

Loc Unit #17 FINAL SURVEY
Mid-Continent Region

Sec 13, T-20S, R-34E

Directional Survey Record

270 deg Planned Target Azimuth

Rig: McVay #10

GL: 3,660'

KB: 22'

MD ft	Angle deg	Azimuth deg	TVD ft	+N/S ft	+E/W ft	TVS ft	Closure ft	Dogleg deg/100	+B/D deg/100	+R/L deg/100
0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100	0.26	146.6	100.0	-0.2	0.1	-0.1	0.2	0.3	0.3	146.6
200	0.28	129.2	200.0	-0.5	0.4	-0.4	0.7	0.1	0.0	-17.3
300	0.23	128.5	300.0	-0.8	0.8	-0.8	1.1	0.1	-0.1	-0.8
400	0.28	135.6	400.0	-1.1	1.1	-1.1	1.6	0.1	0.1	7.2
500	0.29	185.6	500.0	-1.5	1.3	-1.3	2.0	0.2	0.0	50.0
600	0.27	188.2	600.0	-2.0	1.2	-1.2	2.4	0.0	0.0	2.6
700	0.41	185.8	700.0	-2.6	1.1	-1.1	2.8	0.1	0.1	-2.4
800	0.49	175.8	800.0	-3.4	1.1	-1.1	3.6	0.1	0.1	-10.0
900	0.56	178.7	900.0	-4.3	1.2	-1.2	4.5	0.1	0.1	2.9
1,000	0.22	212.1	1,000.0	-5.0	1.1	-1.1	5.1	0.4	-0.3	33.4
1,100	0.19	217.4	1,100.0	-5.3	0.9	-0.9	5.3	0.0	0.0	5.3
1,200	0.20	242.2	1,200.0	-5.5	0.6	-0.6	5.5	0.1	0.0	24.8
1,300	0.17	238.5	1,300.0	-5.6	0.3	-0.3	5.6	0.0	0.0	-3.7
1,400	0.36	209.3	1,400.0	-6.0	0.1	-0.1	6.0	0.2	0.2	-29.3
1,500	0.27	215.7	1,500.0	-6.4	-0.2	0.2	6.4	0.1	-0.1	6.4
1,600	0.46	228.0	1,600.0	-6.9	-0.7	0.7	6.9	0.2	0.2	12.3
1,700	0.34	227.3	1,700.0	-7.4	-1.2	1.2	7.5	0.1	-0.1	-0.7
1,800	0.09	117.8	1,800.0	-7.6	-1.3	1.3	7.7	0.4	-0.3	-109.5
1,900	0.98	65.8	1,900.0	-7.3	-0.5	0.5	7.3	0.9	0.9	-52.1
2,000	1.13	68.2	2,000.0	-6.6	1.2	-1.2	6.7	0.2	0.2	2.5
2,100	1.20	59.5	2,099.9	-5.7	3.0	-3.0	6.4	0.2	0.1	-8.8
2,200	1.12	63.2	2,199.9	-4.7	4.8	-4.8	6.7	0.1	-0.1	3.7
2,300	1.10	58.2	2,299.9	-3.8	6.5	-6.5	7.5	0.1	0.0	-5.0
2,400	1.12	58.4	2,399.9	-2.7	8.1	-8.1	8.6	0.0	0.0	0.2
2,500	1.02	58.5	2,499.9	-1.8	9.7	-9.7	9.9	0.1	-0.1	0.1
2,600	0.92	60.9	2,599.8	-0.9	11.2	-11.2	11.2	0.1	-0.1	2.4
2,700	0.99	62.9	2,699.8	-0.1	12.7	-12.7	12.7	0.1	0.1	2.0
2,800	1.24	77.7	2,799.8	0.5	14.5	-14.5	14.5	0.4	0.3	14.8
2,900	1.67	78.5	2,899.8	1.0	17.0	-17.0	17.0	0.4	0.4	0.8
