

Minimum Radius of Curvature

API: 05-123-52331 **Well: Schmerge 4-12HZ** **Wellhead Location** **Lat : 40.426332**
Operator: Occidental **Area: DJ** **Long : -104.890135**
Rig: **Type: U-Lateral** **Magnetic Declination: 7.60**
TD: 20,757' **Plane of Proposal: 86.07**

Measured Depth Ft	Drift Angle Deg	Azimuth Direction Deg	Course Length Ft	TVD Ft	Vertical Section Ft	COORDINATES		CLOSURE		Dog Leg Severity Deg/100'	Build / Drop Deg/100'	Left / Right Deg/100'
						N-S Ft	E-W Ft	Distance FT	Direction Deg			
0.00	0.00	0.00		0.0	0.00	0.00	0.00	0.00	0.00			
100	0.00	0.00	100	100.0	0.00	0.00	0.00	0.00	#DIV/0!	0.00		
200	0.00	0.00	100	200.0	0.00	0.00	0.00	0.00	#DIV/0!	0.00		
300	0.00	0.00	100	300.0	0.00	0.00	0.00	0.00	#DIV/0!	0.00		
352	0.00	0.00	52	351.5	0.00	0.00	0.00	0.00	#DIV/0!	0.00		
400	0.73	288.76	49	400.0	-0.29	0.10	-0.29	0.31	288.76	1.51	1.51	595.38
500	2.23	288.76	100	500.0	-2.67	0.93	-2.74	2.89	288.76	1.50	1.50	0.00
600	3.73	288.76	100	599.8	-7.46	2.60	-7.66	8.09	288.76	1.50	1.50	0.00
700	5.23	288.76	100	699.5	-14.67	5.11	-15.06	15.90	288.76	1.50	1.50	0.00
763	6.17	288.76	63	762.0	-20.42	7.12	-20.96	22.14	288.76	1.50	1.50	0.00
800	6.73	288.76	37	799.0	-24.28	8.46	-24.92	26.32	288.76	1.50	1.50	0.00
900	8.23	288.76	100	898.1	-36.29	12.65	-37.25	39.34	288.76	1.50	1.50	0.00
1000	9.73	288.76	100	996.9	-50.69	17.67	-52.02	54.94	288.76	1.50	1.50	0.00
1100	11.23	288.76	100	1095.2	-67.47	23.52	-69.25	73.13	288.76	1.50	1.50	0.00
1200	12.73	288.76	100	1193.0	-86.62	30.20	-88.90	93.89	288.76	1.50	1.50	0.00
1295	14.15	288.76	95	1285.3	-106.96	37.28	-109.77	115.93	288.76	1.50	1.50	0.00
1300	14.15	288.76	5	1290.3	-108.12	37.69	-110.97	117.19	288.76	0.00	0.00	0.00
1400	14.15	288.76	100	1387.2	-130.68	45.55	-134.11	141.64	288.76	0.00	0.00	0.00
1500	14.15	288.76	100	1484.2	-153.23	53.41	-157.26	166.09	288.76	0.00	0.00	0.00
1600	14.15	288.76	100	1581.2	-175.79	61.28	-180.41	190.53	288.76	0.00	0.00	0.00
1700	14.15	288.76	100	1678.1	-198.34	69.14	-203.56	214.98	288.76	0.00	0.00	0.00
1800	14.15	288.76	100	1775.1	-220.89	77.00	-226.70	239.42	288.76	0.00	0.00	0.00
1900	14.15	288.76	100	1872.1	-243.45	84.86	-249.85	263.87	288.76	0.00	0.00	0.00
2000	14.15	288.76	100	1969.0	-266.00	92.72	-273.00	288.32	288.76	0.00	0.00	0.00
2100	14.15	288.76	100	2066.0	-288.56	100.59	-296.15	312.76	288.76	0.00	0.00	0.00
2200	14.15	288.76	100	2163.0	-311.11	108.45	-319.29	337.21	288.76	0.00	0.00	0.00
2300	14.15	288.76	100	2259.9	-333.66	116.31	-342.44	361.65	288.76	0.00	0.00	0.00
2400	14.15	288.76	100	2356.9	-356.22	124.17	-365.59	386.10	288.76	0.00	0.00	0.00
2500	14.15	288.76	100	2453.9	-378.77	132.03	-388.74	410.55	288.76	0.00	0.00	0.00
2600	14.15	288.76	100	2550.8	-401.33	139.90	-411.88	434.99	288.76	0.00	0.00	0.00
2700	14.15	288.76	100	2647.8	-423.88	147.76	-435.03	459.44	288.76	0.00	0.00	0.00
2704	14.15	288.76	4	2652.0	-424.86	148.10	-436.03	460.50	288.76	0.00	0.00	0.00
2800	14.15	288.76	96	2744.8	-446.43	155.62	-458.18	483.88	288.76	0.00	0.00	0.00
