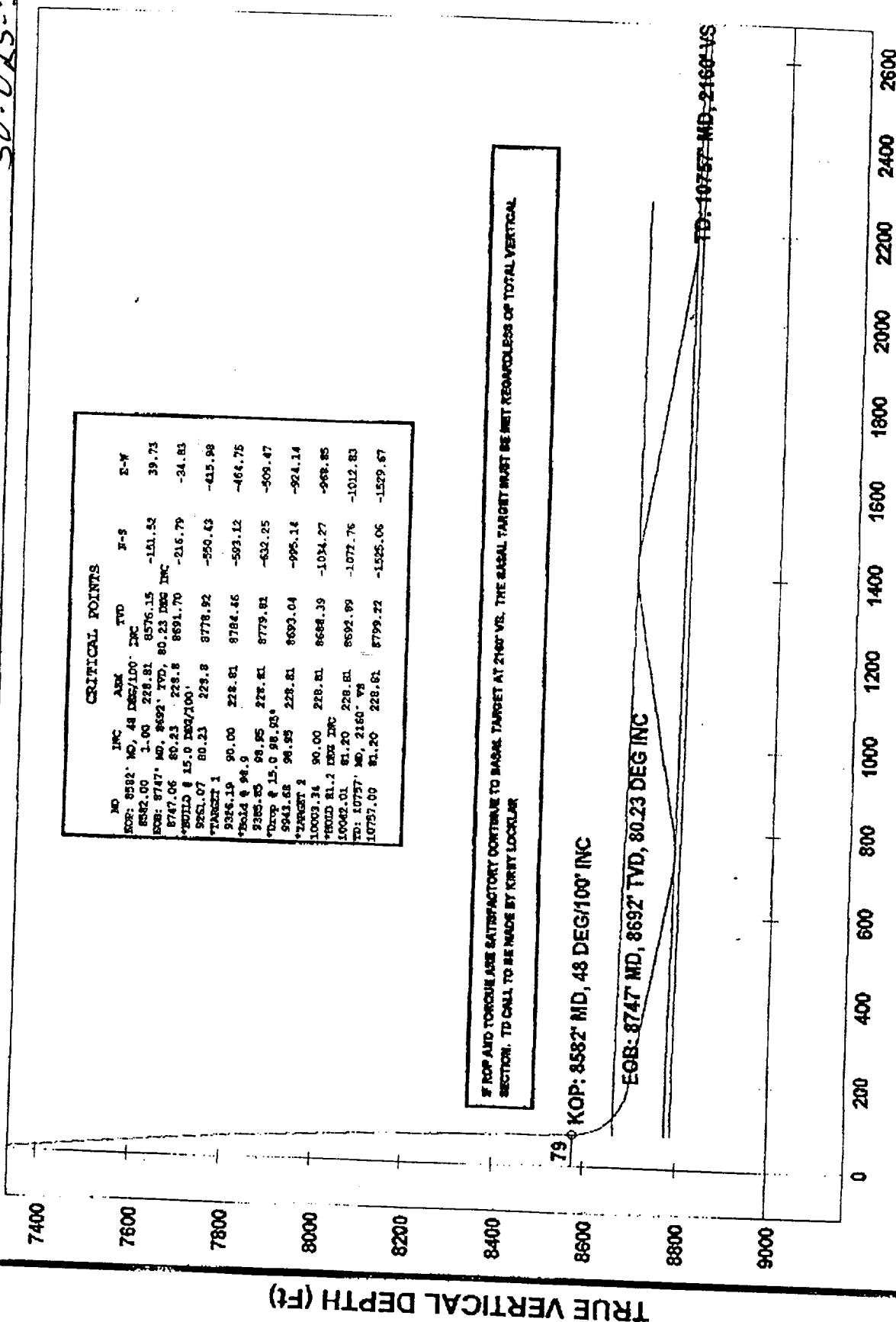


Surface	K-27-17s-34e	2080/s	2080/w
BHL	m-27-17s-34e	555/s	550/w

30-025-33638



3-3/14/87 POSSIBLE TD

VERTICAL SECTION (Ft) @ 224.81°



Job Number:

Company: TEXACO E & P, INC.

