

30-015-37190



Job Number: SVCO-110067
 Company: Yates Petroleum Corporation
 Lease/Well: LLAMA ALL FEDERAL 10H
 Location: Eddy County, NM
 Rig Name: Patriot #5
 RKB: 27'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.49°
 Grid: East To Grid
 File name: F:\SURVEY\2011SU~1\YATES\LLAMA10H.SVY
 Date/Time: 21-Jan-11 / 16:52
 Curve Name: Surface - 400' M.D. (Gyroscopic)

We hereby certify that our survey data from
 Surface MD to 400' MD is, to the best of
 our knowledge a true and accurate account of
 the well bore.
 Dana Tuttle 1/24/11
 MS Energy Services Date

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
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
200.00	.25	284.58	200.00	.11	-.42	.11	.44	284.58	.12
Last Survey Depth Recorded									
400.00	.25	238.60	400.00	-.01	-1.22	-.01	1.22	269.64	.10

