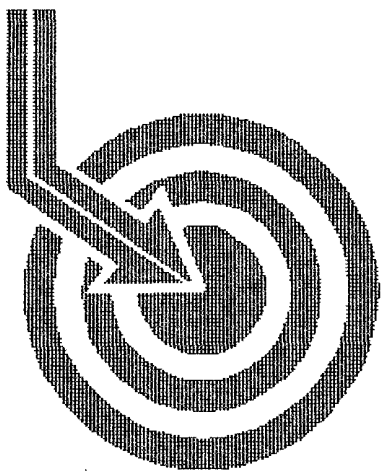




Scientific Drilling

RECEIVED

AUG 31 2010

HOBBSOCD

MANZANO OIL CORP.

Field: Bagley Permo Penn, N.
Site: Lea County, NM
Well: Lobo 31 State #1H
Wellpath: VH - Job #32K0410273
Survey: 04/19/10

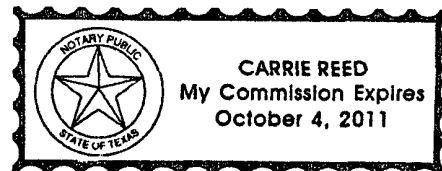
SUR: A-31-10s-33e, 400/N & 200/E
BHL: D-31-10s-33e, 490/N & 4565/E
API # 30-025-39630

This survey is correct to the best of my knowledge and is supported by actual field data.

R. Wharton
Company Representative

Notarized this date 6th of May, 2010.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International, Inc.

Survey Report

Company: MANZANO OIL CORP.
Field: Bagley Permo Penn, N.
Site: Lea County, NM
Well: Lobo 31 State #1H
Wellpath: VH - Job #32K0410273

Date: 4/22/2010 Time: 11:19:31 Page: 1
Co-ordinate(NE) Reference: Site: Lea County, NM, True North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,270.00Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 04/19/10
KSRG 0'-7986'
Company: Scientific Drilling Internatio
Tool: Keeper, Keeper Gyro

