

30-015-38064

MEWBOURNE OIL

Winchester Bone Spring
Eddy County, NM
Colt "5" Federal #3H
VH - Job #32K0910679

Survey: Actual

SDI Standard Survey Report

19 September, 2010

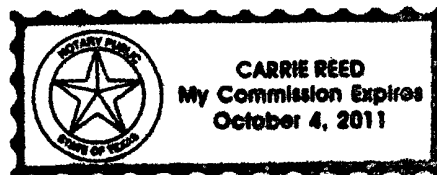
This survey is correct to the best of my knowledge and is supported by actual field data.

Richard

Notorized this date 13th of October, 2010.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.
SDI Standard Survey Report

Company:	MEWBOURNE OIL	Local Co-ordinate Reference:	Well Colt "5" Federal #3H
Project:	Winchester Bone Spring	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Colt "5" Federal #3H	North Reference:	Grid
Wellbore:	VH - Job #32K0910679	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0910679	Database:	EDM-Regulatory

Project:	Winchester Bone Spring		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Well:	Colt "5" Federal #3H, Directional (Baker Inteq)				
Well Position	+N-S	0.0 usft	Northing:	580,637.40 usft	Latitude: 32° 35' 45.760 N
	+E-W	0.0 usft	Easting:	574,535.46 usft	Longitude: 104° 5' 28.730 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level: 0.0 usft

Wellbore:	VH - Job #32K0910679				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2010	9/19/2010	8.01	60.46	48,917

Design:	VH - Job #32K0910679				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)	
	0.0	0.0	0.0	7.02	

Survey Program	Date 9/19/2010				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	7,171.0	Actual (VH - Job #32K0910679)	Keeper	Keeper Gyro	

Survey:								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0	
100.0	0.17	331.62	100.0	0.1	-0.1	331.62	0.1	
200.0	0.03	275.11	200.0	0.3	-0.2	327.61	0.3	
300.0	0.01	266.79	300.0	0.3	-0.2	322.72	0.3	
400.0	0.05	294.94	400.0	0.3	-0.3	318.54	0.4	
500.0	0.19	27.25	500.0	0.4	-0.2	334.53	0.5	
600.0	0.41	47.48	600.0	0.8	0.1	8.54	0.8	
700.0	0.79	63.77	700.0	1.4	1.0	36.05	1.7	
800.0	1.01	69.62	800.0	2.0	2.5	50.86	3.2	
900.0	1.01	60.66	900.0	2.7	4.0	55.95	4.9	
1,000.0	0.79	37.09	1,000.0	3.7	5.2	54.60	6.4	
1,100.0	0.80	7.88	1,099.9	5.0	5.7	49.19	7.6	
1,200.0	0.81	357.53	1,199.9	6.4	5.8	42.42	8.6	
1,300.0	0.98	342.69	1,299.9	7.9	5.5	35.03	9.6	
1,400.0	0.98	339.29	1,399.9	9.5	5.0	27.61	10.7	
1,500.0	0.86	336.74	1,499.9	11.0	4.4	21.68	11.8	
1,600.0	0.46	353.48	1,599.9	12.1	4.0	18.44	12.7	

