[redacted]

E & B Natural Resources Management Corp.

DIRECTIONAL DRILLING COMPANY
DIST. CARSON
LEASE WILMINGTON
RADIUS OF CURVATURE

6/22/83

WELL# ~~[illegible]~~ "WNF-1" 53
ELEV. 62' K.B. (037-22874)
SURVEY BY EASTMAN 29-45-13W
TYPE SINGLE SHOT LAMB. COORD. N 4 039 640 E 4 205 408
MAG. DEC. 14 DEGREES WELL COURSE - S 47 50' E

MEASURED DEPTH	DRIFT ANGLE	DRIFT DIRECTION	VERTICAL DEPTH	SECTION	LATITUDE FEET	DEPARTURE FEET	DOG LEG/100
0	0 00	S 0 00 E	0.00	0.00	0.00 S	0.00 E	0.00
145	30	S 84 00 W	145.00	-.42	.07 S	.63 W	.34
236	45	N 41 00 W	235.99	-1.31	.28 N	1.52 W	.68
327	45	N 64 00 W	326.98	-2.49	1.00 N	2.46 W	.33
419	30	N 75 00 W	418.98	-3.43	1.35 N	3.40 W	.30
511	30	N 31 00 W	510.98	-4.21	1.82 N	4.03 W	.41
610	45	N 71 00 W	609.97	-5.27	2.49 N	4.85 W	.49
665	0 00	S 0 00 E	664.97	-5.60	2.61 N	5.19 W	1.36
728	2 30	S 3 00 W	727.95	-4.73	1.24 N	5.26 W	3.97
819	5 45	S 3 00 E	818.70	-.34	5.30 S	5.26 W	3.60
912	9 00	S 5 00 E	910.92	8.27	17.21 S	4.43 W	3.51
1005	11 15	S 21 00 E	1002.46	21.65	33.09 S	.76 W	3.85
1099	13 30	S 33 00 E	1094.27	40.45	51.01 S	8.37 E	3.62
1191	15 00	S 42 30 E	1183.44	62.72	68.89 S	22.22 E	3.01
1251	16 45	S 50 30 E	1241.15	79.11	80.18 S	34.11 E	4.66
1282	17 00	S 54 00 E	1270.82	88.08	85.69 S	41.22 E	3.38
1344	18 45	S 49 30 E	1329.82	107.06	97.47 S	56.16 E	3.59
1471	19 15	S 52 00 E	1449.90	148.35	123.63 S	88.18 E	.75
1595	18 45	S 50 30 E	1567.15	188.65	148.90 S	119.66 E	.56
1719	18 30	S 51 00 E	1684.65	228.20	173.96 S	150.33 E	.24
1838	18 45	S 52 00 E	1797.42	266.13	197.62 S	180.07 E	.34
1962	19 00	S 52 00 E	1914.75	306.14	222.32 S	211.68 E	.20
2085	19 00	S 52 00 E	2031.05	346.08	246.97 S	243.24 E	0.00
2208	19 30	S 52 30 E	2147.17	386.51	271.80 S	275.30 E	.43
2364	20 00	S 53 30 E	2294.00	439.01	303.52 S	317.40 E	.39
2520	20 00	S 53 30 E	2440.59	492.10	335.26 S	360.29 E	0.00
2673	19 45	S 53 00 E	2584.47	543.89	366.38 S	401.97 E	.20