

AMERICAN HUNTER EXPLORATION LTD.
 AHEL JICARILLA 8I-1
 SEC 8-T27N-R01E
 RIO ARriba COUNTY, NEW MEXICO

CONFIDENTIAL

File Name: AHL811S2

RECEIVED
 APR 1 0 1992
 OIL CON. DIV.
 DIST. 3

RECORD OF SURVEY
 Calculated by Smith International's CADDs System

Radius of Curvature Method
 All Angles are Decimal
 Vertical Section Plane: 270.00 Degs

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T AZIMUTH (DEG)	COURSE LENGTH (FT)	TOTAL VERTICAL DEPTH	T O T A L RECTANGULAR COORDINATES (FT)		VERTICAL SECTION (FT)	C L O S U R E DISTANCE (FT) AZIMUTH (DEG)		DOGLEG SEVERITY (DEG/100')
1284.00	4.31	72.45	0.00	1282.90	7.00 N	51.10 E	-51.10	51.58	82.20	0.00
1292.00	4.25	75.25	8.00	1290.88	7.17 N	51.67 E	-51.67	52.17	82.10	2.72
KOP - 1309' MD - TRIP IN BHA #1 (1.75 X 1.25 DB)										
1322.00	2.50	74.75	30.00	1320.82	7.62 N	53.38 E	-53.38	53.92	81.87	5.83
1353.00	.62	67.25	31.00	1351.81	7.90 N	54.18 E	-54.18	54.75	81.71	6.09
1384.00	1.50	273.75	31.00	1382.81	8.31 N	54.11 E	-54.11	54.74	81.27	6.69
1414.00	3.50	271.75	30.00	1412.78	8.37 N	52.80 E	-52.80	53.46	80.99	6.67
1446.00	5.62	268.25	32.00	1444.67	8.37 N	50.26 E	-50.26	50.95	80.54	6.68
1478.00	8.12	270.75	32.00	1476.44	8.34 N	46.43 E	-46.43	47.17	79.82	7.87
MD - 1493' TRIP OUT BHA #1 - TRIP IN BHA #2 (2.25 X 1.25 DB)										
1509.00	11.12	271.75	31.00	1507.00	8.45 N	41.25 E	-41.25	42.11	78.42	9.69
1540.00	14.75	271.25	31.00	1537.21	8.63 N	34.32 E	-34.32	35.39	75.88	11.72
1572.00	18.25	270.75	32.00	1567.89	8.79 N	25.23 E	-25.23	26.72	70.79	10.95
1604.00	21.87	270.75	32.00	1597.94	8.93 N	14.26 E	-14.26	16.83	57.92	11.31
1632.00	25.25	268.25	28.00	1623.60	8.84 N	3.07 E	-3.07	9.35	19.15	12.59
1664.00	28.75	267.25	32.00	1652.11	8.27 N	11.45 W	11.45	14.12	305.84	11.03

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RIO ARRIBA COUNTY, NEW MEXICO

