.8
96	153.9	156.5	159.6	162.1	165.1	166.5	168.4	172.3
120	176.9	179.2	182.2	186.1	183.5	188.1	198.4	199.5
144	201.2	202.4	204.2	208.3	207.3	212.6	221.2	218.6
168	216.7	215.7	215.4	214.1	213.4	212.1	211.4	207.4
192	204.2	203.0	202.4	199.5	197.2	194.6	192.7	190.2
216	188.4	185.5	183.2	184.0	185.4	184.1	183.4	183.7
240	184.4	181.9	179.9	178.0	176.6	176.9	177.6	172.5
264	168.1	169.8	171.9	171.4	171.4	171.5	172.1	171.7
288	171.6	171.3	171.4	171.3	171.6	171.3	171.4	171.4
312	171.9	172.0	172.6	175.5	178.9	179.5	180.7	177.2
336	174.4	173.3	172.6	172.9	173.6	175.5	177.9	173.7

DEPTH	2630.2		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.6	170.3	169.4	171.0	173.1	173.9	175.1	174.4
24	174.1	174.4	175.1	170.4	171.9	167.6	169.3	168.0
48	167.1	165.7	164.6	162.0	159.9	160.0	160.6	164.3
72	159.7	161.9	156.1	157.3	158.9	158.0	157.6	156.2
96	155.1	157.1	159.6	162.2	165.4	166.5	168.1	173.0
120	178.6	179.5	180.9	183.5	186.7	191.7	197.7	199.7
144	202.4	203.4	204.9	207.8	211.4	214.4	218.2	215.6
168	217.6	216.4	215.8	213.9	213.0	209.6	207.4	207.1
192	207.4	204.5	202.2	198.6	195.6	192.7	190.4	187.4
216	191.6	185.2	185.9	185.0	184.7	183.8	183.5	183.8
240	184.7	180.4	179.6	177.2	178.1	176.5	175.4	171.5
264	168.1	168.5	169.4	169.7	170.4	171.3	172.6	171.3
288	170.4	170.7	171.4	171.5	172.1	171.6	171.5	171.5
312	172.1	173.1	174.6	176.6	179.1	180.1	181.7	178.0
336	174.9	172.5	170.6	172.6	175.1	173.0	176.8	172.7

DEPTH	2640.0		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.9	169.6	169.4	169.4	170.0	172.2	174.9	174.2
24	176.6	175.1	175.1	171.8	169.1	169.0	167.1	166.8
48	166.9	166.2	166.0	164.4	163.3	161.0	159.1	159.4
72	160.1	158.4	161.5	157.5	157.1	158.5	158.4	157.2
96	154.6	154.5	156.9	158.8	161.1	163.2	165.4	169.4
120	174.1	174.9	176.1	181.7	185.7	190.3	195.7	198.3
144	201.7	201.9	202.7	205.9	208.2	212.6	217.9	217.9
168	218.4	217.0	216.2	213.7	212.7	210.1	208.9	205.6
192	202.9	204.1	205.9	203.0	200.7	197.0	193.9	191.5
216	189.7	187.1	185.2	183.5	183.7	184.0	184.9	186.4
240	188.4	184.2	180.7	179.1	178.1	174.5	175.4	171.7
264	168.6	169.8	170.1	170.5	171.4	171.4	171.9	171.0
288	170.6	170.9	171.4	170.7	170.4	170.3	170.6	171.2
312	171.1	172.0	173.4	175.3	177.6	178.8	180.4	177.6
336	175.4	174.0	173.1	173.0	173.4	173.7	175.6	171.7



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**WALL RANGES VS DEPTH**

DEPTH	2640.0		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.9	169.6	169.4	169.4	170.0	172.2	174.9	174.2
24	176.6	175.1	175.1	171.8	169.1	169.0	167.1	166.8
48	166.9	166.2	166.0	164.4	163.3	161.0	159.1	159.4
72	160.1	158.4	161.5	157.5	157.1	158.5	158.4	157.2
96	154.6	154.5	156.9	158.8	161.1	163.2	165.4	169.4
120	174.1	174.9	176.1	181.7	185.7	190.3	195.7	198.3
144	201.7	201.9	202.7	205.9	208.2	212.6	217.9	217.9
168	218.4	217.0	216.2	213.7	212.7	210.2	208.4	205.7
192	203.7	203.0	205.9	203.0	200.7	197.0	193.9	191.5
216	189.7	187.1	185.2	183.5	183.7	184.0	184.9	186.4
240	188.4	184.2	180.7	179.1	178.1	174.5	175.4	171.7
264	168.6	169.8	170.1	170.5	171.4	171.4	171.9	171.0
288	170.6	170.9	171.4	170.7	170.4	170.3	170.6	171.2
312	171.1	172.0	173.4	175.3	177.6	178.8	180.4	177.6
336	175.4	174.0	173.1	173.0	173.4	173.7	175.6	171.7

DEPTH	2649.8		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.1	169.4	169.1	169.0	169.4	171.3	173.6	173.8
24	174.4	174.7	175.4	172.6	170.4	169.3	168.6	166.9
48	165.6	164.4	163.6	162.9	162.6	160.3	158.4	158.5
72	159.1	156.9	161.5	156.0	157.4	157.2	157.4	156.0
96	155.1	154.7	154.6	157.5	160.9	162.5	164.6	168.3
120	172.6	173.8	175.4	179.5	184.4	188.9	194.2	196.1
144	198.7	200.2	202.4	204.1	206.4	213.2	221.2	218.6
168	216.7	215.6	215.2	213.9	213.2	210.9	209.2	205.8
192	203.2	204.2	205.9	201.3	197.4	193.8	190.9	189.4
216	188.4	186.4	184.9	183.9	183.4	184.1	185.4	185.0
240	185.2	184.7	184.7	180.9	177.6	175.5	168.1	171.6
264	169.9	169.3	169.1	169.9	171.1	171.4	172.1	171.5
288	171.4	169.8	168.6	169.3	170.4	170.5	171.1	170.5
312	170.4	171.3	172.6	173.2	174.1	176.4	179.1	178.7
336	178.6	174.3	170.6	171.0	171.9	174.1	176.9	173.2

DEPTH	2660.1		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	169.6	168.8	168.4	168.9	169.9	171.6	173.9	173.4
24	173.4	172.2	174.6	171.5	169.0	168.0	166.9	166.2
48	165.9	164.9	164.4	162.7	161.4	159.8	158.6	158.3
72	158.4	156.8	155.6	156.0	156.9	156.7	156.9	155.7
96	154.9	155.0	155.5	159.0	163.1	164.4	166.1	169.3
120	173.1	175.5	178.4	181.3	184.9	189.0	193.9	197.0
144	200.7	201.0	201.9	207.3	213.7	216.1	219.2	216.2
168	213.9	213.5	213.7	212.5	211.9	209.5	207.7	205.1
192	203.2	203.0	203.4	198.8	194.9	192.4	190.4	188.6
216	187.4	184.5	182.2	182.2	182.7	182.8	183.4	184.0
240	185.2	182.6	180.7	175.4	170.9	168.8	167.1	167.7
264	168.6	168.5	168.9	169.8	171.1	169.8	168.9	170.5
288	172.6	171.2	170.1	169.7	169.6	169.4	169.6	169.4
312	169.6	171.1	173.1	175.5	178.4	178.4	178.9	174.7
336	175.7	172.7	171.4	172.9	174.9	174.2	173.9	171.5



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**WALL RANGES VS DEPTH**

DEPTH	2670.0		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	169.1	168.7	168.6	167.5	166.9	169.4	172.4	172.8
24	173.6	173.5	173.9	170.5	167.6	166.8	166.4	165.0
48	164.1	163.7	163.6	161.8	160.4	159.4	158.9	157.5
72	156.6	155.5	154.9	155.5	156.6	156.2	156.1	155.2
96	154.6	153.9	153.6	157.3	161.6	163.5	165.9	168.0
120	170.6	174.0	177.9	179.8	182.2	187.1	192.9	195.8
144	199.4	200.9	202.9	206.3	210.4	214.4	219.2	217.5
168	216.4	214.5	213.2	211.6	210.7	208.1	206.2	204.2
192	202.9	202.4	202.4	199.7	197.7	194.2	191.4	190.1
216	189.4	185.5	182.2	182.2	182.7	181.8	181.4	181.7
240	182.4	179.9	177.9	174.1	170.9	168.9	167.4	167.7
264	168.4	169.0	170.1	169.9	170.1	171.3	172.9	170.9
288	169.4	170.3	171.6	171.0	170.9	170.7	170.9	170.0
312	169.6	170.0	170.9	172.0	173.6	174.8	176.4	174.4
336	172.9	171.1	169.9	170.9	172.4	173.5	175.1	171.9

DEPTH	2679.8		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	169.6	169.3	169.4	168.3	167.6	169.9	172.6	173.3
24	174.4	173.7	173.4	170.2	167.6	167.2	167.1	164.9
48	163.1	162.7	162.6	160.7	159.1	157.9	157.1	156.5
72	156.4	155.8	155.6	156.4	157.6	157.0	156.9	156.0
96	155.5	154.3	153.6	155.5	157.9	160.9	164.4	166.5
120	169.1	173.2	177.9	180.5	183.7	186.8	190.7	193.3
144	196.7	199.3	202.7	206.3	210.7	214.3	218.7	216.7
168	215.4	213.5	212.2	211.0	210.4	208.4	206.9	204.7
192	203.2	203.6	204.7	200.6	197.2	193.7	190.9	188.6
216	186.9	184.6	182.9	181.4	180.4	179.7	179.4	178.3
240	177.8	175.4	173.6	171.5	170.0	169.0	168.4	167.9
264	167.9	168.0	168.6	169.7	171.1	170.5	170.4	170.2
288	170.4	169.0	168.1	169.5	171.4	170.8	170.6	169.3
312	168.4	169.5	171.1	173.3	175.9	176.0	176.6	174.9
336	173.6	171.8	170.4	170.5	171.1	172.6	174.6	171.9

DEPTH	2690.0		TILT	0		VOS	5955.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	167.1	167.9	169.1	168.2	167.6	169.8	172.4	172.2
24	172.4	171.0	170.1	168.0	166.4	166.2	166.4	164.0
48	162.1	160.8	159.9	158.8	158.1	157.5	157.4	156.5
72	156.1	156.5	157.4	156.8	156.6	156.8	157.4	154.5
96	152.1	153.5	155.4	156.8	158.6	161.2	164.4	166.3
120	168.6	172.3	176.6	178.4	180.7	186.4	193.2	195.7
144	198.9	199.8	201.2	204.3	208.2	212.9	218.4	216.4
168	214.9	213.1	211.9	210.9	210.4	208.0	206.2	203.5
192	201.4	200.8	200.7	200.7	198.2	194.5	190.4	187.5
216	185.2	181.1	182.0	177.3	178.9	177.9	177.4	176.2
240	175.4	172.6	170.4	170.1	170.3	168.6	167.4	167.8
264	161.2	165.0	165.1	165.7	166.6	166.8	167.4	168.6
288	170.4	168.8	167.6	168.7	170.1	169.7	169.6	170.3
312	171.4	171.4	171.9	174.1	176.9	176.3	176.1	173.6
336	171.6	170.3	169.4	170.3	171.6	172.3	173.4	170.0



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**WALL RANGES VS DEPTH**

DEPTH	2700.0		TILT	0		VOS	5955.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	152.1	159.1	167.1	166.9	167.1	169.5	172.4	173.3
24	174.7	173.8	173.4	169.7	166.6	165.0	163.9	162.5
48	161.6	160.4	159.6	159.2	159.1	159.4	160.1	157.6
72	155.6	154.7	154.1	154.8	155.9	156.3	157.1	155.8
96	154.9	154.8	155.1	158.3	162.1	163.7	165.7	168.8
120	172.4	174.4	176.9	179.2	182.2	185.9	190.4	193.6
144	197.4	198.9	200.9	203.9	207.6	212.5	218.2	216.1
168	214.6	213.1	212.2	211.1	210.7	208.1	206.1	204.2
192	202.8	202.6	202.9	200.7	199.2	195.2	191.9	190.6
216	189.9	185.2	181.2	178.0	175.4	173.5	172.1	168.4
240	165.4	163.8	162.7	159.8	157.4	153.5	150.1	148.4
264	147.1	149.4	152.2	151.2	150.7	152.8	155.5	156.2
288	157.4	158.3	159.6	159.7	160.1	161.5	163.3	164.3
312	165.6	167.9	170.7	171.6	173.0	174.8	177.2	175.7
336	170.0	172.6	171.2	170.3	170.0	160.2	159.7	160.4

DEPTH	2710.0		TILT	0		VOS	5955.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	135.1	140.0	145.6	155.2	162.1	162.1	158.6	159.4
24	160.6	162.8	165.4	160.9	157.1	151.5	146.6	149.5
48	152.9	156.8	151.0	160.8	160.6	158.8	157.4	156.8
72	156.6	154.8	153.4	154.3	155.6	156.3	157.4	154.5
96	152.1	155.1	158.6	159.8	161.4	159.7	158.4	158.3
120	158.6	162.2	166.4	169.4	172.9	176.8	181.4	182.3
144	183.7	182.5	181.9	181.9	182.4	187.8	194.2	194.4
168	195.3	193.8	192.9	193.3	194.2	194.9	196.2	199.1
192	190.4	194.0	192.6	189.2	186.5	186.3	186.7	182.8
216	179.7	178.8	167.5	162.2	157.6	158.0	151.9	146.9
240	142.6	142.4	142.5	139.7	137.4	135.3	133.6	132.1
264	130.9	135.4	140.6	144.9	149.9	150.8	152.2	149.2
288	146.6	145.8	145.4	141.4	138.0	138.6	139.6	144.0
312	149.1	150.7	152.6	152.9	153.6	154.5	155.9	155.1
336	154.6	152.0	149.9	150.2	150.9	148.0	145.6	140.0

DEPTH	2719.9		TILT	0		VOS	5958.40	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	110.4	115.7	121.9	129.8	139.2	141.3	143.8	141.4
24	139.4	142.2	145.5	140.9	136.9	134.0	131.4	124.3
48	118.2	125.0	132.9	134.2	135.9	141.0	146.8	149.9
72	153.5	154.7	149.8	154.7	153.5	152.9	152.9	153.4
96	148.6	146.0	153.8	152.8	152.2	146.6	141.7	138.9
120	136.6	137.3	138.4	144.8	152.2	152.0	152.2	160.8
144	171.0	170.4	170.2	171.4	173.1	174.4	176.2	176.0
168	176.2	173.6	171.5	170.5	170.0	171.6	173.7	174.2
192	175.2	172.3	170.0	169.0	168.5	169.8	171.5	166.3
216	161.7	157.8	154.5	150.7	147.5	144.1	141.2	139.2
240	126.3	121.0	116.4	113.0	110.0	109.4	109.1	108.7
264	108.5	117.1	127.5	135.0	135.4	133.6	132.2	131.2
288	130.5	130.4	130.5	120.7	112.5	116.7	121.7	123.8
312	126.4	129.2	132.4	134.7	137.4	136.9	136.7	132.7
336	129.3	132.5	136.3	133.5	131.2	130.1	129.4	119.0



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OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2730.0		TILT	0		VOS	5958.40	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	90.1	88.8	87.6	103.9	116.7	116.5	116.7	124.3
24	123.9	119.2	115.2	115.9	117.0	115.0	113.4	110.1
48	107.3	102.4	98.2	95.6	93.4	109.1	82.3	101.4
72	132.7	130.9	137.7	139.5	141.7	141.1	140.9	137.7
96	134.9	136.1	137.7	134.3	131.4	124.5	118.5	120.5
120	123.0	123.6	124.5	125.5	126.9	129.5	132.4	138.7
144	145.9	150.0	154.7	152.1	150.0	149.6	149.7	151.8
168	154.5	153.7	153.5	154.6	156.2	157.7	159.8	156.3
192	153.5	148.4	144.1	148.9	147.7	151.3	155.6	147.4
216	146.0	140.1	135.1	130.8	127.2	120.6	114.9	110.1
240	105.9	99.3	93.7	93.1	92.9	94.0	95.4	99.6
264	104.4	106.8	109.7	111.7	114.2	117.3	110.6	114.0
288	111.9	109.5	107.4	101.6	96.7	96.5	96.7	99.8
312	103.4	110.7	119.4	122.3	125.7	121.0	116.9	119.3
336	122.2	115.6	110.0	111.3	112.9	100.3	90.4	90.1

DEPTH	2739.7		TILT	0		VOS	5958.90	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	74.9	71.4	68.4	69.2	70.1	82.4	100.1	100.5
24	101.2	99.6	98.4	98.0	97.9	93.6	89.9	87.6
48	85.6	81.7	78.4	76.9	75.6	76.2	76.9	75.0
72	73.4	91.3	95.0	88.2	82.6	86.4	90.8	91.2
96	92.0	81.4	119.7	98.2	74.8	89.2	96.2	97.4
120	98.9	100.3	101.9	103.9	106.2	112.8	120.6	122.6
144	124.9	127.6	130.7	132.5	134.7	130.8	127.4	129.7
168	132.4	135.0	138.1	139.1	140.5	140.3	140.5	138.4
192	136.7	133.2	130.2	129.7	129.6	127.0	124.8	128.0
216	131.8	115.6	103.2	101.0	99.2	96.6	94.4	90.1
240	86.4	85.6	85.0	81.1	77.6	80.2	83.1	88.5
264	94.9	95.6	96.5	88.1	87.7	91.2	90.4	89.1
288	88.2	82.2	77.1	77.1	77.2	77.1	77.1	80.3
312	83.9	84.5	85.3	92.4	101.2	101.2	101.4	104.0
336	107.0	105.3	103.9	90.7	80.6	77.1	74.1	74.4

DEPTH	2750.0		TILT	0		VOS	5958.90	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	67.6	66.1	64.9	67.1	69.6	73.3	77.6	80.7
24	77.5	77.8	78.4	83.3	80.8	72.0	65.1	67.1
48	69.4	67.2	65.4	63.1	61.1	62.8	64.8	65.0
72	65.4	66.8	68.4	72.2	70.6	74.7	73.1	73.8
96	74.6	75.3	76.1	70.6	74.5	67.5	69.1	74.2
120	67.8	85.0	90.8	87.2	84.1	90.6	98.4	100.2
144	102.4	108.0	114.6	117.1	120.0	120.4	109.7	108.7
168	114.6	117.5	120.9	122.1	123.7	123.9	124.4	120.0
192	116.1	110.9	106.4	107.1	101.6	99.5	105.9	103.3
216	101.0	97.7	94.9	94.4	94.2	89.9	86.1	86.2
240	86.4	82.4	78.9	78.8	78.9	79.3	79.9	76.5
264	73.6	73.0	72.6	70.2	68.1	68.9	69.9	68.3
288	66.9	61.8	57.6	57.8	58.1	59.5	61.1	60.9
312	60.9	61.0	61.2	69.1	79.6	76.7	74.1	78.0
336	82.6	85.3	88.3	72.8	62.1	65.8	59.1	67.5



CUSTOMER : Westlake Chemicals

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CAVERN : PPG No. 007B

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**WALL RANGES VS DEPTH**

DEPTH	2760.0		TILT	0		VOS	5958.90	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	54.9	58.7	63.4	66.7	70.6	69.7	68.9	69.4
24	70.1	71.0	72.1	68.1	64.6	61.5	58.9	60.5
48	62.4	61.8	61.4	61.5	61.9	63.1	64.5	65.3
72	66.4	66.5	66.9	67.5	68.4	68.8	69.4	69.4
96	69.6	68.9	68.4	67.5	66.9	66.5	66.4	67.4
120	68.6	70.5	72.7	73.8	66.6	69.3	72.4	73.0
144	82.9	88.3	94.7	96.6	98.9	101.0	95.3	101.6
168	100.1	100.5	101.2	104.2	107.6	107.6	107.9	102.1
192	90.2	94.7	88.0	88.1	88.3	91.6	88.9	89.3
216	89.9	91.2	92.9	92.1	91.7	88.0	84.9	84.0
240	83.4	80.3	77.6	74.8	75.0	70.9	69.6	68.6
264	67.8	65.7	63.9	65.4	67.1	66.3	65.7	56.0
288	48.9	48.8	48.9	49.7	50.6	51.9	53.4	51.6
312	50.1	43.5	38.6	39.5	40.6	49.1	56.7	62.5
336	65.1	62.6	60.4	59.8	59.4	59.2	59.1	56.8

DEPTH	2770.0		TILT	0		VOS	5959.20	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	59.6	61.0	62.6	63.2	63.9	64.3	64.9	65.4
24	66.0	65.6	65.4	63.0	60.9	58.5	56.4	57.5
48	58.9	59.5	60.4	61.2	62.1	63.0	64.1	64.2
72	64.4	65.9	67.6	66.9	66.4	66.3	66.4	66.4
96	66.6	67.5	68.6	67.5	66.6	66.5	66.6	66.7
120	66.9	65.3	63.9	64.2	64.6	65.6	66.9	68.7
144	70.9	71.9	73.1	74.6	76.4	79.4	82.9	83.3
168	83.9	83.7	83.8	87.1	90.9	88.4	86.2	83.3
192	80.8	80.1	79.6	83.1	87.2	86.4	85.9	84.6
216	83.5	84.2	85.2	84.4	83.9	84.7	85.7	83.5
240	81.6	81.0	80.2	72.1	74.6	70.8	68.3	61.5
264	61.1	62.3	63.6	65.4	67.4	55.5	47.4	46.9
288	46.6	47.3	48.1	49.5	51.1	53.8	54.6	53.8
312	50.9	43.5	40.0	39.9	38.3	40.7	42.7	44.0
336	45.2	54.0	53.6	54.9	56.6	56.8	57.2	59.4

DEPTH	2780.0		TILT	0		VOS	5959.20	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	61.1	61.2	61.4	61.7	62.1	63.1	64.4	65.3
24	66.4	64.4	62.6	60.9	59.4	57.2	55.4	55.8
48	56.4	57.3	58.4	58.7	59.1	60.7	62.6	64.2
72	66.1	64.9	63.9	65.3	65.6	65.2	65.4	65.3
96	65.9	67.4	69.1	68.7	68.4	68.3	68.4	66.4
120	69.6	67.5	63.4	62.8	62.4	63.8	65.4	68.0
144	71.1	72.5	74.1	70.8	67.8	70.8	74.2	74.6
168	75.1	77.2	79.6	79.8	80.1	80.0	80.1	78.9
192	77.9	80.0	82.4	81.9	81.6	80.4	79.4	80.4
216	81.6	82.2	82.9	84.9	87.2	85.9	84.9	82.9
240	81.1	79.9	80.5	76.4	74.1	70.2	66.9	65.1
264	63.6	61.9	60.4	63.8	64.5	52.3	48.4	48.2
288	48.1	48.0	48.1	49.4	50.9	53.5	51.4	50.3
312	49.4	48.8	48.4	48.8	49.4	50.9	52.6	52.7
336	52.9	54.1	55.6	55.9	56.4	56.8	57.4	59.1



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

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**WALL RANGES VS DEPTH**

DEPTH	2790.1		TILT	0		VOS	5959.20	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	59.9	58.3	56.9	57.4	58.1	57.2	56.4	55.3
24	54.4	53.7	53.1	53.5	54.1	53.8	53.6	53.8
48	54.1	54.4	54.9	56.1	57.6	60.2	63.1	63.8
72	64.6	63.4	62.4	64.0	65.9	67.0	68.4	66.2
96	64.4	66.5	69.0	69.7	70.6	70.8	71.2	71.4
120	71.8	69.4	67.4	67.2	67.1	68.6	66.6	67.9
144	69.3	75.5	76.9	73.1	69.9	71.7	76.4	75.3
168	77.9	78.4	79.1	79.8	80.6	80.2	79.9	80.2
192	80.6	82.2	84.2	83.2	82.4	81.5	80.9	81.9
216	83.2	83.9	84.9	86.1	87.7	86.5	85.7	83.8
240	82.1	80.1	78.4	77.8	77.5	74.6	72.1	70.6
264	69.3	66.9	64.8	63.4	62.1	60.5	59.1	59.0
288	59.1	60.3	61.6	61.0	60.6	58.9	57.4	57.7
312	58.1	56.9	55.9	56.9	58.1	58.5	59.1	56.8
336	54.9	54.9	55.1	56.0	57.1	58.1	59.4	59.5

DEPTH	2800.0		TILT	0		VOS	5959.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	59.4	58.8	58.4	58.2	58.1	56.5	55.1	55.0
24	55.1	55.2	55.4	55.4	55.6	54.5	53.6	54.2
48	54.9	56.0	57.4	59.0	60.9	60.7	60.6	62.0
72	63.6	63.0	62.6	64.5	66.6	65.4	64.4	64.5
96	64.9	65.0	65.4	66.3	67.4	68.4	69.6	69.3
120	69.1	68.6	68.1	67.3	67.4	67.2	67.1	67.8
144	68.6	70.5	72.6	75.5	78.9	81.2	83.9	84.6
168	85.6	86.8	88.2	87.7	87.4	87.9	88.7	86.2
192	84.2	85.4	86.9	88.1	89.7	88.0	86.5	86.9
216	87.4	86.8	89.1	89.2	92.4	91.0	89.9	87.7
240	85.9	84.4	83.2	80.1	77.4	77.5	77.9	74.5
264	71.6	68.8	66.4	64.8	63.4	60.7	58.4	57.4
288	56.6	56.7	56.9	57.3	57.9	57.5	57.4	56.8
312	56.4	55.5	54.9	56.3	56.4	56.6	56.8	56.5
336	56.4	55.5	55.4	56.9	58.6	58.4	58.4	58.8

