

Company: READ & STEVENS, INC.

Field: Wildcat

Site: Lea County, NM

Well: Liberty 4 Federal Com. #1

Wellpath: DH - Job #32D061386

Date: 11/20/2001

Time: 15:41:51

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Co-ordinate(NE) Reference: Site: Lea County, NM, True North

Vertical (TVD) Reference: SITE 0.0 above Mean Sea Level

Section (VS) Reference: Well (0.0E,0.0N,90.0Azi)

Survey Calculation Method: Minimum Curvature

Survey	MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	ClSD ft	ClSA deg
	13086.0	6.20	86.20	13072.1	48.1	18.6	48.1	51.6	68.82
	13148.0	5.50	81.30	13133.7	54.4	19.3	54.4	57.7	70.45
	13180.0	5.00	80.50	13165.6	57.3	19.8	57.3	60.6	70.95
	13238.0	4.10	78.00	13223.4	61.8	20.6	61.8	65.1	71.55
	13269.0	3.60	81.60	13254.4	63.8	21.0	63.8	67.2	71.80
	13337.0	3.10	80.30	13322.2	67.8	21.6	67.8	71.1	72.31
	13400.0	2.40	80.70	13385.2	70.7	22.1	70.7	74.1	72.64
	13474.0	2.30	72.70	13459.1	73.7	22.8	73.7	77.1	72.80