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T AZIMUTH (DEG)	COURSE LENGTH (FT)	TOTAL VERTICAL DEPTH	T O T A L RECTANGULAR COORDINATES (FT)		VERTICAL SECTION (FT)	C L O S U R E DISTANCE (FT) AZIMUTH (DEG)		DOGLEG SEVERITY (DEG/100')
1695.00	32.87	267.25	31.00	1678.73	7.51 N	27.30 W	27.30	28.31	285.37	13.29
1727.00	36.87	267.75	32.00	1704.98	6.71 N	45.58 W	45.58	46.07	278.37	12.53
MD - 1743'										
TRIP OUT BHA #2 - TRIP IN BHA #3 (2 X 1.25 DB)										
1758.00	40.75	268.75	31.00	1729.13	6.11 N	64.99 W	64.99	65.28	275.37	12.68
1790.00	44.50	269.25	32.00	1752.67	5.74 N	86.65 W	86.65	86.84	273.79	11.77
1819.00	48.12	269.25	29.00	1772.70	5.46 N	107.62 W	107.62	107.76	272.91	12.48
1851.00	51.50	268.25	32.00	1793.35	4.93 N	132.05 W	132.05	132.15	272.14	10.83
MD - 1866'										
TRIP OUT BHA #3 - TRIP IN BHA #4 (.75 STEERABLE)										
1883.00	54.12	268.75	32.00	1812.69	4.26 N	157.54 W	157.54	157.59	271.55	8.28
1914.00	55.75	269.25	31.00	1830.50	3.82 N	182.90 W	182.90	182.94	271.20	5.42
1945.00	57.25	268.75	31.00	1847.61	3.37 N	208.75 W	208.75	208.78	270.92	5.02
1975.00	59.25	269.75	30.00	1863.39	3.03 N	234.26 W	234.26	234.28	270.74	7.24
MD - 1990'										
TRIP OUT BHA #4 - TRIP IN BHA #5 (2 X 1.25 DB)										
2006.00	61.50	267.75	31.00	1878.72	2.45 N	261.20 W	261.20	261.21	270.54	9.17
2023.00	63.25	266.75	17.00	1886.60	1.72 N	276.24 W	276.24	276.24	270.36	11.54
MD - 2025'										
SET 7 5/8" CASING, REDUCE HOLE SIZE TO 6.75"										
TRIP IN BHA #6 (1 STEERABLE)										
2037.00	64.62	266.25	14.00	1892.75	.96 N	288.79 W	288.79	288.79	270.19	10.30
2053.00	66.37	265.75	16.00	1899.39	.06 S	303.31 W	303.31	303.31	269.99	11.30
2137.00	71.87	261.75	84.00	1929.31	8.60 S	381.29 W	381.29	381.38	268.71	7.91
2153.00	72.12	261.75	16.00	1934.26	10.78 S	396.34 W	396.34	396.49	268.44	1.56
2172.00	72.37	262.25	19.00	1940.05	13.30 S	414.26 W	414.26	414.48	268.16	2.83
2179.00	72.75	262.25	7.00	1942.15	14.20 S	420.88 W	420.88	421.12	268.07	5.43
2211.00	73.50	262.75	32.00	1951.44	18.20 S	451.24 W	451.24	451.61	267.69	2.78

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MD - 2222'									
TRIP OUT BHA #6 - TRIP IN BHA #7 (.75 STEERABLE)									
2245.00	75.00	262.75	34.00	1960.67	22.33 S 483.70 W	483.70	484.22	267.36	4.41
2274.00	76.62	262.25	29.00	1967.78	26.00 S 511.57 W	511.57	512.24	267.09	5.83
2305.00	77.62	262.25	31.00	1974.69	30.07 S 541.52 W	541.52	542.35	266.82	3.23
2334.00	78.12	261.75	29.00	1980.78	34.02 S 569.59 W	569.59	570.61	266.58	2.41
2366.00	78.75	261.75	32.00	1987.20	38.52 S 600.62 W	600.62	601.85	266.33	1.97
2378.00	78.50	261.75	12.00	1989.56	40.21 S 612.26 W	612.26	613.58	266.24	2.08
2395.00	78.50	262.25	17.00	1992.95	42.52 S 628.76 W	628.76	630.20	266.13	2.88
2425.00	78.87	261.75	30.00	1998.84	46.62 S 657.89 W	657.89	659.54	265.95	2.05
MD - 2428'									
TRIP OUT FOR PDC BIT - BHA #8 THE SAME AS BHA #7									
2456.00	78.87	261.75	31.00	2004.82	50.98 S 687.99 W	687.99	689.88	265.76	0.00
2486.00	77.75	262.25	30.00	2010.90	55.07 S 717.08 W	717.08	719.20	265.61	4.07
2517.00	77.37	262.25	31.00	2017.58	59.15 S 747.08 W	747.08	749.42	265.47	1.23
2546.00	77.12	262.25	29.00	2023.98	62.97 S 775.11 W	775.11	777.66	265.36	.86
2578.00	76.87	262.75	32.00	2031.18	67.04 S 806.02 W	806.02	808.80	265.25	1.71
2607.00	76.37	262.75	29.00	2037.89	70.60 S 834.00 W	834.00	836.99	265.16	1.72
2639.00	76.62	262.75	32.00	2045.37	74.52 S 864.87 W	864.87	868.08	265.08	.78
2668.00	76.87	262.75	29.00	2052.02	78.09 S 892.87 W	892.87	896.28	265.00	.86
2698.00	76.87	262.75	30.00	2058.83	81.77 S 921.86 W	921.86	925.47	264.93	0.00
2729.00	77.37	263.75	31.00	2065.74	85.33 S 951.87 W	951.87	955.68	264.88	3.53
2760.00	76.62	262.75	31.00	2072.72	88.88 S 981.86 W	981.86	985.87	264.83	3.97
2792.00	76.75	263.25	32.00	2080.09	92.67 S 1012.77 W	1012.77	1017.00	264.77	1.57
2822.00	76.22	263.25	30.00	2087.10	96.10 S 1041.73 W	1041.73	1046.16	264.73	1.77
2852.00	76.37	262.75	30.00	2094.21	99.65 S 1070.66 W	1070.66	1075.29	264.68	1.69
2884.00	75.75	263.25	32.00	2101.91	103.44 S 1101.49 W	1101.49	1106.33	264.64	2.46
2913.00	75.50	263.25	29.00	2109.11	106.74 S 1129.39 W	1129.39	1134.42	264.60	.86
2943.00	75.12	263.25	30.00	2116.72	110.15 S 1158.20 W	1158.20	1163.43	264.57	1.27
2973.00	74.87	263.25	30.00	2124.49	113.55 S 1186.98 W	1186.98	1192.40	264.54	.83
3002.00	74.62	262.75	29.00	2132.12	116.96 S 1214.75 W	1214.75	1220.37	264.50	1.87