DEPTH	2810.1		TILT	0		VOS	5959.50	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	59.1	58.5	58.1	57.9	57.9	57.0	56.4	55.0
24	53.9	54.7	55.6	54.9	54.4	53.4	52.6	53.3
48	54.1	55.5	57.1	58.4	59.9	61.4	63.1	63.0
72	63.1	63.0	63.1	62.8	62.6	64.4	63.9	63.8
96	63.9	65.0	66.4	66.0	65.9	67.1	68.6	69.2
120	69.9	68.5	67.4	67.0	66.9	67.2	67.6	69.6
144	71.9	73.3	74.9	75.5	77.7	80.1	84.7	85.8
168	87.2	87.9	88.9	87.1	85.7	85.3	85.2	85.7
192	86.4	87.8	89.4	87.4	85.7	85.8	86.2	87.8
216	89.7	90.8	92.2	90.3	94.1	90.5	90.0	88.2
240	86.5	82.3	80.9	78.1	78.7	76.6	75.6	75.2
264	72.7	69.4	66.5	62.0	60.4	59.8	59.4	58.0
288	56.9	56.4	56.1	56.4	56.9	56.4	56.1	55.8
312	55.6	54.5	53.6	54.9	56.4	55.9	55.6	54.3
336	53.1	54.9	56.9	56.4	56.1	56.8	57.6	58.3



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2819.9		TILT	0		VOS	5960.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	57.7	58.8	59.4	60.0	60.9	58.2	57.6	56.2
24	56.6	56.6	56.6	55.7	54.9	53.8	52.9	53.7
48	54.6	55.5	56.6	57.7	57.7	59.6	61.9	62.4
72	63.1	62.4	61.9	62.3	62.9	63.8	64.9	64.4
96	64.1	64.2	64.4	64.7	65.1	66.6	68.4	69.2
120	70.1	69.0	68.1	67.4	66.9	66.9	67.1	69.0
144	71.1	71.9	72.9	76.4	80.4	81.3	82.4	83.9
168	85.7	87.0	88.7	88.3	88.2	86.9	85.9	85.6
192	85.2	84.6	83.9	84.7	86.1	86.2	86.5	87.7
216	89.2	89.4	89.9	90.5	91.4	91.3	91.4	89.3
240	87.4	85.6	84.2	81.7	79.7	78.9	78.4	75.9
264	73.7	69.9	66.6	64.9	63.4	61.6	60.1	59.9
288	59.9	57.3	56.6	55.5	56.3	55.4	56.4	55.8
312	55.4	54.5	53.9	54.2	54.6	54.9	55.4	55.6
336	55.9	56.1	56.4	56.3	56.4	55.9	55.6	57.5

DEPTH	2825.0		TILT	0		VOS	5960.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	59.6	60.0	60.6	59.7	58.9	57.5	56.4	56.2
24	56.1	56.5	57.1	61.4	62.5	57.7	54.1	53.8
48	58.0	55.5	57.6	58.5	59.6	60.7	61.9	62.3
72	62.9	62.2	61.6	62.7	63.9	63.7	63.6	63.8
96	64.1	63.9	63.9	64.2	64.6	67.1	69.9	69.8
120	69.9	68.5	67.4	67.2	67.1	67.1	67.1	68.2
144	69.4	71.1	73.2	75.7	78.7	81.1	83.9	84.8
168	85.9	86.3	86.9	87.3	87.9	87.3	86.9	84.6
192	82.7	82.7	82.9	84.0	85.4	85.8	86.4	86.9
216	87.7	89.3	91.2	91.7	92.4	91.9	91.7	89.6
240	88.2	86.2	84.5	82.5	81.7	79.0	76.7	73.7
264	71.1	68.6	66.4	64.9	63.6	62.1	60.9	59.3
288	57.9	56.7	55.6	55.4	55.4	55.6	55.9	54.5
312	54.6	54.4	54.4	55.5	55.6	55.6	55.6	55.9
336	56.4	56.3	56.4	56.4	56.6	56.8	57.1	58.3

DEPTH	2829.9		TILT	0		VOS	5960.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	87.8	86.1	84.7	83.2	82.0	80.1	78.4	79.3
24	77.4	75.9	71.4	68.7	75.8	72.6	67.2	65.6
48	64.2	63.5	63.0	63.8	64.4	65.2	66.4	65.6
72	62.9	64.5	64.2	65.3	63.6	63.8	64.1	63.4
96	67.0	66.0	63.2	64.6	66.6	68.1	69.9	69.7
120	69.6	68.9	68.4	68.2	68.1	68.3	68.6	68.9
144	69.4	69.9	70.6	74.7	79.4	80.7	82.2	84.4
168	86.9	87.3	87.9	87.4	87.2	86.4	85.9	84.2
192	82.8	83.0	82.2	84.9	86.5	87.7	87.7	88.8
216	88.7	90.1	91.2	92.0	93.2	92.0	91.2	89.9
240	88.9	86.8	84.9	82.8	82.5	78.9	77.2	74.5
264	72.1	70.0	68.1	66.3	64.6	62.5	61.9	61.5
288	57.6	56.9	56.4	55.7	55.1	54.8	54.6	54.3
312	54.1	53.4	59.8	61.8	99.2	55.7	56.6	56.8
336	86.5	86.5	86.6	90.3	92.7	90.2	87.3	86.1



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2835.1		TILT	0		VOS	5960.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	97.4	102.2	104.1	96.9	92.1	99.4	89.0	86.1
24	82.3	82.3	80.7	80.9	81.4	80.5	79.7	78.7
48	77.8	76.5	75.8	74.9	73.9	74.6	75.3	74.5
72	73.9	73.6	72.9	78.0	80.4	80.5	80.8	80.9
96	81.4	85.9	89.1	90.3	92.4	95.0	96.8	100.1
120	106.4	103.4	96.0	105.2	109.7	118.8	124.2	84.4
144	69.6	70.9	88.2	75.6	79.4	81.0	82.9	84.6
168	86.7	86.7	86.9	86.5	86.4	85.5	84.9	83.8
192	82.9	83.3	83.9	85.6	87.7	87.4	87.4	89.0
216	90.9	91.2	91.7	92.7	93.9	92.3	90.9	93.3
240	92.8	85.9	85.4	84.3	83.4	80.6	78.2	74.4
264	78.7	72.4	75.0	73.2	70.4	70.3	70.5	156.9
288	60.4	58.9	57.6	59.0	60.6	61.3	155.8	153.2
312	148.7	150.7	162.5	153.8	156.0	152.5	150.2	149.0
336	147.9	149.8	152.4	151.1	150.4	98.8	95.3	96.2

DEPTH	2840.0		TILT	0		VOS	5960.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	151.4	150.9	150.8	145.3	149.3	148.4	147.9	145.0
24	89.3	92.9	139.5	93.6	92.3	91.1	90.3	89.1
48	88.3	88.1	87.3	94.2	99.8	144.9	146.6	147.5
72	149.0	156.1	162.5	91.3	173.2	174.9	94.7	94.3
96	94.2	101.1	185.9	107.5	106.3	108.3	111.6	205.2
120	208.6	132.1	135.5	132.2	130.2	129.7	129.7	132.9
144	229.4	132.2	236.5	237.1	131.0	129.1	128.1	84.4
168	86.2	87.3	88.7	87.4	86.4	86.4	86.7	85.2
192	83.9	83.5	83.4	86.0	88.9	89.3	89.9	90.7
216	91.7	91.2	90.9	92.2	93.7	92.4	91.4	218.8
240	218.5	216.1	84.9	85.0	85.4	203.3	201.7	197.9
264	195.4	188.0	194.2	180.4	178.4	173.3	167.0	163.9
288	161.3	160.1	159.3	158.6	158.3	157.8	157.8	158.5
312	159.8	160.6	161.9	157.9	159.0	154.0	150.8	150.2
336	150.1	152.0	155.0	152.7	150.8	151.0	151.7	151.3

DEPTH	2845.0		TILT	0		VOS	5960.10	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	152.3	151.9	152.0	150.9	150.2	149.2	148.7	148.8
24	149.3	147.9	146.9	146.4	146.3	147.1	148.4	149.2
48	150.5	151.9	153.8	152.0	155.6	158.9	162.0	163.0
72	164.2	166.9	169.4	172.0	175.1	176.6	182.8	182.6
96	187.4	189.9	193.6	195.6	198.6	203.4	208.6	212.4
120	215.6	220.1	222.6	228.4	237.1	236.1	231.7	232.3
144	233.5	234.7	236.0	239.7	244.3	241.3	239.3	240.0
168	241.8	243.5	246.1	244.7	245.4	244.2	245.6	243.5
192	242.1	244.2	247.2	245.9	245.2	242.4	240.4	236.9
216	235.2	228.2	227.7	225.1	228.1	226.5	225.4	221.6
240	219.4	217.1	216.3	212.7	209.2	206.7	205.2	200.4
264	196.9	189.8	196.2	181.0	178.2	172.6	168.1	165.7
288	163.5	162.6	162.8	160.9	159.3	158.5	159.5	161.1
312	163.0	162.1	161.6	161.5	162.2	155.5	151.3	151.5
336	152.3	154.1	156.5	154.3	152.5	151.9	151.8	151.9



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2849.9		TILT	0		VOS	5960.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	152.8	152.2	152.0	152.5	149.3	149.9	151.0	149.2
24	148.9	148.0	147.4	147.1	147.0	148.7	150.8	151.6
48	153.8	154.0	154.7	156.6	158.7	160.6	162.5	164.4
72	166.8	168.8	171.3	173.9	177.0	178.3	186.6	184.5
96	189.7	192.0	194.9	197.5	202.7	205.5	209.4	215.0
120	216.8	221.7	222.4	228.3	238.3	234.9	232.2	231.8
144	231.9	235.0	236.6	240.5	245.3	241.3	238.3	239.9
168	242.8	245.1	248.4	246.4	247.6	245.1	246.7	244.7
192	243.4	246.2	249.7	247.6	246.1	242.9	240.4	235.5
216	231.4	228.8	226.9	225.6	230.3	230.0	230.5	224.3
240	220.1	218.0	217.1	212.9	208.8	207.4	205.1	201.0
264	198.6	191.9	194.3	181.7	177.9	171.9	166.8	165.0
288	163.8	161.5	162.2	162.3	158.8	158.7	159.0	161.9
312	163.6	162.4	161.7	162.3	162.7	156.4	151.3	151.3
336	151.8	152.9	154.5	153.7	153.8	153.3	151.3	151.8

DEPTH	2855.0		TILT	0		VOS	5960.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	151.8	152.0	152.6	151.8	151.5	150.0	149.1	148.7
24	148.8	148.6	148.8	148.3	148.2	148.3	151.0	151.5
48	154.7	155.1	155.9	157.9	160.4	160.9	161.9	164.4
72	167.5	169.2	171.4	174.4	178.0	181.1	184.8	187.2
96	190.2	192.9	196.2	198.8	203.1	205.5	209.6	213.4
120	217.9	219.7	222.1	228.3	237.0	233.8	232.7	233.1
144	230.9	235.4	237.3	241.4	246.3	241.4	237.3	239.8
168	244.0	246.1	249.1	247.2	247.7	247.2	247.4	246.3
192	245.9	247.4	249.5	249.0	249.1	242.6	237.0	234.3
216	232.2	227.2	225.6	226.0	230.4	227.4	228.9	225.9
240	222.0	218.9	217.9	213.1	209.0	207.6	205.4	200.8
264	197.9	190.7	186.3	181.3	177.1	172.1	167.8	165.4
288	163.4	162.3	161.6	161.5	161.9	162.3	158.1	161.8
312	164.3	162.8	161.9	163.1	163.2	156.9	151.5	151.1
336	151.2	152.9	155.0	153.2	154.9	153.3	151.2	151.2

DEPTH	2860.0		TILT	0		VOS	5960.60	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	152.9	152.0	152.8	151.8	151.2	150.8	150.3	149.9
24	150.0	148.7	147.9	148.1	148.8	149.7	151.2	152.1
48	153.5	155.0	156.8	159.1	162.1	162.7	163.7	164.4
72	167.3	168.6	174.5	176.1	177.4	180.7	184.5	186.1
96	188.1	191.1	194.7	198.4	202.1	204.9	208.4	212.9
120	215.9	218.9	223.0	228.8	234.3	232.9	232.2	230.7
144	229.8	234.8	240.6	242.7	245.6	242.0	239.1	240.7
168	245.2	244.8	247.4	247.8	248.9	248.1	248.0	246.3
192	245.3	247.6	250.7	249.0	248.0	243.6	237.0	231.8
216	233.4	225.7	224.5	226.6	228.7	227.8	227.5	224.4
240	223.6	222.3	220.7	214.9	212.0	207.7	206.1	201.3
264	197.3	190.2	185.4	181.7	178.6	173.0	168.1	166.0
288	164.1	162.1	160.7	161.7	163.4	161.7	159.7	161.8
312	163.8	164.1	164.9	163.9	163.7	157.4	152.1	151.1
336	150.6	151.5	154.8	154.2	155.9	153.3	151.2	151.8



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

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**WALL RANGES VS DEPTH**

DEPTH	2870.0		TILT	0		VOS	5961.20	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	151.5	152.3	153.6	152.4	151.8	151.0	150.6	149.0
24	147.9	148.0	148.5	148.9	149.7	150.7	152.1	153.8
48	155.9	157.6	159.8	160.9	162.5	163.5	164.9	166.9
72	169.4	171.6	178.6	180.0	182.0	183.9	186.2	188.6
96	191.1	193.8	197.1	198.9	198.6	201.8	207.2	210.1
120	213.8	217.4	221.8	225.7	230.5	230.6	231.4	230.7
144	230.8	234.4	238.8	241.6	245.1	240.5	236.7	239.8
168	243.6	244.7	246.6	246.8	247.7	246.1	245.1	243.2
192	242.1	244.7	248.0	245.0	242.7	238.4	234.9	232.4
216	230.5	226.2	222.7	226.5	231.1	227.7	225.1	223.9
240	223.3	221.3	223.0	215.9	211.8	208.3	206.2	201.9
264	198.3	189.3	182.2	175.4	176.3	168.7	167.0	164.5
288	162.5	160.8	159.5	159.0	158.9	160.0	161.6	161.2
312	161.3	161.7	162.5	162.0	161.9	152.7	153.0	151.7
336	150.9	152.7	155.0	156.2	157.7	154.3	151.5	151.3

DEPTH	2879.9		TILT	0		VOS	5961.20	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	150.6	150.2	150.3	149.8	144.6	144.9	145.6	144.3
24	145.8	143.6	144.2	147.9	153.6	153.3	153.6	155.0
48	156.8	156.9	157.4	161.7	166.7	168.1	169.9	169.6
72	169.7	176.0	179.0	181.9	183.1	184.0	185.4	186.8
96	188.7	191.8	198.6	196.4	197.7	200.3	203.6	201.1
120	204.0	206.9	217.9	219.1	220.9	224.4	220.1	220.7
144	226.0	228.2	230.9	235.7	241.3	235.8	236.7	239.3
168	240.2	238.4	244.8	245.8	243.6	245.3	243.9	242.3
192	233.0	230.4	235.5	230.3	233.1	230.4	228.5	227.1
216	225.7	220.1	220.6	220.9	228.3	226.8	225.9	224.0
240	225.0	223.6	224.2	216.3	212.9	209.6	206.9	201.4
264	197.6	186.6	180.4	169.9	168.4	167.3	162.8	159.7
288	157.1	156.0	155.3	156.6	158.3	152.1	159.2	159.5
312	160.1	157.5	155.3	153.4	151.9	150.0	148.5	148.9
336	149.7	149.8	150.3	149.8	149.7	149.3	149.4	149.8

DEPTH	2890.1		TILT	0		VOS	5961.20	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	142.5	144.1	146.1	144.6	138.6	142.5	141.9	141.3
24	141.0	143.2	145.8	148.7	152.1	153.0	154.5	153.5
48	153.0	154.5	156.5	161.6	167.6	168.1	169.1	172.8
72	177.1	177.2	179.8	181.5	183.7	184.4	185.7	185.9
96	186.6	189.5	192.9	194.4	196.5	194.3	199.8	197.5
120	202.1	205.7	209.9	213.0	216.7	216.0	215.9	219.1
144	223.0	224.6	226.9	230.5	237.4	233.4	232.5	233.7
168	235.6	236.5	238.2	238.2	238.8	238.5	238.8	236.7
192	228.4	224.4	221.2	226.9	228.1	227.8	220.1	221.9
216	217.6	216.1	220.8	221.6	229.0	227.8	227.2	226.1
240	225.7	222.1	223.5	217.3	211.4	208.4	206.0	202.8
264	198.9	183.7	171.4	166.2	161.9	158.9	157.9	154.3
288	147.9	150.6	153.9	151.9	150.5	151.2	152.4	153.7
312	155.5	154.0	153.0	147.0	141.9	143.6	145.8	146.1
336	146.9	146.6	146.7	144.5	142.8	143.1	143.7	142.9



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2900.1		TILT	-20		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	130.6	129.6	131.3	130.1	129.6	130.4	129.5	133.1
24	138.0	141.4	145.4	155.5	160.3	161.9	163.4	165.6
48	167.4	170.9	172.5	175.2	175.7	176.5	181.6	180.2
72	179.0	181.6	182.7	185.9	184.9	188.1	191.8	193.2
96	194.6	196.1	198.1	196.1	194.6	193.0	194.4	192.6
120	197.9	189.0	184.0	184.4	185.3	185.5	186.0	186.9
144	181.3	179.2	181.8	188.5	196.1	192.1	200.4	200.4
168	184.5	204.6	203.5	203.2	203.4	202.7	199.9	203.8
192	206.1	206.0	206.5	209.9	214.0	218.9	226.4	229.6
216	234.1	238.7	248.0	253.1	257.0	254.7	252.9	251.5
240	247.1	240.2	234.3	232.5	231.2	230.0	229.4	227.4
264	225.9	220.0	214.9	205.7	193.3	188.3	184.0	184.3
288	185.0	181.2	178.1	171.1	165.0	158.7	153.1	144.7
312	140.7	137.8	135.9	136.6	129.3	129.9	130.9	131.0
336	131.4	135.1	136.1	134.7	128.7	130.1	134.1	132.2

DEPTH	2900.1		TILT	-25		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	135.2	134.6	132.4	131.6	124.8	131.8	132.9	134.1
24	135.1	141.1	148.3	159.6	166.2	167.0	169.9	171.2
48	173.0	176.6	181.2	180.8	183.6	185.3	187.5	185.8
72	184.4	186.2	188.4	190.3	191.2	195.5	197.7	200.4
96	203.8	205.8	204.3	201.1	199.5	197.7	196.5	194.9
120	198.9	191.5	187.5	188.8	191.3	190.3	189.4	187.2
144	182.0	183.0	181.8	189.2	197.7	195.1	196.1	201.7
168	190.6	204.2	203.2	203.1	204.7	205.2	203.5	206.9
192	210.2	212.0	214.3	219.5	225.4	230.5	237.0	242.3
216	246.4	252.9	257.8	261.6	268.2	267.0	263.4	259.1
240	255.5	251.0	247.2	245.1	238.6	235.2	233.1	233.1
264	244.0	222.3	218.7	215.3	213.4	213.4	205.6	206.2
288	198.9	196.7	197.4	198.2	194.6	188.2	182.7	174.8
312	163.0	162.3	157.5	151.8	149.2	147.3	147.8	142.9
336	140.6	141.5	142.9	139.6	136.2	137.2	139.9	135.1

DEPTH	2900.1		TILT	-35		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	196.6	192.1	193.7	189.0	183.8	190.4	193.9	191.1
24	187.6	186.4	185.9	185.8	185.9	186.7	187.4	189.6
48	192.2	196.9	206.0	208.1	225.5	273.4	225.9	218.5
72	296.6	301.5	300.1	305.2	312.0	315.2	319.0	320.5
96	322.5	324.4	327.0	331.6	337.1	337.5	342.5	347.8
120	349.9	347.8	346.4	349.1	352.6	351.6	357.7	198.7
144	196.8	197.5	198.6	206.2	209.1	213.6	216.2	213.8
168	212.8	215.7	228.7	353.7	352.6	353.3	354.8	337.9
192	348.1	331.2	338.0	340.5	322.1	323.6	329.6	286.3
216	296.6	287.2	270.2	265.6	263.0	262.7	259.0	262.9
240	267.4	264.2	269.0	272.1	273.6	267.4	274.3	223.2
264	208.7	204.9	192.5	185.9	185.8	179.5	177.5	220.6
288	291.7	290.1	289.0	280.8	273.6	271.3	269.6	267.8
312	266.5	261.3	256.8	251.9	247.5	242.0	237.1	232.8
336	229.0	227.9	227.2	225.3	223.7	204.9	203.1	200.3



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2900.1		TILT	-40		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	244.9	246.9	249.3	251.9	276.4	279.6	283.3	268.0
24	288.6	287.7	287.2	290.7	294.7	296.7	299.2	296.0
48	293.4	296.3	299.8	299.0	298.7	300.6	292.4	301.5
72	300.5	302.0	304.0	301.9	300.3	300.1	313.1	303.2
96	306.7	309.7	313.3	314.3	315.9	315.9	324.9	326.8
120	334.0	333.7	334.0	335.9	338.4	339.5	341.1	340.8
144	345.9	345.7	345.9	345.7	345.9	342.5	339.8	340.6
168	342.0	341.2	341.1	330.8	321.7	314.7	321.8	305.3
192	306.9	303.1	293.0	292.5	292.5	280.6	289.2	281.1
216	264.7	258.6	251.9	245.2	239.2	240.9	243.1	248.6
240	253.3	255.3	257.7	253.0	248.9	249.8	251.1	219.1
264	205.3	197.8	188.2	187.4	180.6	175.4	176.6	170.1
288	168.0	213.1	291.7	289.7	288.1	288.8	289.9	288.6
312	287.7	282.3	277.5	267.2	258.1	251.8	246.2	244.2
336	242.7	242.7	243.1	240.9	239.2	240.1	241.4	242.9

DEPTH	2900.1		TILT	-45		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	287.7	288.1	288.9	288.7	288.9	289.4	290.4	289.4
24	288.9	287.3	286.1	283.9	282.2	281.2	280.6	277.2
48	274.3	276.6	279.2	277.1	275.5	276.4	277.8	273.0
72	268.8	262.0	255.8	263.1	271.1	281.2	274.0	291.8
96	291.6	297.4	303.8	299.2	295.2	293.8	301.4	302.8
120	312.1	315.7	319.9	321.7	323.9	322.3	321.1	321.7
144	322.7	324.6	327.0	326.4	326.2	327.2	328.6	326.8
168	325.5	325.2	325.5	321.3	317.6	306.2	295.9	292.0
192	288.5	282.9	277.8	271.9	256.2	257.6	259.3	258.4
216	257.8	245.4	247.0	242.3	242.2	240.1	237.3	239.9
240	242.8	241.7	240.8	241.3	242.0	244.6	247.5	233.1
264	216.8	199.0	192.8	174.6	178.3	174.2	172.3	171.5
288	170.9	165.0	164.5	160.6	181.1	201.5	281.4	279.4
312	277.8	279.0	280.6	281.0	281.8	275.6	270.0	269.4
336	269.2	264.6	260.5	265.9	271.9	274.1	276.7	281.9

DEPTH	2900.1		TILT	-50		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	282.5	282.4	282.5	281.2	280.1	277.4	274.9	272.5
24	270.4	267.1	264.2	264.9	265.9	259.2	258.7	250.2
48	249.1	246.3	243.8	244.9	246.2	242.6	239.3	239.5
72	240.0	245.7	231.0	242.3	234.1	243.0	252.9	241.5
96	245.4	252.2	256.8	259.8	262.9	274.2	279.1	287.0
120	295.7	297.4	299.5	298.7	298.3	300.6	303.3	303.6
144	304.3	302.6	301.2	304.0	307.1	305.4	304.0	299.6
168	295.7	292.2	289.1	291.0	293.3	288.9	285.0	280.6
192	276.7	271.0	265.8	253.6	255.0	254.2	253.7	248.3
216	243.3	242.0	241.0	241.6	242.5	236.7	231.4	230.4
240	229.6	228.0	226.6	227.8	227.5	231.2	233.3	224.5
264	236.6	194.7	196.8	183.5	170.1	169.4	168.8	168.3
288	165.0	163.7	163.2	160.0	157.0	159.0	161.2	157.9
312	264.6	262.9	279.1	277.7	276.7	282.4	288.8	287.4
336	286.4	286.0	286.0	287.4	289.1	287.7	286.6	284.4



