

WELL LOGS

K Z

API number:	30-025-38158		
OGRID:		Operator:	CIMAREX ENERGY CO
		Property:	SUNSHINE # 1

surface	ULSTR:	L	13	T	15S	R	37E
			2235	FSL	660	FWL	

BH Loc	ULSTR:	M	13	T	15S	R	37E
			379	FSL	664	FWL	

Ground Level:	3776	DF:	3798	KB:	3799		
Datum:	KB			MTD:	11071	TVD:	9381

Land:	STATE	Completion Date: (1)	6/2/2007	***LATE***
		Date Logs Received:	9/13/2007	
		Date Logs Due in: (2)	6/22/2007	

Confidential:	NO			Date out:		
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Confidential period: 90 Days for State & Fee, 1 Year for federal

Date Due In: (1) is equal to Completion Date (1) + 20 days

Logs	Depth interval		
DSN/SDL	200	9670	Spectral Density Dual Spaced Neutron
DLL/MGRD	4515	9750	Dual Laterolog Micro Guard Log

K Z

OCD TOPS

Rustler	2139	Strawn		
Tansill		Atoka		2227
Yates	3157	Morrow		
7R	3430			
T. Bowers Sd				
B. Bowers Sd				
Queen				
Penrose				
Grayburg	4285			
San Andres	4424			
Glorieta	6694			
Tubb	7503			
Drinkard	7761			
Abo	8157			
Wolfcamp	9373			

Results of Directional Survey

API number:	30-025-38158		
OGRID:		Operator:	CIMAREX ENERGY CO
		Property:	SUNSHINE # 1

surface	ULSTR:	L	13	T	15S	R	37E
			2235	FSL	660	FWL	

BH Loc	ULSTR:	M	13	T	15S	R	37E
			379	FSL	664	FWL	

	MD	N/S	E/W	VD
	9296	-120.75	-89.52	9288.55
TOP PERFS/OH	9306	-125.81	-89.34	9297.18
	9306	-125.81	-89.34	9297.18
	10433	-1219.03	-31.23	9382.98
BOT PERFS/OH	10464	-1250.00	-29.82	9383.30
	10464	-1250.00	-29.82	9383.30

NEXT TO LAST	11032	-1816.98	2.51	9380.13
LAST READING	11071	-1855.93	4.21	9381.29
TD	11071	-1855.93	4.21	9381.29

Surface Location	2235	FS	660	FW
Projected BHL	379	FS	664	FW
Location of				
Top Perfs/OH	2109	FS	571	FW
Bottom Perfs/OH	985	FS	630	FW

SUMMARY of Subsurface Locations

Surface Location	L-13-15S-37E	2235	FS	660	FW	Vert. Depth
Top Perfs/OH	L-13-15S-37E	2109	FS	571	FW	9297.18
Bottom Perfs/OH	M-13-15S-37E	985	FS	630	FW	9383.30
Projected TD	M-13-15S-37E	379	FS	664	FW	9381.29

OPERATOR
WELL/LEASE
COUNTY

CIMAREX/GRUY
SUNSHINE #1
LEA, NM

075-0049

STATE OF NEW MEXICO
DEVIATION REPORT

173	0.75
348	0.75
555	0.75
758	1.00
944	1.00
1,304	1.00
1,650	1.00
1,977	1.00
2,346	1.00
3,028	1.00
3,323	1.00
3,598	1.00
3,774	1.00
4,017	1.00
4,294	1.00
4,800	1.00
5,305	1.00
5,785	1.00
6,345	1.00
6,467	1.00
6,916	1.00
7,421	2.00
7,636	1.00
7,840	1.00
8,398	1.00
8,583	2.00
8,811	1.00
9,149	2.00
9,635	2.00
9,715	2.00

SUR: L-13-15s-37e, 2235/S & 660/W
BHL: M-13-15s-37e, 379/S & 664/W
API #30-025-38158

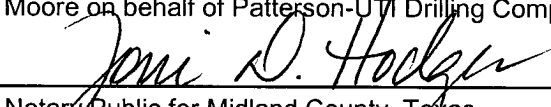
STATE OF TEXAS

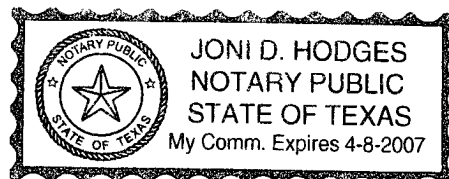
COUNTY OF MIDLAND

BY: 

The foregoing instrument was acknowledged before me on
Moore on behalf of Patterson-UTM Drilling Company LP, LLLP.