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3031.00	74.75	262.75	29.00	2139.78	120.49 S	1242.50 W	1242.50	1248.33	264.46	.45
3062.00	75.00	263.25	31.00	2147.87	124.14 S	1272.20 W	1272.20	1278.24	264.43	1.75
3093.00	74.75	263.25	31.00	2155.96	127.66 S	1301.92 W	1301.92	1308.16	264.40	.81
3124.00	74.62	263.75	31.00	2164.14	131.04 S	1331.63 W	1331.63	1338.06	264.38	1.61
3154.00	74.75	263.25	30.00	2172.07	134.32 S	1360.37 W	1360.37	1366.99	264.36	1.66
3185.00	75.12	263.75	31.00	2180.12	137.71 S	1390.12 W	1390.12	1396.92	264.34	1.96
3216.00	75.50	263.75	31.00	2187.99	140.97 S	1419.92 W	1419.92	1426.90	264.33	1.23
3246.00	75.37	264.25	30.00	2195.53	144.01 S	1448.80 W	1448.80	1455.94	264.32	1.67
3277.00	75.25	263.75	31.00	2203.39	147.14 S	1478.62 W	1478.62	1485.93	264.32	1.61
3308.00	75.75	263.75	31.00	2211.15	150.41 S	1508.46 W	1508.46	1515.94	264.31	1.61
3339.00	75.62	263.75	31.00	2218.82	153.68 S	1538.32 W	1538.32	1545.97	264.30	.42
3370.00	75.62	264.25	31.00	2226.52	156.82 S	1568.18 W	1568.18	1576.00	264.29	1.56
3399.00	75.50	264.25	29.00	2233.75	159.63 S	1596.12 W	1596.12	1604.09	264.29	.41
3431.00	75.25	264.75	32.00	2241.83	162.60 S	1626.94 W	1626.94	1635.05	264.29	1.70
3462.00	74.75	264.75	31.00	2249.85	165.34 S	1656.76 W	1656.76	1664.99	264.30	1.61
3493.00	74.75	264.75	31.00	2258.01	168.08 S	1686.54 W	1686.54	1694.90	264.31	0.00
3524.00	75.75	264.75	31.00	2265.90	170.82 S	1716.40 W	1716.40	1724.88	264.32	3.23
3555.00	76.00	265.25	31.00	2273.46	173.44 S	1746.34 W	1746.34	1754.94	264.33	1.76
3585.00	76.37	264.75	30.00	2280.63	175.98 S	1775.37 W	1775.37	1784.07	264.34	2.03
3615.00	76.12	264.25	30.00	2287.76	178.77 S	1804.37 W	1804.37	1813.21	264.34	1.82
3646.00	76.25	264.75	31.00	2295.16	181.66 S	1834.34 W	1834.34	1843.31	264.34	1.62
3677.00	76.12	264.75	31.00	2302.57	184.41 S	1864.31 W	1864.31	1873.41	264.35	.42
3707.00	76.00	264.75	30.00	2309.79	187.07 S	1893.31 W	1893.31	1902.53	264.36	.40
3737.00	76.00	264.25	30.00	2317.05	189.86 S	1922.28 W	1922.28	1931.64	264.36	1.62
3768.00	76.37	265.25	31.00	2324.45	192.62 S	1952.26 W	1952.26	1961.74	264.37	3.35
3799.00	76.25	264.75	31.00	2331.79	195.24 S	1982.26 W	1982.26	1991.86	264.37	1.61
3828.00	76.50	264.75	29.00	2338.62	197.82 S	2010.33 W	2010.33	2020.04	264.38	.86
3860.00	77.00	264.75	32.00	2345.95	200.67 S	2041.35 W	2041.35	2051.19	264.39	1.56
3899.00	77.25	264.75	39.00	2354.65	204.15 S	2079.21 W	2079.21	2089.20	264.39	.64
3921.00	78.37	264.75	22.00	2359.29	206.12 S	2100.62 W	2100.62	2110.71	264.40	5.09
3952.00	78.62	265.25	31.00	2365.47	208.77 S	2130.88 W	2130.88	2141.08	264.40	1.77
3981.00	79.39	264.75	29.00	2371.00	211.25 S	2159.24 W	2159.24	2169.55	264.41	3.15
4012.00	80.25	265.25	31.00	2376.48	213.91 S	2189.64 W	2189.64	2200.06	264.42	3.20