Start Date: 4/19/2010
Engineer: Guebara/Madrid/Renteria
Tied-to: From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.14	274.80	100.0	0.1	0.0	-0.1	0.14	0.1	274.80
200.0	0.09	290.93	200.0	0.3	0.0	-0.3	0.06	0.3	278.70
300.0	0.17	208.71	300.0	0.5	-0.1	-0.5	0.18	0.5	263.38
400.0	0.16	70.31	400.0	0.4	-0.1	-0.4	0.31	0.4	251.20
500.0	0.31	246.23	500.0	0.5	-0.2	-0.5	0.47	0.6	249.00
600.0	0.27	287.39	600.0	1.0	-0.2	-1.0	0.21	1.0	256.52
700.0	0.37	290.64	700.0	1.5	-0.1	-1.5	0.10	1.5	268.00
800.0	0.35	288.09	800.0	2.1	0.2	-2.1	0.03	2.1	274.22
900.0	0.32	292.67	900.0	2.7	0.4	-2.7	0.04	2.7	277.68
1000.0	0.34	295.16	1000.0	3.2	0.6	-3.2	0.02	3.2	280.53
1100.0	0.30	300.26	1100.0	3.7	0.8	-3.7	0.05	3.8	283.01
1200.0	0.19	279.46	1200.0	4.1	1.0	-4.1	0.14	4.2	283.93
1300.0	0.26	253.38	1300.0	4.4	1.0	-4.4	0.12	4.6	282.32
1400.0	0.41	237.54	1400.0	5.0	0.7	-5.0	0.17	5.0	278.18
1500.0	0.39	201.31	1500.0	5.4	0.2	-5.4	0.25	5.4	272.18
1600.0	0.13	233.10	1600.0	5.6	-0.2	-5.6	0.29	5.6	268.16
1700.0	0.31	242.02	1700.0	5.9	-0.4	-5.9	0.18	5.9	266.39
1800.0	0.34	196.00	1800.0	6.3	-0.8	-6.3	0.26	6.3	262.83
1900.0	0.07	159.68	1900.0	6.3	-1.1	-6.3	0.29	6.4	259.87
2000.0	0.30	197.79	2000.0	6.4	-1.4	-6.4	0.25	6.5	257.31
2100.0	0.26	67.63	2100.0	6.2	-1.6	-6.2	0.51	6.4	255.65
2200.0	0.14	44.01	2200.0	6.0	-1.4	-6.0	0.14	6.1	256.54
2300.0	0.65	72.77	2300.0	5.3	-1.2	-5.3	0.53	5.5	257.62
2400.0	1.01	58.75	2400.0	4.0	-0.5	-4.0	0.41	4.1	262.32
2500.0	0.94	75.39	2500.0	2.5	0.1	-2.5	0.29	2.5	272.78
2600.0	1.20	74.45	2599.9	0.7	0.6	-0.7	0.26	0.9	311.74
2700.0	1.04	73.68	2699.9	-1.2	1.1	1.2	0.16	1.7	46.33
2800.0	1.25	70.56	2799.9	-3.1	1.8	3.1	0.22	3.6	60.37
2900.0	1.39	78.19	2899.9	-5.3	2.4	5.3	0.22	5.8	65.93
3000.0	1.32	83.73	2999.8	-7.6	2.7	7.6	0.15	8.1	70.24
3100.0	1.20	80.72	3099.8	-9.8	3.0	9.8	0.14	10.3	72.80
3200.0	1.06	69.48	3199.8	-11.7	3.5	11.7	0.26	12.2	73.22
3300.0	1.13	74.12	3299.8	-13.5	4.1	13.5	0.11	14.2	73.04
3400.0	0.78	90.20	3399.8	-15.2	4.4	15.2	0.44	15.8	73.84
3500.0	0.72	65.12	3499.8	-16.4	4.7	16.4	0.33	17.1	74.16
3600.0	0.63	95.43	3599.7	-17.5	4.9	17.5	0.36	18.2	74.48
3700.0	0.70	98.41	3699.7	-18.7	4.7	18.7	0.08	19.3	75.80
3800.0	0.53	94.29	3799.7	-19.8	4.6	19.8	0.18	20.3	76.88
3900.0	0.68	85.75	3899.7	-20.8	4.6	20.8	0.17	21.3	77.49
4000.0	0.48	73.99	3999.7	-21.8	4.8	21.8	0.23	22.3	77.65
4100.0	0.46	72.88	4099.7	-22.6	5.0	22.6	0.02	23.1	77.50
4200.0	0.47	74.68	4199.7	-23.4	5.2	23.4	0.02	23.9	77.37
4300.0	0.40	88.37	4299.7	-24.1	5.4	24.1	0.12	24.7	77.48
4400.0	0.21	38.98	4399.7	-24.6	5.5	24.6	0.31	25.2	77.37
4500.0	0.54	66.31	4499.7	-25.1	5.8	25.1	0.37	25.8	76.92
4600.0	0.33	73.86	4599.7	-25.8	6.1	25.8	0.22	26.5	76.70
4700.0	0.43	31.68	4699.7	-26.3	6.5	26.3	0.29	27.1	76.11
4800.0	0.29	56.01	4799.7	-26.7	7.0	26.7	0.20	27.6	75.38



Scientific Drilling International, Inc.

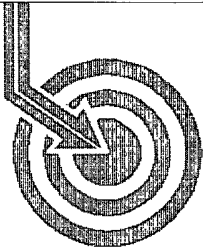
Survey Report

Company: MANZANO OIL CORP.
 Field: Bagley Permo Penn, N.
 Site: Lea County, NM
 Well: Lobo 31 State #1H
 Wellpath: VH - Job #32K0410273

Date: 4/22/2010 Time: 11:19:31 Page: 2
 Co-ordinate(N/E) Reference: Site: Lea County, NM, True North
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,270.00Azi)
 Survey Calculation Method: Minimum Curvature Db: Sybase