2900	14.15	288.76	100	2841.7	-468.99	163.48	-481.33	508.33	288.76	0.00	0.00	0.00
3000	14.15	288.76	100	2938.7	-491.54	171.34	-504.47	532.78	288.76	0.00	0.00	0.00
3100	14.15	288.76	100	3035.7	-514.10	179.21	-527.62	557.22	288.76	0.00	0.00	0.00
3200	14.15	288.76	100	3132.6	-536.65	187.07	-550.77	581.67	288.76	0.00	0.00	0.00
3300	14.15	288.76	100	3229.6	-559.21	194.93	-573.92	606.12	288.76	0.00	0.00	0.00
3400	14.15	288.76	100	3326.6	-581.76	202.79	-597.06	630.56	288.76	0.00	0.00	0.00
3500	14.15	288.76	100	3423.5	-604.31	210.65	-620.21	655.01	288.76	0.00	0.00	0.00
3600	14.15	288.76	100	3520.5	-626.87	218.52	-643.36	679.45	288.76	0.00	0.00	0.00
3626	14.15	288.76	26	3546.0	-632.80	220.58	-649.45	685.88	288.76	0.00	0.00	0.00
3700	14.15	288.76	74	3617.5	-649.42	226.38	-666.50	703.90	288.76	0.00	0.00	0.00
3800	14.15	288.76	100	3714.4	-671.98	234.24	-689.65	728.35	288.76	0.00	0.00	0.00
3900	14.15	288.76	100	3811.4	-694.53	242.10	-712.80	752.79	288.76	0.00	0.00	0.00
4000	14.15	288.76	100	3908.4	-717.08	249.96	-735.95	777.24	288.76	0.00	0.00	0.00
4100	14.15	288.76	100	4005.3	-739.64	257.83	-759.09	801.68	288.76	0.00	0.00	0.00
4128	14.15	288.76	28	4032.0	-745.84	259.99	-765.46	808.41	288.76	0.00	0.00	0.00
4200	14.15	288.76	72	4102.3	-762.19	265.69	-782.24	826.13	288.76	0.00	0.00	0.00
4300	14.15	288.76	100	4199.3	-784.75	273.55	-805.39	850.58	288.76	0.00	0.00	0.00
4400	14.15	288.76	100	4296.2	-807.30	281.41	-828.54	875.02	288.76	0.00	0.00	0.00
4500	14.15	288.76	100	4393.2	-829.86	289.27	-851.68	899.47	288.76	0.00	0.00	0.00
4600	14.15	288.76	100	4490.2	-852.41	297.14	-874.83	923.92	288.76	0.00	0.00	0.00
4700	14.15	288.76	100	4587.1	-874.96	305.00	-897.98	948.36	288.76	0.00	0.00	0.00
4800	14.15	288.76	100	4684.1	-897.52	312.86	-921.13	972.81	288.76	0.00	0.00	0.00
4900	14.15	288.76	100	4781.1	-920.07	320.72	-944.27	997.25	288.76	0.00	0.00	0.00
5000	14.15	288.76	100	4878.0	-942.63	328.58	-967.42	1021.70	288.76	0.00	0.00	0.00
5100	14.15	288.76	100	4975.0	-965.18	336.45	-990.57	1046.15	288.76	0.00	0.00	0.00

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						N-S Ft	E-W Ft	Distance FT	Direction Deg			
5200	14.15	288.76	100	5071.9	-987.73	344.31	-1013.72	1070.59	288.76	0.00	0.00	0.00
5300	14.15	288.76	100	5168.9	-1010.29	352.17	-1036.86	1095.04	288.76	0.00	0.00	0.00
5400	14.15	288.76	100	5265.9	-1032.84	360.03	-1060.01	1119.48	288.76	0.00	0.00	0.00
5500	14.15	288.76	100	5362.8	-1055.40	367.89	-1083.16	1143.93	288.76	0.00	0.00	0.00
5600	14.15	288.76	100	5459.8	-1077.95	375.76	-1106.31	1168.38	288.76	0.00	0.00	0.00
5700	14.15	288.76	100	5556.8	-1100.50	383.62	-1129.45	1192.82	288.76	0.00	0.00	0.00
5800	14.15	288.76	100	5653.7	-1123.06	391.48	-1152.60	1217.27	288.76	0.00	0.00	0.00
5900	14.15	288.76	100	5750.7	-1145.61	399.34	-1175.75	1241.71	288.76	0.00	0.00	0.00
6000	14.15	288.76	100	5847.7	-1168.17	407.20	-1198.90	1266.16	288.76	0.00	0.00	0.00