Lease/Well: NVAWU #27H

Location: LEA COUNTY, NEW MEXICO

Rig Name:

State/Country:

Declination: 9.11 DEG EAST

Grid:

File name: C:\WINSERVE\NAVU#27.SVY

Date/Time: 14-Mar-97 / 10:40

Curve Name: 3/14/97 POSSIBLE TD

Phoenix Drilling Services, Inc.

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method

Vertical Section Plane 224.81

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
5575.00	1.50	156.50	5573.00	1515.00	-40.80	70.10	-20.46	81.11	120.20	.00
5607.00	1.80	152.80	5604.99	1546.99	-41.63	70.50	-20.15	81.87	120.56	1.00
5794.00	1.60	152.80	5791.90	1733.90	-46.56	73.05	-18.45	86.63	122.51	.11
5980.00	1.60	153.30	5977.83	1919.83	-51.18	75.41	-16.84	91.14	124.16	.01
6166.00	1.80	154.70	6163.75	2105.75	-56.14	77.83	-15.02	95.96	125.80	.11
6353.00	1.80	154.70	6350.66	2292.66	-61.45	80.34	-13.02	101.15	127.41	.00
6539.00	1.60	151.10	6536.58	2478.58	-66.37	82.84	-11.30	106.15	128.70	.12
6726.00	1.80	153.30	6723.49	2665.49	-71.28	85.42	-9.64	111.25	129.84	.11
6912.00	1.40	153.90	6909.42	2851.42	-75.93	87.74	-7.97	116.03	130.87	.22
6974.00	1.40	153.30	6971.40	2913.40	-77.28	88.41	-7.48	117.43	131.16	.02
7067.00	2.10	175.10	7064.36	3006.36	-80.00	89.06	-6.02	119.72	131.93	1.03
7128.00	3.00	190.50	7125.30	3067.30	-82.68	88.87	-3.98	121.38	132.93	1.84
7250.00	4.40	205.30	7247.04	3189.04	-90.05	86.29	3.07	124.72	136.22	1.38
7309.00	4.80	205.30	7305.85	3247.85	-94.33	84.27	7.53	126.48	138.22	.68
7371.00	5.10	210.90	7367.62	3309.62	-99.04	81.74	12.65	128.41	140.46	.92

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
7433.00	5.60	221.40	7429.35	3371.35	-103.67	78.33	18.35	129.93	142.93	1.77
7503.00	6.00	227.10	7498.00	3441.00	-108.72	73.39	25.41	131.17	145.98	1.00
7658.00	5.60	227.10	7653.20	3595.20	-119.39	61.91	41.06	134.48	152.59	.26
7830.00	3.50	218.10	7824.65	3766.65	-129.23	52.52	54.67	139.50	157.88	1.29
8124.00	2.00	207.00	8118.31	4060.31	-140.87	44.66	68.46	147.77	162.41	.54
8558.00	1.00	199.50	8552.15	4494.15	-151.18	39.95	79.10	156.37	165.20	.23
KOP: 8582' MD, 48 DEG/100' INC										
8582.00	1.00	228.81	8576.15	4518.15	-151.52	39.73	79.50	156.64	165.31	2.11
8592.00	5.80	228.80	8586.13	4528.13	-151.91	39.28	80.09	156.91	165.50	48.00
8602.00	10.60	228.80	8596.02	4538.02	-152.85	38.21	81.51	157.55	165.97	48.00
8612.00	15.40	228.80	8605.77	4547.77	-154.33	36.52	83.75	158.59	166.69	48.00
8622.00	20.20	228.80	8615.28	4557.28	-156.34	34.22	86.80	160.04	167.65	48.00
8632.00	25.00	228.80	8624.51	4566.51	-158.87	31.33	90.63	161.93	168.85	48.00
8642.00	29.80	228.80	8633.39	4575.39	-161.90	27.86	95.22	164.28	170.23	48.00
8652.00	34.60	228.80	8641.85	4583.85	-165.41	23.86	100.54	167.12	171.79	48.00
8662.00	39.40	228.80	8649.83	4591.83	-169.37	19.33	106.54	170.47	173.49	48.00
8672.00	44.20	228.80	8657.29	4599.29	-173.76	14.32	113.19	174.35	175.29	48.00
8682.00	49.00	228.80	8664.15	4606.15	-178.55	8.85	120.43	178.77	177.16	48.00
8692.00	53.80	228.80	8670.39	4612.39	-183.69	2.97	128.23	183.72	179.07	48.00
8702.00	58.60	228.80	8675.95	4617.95	-189.17	-3.28	136.51	189.19	180.99	48.00
8712.00	63.40	228.80	8680.80	4622.80	-194.92	-9.86	145.24	195.17	182.90	48.00
8722.00	68.20	228.80	8684.90	4626.90	-200.93	-16.72	154.33	201.63	184.76	48.00
8732.00	73.00	228.80	8688.22	4630.22	-207.14	-23.82	163.74	208.51	186.56	48.00
8742.00	77.80	228.80	8690.74	4632.74	-213.51	-31.09	173.39	215.77	188.29	48.00
EOB: 8747' MD, 8692' TVD, 80.23 DEG INC										
8747.06	80.23	228.80	8691.70	4633.70	-216.79	-34.83	178.35	219.57	189.13	48.00
8847.06	80.23	228.80	8708.67	4650.67	-281.70	-108.99	276.66	302.05	201.15	.00
8947.06	80.23	228.80	8725.84	4667.84	-346.61	-183.14	374.97	392.02	207.85	.00
9047.06	80.23	228.80	8742.61	4684.61	-411.52	-257.29	473.28	485.33	212.01	.00
9147.06	80.23	228.80	8759.58	4701.58	-476.43	-331.44	571.59	580.38	214.83	.00
9247.06	80.23	228.80	8776.55	4718.55	-541.34	-405.60	669.90	676.43	216.84	.00