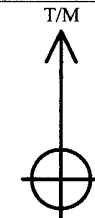
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.0	0.28	16.24	4899.7	-27.0	7.3	27.0	0.19	28.0	74.78
5000.0	0.09	24.87	4999.7	-27.1	7.6	27.1	0.19	28.1	74.23
5100.0	0.26	328.01	5099.7	-27.0	7.9	27.0	0.22	28.1	73.67
5200.0	0.07	333.09	5199.7	-26.9	8.2	26.9	0.19	28.1	73.10
5300.0	0.29	246.81	5299.7	-26.6	8.1	26.6	0.29	27.8	73.03
5400.0	0.02	14.86	5399.7	-26.4	8.0	26.4	0.30	27.6	73.06
5500.0	0.18	271.30	5499.7	-26.2	8.1	26.2	0.19	27.4	72.93
5600.0	0.23	246.35	5599.7	-25.9	8.0	25.9	0.10	27.1	72.87
5700.0	0.22	248.76	5699.7	-25.5	7.8	25.5	0.01	26.7	72.95
5800.0	0.14	162.12	5799.7	-25.4	7.6	25.4	0.25	26.5	73.24
5900.0	0.31	174.01	5899.7	-25.4	7.3	25.4	0.18	26.4	74.08
6000.0	0.35	220.56	5999.7	-25.3	6.8	25.3	0.26	26.2	75.04
6100.0	0.51	248.59	6099.7	-24.7	6.4	24.7	0.26	25.5	75.54
6200.0	0.45	247.25	6199.7	-23.9	6.0	23.9	0.06	24.6	75.79
6300.0	0.29	236.42	6299.7	-23.3	5.8	23.3	0.17	24.0	76.13
6400.0	0.22	283.94	6399.7	-22.9	5.7	22.9	0.22	23.6	76.12
6500.0	0.44	244.16	6499.7	-22.4	5.5	22.4	0.31	23.0	76.10
6600.0	0.20	261.03	6599.7	-21.9	5.3	21.9	0.26	22.5	76.26
6700.0	0.46	237.29	6699.7	-21.3	5.1	21.3	0.29	21.9	76.57
6800.0	0.29	237.37	6799.7	-20.8	4.7	20.8	0.17	21.3	77.15
6900.0	0.50	146.15	6899.7	-20.8	4.2	20.8	0.58	21.3	78.47
7000.0	0.47	160.99	6999.7	-21.2	3.5	21.2	0.13	21.5	80.64
7100.0	0.60	96.32	7099.7	-21.9	3.1	21.9	0.58	22.1	82.05
7200.0	0.36	91.89	7199.7	-22.7	3.0	22.7	0.24	22.9	82.51
7300.0	0.75	95.98	7299.7	-23.7	2.9	23.7	0.39	23.8	83.00
7400.0	1.11	89.37	7399.7	-25.3	2.8	25.3	0.38	25.4	83.57
7500.0	1.10	93.79	7499.6	-27.2	2.8	27.2	0.09	27.3	84.14
7600.0	1.34	87.33	7599.6	-29.3	2.8	29.3	0.28	29.5	84.58
7700.0	1.24	88.42	7699.6	-31.6	2.9	31.6	0.10	31.7	84.81
7800.0	0.71	102.59	7799.6	-33.3	2.8	33.3	0.58	33.4	85.25
7900.0	0.68	135.14	7899.6	-34.3	2.2	34.3	0.39	34.4	86.32
7986.0	1.23	140.06	7985.6	-35.2	1.1	35.2	0.65	35.3	88.15