6100	14.15	288.76	100	5944.6	-1190.72	415.07	-1222.04	1290.61	288.76	0.00	0.00	0.00
6200	14.15	288.76	100	6041.6	-1213.28	422.93	-1245.19	1315.05	288.76	0.00	0.00	0.00
6300	14.15	288.76	100	6138.6	-1235.83	430.79	-1268.34	1339.50	288.76	0.00	0.00	0.00
6400	14.15	288.76	100	6235.5	-1258.38	438.65	-1291.48	1363.95	288.76	0.00	0.00	0.00
6503	14.15	288.76	103	6335.4	-1281.62	446.75	-1315.33	1389.13	288.76	0.00	0.00	0.00
6550	10.80	296.73	47	6381.3	-1290.71	450.58	-1324.70	1399.24	288.78	8.00	-7.13	16.96
6600	7.66	312.44	50	6430.7	-1297.04	454.94	-1331.35	1406.93	288.87	8.00	-6.28	31.42
6650	5.70	343.12	50	6480.3	-1299.89	459.56	-1334.53	1411.44	289.00	8.00	-3.92	61.36
6700	6.19	22.21	50	6530.1	-1299.26	464.44	-1334.23	1412.76	289.19	8.00	0.98	-641.82
6750	8.72	46.63	50	6579.7	-1295.15	469.54	-1330.46	1410.88	289.44	8.00	5.06	48.84
6800	12.07	58.95	50	6628.8	-1287.56	474.84	-1323.22	1405.84	289.74	8.00	6.70	24.64
6850	15.72	65.80	50	6677.4	-1276.55	480.31	-1312.56	1397.68	290.10	7.99	7.30	13.70
6900	19.51	70.09	50	6725.0	-1262.17	485.94	-1298.52	1386.47	290.52	8.01	7.58	8.58
6950	23.36	73.02	50	6771.6	-1244.48	491.68	-1281.19	1372.29	291.00	7.99	7.70	5.86
7000	27.26	75.15	50	6816.8	-1223.57	497.51	-1260.63	1355.25	291.54	8.01	7.80	4.26
7023	29.05	75.95	23	6837.0	-1212.92	500.21	-1250.14	1346.50	291.81	7.97	7.80	3.48
7050	31.18	76.78	27	6860.4	-1199.54	503.40	-1236.95	1335.47	292.14	8.03	7.88	3.07
7066	32.44	77.23	16	6874.0	-1191.20	505.30	-1228.73	1328.57	292.35	8.00	7.87	2.81
7100	35.11	78.08	34	6902.2	-1172.52	509.34	-1210.27	1313.08	292.82	7.98	7.86	2.50
7150	39.06	79.15	50	6942.1	-1142.63	515.27	-1180.72	1288.26	293.58	8.00	7.90	2.14
7200	43.02	80.05	50	6979.8	-1110.01	521.19	-1148.44	1261.17	294.41	8.01	7.92	1.80
7225	45.02	80.46	25	6998.0	-1092.55	524.16	-1131.13	1246.68	294.86	7.99	7.91	1.62
7250	46.98	80.83	25	7015.2	-1074.84	527.05	-1113.58	1232.01	295.33	8.00	7.93	1.50
7300	50.95	81.51	50	7048.0	-1037.27	532.83	-1076.32	1200.99	296.34	8.01	7.94	1.36
7329	53.27	81.88	29	7066.0	-1014.20	536.17	-1053.43	1182.03	296.98	7.98	7.92	1.26
7350	54.92	82.12	21	7078.1	-997.49	538.50	-1036.83	1168.34	297.45	8.03	7.97	1.16
7400	58.89	82.67	50	7105.4	-955.69	544.04	-995.32	1134.31	298.66	7.99	7.94	1.10
7450	62.87	83.18	50	7129.7	-912.09	549.42	-951.98	1099.15	299.99	8.01	7.96	1.02
7500	66.84	83.66	50	7151.0	-866.89	554.60	-907.03	1063.15	301.44	7.99	7.94	0.96
7550	70.81	84.10	50	7169.0	-820.45	559.55	-860.83	1026.70	303.02	8.01	7.97	0.88
7550	70.82	84.10	0	7169.0	-820.30	559.57	-860.68	1026.59	303.03	6.25	6.25	0.00
7600	74.80	84.53	50	7183.8	-772.57	564.29	-813.16	989.77	304.76	8.00	7.96	0.86
7625	76.80	84.73	25	7190.0	-748.18	566.58	-788.86	971.24	305.69	7.98	7.95	0.79
7650	78.78	84.94	25	7195.2	-723.91	568.76	-764.69	953.02	306.64	8.02	7.97	0.85
7700	82.76	85.33	50	7203.3	-674.58	572.95	-715.53	916.65	308.69	8.00	7.96	0.78
7750	86.74	85.73	50	7207.8	-624.80	576.83	-665.90	880.99	310.90	8.00	7.96	0.80
