

30 015 37157

LM

RECEIVED

JUN -1 2010

NMOCD ARTESIA

Cimarex Energy Co.

Eddy County (NM83E)

Sec 04-T25S-R26E

Ringer Fed Com #8

Wellbore #1

Survey: MWD Survey

Standard Survey Report

15 September, 2009

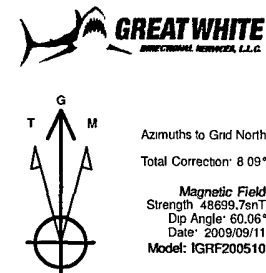
mr2

Cimarex Energy Co.

Project Eddy County (NM83E)
Site Sec 04-T25S-R26E
Well Ringer Fed Com #8
Wellbore Wellbore #1
Design: Plan #2

WELL DETAILS: Ringer Fed Com #8

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
	0.0	421332.90	551334.80	32° 9' 29.946 N	104° 18' 3.698 W
SHL: 2310' FSL / 1700' FWL					
BHL: 330' FSL / 1700' FWL					



WELLBORE TARGET DETAILS

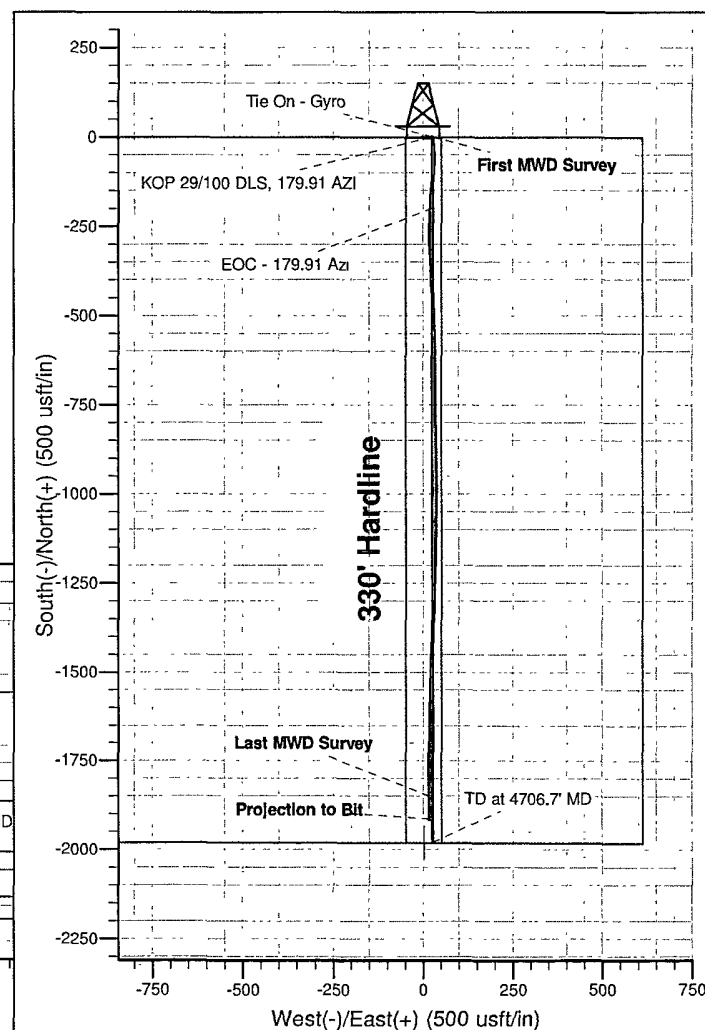
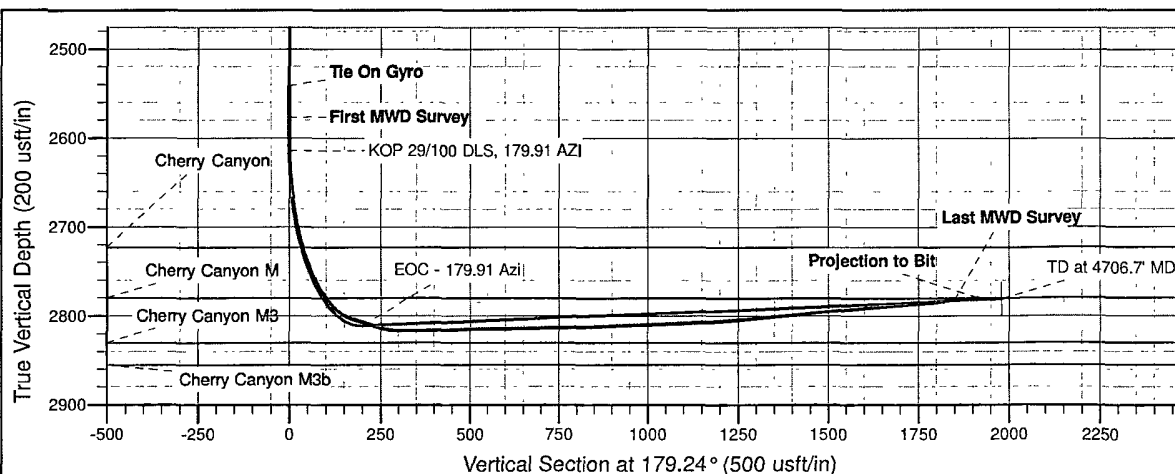
Name	TVD	+N/-S	+E/-W	Northing	Easting
Ringer #8 TGT Box	2781.0	-1979.6	3.0	419353.28	551337.79
Ringer Fed Com #8 PBHL	2781.0	-1979.6	3.0	419353.28	551337.79

