



Job Number: 40004194
 Company: Pogo Production Co.
 Lease/Well: Pluma 28 State # 1
 Location: Lea County
 Rig Name: Key Energy # 310
 RKB:
 G.L. or M.S.L.:

State/Country: New Mexico / USA
 Declination: 9.1
 Grid:
 File name: C:\WINSERVE\POGO.SVY
 Date/Time: 10-Feb-00 / 11:22
 Curve Name:

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane .00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
Tie-in at surface									
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Inc.Only									
11196.00	.50	.00	11195.86	48.85	.00	48.85	48.85	.00	.00
Inc.Only									
11620.00	.25	.00	11619.85	51.63	.00	51.63	51.63	.00	.06
Inc.Only									
12152.00	1.50	.00	12151.78	59.75	.00	59.75	59.75	.00	.23
Inc.Only									
12590.00	.50	.00	12589.70	67.39	.00	67.39	67.39	.00	.23