7794	90.28	86.07	44	7209.0	-580.38	580.00	-621.60	850.17	313.02	8.00	7.97	0.77
7800	90.28	86.07	6	7209.0	-574.82	580.38	-616.05	846.38	313.29	0.00	0.00	0.00
7900	90.28	86.07	100	7208.5	-474.82	587.24	-516.29	781.92	318.68	0.00	0.00	0.00
8000	90.28	86.07	100	7208.0	-374.83	594.09	-416.52	725.56	324.97	0.00	0.00	0.00
8100	90.28	86.07	100	7207.5	-274.83	600.94	-316.76	679.31	332.21	0.00	0.00	0.00
8200	90.28	86.07	100	7207.0	-174.83	607.80	-216.99	645.37	340.35	0.00	0.00	0.00
8300	90.28	86.07	100	7206.5	-74.83	614.65	-117.23	625.73	349.20	0.00	0.00	0.00
8400	90.28	86.07	100	7206.0	25.17	621.50	-17.47	621.75	358.39	0.00	0.00	0.00
8500	90.28	86.07	100	7205.5	125.17	628.36	82.30	633.72	7.46	0.00	0.00	0.00
8600	90.28	86.07	100	7205.1	225.17	635.21	182.06	660.79	15.99	0.00	0.00	0.00
8700	90.28	86.07	100	7204.6	325.17	642.06	281.82	701.19	23.70	0.00	0.00	0.00
8800	90.28	86.07	100	7204.1	425.17	648.92	381.59	752.80	30.46	0.00	0.00	0.00
8900	90.28	86.07	100	7203.6	525.16	655.77	481.35	813.47	36.28	0.00	0.00	0.00

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9000	90.28	86.07	100	7203.1	625.16	662.63	581.11	881.34	41.25	0.00	0.00	0.00
9100	90.28	86.07	100	7202.6	725.16	669.48	680.88	954.88	45.48	0.00	0.00	0.00
9200	90.28	86.07	100	7202.1	825.16	676.33	780.64	1032.87	49.09	0.00	0.00	0.00
9300	90.28	86.07	100	7201.6	925.16	683.19	880.41	1114.39	52.19	0.00	0.00	0.00
9400	90.28	86.07	100	7201.1	1025.16	690.04	980.17	1198.70	54.85	0.00	0.00	0.00
9500	90.28	86.07	100	7200.7	1125.16	696.89	1079.93	1285.27	57.17	0.00	0.00	0.00
9600	90.28	86.07	100	7200.2	1225.16	703.75	1179.70	1373.66	59.18	0.00	0.00	0.00
9700	90.28	86.07	100	7199.7	1325.15	710.60	1279.46	1463.55	60.95	0.00	0.00	0.00
9800	90.28	86.07	100	7199.2	1425.15	717.46	1379.22	1554.67	62.52	0.00	0.00	0.00
9900	90.28	86.07	100	7198.7	1525.15	724.31	1478.99	1646.82	63.91	0.00	0.00	0.00
10000	90.28	86.07	100	7198.2	1625.15	731.16	1578.75	1739.84	65.15	0.00	0.00	0.00
10100	90.28	86.07	100	7197.7	1725.15	738.02	1678.51	1833.60	66.27	0.00	0.00	0.00
10200	90.28	86.07	100	7197.2	1825.15	744.87	1778.28	1927.98	67.27	0.00	0.00	0.00
10300	90.28	86.07	100	7196.7	1925.15	751.72	1878.04	2022.90	68.19	0.00	0.00	0.00
10400	90.28	86.07	100	7196.3	2025.15	758.58	1977.81	2118.29	69.02	0.00	0.00	0.00
10500	90.28	86.07	100	7195.8	2125.14	765.43	2077.57	2214.09	69.77	0.00	0.00	0.00
10600	90.28	86.07	100	7195.3	2225.14	772.28	2177.33	2310.24	70.47	0.00	0.00	0.00
10700	90.28	86.07	100	7194.8	2325.14	779.14	2277.10	2406.70	71.11	0.00	0.00	0.00
10800	90.28	86.07	100	7194.3	2425.14	785.99	2376.86	2503.45	71.70	0.00	0.00	0.00
10900	90.28	86.07	100	7193.8	2525.14	792.85	2476.62	2600.44	72.25	0.00	0.00	0.00
11000	90.28	86.07	100	7193.3	2625.14	799.70	2576.39	2697.65	72.76	0.00	0.00	0.00
11100	90.28	86.07	100	7192.8	2725.14	806.55	2676.15	2795.05	73.23	0.00	0.00	0.00
11200	90.28	86.07	100	7192.3	2825.14	813.41	2775.91	2892.63	73.67	0.00	0.00	0.00