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
BUILD @ 15.0 DEG/100'										
9261.07	80.23	228.80	8778.92	4720.92	-550.43	-415.98	683.67	689.94	217.08	.00
9271.07	81.73	228.80	8780.49	4722.49	-556.94	-423.41	693.52	699.61	217.24	15.00
9281.07	83.23	228.81	8781.80	4723.80	-563.47	-430.87	703.41	709.33	217.40	15.00
9291.07	84.73	228.81	8782.85	4724.85	-570.02	-438.35	713.33	719.08	217.56	15.00
9301.07	86.23	228.81	8783.64	4725.64	-576.58	-445.85	723.27	728.86	217.71	15.00
9311.07	87.73	228.81	8784.16	4726.16	-583.16	-453.37	733.24	738.66	217.86	15.00
9321.07	89.23	228.81	8784.43	4726.43	-589.74	-460.89	743.21	748.48	218.01	15.00
TARGET 1										
9326.19	90.00	228.81	8784.46	4726.46	-593.12	-464.75	748.32	753.51	218.08	15.00
9336.19	91.50	228.81	8784.33	4726.33	-599.70	-472.27	758.29	763.34	218.22	15.00
9346.19	93.00	228.81	8783.94	4725.94	-606.28	-479.79	768.26	773.16	218.36	15.00
9356.19	94.50	228.81	8783.28	4725.28	-612.85	-487.30	778.22	782.98	218.48	15.00
9366.19	96.00	228.81	8782.37	4724.37	-619.41	-494.80	788.15	792.77	218.62	15.00
9376.19	97.50	228.81	8781.19	4723.19	-625.95	-502.27	798.06	802.55	218.74	15.00
Hold @ 98.9										
9385.85	98.95	228.81	8779.81	4721.81	-632.25	-509.47	807.60	811.97	218.86	15.00
9485.85	98.95	228.81	8764.26	4706.26	-697.30	-583.80	906.14	909.43	219.94	.00
9585.85	98.95	228.81	8748.70	4690.70	-762.36	-658.14	1004.68	1007.14	220.80	.00
9685.85	98.95	228.81	8733.15	4675.15	-827.41	-732.48	1103.22	1105.05	221.52	.00
9785.85	98.95	228.81	8717.59	4659.59	-892.47	-806.81	1201.77	1203.10	222.11	.00
9885.85	98.95	228.81	8702.03	4644.03	-957.52	-881.15	1300.31	1301.26	222.62	.00
Drop @ 15.0 98.95°										
9943.68	98.95	228.81	8693.04	4635.04	-995.14	-924.14	1357.29	1358.06	222.88	.00
9943.76	98.94	228.81	8693.03	4635.03	-995.19	-924.20	1357.37	1358.14	222.88	15.00
9953.34	97.50	228.81	8691.66	4633.66	-1001.43	-931.33	1366.83	1367.57	222.92	15.00
9963.34	96.00	228.81	8690.48	4632.48	-1007.97	-938.80	1376.74	1377.45	222.97	15.00
9973.34	94.50	228.81	8689.57	4631.57	-1014.53	-946.30	1386.67	1387.36	223.01	15.00
9983.34	93.00	228.81	8688.91	4630.91	-1021.10	-953.81	1396.62	1397.28	223.05	15.00
9993.34	91.50	228.81	8688.52	4630.52	-1027.68	-961.33	1406.59	1407.23	223.09	15.00