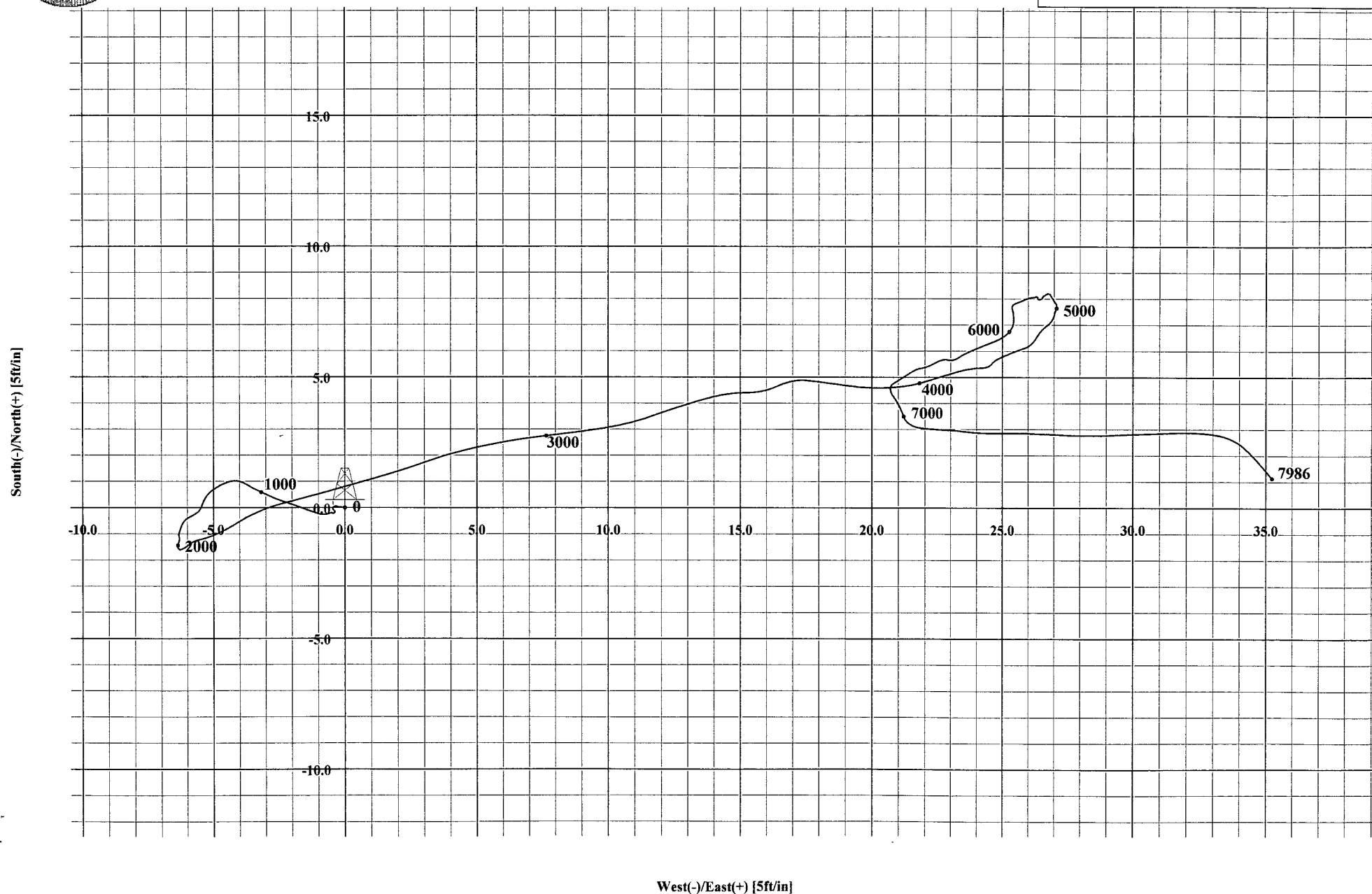
**Scientific
Drilling**

Field: Bagley Permo Penn, N.
Site: Lea County, NM
Well: Lobo 31 State #1H
Survey: 04/19/10



Azimuths to True North
Magnetic North 0.00°

Strength 0nT
Date 4/22/2010
Model igrf2000





Weatherford®

SURVEY REPORT

Report Date: 5/2/2010

Customer: Manzano

Job Name: 4019294

Well Name: Lobo 31 State #1H

Field: Lea County

Rig: UDI #42

Rig Loc: Lea County, NM

Survey Calculation Method: Minimum Curvature						
Magnetic Reference	Target Direction	Total Magnetic Field	Magnetic Dip Angle	Magnetic Declination	Grid Convergence	Total Correction
Grid North	269.18 deg	49481 nT	61.31 deg	7.85 deg	0.40 deg	7.45 deg
Survey Tie-On	Depth	INC	AZ	TVD	NS	EW
	7986.00 ft	1.23 deg	139.66 deg	7985.55 ft	1.38 ft	35.23 ft