11300	90.28	86.07	100	7191.9	2925.14	820.26	2875.68	2990.38	74.08	0.00	0.00	0.00
11400	90.28	86.07	100	7191.4	3025.13	827.11	2975.44	3088.26	74.47	0.00	0.00	0.00
11500	90.28	86.07	100	7190.9	3125.13	833.97	3075.21	3186.28	74.83	0.00	0.00	0.00
11600	90.28	86.07	100	7190.4	3225.13	840.82	3174.97	3284.42	75.17	0.00	0.00	0.00
11700	90.28	86.07	100	7189.9	3325.13	847.68	3274.73	3382.67	75.49	0.00	0.00	0.00
11800	90.28	86.07	100	7189.4	3425.13	854.53	3374.50	3481.01	75.79	0.00	0.00	0.00
11900	90.28	86.07	100	7188.9	3525.13	861.38	3474.26	3579.45	76.08	0.00	0.00	0.00
12000	90.28	86.07	100	7188.4	3625.13	868.24	3574.02	3677.97	76.35	0.00	0.00	0.00
12100	90.28	86.07	100	7187.9	3725.13	875.09	3673.79	3776.57	76.60	0.00	0.00	0.00
12200	90.28	86.07	100	7187.5	3825.12	881.94	3773.55	3875.24	76.85	0.00	0.00	0.00
12300	90.28	86.07	100	7187.0	3925.12	888.80	3873.32	3973.98	77.08	0.00	0.00	0.00
12400	90.28	86.07	100	7186.5	4025.12	895.65	3973.08	4072.78	77.30	0.00	0.00	0.00
12500	90.28	86.07	100	7186.0	4125.12	902.51	4072.84	4171.64	77.51	0.00	0.00	0.00
12600	90.28	86.07	100	7185.5	4225.12	909.36	4172.61	4270.55	77.71	0.00	0.00	0.00
12700	90.28	86.07	100	7185.0	4325.12	916.21	4272.37	4369.51	77.90	0.00	0.00	0.00
12800	90.28	86.07	100	7184.5	4425.12	923.07	4372.13	4468.51	78.08	0.00	0.00	0.00
12900	90.28	86.07	100	7184.0	4525.12	929.92	4471.90	4567.56	78.25	0.00	0.00	0.00
13000	90.28	86.07	100	7183.6	4625.11	936.77	4571.66	4666.65	78.42	0.00	0.00	0.00
13100	90.28	86.07	100	7183.1	4725.11	943.63	4671.42	4765.78	78.58	0.00	0.00	0.00
13200	90.28	86.07	100	7182.6	4825.11	950.48	4771.19	4864.94	78.73	0.00	0.00	0.00
13300	90.28	86.07	100	7182.1	4925.11	957.33	4870.95	4964.14	78.88	0.00	0.00	0.00
13400	90.28	86.07	100	7181.6	5025.11	964.19	4970.72	5063.37	79.02	0.00	0.00	0.00
13500	90.28	86.07	100	7181.1	5125.11	971.04	5070.48	5162.62	79.16	0.00	0.00	0.00
13600	90.28	86.07	100	7180.6	5225.11	977.90	5170.24	5261.91	79.29	0.00	0.00	0.00
13615	90.28	86.07	15	7180.5	5240.11	978.92	5185.21	5276.80	79.31	0.00	0.00	0.00
13650	90.26	83.97	35	7180.4	5275.10	981.96	5220.07	5311.63	79.35	6.00	-0.06	-6.00
13700	90.23	80.97	50	7180.2	5324.99	988.51	5269.64	5361.55	79.38	6.00	-0.06	-6.00
13750	90.19	77.97	50	7180.0	5374.66	997.65	5318.79	5411.54	79.38	6.00	-0.08	-6.00
13800	90.16	74.97	50	7179.8	5423.95	1009.35	5367.39	5461.47	79.35	6.00	-0.06	-6.00
13850	90.13	71.97	50	7179.7	5472.74	1023.57	5415.32	5511.21	79.30	6.00	-0.06	-6.00
13900	90.09	68.97	50	7179.6	5520.89	1040.28	5462.44	5560.61	79.22	6.00	-0.08	-6.00
13950	90.06	65.97	50	7179.5	5568.28	1059.44	5508.62	5609.57	79.11	6.00	-0.06	-6.00
14000	90.02	62.97	50	7179.5	5614.76	1080.99	5553.73	5657.96	78.99	6.00	-0.08	-6.00
14050	89.99	59.97	50	7179.5	5660.22	1104.86	5597.65	5705.65	78.83	6.00	-0.06	-6.00
14100	89.95	56.97	50	7179.5	5704.52	1131.01	5640.27	5752.55	78.66	6.00	-0.08	-6.00

Minimum Radius of Curvature

API: 05-123-52331	Well: Schmerge 4-12HZ	Wellhead Location	Lat : 40.426332
