



Job Number: 12218
Company: Unit Petroleum
Lease/Well: Shultz Trust 15 #1H
Location: Reno County
Rig Name: Unit 331
RKB: 14
G.L. or M.S.L.: 1671

State/Country: Kansas
Declination: 4.70
Grid: -0.10
File name: P:\SURVEYS\UNIT\12218R6.SVY
Date/Time: 10-Dec-12 / 07:39
Curve Name: As Drilled

Inwell Inc

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 180.00
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

<i>Measured Depth FT</i>	<i>Incl Angle Deg</i>	<i>Drift Direction Deg</i>	<i>True Vertical Depth</i>	<i>N-S FT</i>	<i>E-W FT</i>	<i>Vertical Section FT</i>	<i>Dogleg Severity Deg/100</i>
2950.00	.26	7.56	2949.32	9.20	-39.71	-9.20	.00
3032.00	.40	352.10	3031.32	9.67	-39.72	-9.67	.20
3096.00	.50	344.50	3095.32	10.16	-39.83	-10.16	.18
3128.00	.60	3.30	3127.32	10.46	-39.86	-10.46	.64
3160.00	.70	356.50	3159.31	10.82	-39.86	-10.82	.39
3191.00	.70	347.00	3190.31	11.20	-39.91	-11.20	.37
3223.00	.20	313.30	3222.31	11.42	-40.00	-11.42	1.70
3255.00	2.20	183.70	3254.30	10.85	-40.08	-10.85	7.29
3286.00	5.20	177.60	3285.23	8.85	-40.06	-8.85	9.75
3318.00	8.10	178.50	3317.02	5.15	-39.94	-5.15	9.07
3349.00	11.20	179.50	3347.57	-.05	-39.86	.05	10.01
3381.00	14.40	178.30	3378.77	-7.13	-39.71	7.13	10.03
3413.00	17.90	176.50	3409.51	-16.02	-39.29	16.02	11.05

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100
3444.00	21.30	175.70	3438.71	-26.39	-38.58	26.39	11.00
3476.00	24.40	176.80	3468.19	-38.79	-37.77	38.79	9.78
3507.00	27.70	176.50	3496.04	-52.38	-36.98	52.38	10.65
3539.00	31.00	176.10	3523.93	-68.03	-35.96	68.03	10.33
3571.00	33.70	176.00	3550.96	-85.11	-34.78	85.11	8.44
3603.00	36.60	176.00	3577.12	-103.49	-33.50	103.49	9.06
3635.00	39.90	176.20	3602.25	-123.25	-32.15	123.25	10.32
3667.00	42.40	176.10	3626.34	-144.26	-30.74	144.26	7.82
3699.00	44.80	176.20	3649.51	-166.27	-29.26	166.27	7.50
3730.00	47.90	176.20	3670.91	-188.65	-27.77	188.65	10.00
3762.00	49.40	176.50	3692.05	-212.62	-26.24	212.62	4.74
3794.00	49.80	176.50	3712.79	-236.95	-24.75	236.95	1.25
3826.00	50.70	176.20	3733.25	-261.50	-23.19	261.50	2.90
3858.00	51.00	176.10	3753.45	-286.26	-21.52	286.26	.97
3889.00	51.20	176.10	3772.92	-310.33	-19.88	310.33	.65
3921.00	52.60	175.70	3792.66	-335.45	-18.08	335.45	4.48
3953.00	56.60	175.30	3811.20	-361.45	-16.03	361.45	12.54
3984.00	60.60	175.20	3827.35	-387.81	-13.84	387.81	12.91
4016.00	63.00	175.50	3842.47	-415.92	-11.55	415.92	7.55
4048.00	65.50	176.00	3856.37	-444.66	-9.42	444.66	7.94
4080.00	69.30	176.50	3868.66	-474.13	-7.49	474.13	11.96
4111.00	73.20	176.30	3878.63	-503.42	-5.64	503.42	12.60
4143.00	77.40	176.10	3886.74	-534.30	-3.59	534.30	13.14
4175.00	80.40	175.90	3892.90	-565.62	-1.40	565.62	9.40
4206.00	84.10	176.00	3897.08	-596.26	.77	596.26	11.94
4233.00	86.40	176.00	3899.32	-623.10	2.64	623.10	8.52
4264.00	87.70	176.20	3900.91	-653.98	4.75	653.98	4.24
4295.00	87.80	176.50	3902.13	-684.90	6.72	684.90	1.02
4325.00	89.90	176.30	3902.73	-714.83	8.60	714.83	7.03
4355.00	90.60	176.40	3902.60	-744.77	10.51	744.77	2.36
4385.00	90.60	176.30	3902.29	-774.70	12.42	774.70	.33
4415.00	90.90	176.10	3901.90	-804.64	14.41	804.64	1.20
4446.00	91.20	176.10	3901.33	-835.56	16.52	835.56	.97
4477.00	91.50	176.20	3900.60	-866.48	18.60	866.48	1.02