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4042.00	80.75	264.75	30.00	2381.43	216.49 S	2219.11 W	2219.11	2229.65	264.43	2.34
4073.00	80.37	264.25	31.00	2386.52	219.42 S	2249.55 W	2249.55	2260.23	264.43	2.01
4102.00	80.87	264.25	29.00	2391.25	222.28 S	2278.02 W	2278.02	2288.84	264.43	1.72
4133.00	81.75	264.75	31.00	2395.93	225.22 S	2308.52 W	2308.52	2319.48	264.43	3.26
4163.00	81.37	264.75	30.00	2400.33	227.94 S	2338.07 W	2338.07	2349.16	264.43	1.27
4194.00	82.00	264.75	31.00	2404.82	230.74 S	2368.62 W	2368.62	2379.83	264.44	2.03

THE FOLLOWING SURVEY IS A STRAIGHT LINE PROJECTION

4245.00	83.00	264.75	51.00	2411.47	235.37 S	2418.97 W	2418.97	2430.39	264.44	1.96
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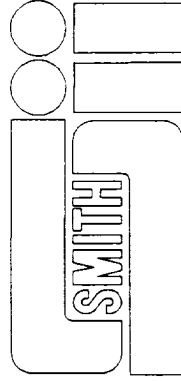
BOTTOM HOLE CLOSURE: 2430.39 Feet at 264.44 Degrees

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VERTICAL PLANE
 SCALE: 100 FEET/DIVISION