Operator: Occidental	Area: DJ		Long : -104.890135
Rig:	Type: U-Lateral	Magnetic Declination: 7.60	
TD: 20,757'		Plane of Proposal: 86.07	

Measured Depth Ft	Drift Angle Deg	Azimuth Direction Deg	Course Length Ft	TVD Ft	Vertical Section Ft	COORDINATES		CLOSURE		Dog Leg Severity Deg/100'	Build / Drop Deg/100'	Left / Right Deg/100'
						N-S Ft	E-W Ft	Distance FT	Direction Deg			
14150	89.92	53.97	50	7179.6	5747.55	1159.35	5681.45	5798.54	78.47	6.00	-0.06	-6.00
14200	89.88	50.97	50	7179.7	5789.20	1189.80	5721.10	5843.51	78.25	6.00	-0.08	-6.00
14250	89.85	47.97	50	7179.8	5829.33	1222.29	5759.10	5887.38	78.02	6.00	-0.06	-6.00
14300	89.82	44.97	50	7179.9	5867.85	1256.72	5795.35	5930.04	77.76	6.00	-0.06	-6.00
14350	89.78	41.97	50	7180.1	5904.65	1293.01	5829.74	5971.41	77.49	6.00	-0.08	-6.00
14400	89.75	38.97	50	7180.3	5939.63	1331.04	5862.19	6011.40	77.21	6.00	-0.06	-6.00
14450	89.72	35.97	50	7180.5	5972.69	1370.72	5892.60	6049.93	76.90	6.00	-0.06	-6.00
14500	89.69	32.97	50	7180.8	6003.75	1411.93	5920.90	6086.92	76.59	6.00	-0.06	-6.00
14550	89.66	29.97	50	7181.1	6032.71	1454.57	5947.00	6122.30	76.26	6.00	-0.06	-6.00
14600	89.63	26.97	50	7181.4	6059.49	1498.52	5970.83	6156.00	75.91	6.00	-0.06	-6.00
14650	89.60	23.97	50	7181.7	6084.04	1543.66	5992.33	6187.96	75.55	6.00	-0.06	-6.00
14700	89.57	20.97	50	7182.1	6106.27	1589.85	6011.44	6218.12	75.19	6.00	-0.06	-6.00
14750	89.55	17.97	50	7182.5	6126.12	1636.99	6028.10	6246.42	74.81	6.00	-0.04	-6.00
14800	89.52	14.97	50	7182.9	6143.55	1684.93	6042.27	6272.80	74.42	6.00	-0.06	-6.00
14850	89.50	11.97	50	7183.3	6158.50	1733.55	6053.92	6297.23	74.02	6.00	-0.04	-6.00
14900	89.48	8.97	50	7183.8	6170.93	1782.71	6063.00	6319.66	73.62	6.00	-0.04	-6.00
14950	89.46	5.97	50	7184.2	6180.81	1832.27	6069.50	6340.04	73.20	6.00	-0.04	-6.00
15000	89.44	2.97	50	7184.7	6188.11	1882.11	6073.40	6358.34	72.78	6.00	-0.04	-6.00
15050	89.42	359.97	50	7185.2	6192.82	1932.09	6074.68	6374.54	72.36	6.00	-0.04	714.00
15100	89.41	356.97	50	7185.7	6194.91	1982.06	6073.35	6388.59	71.93	6.00	-0.02	-6.00
15150	89.39	353.97	50	7186.2	6194.39	2031.90	6069.40	6400.48	71.49	6.00	-0.04	-6.00
15200	89.38	350.97	50	7186.8	6191.25	2081.46	6062.85	6410.19	71.05	6.00	-0.02	-6.00
15250	89.37	347.97	50	7187.3	6185.50	2130.61	6053.71	6417.70	70.61	6.00	-0.02	-6.00
15300	89.36	344.97	50	7187.9	6177.17	2179.21	6042.01	6423.00	70.17	6.00	-0.02	-6.00
15350	89.35	341.97	50	7188.4	6166.26	2227.14	6027.79	6426.07	69.72	6.00	-0.02	-6.00
15400	89.34	338.97	50	7189.0	6152.82	2274.25	6011.08	6426.92	69.28	6.00	-0.02	-6.00
15450	89.34	335.97	50	7189.6	6136.87	2320.43	5991.92	6425.54	68.83	6.00	0.00	-6.00
15500	89.34	332.97	50	7190.2	6118.47	2365.54	5970.38	6421.93	68.39	6.00	0.00	-6.00
15550	89.34	329.97	50	7190.7	6097.66	2409.46	5946.50	6416.10	67.94	6.00	0.00	-6.00
15600	89.34	326.97	50	7191.3	6074.50	2452.07	5920.36	6408.07	67.50	6.00	0.00	-6.00