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100
4508.00	90.70	176.10	3900.00	-897.40	20.68	897.40	2.60
4540.00	90.70	175.90	3899.61	-929.32	22.91	929.32	.62
4603.00	89.30	174.90	3899.61	-992.12	27.97	992.12	2.73
4663.00	89.80	175.00	3900.08	-1051.88	33.25	1051.88	.85
4724.00	90.30	174.40	3900.03	-1112.62	38.88	1112.62	1.28
4787.00	90.50	174.40	3899.59	-1175.32	45.03	1175.32	.32
4849.00	90.80	173.90	3898.89	-1236.99	51.35	1236.99	.94
4911.00	90.90	173.80	3897.97	-1298.63	57.99	1298.63	.23
4972.00	91.30	173.30	3896.80	-1359.23	64.84	1359.23	1.05
5038.00	90.80	173.00	3895.59	-1424.75	72.71	1424.75	.88
5096.00	91.70	173.20	3894.32	-1482.32	79.68	1482.32	1.59
5158.00	90.50	173.60	3893.13	-1543.89	86.80	1543.89	2.04
5220.00	91.30	173.80	3892.16	-1605.51	93.60	1605.51	1.33
5282.00	90.60	174.10	3891.13	-1667.16	100.14	1667.16	1.23
5344.00	91.10	173.80	3890.21	-1728.80	106.67	1728.80	.94
5407.00	90.50	174.70	3889.33	-1791.48	112.98	1791.48	1.72
5469.00	91.30	174.40	3888.36	-1853.19	118.87	1853.19	1.38
5531.00	89.90	175.00	3887.71	-1914.92	124.60	1914.92	2.46
5593.00	90.30	174.80	3887.60	-1976.67	130.11	1976.67	.72
5657.00	90.60	174.80	3887.10	-2040.41	135.91	2040.41	.47
5720.00	90.40	175.30	3886.55	-2103.17	141.35	2103.17	.85
5783.00	90.40	175.40	3886.11	-2165.96	146.45	2165.96	.16
5846.00	90.30	174.90	3885.72	-2228.74	151.78	2228.74	.81
5909.00	89.90	175.30	3885.61	-2291.51	157.16	2291.51	.90
5972.00	90.60	175.40	3885.34	-2354.30	162.27	2354.30	1.12
6036.00	90.80	175.20	3884.55	-2418.08	167.51	2418.08	.44
6099.00	91.00	175.40	3883.56	-2480.86	172.67	2480.86	.45
6162.00	91.40	175.40	3882.25	-2543.64	177.72	2543.64	.63
6226.00	90.80	175.90	3881.02	-2607.44	182.58	2607.44	1.22
6288.00	90.70	175.60	3880.21	-2669.27	187.17	2669.27	.51
6352.00	90.30	175.10	3879.65	-2733.05	192.36	2733.05	1.00
6414.00	91.10	175.30	3878.89	-2794.83	197.55	2794.83	1.33
6477.00	90.50	174.80	3878.01	-2857.59	202.98	2857.59	1.24
6540.00	90.20	174.20	3877.62	-2920.30	209.02	2920.30	1.06

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100
6605.00	91.10	173.50	3876.89	-2984.92	215.98	2984.92	1.75
6669.00	91.30	173.50	3875.55	-3048.49	223.23	3048.49	.31
6732.00	90.90	173.20	3874.34	-3111.06	230.52	3111.06	.79
6795.00	89.10	173.20	3874.34	-3173.61	237.98	3173.61	2.86
6858.00	89.10	173.50	3875.33	-3236.18	245.28	3236.18	.48
6922.00	88.50	173.20	3876.67	-3299.74	252.69	3299.74	1.05
6985.00	88.20	173.30	3878.48	-3362.27	260.09	3362.27	.50
7047.00	88.50	173.00	3880.27	-3423.81	267.48	3423.81	.68
7110.00	88.50	173.50	3881.92	-3486.35	274.88	3486.35	.79
7173.00	88.70	173.40	3883.46	-3548.92	282.07	3548.92	.35
7236.00	88.80	173.30	3884.83	-3611.48	289.36	3611.48	.22
7299.00	89.00	173.60	3886.04	-3674.06	296.54	3674.06	.57
7362.00	90.00	173.20	3886.59	-3736.63	303.78	3736.63	1.71
7425.00	89.70	173.00	3886.75	-3799.18	311.35	3799.18	.57
7487.00	90.00	172.90	3886.92	-3860.71	318.96	3860.71	.51
7551.00	90.40	172.50	3886.69	-3924.19	327.10	3924.19	.88
7614.00	90.20	172.70	3886.36	-3986.66	335.21	3986.66	.45
7678.00	90.80	172.10	3885.80	-4050.10	343.67	4050.10	1.33
7740.00	90.60	171.70	3885.05	-4111.48	352.41	4111.48	.72
7803.00	90.40	171.10	3884.50	-4173.76	361.83	4173.76	1.00
7865.00	90.70	170.80	3883.90	-4234.99	371.58	4234.99	.68
7929.00	90.00	171.10	3883.51	-4298.19	381.65	4298.19	1.19
7991.00	90.40	170.80	3883.29	-4359.42	391.40	4359.42	.81
8055.00	90.50	170.50	3882.79	-4422.57	401.80	4422.57	.49
8117.00	90.80	170.80	3882.09	-4483.74	411.87	4483.74	.68
8180.00	90.90	170.10	3881.15	-4545.86	422.32	4545.86	1.12
8243.00	90.10	169.90	3880.60	-4607.90	433.26	4607.90	1.31
8277.00	90.30	169.30	3880.49	-4641.34	439.40	4641.34	1.86
Projected to TD @ 8325' MD							
8325.00	90.30	169.30	3880.23	-4688.50	448.31	4688.50	.00