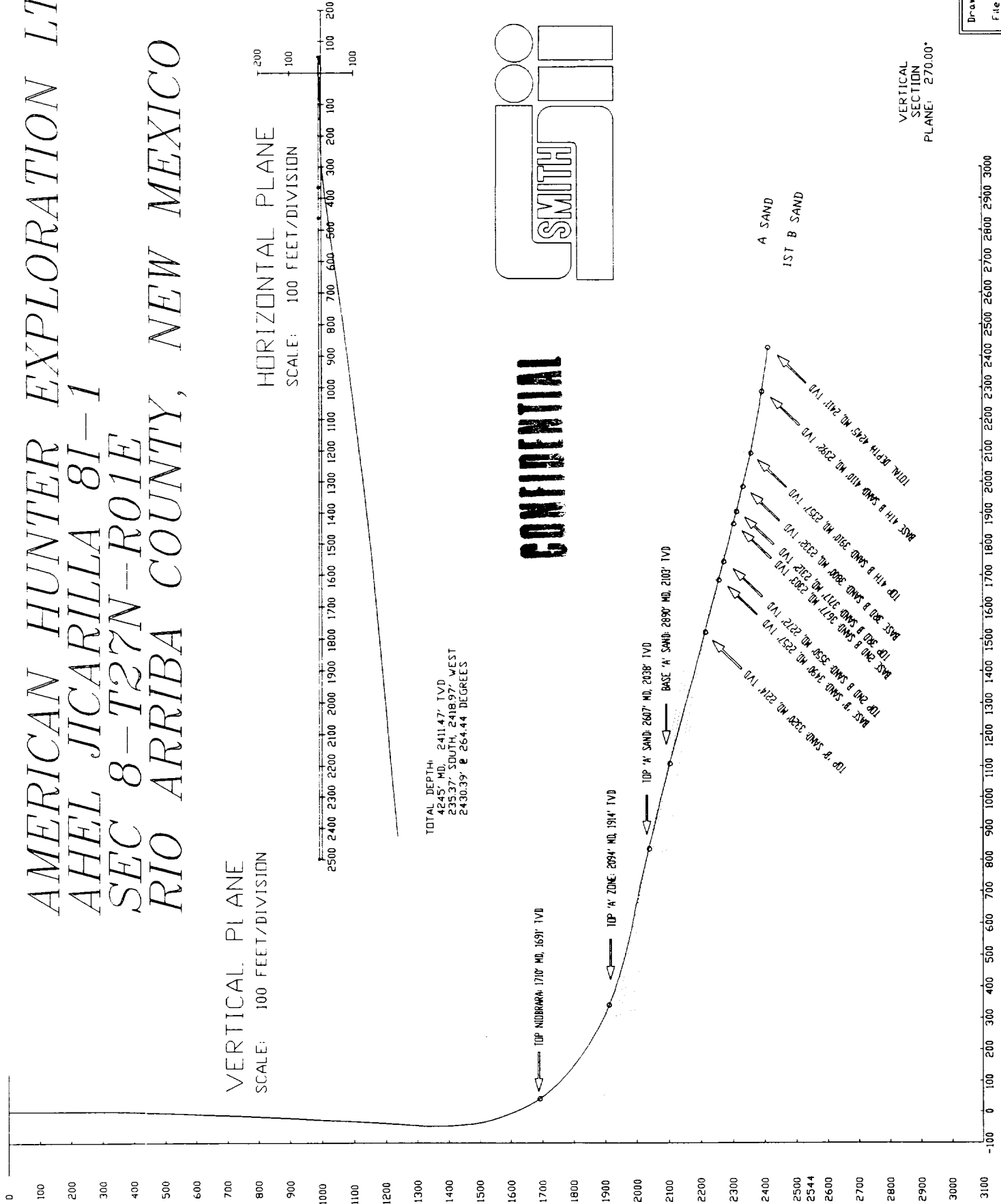
HORIZONTAL PLANE
 SCALE: 100 FEET/DIVISION

TOTAL DEPTH:
 4245' MD, 2411.47' TVD
 2353.7' SOUTH, 2418.97' WEST
 2430.39' E 264.44 DEGREES



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VERTICAL PLANE
SCALE: 100 FEET/DIVISION