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
TARGET 2										
10003.34	90.00	228.81	8688.39	4630.39	-1034.27	-968.85	1416.57	1417.17	223.13	15.00
10013.34	88.50	228.81	8688.52	4630.52	-1040.85	-976.38	1426.54	1427.12	223.17	15.00
10023.34	87.00	228.81	8688.91	4630.91	-1047.43	-983.89	1436.51	1437.07	223.21	15.00
10033.34	85.50	228.81	8689.57	4631.57	-1054.01	-991.40	1446.46	1447.00	223.25	15.00
10043.34	84.00	228.81	8690.48	4632.48	-1060.56	-998.90	1456.40	1456.91	223.28	15.00
10053.34	82.50	228.81	8691.68	4633.68	-1067.10	-1006.37	1466.30	1466.80	223.32	15.00
HOLD 81.2 DEG INC										
10062.01	81.20	228.81	8692.89	4634.89	-1072.76	-1012.83	1474.86	1475.34	223.35	15.00
10162.01	81.20	228.81	8708.19	4650.19	-1137.84	-1087.20	1573.45	1573.74	223.70	.00
10262.01	81.20	228.81	8723.49	4665.49	-1202.92	-1161.56	1672.03	1672.20	224.00	.00
10362.01	81.20	228.81	8738.79	4680.79	-1268.00	-1235.93	1770.81	1770.69	224.27	.00
10462.01	81.20	228.81	8754.09	4696.09	-1333.08	-1310.30	1869.18	1869.22	224.51	.00
10562.01	81.20	228.81	8769.38	4711.38	-1398.16	-1384.66	1967.77	1967.78	224.72	.00
10662.01	81.20	228.81	8784.68	4726.68	-1463.24	-1459.03	2066.35	2066.36	224.92	.00
TD: 10757' MD, 2160' VS										
10757.00	81.20	228.81	8799.22	4741.22	-1525.06	-1529.67	2160.00	2160.02	225.09	.00

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true verticle depths shall be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

T. Anhy	1563'	T. Canyon
T. Salt	1672'	T. Strawn
B. Salt	2693'	T. Atoka
T. Yates	2884'	T. Miss
T. 7 Rivers	3203'	T. Devonian
T. Queen	3820'	T. Silurian
T. Grayburg	4178'	T. Montoya
T. San Andres	4574'	T. Simpson
T. Glorieta	6091'	T. McKee
T. Paddock	6210'	T. Ellenburger
T. Blinebry	6542'	T. Gr. Wash
T. Tubb	7492'	T. Delaware Sand
T. Drinkard	7726'	T. Bone Springs
T. Abo	8224'	T.
T. Wolfcamp		T.
T. Penn		T.
T. Cisco (Bough C)		T.

Northwestern New Mexico

T. Ojo Alamo	T. Penn "B"
T. Kirtland-Fruitland	T. Penn "C"
T. Pictured Cliffs	T. Penn "D"
T. Cliff House	T. Leadville
T. Menefee	T. Madison
T. Point Lookout	T. Elbert
T. Mancos	T. McCracken
T. Gallup	T. Ignacio Otzte
T. Base Greenhorn	T. Granite
T. Dakota	T.
T. Morrison	T.
T. Todilto	T.
T. Entrada	T.
T. Wingate	T.
T. Chinle	T.
T. Permian	T.
T. Penn "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, from 8650' to 8850'

No. 2, from to

No. 3, from to

No. 4, from to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in the hole.

No. 1, from to feet

No. 2, from to feet

No. 3, from to feet

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology	From	To	Thickness in Feet	Lithology
	1585'	1585'	SS, SHALE				
585'	1695'	110'	ANHYDRITE				
695'	2700'	1005'	SALT				
700'	2870'	170'	DOLOMITE, ANHYDRITE				
870'	4475'	1605'	DOL, ANHY, SS				
175'	8175'	3700'	DOL, SS, LS				
75'	8850'	675'	DOL, LS, SHALE				