15650	89.35	323.97	50	7191.9	6049.05	2493.25	5892.02	6397.83	67.06	6.00	0.02	-6.00
15700	89.36	320.97	50	7192.4	6021.39	2532.90	5861.57	6385.42	66.63	6.00	0.02	-6.00
15750	89.36	317.97	50	7193.0	5991.58	2570.89	5829.08	6370.85	66.20	6.00	0.00	-6.00
15800	89.38	314.97	50	7193.6	5959.71	2607.14	5794.65	6354.15	65.78	6.00	0.04	-6.00
15850	89.39	311.97	50	7194.1	5925.88	2641.53	5758.37	6335.34	65.36	6.00	0.02	-6.00
15900	89.40	308.97	50	7194.6	5890.16	2673.98	5720.34	6314.46	64.95	6.00	0.02	-6.00
15950	89.42	305.97	50	7195.1	5852.66	2704.39	5680.66	6291.56	64.54	6.00	0.04	-6.00
16000	89.43	302.97	50	7195.6	5813.48	2732.68	5639.45	6266.65	64.15	6.00	0.02	-6.00
16050	89.45	299.97	50	7196.1	5772.73	2758.78	5596.81	6239.81	63.76	6.00	0.04	-6.00
16100	89.47	296.97	50	7196.6	5730.52	2782.61	5552.86	6211.06	63.38	6.00	0.04	-6.00
16150	89.49	293.97	50	7197.0	5686.97	2804.11	5507.73	6180.46	63.02	6.00	0.04	-6.00
16200	89.52	290.97	50	7197.5	5642.19	2823.22	5461.53	6148.08	62.66	6.00	0.06	-6.00
16250	89.54	287.97	50	7197.9	5596.31	2839.88	5414.40	6113.97	62.32	6.00	0.04	-6.00
16300	89.57	284.97	50	7198.3	5549.45	2854.06	5366.46	6078.20	61.99	6.00	0.06	-6.00
16350	89.59	281.97	50	7198.6	5501.75	2865.70	5317.84	6040.83	61.68	6.00	0.04	-6.00
16400	89.62	278.97	50	7199.0	5453.32	2874.79	5268.68	6001.95	61.38	6.00	0.06	-6.00
16450	89.65	275.97	50	7199.3	5404.32	2881.28	5219.11	5961.62	61.10	6.00	0.06	-6.00
16500	89.68	272.97	50	7199.6	5354.86	2885.18	5169.27	5919.93	60.83	6.00	0.06	-6.00
16550	89.70	269.97	50	7199.9	5305.09	2886.46	5119.29	5876.97	60.58	6.00	0.04	-6.00
16583	89.70	268.00	33	7200.0	5272.30	2885.88	5086.47	5848.12	60.43	6.00	0.00	-6.00
16600	89.70	268.00	17	7200.1	5255.14	2885.28	5069.31	5832.90	60.35	0.00	0.00	0.00
16700	89.70	268.00	100	7200.7	5155.20	2881.79	4969.37	5744.51	59.89	0.00	0.00	0.00
16783	89.71	268.00	83	7201.1	5072.42	2878.90	4886.59	5671.59	59.50	0.01	0.01	0.00
16800	89.74	267.74	17	7201.2	5055.26	2878.26	4869.44	5656.48	59.41	1.52	0.17	-1.51
16900	89.76	266.24	100	7201.6	4955.27	2873.01	4769.58	5568.04	58.94	1.50	0.02	-1.50
16968	89.76	265.22	68	7201.9	4886.91	2867.92	4701.40	5507.10	58.62	1.49	0.00	-1.49
17000	89.76	265.22	32	7202.0	4855.28	2865.29	4669.88	5478.84	58.47	0.00	0.00	0.00
17100	89.76	265.22	100	7202.4	4755.29	2856.95	4570.23	5389.73	57.99	0.00	0.00	0.00

Minimum Radius of Curvature

API: 05-123-52331 **Well: Schmerge 4-12HZ** **Wellhead Location** **Lat : 40.426332**
Operator: Occidental **Area: DJ** **Long : -104.890135**
Rig: **Type: U-Lateral** **Magnetic Declination: 7.60**
TD: 20,757' **Plane of Proposal: 86.07**

Measured Depth Ft	Drift Angle Deg	Azimuth Direction Deg	Course Length Ft	TVD Ft	Vertical Section Ft	COORDINATES		CLOSURE		Dog Leg Severity Deg/100'	Build / Drop Deg/100'	Left / Right Deg/100'
						N-S Ft	E-W Ft	Distance FT	Direction Deg			
17200	89.76	265.22	100	7202.9	4655.30	2848.62	4470.58	5301.01	57.49	0.00	0.00	0.00
17300	89.76	265.22	100	7203.3	4555.32	2840.29	4370.93	5212.70	56.98	0.00	0.00	0.00
