

## \*\*\* G E O prati-50 DIRECTIONAL WELL SURVEY \*\*\*

Vertical section calculated in plane of proposal  
 Direction : N 29 W

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Date: 07/16/87

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	
146	1	30	n 29w	146	1.67N	0.93W	1.91	
247	1	15	s 12w	101	1.31N	3.32W	2.76	
354	1	45	n 48w	107	0.45N	5.99W	3.29	
473	2	0	n 68w	119	2.51N	9.29W	6.70	
594	2	30	n 48w	121	5.03N	13.32W	10.85	
753	3	15	n 62w	159	9.60N	19.85W	18.02	
909	3	30	n 71w	156	908.29	13.26N	28.27W	25.31
1062	4	45	n 75w	153	1060.90	16.48N	38.80W	33.23
1219	6	15	n 73w	157	1217.17	20.63N	53.26W	43.87
1311	6	30	n 73w	92	1308.61	23.62N	63.03W	51.21
1405	7	45	n 74w	94	1401.88	26.93N	74.21W	59.53
1443	8	0	n 69w	38	1439.52	28.58N	79.15W	63.37
1474	8	30	n 68w	31	1470.20	30.21N	83.29W	66.80
1505	7	30	n 69w	31	1500.90	31.79N	87.30W	70.13
1536	7	0	n 67w	31	1531.65	33.26N	90.93W	73.17
1567	6	0	n 67w	31	1562.45	34.63N	94.16W	75.94
1597	5	30	n 67w	30	1592.30	35.80N	96.93W	78.30
1628	4	45	n 68w	31	1623.18	36.86N	99.48W	80.47
1660	4	0	n 71w	32	1655.08	37.72N	101.77W	82.33
1691	3	0	n 79w	31	1686.03	38.21N	103.60W	83.64
1712	2	30	n 78w	21	1707.00	38.41N	104.59W	84.30
1765	2	0	n 83w	53	1759.96	38.75N	106.64W	85.59
1839	2	0	s 82w	74	1833.92	38.73N	109.22W	86.82
1995	0	45	s 62w	156	1989.87	37.57N	112.78W	87.54
2151	1	15	s 80w	156	2145.85	36.69N	115.35W	88.01
2300	1	15	s 77w	149	2294.81	36.04N	118.54W	88.99
2463	1	45	s 71w	163	2457.76	34.86N	122.64W	89.95
2618	2	45	s 72w	155	2612.64	32.93N	128.41W	91.06
2774	2	45	s 69w	156	2768.46	30.43N	135.47W	92.29
2931	3	15	s 67w	157	2925.24	27.35N	143.09W	93.29
3083	3	45	s 71w	152	3076.96	24.03N	151.75W	94.59
3239	3	45	s 72w	156	3232.62	20.79N	161.42W	96.44
3394	4	0	s 72w	155	3387.27	17.55N	171.39W	98.44
3555	4	0	s 68w	161	3547.88	13.71N	181.94W	100.20
3706	4	45	s 72w	151	3698.44	9.77N	192.76W	102.00
3861	5	0	s 72w	155	3852.88	5.70N	205.29W	104.51
4009	5	45	s 74w	148	4000.23	1.65N	218.55W	107.39
4040	5	45	s 81w	31	4031.07	0.98N	221.58W	108.26
4071	6	0	s 84w	31	4061.91	0.56N	224.73W	109.41