PLAN DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
2542.0	0.11	191.59	2541.6	0.4	26.5	0.00	0.00	-0.1	
2615.0	0.11	191.59	2614.6	0.3	26.4	0.00	0.00	0.1	
2927.0	90.96	180.00	2811.0	-199.8	26.4	29.12	-11.59	200.1	
4706.8	90.96	180.00	2781.2	-1979.3	26.4	0.00	0.00	1979.5	Ringer Fed Com #8 PBHL

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
2541.6	2542.0	0.11	191.59	0.4	26.5	-0.1	0.0	Tie On - Gyro
2614.6	2615.0	0.11	191.59	0.3	26.4	0.1	0.1	KOP 29/100 DLS, 179.91 AZI
2811.0	2927.0	90.96	180.00	-199.8	26.4	200.1	200.2	EOC - 179.91 Azi
2781.2	4706.7	90.96	180.00	-1979.2	26.4	1979.4	1979.7	TD at 4706.7' MD



Great White Directional Services

Survey Report

Company:	Cimarex Energy Co	Local Co-ordinate Reference:	Well Ringer Fed Com #8
Project:	Eddy County (NM83E)	TVD Reference:	WELL @ 3351.0usft (Original Well Elev)
Site:	Sec 04-T25S-R26E	MD Reference:	WELL @ 3351.0usft (Original Well Elev)
Well:	Ringer Fed Com #8	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Eddy County (NM83E)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sec 04-T25S-R26E		
Site Position:	Northing:	419,236.10 usft	Latitude: 32° 9' 9.190 N
From: Map	Easting:	553,217.80 usft	Longitude: 104° 17' 41.801 W
Position Uncertainty: 0.0 usft	Slot Radius: 13-3/16 "	Grid Convergence:	0.02 °

Well	Ringer Fed Com #8		
Well Position	+N/-S 0.0 usft	Northing: 421,332.90 usft	Latitude: 32° 9' 29.946 N
	+E/-W 0.0 usft	Easting: 551,334.80 usft	Longitude: 104° 18' 3.698 W
Position Uncertainty 0.0 usft	Wellhead Elevation: usft	Ground Level:	3,334.0 usft

Wellbore:	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF200510	2009/09/11	8.11
			Dip Angle (°)
			60.06
			Field Strength (nT)
			48,700

Design	Wellbore #1		
Audit Notes:			
Version: 1.0	Phase: ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			89.07

Survey Program	Date: 2009/09/15		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
100.0	2,542.0	Gyro (Wellbore #1)	MWD
2,577.0	4,637.0	MWD Survey (Wellbore #1)	MWD
			Description
			MWD - Standard
			MWD - Standard