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	2900.1		TILT	-55		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	278.1	273.4	269.1	264.7	260.8	257.5	254.5	254.1
24	253.8	254.8	241.6	246.1	237.2	239.4	241.7	243.7
48	238.3	217.4	222.4	218.9	215.8	214.8	214.1	206.2
72	218.9	233.7	242.9	241.5	240.4	238.4	236.6	238.5
96	240.7	248.5	251.7	259.6	262.5	263.6	265.8	269.9
120	268.6	273.5	272.1	278.1	278.1	279.8	281.9	283.3
144	285.0	285.2	285.7	284.3	283.2	282.4	281.9	277.7
168	273.9	268.9	264.2	259.6	255.4	256.7	258.3	249.8
192	251.2	245.8	244.1	236.8	236.7	239.6	240.4	239.9
216	239.7	238.3	237.2	234.1	228.7	232.2	228.9	225.0
240	221.3	218.6	216.1	217.1	218.2	223.2	221.8	225.8
264	233.4	209.1	189.0	187.6	191.6	170.9	167.9	167.4
288	165.5	165.4	163.6	164.5	162.6	158.8	159.1	155.1
312	151.5	152.4	153.6	150.8	148.4	198.7	260.0	264.0
336	268.3	198.9	277.9	278.0	278.4	277.9	277.7	277.8

DEPTH	2900.1		TILT	-60		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	150.4	155.0	149.1	146.9	144.9	149.7	154.9	190.3
24	193.2	192.4	161.5	164.2	167.0	181.5	164.6	166.8
48	169.2	166.6	173.3	175.3	167.4	185.8	182.8	209.0
72	224.1	229.9	236.2	235.6	235.2	236.3	237.6	242.1
96	246.9	245.0	243.3	245.3	247.5	244.9	242.5	244.3
120	246.1	252.7	259.7	262.4	265.3	266.4	267.7	266.5
144	265.6	264.8	264.2	264.5	264.9	264.3	263.9	263.1
168	262.5	258.7	255.2	254.8	254.5	244.6	238.7	237.7
192	235.0	233.4	232.4	228.5	226.4	227.4	228.6	228.4
216	224.1	223.2	222.4	222.8	223.4	219.8	216.5	215.9
240	215.5	212.2	216.1	213.0	214.4	214.7	215.1	219.8
264	224.8	207.4	197.5	186.0	191.6	177.2	173.1	165.5
288	161.3	162.8	164.1	167.6	167.7	163.6	163.9	163.0
312	162.2	160.2	158.3	152.9	148.0	147.8	147.7	148.7
336	149.7	150.6	151.5	154.8	158.3	149.7	152.1	151.2

DEPTH	2900.1		TILT	-65		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	165.2	159.0	152.9	149.6	155.7	148.8	148.7	152.7
24	160.2	162.1	161.6	163.6	162.5	160.8	157.6	163.8
48	161.2	167.0	163.2	167.2	180.5	183.8	205.9	213.5
72	219.8	223.2	226.5	225.8	226.5	226.3	226.2	229.5
96	233.1	233.4	233.7	211.8	216.9	218.5	229.7	231.8
120	240.4	241.8	243.5	246.0	248.7	249.8	251.1	249.8
144	248.7	248.8	249.0	246.3	243.7	242.4	241.2	238.6
168	236.2	233.4	230.8	228.4	226.2	223.9	223.1	221.4
192	220.0	219.9	220.0	219.9	220.0	217.6	215.5	214.1
216	212.9	210.5	208.3	205.2	202.3	200.9	199.5	199.2
240	198.9	200.5	202.3	205.8	209.6	211.6	213.7	215.9
264	217.1	207.7	194.1	193.8	193.5	189.9	187.9	180.7
288	183.1	180.1	176.2	172.6	173.9	167.2	159.9	160.4
312	163.7	159.9	156.3	155.9	158.6	154.2	152.9	155.1
336	159.1	159.5	152.1	149.0	148.0	152.3	147.1	157.0



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**WALL RANGES VS DEPTH**

DEPTH	2900.1		TILT	0		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	140.5	139.4	138.7	140.4	142.6	140.1	138.1	137.8
24	137.8	141.5	145.8	147.7	152.9	152.4	155.4	155.2
48	155.4	155.9	156.9	164.6	166.7	170.3	174.5	174.8
72	175.7	176.3	177.4	179.7	182.5	184.5	187.0	186.1
96	185.7	189.5	193.9	193.8	194.1	194.9	196.2	195.9
120	196.1	199.0	202.5	206.0	210.2	212.0	214.4	218.8
144	221.8	224.1	224.8	230.3	236.8	232.4	228.7	229.6
168	231.1	231.2	232.0	231.3	231.3	230.0	229.3	227.5
192	226.3	222.9	220.9	221.2	221.7	221.6	219.5	218.0
216	217.1	216.5	221.2	224.7	228.4	226.8	225.7	226.0
240	226.9	224.5	222.8	217.4	212.9	209.9	207.6	204.3
264	201.4	187.3	172.3	164.6	158.4	153.7	155.0	151.3
288	148.2	145.8	141.7	143.1	144.9	145.3	146.1	146.5
312	151.9	143.6	150.0	142.3	139.6	138.7	142.2	140.8
336	139.7	143.2	147.3	141.9	137.2	138.0	139.3	139.7

DEPTH	2910.2		TILT	0		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	137.0	134.6	136.0	134.6	133.6	133.0	132.7	132.1
24	131.8	137.0	142.9	148.2	154.2	153.4	153.0	153.8
48	155.1	159.4	164.5	166.6	169.2	171.0	173.3	173.0
72	173.3	174.8	176.8	179.4	182.5	183.0	188.0	185.4
96	187.3	187.1	193.1	193.7	194.6	195.2	195.9	194.8
120	194.1	198.2	203.1	204.9	207.3	209.0	213.8	217.8
144	214.8	223.2	224.6	227.2	230.6	228.9	227.8	226.9
168	226.6	227.4	228.7	228.3	228.4	227.2	226.6	225.4
192	224.8	221.8	219.4	219.8	220.7	219.0	210.5	212.8
216	214.7	217.4	220.7	225.0	230.2	228.7	227.8	229.5
240	228.1	224.4	216.8	212.3	210.8	210.0	209.8	204.9
264	201.3	192.1	173.7	165.0	159.5	155.8	152.6	149.3
288	146.4	146.3	139.4	143.6	141.1	144.1	147.6	147.1
312	146.9	138.8	146.2	137.1	138.4	136.1	136.3	137.7
336	137.6	137.4	143.7	141.1	139.0	138.3	136.7	136.7

DEPTH	2919.8		TILT	85		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	408.6	409.1	409.7	409.6	409.4	408.7	409.3	409.5
24	409.8	409.8	409.8	409.8	409.8	408.8	407.8	409.3
48	409.0	409.4	408.3	409.0	409.1	409.5	410.0	409.9
72	409.8	408.6	407.4	407.9	408.0	408.7	408.9	409.2
96	409.4	409.9	410.4	409.0	410.3	409.8	409.3	409.3
120	409.3	409.5	409.8	409.3	408.8	409.5	410.3	410.0
144	409.8	409.5	409.3	409.8	410.3	409.8	409.3	409.3
168	408.5	409.3	410.2	410.0	410.3	409.0	409.1	409.5
192	407.8	409.0	409.3	409.1	408.9	408.4	408.0	408.1
216	408.2	408.5	408.9	408.1	409.8	408.6	407.3	408.2
240	409.2	409.3	409.5	408.7	407.9	408.5	408.9	409.0
264	409.0	409.6	410.2	409.4	408.7	408.2	407.7	408.4
288	409.2	409.4	409.5	409.6	409.6	409.6	409.7	409.7
312	409.7	409.7	409.7	409.6	409.5	409.2	408.9	408.8
336	408.6	408.5	409.8	409.8	409.8	408.5	407.5	408.0



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DEPTH	2919.8		TILT	80		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	413.1	412.7	412.7	412.9	413.2	413.2	413.2	412.9
24	412.7	413.7	414.7	414.0	412.9	413.8	414.9	413.2
48	413.2	413.7	414.2	413.4	412.7	413.7	414.7	413.7
72	412.7	413.4	414.2	413.4	412.7	412.7	412.7	413.2
96	413.7	414.4	415.2	414.9	414.7	413.9	413.2	414.4
120	415.7	415.1	414.7	413.4	412.2	412.2	412.2	412.7
144	413.2	413.4	413.7	413.2	412.7	412.7	412.7	412.5
168	412.2	412.9	413.7	414.5	414.0	414.0	414.0	414.3
192	414.5	414.2	413.8	412.6	415.7	414.4	413.2	412.9
216	412.7	412.5	413.2	413.3	413.4	413.4	413.4	413.4
240	413.4	414.0	414.5	414.5	414.5	414.1	413.7	413.8
264	414.0	413.7	413.5	413.3	413.1	413.0	412.9	413.9
288	414.9	414.8	414.7	414.5	414.3	415.0	415.8	415.8
312	415.8	414.5	413.1	413.9	414.7	414.7	414.8	414.5
336	414.3	414.8	415.4	415.3	415.2	414.3	413.3	413.2

DEPTH	2919.8		TILT	75		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	423.5	421.7	423.0	421.7	420.5	421.5	422.5	422.5
24	422.5	422.7	423.0	423.0	423.0	423.0	423.0	422.0
48	421.0	422.7	421.8	421.3	421.5	421.9	422.3	422.5
72	422.8	422.0	422.0	422.7	421.7	422.3	422.9	422.6
96	424.0	423.4	423.0	421.0	421.4	421.9	422.5	422.9
120	420.1	420.5	421.0	422.2	423.5	423.2	420.1	420.9
144	421.7	422.1	422.7	422.0	424.9	423.7	422.5	423.2
168	422.5	423.2	422.5	423.0	423.5	423.2	423.0	422.7
192	422.5	421.0	421.5	421.3	421.2	421.7	423.5	421.5
216	422.0	421.9	421.8	421.6	421.5	421.7	422.0	421.7
240	421.5	421.5	421.5	421.0	420.5	422.7	421.1	421.2
264	421.4	421.4	421.5	421.5	421.6	421.8	422.0	421.7
288	421.4	421.4	421.5	422.1	422.9	421.9	421.2	421.3
312	421.6	421.2	153.6	152.8	152.0	154.2	156.5	158.0
336	159.5	422.7	423.5	423.7	424.0	422.5	421.0	422.2

DEPTH	2919.8		TILT	70		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	162.6	433.8	432.3	432.4	432.7	434.3	432.8	432.9
24	437.1	436.4	435.9	434.3	434.1	433.2	173.8	433.4
48	434.3	432.9	431.9	432.7	177.9	433.3	433.5	433.6
72	433.9	433.5	433.1	433.5	433.4	433.7	434.4	434.9
96	435.4	436.2	436.8	431.7	433.5	435.5	433.8	433.7
120	433.9	434.3	434.8	433.0	436.5	436.4	434.3	433.8
144	433.5	433.6	433.8	433.5	435.7	434.2	432.8	433.9
168	435.2	434.2	435.4	434.4	435.2	434.4	433.7	432.9
192	432.3	434.9	437.7	434.6	432.8	434.6	437.7	435.1
216	432.8	432.7	432.8	433.4	434.2	434.2	434.2	434.2
240	434.2	434.4	434.7	433.4	433.1	433.4	433.8	433.6
264	433.6	432.5	431.8	431.4	432.7	432.3	146.4	146.3
288	146.2	145.0	146.2	145.5	148.2	151.3	158.5	157.2
312	146.9	146.3	145.7	146.3	146.9	148.2	149.6	149.8
336	150.0	152.2	154.9	159.5	164.3	164.9	165.5	164.0



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**WALL RANGES VS DEPTH**

DEPTH	2919.8		TILT	65		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	140.4	137.1	134.0	136.1	136.5	133.0	130.0	129.4
24	130.0	129.8	129.7	129.1	128.6	127.3	126.1	127.6
48	129.1	127.3	133.7	136.1	138.4	141.7	147.8	150.9
72	155.1	148.1	149.4	153.4	157.7	155.6	153.7	153.7
96	155.0	158.7	161.7	157.7	162.0	160.1	158.4	159.4
120	160.5	157.4	151.3	150.7	150.3	151.6	152.6	161.3
144	446.1	444.7	448.0	448.2	448.1	449.2	445.6	448.9
168	448.7	446.8	449.5	448.7	448.3	447.9	448.9	448.6
192	448.5	448.7	449.3	448.9	447.5	447.4	448.9	444.6
216	443.8	435.8	432.8	430.9	431.6	427.9	425.6	423.2
240	197.7	196.6	195.6	185.6	176.6	167.1	158.7	153.6
264	152.0	150.6	148.8	148.4	148.0	143.9	140.1	137.7
288	135.4	136.1	136.9	143.0	134.7	136.1	137.6	133.9
312	132.7	130.2	130.3	131.4	132.5	133.2	134.0	133.8
336	133.6	130.7	130.5	133.4	137.6	137.1	138.6	139.5

DEPTH	2919.8		TILT	60		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	114.6	116.8	116.4	117.2	118.2	116.3	114.6	112.9
24	111.3	112.0	112.8	112.4	112.2	110.1	108.3	108.7
48	111.3	110.3	113.1	114.6	114.2	120.1	125.1	125.3
72	125.5	125.3	125.2	124.4	125.3	128.3	127.0	127.0
96	127.1	128.3	129.7	131.6	133.3	135.0	138.6	137.9
120	137.5	136.3	135.8	133.9	132.2	130.7	133.8	135.6
144	137.0	150.1	151.9	146.7	145.4	148.1	150.6	149.7
168	153.2	155.0	158.2	158.9	157.5	156.7	156.0	157.1
192	158.4	159.9	163.1	162.8	164.0	162.2	158.7	159.4
216	158.4	165.1	165.9	167.3	168.8	167.1	165.5	165.3
240	165.2	162.6	160.2	156.0	152.1	148.8	145.1	144.2
264	141.2	137.0	132.1	124.1	122.0	121.8	121.7	119.9
288	118.2	114.0	110.3	110.2	111.3	111.3	111.3	107.6
312	108.1	108.2	108.3	109.6	111.0	110.2	110.4	110.9
336	111.6	111.7	112.0	112.0	112.2	112.1	112.0	114.2

DEPTH	2919.8		TILT	55		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	113.9	114.4	114.9	114.5	114.2	114.3	114.5	114.0
24	113.6	112.8	112.1	112.9	113.9	112.3	111.0	110.3
48	109.8	109.6	109.5	109.7	110.1	110.5	111.0	110.6
72	109.4	110.2	110.1	110.5	111.0	110.0	111.0	110.3
96	111.6	110.5	109.5	111.0	112.8	116.3	119.5	120.3
120	121.6	119.5	117.2	117.8	116.4	117.2	115.7	119.8
144	123.6	125.6	127.9	131.0	134.5	138.4	145.7	146.4
168	147.3	148.1	151.8	151.8	151.9	151.3	150.8	147.5
192	146.0	147.6	149.8	150.0	150.3	148.3	148.3	148.8
216	149.6	148.2	152.1	152.8	153.7	153.3	153.0	152.4
240	151.9	147.6	143.7	139.7	136.1	133.0	130.0	130.8
264	127.0	121.1	115.1	112.8	110.7	109.1	107.7	107.8
288	104.0	103.2	103.6	103.3	103.9	104.3	108.0	107.8
312	107.7	107.5	107.4	108.7	110.1	110.3	110.7	111.2
336	111.9	111.5	111.3	112.1	113.1	112.4	111.9	112.8



CUSTOMER : Westlake Chemicals

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**WALL RANGES VS DEPTH**

DEPTH	2919.8		TILT	50		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	120.7	120.7	120.8	121.3	122.0	121.2	120.5	119.4
24	118.4	117.3	116.3	116.7	117.2	116.1	115.1	114.2
48	113.3	113.4	113.6	112.5	111.6	112.1	112.8	112.2
72	111.9	111.2	110.7	112.2	113.9	114.2	114.5	113.4
96	112.5	113.6	114.9	115.0	115.3	114.0	116.6	116.5
120	113.3	112.7	112.2	113.0	113.9	114.0	114.2	112.7
144	110.2	110.3	112.4	115.1	122.1	125.8	127.9	130.3
168	132.9	134.8	136.8	134.5	135.1	134.0	132.9	133.5
192	134.7	131.9	129.3	131.5	134.0	134.0	134.2	136.0
216	138.7	140.3	142.7	140.1	147.3	140.3	139.6	137.0
240	134.7	132.0	130.3	127.3	125.6	120.6	118.5	115.4
264	114.2	110.6	111.3	110.4	109.8	109.9	110.1	111.0
288	112.1	112.5	113.1	114.0	114.9	114.9	114.9	116.3
312	117.8	118.2	118.7	118.4	118.2	118.8	119.6	119.5
336	119.6	119.9	120.3	120.6	121.0	121.1	121.4	121.0

DEPTH	2919.8		TILT	45		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	125.0	125.6	126.5	124.7	123.2	122.2	121.4	120.2
24	119.2	118.0	116.9	117.0	117.2	116.8	116.6	116.4
48	116.3	114.6	113.0	113.7	114.5	114.2	113.9	113.6
72	113.3	115.3	117.5	117.6	117.8	117.7	117.8	118.3
96	118.9	120.0	121.4	121.5	121.7	123.2	125.0	124.7
120	121.9	121.1	120.5	121.4	120.2	120.7	121.4	119.5
144	117.8	118.9	120.2	117.8	115.7	117.3	119.0	119.8
168	122.2	122.6	123.1	122.5	122.1	120.8	119.6	118.4
192	117.3	117.5	118.1	120.8	122.8	124.5	123.4	125.8
216	125.3	127.0	128.9	129.1	129.4	129.5	129.7	126.8
240	125.6	122.3	120.3	118.9	118.1	118.6	116.3	116.2
264	116.3	116.7	117.2	118.9	120.8	121.5	122.3	122.5
288	122.8	123.8	125.0	125.2	125.6	126.6	127.9	127.2
312	126.8	126.9	127.1	128.7	130.4	129.7	129.3	127.6
336	126.1	125.9	125.9	127.0	128.3	127.0	125.9	125.3

DEPTH	2919.8		TILT	40		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	130.9	131.7	132.7	129.7	127.1	131.2	126.2	123.9
24	122.0	122.9	124.1	123.4	122.8	122.3	122.0	121.3
48	120.8	122.1	123.6	123.8	124.3	125.4	126.8	128.3
72	130.0	126.9	124.1	122.2	128.9	128.5	123.8	123.5
96	123.5	124.9	126.5	127.7	129.1	129.3	129.7	131.2
120	133.0	132.0	131.2	132.3	133.6	133.7	133.9	132.0
144	130.3	129.7	129.3	129.0	128.9	127.9	127.1	125.8
168	124.6	123.2	122.0	122.3	122.8	121.6	120.5	118.7
192	117.2	118.3	119.6	119.1	118.7	119.5	120.5	124.7
216	124.4	120.6	121.1	121.9	122.9	123.8	125.0	125.1
240	125.3	125.6	126.1	127.4	128.9	129.9	131.1	132.1
264	133.3	132.5	131.8	132.5	133.3	135.8	138.6	137.3
288	136.3	135.1	139.4	138.1	137.2	137.6	139.3	137.8
312	136.5	136.7	137.2	136.7	136.5	136.2	136.1	135.5
336	135.1	134.4	133.9	132.9	132.1	130.4	128.9	129.8



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**WALL RANGES VS DEPTH**

DEPTH	2919.8		TILT	35		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	149.1	144.5	142.6	144.2	146.3	144.7	144.4	143.0
24	141.9	141.2	140.8	139.9	140.6	141.3	143.7	140.7
48	138.1	138.3	141.3	139.7	138.4	140.2	143.2	142.6
72	142.2	142.6	143.2	143.6	144.4	145.3	146.5	139.8
96	134.5	137.0	139.7	137.2	135.1	136.9	139.5	142.6
120	145.5	143.2	144.7	144.7	144.9	147.2	149.7	148.5
144	147.6	146.9	146.5	145.3	144.4	144.8	145.5	143.0
168	140.8	138.8	137.2	135.7	135.7	134.9	135.1	137.2
192	139.7	137.9	136.3	138.1	140.2	141.1	142.3	143.4
216	141.5	144.0	146.9	144.6	142.6	144.4	146.5	146.6
240	146.9	145.3	144.1	144.8	145.8	146.6	147.6	146.9
264	151.7	147.3	148.5	148.1	154.4	153.5	153.0	152.3
288	155.7	152.7	155.1	155.0	150.9	153.7	153.6	151.1
312	149.1	150.4	152.1	151.6	154.5	153.7	153.3	150.7
336	148.5	149.9	151.5	151.2	149.2	146.4	146.4	147.6

DEPTH	2919.8		TILT	30		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	172.1	171.8	163.6	164.4	170.9	170.1	169.7	164.8
24	165.9	160.8	160.2	160.2	160.5	160.0	159.8	162.0
48	164.6	163.2	161.8	161.8	163.1	162.3	162.7	162.6
72	162.8	165.5	168.4	165.8	163.0	165.9	169.5	169.1
96	169.3	166.7	164.6	163.8	163.4	163.8	170.1	170.3
120	173.1	157.8	158.7	157.3	156.2	154.6	153.4	156.5
144	160.2	156.5	170.3	169.4	157.0	155.6	154.5	153.4
168	152.7	153.6	154.8	156.2	158.1	158.2	158.7	161.0
192	164.7	166.4	168.6	165.4	165.5	165.1	164.9	167.3
216	170.8	171.2	171.3	172.0	173.1	170.8	168.8	172.7
240	177.0	175.4	174.1	173.6	177.8	171.1	173.0	174.1
264	175.7	175.5	175.6	174.0	172.8	172.1	171.8	175.7
288	180.1	177.8	176.0	177.8	171.0	178.7	177.7	173.8
312	170.3	171.3	174.6	174.7	177.1	174.9	173.0	171.4
336	170.3	172.0	174.2	173.5	173.3	173.0	173.1	172.4

DEPTH	2919.8		TILT	25		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	168.2	167.5	168.4	168.3	164.6	165.2	167.3	164.4
24	164.0	163.1	162.5	161.9	161.6	163.4	166.0	167.1
48	169.1	169.4	170.0	171.9	174.2	176.0	178.3	179.5
72	181.0	182.9	185.2	187.6	190.6	192.3	194.4	197.6
96	201.3	197.7	194.7	194.1	193.8	195.7	202.9	202.2
120	203.7	199.8	200.8	199.0	201.3	200.5	201.5	201.7
144	203.8	203.6	203.8	203.8	204.3	202.1	200.2	198.9
168	198.1	200.2	202.6	201.6	201.1	201.6	202.6	201.8
192	201.3	201.4	206.9	202.5	202.2	204.5	207.2	204.5
216	205.6	202.3	202.9	203.1	208.2	206.6	209.8	209.5
240	209.8	204.8	205.5	207.5	210.8	208.6	206.9	203.6
264	209.6	204.5	200.1	198.2	196.8	191.2	186.4	183.0
288	180.1	179.6	179.5	177.2	175.4	175.5	176.0	177.5
312	179.5	178.6	178.0	177.9	178.1	172.0	166.7	166.9
336	167.4	168.5	170.0	169.4	169.2	168.9	166.8	167.9



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**WALL RANGES VS DEPTH**

DEPTH	2919.8		TILT	20		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	164.0	163.2	162.8	160.5	160.6	160.1	161.9	159.0
24	160.0	157.6	159.0	159.7	160.8	159.5	161.1	162.5
48	163.4	165.0	167.0	169.6	172.7	173.2	174.2	174.8
72	177.9	179.5	184.0	186.9	189.2	192.0	197.6	197.7
96	201.9	204.1	207.0	209.5	212.6	216.7	221.6	224.7
120	228.4	232.4	237.1	243.0	249.9	245.0	240.9	241.0
144	241.5	246.6	252.6	243.1	257.9	254.5	251.7	253.6
168	256.2	256.3	257.0	258.5	249.6	258.4	256.8	255.4
192	254.7	257.3	260.6	258.1	256.2	253.7	252.0	248.4
216	245.4	241.8	238.9	238.7	239.2	236.0	233.5	232.8
240	232.6	230.1	229.4	225.1	221.6	219.8	218.3	213.9
264	210.2	204.0	209.8	192.9	188.2	184.3	178.7	176.4
288	174.5	172.3	170.6	172.0	173.9	171.9	170.3	172.0
312	174.2	174.5	175.4	174.2	173.9	164.2	161.9	159.6
336	160.9	161.4	164.3	164.7	166.3	163.4	162.2	162.9

DEPTH	2919.8		TILT	15		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	155.8	155.5	155.9	155.0	148.5	149.1	150.0	148.6
24	147.6	147.9	148.5	153.0	158.1	158.3	158.7	160.1
48	163.1	163.8	164.9	168.5	172.7	172.0	173.2	173.2
72	175.1	179.9	185.5	186.9	188.8	190.4	192.7	194.9
96	198.1	200.0	205.8	205.5	205.8	209.6	214.1	217.9
120	222.5	226.3	230.8	237.3	244.8	240.6	240.5	239.9
144	238.2	243.7	246.3	249.8	254.6	249.8	245.1	248.3
168	252.3	255.0	258.5	256.3	256.3	254.5	255.8	254.5
192	254.0	255.6	258.3	257.6	257.9	251.0	245.1	239.8
216	240.9	233.5	232.3	234.4	237.2	235.6	235.7	232.4
240	231.4	230.2	229.6	222.4	219.2	215.2	213.8	209.3
264	205.5	196.2	188.2	181.8	176.4	171.5	167.3	166.9
288	167.0	162.4	161.5	162.6	163.9	157.4	164.9	165.5
312	166.0	164.1	162.3	160.1	158.2	155.2	153.6	154.1
336	154.9	155.1	155.7	155.2	155.1	154.6	154.5	155.0

