



Job Number: P98-118

Company: Netherland, Sewell & Associates, Inc.

Lease/Well: 25-24D Maxedon

Location: Cunningham Gas Storage Field

Rig Name: Pratt Well Services

RKB: 1703'

G.L. or M.S.L.: 1690'

State/Country: Platt/Kingman Counties, Kansas

Declination: 6.56° East (est.)

Grid: Assumed True

File name: D:\98110\SP98118\MAX2524D.SVY

Date/Time: 15-Sep-98 / 00:38

Curve Name: Diamondback Surveys

CONSERVATION DIVISION
Wichita, Kansas

RECEIVED
SCALE CORPORATION COMPANY

DEC 7 1998

Phoenix Drilling Services, Inc.

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method

Vertical Section Plane 129.58

Vertical Section Referenced to Wellhead

Rectangular Coordinates Referenced to Wellhead

COPY

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
Interpolated from Single Shot Survey									
3798.00	31.25	129.00	3686.70	-509.08	424.83	651.80	663.06	140.15	.00
3812.00	35.70	152.00	3698.42	-515.00	429.60	659.24	670.65	140.17	95.46
3844.00	40.80	132.30	3723.63	-530.35	441.77	678.40	690.23	140.21	41.14
3875.00	40.90	129.50	3747.08	-543.62	457.09	698.66	710.25	139.94	5.92
3906.00	41.20	129.90	3770.46	-556.62	472.75	719.02	730.29	139.66	1.29
3938.00	44.00	131.00	3794.02	-570.68	489.23	740.68	751.68	139.39	9.05
3969.00	46.10	130.20	3815.92	-584.95	505.89	762.61	773.36	139.15	7.02
4001.00	47.40	129.30	3837.84	-599.85	523.81	785.92	796.37	138.87	4.55
4026.00	57.70	130.70	3853.02	-612.61	538.98	805.74	815.96	138.66	41.44
4032.00	49.10	129.10	3856.60	-615.70	542.67	810.55	820.71	138.61	144.92

DEC Vertical

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Section CONSERVATION DIVISION	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
4064.00	52.90	129.00	3876.73	-631.36	561.98	835.41 Wichita, Kansas	845.24	138.33	11.88
4095.00	57.90	130.50	3894.33	-647.68	581.58	860.92	870.48	138.08	16.61
4157.00	59.30	130.20	3926.63	-681.94	621.91	913.83	922.94	137.64	2.30
4188.00	61.50	129.50	3941.94	-699.21	642.61	940.79	949.65	137.42	7.36
4219.00	62.40	129.80	3956.52	-716.67	663.67	968.14	976.77	137.20	3.03
4250.00	65.00	128.90	3970.26	-734.28	685.16	995.93	1004.30	136.98	8.78
4281.00	69.10	129.80	3982.34	-752.38	707.23	1024.47	1032.60	136.77	13.49
4312.00	74.50	128.50	3992.02	-770.96	730.06	1053.91	1061.78	136.56	17.87
4344.00	80.70	126.60	3998.89	-790.00	754.83	1085.13	1092.64	136.30	20.22
4375.00	82.80	126.40	4003.34	-808.24	779.49	1115.76	1122.88	136.04	6.80
4407.00	83.80	125.00	4007.07	-826.79	805.30	1147.47	1154.16	135.75	5.35
4438.00	84.90	124.00	4010.12	-844.26	830.72	1178.19	1184.43	135.46	4.78
4470.00	84.80	124.10	4012.99	-862.11	857.13	1209.92	1215.69	135.17	.44
4502.00	86.20	124.30	4015.51	-880.04	883.51	1241.68	1247.02	134.89	4.42
4533.00	88.30	124.10	4016.99	-897.44	909.12	1272.50	1277.46	134.63	6.80
4565.00	88.20	124.30	4017.97	-915.42	935.58	1304.35	1308.93	134.38	.70
4596.00	88.80	124.80	4018.78	-932.99	961.10	1335.22	1339.47	134.15	2.52
4628.00	88.60	124.60	4019.51	-951.21	987.40	1367.09	1371.04	133.93	.88
4659.00	86.80	123.30	4020.75	-968.50	1013.09	1397.91	1401.56	133.71	7.16
4690.00	86.50	123.30	4022.56	-985.49	1038.96	1428.68	1432.00	133.49	.97
4721.00	86.50	123.30	4024.46	-1002.48	1064.82	1459.43	1462.47	133.27	.00
4752.00	87.00	123.80	4026.21	-1019.59	1090.62	1490.21	1492.98	133.07	2.28
4784.00	86.70	123.80	4027.97	-1037.36	1117.17	1522.00	1524.53	132.88	.94
4815.00	87.70	124.40	4029.49	-1054.72	1142.81	1552.82	1555.13	132.70	3.76
4847.00	89.10	124.40	4030.38	-1072.79	1169.20	1584.68	1586.79	132.54	4.37
4879.00	88.90	124.60	4030.94	-1090.91	1195.57	1616.55	1618.48	132.38	.88
4910.00	88.90	123.80	4031.53	-1108.34	1221.20	1647.40	1649.16	132.23	2.58
4942.00	89.30	123.40	4032.04	-1126.04	1247.85	1679.23	1680.80	132.06	1.77
4973.00	88.80	123.40	4032.55	-1143.10	1273.73	1710.04	1711.45	131.91	1.61
4991.00	87.90	123.40	4033.07	-1153.01	1288.75	1727.93	1729.25	131.82	5.00

COPY

Projected Survey to TD

5023.00	87.90	123.40	4034.24	-1170.61	1315.45	1759.72	1760.89	131.67	.00
---------	-------	--------	---------	----------	---------	---------	---------	--------	-----