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
8044.00	0.44	164.35	8043.54	0.69	35.69	-35.70	1.47
8107.00	0.62	178.64	8106.54	0.12	35.77	-35.76	0.35
8139.00	0.53	170.53	8138.54	-0.20	35.79	-35.79	0.37
8171.00	0.88	217.07	8170.54	-0.54	35.67	-35.66	2.01
8203.00	2.50	245.97	8202.52	-1.02	34.89	-34.87	5.56
8234.00	5.66	261.69	8233.44	-1.52	32.76	-32.73	10.73
8266.00	8.29	269.78	8265.20	-1.76	28.89	-28.86	8.74
8298.00	11.06	270.68	8296.74	-1.73	23.51	-23.48	8.69
8330.00	16.48	271.19	8327.81	-1.60	15.90	-15.87	16.94
8361.00	23.54	270.31	8356.92	-1.47	5.30	-5.27	22.77
8393.00	33.52	271.24	8385.00	-1.25	-9.97	9.98	31.23
8425.00	40.57	273.33	8410.53	-0.45	-29.21	29.22	22.37
8456.00	44.81	271.93	8433.31	0.50	-50.20	50.19	14.00
8488.00	46.73	270.48	8455.63	0.98	-73.12	73.10	6.85
8519.00	49.68	269.77	8476.29	1.03	-96.23	96.21	9.66
8551.00	54.55	268.65	8495.93	0.67	-121.48	121.46	15.48
8582.00	58.92	268.76	8512.93	0.08	-147.39	147.37	14.10
8614.00	61.39	269.80	8528.86	-0.26	-175.14	175.13	8.20
8645.00	64.58	269.02	8542.93	-0.55	-202.75	202.74	10.56
8677.00	70.57	270.03	8555.13	-0.79	-232.32	232.31	18.94
8709.00	74.52	270.46	8564.73	-0.66	-262.84	262.82	12.41
8741.00	81.02	269.98	8571.50	-0.54	-294.10	294.07	20.37
8772.00	86.36	271.13	8574.91	-0.24	-324.89	324.86	17.60
8804.00	87.78	272.22	8576.55	0.69	-356.84	356.79	5.60
8836.00	91.48	271.46	8576.75	1.72	-388.81	388.75	11.80
8867.00	92.28	271.61	8575.73	2.55	-419.79	419.71	2.64
8899.00	92.22	271.90	8574.48	3.52	-451.75	451.65	0.91
8930.00	91.36	270.48	8573.51	4.17	-482.72	482.61	5.33
8962.00	90.93	269.68	8572.87	4.21	-514.72	514.60	2.86
8994.00	90.74	269.91	8572.40	4.10	-546.71	546.60	0.92
9025.00	90.35	269.78	8572.11	4.01	-577.71	577.60	1.31
9057.00	90.68	269.80	8571.82	3.89	-609.71	609.59	1.02
9088.00	90.56	269.00	8571.49	3.57	-640.71	640.59	2.59
9120.00	91.60	267.89	8570.88	2.70	-672.69	672.58	4.78
9151.00	92.47	267.39	8569.78	1.43	-703.64	703.55	3.22