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Wellbore:	VH - Job #32K0910679	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0910679	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,700.0	0.79	359.59	1,699.9	13.2	4.0	16.80	13.7
1,800.0	0.85	356.48	1,799.9	14.6	3.9	15.05	15.1
1,900.0	0.92	353.90	1,899.9	16.1	3.8	13.23	16.6
2,000.0	0.82	9.03	1,999.8	17.6	3.8	12.22	18.0
2,100.0	0.97	15.68	2,099.8	19.2	4.2	12.26	19.6
2,200.0	0.82	23.47	2,199.8	20.6	4.7	12.77	21.2
2,300.0	0.68	23.37	2,299.8	21.8	5.2	13.39	22.4
2,400.0	0.61	33.33	2,399.8	22.8	5.7	14.08	23.5
2,500.0	0.57	35.20	2,499.8	23.7	6.3	14.91	24.5
2,600.0	0.58	35.37	2,599.8	24.5	6.9	15.70	25.4
2,700.0	0.55	43.45	2,699.8	25.2	7.5	16.55	26.3
2,800.0	0.71	43.64	2,799.8	26.0	8.3	17.60	27.3
2,900.0	0.75	43.92	2,899.8	27.0	9.1	18.73	28.5
3,000.0	0.80	40.44	2,999.8	28.0	10.1	19.77	29.7
3,100.0	0.67	41.62	3,099.8	28.9	10.9	20.63	30.9
3,200.0	0.60	35.42	3,199.8	29.8	11.6	21.24	32.0
3,300.0	0.30	39.79	3,299.8	30.4	12.1	21.61	32.7
3,400.0	0.15	57.92	3,399.8	30.7	12.3	21.89	33.1
3,500.0	0.02	288.78	3,499.8	30.8	12.4	21.99	33.2
3,600.0	0.11	321.46	3,599.8	30.9	12.4	21.82	33.2
3,700.0	0.17	287.14	3,699.8	31.0	12.2	21.42	33.3
3,800.0	0.21	278.79	3,799.8	31.0	11.8	20.86	33.2
3,900.0	0.26	247.23	3,899.7	31.0	11.4	20.26	33.0
4,000.0	0.28	259.04	3,999.7	30.9	11.0	19.60	32.7
4,100.0	0.29	262.60	4,099.7	30.8	10.5	18.84	32.5
4,200.0	0.53	265.67	4,199.7	30.7	9.8	17.68	32.2
4,300.0	0.52	260.49	4,299.7	30.6	8.9	16.18	31.9
4,400.0	0.64	268.08	4,399.7	30.5	7.9	14.47	31.5
4,500.0	0.74	253.94	4,499.7	30.3	6.7	12.45	31.0
4,600.0	0.79	254.77	4,599.7	29.9	5.4	10.23	30.4
4,700.0	0.89	255.60	4,699.7	29.6	4.0	7.68	29.8
4,800.0	0.88	256.57	4,799.7	29.2	2.5	4.87	29.3
4,900.0	0.83	262.29	4,899.7	28.9	1.0	2.03	28.9
5,000.0	0.77	278.24	4,999.7	28.9	-0.4	359.29	28.9
5,100.0	0.73	283.03	5,099.7	29.2	-1.6	356.77	29.2
5,200.0	0.78	300.14	5,199.7	29.6	-2.9	354.50	29.8
5,300.0	0.90	311.40	5,299.6	30.5	-4.0	352.47	30.8
5,400.0	0.92	311.99	5,399.6	31.6	-5.2	350.62	32.0
5,500.0	0.98	317.48	5,499.6	32.7	-6.4	348.95	33.4
5,600.0	1.00	321.88	5,599.6	34.0	-7.5	347.57	34.9
5,700.0	1.09	329.36	5,699.6	35.6	-8.5	346.51	36.6
5,800.0	1.17	327.86	5,799.6	37.2	-9.6	345.60	38.4
5,900.0	1.50	310.07	5,899.5	38.9	-11.1	344.09	40.5
6,000.0	1.79	302.00	5,999.5	40.6	-13.4	341.70	42.8

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Wellbore:	VH - Job #32K0910679	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0910679	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
6,100.0	2.21	295.72	6,099.4	42.3	-16.5	338.69	45.4	
6,200.0	2.37	290.87	6,199.4	43.9	-20.2	335.31	48.3	
6,300.0	2.44	287.57	6,299.3	45.2	-24.1	331.93	51.3	
6,400.0	2.50	284.90	6,399.2	46.4	-28.3	328.68	54.4	
6,500.0	2.71	276.32	6,499.1	47.3	-32.7	325.30	57.5	
6,600.0	2.50	264.99	6,599.0	47.3	-37.2	321.80	60.2	
6,700.0	2.48	260.98	6,698.9	46.8	-41.5	318.40	62.6	
6,800.0	2.40	258.41	6,798.8	46.0	-45.7	315.19	64.9	
6,900.0	2.52	259.39	6,898.7	45.2	-49.9	312.15	67.4	
7,000.0	2.40	257.22	6,998.6	44.3	-54.2	309.31	70.0	
7,100.0	2.35	255.67	7,098.5	43.4	-58.2	306.70	72.6	
7,171.0	2.02	258.37	7,169.5	42.8	-60.8	305.11	74.3	