DEPTH	2919.8		TILT	10		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	141.1	142.8	144.9	144.8	144.9	141.4	142.1	141.6
24	141.4	144.5	146.9	150.3	154.2	155.5	157.2	157.3
48	155.9	157.9	158.4	163.8	170.0	170.6	171.6	175.2
72	179.9	179.9	182.3	184.0	188.2	187.9	188.2	190.2
96	190.1	193.2	199.3	199.0	199.2	201.7	204.9	201.3
120	205.1	211.2	218.4	219.5	221.2	227.6	217.4	222.9
144	229.3	231.8	235.0	240.2	246.3	239.7	241.4	243.1
168	245.1	242.4	247.1	249.9	248.9	249.3	247.9	246.3
192	237.0	234.3	239.2	234.1	236.5	234.1	232.4	230.6
216	229.0	222.7	224.8	223.7	231.7	230.2	229.3	227.4
240	228.4	226.9	227.5	219.7	214.7	211.9	209.6	204.6
264	200.4	186.3	174.5	168.5	163.4	161.1	159.3	155.1
288	151.5	150.1	149.1	148.1	151.9	149.9	152.7	150.8
312	156.6	149.6	154.4	147.2	142.2	140.5	145.1	146.5
336	148.2	145.6	149.1	143.0	142.9	143.5	144.4	142.5



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**WALL RANGES VS DEPTH**

DEPTH	2920.0		TILT	0		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	136.3	135.5	135.1	135.5	136.3	133.5	131.2	130.6
24	130.3	134.5	139.3	144.3	150.0	151.4	153.3	154.7
48	156.6	160.4	164.9	166.0	167.6	169.4	171.8	172.3
72	173.3	174.4	176.0	177.5	179.5	182.4	185.8	183.6
96	181.9	186.7	192.4	192.2	192.7	193.1	194.1	193.3
120	192.9	195.3	198.3	201.0	204.3	207.4	211.1	211.6
144	212.6	217.1	222.5	225.2	228.7	225.4	222.8	223.8
168	225.4	225.1	225.4	225.4	226.0	223.6	221.9	221.1
192	221.2	219.9	219.0	218.7	218.6	213.9	209.9	212.0
216	214.7	218.9	221.8	224.0	229.6	230.8	232.6	228.2
240	224.6	220.5	217.1	212.4	208.5	207.1	209.6	205.6
264	204.4	192.3	176.3	168.9	162.5	157.4	153.0	149.9
288	147.3	143.0	139.3	139.4	139.9	142.0	144.7	143.3
312	142.3	138.4	144.0	135.7	136.6	136.1	136.0	132.6
336	129.7	133.7	138.4	138.1	138.1	135.8	133.9	134.9

DEPTH	2929.9		TILT	0		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	132.1	132.7	133.6	134.0	134.8	133.0	131.5	132.2
24	133.3	135.7	138.8	144.7	153.0	153.7	154.8	152.9
48	160.5	162.0	164.0	167.3	171.2	170.4	172.2	170.2
72	173.0	174.1	176.0	176.5	179.0	182.3	186.5	184.6
96	181.0	186.7	192.1	191.8	192.1	193.4	195.3	193.1
120	191.5	195.3	199.8	202.6	196.1	198.8	201.6	204.3
144	201.8	204.6	208.1	221.7	222.8	222.6	223.1	222.9
168	223.4	223.8	224.8	222.6	221.0	222.0	223.7	220.5
192	218.0	215.9	214.4	213.7	213.5	211.7	210.5	212.2
216	214.4	218.2	222.8	228.4	231.3	232.9	234.9	227.2
240	224.6	219.5	215.3	212.3	212.1	210.6	209.8	206.4
264	204.1	195.0	184.4	175.6	167.1	161.8	156.6	154.7
288	153.2	147.7	143.4	142.5	139.6	136.4	136.6	134.8
312	134.4	131.9	134.6	131.6	131.2	133.7	136.6	133.4
336	130.6	132.4	134.5	132.2	130.3	130.0	130.0	130.9

DEPTH	2940.2		TILT	0		VOS	5962.70	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	125.6	126.8	126.1	128.0	130.4	130.8	125.0	126.9
24	131.6	135.1	139.0	145.2	152.4	151.4	150.9	154.3
48	158.4	160.9	164.0	166.0	168.5	170.5	173.0	172.6
72	172.7	173.2	174.2	175.7	177.7	181.4	185.8	182.8
96	180.4	185.1	190.6	190.2	190.3	191.0	192.4	190.9
120	192.6	192.2	191.8	190.0	188.8	190.0	191.8	196.9
144	190.7	191.7	193.2	199.0	205.8	211.1	208.7	210.2
168	212.3	216.1	210.8	220.4	220.7	219.5	211.2	214.6
192	210.8	210.2	210.2	210.2	210.8	210.4	210.5	212.0
216	214.1	218.1	224.8	228.9	232.9	233.3	234.4	228.3
240	223.1	218.0	217.5	215.9	215.3	213.3	212.0	209.1
264	208.2	199.2	192.2	181.9	174.4	166.5	161.0	159.5
288	158.9	153.3	148.4	145.9	144.2	139.1	135.9	126.9
312	125.6	125.1	125.0	124.2	123.8	122.7	122.0	124.2
336	126.8	127.7	130.3	126.3	122.9	123.5	127.7	126.1



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**WALL RANGES VS DEPTH**

DEPTH	2950.0		TILT	0		VOS	5963.40	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	121.7	121.6	121.8	119.6	114.2	121.2	120.2	124.6
24	129.8	133.2	137.2	146.8	150.3	151.7	153.6	154.9
48	156.6	158.7	162.3	164.0	166.6	168.9	171.5	171.0
72	170.9	171.0	171.5	173.5	176.0	179.8	184.3	182.6
96	183.1	185.1	187.6	188.0	190.9	188.1	185.8	188.3
120	191.5	188.5	186.1	183.1	180.7	181.1	181.9	181.1
144	180.7	184.9	181.4	185.8	200.7	201.3	202.5	203.4
168	204.9	204.5	204.6	202.2	200.4	203.2	200.1	200.5
192	195.4	197.8	200.7	198.6	200.1	203.2	205.8	209.2
216	213.2	219.0	225.8	230.8	236.8	235.4	234.7	231.1
240	228.2	224.4	221.3	217.4	216.6	214.9	213.8	211.9
264	208.7	203.1	198.3	186.9	178.2	172.6	165.4	164.2
288	164.6	160.2	158.5	151.5	147.9	144.2	141.3	137.0
312	134.1	132.0	130.5	129.6	128.3	126.1	124.7	124.5
336	124.7	125.1	125.9	124.4	123.2	123.3	126.7	122.6

DEPTH	2960.1		TILT	0		VOS	5963.40	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	123.8	122.0	120.5	118.4	116.6	119.2	120.8	120.6
24	119.3	128.2	135.5	146.0	151.7	152.6	153.3	155.8
48	157.3	160.6	162.8	165.3	165.5	166.5	171.4	170.0
72	168.8	171.0	172.3	175.0	173.9	176.7	180.2	182.1
96	184.2	185.6	187.4	185.4	184.2	184.2	184.8	184.9
120	186.1	181.3	176.0	176.0	175.7	178.4	181.6	180.0
144	172.1	171.1	170.6	181.8	184.6	186.6	191.1	192.4
168	185.2	192.3	194.7	196.9	195.1	194.0	187.5	192.8
192	194.5	193.6	193.3	194.5	200.3	203.4	207.0	211.1
216	215.6	220.3	227.1	232.3	238.3	236.4	238.6	233.4
240	229.1	223.9	219.5	218.5	218.0	215.6	213.8	213.4
264	213.5	205.9	199.2	191.7	180.0	178.2	172.1	173.2
288	174.0	170.2	166.7	162.5	157.3	151.0	149.1	145.9
312	141.8	137.2	136.0	135.2	134.8	133.1	131.8	129.9
336	128.3	129.0	130.1	127.9	126.2	125.0	127.4	123.8

DEPTH	2970.0		TILT	0		VOS	5963.40	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	127.7	127.5	127.7	125.7	124.4	123.7	123.2	124.9
24	126.7	132.9	139.6	145.0	151.2	151.9	154.4	156.3
48	156.6	161.6	163.5	165.1	164.4	166.1	171.2	169.8
72	168.8	169.8	171.2	173.9	177.2	179.1	181.6	182.3
96	183.4	184.5	186.1	183.9	182.2	182.1	182.5	179.3
120	186.8	175.0	172.1	171.3	174.2	173.2	172.7	171.8
144	166.3	165.2	169.7	177.0	185.5	179.5	189.4	188.3
168	173.7	192.8	191.2	190.9	191.2	191.1	189.4	192.1
192	194.2	194.2	194.7	197.7	201.3	204.2	210.0	213.0
216	216.8	222.2	228.5	233.7	239.8	237.4	237.7	231.4
240	227.9	223.0	218.9	218.2	218.0	216.2	215.0	212.5
264	210.6	204.5	202.2	193.8	184.9	178.5	173.3	176.7
288	176.6	174.4	172.6	169.0	165.1	162.0	159.9	154.4
312	149.1	147.9	145.3	142.2	139.1	138.1	137.5	136.1
336	135.2	134.2	133.9	130.7	129.3	130.2	129.6	128.5



CUSTOMER : Westlake Chemicals

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**WALL RANGES VS DEPTH**

DEPTH	2980.2		TILT	0		VOS	5963.40	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	135.8	136.3	136.1	131.2	129.5	130.6	132.4	127.8
24	134.2	135.5	139.6	145.3	151.8	152.1	153.9	155.1
48	156.5	160.0	165.2	165.0	166.7	168.0	170.6	168.4
72	167.3	168.9	170.9	173.2	174.0	178.4	181.3	182.3
96	183.7	184.1	184.9	182.9	181.3	179.9	179.0	177.1
120	182.8	174.1	170.8	171.7	174.1	173.0	172.3	170.1
144	165.2	166.9	164.8	171.8	181.2	177.4	177.8	186.2
168	173.3	190.5	191.5	192.5	194.2	192.4	191.2	191.7
192	192.7	192.9	194.5	199.0	201.9	207.4	213.8	216.9
216	220.7	224.6	230.9	236.0	241.0	239.0	237.4	233.1
240	229.6	224.3	220.8	219.1	218.1	217.0	216.4	214.6
264	212.7	207.7	203.9	196.8	189.9	186.3	181.6	183.1
288	179.0	176.9	177.7	177.3	175.1	171.2	166.7	161.1
312	155.5	153.5	151.4	148.9	147.0	145.1	144.1	143.0
336	142.8	141.9	141.8	139.1	136.7	137.1	137.9	135.8

DEPTH	2990.0		TILT	0		VOS	5963.40	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	146.1	143.7	143.2	137.1	133.6	134.9	136.6	137.0
24	141.7	138.7	144.8	145.9	151.1	152.7	155.0	154.3
48	154.1	158.2	164.6	162.6	161.1	163.0	165.5	165.9
72	169.1	166.8	167.3	169.7	172.7	176.0	180.7	181.5
96	182.8	186.6	185.2	183.2	181.6	179.6	178.1	177.7
120	177.8	174.8	173.3	173.6	171.8	172.2	173.0	168.2
144	164.0	162.3	161.1	168.2	176.6	177.2	179.0	183.4
168	174.5	187.4	179.6	181.5	183.9	186.2	183.4	186.8
192	190.9	192.7	195.1	199.6	205.9	209.9	215.0	217.9
216	221.5	226.8	233.4	237.3	242.1	240.0	238.6	236.2
240	234.7	227.2	221.0	220.0	219.8	218.2	217.1	214.1
264	211.8	208.4	205.8	199.7	194.5	193.8	187.1	188.1
288	184.0	183.5	183.4	180.0	177.2	172.3	168.2	164.3
312	161.1	157.5	154.5	152.6	151.2	150.7	150.6	148.6
336	150.2	147.3	147.9	145.9	144.4	144.4	144.8	143.1

DEPTH	3000.1		TILT	0		VOS	5963.90	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	154.8	147.9	147.7	146.0	149.8	146.1	148.9	147.0
24	150.9	149.4	148.4	146.6	150.3	151.8	153.6	153.7
48	154.2	159.2	165.0	164.4	164.4	165.5	170.9	170.6
72	170.7	171.5	172.9	175.2	175.1	177.8	182.2	183.4
96	186.2	185.0	185.4	182.6	182.3	179.6	178.8	175.6
120	174.2	173.7	173.6	174.7	172.4	170.7	169.4	165.7
144	162.6	162.4	166.2	171.0	176.6	177.7	180.6	182.9
168	174.2	182.9	179.3	183.5	184.3	185.4	182.8	187.3
192	186.1	190.1	194.8	199.0	204.0	209.5	215.4	219.5
216	221.9	226.7	232.3	236.7	241.9	240.1	238.9	235.4
240	232.6	225.7	219.8	218.0	216.8	213.8	211.5	211.5
264	218.9	192.4	176.6	162.2	157.1	177.3	150.3	190.0
288	185.2	184.5	184.3	183.3	182.9	179.1	176.0	173.8
312	169.2	170.1	168.5	165.4	162.9	162.0	161.7	159.8
336	158.4	156.8	155.7	153.4	151.5	151.3	154.5	154.4



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DEPTH	3005.0		TILT	0		VOS	5963.90	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	157.5	155.4	153.8	152.0	150.6	152.1	153.9	153.1
24	152.7	152.5	152.7	151.8	151.2	152.1	153.3	154.2
48	155.4	160.0	165.3	166.5	168.2	169.5	171.2	172.1
72	172.0	173.3	175.1	176.7	176.0	178.7	182.0	182.9
96	187.5	184.2	184.6	182.9	181.7	184.6	185.4	175.5
120	176.0	174.9	180.1	173.5	173.3	171.8	170.0	161.0
144	163.5	162.1	166.5	170.5	174.2	174.9	179.9	183.2
168	174.4	183.3	180.2	184.4	184.6	185.8	183.8	187.6
192	188.2	192.2	194.4	200.7	205.2	210.0	215.7	220.9
216	224.4	229.7	234.9	237.8	241.3	240.2	239.8	236.0
240	232.9	226.4	224.7	222.7	216.8	214.8	213.4	214.8
264	220.1	188.3	158.4	156.2	154.5	147.1	140.8	191.0
288	187.6	188.3	189.4	187.7	186.4	182.5	179.3	175.4
312	172.1	171.1	170.6	168.4	166.7	164.1	162.0	162.5
336	163.5	162.5	162.0	160.6	159.6	157.7	156.3	156.7

DEPTH	3009.9		TILT	0		VOS	5963.90	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	160.1	157.4	158.4	156.5	155.1	157.0	159.3	157.1
24	155.4	154.0	153.0	154.1	155.7	155.1	154.8	156.2
48	158.1	160.2	167.2	168.5	170.3	170.8	173.4	173.4
72	173.4	174.5	176.3	177.5	179.3	180.6	182.6	184.7
96	187.3	185.1	188.1	187.7	190.2	189.1	190.9	184.1
120	193.8	190.0	191.9	173.7	173.6	170.8	168.5	161.8
144	162.7	165.3	162.0	166.9	172.7	172.2	179.3	179.3
168	174.6	184.0	181.1	182.9	185.2	183.8	184.8	187.5
192	190.9	192.3	194.2	202.9	206.4	211.1	213.9	221.1
216	226.4	229.9	234.1	237.5	241.6	240.4	239.8	235.7
240	233.4	229.1	224.9	222.6	219.2	215.9	213.3	214.3
264	215.9	182.3	158.1	149.6	149.1	139.4	136.9	130.6
288	125.7	192.2	193.3	191.4	190.1	185.5	183.1	180.4
312	178.3	177.0	178.7	174.9	171.8	169.9	168.5	168.1
336	168.2	167.1	166.4	164.3	162.6	162.6	163.1	159.7

DEPTH	3015.0		TILT	0		VOS	5963.90	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	162.7	162.0	161.7	160.7	160.2	159.6	159.5	161.4
24	163.8	163.6	163.8	161.6	159.9	156.8	161.8	155.5
48	157.2	162.7	169.1	170.5	172.4	172.2	175.8	175.4
72	174.8	178.2	182.3	186.0	190.5	186.9	184.3	185.0
96	186.1	184.8	197.8	194.0	201.0	193.0	194.9	192.3
120	206.9	202.5	211.4	201.8	188.0	176.9	167.6	163.5
144	163.5	164.5	164.1	165.1	173.9	175.4	177.5	180.0
168	172.8	181.9	181.1	181.4	182.3	183.6	185.5	187.8
192	190.6	194.1	201.7	204.9	208.4	211.8	215.7	222.4
216	227.6	230.7	234.6	239.0	244.3	241.9	241.9	238.9
240	236.5	230.4	225.2	222.5	220.4	216.2	212.7	216.3
264	181.4	173.7	159.6	151.3	138.7	132.5	135.4	129.5
288	124.4	118.0	117.4	112.2	108.8	188.4	187.0	185.6
312	184.6	182.9	181.8	179.3	177.5	174.4	171.8	171.0
336	170.6	169.7	169.2	168.2	167.6	167.0	166.7	164.5



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DEPTH	3020.0		TILT	0		VOS	5963.90	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	166.7	166.5	166.7	164.3	162.4	161.4	160.8	163.5
24	166.7	166.8	167.3	165.9	172.4	170.4	168.8	157.9
48	159.9	164.3	169.4	171.0	173.0	173.8	178.6	178.3
72	178.4	183.2	188.2	190.7	193.7	191.3	188.7	191.6
96	194.3	196.0	200.1	200.4	206.0	198.5	195.8	202.1
120	213.0	214.8	220.4	220.9	223.0	204.9	193.9	183.2
144	176.3	170.4	167.0	169.8	171.8	175.1	179.0	177.1
168	175.7	180.6	180.2	180.4	181.1	184.0	187.6	188.1
192	189.1	196.0	203.3	205.9	209.0	213.4	219.0	223.7
216	228.8	232.2	235.2	238.8	242.5	243.5	245.2	242.0
240	239.5	231.8	227.1	223.1	228.7	218.3	215.7	190.4
264	170.9	163.8	144.8	147.9	139.6	130.7	127.7	125.4
288	123.5	113.1	112.2	106.4	102.7	107.4	106.5	190.0
312	187.6	185.9	184.6	182.6	181.1	178.6	176.7	176.5
336	176.7	174.0	177.1	171.7	172.1	169.5	167.4	166.8

DEPTH	3025.0		TILT	0		VOS	5963.90	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	171.0	170.4	170.3	169.1	168.5	165.4	162.9	165.9
24	169.4	169.9	170.9	171.6	172.8	172.9	173.5	165.1
48	166.9	166.9	170.6	171.9	178.7	178.7	179.3	179.3
72	179.9	185.4	189.0	191.0	193.6	194.3	195.4	194.8
96	194.7	196.0	201.6	206.1	209.8	204.7	201.9	215.9
120	216.0	219.3	223.5	226.4	230.2	219.5	210.7	207.4
144	203.0	182.6	221.5	172.2	174.2	173.2	175.7	174.4
168	173.6	176.0	184.3	180.6	182.8	184.7	187.0	189.4
192	192.4	196.6	204.9	207.0	209.7	214.4	219.2	224.0
216	230.3	234.3	235.9	238.4	241.6	242.4	247.0	242.5
240	239.2	232.8	227.3	223.5	233.3	206.7	217.7	189.7
264	168.5	155.3	144.4	123.0	127.5	120.0	113.5	112.5
288	111.7	106.7	105.6	101.6	98.4	98.5	98.8	99.8
312	86.7	89.9	85.9	83.7	81.8	183.9	182.4	181.9
336	180.5	179.4	178.9	176.8	175.3	175.0	175.1	172.8

DEPTH	3030.1		TILT	0		VOS	5963.90	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	176.9	173.3	174.9	69.0	69.8	74.8	171.8	173.9
24	176.6	176.8	177.5	176.2	181.8	172.7	178.6	172.9
48	173.9	169.5	171.8	175.0	186.6	185.9	186.8	180.3
72	182.5	190.2	202.8	206.6	211.0	215.5	221.0	208.6
96	202.7	200.4	201.3	205.3	210.0	205.1	211.6	238.5
120	216.8	220.9	225.8	231.0	237.1	225.1	214.8	214.4
144	212.4	252.7	276.2	182.1	179.2	173.2	174.2	173.7
168	173.6	176.9	186.4	192.9	198.2	191.8	196.0	197.4
192	199.4	197.3	205.5	208.7	211.8	215.1	218.5	224.4
216	231.8	236.1	234.7	242.3	245.0	245.9	248.9	245.1
240	239.5	237.7	234.3	236.7	239.2	205.6	217.0	179.5
264	161.3	147.9	141.5	121.9	110.1	109.0	108.3	107.7
288	98.9	99.7	99.4	98.0	95.7	91.8	92.2	87.1
312	82.6	82.0	81.5	82.4	73.2	72.2	70.5	74.1
336	72.2	72.6	73.1	185.0	72.2	178.8	179.3	177.8



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**WALL RANGES VS DEPTH**

DEPTH	3035.0		TILT	0		VOS	5963.90	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	74.3	73.9	74.0	65.1	70.4	63.4	178.7	180.1
24	182.0	182.9	189.7	189.1	189.0	183.9	183.6	180.7
48	178.4	174.0	170.3	188.8	195.6	193.0	210.3	189.0
72	213.0	217.5	222.4	224.1	226.4	228.8	232.0	223.8
96	211.7	200.9	201.0	206.1	212.1	210.8	232.9	260.8
120	260.6	272.1	284.9	247.1	239.5	269.9	314.9	302.4
144	304.1	301.7	300.4	293.7	288.0	288.0	288.9	191.2
168	194.5	190.6	192.2	296.9	300.0	197.0	199.1	200.9
192	203.4	200.6	206.1	210.3	213.6	215.5	218.0	223.7
216	230.6	233.8	237.7	241.9	247.0	246.5	250.8	251.0
240	268.7	254.6	259.2	255.5	253.2	207.4	224.2	175.6
264	152.4	145.2	139.0	119.3	109.2	106.3	103.8	100.5
288	97.7	97.4	92.7	94.7	92.5	89.0	85.9	83.2
312	80.8	82.0	83.3	74.1	69.7	66.6	63.9	71.6
336	73.3	70.4	71.5	63.8	62.9	68.7	61.3	75.0

DEPTH	3040.0		TILT	0		VOS	5963.90	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	72.8	69.9	64.3	63.4	67.4	56.8	55.0	62.1
24	193.6	190.5	195.4	195.0	195.1	189.4	69.8	189.5
48	190.0	180.3	201.2	202.7	204.8	200.2	212.8	205.4
72	215.2	221.7	226.3	227.8	230.0	232.5	235.8	235.0
96	234.5	232.2	233.6	245.5	254.5	261.4	269.1	272.6
120	274.5	282.3	288.3	263.0	249.3	290.6	314.5	305.6
144	305.4	302.3	300.2	294.0	288.8	288.4	288.8	289.9
168	291.2	293.0	295.7	298.0	301.1	298.9	297.5	268.7
192	223.1	214.2	209.1	210.9	213.3	215.2	217.7	222.2
216	231.1	233.5	240.4	246.7	249.6	250.0	251.1	255.8
240	276.3	266.5	270.4	265.8	262.4	254.3	258.3	171.7
264	148.6	141.6	131.0	118.2	108.0	98.5	90.7	91.8
288	80.5	81.9	83.7	88.9	87.7	86.1	84.7	82.8
312	81.2	80.6	66.1	68.4	69.2	65.4	63.0	66.4
336	70.4	68.9	60.4	58.1	63.0	64.1	57.5	73.9

DEPTH	3045.0		TILT	0		VOS	5963.90	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	74.4	66.7	62.5	62.4	64.5	55.5	50.3	58.5
24	69.8	70.6	71.6	72.8	74.3	195.0	195.8	73.0
48	71.0	186.6	75.2	79.0	206.6	207.3	214.9	213.8
72	217.7	225.1	229.2	231.2	233.4	236.1	239.6	242.2
96	245.7	247.8	246.1	250.8	256.5	265.8	273.3	277.0
120	280.4	286.2	291.6	286.0	288.4	304.6	314.1	308.8
144	306.7	302.8	300.0	294.3	289.5	288.8	288.8	290.9
168	292.5	294.2	296.7	299.0	302.2	301.0	300.6	293.1
192	275.3	243.4	212.3	213.6	249.1	233.1	254.7	253.2
216	252.6	235.9	264.0	246.2	236.7	235.6	228.7	254.7
240	277.0	270.9	271.4	265.8	261.9	257.9	262.6	164.5
264	153.6	139.2	129.5	118.8	110.0	94.5	87.2	82.0
288	78.7	80.7	82.2	84.5	84.7	75.4	68.0	69.8
312	79.4	68.2	64.8	66.0	66.9	64.2	58.8	62.2
336	66.3	67.4	60.0	60.2	60.6	59.1	53.5	59.6