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,542.0	0.11	191.59	2,541.6	0.4	26.5	26.5	0.00	0.00	0.00
Tie On Gyro									
2,577.0	0.50	169.70	2,576.6	0.2	26.5	26.5	1.14	1.11	-62.54
First MWD Survey									
2,608.0	0.50	41.10	2,607.6	0.2	26.6	26.6	2.91	0.00	-414.84
2,640.0	10.50	173.50	2,639.5	-2.6	27.0	27.0	33.89	31.25	413.75
2,672.0	19.00	170.30	2,670.4	-10.6	28.2	28.1	26.67	26.56	-10.00
2,703.0	27.20	172.40	2,698.9	-22.6	30.0	29.7	26.58	26.45	6.77
2,735.0	36.60	176.80	2,726.0	-39.5	31.5	30.9	30.24	29.38	13.75

Great White Directional Services

Survey Report

Company:	Cimarex Energy Co.	Local Co-ordinate Reference:	Well Ringer Fed Com #8
Project:	Eddy County (NM83E)	TVD Reference:	WELL @ 3351.0usft (Original Well Elev)
Site:	Sec 04-T25S-R26E	MD Reference:	WELL @ 3351.0usft (Original Well Elev)
Well:	Ringer Fed Com #8	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
2,766.0	45.80	180.20	2,749.3	-59.8	32.0	31.0	30.53	29.68	10.97	
2,798.0	55.00	185.50	2,769.7	-84.4	30.7	29.3	31.44	28.75	16.56	
2,829.0	64.00	186.50	2,785.4	-111.0	27.9	26.1	29.16	29.03	3.23	
2,861.0	74.10	187.00	2,796.9	-140.6	24.4	22.1	31.60	31.56	1.56	
2,893.0	82.50	183.60	2,803.3	-171.8	21.5	18.7	28.23	26.25	-10.63	
2,925.0	82.80	181.00	2,807.4	-203.5	20.3	16.9	8.11	0.94	-8.13	
2,956.0	82.80	180.70	2,811.3	-234.2	19.8	16.0	0.96	0.00	-0.97	
2,988.0	85.80	179.20	2,814.5	-266.1	19.8	15.5	10.47	9.38	-4.69	
3,020.0	89.00	178.40	2,815.9	-298.0	20.5	15.6	10.31	10.00	-2.50	
3,052.0	90.20	177.50	2,816.2	-330.0	21.6	16.3	4.69	3.75	-2.81	
3,084.0	90.60	177.20	2,815.9	-362.0	23.1	17.2	1.56	1.25	-0.94	
3,116.0	90.90	177.20	2,815.5	-393.9	24.7	18.3	0.94	0.94	0.00	
3,180.0	90.70	177.00	2,814.6	-457.8	27.9	20.5	0.44	-0.31	-0.31	
3,243.0	90.60	178.10	2,813.9	-520.8	30.6	22.1	1.75	-0.16	1.75	
3,307.0	89.80	177.70	2,813.7	-584.7	33.0	23.4	1.40	-1.25	-0.63	
3,370.0	90.50	179.60	2,813.5	-647.7	34.4	23.9	3.21	1.11	3.02	
3,434.0	90.50	179.60	2,813.0	-711.7	34.9	23.3	0.00	0.00	0.00	
3,497.0	90.50	179.30	2,812.4	-774.7	35.5	22.9	0.48	0.00	-0.48	
3,561.0	90.70	179.40	2,811.8	-838.7	36.2	22.5	0.35	0.31	0.16	
3,622.0	90.90	179.20	2,810.9	-899.7	37.0	22.3	0.46	0.33	-0.33	
3,686.0	90.90	179.90	2,809.9	-963.7	37.5	21.8	1.09	0.00	1.09	
3,749.0	90.50	181.30	2,809.1	-1,026.7	36.8	20.1	2.31	-0.63	2.22	
3,811.0	90.90	180.60	2,808.4	-1,088.6	35.8	18.0	1.30	0.65	-1.13	
3,874.0	91.70	181.20	2,806.9	-1,151.6	34.8	16.0	1.59	1.27	0.95	
3,938.0	91.60	181.50	2,805.1	-1,215.6	33.3	13.5	0.49	-0.16	0.47	
4,001.0	92.10	181.90	2,803.1	-1,278.5	31.4	10.6	1.02	0.79	0.63	
4,065.0	91.90	182.20	2,800.8	-1,342.4	29.1	7.2	0.56	-0.31	0.47	
4,129.0	92.40	182.50	2,798.4	-1,406.3	26.5	3.6	0.91	0.78	0.47	
4,191.0	92.60	182.50	2,795.7	-1,468.2	23.8	-0.1	0.32	0.32	0.00	
4,255.0	91.70	181.40	2,793.3	-1,532.1	21.6	-3.3	2.22	-1.41	-1.72	
4,318.0	92.20	181.30	2,791.2	-1,595.1	20.1	-5.9	0.81	0.79	-0.16	
4,382.0	92.50	181.20	2,788.6	-1,659.0	18.7	-8.3	0.49	0.47	-0.16	
4,446.0	91.40	180.40	2,786.4	-1,723.0	17.9	-10.2	2.12	-1.72	-1.25	
4,509.0	91.60	180.10	2,784.7	-1,785.9	17.6	-11.5	0.57	0.32	-0.48	
4,573.0	92.10	179.80	2,782.7	-1,849.9	17.6	-12.5	0.91	0.78	-0.47	
Last MWD Survey										
4,637.0	92.80	179.70	2,779.9	-1,913.9	17.9	-13.3	1.10	1.09	-0.16	
Projection to Bit - Ringer Fed Com #8 PBHL - Ringer #8 TGT Box										