3,000	2.18	77.2	2,999.7	1.7	20.3	-20.3	20.3	0.5	0.5	-1.4
3,100	2.40	73.6	3,099.6	2.7	24.1	-24.1	24.3	0.3	0.2	-3.6
3,200	2.45	72.2	3,199.5	4.0	28.2	-28.2	28.4	0.1	0.1	-1.4
3,300	2.61	72.3	3,299.5	5.3	32.4	-32.4	32.8	0.2	0.2	0.0
3,400	2.10	68.7	3,399.4	6.7	36.2	-36.2	36.9	0.5	-0.5	-3.5
3,500	1.47	62.5	3,499.3	7.9	39.1	-39.1	39.9	0.7	-0.6	-6.2
3,600	0.90	51.1	3,599.3	9.0	40.8	-40.8	41.8	0.6	-0.6	-11.5
3,700	0.83	42.7	3,699.3	10.1	41.9	-41.9	43.1	0.1	-0.1	-8.4
3,800	0.70	30.7	3,799.3	11.1	42.7	-42.7	44.2	0.2	-0.1	-11.9
3,900	0.82	358.4	3,899.3	12.4	43.0	-43.0	44.8	0.4	0.1	-32.3
4,000	1.25	346.3	3,999.3	14.1	42.8	-42.8	45.0	0.5	0.4	-12.1
4,100	1.71	338.4	4,099.2	16.6	41.9	-41.9	45.1	0.5	0.5	-7.9
4,200	1.87	330.2	4,199.2	19.4	40.6	-40.6	45.0	0.3	0.2	-8.2
4,300	2.21	323.7	4,299.1	22.3	38.6	-38.6	44.6	0.4	0.3	-6.5
4,400	2.49	295.3	4,399.0	24.8	35.5	-35.5	43.3	1.2	0.3	-28.3
4,500	3.27	297.1	4,498.9	27.1	31.0	-31.0	41.2	0.8	0.8	1.8
4,600	4.21	294.9	4,598.7	29.9	25.2	-25.2	39.1	1.0	0.9	-2.2
4,700	5.91	294.3	4,698.3	33.6	17.1	-17.1	37.7	1.7	1.7	-0.6
4,800	6.01	293.4	4,797.8	37.8	7.6	-7.6	38.5	0.1	0.1	-0.9
4,900	5.60	293.8	4,897.2	41.8	-1.6	1.6	41.8	0.4	-0.4	0.4
5,000	5.28	292.9	4,996.8	45.6	-10.3	10.3	46.7	0.3	-0.3	-0.8
5,100	4.82	294.6	5,096.4	49.1	-18.4	18.4	52.4	0.5	-0.5	1.7
5,200	4.49	286.8	5,196.1	52.0	-26.0	26.0	58.1	0.7	-0.3	-7.9
5,300	3.95	297.4	5,295.8	54.7	-32.8	32.8	63.8	0.9	-0.5	10.6
5,400	3.52	299.5	5,395.6	57.8	-38.5	38.5	69.4	0.5	-0.4	2.1
5,440	3.54	299.2	5,435.5	59.0	-40.7	40.7	71.6	0.1	0.1	-0.7
5,900	1.73	302.2	5,895.0	69.6	-58.9	58.9	91.2	0.4	-0.4	0.6
6,400	1.75	298.0	6,394.8	77.2	-72.1	72.1	105.6	0.0	0.0	-0.8
6,900	1.58	277.0	6,894.6	81.6	-85.6	85.6	118.3	0.1	0.0	-4.2
7,400	1.31	271.4	7,394.4	82.6	-98.2	98.2	128.3	0.1	-0.1	-1.1
7,900	1.47	248.4	7,894.3	80.4	-109.9	109.9	136.2	0.1	0.0	-4.6
8,400	0.83	253.3	8,394.2	77.0	-119.3	119.3	142.0	0.1	-0.1	1.0
8,900	0.70	114.2	8,894.1	74.7	-120.0	120.0	141.4	0.3	0.0	-27.8