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**WALL RANGES VS DEPTH**

DEPTH	3050.0		TILT	-3		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	67.2	62.3	54.9	56.4	57.3	52.7	48.8	56.6
24	45.5	63.3	60.2	60.6	60.4	61.9	64.7	67.6
48	56.0	69.3	65.4	68.3	77.4	224.7	220.9	229.5
72	239.5	240.5	242.1	245.1	248.8	249.8	251.6	255.7
96	260.6	265.1	270.5	273.6	273.3	280.5	284.2	287.0
120	290.5	293.8	298.0	303.2	311.0	310.8	311.0	308.8
144	307.5	304.7	302.7	295.3	291.6	299.3	293.8	294.3
168	293.7	294.1	295.2	297.6	300.7	301.4	302.8	303.8
192	307.3	311.8	319.1	323.6	322.8	320.2	318.5	238.2
216	300.0	240.2	198.5	186.7	177.0	180.5	183.0	191.4
240	199.8	203.4	200.8	203.0	203.5	195.1	202.6	163.9
264	152.2	123.2	106.3	103.9	109.9	87.8	85.8	75.0
288	77.3	77.7	77.8	78.2	74.9	69.7	66.9	61.4
312	57.6	63.7	62.6	62.7	63.0	58.9	55.5	59.8
336	63.5	60.1	61.8	59.3	56.9	53.3	52.3	58.8

DEPTH	3050.0		TILT	-6		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	65.7	59.3	54.7	56.7	56.3	53.9	48.8	56.2
24	46.0	62.2	58.7	59.6	59.3	61.3	63.3	68.0
48	56.3	68.0	64.6	69.6	78.0	79.8	81.9	122.5
72	242.9	245.3	248.4	251.4	255.1	257.5	260.6	262.2
96	264.6	269.0	274.4	278.1	278.9	281.1	290.1	286.8
120	290.5	294.9	300.3	304.8	311.8	312.7	314.6	312.4
144	311.0	307.8	305.5	304.3	303.9	302.9	302.7	303.7
168	305.4	307.0	309.4	309.8	307.8	307.2	307.4	307.2
192	322.0	314.2	321.6	322.2	323.5	306.7	320.1	230.3
216	197.5	191.4	186.4	180.5	175.5	172.1	169.3	174.4
240	180.2	180.9	181.7	178.6	178.3	180.0	182.1	149.2
264	156.1	125.5	106.3	94.1	109.7	81.9	85.3	75.5
288	76.8	75.7	74.9	72.0	73.5	67.1	67.7	60.9
312	56.1	61.7	61.0	61.9	63.1	59.4	54.8	60.0
336	62.5	59.1	60.7	56.8	56.9	51.5	52.4	58.2

DEPTH	3050.0		TILT	-9		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	63.6	58.9	55.0	56.9	56.4	52.8	49.8	56.1
24	46.0	62.7	58.7	60.0	60.2	60.9	61.8	68.1
48	55.6	67.6	65.7	70.6	76.4	79.3	82.7	122.4
72	245.7	236.6	249.5	245.2	253.5	255.3	257.9	259.5
96	261.8	263.0	265.0	269.8	279.5	280.4	286.2	290.3
120	295.3	298.9	303.5	299.5	307.8	305.0	315.0	313.5
144	313.0	308.0	303.9	303.7	304.3	303.5	303.5	304.7
168	306.7	307.3	308.7	309.2	310.6	302.3	295.3	282.5
192	296.6	265.8	287.9	286.7	250.4	207.4	238.9	204.9
216	182.1	171.4	172.7	165.1	168.9	168.5	161.3	157.7
240	161.3	156.9	153.2	152.5	152.2	163.1	161.0	145.6
264	157.5	127.4	106.2	92.7	102.4	79.2	86.3	76.7
288	78.7	76.7	74.9	66.0	73.0	62.6	66.9	61.3
312	56.7	59.3	60.5	62.0	61.7	57.8	56.0	58.0
336	59.8	56.4	61.2	56.2	57.6	52.3	52.6	57.5



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	3050.0		TILT	-12		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	66.4	59.5	53.9	55.8	54.9	51.9	48.6	55.1
24	46.5	62.0	59.1	58.8	58.7	59.4	64.5	69.3
48	56.1	67.4	67.3	70.6	77.4	78.9	84.6	103.2
72	132.7	139.7	148.0	175.2	150.3	221.4	245.9	171.0
96	165.3	241.1	246.4	248.3	253.3	256.2	274.8	276.2
120	278.4	274.2	270.8	273.0	276.0	276.8	286.5	285.9
144	292.5	291.7	291.7	294.6	298.4	291.4	295.5	281.9
168	279.1	279.0	279.5	279.9	281.1	252.6	270.8	227.6
192	226.0	224.9	224.4	203.0	177.8	181.5	177.9	179.7
216	182.1	170.5	160.6	161.8	163.4	154.7	147.2	143.6
240	140.5	135.9	131.9	133.1	134.7	142.8	142.3	142.5
264	152.2	115.4	101.9	94.2	83.3	79.4	86.9	76.1
288	78.7	76.9	76.2	66.0	64.0	62.9	66.1	59.5
312	55.5	58.4	61.8	60.9	60.2	56.0	52.4	54.6
336	56.8	55.0	60.9	56.6	57.6	52.3	49.5	55.7

DEPTH	3050.0		TILT	-15		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	61.3	58.3	54.9	54.0	54.1	51.3	48.3	55.2
24	46.4	62.2	60.2	58.6	56.0	58.7	65.0	68.9
48	56.7	66.4	67.9	71.3	77.3	80.7	90.2	108.1
72	132.4	140.2	149.5	144.3	139.8	143.2	147.1	150.5
96	154.4	163.4	173.9	178.9	184.6	224.0	236.7	243.0
120	250.3	250.4	260.3	261.7	263.8	264.8	266.4	269.5
144	276.4	276.0	276.3	278.9	279.9	273.6	268.3	266.4
168	271.1	270.0	269.5	256.5	249.1	236.8	226.2	215.6
192	210.5	195.2	185.5	173.3	170.4	172.4	169.9	161.2
216	153.3	150.0	155.6	145.3	143.0	140.5	138.5	133.7
240	126.1	120.1	124.2	117.1	125.0	129.8	127.6	135.4
264	144.6	110.0	93.6	90.7	85.0	82.3	81.2	77.0
288	77.3	75.8	74.5	67.4	61.7	63.3	65.1	58.7
312	56.0	58.8	60.5	60.8	60.3	54.5	51.6	51.0
336	53.6	53.3	60.1	52.8	57.4	52.5	49.6	53.5

DEPTH	3050.0		TILT	-18		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	60.4	58.6	56.3	53.6	53.8	50.2	49.3	52.6
24	47.0	60.8	57.5	58.6	54.2	59.1	65.6	64.6
48	56.4	64.6	68.5	72.6	77.4	84.0	92.4	109.3
72	135.1	138.1	148.1	147.0	141.4	141.9	142.9	146.0
96	149.7	157.4	166.4	169.5	173.2	193.8	210.9	211.9
120	228.8	222.5	242.5	244.8	251.7	246.7	242.5	248.3
144	255.0	250.5	261.6	250.1	254.1	252.9	262.7	254.3
168	257.1	250.2	244.3	243.3	238.1	224.0	213.2	201.9
192	192.1	184.8	172.7	143.9	143.0	150.1	151.2	148.4
216	147.3	146.5	146.1	139.5	133.7	129.4	125.8	118.2
240	116.6	110.9	116.9	113.1	116.3	119.8	123.8	124.5
264	137.1	104.2	85.6	85.2	84.4	81.7	74.6	75.8
288	73.4	75.0	73.2	66.5	65.3	62.0	62.8	59.8
312	57.6	58.3	59.3	58.4	57.7	53.4	52.3	50.0
336	50.1	51.9	59.9	53.2	56.9	51.8	53.2	54.2



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	3050.0		TILT	-21		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	60.3	59.0	57.2	54.0	53.4	51.0	51.1	49.4
24	47.6	61.7	59.6	57.8	55.0	58.8	63.2	61.2
48	57.3	64.1	68.5	73.8	78.4	85.4	93.9	109.8
72	120.7	129.1	142.4	136.9	139.1	141.7	144.8	141.7
96	145.5	150.7	156.7	163.8	162.8	173.2	174.8	190.5
120	209.8	211.4	213.5	217.1	221.3	225.3	230.0	228.5
144	227.6	226.1	225.2	221.7	218.8	218.2	218.0	220.4
168	223.4	221.0	219.2	206.2	209.4	186.3	178.7	157.6
192	166.0	138.5	136.3	134.3	132.6	135.4	138.7	134.0
216	122.0	122.8	120.6	121.3	121.9	93.5	88.1	83.4
240	84.4	86.4	105.3	99.3	105.8	101.7	103.5	112.6
264	123.8	98.8	82.3	78.8	75.8	74.1	72.8	72.4
288	72.2	69.8	70.1	65.3	63.2	61.3	59.6	58.7
312	57.9	56.7	57.7	54.0	52.8	53.3	54.0	50.6
336	47.8	51.1	58.3	53.2	56.4	53.4	52.5	56.4

DEPTH	3050.0		TILT	-24		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	58.4	57.7	57.0	54.7	54.0	52.2	51.1	49.6
24	49.3	54.2	59.6	57.0	55.8	59.9	67.0	68.8
48	57.9	63.8	68.8	75.3	76.9	84.9	95.0	105.0
72	117.7	122.8	132.9	131.0	131.9	130.8	134.9	137.8
96	141.2	143.7	88.4	113.9	160.3	164.0	168.4	173.3
120	178.9	187.0	186.5	193.7	198.0	196.4	195.3	193.7
144	197.9	200.3	203.2	204.7	209.3	206.0	203.4	194.3
168	185.8	175.3	165.0	159.1	153.7	148.7	143.1	135.6
192	133.1	129.8	127.0	118.9	112.0	114.5	117.5	110.4
216	107.9	103.0	96.9	88.8	84.2	82.0	80.2	76.9
240	77.7	83.3	81.8	93.7	98.0	99.4	101.4	105.7
264	113.5	95.4	82.4	78.2	74.5	69.8	70.4	69.8
288	69.4	66.0	66.8	64.1	62.3	60.6	58.9	57.6
312	55.1	56.4	55.7	51.7	51.0	51.7	52.5	51.2
336	49.7	51.9	54.0	52.1	55.7	53.9	52.1	55.6

DEPTH	3050.0		TILT	-27		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	56.4	56.7	56.7	56.0	53.8	51.6	51.5	51.0
24	50.7	55.2	54.7	57.9	55.5	60.4	66.5	62.0
48	58.2	64.8	70.0	77.2	79.1	85.3	97.7	97.8
72	111.2	116.6	119.3	122.5	126.1	126.6	127.4	121.8
96	140.0	137.7	86.0	85.9	91.3	106.9	129.4	133.9
120	139.1	151.8	167.5	171.7	176.4	177.1	178.1	180.8
144	184.0	184.7	185.6	183.4	181.2	179.7	178.9	172.6
168	168.1	159.5	158.4	152.7	147.6	137.1	124.1	126.6
192	117.2	110.3	120.5	108.7	107.3	104.7	98.9	94.2
216	90.8	85.7	82.2	77.7	76.3	74.9	73.8	74.4
240	75.2	75.3	75.4	82.8	91.9	95.9	100.6	101.9
264	103.4	88.4	77.3	75.1	73.2	70.3	67.7	67.4
288	67.2	64.7	62.5	61.0	59.6	57.0	57.8	57.1
312	55.9	56.0	53.5	51.8	50.3	51.5	52.9	51.8
336	46.8	51.0	52.9	53.9	54.6	53.5	52.1	54.8



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	3050.0		TILT	-30		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	56.4	55.6	57.2	56.0	54.0	52.3	51.7	51.5
24	51.5	55.9	51.1	59.4	56.2	61.1	67.1	62.9
48	59.2	64.9	72.0	77.4	83.8	87.4	91.5	94.0
72	96.9	105.1	111.1	109.9	112.9	110.8	110.9	115.2
96	125.7	124.6	82.6	83.3	87.8	96.1	125.8	125.8
120	132.1	137.2	151.1	156.2	162.0	161.3	160.8	160.5
144	160.4	160.8	161.4	157.6	160.7	159.5	161.6	159.7
168	158.2	144.7	133.7	118.4	114.8	104.0	101.8	95.9
192	90.9	87.7	85.0	81.5	78.5	76.4	74.5	74.0
216	73.6	72.5	71.6	71.8	72.2	72.0	72.0	72.0
240	72.2	74.0	76.1	77.2	78.5	80.7	89.9	92.0
264	98.2	81.5	69.8	69.3	68.9	67.6	66.5	64.6
288	62.9	61.9	61.0	58.8	56.8	55.6	56.8	56.8
312	56.8	54.9	51.9	52.1	48.9	50.1	51.5	51.0
336	50.6	51.2	51.9	52.4	53.0	52.3	51.7	53.9

DEPTH	3050.0		TILT	-33		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	55.8	53.4	55.5	53.0	55.0	52.7	52.4	53.4
24	53.2	56.7	52.5	59.9	57.6	60.3	68.7	61.8
48	61.2	66.6	73.0	77.5	82.7	85.8	89.2	90.4
72	91.9	95.0	104.3	100.0	101.6	103.7	101.6	98.8
96	92.6	85.8	80.1	81.5	83.2	89.7	97.5	108.1
120	126.1	127.1	133.0	138.0	147.4	147.0	146.8	143.7
144	141.0	143.8	147.0	133.3	142.2	141.2	140.5	130.6
168	112.0	108.6	105.5	101.7	98.2	90.1	83.4	78.2
192	77.5	75.8	74.3	69.4	70.8	69.2	67.7	69.3
216	71.1	69.1	67.3	67.4	67.5	68.7	70.0	69.5
240	69.1	69.2	69.4	71.9	74.8	78.7	83.2	85.5
264	88.2	76.5	67.7	66.4	65.3	64.4	63.7	61.1
288	58.8	58.1	57.6	57.3	57.2	55.4	56.1	55.6
312	55.4	53.8	52.2	52.3	49.9	49.5	49.3	49.5
336	49.8	49.8	49.9	50.5	51.3	51.8	52.3	53.9

DEPTH	3050.0		TILT	-36		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	55.6	54.5	53.5	54.7	56.0	54.5	53.1	53.9
24	54.7	57.7	54.2	58.4	60.0	59.6	61.6	62.1
48	62.7	68.3	75.2	78.4	81.9	82.3	82.7	85.7
72	89.0	91.9	95.1	89.9	85.4	85.4	85.6	87.5
96	89.7	82.6	76.7	78.4	80.3	85.3	91.1	95.7
120	101.0	109.4	119.7	124.8	128.6	130.6	132.8	130.5
144	128.3	123.7	123.9	119.5	115.6	99.5	108.5	85.4
168	83.6	83.6	83.8	84.0	84.3	79.0	74.4	70.3
192	72.1	69.0	66.2	60.9	61.2	62.5	63.9	63.3
216	62.9	63.5	64.3	63.8	63.5	64.2	65.1	65.3
240	65.7	66.6	67.5	69.3	71.3	74.0	77.0	77.3
264	77.9	71.6	66.3	65.3	64.5	62.1	60.0	59.5
288	59.0	58.1	57.4	56.3	57.7	55.4	54.5	53.9
312	53.5	52.3	51.4	51.3	51.4	49.1	48.6	48.5
336	48.6	49.0	49.5	49.6	49.8	50.5	51.4	52.9



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	3050.0		TILT	-39		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	53.7	53.7	53.7	54.8	56.0	55.0	54.2	55.1
24	55.2	55.5	55.0	58.7	63.1	61.4	59.8	62.5
48	65.5	71.0	77.7	77.9	78.3	79.3	80.5	80.0
72	79.7	83.6	88.0	82.1	77.1	79.6	82.3	80.1
96	78.2	76.7	75.4	76.6	77.9	80.7	84.0	88.5
120	93.8	94.8	95.9	95.5	118.3	103.9	114.4	114.0
144	113.8	111.8	110.1	101.3	93.9	86.1	79.7	78.2
168	77.0	77.4	77.9	76.7	75.6	73.3	71.2	69.1
192	67.3	64.9	62.7	60.6	58.8	59.2	59.6	59.9
216	60.2	61.3	62.5	61.7	61.1	61.8	62.5	62.4
240	62.3	61.8	61.3	62.8	64.5	64.8	65.2	65.3
264	65.5	66.4	67.3	66.0	64.9	62.8	60.8	59.4
288	58.2	57.2	56.4	56.0	55.8	54.4	53.1	52.5
312	51.9	50.6	49.5	49.4	49.5	48.7	48.1	47.7
336	47.5	48.3	49.3	48.8	48.5	49.5	50.7	52.1

DEPTH	3050.0		TILT	-42		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	53.8	53.8	53.8	54.3	54.9	54.2	53.7	54.7
24	55.8	55.6	57.3	62.9	63.9	65.3	63.0	66.7
48	66.7	70.3	74.4	75.6	77.0	77.6	78.3	78.3
72	78.4	78.0	83.4	77.5	75.4	75.3	75.3	76.1
96	77.0	75.7	74.6	76.6	78.7	81.8	85.4	86.4
120	87.7	86.6	85.6	84.8	84.2	85.1	86.1	89.5
144	93.3	93.2	93.3	91.7	90.3	82.9	76.8	76.2
168	75.7	74.4	73.2	71.8	70.6	68.6	66.9	65.6
192	64.5	63.4	62.5	60.7	59.1	59.0	58.9	58.4
216	57.9	58.8	59.8	59.6	59.5	59.9	60.4	59.7
240	59.1	59.2	59.4	59.1	58.9	60.7	62.7	62.2
264	61.8	63.2	64.8	65.4	66.0	62.3	59.1	58.2
288	57.6	57.1	56.7	55.7	54.9	53.8	52.8	51.9
312	51.0	50.4	49.9	49.1	48.4	47.9	47.5	47.4
336	47.5	48.1	48.7	48.2	47.7	48.8	50.0	51.8

DEPTH	3050.0		TILT	-45		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	50.9	51.4	52.0	53.1	54.4	54.0	53.6	54.5
24	55.6	56.1	56.7	59.6	62.9	63.8	64.7	66.5
48	68.5	71.1	74.0	74.0	74.1	75.0	75.9	76.6
72	77.4	75.4	76.2	72.5	71.4	71.0	70.8	71.0
96	71.4	72.0	72.7	74.9	77.4	77.8	78.4	78.8
120	79.3	78.2	77.2	77.8	78.5	76.7	75.2	74.5
144	73.9	73.1	72.5	71.4	70.5	71.2	72.0	71.2
168	70.5	70.6	70.8	69.3	68.0	66.7	65.6	63.7
192	62.1	61.7	61.5	60.1	58.8	57.6	56.6	56.5
216	56.5	58.1	59.8	59.2	58.6	57.8	57.0	56.3
240	55.7	56.4	57.1	56.9	56.8	56.8	56.9	57.8
264	58.9	60.0	61.3	62.8	64.4	62.2	60.3	57.9
288	55.7	55.8	56.0	54.3	52.7	52.5	52.3	51.6
312	51.0	50.7	50.6	49.0	47.6	47.4	47.2	47.4
336	47.6	47.3	47.1	47.4	47.7	48.3	49.1	49.9



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	3050.0		TILT	-48		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	49.7	51.3	53.0	53.4	53.8	53.8	53.8	54.9
24	56.0	56.4	56.8	57.3	61.4	64.3	63.1	64.9
48	66.9	68.4	71.9	72.7	71.3	73.2	75.4	76.1
72	76.9	75.9	74.9	71.9	69.3	66.1	63.2	63.5
96	63.8	66.6	71.3	72.6	71.5	73.6	75.9	76.1
120	76.4	75.0	73.8	73.2	72.7	71.8	71.0	71.0
144	71.1	70.6	70.2	69.4	68.7	68.1	67.5	68.1
168	68.7	69.0	69.4	67.9	66.6	64.7	63.0	62.6
192	62.3	61.5	60.9	59.5	58.3	56.8	55.4	54.9
216	54.4	55.5	56.7	56.0	55.3	55.5	55.7	55.3
240	54.9	55.5	56.3	56.8	57.4	57.8	58.3	57.2
264	56.3	57.4	58.7	54.6	51.0	50.8	54.7	52.2
288	53.8	52.9	52.1	52.7	53.5	52.1	50.8	50.8
312	50.9	50.5	50.1	48.8	47.7	47.3	47.0	46.8
336	46.7	46.9	47.2	47.2	47.1	46.9	46.7	48.1

DEPTH	3050.0		TILT	-51		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	49.3	50.5	51.9	52.3	52.8	53.8	55.0	54.7
24	54.5	56.2	57.9	60.0	62.3	62.9	63.6	64.3
48	65.1	67.2	69.5	70.1	70.8	71.8	73.0	73.2
72	73.6	65.3	58.7	59.2	59.7	56.8	54.2	56.8
96	59.8	61.0	68.8	66.9	70.4	71.8	73.2	72.6
120	72.2	71.2	70.3	69.5	68.8	68.5	68.2	68.8
144	69.5	69.1	68.7	67.8	67.0	66.3	65.7	66.3
168	66.9	65.5	64.2	63.1	62.1	61.1	60.2	59.6
192	58.9	57.7	56.6	56.4	56.3	55.3	54.5	53.1
216	51.9	53.3	54.9	54.8	54.8	54.7	54.8	54.5
240	54.3	54.6	54.9	55.6	56.4	56.9	57.6	56.3
264	55.2	53.9	52.7	51.3	49.9	50.1	50.4	52.8
288	52.3	53.4	51.3	51.8	52.4	52.0	51.8	50.7
312	49.8	49.3	48.9	48.2	47.7	47.6	47.6	47.4
336	47.2	46.8	46.4	46.6	46.9	46.9	46.9	48.0

DEPTH	3050.0		TILT	-54		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	48.6	50.0	51.5	51.8	52.1	53.0	54.1	54.5
24	54.9	54.9	58.3	59.7	59.6	60.5	61.5	63.1
48	64.7	66.8	69.1	68.8	68.6	68.2	67.9	64.5
72	61.5	58.2	55.2	53.9	52.7	52.7	52.6	53.0
96	53.5	54.7	58.5	60.2	66.5	66.9	67.4	67.4
120	67.4	67.3	67.3	67.0	66.8	67.0	67.2	66.7
144	66.2	66.6	67.0	66.2	65.4	64.5	63.7	63.5
168	63.3	62.9	62.6	61.4	60.3	58.6	57.1	56.3
192	55.5	55.0	54.7	54.5	54.4	53.5	52.7	52.0
216	51.4	52.7	54.1	54.1	54.1	53.8	53.5	53.1
240	52.7	52.0	51.3	51.3	51.4	51.5	51.6	51.5
264	51.4	50.4	49.6	49.1	48.6	48.3	48.1	48.2
288	48.4	49.3	50.4	49.8	51.9	50.1	50.8	50.5
312	50.2	49.4	48.5	48.1	47.7	47.4	47.2	47.3
336	47.5	47.2	46.9	47.0	47.0	46.9	46.8	47.7



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	3050.0		TILT	-57		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	47.6	48.4	49.3	50.4	51.6	52.9	54.3	55.0
24	55.7	56.1	56.6	57.1	57.8	59.0	60.2	61.4
48	62.7	63.1	63.6	64.9	66.2	64.0	62.0	58.2
72	54.9	53.9	52.9	52.1	51.4	50.8	50.2	50.6
96	51.0	52.4	54.0	56.9	60.1	60.6	61.1	61.7
120	64.8	63.6	64.9	65.2	65.6	65.6	65.7	64.9
144	64.2	63.9	63.6	63.2	62.8	62.3	61.8	61.2
168	60.7	59.3	58.1	56.9	55.7	55.5	55.4	54.7
192	54.1	53.8	53.5	53.9	54.4	53.6	52.8	52.1
216	51.4	52.8	54.4	51.8	53.4	53.3	50.2	49.5
240	48.9	49.7	50.7	50.7	50.7	50.0	49.4	48.8
264	48.3	48.7	49.2	49.1	49.1	48.7	48.3	48.5
288	48.6	50.5	52.5	52.1	51.7	51.5	51.3	50.5
312	49.8	49.0	48.3	48.4	48.4	47.6	46.8	46.9
336	47.0	46.8	46.6	46.5	46.5	47.1	47.7	47.6

DEPTH	3050.0		TILT	-60		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	47.6	49.4	51.3	51.1	51.0	50.7	50.6	50.4
24	50.4	50.6	50.9	51.6	52.4	53.1	53.9	56.6
48	59.7	59.6	59.5	60.0	60.7	60.4	60.1	55.8
72	52.1	51.7	51.3	50.5	49.7	49.8	50.0	49.6
96	49.3	49.4	49.6	53.4	57.8	58.5	59.3	60.0
120	60.9	60.8	60.8	61.9	63.1	62.7	62.2	60.4
144	58.7	57.7	56.7	56.9	57.2	54.7	52.4	52.8
168	53.3	54.0	54.9	53.6	52.5	52.2	53.2	53.2
192	51.1	52.0	52.9	52.7	52.5	52.1	51.6	51.7
216	51.8	52.2	52.6	50.7	52.8	48.2	47.6	47.6
240	47.7	47.6	47.5	47.6	47.9	47.7	47.7	47.6
264	47.5	47.5	47.6	47.4	47.2	47.3	47.5	47.9
288	48.3	50.0	51.9	52.1	52.3	51.3	50.5	50.0
312	49.6	49.4	49.3	48.6	48.0	47.5	47.0	47.2
336	47.4	47.3	47.2	47.5	47.8	47.4	47.1	47.3