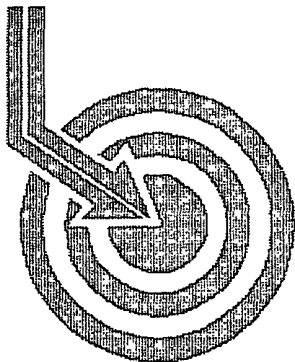
Great White Directional Services

Survey Report

Company:	Cimarex Energy Co.	Local Co-ordinate Reference:	Well Ringer Fed Com #8
Project:	Eddy County (NM83E)	TVD Reference:	WELL @ 3351.0usft (Original Well Elev)
Site:	Sec 04-T25S-R26E	MD Reference:	WELL @ 3351.0usft (Original Well Elev)
Well:	Ringer Fed Com #8	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,542.0	2,541.6	0.4	26.5	Tie On Gyro
2,577.0	2,576.6	0.2	26.5	First MWD Survey
4,573.0	2,782.7	-1,849.9	17.6	Last MWD Survey
4,637.0	2,779.9	-1,913.9	17.9	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____



Scientific Drilling

CIMAREX ENERGY

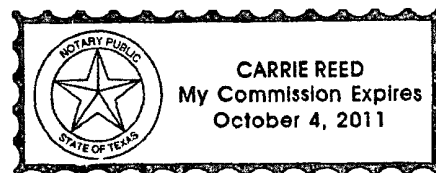
Field: Delaware
Site: Eddy County, NM
Well: Ringer Federal Com #8
Wellpath: VH - Job #32K0909353
Survey: 09/11/09

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

.....*K. Wharton*.....Company Representative

Notorized this date 6th of October, 2009.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific Drilling International Survey Report

Company: CIMAREX ENERGY
Field: Delaware
Site: Eddy County, NM
Well: Ringer Federal Com #8
Wellpath: VH - Job #32K0909353

Date: 10/05/2009 Time: 15:48:41 Page: 1
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,179.91Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 09/11/09
KSRG 0'-2542'