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
9182.00	92.91	266.27	8568.33	-0.28	-734.56	734.49	3.86
9214.00	93.09	266.61	8566.66	-2.27	-766.45	766.41	1.20
9246.00	93.61	266.43	8564.79	-4.20	-798.34	798.32	1.74
9277.00	93.35	265.90	8562.90	-6.27	-829.21	829.22	1.90
9309.00	92.96	265.83	8561.14	-8.58	-861.08	861.12	1.23
9341.00	91.61	267.15	8559.86	-10.54	-893.00	893.06	5.92
9372.00	91.30	267.90	8559.08	-11.87	-923.96	924.03	2.62
9404.00	90.93	267.58	8558.46	-13.14	-955.93	956.02	1.53
9435.00	90.18	267.17	8558.16	-14.56	-986.89	987.00	2.73
9467.00	89.94	267.29	8558.12	-16.10	-1018.85	1018.98	0.86
9498.00	90.37	267.34	8558.04	-17.55	-1049.82	1049.96	1.40
9530.00	91.54	268.15	8557.50	-18.81	-1081.79	1081.95	4.46
9561.00	92.16	269.31	8556.50	-19.50	-1112.77	1112.93	4.24
9593.00	93.15	270.56	8555.02	-19.53	-1144.73	1144.89	4.98
9625.00	93.33	271.48	8553.21	-18.96	-1176.67	1176.82	2.92
9656.00	93.09	271.18	8551.48	-18.24	-1207.62	1207.75	1.24
9688.00	93.08	271.08	8549.76	-17.61	-1239.56	1239.69	0.32
9719.00	92.78	270.82	8548.17	-17.10	-1270.52	1270.63	1.28
9751.00	92.04	270.61	8546.83	-16.70	-1302.49	1302.59	2.40
9783.00	91.05	270.66	8545.97	-16.34	-1334.47	1334.57	3.09
9815.00	90.62	270.45	8545.50	-16.03	-1366.47	1366.56	1.50
9846.00	90.50	270.32	8545.20	-15.82	-1397.47	1397.55	0.58
9878.00	90.25	270.13	8544.99	-15.69	-1429.47	1429.54	0.98
9910.00	90.43	270.11	8544.80	-15.63	-1461.47	1461.54	0.58
9941.00	90.56	270.34	8544.54	-15.50	-1492.46	1492.53	0.82
9973.00	90.43	270.51	8544.26	-15.27	-1524.46	1524.52	0.66
10005.00	90.37	270.38	8544.04	-15.02	-1556.46	1556.52	0.44
10037.00	90.19	270.22	8543.88	-14.85	-1588.46	1588.51	0.77
10068.00	90.12	270.09	8543.80	-14.77	-1619.46	1619.50	0.46
10100.00	90.56	269.96	8543.61	-14.75	-1651.46	1651.50	1.41
10131.00	90.99	269.79	8543.19	-14.82	-1682.45	1682.49	1.50
10163.00	90.99	269.80	8542.64	-14.93	-1714.45	1714.49	0.03
10195.00	90.99	269.61	8542.09	-15.09	-1746.44	1746.48	0.60
10226.00	90.97	269.60	8541.56	-15.31	-1777.44	1777.48	0.06
10258.00	90.00	269.52	8541.29	-15.55	-1809.44	1809.47	3.04
10289.00	89.51	269.36	8541.42	-15.86	-1840.44	1840.47	1.67
10321.00	88.95	269.07	8541.85	-16.29	-1872.43	1872.47	1.96
10352.00	88.52	269.05	8542.54	-16.80	-1903.42	1903.46	1.39
10384.00	88.77	269.31	8543.29	-17.26	-1935.41	1935.45	1.13
10416.00	90.37	270.17	8543.54	-17.41	-1967.40	1967.45	5.68
10447.00	90.43	270.11	8543.32	-17.33	-1998.40	1998.44	0.28
10479.00	90.31	269.50	8543.11	-17.44	-2030.40	2030.44	1.93
10510.00	90.55	269.00	8542.88	-17.85	-2061.40	2061.44	1.82
10542.00	90.56	269.19	8542.57	-18.35	-2093.39	2093.44	0.61
10574.00	90.43	268.98	8542.29	-18.86	-2125.39	2125.44	0.78
10605.00	89.94	268.45	8542.19	-19.56	-2156.38	2156.44	2.33
10636.00	89.69	267.99	8542.29	-20.52	-2187.36	2187.43	1.69
10668.00	90.06	268.09	8542.36	-21.62	-2219.34	2219.43	1.20
10699.00	90.62	268.56	8542.18	-22.53	-2250.33	2250.42	2.34
10731.00	91.36	268.97	8541.63	-23.22	-2282.32	2282.42	2.65