DEPTH	3050.0		TILT	-63		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	48.9	50.4	52.0	52.8	53.6	51.9	50.4	50.1
24	49.8	50.3	50.9	50.9	50.9	51.2	51.5	52.1
48	52.6	54.5	56.6	56.5	56.5	53.2	50.3	50.2
72	50.0	50.1	50.2	50.3	50.5	50.1	49.8	48.9
96	48.0	48.8	49.6	50.9	50.2	48.8	54.3	54.3
120	52.1	50.9	52.8	55.7	58.9	57.0	55.2	55.7
144	56.3	56.1	55.9	55.3	54.7	53.0	51.4	51.5
168	51.6	50.6	49.7	50.6	51.5	51.2	50.9	50.6
192	50.2	50.2	50.2	51.1	52.0	51.7	51.5	51.9
216	52.3	52.1	51.9	51.7	51.5	48.2	45.3	45.1
240	45.0	44.7	44.3	45.1	45.8	45.3	44.8	45.4
264	46.2	45.6	45.1	45.2	45.3	46.0	46.7	49.0
288	47.2	51.1	50.7	50.9	51.2	51.3	51.4	51.9
312	52.4	51.2	50.1	49.4	48.7	48.6	48.5	48.4
336	48.2	48.1	48.0	48.0	48.0	48.7	49.5	49.2



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	3050.0		TILT	-66		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	55.6	55.0	54.4	54.1	53.8	52.1	50.6	49.6
24	48.7	49.2	49.7	50.2	50.7	50.8	51.0	49.7
48	48.5	48.3	52.4	53.8	55.2	48.6	49.0	49.1
72	49.3	49.3	49.4	49.5	49.6	48.8	48.1	49.2
96	50.3	50.8	51.3	50.9	50.6	50.4	50.2	49.6
120	49.0	49.3	49.6	49.1	48.5	50.3	52.3	52.3
144	52.3	51.9	51.6	49.7	48.0	47.5	47.0	47.3
168	47.6	47.7	47.8	47.8	47.9	47.8	49.5	49.0
192	50.4	49.9	49.5	49.8	50.0	50.4	50.7	50.2
216	49.8	50.0	50.2	49.6	49.0	46.5	44.2	43.5
240	42.8	43.0	43.3	43.7	44.2	44.3	44.3	44.2
264	44.1	44.1	44.1	44.5	44.9	44.8	44.7	44.8
288	44.9	47.3	49.9	50.1	50.4	51.0	51.6	51.7
312	51.7	51.4	51.1	51.0	51.0	50.5	50.1	50.8
336	51.4	54.5	51.4	53.7	56.3	54.2	52.4	56.7

DEPTH	3050.0		TILT	-69		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	54.9	54.1	53.4	53.5	53.7	51.5	49.5	49.5
24	49.6	50.0	50.4	50.2	50.1	50.7	51.3	49.5
48	47.9	48.0	48.1	47.9	47.8	48.2	48.7	48.7
72	48.6	48.5	48.3	48.4	48.5	47.9	47.4	48.6
96	50.0	49.4	48.9	49.4	49.9	49.3	48.7	49.2
120	49.7	49.2	48.7	49.5	50.2	50.2	50.1	50.3
144	50.5	50.6	50.8	49.6	48.5	47.3	46.1	45.8
168	45.5	46.2	46.8	47.5	48.1	48.2	48.2	48.1
192	48.0	48.9	49.8	49.6	49.5	49.2	49.0	49.3
216	49.7	49.1	48.4	47.9	47.4	46.2	45.1	45.4
240	45.7	42.9	42.7	43.8	42.5	42.6	42.6	42.9
264	43.3	43.6	44.0	44.3	44.6	44.5	44.5	44.1
288	43.7	44.3	45.0	47.2	49.7	50.5	51.3	51.8
312	52.4	51.7	51.0	51.4	51.8	51.9	52.0	52.8
336	53.7	53.7	53.8	54.5	55.2	55.2	55.3	55.1

DEPTH	3050.0		TILT	-72		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	52.6	52.4	52.2	52.0	51.8	52.1	50.1	51.3
24	50.4	50.0	49.7	50.0	50.2	50.1	50.0	49.0
48	48.0	48.0	48.1	47.9	47.7	48.0	48.3	48.3
72	48.3	48.4	48.4	48.4	48.3	48.7	49.2	49.6
96	50.1	49.6	49.1	49.3	49.6	48.8	48.0	48.1
120	48.2	48.1	48.0	47.9	47.8	48.3	48.9	48.2
144	47.6	48.0	48.4	47.8	47.3	47.0	46.7	47.2
168	47.7	47.5	47.4	47.7	48.0	48.0	48.0	47.9
192	47.9	48.0	48.1	47.7	47.4	48.0	48.7	48.1
216	47.5	46.7	47.9	47.4	46.8	46.3	45.8	45.4
240	45.0	43.3	43.5	43.9	44.3	44.7	45.0	44.7
264	42.8	44.3	44.1	44.5	44.9	44.3	43.8	42.9
288	42.1	42.8	43.6	46.8	50.5	51.0	51.5	51.0
312	53.0	50.5	50.5	50.9	51.3	51.6	52.0	52.6
336	53.3	53.1	52.9	53.5	54.0	53.4	52.8	52.7



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	3050.0		TILT	-75		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	52.5	52.7	52.8	52.7	52.5	50.6	48.9	49.5
24	50.2	48.9	47.6	46.8	47.8	47.0	46.2	46.7
48	46.0	46.8	47.8	47.9	47.9	47.7	47.6	47.7
72	47.8	48.1	48.5	48.5	48.4	48.8	49.2	49.2
96	49.2	49.0	48.7	49.0	49.3	48.5	47.8	47.8
120	47.8	47.5	47.1	46.8	46.6	46.8	47.1	47.5
144	47.9	47.4	46.9	46.9	46.8	46.7	46.6	46.5
168	46.5	46.8	47.0	46.9	46.8	47.1	47.5	47.6
192	47.8	47.8	47.8	47.7	47.7	47.1	46.5	46.7
216	46.9	46.6	46.3	45.9	45.5	45.3	45.1	45.0
240	44.9	44.3	43.7	43.3	42.9	43.2	43.5	43.2
264	42.8	43.0	43.2	43.3	43.4	43.5	43.6	43.0
288	42.4	43.1	43.8	44.6	47.7	48.7	49.7	51.0
312	52.4	50.1	50.6	51.2	51.9	51.5	51.2	52.0
336	52.8	53.0	53.1	53.2	53.3	52.7	52.2	52.3

DEPTH	3050.0		TILT	-78		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	52.4	52.8	53.3	50.9	48.6	48.3	48.0	47.7
24	47.4	47.6	47.9	47.8	47.8	47.5	47.1	47.1
48	47.1	47.2	47.4	47.4	47.5	47.7	47.9	47.9
72	47.9	48.1	48.3	48.2	48.0	48.5	49.1	49.4
96	49.7	49.0	48.3	48.3	48.2	48.1	48.0	47.7
120	47.4	46.9	46.5	46.6	46.8	46.6	46.5	47.0
144	47.6	47.2	46.9	47.2	47.6	47.1	46.7	46.9
168	47.1	47.1	47.0	47.3	47.6	47.3	47.0	47.3
192	47.6	47.3	47.1	47.3	47.5	46.8	46.2	46.3
216	46.5	45.8	45.1	45.0	44.9	44.9	44.9	44.4
240	43.9	44.3	44.6	44.4	44.2	44.1	44.0	43.7
264	43.5	43.4	43.4	43.5	43.6	44.0	44.5	44.2
288	43.9	44.7	45.5	47.6	49.8	49.7	49.5	49.9
312	50.3	50.3	50.3	49.9	49.4	49.8	50.1	50.3
336	50.5	51.6	52.7	53.0	53.3	53.2	53.1	52.7

DEPTH	3050.0		TILT	-81		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	52.4	50.5	52.7	48.3	48.5	48.0	47.5	47.8
24	48.2	47.8	47.4	47.2	47.1	47.0	46.8	46.8
48	46.8	47.2	47.7	47.6	47.5	47.5	47.5	47.9
72	48.4	49.3	50.1	49.5	48.9	48.9	48.9	48.9
96	48.9	48.9	48.9	48.7	48.5	48.6	48.6	48.4
120	48.1	47.8	47.6	47.7	47.8	47.5	47.2	46.9
144	46.6	46.9	47.2	47.2	47.1	47.4	47.7	47.5
168	47.4	47.4	47.5	47.5	47.6	47.1	46.7	47.0
192	47.4	47.3	47.2	47.0	46.7	46.9	47.1	46.4
216	45.7	45.6	45.4	45.2	45.0	45.1	45.2	45.1
240	45.0	45.2	45.4	45.6	45.8	45.4	45.0	45.1
264	45.2	45.4	45.5	46.3	47.0	47.0	47.0	47.0
288	46.9	47.5	48.1	49.0	49.9	49.5	49.1	50.0
312	51.0	50.3	49.7	50.7	51.6	52.0	52.4	52.1
336	51.9	52.1	52.4	52.4	52.5	52.4	52.4	52.4



CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN : PPG No. 007B

OPERATION No. : 6

**WALL RANGES VS DEPTH**

DEPTH	3050.0		TILT	-84		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	50.7	50.7	50.8	49.6	48.4	48.3	48.1	48.4
24	48.7	48.4	48.1	48.2	48.2	47.8	47.5	47.4
48	47.4	47.5	47.7	47.8	48.0	48.2	48.3	49.3
72	50.4	50.3	50.2	49.1	48.0	48.6	49.3	49.5
96	49.7	49.5	49.4	49.0	48.5	48.7	49.0	48.3
120	47.6	47.6	47.7	47.5	47.4	47.5	47.7	47.4
144	47.1	47.0	46.9	47.2	47.5	47.2	47.0	47.0
168	47.0	46.9	46.8	47.2	47.7	47.3	46.9	46.8
192	46.7	46.8	46.9	47.0	47.0	46.8	46.6	46.5
216	46.4	46.2	46.1	45.8	45.6	46.1	46.6	46.2
240	45.8	45.6	45.3	46.1	46.9	46.9	46.9	46.5
264	46.2	46.8	47.4	47.1	46.9	47.1	47.2	47.1
288	46.9	46.9	46.9	47.1	47.2	47.1	47.0	47.6
312	48.2	48.5	48.9	48.9	49.0	49.3	49.5	49.8
336	50.0	50.2	50.5	50.5	50.5	50.5	50.5	50.6

DEPTH	3050.0		TILT	-87		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	49.9	49.8	49.7	49.7	49.8	49.8	49.8	49.5
24	49.3	49.4	49.5	49.4	49.2	49.3	49.3	49.3
48	49.2	49.0	48.9	49.2	49.5	49.4	49.3	49.2
72	49.1	49.2	49.3	49.0	48.7	48.9	49.0	49.1
96	49.2	49.3	49.5	49.0	48.5	48.5	48.5	48.0
120	47.6	47.9	48.3	48.3	48.3	47.7	47.0	47.3
144	47.7	47.3	46.9	47.0	47.0	47.3	47.7	47.3
168	46.9	47.1	47.4	47.0	46.6	46.9	47.1	46.8
192	46.5	46.7	46.8	47.1	47.4	47.3	47.4	47.2
216	47.0	46.8	46.5	46.6	46.7	47.1	47.6	47.2
240	46.9	46.7	46.4	46.8	47.2	47.3	47.5	47.6
264	47.7	47.7	47.7	47.8	48.0	47.9	47.9	47.6
288	47.2	47.5	47.8	48.0	48.2	48.8	49.5	48.8
312	48.2	48.8	49.5	49.2	48.9	49.0	49.1	49.0
336	49.0	49.4	49.9	49.5	49.2	49.5	49.8	49.8

DEPTH	3050.2		TILT	0		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	69.9	65.8	62.3	57.0	59.2	53.9	49.5	58.0
24	47.9	66.2	62.7	67.8	66.4	63.4	66.6	68.8
48	61.1	71.6	65.6	73.5	207.6	214.6	218.1	220.2
72	220.1	224.4	229.4	234.0	236.9	239.8	243.5	247.1
96	251.6	254.9	257.8	254.2	259.9	270.4	277.7	281.5
120	286.0	289.9	294.6	301.1	308.3	310.1	312.8	310.5
144	307.7	303.3	299.9	295.1	291.2	290.4	290.4	291.5
168	293.8	295.1	297.2	298.4	300.4	302.1	303.0	305.0
192	310.4	311.2	314.7	310.3	308.2	303.3	300.3	298.0
216	296.4	235.7	290.1	232.3	223.4	220.7	209.4	232.2
240	261.4	275.5	272.3	267.8	264.0	261.6	267.1	163.3
264	156.7	125.3	130.1	119.3	110.4	91.5	86.9	78.0
288	77.9	79.5	81.4	79.8	78.6	71.5	65.8	62.8
312	60.3	64.8	63.5	64.7	65.7	63.5	58.5	60.6
336	65.0	61.0	62.1	61.4	57.8	57.8	53.0	60.2



CUSTOMER : Westlake Chemicals

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**WALL RANGES VS DEPTH**

DEPTH	3055.0		TILT	0		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	66.5	60.2	55.1	57.1	56.8	54.4	49.2	56.3
24	46.1	63.5	58.6	59.9	59.6	61.9	64.3	68.2
48	56.9	69.0	65.3	69.6	78.6	81.1	85.2	226.2
72	224.5	227.5	233.8	236.6	240.3	243.4	246.8	250.5
96	256.2	259.9	264.5	266.3	266.3	271.3	280.1	283.5
120	285.0	291.3	295.8	301.8	307.6	310.8	314.9	311.1
144	308.3	303.9	300.4	295.2	291.0	290.1	290.0	290.8
168	292.4	294.9	298.3	299.1	300.7	301.6	302.7	302.9
192	310.4	310.3	315.8	310.5	311.9	302.8	299.0	297.3
216	296.6	243.2	217.3	202.7	182.3	185.6	191.8	204.6
240	214.5	212.3	212.7	234.4	269.9	201.6	243.0	162.8
264	152.4	124.0	109.0	98.8	110.4	87.0	86.2	76.2
288	77.9	77.7	77.3	78.4	74.1	68.8	68.9	61.3
312	56.5	63.4	62.3	63.6	63.5	59.6	55.1	60.3
336	63.4	60.4	61.5	57.3	57.3	51.9	52.8	58.7

DEPTH	3059.9		TILT	0		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	63.6	58.9	54.1	56.1	55.4	52.0	48.1	54.8
24	46.0	62.5	58.6	59.4	59.6	60.5	62.1	68.0
48	55.6	67.5	65.6	70.3	77.2	78.7	82.2	229.1
72	234.9	237.0	237.8	238.2	246.0	247.7	248.5	251.0
96	259.0	263.1	268.0	270.5	267.3	271.3	282.4	285.4
120	287.9	292.7	297.0	302.6	309.8	311.2	313.5	311.3
144	307.3	307.3	302.4	298.0	294.5	292.7	291.7	291.3
168	291.7	292.9	294.8	297.3	300.7	301.2	302.4	303.4
192	310.0	310.5	317.0	310.7	315.6	302.3	300.0	297.5
216	295.9	244.2	199.1	186.7	176.2	180.1	182.6	191.1
240	200.5	204.4	201.4	204.5	205.0	195.1	205.1	164.6
264	154.4	126.2	107.0	93.8	109.9	79.5	85.5	76.6
288	77.6	75.1	74.8	66.1	73.7	62.4	66.8	60.7
312	56.8	58.4	60.3	61.9	61.3	56.7	54.7	56.6
336	58.9	55.8	61.1	56.5	57.4	52.2	49.2	56.7

DEPTH	3065.2		TILT	0		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	60.3	56.7	53.7	51.8	52.6	48.5	47.7	53.2
24	45.3	60.9	58.8	57.2	53.4	57.4	63.6	68.5
48	55.1	66.6	66.8	69.6	76.5	77.9	83.0	122.5
72	240.7	241.8	243.6	246.5	250.2	251.4	253.3	257.4
96	262.5	266.8	272.0	273.9	275.7	280.5	284.6	287.2
120	290.7	294.1	298.3	303.5	311.3	311.2	312.1	309.1
144	307.4	305.1	303.0	295.6	291.7	299.5	294.1	294.6
168	294.1	294.4	295.5	297.8	301.0	301.7	303.1	303.9
192	308.1	311.7	319.0	321.7	321.2	316.7	312.9	233.8
216	300.5	201.6	193.8	185.4	178.2	174.5	173.2	179.9
240	188.5	192.8	198.3	187.4	183.0	184.8	187.9	165.2
264	155.9	124.9	105.2	91.9	105.9	78.5	86.6	75.2
288	77.2	76.2	75.5	65.9	59.9	61.9	64.3	57.3
312	54.7	57.4	59.3	59.8	59.2	52.0	50.9	48.2
336	48.5	50.6	58.9	51.0	55.9	50.3	50.2	51.7



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**WALL RANGES VS DEPTH**

DEPTH	3070.0		TILT	0		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	58.9	55.9	54.1	50.9	50.9	48.5	47.6	46.0
24	45.7	58.7	55.4	54.9	52.1	55.8	63.0	61.6
48	54.1	61.9	65.7	69.6	75.2	78.5	86.2	111.5
72	243.4	244.8	245.5	248.4	252.1	253.7	256.0	259.3
96	263.4	267.7	272.8	275.0	276.8	280.4	284.9	286.9
120	288.6	292.5	297.2	303.6	311.1	310.5	310.7	308.2
144	306.6	302.0	298.3	294.2	291.0	299.6	294.5	293.6
168	293.4	295.4	298.3	298.2	299.0	301.7	303.3	305.8
192	309.4	314.4	320.4	322.5	322.5	319.0	318.6	229.7
216	299.0	190.1	184.3	177.1	172.9	170.1	167.3	169.9
240	176.3	175.2	173.1	173.4	174.3	177.6	180.5	144.8
264	156.1	126.5	102.8	93.0	82.5	79.9	84.1	74.9
288	74.8	73.9	72.4	64.2	62.7	58.9	59.2	56.8
312	54.7	53.7	55.0	47.7	48.1	49.0	50.0	47.5
336	46.1	48.2	55.8	49.2	53.3	50.9	48.8	53.3

DEPTH	3074.9		TILT	0		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	51.9	51.8	51.5	50.7	48.1	46.8	45.7	45.4
24	45.3	49.8	47.6	51.8	50.1	55.3	61.3	65.2
48	53.2	59.4	64.1	68.7	74.1	80.6	88.6	103.6
72	242.3	245.2	247.5	250.3	253.9	256.0	258.8	260.8
96	263.7	268.0	273.3	276.3	277.5	280.3	285.1	286.6
120	288.9	292.3	296.6	301.7	308.0	309.3	311.4	308.6
144	306.6	300.5	295.5	293.4	292.1	299.6	294.8	295.3
168	296.6	297.5	299.3	299.6	300.7	301.7	303.5	305.5
192	308.3	313.8	320.4	320.7	321.8	317.2	318.5	229.7
216	181.7	172.3	174.9	165.0	168.1	168.4	159.9	154.6
240	159.8	147.3	140.6	146.2	144.8	163.3	159.6	143.0
264	156.3	110.5	88.3	85.7	83.4	78.6	71.2	71.7
288	69.2	67.6	66.1	61.8	58.2	55.8	53.7	51.8
312	50.2	51.0	45.7	46.0	42.3	44.4	46.8	45.3
336	44.3	45.2	46.6	48.5	48.9	47.8	46.6	49.3

DEPTH	3079.9		TILT	65		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	270.3	268.5	266.6	267.5	268.6	267.5	266.6	266.4
24	265.7	265.5	265.4	264.8	265.4	265.4	266.4	265.0
48	263.7	263.9	265.8	264.7	263.8	265.0	266.4	267.8
72	266.9	266.9	266.5	265.9	267.4	266.8	266.4	263.8
96	261.5	263.0	264.6	263.2	261.9	263.0	264.2	266.1
120	268.2	268.1	268.2	268.5	268.9	270.1	271.3	270.3
144	268.9	268.3	267.8	268.3	268.9	268.1	267.4	266.7
168	266.2	264.1	262.3	262.2	262.3	261.8	261.9	263.1
192	264.3	263.5	262.6	263.6	264.6	265.1	265.7	266.9
216	265.7	266.4	267.6	266.1	266.1	269.3	268.6	267.7
240	267.0	266.1	265.4	265.3	268.5	269.0	269.7	269.6
264	271.3	269.9	268.6	271.2	274.1	273.6	273.3	271.8
288	274.0	273.2	276.0	274.6	273.3	273.2	273.3	272.0
312	270.9	271.2	271.7	272.2	272.9	272.8	272.9	272.0
336	271.3	272.0	272.9	271.6	270.5	268.5	268.7	269.4



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**WALL RANGES VS DEPTH**

DEPTH	3079.9		TILT	60		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	286.3	282.8	279.6	281.2	283.1	282.6	282.3	281.6
24	281.2	277.7	277.1	277.1	277.3	277.0	276.8	278.9
48	281.5	279.9	278.4	278.5	278.8	278.8	279.0	278.9
72	279.0	280.9	283.1	280.8	278.8	280.6	282.7	282.4
96	282.3	280.9	279.6	278.1	278.7	278.9	282.7	282.4
120	282.3	276.1	276.4	275.8	275.4	274.7	274.2	275.5
144	277.1	275.6	282.7	282.1	275.2	274.6	274.1	273.8
168	273.7	274.0	274.5	275.1	276.0	275.7	276.4	277.5
192	279.6	280.5	281.5	279.7	279.9	279.7	279.7	281.1
216	283.2	284.0	283.2	283.1	283.2	282.6	282.0	283.5
240	287.1	286.0	285.1	284.2	283.5	282.8	283.9	284.8
264	287.4	288.3	289.4	288.1	287.1	286.4	285.9	287.5
288	289.4	287.1	285.1	287.3	283.9	287.3	286.9	284.9
312	283.1	285.2	287.4	285.4	286.9	285.9	285.0	283.8
336	283.0	285.4	288.2	286.0	284.3	283.8	283.8	284.0

DEPTH	3079.9		TILT	55		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	266.4	266.1	266.0	264.2	262.6	262.1	264.1	259.3
24	261.8	257.8	259.3	261.1	262.7	261.2	263.5	265.5
48	267.1	269.6	270.5	274.7	276.9	279.9	283.2	284.2
72	285.5	289.1	291.0	292.4	293.7	294.7	297.7	297.4
96	298.9	297.1	296.5	296.0	295.7	297.5	299.5	301.4
120	303.6	300.3	297.3	298.1	299.3	298.7	298.5	299.1
144	300.0	300.1	300.4	300.1	300.0	298.5	297.3	297.0
168	296.9	298.3	300.0	299.1	298.5	298.5	298.9	297.9
192	297.3	298.4	300.6	298.6	300.0	298.5	297.3	298.3
216	299.7	297.5	299.9	300.0	301.9	301.1	304.4	303.5
240	302.8	302.1	301.6	303.2	305.0	303.4	302.0	299.7
264	303.0	301.3	302.4	299.9	297.7	294.6	291.8	288.9
288	284.6	281.2	282.3	283.4	278.2	278.3	274.8	281.8
312	284.0	282.6	281.3	282.1	282.7	273.3	264.7	261.5
336	263.4	264.0	269.2	268.4	270.5	267.0	264.3	265.2

DEPTH	3079.9		TILT	51		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	216.5	214.0	215.2	214.0	213.4	211.4	207.2	206.9
24	206.7	211.6	231.2	234.6	240.9	242.9	244.8	243.7
48	242.8	245.7	251.6	255.4	263.9	263.5	264.6	265.4
72	268.5	271.6	279.0	279.9	281.2	285.6	296.2	294.0
96	299.0	301.7	306.0	307.4	309.1	312.6	316.6	313.0
120	312.4	310.9	312.3	313.5	315.0	314.6	314.6	315.6
144	317.0	316.6	316.6	316.9	317.6	317.0	316.7	315.5
168	314.6	314.9	315.5	315.5	315.9	316.3	317.1	317.5
192	318.2	318.7	319.7	317.4	315.5	318.2	320.8	318.3
216	319.3	317.8	316.6	318.2	320.1	318.8	317.8	317.7
240	318.0	318.0	318.4	317.7	317.4	315.8	314.6	311.9
264	309.5	301.5	308.3	287.9	283.1	263.5	257.8	246.6
288	235.9	231.2	224.5	225.6	236.2	234.4	232.8	230.4
312	249.7	220.3	241.6	216.3	219.8	215.0	210.6	214.6
336	218.9	217.6	233.3	224.4	219.9	219.3	216.0	216.1



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**WALL RANGES VS DEPTH**

DEPTH	3079.9		TILT	48		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	185.8	179.9	188.1	178.2	182.3	197.4	182.1	189.8
24	198.5	202.4	206.8	215.6	229.7	228.8	228.1	229.8
48	231.4	235.2	237.0	244.9	249.3	251.7	253.3	257.2
72	261.9	264.2	267.0	271.8	272.8	274.7	277.4	281.4
96	286.3	287.9	292.6	296.2	303.2	307.5	312.3	316.6
120	320.4	322.5	324.8	327.3	331.9	330.3	329.2	331.5
144	334.3	333.9	333.9	330.9	333.1	331.9	331.8	332.2
168	333.1	332.2	331.8	333.6	335.9	336.1	336.7	333.9
192	331.5	333.5	334.8	333.0	331.7	334.8	339.8	335.0
216	330.8	331.3	332.3	328.9	326.0	326.6	327.6	325.6
240	324.1	322.7	321.7	317.5	313.8	309.6	306.0	299.7
264	294.1	282.9	270.6	245.5	235.5	231.1	227.6	223.7
288	220.7	213.9	210.0	209.7	207.7	203.0	212.3	194.5
312	190.6	186.9	186.9	186.4	181.5	182.6	183.9	184.2
336	184.7	190.6	197.2	188.3	180.4	183.1	191.0	188.3