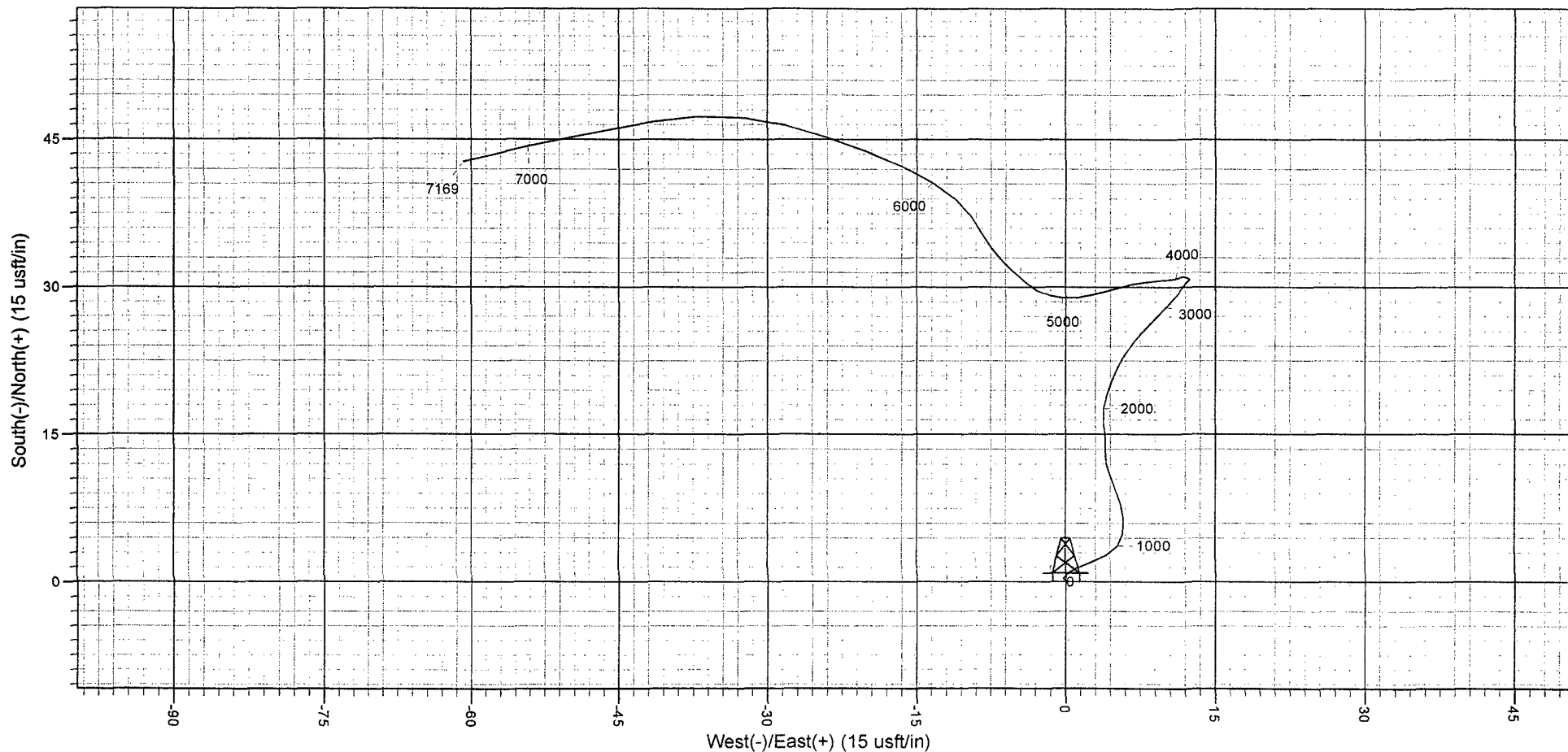
Project: Winchester Bone Spring
Eddy County, NM
Well: Colt "5" Federal #3H
Wellbore: VH - Job #32K0910679
Design: VH - Job #32K0910679



Azimuths to Grid North
True North: -0.13°
Magnetic North: 7.88°
Magnetic Field
Strength: 48916.7nT
Dip Angle: 60.46°
Date: 9/19/2010
Model: BGGM2010

WELL DETAILS: Colt "5" Federal #3H
WELL @ 0.0usft (Original Well Elev)
Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	580637.40	574535.46	$32^\circ 35' 45.760\text{ N}$	$104^\circ 5' 28.730\text{ W}$	



PROJECT DETAILS: Winchester Bone Spring
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

SITE DETAILS: Eddy County, NM
Site Centre Latitude: $32^\circ 35' 45.760\text{ N}$
Longitude: $104^\circ 5' 28.730\text{ W}$
Positional Uncertainty: 0.0
Convergence: 0.13
Local North: Grid