



Job Number: 04162 State/Country: New Mexico / USA
 Company: Devon Energy Production Co. Declination: 10.92° East
 Lease/Well: NEBU #449A Grid:
 Location: San Juan County, Sec 19-31N-7W File name: C:\WINSERVE\04162.SVY
 Rig Name: D&J #1 Date/Time: 19-Mar-04 / 16:11
 RKB: Curve Name: As Drilled
 G.L. or M.S.L.: 6567'

30-045-3217g

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 164.17
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
299.00	.00	.00	299.00	.00	.00	.00	.00	.00	.00
389.00	2.20	184.50	388.98	1.62	-1.72	-.14	1.73	184.50	2.44
480.00	4.20	170.60	479.83	6.57	-6.75	.27	6.76	177.70	2.34
574.00	6.50	158.20	573.42	15.28	-15.09	2.81	15.35	169.45	2.72
667.00	10.60	162.10	665.37	29.07	-28.12	7.40	29.08	165.26	4.45
763.00	13.20	161.30	759.30	48.85	-46.91	13.63	48.85	163.80	2.71
858.00	15.70	162.30	851.28	72.53	-69.43	21.01	72.54	163.16	2.64
952.00	17.60	163.90	941.34	99.46	-95.21	28.82	99.47	163.16	2.08
1045.00	18.20	166.00	1029.84	128.03	-122.81	36.23	128.04	163.56	.95
1139.00	17.90	164.80	1119.21	157.15	-150.99	43.57	157.15	163.90	.51
1233.00	18.30	164.30	1208.56	186.35	-179.14	51.35	186.35	164.00	.46
1327.00	17.90	163.20	1297.91	215.55	-207.17	59.52	215.56	163.97	.56
1422.00	18.10	163.60	1388.26	244.91	-235.31	67.91	244.91	163.90	.25
1517.00	18.50	164.10	1478.45	274.74	-263.96	76.20	274.74	163.90	.45
1611.00	18.50	162.70	1567.60	304.56	-292.54	84.72	304.56	163.85	.47
1706.00	18.10	163.20	1657.79	334.38	-321.06	93.47	334.39	163.77	.45
1801.00	18.50	161.40	1747.99	364.19	-349.47	102.54	364.21	163.65	.73
1896.00	17.70	162.10	1838.29	393.68	-377.50	111.79	393.70	163.50	.87
1991.00	17.40	161.80	1928.87	422.30	-404.74	120.67	422.34	163.40	.33
2085.00	17.30	165.10	2018.59	450.32	-431.59	128.65	450.36	163.40	1.05
2177.00	17.00	165.10	2106.50	477.45	-457.81	135.63	477.48	163.50	.33

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
2272.00	17.50	166.70	2197.23	505.60	-485.13	142.48	505.62	163.63	.73
2367.00	17.50	165.30	2287.83	534.15	-512.85	149.39	534.17	163.76	.44
2461.00	18.30	165.80	2377.28	563.03	-540.83	156.60	563.04	163.85	.87
2555.00	18.60	165.10	2466.45	592.78	-569.62	164.07	592.78	163.93	.40
2650.00	16.40	164.10	2557.05	621.34	-597.16	171.65	621.34	163.96	2.34
2744.00	13.80	162.50	2647.79	645.82	-620.62	178.65	645.82	163.94	2.80
2838.00	12.20	166.50	2739.38	666.95	-640.97	184.34	666.96	163.95	1.95
2932.00	8.70	165.00	2831.81	683.99	-657.50	188.50	683.99	164.00	3.73
3027.00	4.50	175.70	2926.16	694.83	-668.17	190.64	694.83	164.08	4.59
3150.00	1.00	272.60	3049.03	699.22	-672.93	189.93	699.22	164.24	3.84
3186.00	.60	229.20	3085.03	699.20	-673.04	189.48	699.20	164.28	1.94
Projection To Bit									
3226.00	.16	180.98	3125.03	699.34	-673.23	189.32	699.34	164.29	1.27