DEPTH	3079.9		TILT	45		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	173.7	172.9	170.0	167.1	166.2	168.0	170.1	171.4
24	172.8	189.2	195.8	204.7	214.2	216.1	217.6	215.4
48	219.0	226.5	232.5	234.6	238.6	241.4	245.2	245.4
72	246.1	248.2	249.3	253.8	258.1	260.6	264.3	263.9
96	263.8	266.8	280.6	277.1	277.8	283.1	290.2	297.0
120	302.8	309.0	314.3	322.7	334.3	334.3	329.2	329.7
144	330.8	331.7	333.1	337.7	343.0	340.9	339.4	339.4
168	339.8	340.9	342.6	342.1	342.2	342.9	344.1	341.7
192	339.8	341.3	343.4	343.5	344.1	341.5	339.4	336.0
216	333.1	322.9	318.9	319.2	325.2	325.2	325.6	319.8
240	314.6	312.6	311.1	304.6	298.9	294.5	290.6	284.4
264	278.8	260.1	244.1	231.6	229.5	223.4	217.8	216.0
288	214.6	209.6	205.2	203.6	202.4	196.6	191.4	189.1
312	187.1	185.3	183.9	183.0	182.3	180.0	178.0	178.1
336	178.4	178.1	178.0	175.9	174.1	176.3	178.8	173.6

DEPTH	3079.9		TILT	42		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	168.2	168.1	168.2	167.0	166.1	165.3	164.7	166.3
24	168.2	173.4	182.4	197.3	203.7	203.6	203.5	207.5
48	214.9	218.2	221.9	224.7	228.5	228.6	230.8	228.6
72	232.6	234.8	236.4	238.6	242.1	245.5	252.6	247.7
96	243.3	251.1	259.9	261.4	263.3	260.9	263.5	262.8
120	260.9	265.6	279.1	288.0	292.4	305.9	289.0	295.2
144	307.5	315.2	323.3	326.2	330.3	325.0	320.4	324.7
168	329.8	329.5	334.3	332.8	333.9	332.9	334.0	331.3
192	329.9	332.8	335.4	334.8	334.7	326.4	318.9	311.7
216	306.8	294.1	297.5	296.4	309.4	305.5	303.2	301.2
240	302.1	300.3	301.0	292.2	284.0	280.5	278.6	274.3
264	270.6	258.2	237.6	231.4	224.2	219.3	214.9	213.2
288	211.8	206.9	202.4	199.1	196.1	193.8	191.7	188.1
312	184.8	182.4	180.3	180.7	180.3	178.8	178.0	176.4
336	177.2	174.8	175.7	171.7	171.0	170.7	170.6	169.3



CUSTOMER : Westlake Chemicals

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CAVERN : PPG No. 007B

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**WALL RANGES VS DEPTH**

DEPTH	3079.9		TILT	39		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	168.2	168.1	168.2	165.8	163.7	164.1	164.7	165.3
24	166.1	169.0	177.6	187.4	195.0	196.5	198.3	200.9
48	203.9	204.4	208.3	210.4	212.8	218.7	222.2	221.8
72	221.8	222.7	224.0	226.1	229.7	234.3	239.6	237.4
96	232.3	240.3	245.7	244.8	247.2	248.4	249.8	248.4
120	247.1	249.3	255.7	259.7	264.3	268.5	273.4	278.8
144	285.0	288.3	289.6	296.3	305.2	300.0	297.7	300.2
168	303.5	304.7	311.3	314.1	310.3	313.2	310.6	307.0
192	291.9	286.8	283.9	283.7	284.1	284.9	270.6	274.0
216	277.9	278.5	284.2	288.9	294.2	294.9	290.7	290.7
240	291.1	288.1	286.3	274.5	271.3	270.2	269.6	263.7
264	258.5	247.3	237.4	230.1	223.6	216.0	209.4	208.2
288	209.8	206.0	205.0	199.6	198.1	193.1	191.7	188.6
312	185.8	184.3	183.1	179.8	176.8	176.2	175.8	174.6
336	173.7	173.0	172.5	171.6	171.1	169.8	168.8	168.4

DEPTH	3079.9		TILT	36		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	168.2	168.7	168.5	163.7	85.9	164.1	63.7	162.4
24	167.2	167.9	172.2	178.8	186.6	187.6	190.3	191.0
48	192.1	196.3	201.1	204.1	207.6	206.0	211.6	209.9
72	208.7	210.5	212.7	215.4	216.5	222.9	227.8	226.5
96	225.6	228.3	231.5	235.0	235.0	235.5	233.7	235.5
120	237.8	235.7	234.1	228.4	223.4	225.0	227.1	249.6
144	229.4	236.1	275.1	233.1	284.1	280.8	277.5	276.8
168	276.5	279.4	280.4	280.3	280.6	278.7	273.4	273.1
192	273.4	271.6	270.3	270.0	268.7	260.7	259.7	260.9
216	267.8	270.5	273.7	277.4	281.7	285.2	283.2	284.4
240	280.2	277.1	267.4	262.3	260.6	259.3	258.5	254.9
264	251.9	244.2	237.4	228.2	220.1	215.7	211.8	212.5
288	213.5	208.7	204.5	201.5	196.2	194.5	193.1	188.7
312	184.8	182.9	181.3	179.1	177.7	176.2	78.9	174.4
336	174.0	173.5	173.3	170.9	78.9	169.2	169.9	168.3

DEPTH	3079.9		TILT	33		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	170.7	169.8	169.2	75.2	83.3	66.5	59.9	69.8
24	167.4	165.0	170.6	173.3	180.6	181.2	183.2	184.9
48	186.9	191.1	195.9	195.3	195.2	197.7	203.9	202.2
72	200.9	202.3	204.1	208.1	208.3	211.4	214.9	216.9
96	219.3	221.1	223.4	221.0	219.1	219.4	220.1	220.6
120	221.6	212.9	205.3	204.0	207.8	206.2	209.7	205.0
144	197.7	197.2	202.8	211.8	224.9	227.1	229.7	228.8
168	228.4	258.8	247.4	263.6	262.9	262.5	237.4	227.5
192	230.5	230.6	231.2	234.3	238.1	242.1	246.7	249.7
216	254.9	259.9	267.1	271.0	275.4	277.4	279.9	271.0
240	266.6	260.2	258.5	257.2	256.4	254.4	253.0	251.2
264	249.8	241.0	236.3	226.3	214.9	211.5	206.9	207.8
288	209.0	206.5	204.5	201.3	198.6	196.2	194.5	190.3
312	185.1	182.8	181.0	179.0	83.3	78.6	70.3	86.5
336	87.6	84.3	70.4	68.9	74.8	79.0	63.5	168.6



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**WALL RANGES VS DEPTH**

DEPTH	3079.9		TILT	30		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	84.7	81.3	71.9	73.3	74.8	62.6	56.8	67.2
24	168.5	168.9	169.6	168.7	174.0	176.2	178.8	177.9
48	177.3	183.7	191.0	188.9	187.2	191.7	196.9	193.4
72	194.6	193.8	193.5	199.8	200.7	206.1	208.3	209.6
96	211.4	210.9	214.3	211.7	208.7	208.3	208.3	205.0
120	211.4	200.9	197.3	198.2	201.1	199.6	198.6	192.9
144	187.9	188.2	189.0	194.6	212.1	204.6	208.7	216.6
168	199.8	223.7	222.3	221.7	221.5	220.4	218.7	221.7
192	223.6	223.7	224.2	227.4	231.2	234.7	238.8	243.1
216	248.1	252.8	260.4	265.7	270.6	270.1	272.7	265.6
240	262.4	258.9	255.7	252.8	250.5	248.9	247.8	245.7
264	244.8	237.4	232.2	223.0	214.9	210.1	172.9	208.0
288	205.7	204.4	136.8	128.4	121.3	197.6	192.8	101.1
312	94.0	94.4	76.3	77.3	79.6	73.2	67.8	74.3
336	82.2	79.3	69.1	69.3	72.6	66.0	60.6	68.8

DEPTH	3079.9		TILT	27		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	82.3	74.4	62.3	63.8	67.1	59.5	55.0	64.8
24	171.1	170.3	169.9	169.8	169.9	73.8	73.3	172.4
48	173.2	178.3	184.7	183.6	182.9	184.4	189.0	189.1
72	189.6	189.3	189.3	191.7	194.5	197.3	202.3	204.2
96	208.3	208.6	209.4	205.0	203.5	201.4	199.7	199.2
120	199.8	195.9	194.6	195.0	192.7	191.8	193.0	185.4
144	182.9	181.7	181.0	188.2	196.5	198.6	201.3	204.7
168	195.8	207.7	207.2	209.1	211.6	209.4	207.6	213.8
192	215.6	216.2	218.0	223.0	226.3	231.4	234.6	239.8
216	243.0	248.5	255.3	260.7	267.0	265.1	267.1	261.9
240	257.5	250.6	244.7	244.9	245.7	242.6	241.2	238.2
264	236.7	232.0	227.8	220.5	176.2	160.4	153.3	145.5
288	111.0	112.5	114.3	110.0	106.3	100.0	71.3	73.5
312	90.8	73.3	71.0	73.8	74.5	72.5	65.5	68.3
336	74.1	73.6	68.7	68.5	64.4	58.9	59.1	67.3

DEPTH	3079.9		TILT	24		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	78.4	71.8	60.1	62.3	62.0	59.2	54.1	61.6
24	50.3	71.4	65.6	65.1	64.8	68.4	72.7	75.4
48	62.3	78.9	71.7	182.4	86.2	184.9	188.3	187.7
72	187.6	188.9	190.7	192.5	191.8	194.6	199.3	200.8
96	202.8	202.7	203.1	199.8	199.2	196.4	195.5	192.1
120	189.3	190.5	192.1	191.3	189.1	188.3	186.2	176.6
144	177.5	179.6	182.1	188.3	192.3	193.8	197.6	199.9
168	190.6	201.6	196.0	200.8	201.1	203.0	200.0	204.6
192	202.8	207.1	212.1	218.4	225.6	229.9	234.8	237.7
216	241.2	245.7	250.9	256.2	262.3	260.6	259.5	254.3
240	250.7	245.4	241.6	239.9	239.0	237.7	236.9	235.2
264	232.2	227.8	172.9	134.4	119.4	118.2	115.6	109.1
288	86.0	88.5	89.3	96.7	95.1	80.7	72.1	67.8
312	61.6	70.6	69.2	70.3	71.5	65.0	60.2	66.0
336	70.6	66.2	68.6	64.8	62.6	56.9	57.5	64.5



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**WALL RANGES VS DEPTH**

DEPTH	3079.9		TILT	21		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	71.6	63.4	58.3	61.1	60.3	55.2	50.7	60.0
24	48.3	67.7	62.9	64.0	63.9	65.9	68.6	72.7
48	59.4	74.8	69.9	73.7	81.8	184.0	186.9	186.5
72	186.5	188.0	190.0	192.3	195.2	194.4	195.4	197.3
96	201.4	197.9	198.6	198.9	199.7	200.6	202.1	196.2
120	200.5	199.2	198.3	189.2	188.6	183.6	179.3	175.7
144	178.0	177.5	177.0	179.4	185.7	186.4	191.3	191.5
168	185.1	196.6	193.8	197.3	199.1	198.1	197.6	200.6
192	204.2	205.8	208.0	213.0	218.7	224.2	230.5	233.8
216	237.7	243.3	249.8	254.1	259.2	257.0	255.4	253.0
240	251.2	243.5	236.7	233.6	231.2	228.6	226.7	226.8
264	231.1	164.0	154.5	127.9	115.8	102.3	91.8	83.6
288	83.3	84.9	88.6	86.7	84.9	75.3	72.7	65.5
312	60.5	66.3	65.4	67.5	67.8	64.2	59.7	64.5
336	67.5	60.7	65.3	60.1	61.6	56.1	51.6	61.8

DEPTH	3079.9		TILT	18		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	66.9	61.7	56.4	56.0	55.8	52.4	49.5	57.0
24	47.5	65.7	61.4	61.8	61.8	62.6	65.1	71.6
48	58.2	71.3	68.6	73.4	82.2	185.3	188.6	188.4
72	188.6	192.8	197.6	200.2	203.5	199.9	196.9	200.1
96	203.9	206.0	208.7	205.6	210.9	204.3	205.9	204.8
120	215.3	211.5	217.7	210.8	204.9	201.1	198.0	193.2
144	189.1	183.1	189.7	179.5	181.7	184.4	187.6	184.5
168	183.2	189.4	191.7	189.6	190.6	193.4	197.3	198.4
192	200.0	205.5	211.8	214.9	218.7	221.3	224.6	232.2
216	236.7	241.5	247.1	249.0	254.0	252.4	251.5	247.8
240	244.7	239.3	236.2	234.0	229.8	226.8	224.0	225.3
264	174.0	154.2	146.2	124.3	115.4	96.0	91.7	80.0
288	81.8	81.9	81.4	79.3	77.6	69.0	70.9	63.3
312	57.6	61.2	63.4	65.0	64.1	57.8	52.7	50.7
336	57.8	55.5	64.1	56.9	59.9	53.9	51.3	56.6

DEPTH	3079.9		TILT	15		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	67.2	59.0	55.5	53.4	53.8	48.9	50.5	48.3
24	46.4	63.2	60.7	59.3	54.0	59.3	66.0	70.7
48	56.9	69.4	68.4	72.7	80.2	81.2	192.8	188.3
72	189.3	193.8	199.0	200.3	202.1	203.2	204.9	204.3
96	204.2	207.0	208.6	213.4	217.0	211.8	211.8	217.0
120	223.0	225.7	229.1	229.8	231.2	223.6	217.0	213.8
144	211.2	201.5	216.4	189.7	186.9	184.5	182.7	182.5
168	190.2	187.4	192.8	192.9	193.5	197.0	201.3	202.3
192	203.9	203.7	212.0	214.0	216.6	221.6	227.4	231.5
216	236.4	239.3	242.9	247.5	253.0	250.3	250.4	247.6
240	244.3	239.2	235.0	230.9	235.6	214.0	226.0	184.0
264	153.7	145.4	133.9	123.2	114.2	85.7	88.5	79.7
288	80.0	77.7	77.3	67.1	60.9	64.3	68.2	59.6
312	56.5	59.4	62.3	62.0	61.3	53.2	51.6	49.5
336	47.0	50.8	61.6	53.0	57.9	51.1	53.0	53.7



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**WALL RANGES VS DEPTH**

DEPTH	3079.9		TILT	12		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	59.7	57.5	55.7	52.2	51.6	49.6	48.6	46.9
24	46.6	60.8	56.5	57.6	53.1	58.3	64.8	69.9
48	54.9	67.2	68.2	71.1	78.2	79.5	215.3	205.0
72	217.5	221.2	225.6	227.1	229.3	231.4	234.1	224.4
96	216.0	208.7	207.2	211.4	216.4	215.4	221.6	241.5
120	233.3	235.0	237.2	238.7	241.7	232.4	224.9	223.7
144	223.0	242.3	252.5	231.2	227.4	225.6	224.6	206.6
168	204.5	202.1	200.2	234.4	235.9	203.9	204.9	206.7
192	209.0	210.3	212.1	214.9	218.4	220.3	222.9	229.4
216	237.0	241.5	239.9	247.8	249.5	251.1	253.3	248.2
240	244.0	241.4	239.5	240.7	242.6	214.3	225.9	168.3
264	158.9	127.1	109.2	95.8	112.8	80.4	87.6	79.0
288	81.0	77.9	76.8	67.2	62.3	62.5	65.0	59.0
312	56.4	56.5	59.4	57.2	55.3	51.0	52.1	48.6
336	45.9	49.2	59.1	51.0	55.3	51.6	50.1	53.9

DEPTH	3079.9		TILT	9		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	58.6	56.3	54.4	51.2	50.4	48.5	47.3	46.6
24	46.3	50.7	56.8	54.6	52.7	56.2	60.3	66.6
48	54.9	62.5	66.5	70.3	76.7	78.8	217.9	217.4
72	220.5	228.0	231.9	233.1	235.0	237.3	240.4	242.2
96	244.7	245.7	247.4	252.0	257.5	263.3	270.3	273.3
120	277.2	282.2	288.2	261.3	252.9	281.8	319.3	304.3
144	306.9	305.1	304.1	297.2	291.4	291.5	292.4	292.3
168	293.1	295.1	297.9	300.1	303.1	299.6	296.9	264.3
192	238.8	226.3	215.7	216.7	229.7	225.4	233.6	233.6
216	234.3	237.6	247.4	250.3	251.3	252.0	255.7	259.1
240	279.1	267.8	273.2	269.1	265.8	257.1	260.6	164.3
264	153.4	127.7	105.8	93.0	83.1	77.8	87.7	75.5
288	77.9	75.1	74.0	65.2	63.5	59.2	57.8	55.2
312	53.0	53.4	54.0	48.4	46.0	47.5	48.8	47.5
336	43.8	46.8	54.9	48.9	53.0	50.3	47.9	52.7

DEPTH	3079.9		TILT	6		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	53.1	52.5	52.0	50.9	48.4	47.0	45.7	45.5
24	45.4	50.0	46.1	51.9	50.5	55.6	60.7	62.0
48	53.8	60.3	66.1	70.1	74.8	79.2	223.4	228.7
72	227.7	231.1	235.3	237.9	241.2	244.1	247.8	251.7
96	256.4	259.8	264.0	265.2	267.1	272.9	279.6	283.1
120	287.5	291.2	295.9	302.4	310.0	312.4	315.6	311.8
144	309.0	304.7	301.4	296.6	292.7	292.0	292.1	293.2
168	295.2	296.7	299.0	301.3	304.5	303.9	304.2	307.7
192	312.1	313.4	315.6	311.0	307.3	304.4	302.4	299.8
216	297.9	244.4	201.4	187.6	177.7	179.8	182.4	192.4
240	204.2	209.1	203.1	213.9	213.5	199.4	269.9	165.8
264	156.7	127.2	107.3	93.5	83.1	80.6	74.4	73.8
288	70.8	74.2	70.4	61.9	59.2	56.7	54.4	52.5
312	50.5	51.4	45.9	46.1	42.5	43.9	46.8	45.2
336	44.5	45.3	46.7	49.0	49.4	48.0	46.8	49.7



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**WALL RANGES VS DEPTH**

DEPTH	3079.9		TILT	3		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	49.9	49.8	50.6	49.5	47.2	46.0	45.0	45.1
24	45.4	49.7	44.7	52.2	49.5	54.6	61.9	65.3
48	52.4	58.4	63.8	69.6	74.1	80.7	88.7	103.5
72	241.5	242.8	244.7	247.6	251.2	252.4	254.4	258.5
96	263.6	267.7	272.7	274.2	276.5	280.9	285.0	287.6
120	291.2	294.4	298.5	303.7	311.8	311.9	312.8	309.4
144	306.9	306.0	303.3	296.3	292.4	298.7	294.5	295.1
168	294.2	294.6	295.8	298.1	301.4	302.4	304.5	304.2
192	310.0	311.8	320.1	318.9	318.7	311.9	306.2	229.9
216	184.5	177.8	184.1	176.0	172.5	169.5	167.0	169.5
240	174.9	172.3	166.5	170.0	172.7	177.0	180.3	144.8
264	156.4	112.8	85.2	84.0	83.1	76.5	71.0	67.6
288	66.9	61.1	63.4	56.6	53.3	49.3	50.6	51.0
312	51.6	48.2	45.4	45.5	42.5	41.4	40.8	40.9
336	41.2	41.6	41.9	42.7	44.2	44.6	44.8	47.0

DEPTH	3080.0		TILT	0		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	47.6	45.1	48.5	44.9	46.7	44.7	44.0	45.6
24	45.1	48.7	44.6	51.8	49.0	53.7	59.9	56.3
48	51.9	58.4	63.0	69.4	72.0	80.4	88.5	104.9
72	125.0	137.2	245.7	249.5	149.8	258.2	260.9	262.1
96	264.2	267.7	273.0	276.7	278.2	280.2	289.2	285.9
120	289.6	293.8	299.0	303.2	308.3	309.4	311.4	309.1
144	307.6	302.8	299.0	299.4	300.7	299.6	299.3	300.5
168	302.4	305.4	309.4	307.4	306.3	307.2	308.9	307.5
192	316.0	313.3	320.8	321.9	323.9	320.7	318.3	229.6
216	180.0	169.4	164.4	161.0	165.4	162.6	86.4	77.1
240	133.6	121.9	122.1	114.1	124.2	138.5	136.5	139.1
264	153.4	103.8	77.2	73.1	68.9	63.8	62.1	61.5
288	61.1	56.4	54.7	51.3	48.5	48.4	48.5	47.8
312	47.2	44.7	42.6	42.6	42.6	39.1	38.2	37.7
336	37.3	38.6	39.8	39.5	39.2	40.9	42.4	44.9

DEPTH	3085.1		TILT	0		VOS	5965.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	41.3	41.2	41.3	42.4	44.2	42.6	41.4	42.9
24	43.3	43.2	43.3	46.4	49.1	48.7	58.5	50.6
48	51.6	56.5	63.0	69.3	71.1	77.9	87.2	104.4
72	130.5	136.3	145.2	248.1	250.2	253.8	258.1	258.7
96	161.4	266.5	271.3	274.4	278.2	280.7	287.2	287.3
120	291.4	295.6	300.7	305.4	311.1	311.9	313.5	311.0
144	309.4	306.8	305.2	302.7	302.6	301.6	301.5	302.5
168	304.3	305.6	307.9	308.3	307.6	304.2	301.7	303.9
192	317.1	313.1	320.4	320.7	321.8	180.3	178.6	179.7
216	181.3	168.5	155.2	156.1	159.2	64.8	64.1	64.5
240	65.3	66.6	67.5	94.8	113.0	120.4	121.5	130.5
264	143.7	93.2	60.5	59.2	57.2	54.5	50.5	48.6
288	47.8	46.3	46.1	46.3	46.8	43.8	41.2	38.7
312	37.5	37.0	36.7	34.7	32.8	32.3	31.9	31.7
336	31.5	31.7	32.2	32.1	32.0	31.7	31.4	37.2