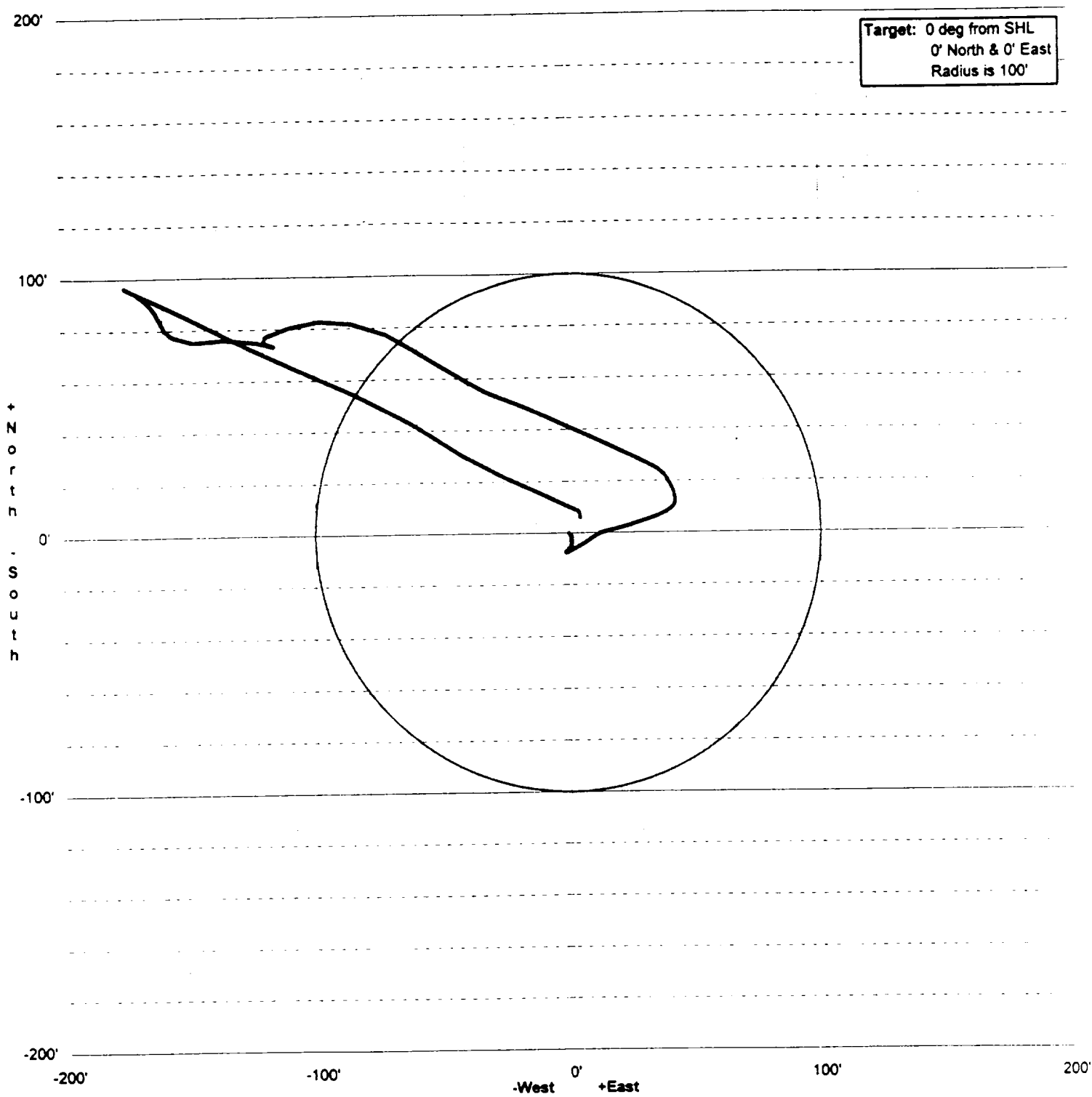
Mid-Continent Region

KB: 22'