17400	89.76	265.22	100	7203.7	4455.33	2831.96	4271.28	5124.82	56.45	0.00	0.00	0.00
17500	89.76	265.22	100	7204.1	4355.34	2823.62	4171.62	5037.39	55.91	0.00	0.00	0.00
17600	89.76	265.22	100	7204.5	4255.35	2815.29	4071.97	4950.44	55.34	0.00	0.00	0.00
17700	89.76	265.22	100	7205.0	4155.36	2806.96	3972.32	4863.98	54.75	0.00	0.00	0.00
17800	89.76	265.22	100	7205.4	4055.37	2798.62	3872.67	4778.06	54.15	0.00	0.00	0.00
17900	89.76	265.22	100	7205.8	3955.39	2790.29	3773.02	4692.70	53.52	0.00	0.00	0.00
18000	89.76	265.22	100	7206.2	3855.40	2781.96	3673.37	4607.92	52.86	0.00	0.00	0.00
18100	89.76	265.22	100	7206.6	3755.41	2773.62	3573.72	4523.76	52.18	0.00	0.00	0.00
18200	89.76	265.22	100	7207.0	3655.42	2765.29	3474.06	4440.27	51.48	0.00	0.00	0.00
18300	89.76	265.22	100	7207.5	3555.43	2756.96	3374.41	4357.46	50.75	0.00	0.00	0.00
18400	89.76	265.22	100	7207.9	3455.45	2748.63	3274.76	4275.40	49.99	0.00	0.00	0.00
18500	89.76	265.22	100	7208.3	3355.46	2740.29	3175.11	4194.11	49.20	0.00	0.00	0.00
18600	89.76	265.22	100	7208.7	3255.47	2731.96	3075.46	4113.64	48.39	0.00	0.00	0.00
18700	89.76	265.22	100	7209.1	3155.48	2723.63	2975.81	4034.05	47.53	0.00	0.00	0.00
18800	89.76	265.22	100	7209.6	3055.49	2715.29	2876.16	3955.39	46.65	0.00	0.00	0.00
18900	89.76	265.22	100	7210.0	2955.51	2706.96	2776.51	3877.71	45.73	0.00	0.00	0.00
19000	89.76	265.22	100	7210.4	2855.52	2698.63	2676.85	3801.07	44.77	0.00	0.00	0.00
19100	89.76	265.22	100	7210.8	2755.53	2690.30	2577.20	3725.54	43.77	0.00	0.00	0.00
19200	89.76	265.22	100	7211.2	2655.54	2681.96	2477.55	3651.19	42.73	0.00	0.00	0.00
19300	89.76	265.22	100	7211.7	2555.55	2673.63	2377.90	3578.09	41.65	0.00	0.00	0.00
19400	89.76	265.22	100	7212.1	2455.56	2665.30	2278.25	3506.31	40.52	0.00	0.00	0.00
19500	89.76	265.22	100	7212.5	2355.58	2656.96	2178.60	3435.95	39.35	0.00	0.00	0.00
19600	89.76	265.22	100	7212.9	2255.59	2648.63	2078.95	3367.09	38.13	0.00	0.00	0.00
19700	89.76	265.22	100	7213.3	2155.60	2640.30	1979.29	3299.82	36.86	0.00	0.00	0.00
19800	89.76	265.22	100	7213.7	2055.61	2631.97	1879.64	3234.24	35.53	0.00	0.00	0.00
19900	89.76	265.22	100	7214.2	1955.62	2623.63	1779.99	3170.46	34.15	0.00	0.00	0.00
20000	89.76	265.22	100	7214.6	1855.64	2615.30	1680.34	3108.59	32.72	0.00	0.00	0.00
20100	89.76	265.22	100	7215.0	1755.65	2606.97	1580.69	3048.75	31.23	0.00	0.00	0.00
20200	89.76	265.22	100	7215.4	1655.66	2598.63	1481.04	2991.05	29.68	0.00	0.00	0.00
20300	89.76	265.22	100	7215.8	1555.67	2590.30	1381.39	2935.62	28.07	0.00	0.00	0.00
20400	89.76	265.22	100	7216.3	1455.68	2581.97	1281.74	2882.60	26.40	0.00	0.00	0.00
20500	89.76	265.22	100	7216.7	1355.70	2573.63	1182.08	2832.12	24.67	0.00	0.00	0.00
20600	89.76	265.22	100	7217.1	1255.71	2565.30	1082.43	2784.32	22.88	0.00	0.00	0.00
20700	89.76	265.22	100	7217.5	1155.72	2556.97	982.78	2739.33	21.02	0.00	0.00	0.00
20757	89.76	265.22	57	7217.8	1098.55	2552.20	925.80	2714.93	19.94	0.00	0.00	0.00