

**HORIZONTAL SURVEY PROGRAM
MINIMUM CURVATURE CALCULATIONS(SPE-3362)**

OPERATOR: TEXACO E & P, INC.						START: 8/20/97 FILE: CURVE1.V					
WELL: NORTH VACUUM ABO UNIT # 31						FINISH: 8/20/97					
LOCATION: LEA COUNTY, NEW MEXICO						INFORMATION PROVIDED BY: TEXACO E					
JOB NO: 173166						HORIZONTAL COORDINATOR: RUBESH, I					
DIP1 = 7.35 deg = 97.35 deg						DATE: 9/1/97 MAG DECLINATION					
TARGET1 = 8,768 ft TVD						9.11 EAST					
VS1 = 1,317 ft						TIME: 5:31 AM					
DIP2 = -9.85 deg = 80.15 deg						DIRECTION 224.80					
TARGET2 = 8,771 ft TVD											
VS2 = 1,431 ft											
TRUE											
SVY MEASURED		INCL	AZIMUTH	VERTICAL	VERTICAL	DLS/	CENTER				
#	DEPTH	(DRIFT)	(DIR)	DEPTH	SECTION	100	ABOVE(+)	RIGHT(+)	NORTH(+)	EAST(+)	
							BELOW(-)	LEFT(-)	SOUTH(-)	WEST(-)	
57	10285	81.5	224.7	8783.9	1524.3	2.1	3.4	18.9	-1088.3	-1087.5	
58	10318	81.2	224.5	8788.7	1556.0	1.1	4.0	18.8	-1090.8	-1109.7	
59	10350	80.1	225.2	8793.9	1587.5	4.1	4.2	18.8	-1113.2	-1132.0	
50	10381	79.2	224.0	8799.4	1618.0	4.8	3.8	18.7	-1134.9	-1153.4	
61	10413	78.5	224.7	8805.6	1649.4	3.1	2.9	18.5	-1157.4	-1175.3	
62	10445	77.7	225.0	8812.2	1680.7	2.7	1.7	18.5	-1179.6	-1197.4	
63	10476	78.4	223.8	8818.6	1711.1	4.4	0.4	18.3	-1201.2	-1218.6	
BIT	10516	80.3	225.2	8826.0	1750.4	5.9	-0.3	18.1	-1229.3	-1246.2	

TO: Scott
 TO: Mark
 From: Kirby