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
10763.00	91.48	269.00	8540.83	-23.78	-2314.30	2314.41	0.40
10795.00	91.23	269.87	8540.08	-24.10	-2346.29	2346.40	2.82
10826.00	89.32	270.53	8539.93	-23.99	-2377.29	2377.39	6.53
10858.00	88.95	270.60	8540.41	-23.67	-2409.28	2409.38	1.17
10890.00	88.83	270.58	8541.03	-23.34	-2441.28	2441.36	0.39
10920.00	88.64	270.62	8541.69	-23.03	-2471.27	2471.34	0.63
10952.00	88.58	270.49	8542.47	-22.72	-2503.26	2503.33	0.44
10984.00	88.95	269.83	8543.16	-22.63	-2535.25	2535.31	2.37
11015.00	89.57	269.28	8543.56	-22.88	-2566.24	2566.31	2.67
11045.00	89.44	269.24	8543.81	-23.27	-2596.24	2596.31	0.43
11077.00	89.57	269.09	8544.09	-23.73	-2628.24	2628.31	0.61
11109.00	89.81	269.35	8544.26	-24.17	-2660.23	2660.31	1.12
11141.00	89.69	269.30	8544.40	-24.55	-2692.23	2692.31	0.42
11172.00	89.94	269.01	8544.50	-25.01	-2723.23	2723.31	1.23
11204.00	90.26	268.55	8544.44	-25.69	-2755.22	2755.30	1.76
11235.00	90.06	268.48	8544.36	-26.50	-2786.21	2786.30	0.69
11267.00	89.63	268.23	8544.44	-27.42	-2818.20	2818.30	1.55
11299.00	89.69	267.97	8544.63	-28.48	-2850.18	2850.29	0.84
11330.00	90.00	267.96	8544.72	-29.58	-2881.16	2881.29	1.00
11362.00	89.88	267.74	8544.75	-30.78	-2913.13	2913.28	0.79
11394.00	90.00	268.14	8544.78	-31.93	-2945.11	2945.27	1.28
11425.00	89.94	268.05	8544.80	-32.96	-2976.10	2976.26	0.34
11457.00	89.81	267.79	8544.87	-34.12	-3008.08	3008.26	0.89
11488.00	89.44	267.72	8545.07	-35.33	-3039.05	3039.25	1.22
11520.00	89.44	267.31	8545.38	-36.72	-3071.02	3071.23	1.27
11552.00	89.88	267.18	8545.57	-38.26	-3102.98	3103.21	1.41
11583.00	89.44	266.97	8545.75	-39.84	-3133.94	3134.19	1.56
11615.00	89.81	266.66	8545.96	-41.62	-3165.89	3166.16	1.50
11646.00	90.37	265.80	8545.91	-43.66	-3196.82	3197.12	3.31
11678.00	90.25	266.16	8545.74	-45.90	-3228.74	3229.07	1.18
11710.00	90.56	266.16	8545.52	-48.04	-3260.67	3261.03	0.96
11741.00	91.23	265.55	8545.03	-50.28	-3291.59	3291.97	2.95
11772.00	91.11	266.07	8544.40	-52.55	-3322.50	3322.91	1.72
11804.00	91.17	266.33	8543.76	-54.67	-3354.42	3354.86	0.83
11835.00	91.17	266.55	8543.12	-56.60	-3385.35	3385.82	0.70
11866.00	91.85	267.04	8542.31	-58.33	-3416.29	3416.78	2.72
11898.00	91.79	267.48	8541.29	-59.86	-3448.24	3448.74	1.37
11929.00	91.11	267.74	8540.51	-61.15	-3479.20	3479.72	2.35
11961.00	91.15	268.02	8539.88	-62.33	-3511.18	3511.71	0.87
11993.00	91.17	268.04	8539.23	-63.43	-3543.15	3543.70	0.10
12024.00	91.23	268.19	8538.58	-64.45	-3574.13	3574.68	0.54
12056.00	90.56	268.04	8538.08	-65.50	-3606.11	3606.67	2.17
12087.00	89.88	268.15	8537.96	-66.53	-3637.09	3637.67	2.22
12119.00	89.57	267.94	8538.12	-67.62	-3669.07	3669.66	1.18
12151.00	89.26	268.31	8538.44	-68.67	-3701.05	3701.65	1.51
12182.00	89.75	268.28	8538.71	-69.60	-3732.04	3732.65	1.59
12214.00	90.19	268.32	8538.73	-70.54	-3764.02	3764.64	1.35
12245.00	90.49	268.14	8538.54	-71.50	-3795.01	3795.64	1.15
12277.00	91.36	268.39	8538.03	-72.47	-3826.99	3827.63	2.82
12309.00	91.94	268.37	8537.11	-73.37	-3858.96	3859.62	1.82

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
12340.00	91.79	268.26	8536.10	-74.28	-3889.93	3890.60	0.60
12372.00	91.36	268.60	8535.22	-75.16	-3921.91	3922.58	1.72
12404.00	90.99	268.66	8534.56	-75.92	-3953.89	3954.57	1.17
12436.00	90.93	268.54	8534.03	-76.70	-3985.88	3986.57	0.42
12467.00	90.71	268.55	8533.59	-77.49	-4016.86	4017.56	0.71
12499.00	90.09	268.55	8533.37	-78.30	-4048.85	4049.56	1.93
12531.00	89.57	268.71	8533.46	-79.07	-4080.84	4081.56	1.71
12562.00	89.63	268.04	8533.68	-79.95	-4111.83	4112.55	2.17
12594.00	90.19	267.55	8533.73	-81.17	-4143.81	4144.54	2.32
12626.00	90.09	267.67	8533.66	-82.51	-4175.78	4176.53	0.46
12658.00	90.00	267.80	8533.63	-83.78	-4207.75	4208.52	0.49
12689.00	89.81	267.84	8533.68	-84.96	-4238.73	4239.51	0.61
12721.00	89.69	267.78	8533.82	-86.18	-4270.71	4271.50	0.42
12752.00	89.44	267.92	8534.05	-87.34	-4301.68	4302.49	0.91

Weatherford Surveys from 8044.00 ft MD to 12752.00 ft MD.

TD at 12818.00 ft MD.

The total correction is 7.45 deg relative to Grid North.