Start Date: 09/11/2009

Company: Scientific Drilling Internatio
Tool: Keeper; Keeper Gyro

Engineer: Guebara/Madrid/Williams
Tied-to: From Surface

Survey

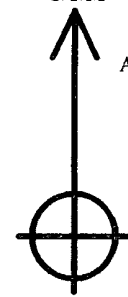
MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	359.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.30	129.17	100.00	0.17	-0.17	0.20	0.30	0.26	129.17
200.00	0.35	148.92	200.00	0.59	-0.59	0.56	0.12	0.82	136.42
300.00	0.34	110.95	300.00	0.96	-0.96	1.00	0.22	1.39	133.88
400.00	0.45	117.00	399.99	1.25	-1.24	1.63	0.12	2.05	127.44
500.00	0.41	134.72	499.99	1.68	-1.67	2.23	0.14	2.79	126.91
600.00	0.36	154.87	599.99	2.21	-2.21	2.62	0.14	3.43	130.19
700.00	0.15	286.55	699.99	2.46	-2.46	2.63	0.47	3.60	133.11
800.00	0.21	332.77	799.99	2.26	-2.26	2.42	0.15	3.31	133.06
900.00	0.25	315.50	899.99	1.94	-1.94	2.18	0.08	2.92	131.66
1000.00	0.62	78.17	999.99	1.68	-1.67	2.56	0.78	3.05	123.20
1100.00	1.95	94.31	1099.96	1.70	-1.69	4.78	1.37	5.07	109.46
1200.00	2.12	97.59	1199.90	2.07	-2.06	8.31	0.21	8.56	103.93
1300.00	1.86	88.16	1299.83	2.27	-2.25	11.77	0.42	11.98	100.84
1400.00	2.00	88.90	1399.78	2.19	-2.17	15.13	0.14	15.29	98.15
1500.00	1.93	84.56	1499.72	2.00	-1.97	18.55	0.16	18.66	96.08
1600.00	1.34	78.18	1599.68	1.61	-1.58	21.38	0.62	21.43	94.22
1700.00	0.77	61.06	1699.66	1.05	-1.01	23.11	0.65	23.13	92.51
1800.00	0.59	47.37	1799.65	0.38	-0.34	24.08	0.24	24.08	90.80
1900.00	0.30	34.74	1899.65	-0.19	0.23	24.60	0.30	24.60	89.47
2000.00	0.19	41.20	1999.65	-0.53	0.57	24.86	0.11	24.87	88.69
2100.00	0.20	52.47	2099.65	-0.76	0.80	25.11	0.04	25.12	88.18
2200.00	0.22	52.32	2199.65	-0.98	1.02	25.40	0.02	25.42	87.70
2300.00	0.31	135.44	2299.65	-0.91	0.95	25.74	0.36	25.76	87.90
2400.00	0.18	76.16	2399.65	-0.75	0.79	26.08	0.27	26.10	88.26
2500.00	0.35	145.46	2499.65	-0.54	0.58	26.41	0.33	26.42	88.75
2542.00	0.11	191.59	2541.65	-0.39	0.43	26.47	0.68	26.48	89.07



Scientific
Drilling

Field: Delaware
Site: Eddy County, NM
Well: Ringer Federal Com #8
Wellpath: VH - Job #32K0909353
Survey: 09/11/09

