

A Gyrodata Directional Survey

for

KCS RESOURCES

Location: PATTERSON #55, EDDY COUNTY, NEW MEXICO
Well: SHUGART WEST 24 FED G #2, 4-1/2" DRILLPIPE

Job Number: MDO601GMW261

Run Date: 6/24/01 9:30:00 PM

Surveyor: Mike Shepherd Kelsey Reece

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 32.732170 deg. N

Azimuth Correction:

Gyro: Bearings are Relative to True North

Proposed Well Direction: 342.390 deg

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location