

30.025-38541

Cimarex Energy Co., Inc.

Lea County (NAD 83)

Yale 18 Fee #1

Yale 18 Fee #1

Lateral #1

Plan: Plan #1

Standard Survey Report

02 July, 2007



Black Viper Energy

Survey Report



Company: Cimarex Energy Co., Inc
Project: Lea County (NAD 83)
Site: Yale 18 Fee #1
Well: Yale 18 Fee #1
Wellbore: Lateral #1
Design: Plan #1
Local Co-ordinate Reference: Site Yale 18 Fee #1
TVD Reference: WELL @ 0 00ft (Original Well Elev)
MD Reference: WELL @ 0 00ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003 14 Server Db

Project	Lea County (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Ground Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Yale 18 Fee #1		
Site Position:		Northing:	ft
From:	None	Easting:	ft
Position Uncertainty:	0 00 ft	Slot Radius:	"
		Latitude:	
		Longitude:	
		Grid Convergence:	0 00 °

Well	Yale 18 Fee #1		
Well Position	+N/-S	0 00 ft	Northing: 0 00 ft
	+E/-W	0 00 ft	Easting: 0 00 ft
			Latitude: 30° 59' 18 404 N
			Longitude: 106° 3' 38 987 W
Position Uncertainty	0 00 ft	Wellhead Elevation:	ft
		Ground Level:	0 00 ft

Wellbore	Lateral #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF200510	7/2/2007	(°)
			8 98
			Dip Angle (°)
			58 64
			Field Strength (nT)
			47,965

Design	Plan #1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 9,199 00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0 00	0 00	0 00
			Direction (°)
			0 00

Survey Tool Program	Date: 7/2/2007		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
9,199 00	11,188 03	Plan #1 (Lateral #1)	MWD
			Description
			MWD - Standard

Planned Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(ft)	(ft)	Section	Rate	Rate	Rate
(ft)			(ft)			(ft)	(°/100ft)	(°/100ft)	(°/100ft)
9,199 01	0 00	0 00	9,199 01	0 00	0 00	0 00	0 00	0 00	0 00
KOP - Build 30.00°/100									
9,499 01	90 00	0 00	9,390 00	190 99	0 00	190 99	30 00	30 00	0 00
EOC - Hold 90.00°									
11,188 03	90 00	0 00	9,390 00	1,880 00	0 00	1,880 00	0 00	0 00	0 00

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Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
PBHL#1[Y18Fee#1]	0 00	0 00	9,390 00	1,880 00	0 00	1,879 77	29 19	30° 59' 37 006 N	106° 3' 38 987 W
- plan hits target									
- Point									

Plan Annotations				
Measured	Vertical	Local Coordinates		
Depth	Depth	+N/-S	+E/-W	Comment
(ft)	(ft)	(ft)	(ft)	
9,199 01	9,199 01	0 00	0 00	KOP - Build 30 00°/100
9,499 01	9,390 00	190 99	0 00	EOC - Hold 90 00°

Checked By. _____ Approved By. _____ Date _____