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AHEL JICARILLA #81-1

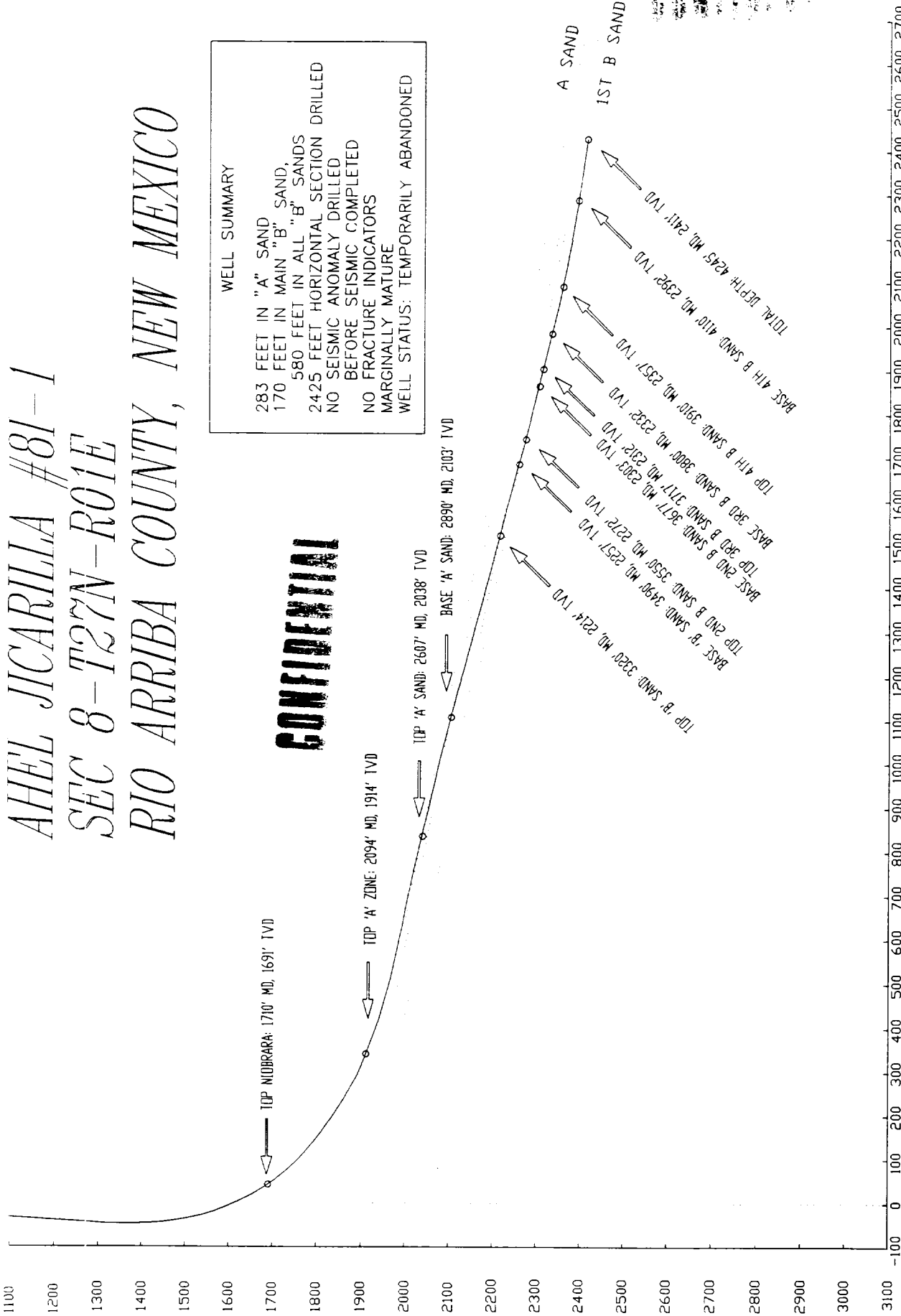
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WELL SUMMARY

283 FEET IN "A" SAND
170 FEET IN MAIN "B" SAND,
580 FEET IN ALL "B" SANDS
2425 FEET HORIZONTAL SECTION DRILLED
NO SEISMIC ANOMALY DRILLED
BEFORE SEISMIC COMPLETED
NO FRACTURE INDICATORS
MARGINALLY MATURE
WELL STATUS: TEMPORARILY ABANDONED



VERTICAL SECTION PLANE: 270.00 DEG.