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Date: 07/16/87

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
4102	6 30	s 87w	31	4092.72	0.30N 228.09W	110.72	1.93
4128	6 0	n 88w	26	4118.57	0.27N 230.92W	112.17	2.84
4162	5 30	n 84w	34	4152.40	0.51N 234.32W	114.02	1.89
4194	5 30	n 81w	32	4184.25	0.91N 237.36W	115.85	0.90
4224	6 0	n 80w	30	4214.10	1.41N 240.33W	117.74	1.70
4255	6 0	n 75w	31	4244.93	2.11N 243.49W	119.88	1.69
4287	6 30	n 68w	32	4276.74	3.21N 246.79W	122.46	2.85
4318	6 30	n 60w	31	4307.54	4.75N 249.95W	125.33	2.92
4380	7 45	n 53w	62	4369.06	9.00N 256.36W	132.16	2.45
4411	8 0	n 43w	31	4399.77	11.84N 259.52W	136.17	4.49
4443	9 0	n 42w	32	4431.42	15.33N 262.71W	140.77	3.16
4471	10 0	n 44w	28	4459.03	18.71N 265.86W	145.25	3.76
4505	10 45	n 48w	34	4492.48	22.96N 270.27W	151.11	3.06
4537	11 0	n 46w	32	4523.90	27.08N 274.68W	156.85	1.42
4568	11 0	n 39w	31	4554.33	31.44N 278.68W	162.60	4.31
4599	11 0	n 34w	31	4584.76	36.19N 282.20W	168.47	3.08
4642	11 30	n 34w	43	4626.94	43.15N 286.89W	176.83	1.17
4672	11 30	n 28w	30	4656.34	48.28N 289.97W	182.80	3.99
4703	11 30	n 23w	31	4686.71	53.85N 292.63W	188.97	3.22
4752	10 0	n 16w	49	4734.85	62.47N 295.68W	197.99	4.05
4767	9 30	n 21w	15	4749.64	64.88N 296.49W	200.48	6.55
4830	10 0	n 23w	63	4811.73	74.77N 300.48W	211.07	0.96
4889	10 0	n 24w	59	4869.83	84.17N 304.57W	221.27	0.29
4920	10 15	n 20w	31	4900.35	89.22N 306.61W	226.68	2.41
4951	10 30	n 16w	31	4930.84	94.53N 308.34W	232.16	2.46
4982	10 30	n 12w	31	4961.32	100.01N 309.70W	237.62	2.35
5013	9 30	n 14w	31	4991.85	105.25N 310.91W	242.79	3.42
5113	11 15	n 5w	100	5090.22	123.02N 313.89W	259.77	2.38
5189	11 30	n 6w	76	5164.72	137.94N 315.32W	273.51	0.42
5282	13 0	n 7w	93	5255.61	157.54N 317.56W	291.74	1.63
5313	13 15	n 8w	31	5285.80	164.52N 318.48W	298.29	1.09
5375	14 0	n 10w	62	5346.05	178.95N 320.76W	312.02	1.43
5478	15 45	n 11w	103	5445.60	204.95N 325.58W	337.09	1.72
5509	16 15	n 13w	31	5475.40	213.30N 327.36W	345.26	2.40
5576	16 30	n 13w	67	5539.68	231.71N 331.60W	363.42	0.38
5639	16 30	n 13w	63	5600.09	249.14N 335.63W	380.62	0.00
5760	16 0	n 13w	121	5716.25	282.13N 343.25W	413.17	0.41
5953	16 0	n 14w	193	5901.78	333.86N 355.67W	464.43	0.14
6112	15 15	n 17w	159	6054.90	375.13N 367.11W	506.07	0.69
6271	16 0	n 18w	159	6208.02	415.97N 379.99W	548.04	0.50

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6423	16	0	n 18w	152	6354.14	455.82N	392.93W	589.17	0.00
6580	16	0	n 19w	157	6505.05	496.86N	406.67W	631.72	0.18
6735	16	0	n 20w	155	6654.05	537.13N	420.93W	673.85	0.18
6895	15	45	n 21w	160	6807.95	578.13N	436.25W	717.14	0.23
7054	15	45	n 24w	159	6960.98	618.00N	452.77W	760.02	0.51
7217	16	30	n 24w	163	7117.57	659.36N	471.18W	805.12	0.46
7376	17	30	n 22w	159	7269.62	702.15N	489.35W	851.35	0.73
7533	19	0	n 22w	157	7418.72	747.73N	507.77W	900.15	0.96
7691	21	0	n 22w	158	7567.19	797.84N	528.01W	953.79	1.27
7784	22	0	n 21w	93	7653.72	829.55N	540.50W	987.58	1.15
7870	23	0	n 23w	86	7733.17	860.07N	552.83W	1020.25	1.46
7940	22	30	n 21w	70	7797.73	885.16N	562.97W	1047.12	1.32
8004	21	30	n 22w	64	7857.07	907.47N	571.76W	1070.88	1.67
8135	22	0	n 22w	131	7978.74	952.48N	589.94W	1119.07	0.38
8294	21	45	n 22w	159	8126.29	1007.41N	612.13W	1177.87	0.16
8420	21	45	n 23w	126	8243.32	1050.54N	630.00W	1224.26	0.29
8578	22	0	n 22w	158	8389.95	1104.93N	652.53W	1282.75	0.28
8735	22	0	n 22w	157	8535.52	1159.46N	674.56W	1341.12	0.00
8863	22	30	n 24w	128	8653.98	1204.07N	693.50W	1389.32	0.71
8978	22	15	n 25w	115	8760.33	1243.91N	711.65W	1432.96	0.40
9137	22	0	n 25w	159	8907.62	1298.18N	736.96W	1492.70	0.16
9308	21	15	n 26w	171	9066.58	1355.06N	764.09W	1555.60	0.49
9496	20	0	n 26w	188	9242.53	1414.58N	793.12W	1621.73	0.66
9654	17	15	n 29w	158	9392.26	1459.34N	816.42W	1672.18	1.84
9815	17	15	n 34w	161	9546.02	1500.05N	841.37W	1719.88	0.92
9941	15	15	n 29w	126	9666.98	1530.11N	859.79W	1755.10	1.94
10197	12	0	n 30w	256	9915.78	1582.60N	889.49W	1815.40	1.27
10386	11	15	n 34w	189	10100.90	1614.90N	909.67W	1853.44	0.58
10480	11	15	n 34w	94	10193.09	1630.10N	919.92W	1871.70	0.00

Closure distance : 1871.76 feet.  
 angle : N 29 deg 26 min W

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