

*** G E O prati38 DIRECTIONAL WELL SURVEY ***

Vertical section calculated in plane of proposal
 Direction : S 25 E

** 1**

Date: 04/31/86

MEASURED DEPTH feet	DRIFT ANGLE deg.min	DRIFT DIRECTION deg	COURSE LENGTH feet	TRUE VERT. DEPTH feet	RECTANGULAR COORDINATES feet	SEC- TION feet	DOGLEG SEVERITY dg/100ft	
0	0	0	0	0.00	0.00	0.00	0.00	
192	0	30	s 26e	192	0.75S	0.37E	0.84	
250	0	45	s 15e	58	1.35S	0.59E	1.47	
403	0	45	s 2e	153	3.33S	0.88E	3.39	
555	0	15	n 57w	152	3.98S	0.27W	3.49	
710	0	45	n 84w	155	709.97	3.53S	1.54W	2.54
863	0	30	s 3w	153	862.96	4.61S	2.81W	2.99
1020	0	45	n 37w	157	1019.95	5.11S	4.45W	2.75
1173	0	45	n 39w	153	1172.94	3.53S	5.68W	0.80
1329	0	45	n 39w	156	1328.93	1.95S	6.97W	-1.18
1485	1	0	n 34w	156	1484.91	0.03S	8.39W	-3.52
1640	1	0	n 33w	155	1639.88	2.22N	9.88W	-6.19
1794	1	0	n 90w	154	1793.86	3.51N	12.24W	-8.35
1952	1	30	n 85w	158	1951.82	3.66N	15.69W	-9.94
2107	1	45	s 88w	155	2106.76	3.77N	20.08W	-11.90
2264	1	30	s 66w	157	2263.70	2.77N	24.42W	-12.83
2426	2	0	s 64w	162	2425.62	0.68N	28.90W	-12.83
2574	2	45	s 64w	148	2573.49	2.01S	34.41W	-12.72
2729	3	15	s 67w	155	2728.28	5.37S	41.79W	-12.79
2882	3	30	s 72w	153	2881.02	8.53S	50.23W	-13.50
3036	4	0	s 83w	154	3034.69	10.71S	60.06W	-15.68
3161	4	15	s 76w	125	3159.36	12.35S	68.91W	-17.93
3226	4	15	s 60w	65	3224.18	14.15S	73.37W	-18.18
3258	4	15	s 45w	32	3256.10	15.59S	75.25W	-17.67
3289	4	0	s 30w	31	3287.02	17.36S	76.61W	-16.64
3321	4	45	s 17w	32	3318.92	19.60S	77.58W	-15.02
3351	4	45	s 8w	30	3348.82	22.03S	78.12W	-13.05
3383	4	45	s 6e	32	3380.71	24.68S	78.17W	-10.67
3414	5	0	s 20e	31	3411.60	27.24S	77.58W	-8.09
3445	5	30	s 29e	31	3442.47	29.83S	76.40W	-5.26
3522	5	45	s 46e	77	3519.10	35.81S	71.81W	2.11
3616	7	0	s 48e	94	3612.52	42.93S	64.17W	11.79
3710	7	30	s 48e	94	3705.76	50.87S	55.36W	22.71
3773	8	0	s 52e	63	3768.19	56.33S	48.85W	30.41
3834	8	15	s 51e	61	3828.58	61.70S	42.10W	38.12
3907	8	45	s 53e	73	3900.77	68.34S	33.60W	47.74
4036	8	0	s 51e	129	4028.40	79.91S	18.79W	64.48
4160	7	45	s 48e	124	4151.23	90.94S	5.87W	79.94
4254	7	45	s 46e	94	4244.37	99.59S	3.40E	91.69
4382	7	45	s 45e	128	4371.20	111.68S	15.71E	107.86

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Date: 04/31/86

MEASURED DEPTH feet	DRIFT ANGLE deg. min	DRIFT DIRECTION deg	COURSE LENGTH feet	TRUE VERT. DEPTH feet	RECTANGULAR COORDINATES feet	SECTION feet	DOGLEG SEVERITY dg/100ft
4476	7 0	s 43e	94	4464.42	120.36S 24.09E	119.27	0.84
4587	7 45	s 41e	111	4574.51	130.95S 33.62E	132.89	0.71
4650	8 15	s 37e	63	4636.89	137.77S 39.14E	141.40	1.19
4757	8 30	s 35e	107	4742.75	150.38S 48.30E	156.70	0.36
4833	8 15	s 29e	76	4817.94	159.76S 54.17E	167.69	1.20
4967	8 30	s 27e	134	4950.51	177.00S 63.33E	187.18	0.29
5091	9 30	s 24e	124	5072.99	194.50S 71.68E	206.57	0.89
5151	9 0	s 28e	60	5132.20	203.17S 75.91E	216.22	1.36
5217	7 45	s 30e	66	5197.50	211.58S 80.57E	225.81	1.94
5248	8 12	s 31e	31	5228.20	215.29S 82.75E	230.09	1.52
5328	8 45	s 36e	80	5307.33	225.12S 89.26E	241.75	1.15
5389	9 15	s 36e	61	5367.58	232.84S 94.87E	251.12	0.82
5452	10 0	s 36e	63	5429.69	241.36S 101.06E	261.46	1.19
5647	10 30	s 34e	195	5621.58	269.78S 120.96E	295.63	0.31
5805	10 15	s 29e	158	5776.99	294.04S 135.83E	323.90	0.59
5932	11 0	s 29e	127	5901.82	314.52S 147.18E	347.26	0.59
6048	11 0	s 27e	116	6015.69	334.07S 157.58E	369.36	0.33
6207	11 45	s 17e	159	6171.56	363.14S 169.32E	400.68	1.33
6363	12 45	s 12e	156	6324.01	395.19S 177.61E	433.22	0.93
6521	12 15	s 9e	158	6478.27	428.81S 183.84E	466.33	0.52
6646	13 15	s 4e	125	6600.18	456.22S 186.97E	492.49	1.19
6804	14 0	s 3e	158	6753.74	493.37S 189.24E	527.12	0.50
6962	14 0	s 14w	158	6907.04	531.42S 185.57E	560.06	2.59
7121	16 0	s 16w	159	7060.63	571.17S 174.92E	591.58	1.30
7248	18 0	s 21w	127	7182.08	606.38S 163.14E	618.52	1.95
7348	18 0	s 23w	100	7277.18	635.04S 151.56E	639.59	0.62
7411	17 45	s 20w	63	7337.14	653.03S 144.48E	652.90	1.52
7506	17 45	s 22w	95	7427.62	680.07S 134.10E	673.02	0.64
7631	19 15	s 25w	125	7546.16	716.44S 118.28E	699.30	1.42
7663	19 30	s 25w	32	7576.35	726.06S 113.80E	706.13	0.79
7770	20 0	s 27w	107	7677.05	758.56S 97.95E	728.88	0.79
7880	21 15	s 27w	110	7780.00	793.08S 80.36E	752.74	1.14
8004	22 0	s 28w	124	7895.28	833.62S 59.25E	780.56	0.67
8159	22 0	s 30w	155	8038.99	884.40S 31.10E	814.68	0.48
8317	20 0	s 32w	158	8186.50	932.94S 1.94E	846.35	1.34
8718	20 0	s 32w	401	8563.31	1049.25S 70.74W	921.04	0.00

Closure distance : 1051.63 feet.
angle : S 3 deg 51 min W

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