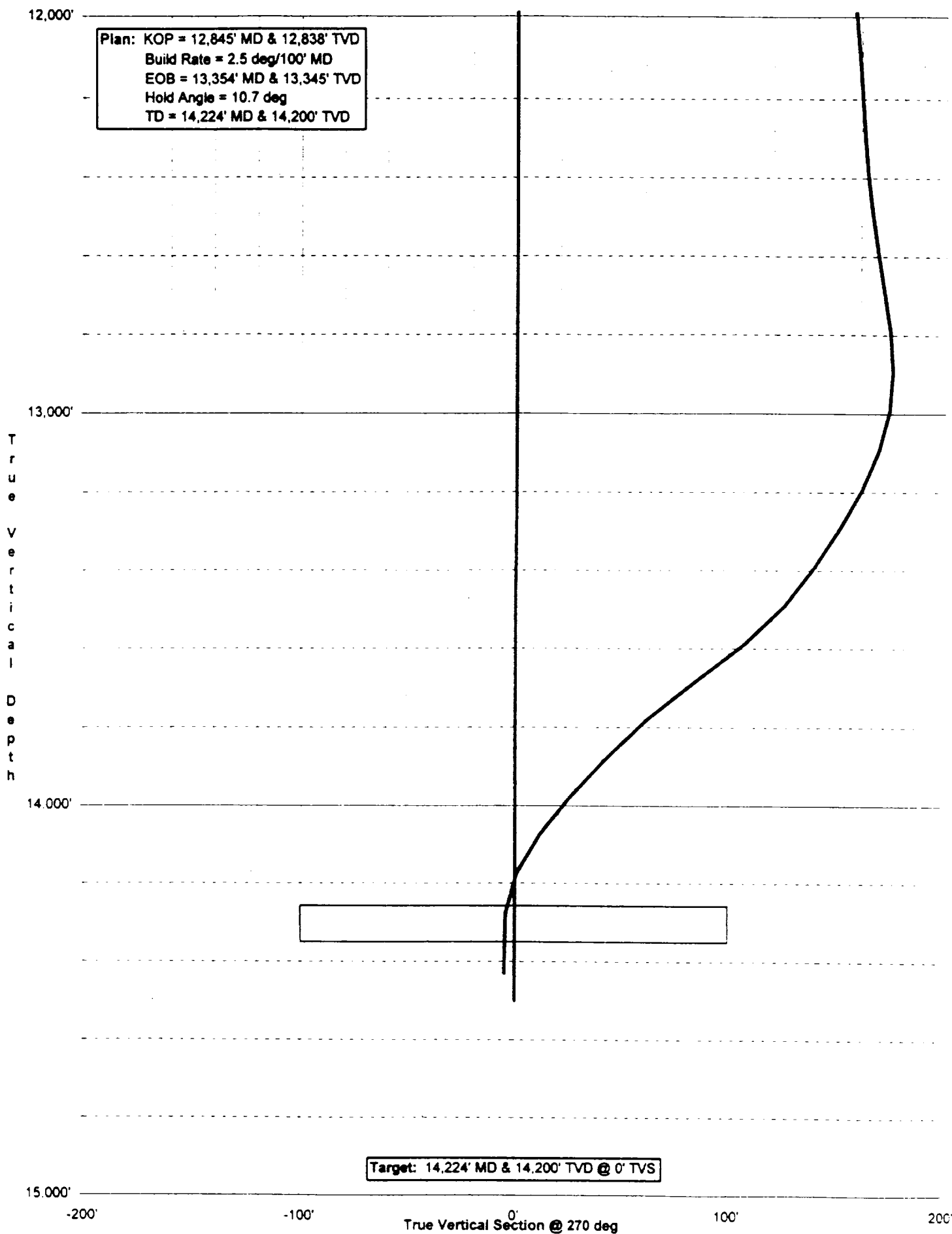
GL: 3,660'

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Plan View



Lea Unit #17



Lea Unit #17