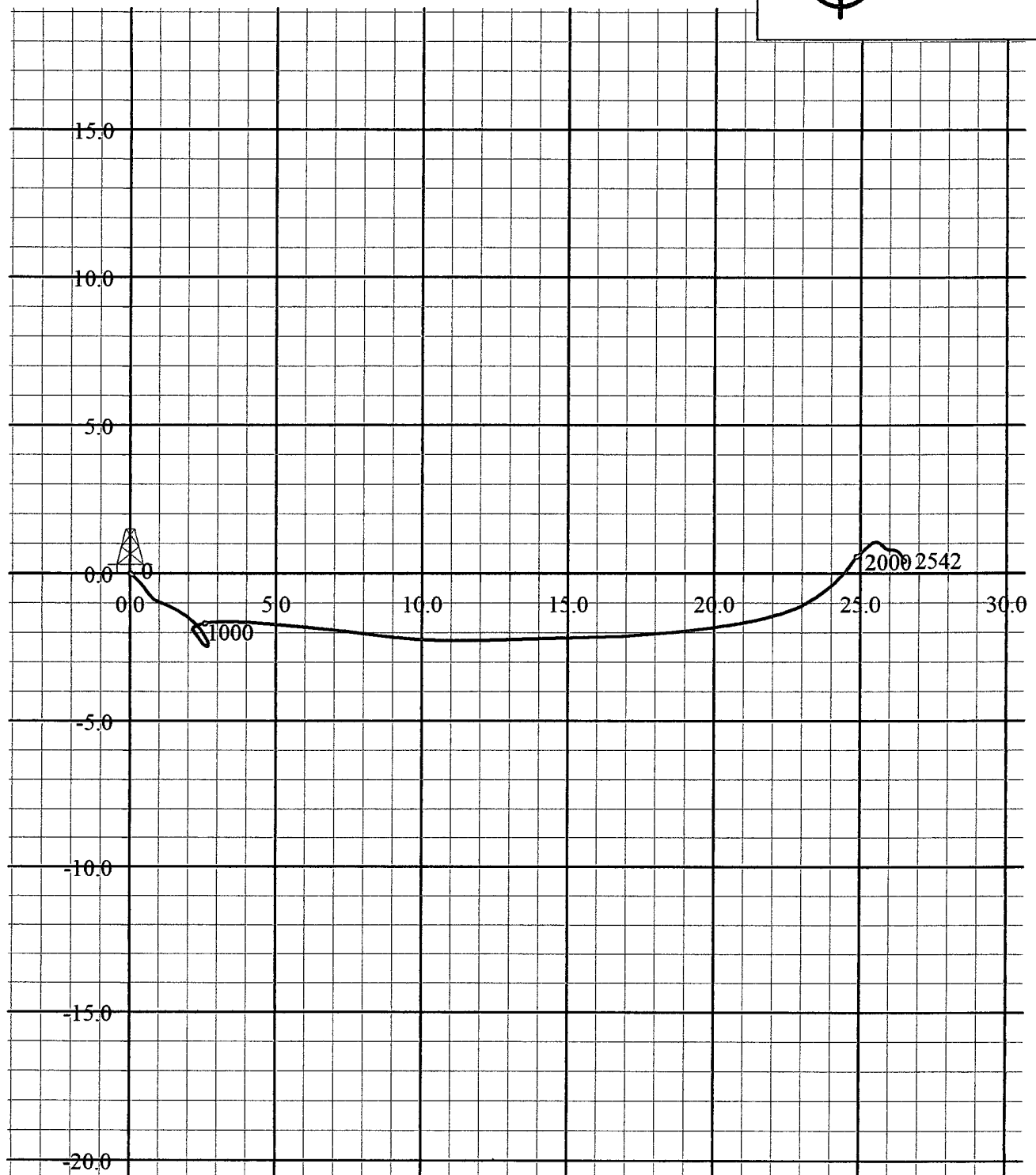
G/T/M



Azimuths to Grid North
True North: 0.00°
Magnetic North: 0.00°

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 09/18/2009
Model: igrf2000

South(-)/North(+) [5ft/in]



West(-)/East(+) [5ft/in]



Top of ASIX 2430', On/Off 2426'

DOWN HOLE WELL PROFILE

ELEVATIONS

KB ELEV	GL ELEV	KB TO THF	KB TO SCF	RIG KBD	PBTD
CASING / OPEN HOLE LAYOUT		OD (IN)	LANDED DEPTH	WEIGHT (LB/FT)	TOP OF (FTKB)
CASING DESCRIPTION		5.5	2558'	17 #	
WINDOW DESCRIPTION					
OPEN HOLE DESCRIPTION		4.75	4693'	JUNCTION @	2558'

DESCRIPTION

Pumpout plug pinned at 4000 psi and has not been blown

STEERING DIRECTIONS

DOWNHOLE DESCRIPTION FROM BOTTOM UP (Tubing String)

[illegible]

ISO PAK #5 3037'

2.06" Strata Port 3239' 2.25 bal

ISO PAK #4 3391

1.81" Strata Port 3547' 2.0 ball

ISO PAK #3 3710'

1.688" Port 3871'
1.75 ball

ISO PAK #2 4033'

1.43" Strata Port 4193' 1.625 ball

ISO PAK #1 4356'

Anchor #1 4488'

Pump Out Plug 4551'

**TOTAL MEASURED DEPTH
@ 4693' FT**

***** CONFIDENTIAL *****
NOT TO BE DISCLOSED OUTSIDE

****Cimarex Energy ****