CUSTOMER :Westlake Chemicals

CAVERN :PPG No. 007B

DATE :July 26, 2023

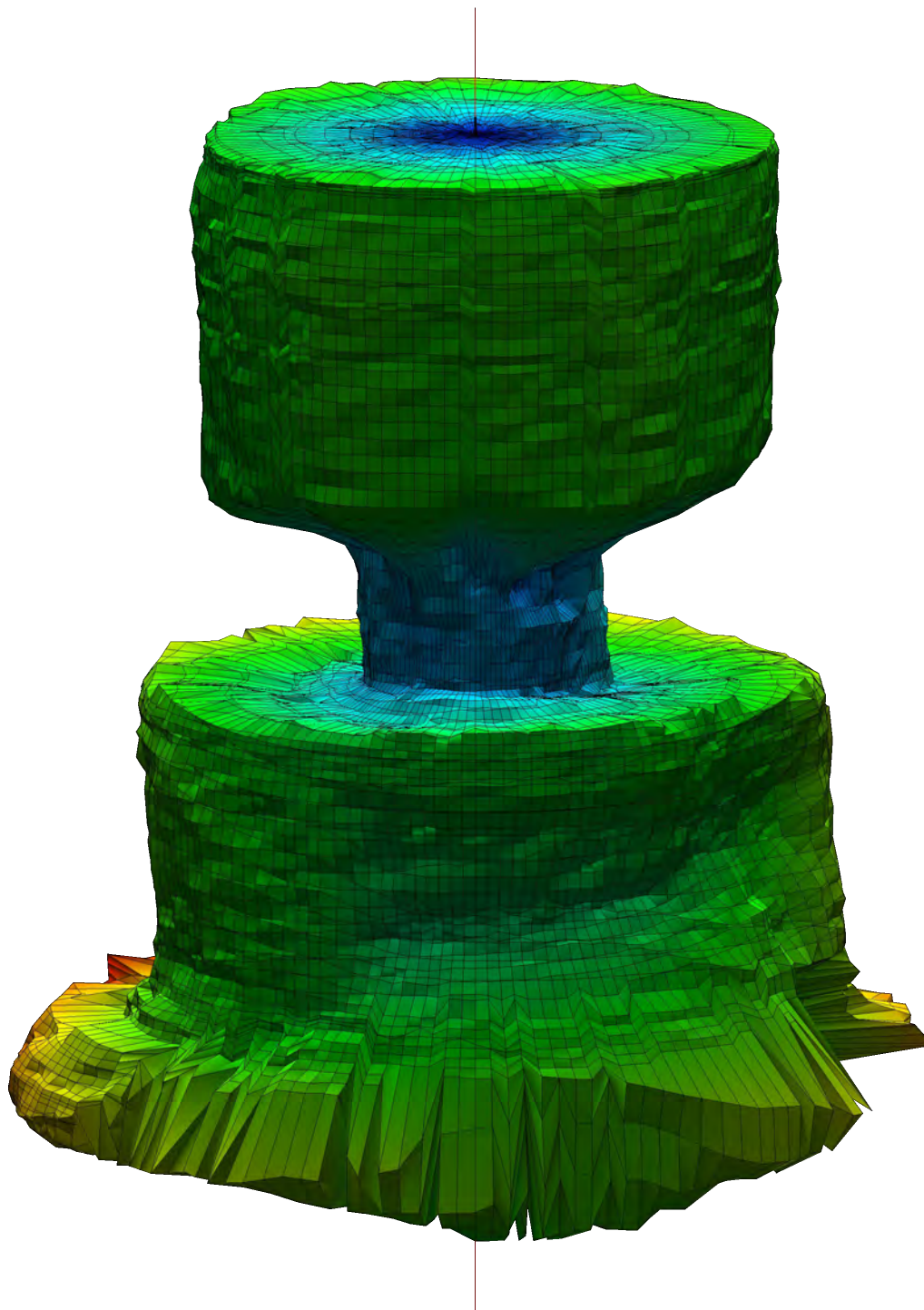
OPERATION No. :6



VIEW FROM NORTH

with an overhang of 10°

SCALE 1/100





CUSTOMER :Westlake Chemicals

CAVERN :PPG No. 007B

DATE :July 26, 2023

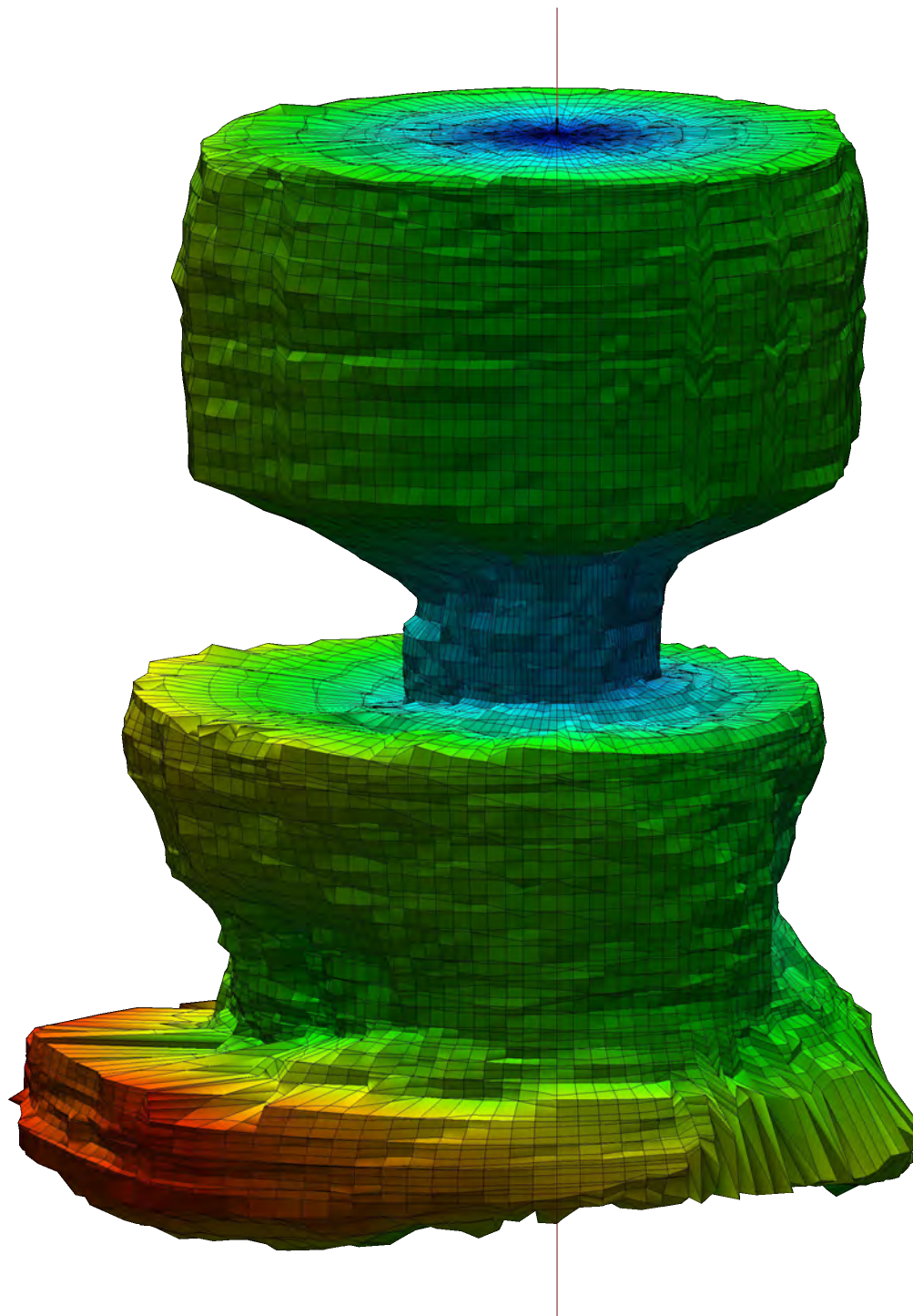
OPERATION No. :6



VIEW FROM EAST

with an overhang of 10°

SCALE 1/100





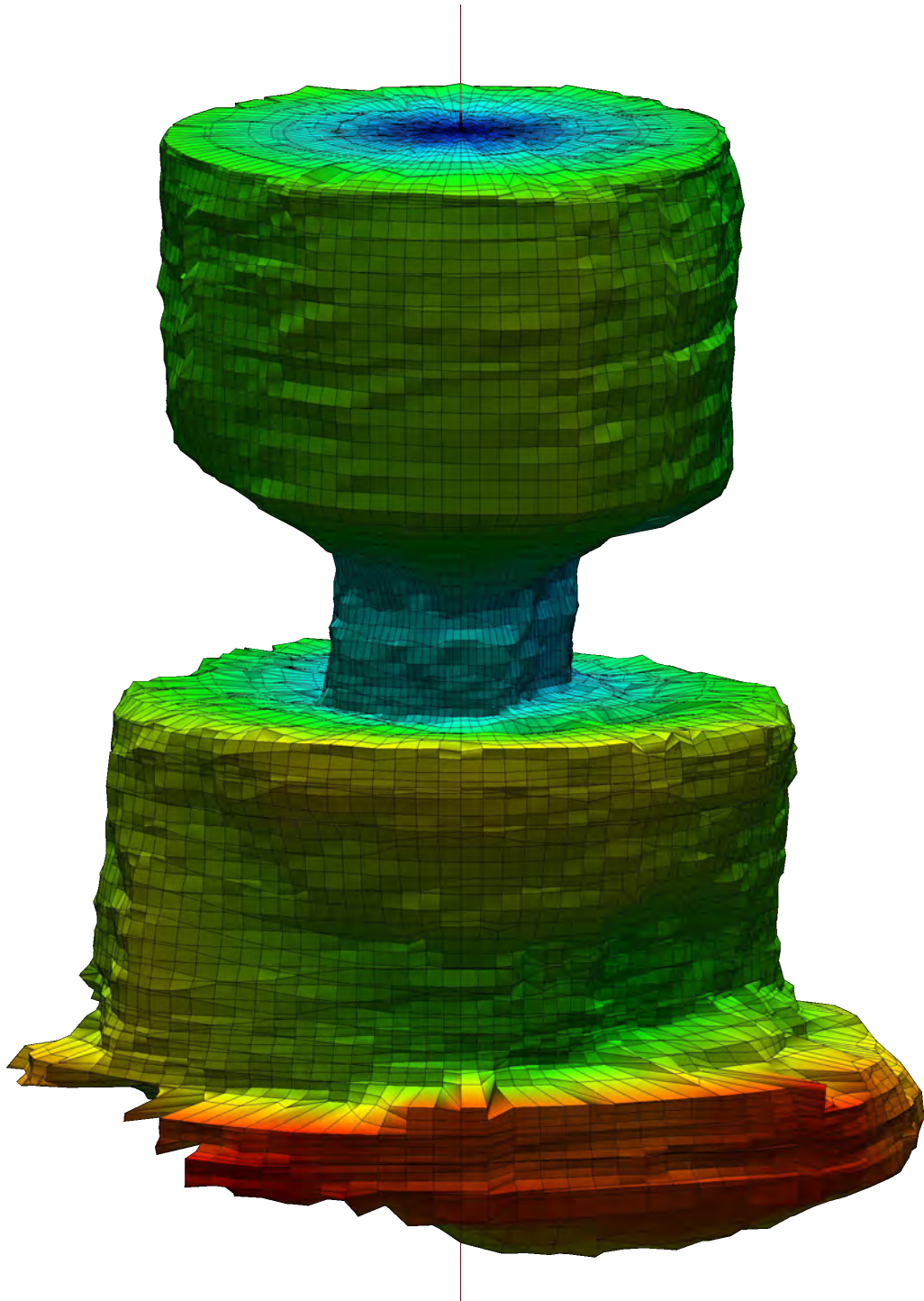
CUSTOMER :Westlake Chemicals
DATE :July 26, 2023

CAVERN :PPG No. 007B
OPERATION No. :6



VIEW FROM SOUTH
with an overhang of 10°

SCALE 1/100





CUSTOMER :Westlake Chemicals

CAVERN :PPG No. 007B

DATE :July 26, 2023

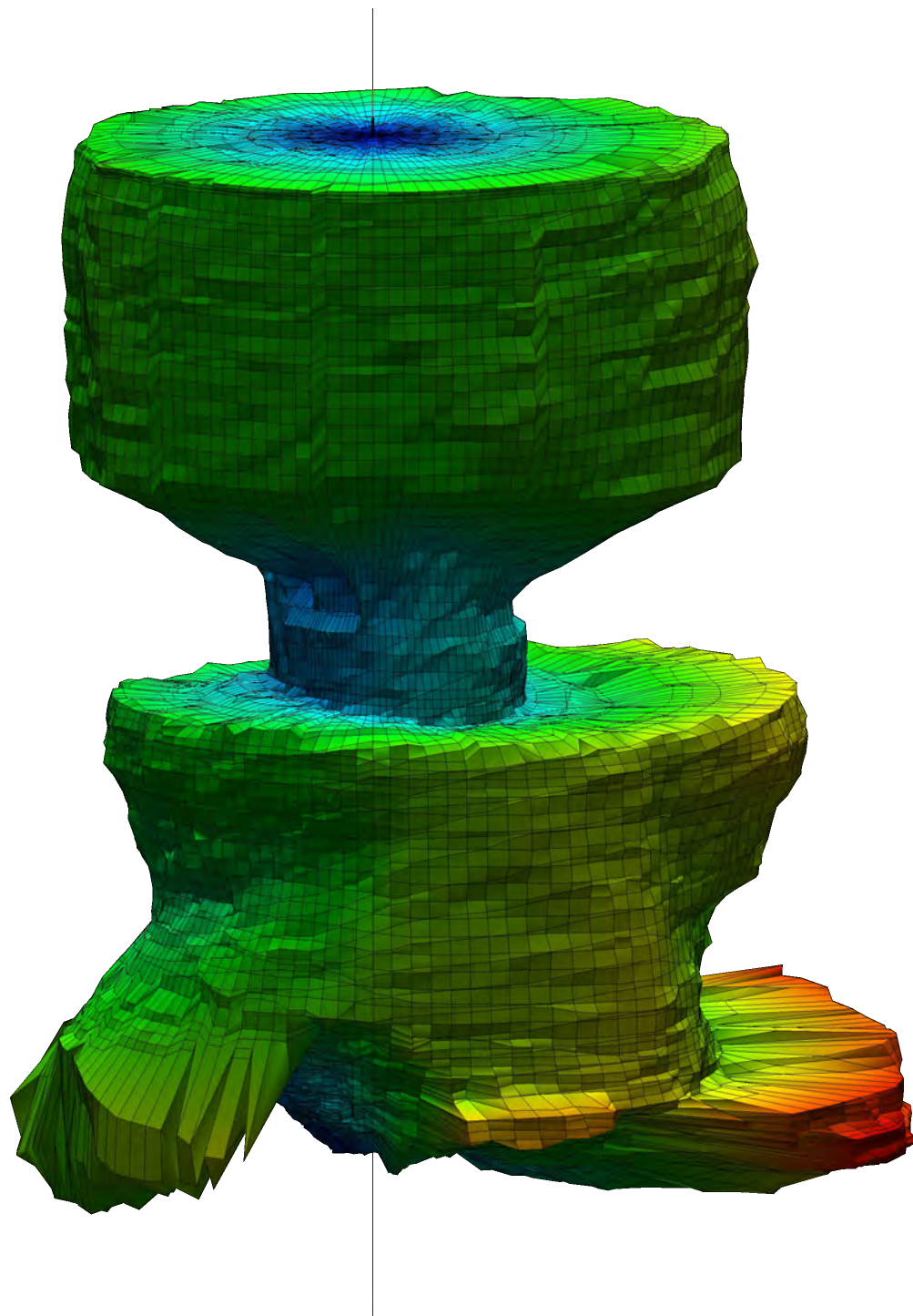
OPERATION No. :6



VIEW FROM WEST

with an overhang of 10°

SCALE 1/100





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN

PPG No. 007B

OPERATION No. 6



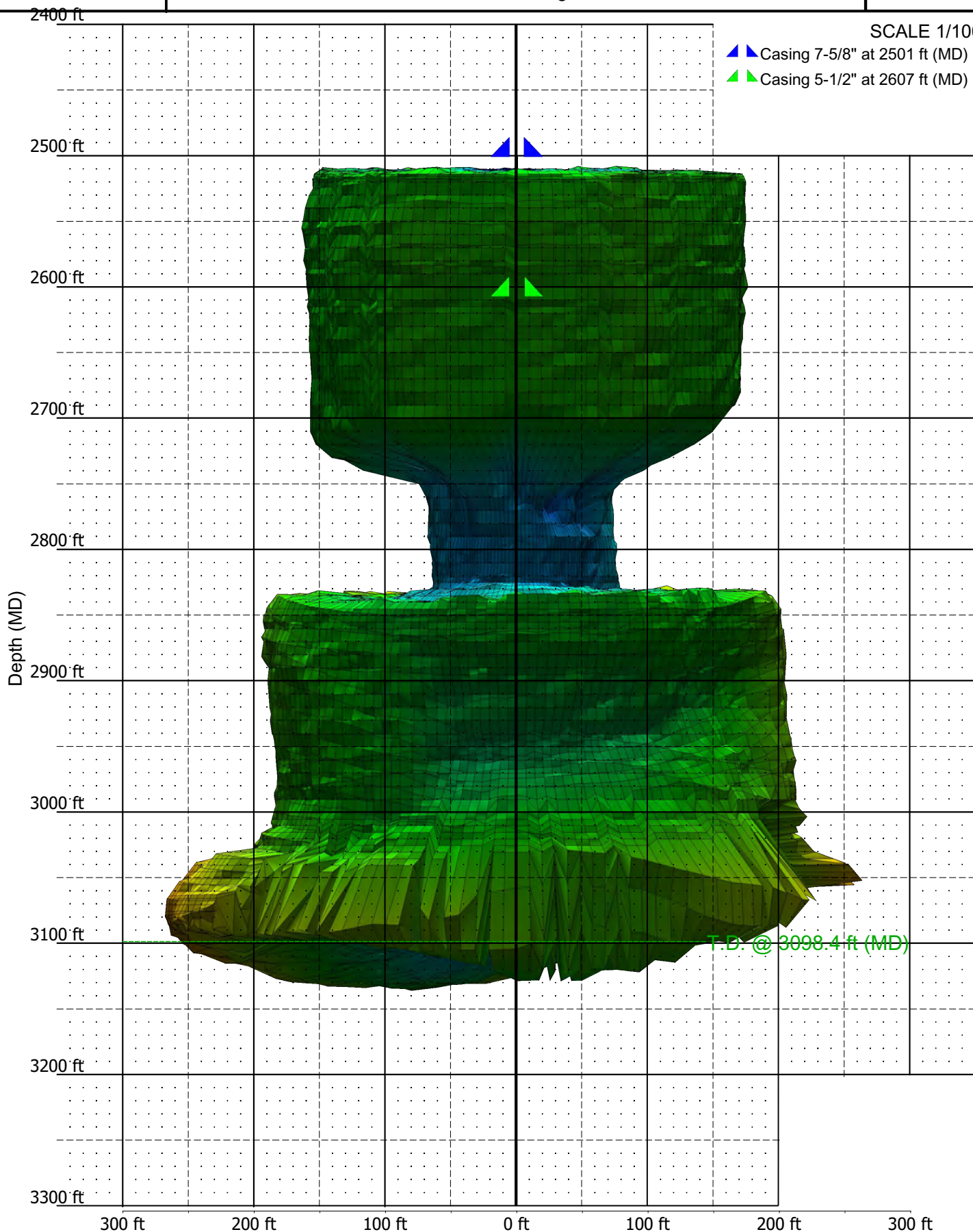
VIEW FROM NORTH

with an overhang of 0°

SCALE 1/100

▲ Casing 7-5/8" at 2501 ft (MD)

▲ Casing 5-1/2" at 2607 ft (MD)





CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

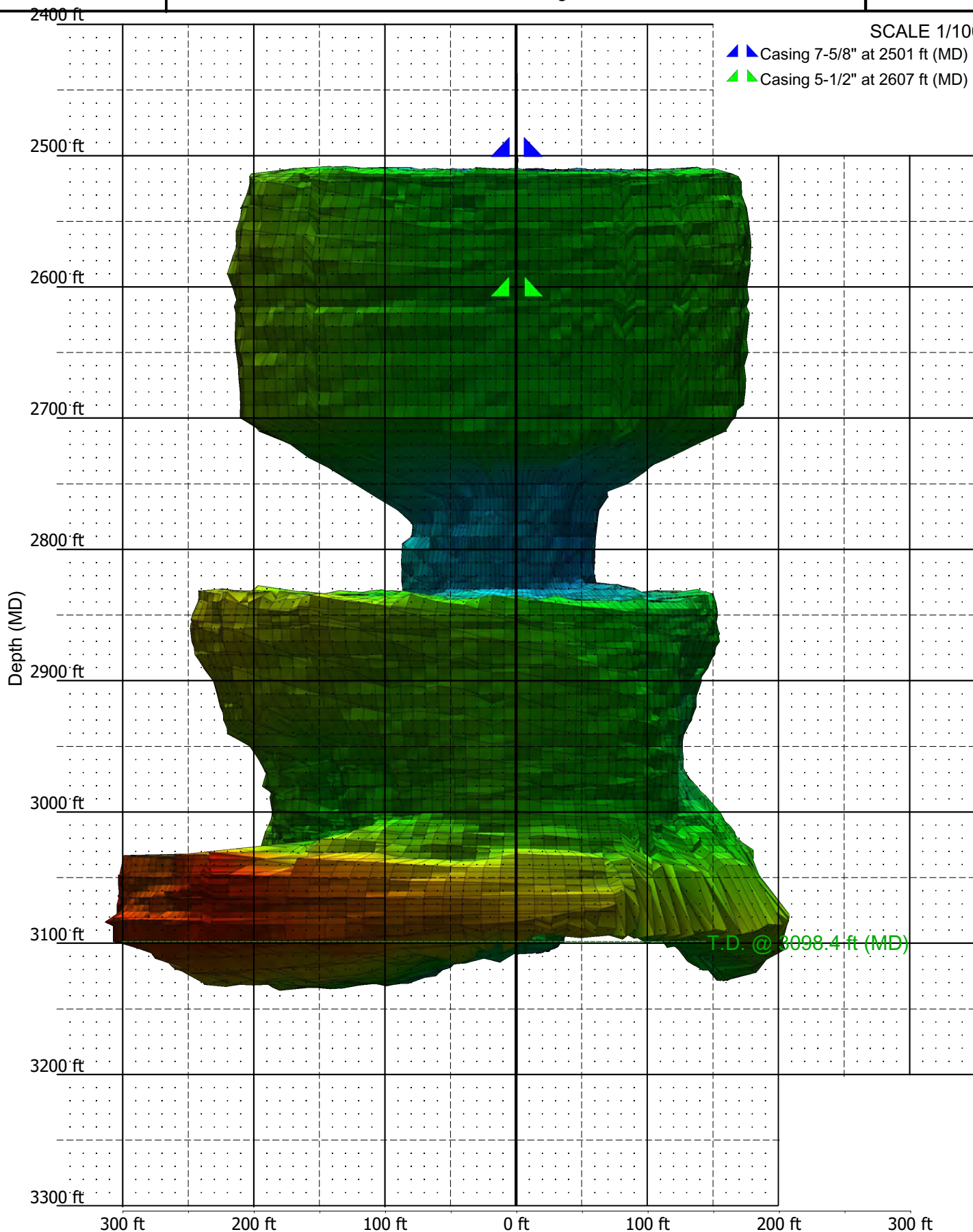
CAVERN PPG No. 007B
OPERATION No. 6



VIEW FROM EAST
with an overhang of 0°

SCALE 1/100

- ▲ Casing 7-5/8" at 2501 ft (MD)
- ▲ Casing 5-1/2" at 2607 ft (MD)





CUSTOMER : Westlake Chemicals

DATE : July 26, 2023

CAVERN

PPG No. 007B

OPERATION No. 6



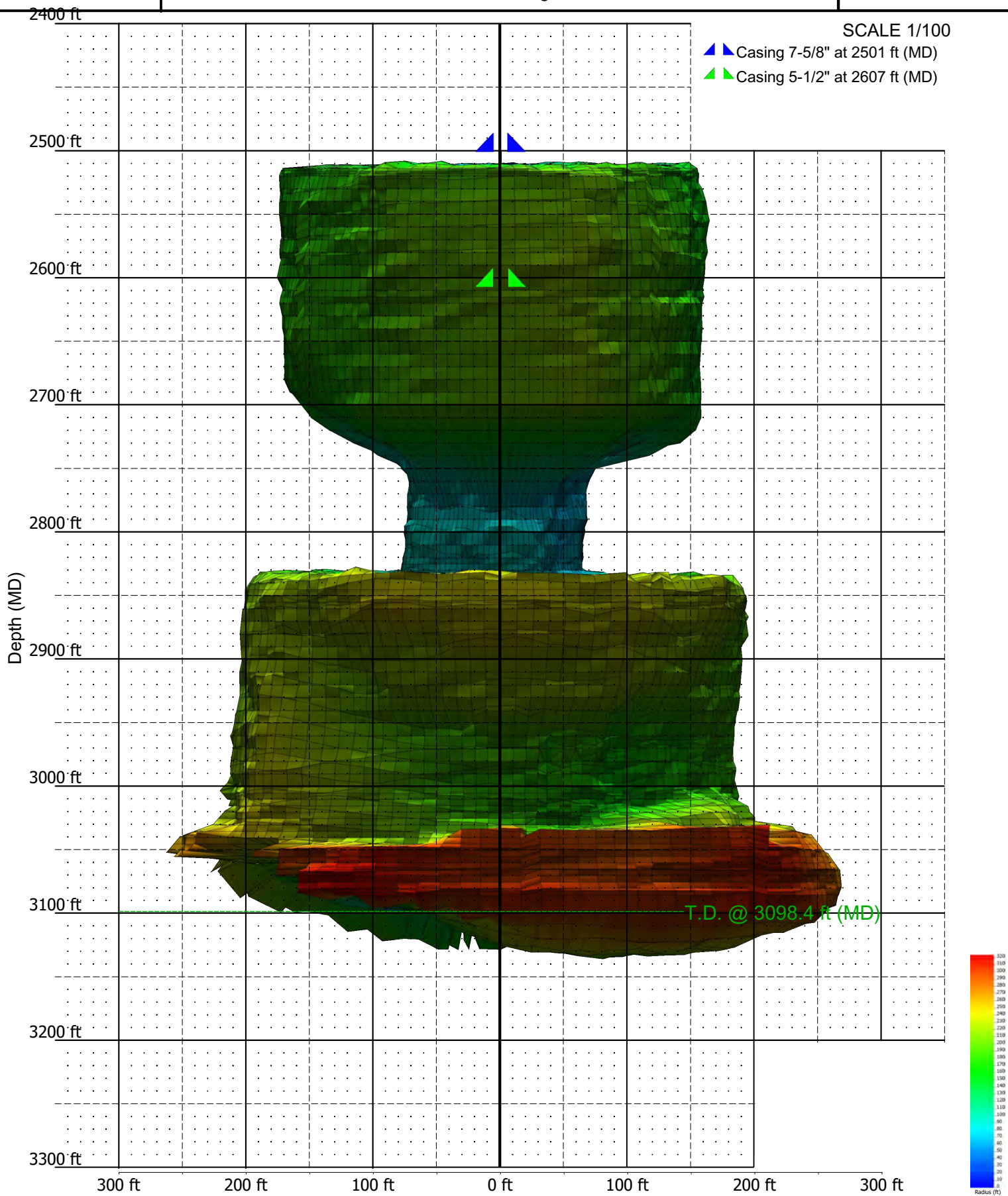
VIEW FROM SOUTH

with an overhang of 0°

SCALE 1/100

▲ Casing 7-5/8" at 2501 ft (MD)

▲ Casing 5-1/2" at 2607 ft (MD)





CUSTOMER : Westlake Chemicals
DATE : July 26, 2023

CAVERN PPG No. 007B
OPERATION No. 6



VIEW FROM WEST
with an overhang of 0°