March 13, 2007, by Steve


Notary Public for Midland County, Texas
My Commission Expires: 4/08/07



SUR: L-13-15s-37e, 2235/S & 660/W
 BHL: M-13-15s-37e, 379/S & 664/W
 API #30-025-38158

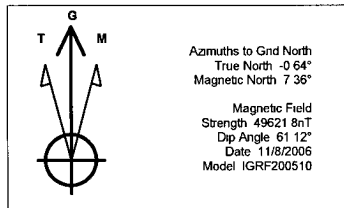


Project Lea County (NAD 83)
 Site Sunshine #1
 Well Sunshine #1
 Wellbore Lateral #1
 Plan Plan #1 (Sunshine #1/Lateral #1)

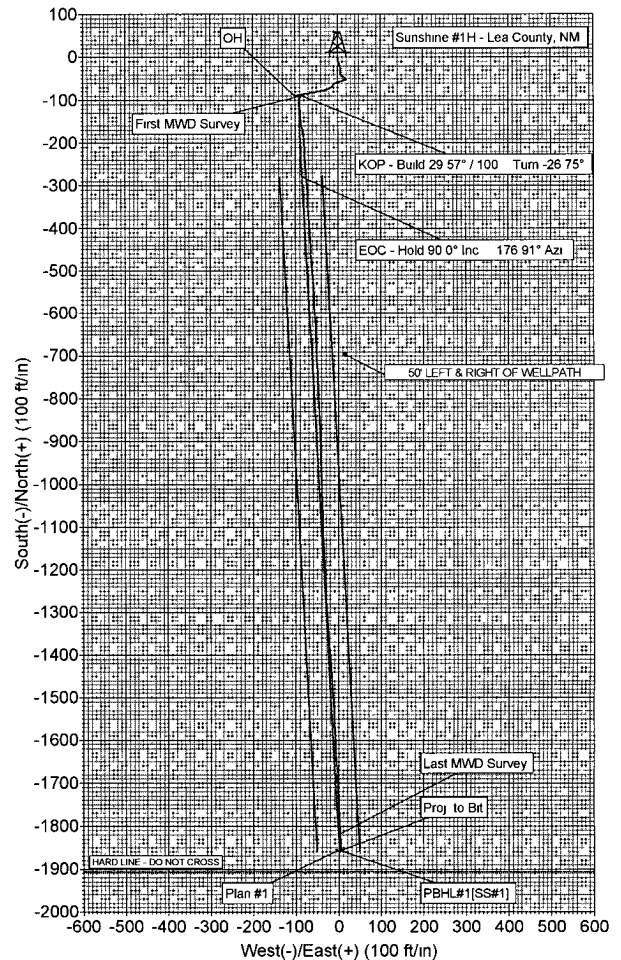


PROJECT DETAILS Lea County (NAD 83)

Geodetic System US State Plane 1983
 Datum North American Datum 1983
 Ellipsoid GRS 1980
 Zone New Mexico Eastern Zone
 System Datum Ground Level

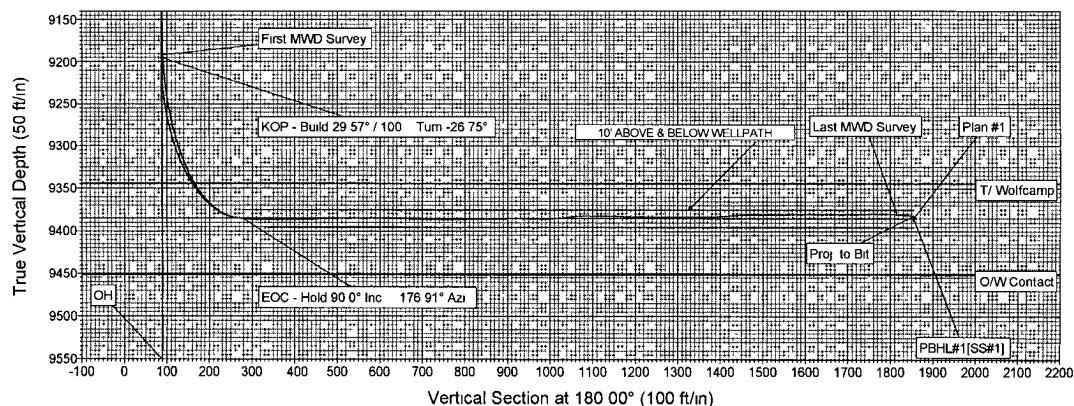


TVD	MD	Annotation
9194 98	9197 00	KOP - Build 29 57° / 100 Turn -26 75°
9385 00	9496 10	EOC - Hold 90 0° Inc 176 91° Azi



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	9100 00	1 55	256 91	9098 02	-86 64	-87 92	0 00	0 00	86 64	
2	9197 00	1 55	256 91	9194 98	-87 23	-90 47	0 00	0 00	87 23	
3	9496 10	90 00	176 91	9385 00	-278 21	-85 22	30 00	-80 00	278 21	
4	11075 69	90 00	176 91	9385 00	-1855 50	0 00	0 00	0 00	1855 50	PBHL#1[SS#1]



Plan Plan #1 (Sunshine #1/Lateral #1)
 Created By L.D. Burton Date April 16, 2007

Sunshine #1 Lateral Plan #1 Final Report 5-04-07.txt
Cimarex Energy Co., Inc.
Sunshine #1 - MWD Survey #1

Lea County (NAD 83)
Sunshine #1

Measured Dogleg Depth Rate (ft) (°/100ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)
9100.00 0.00	1.548	256.908	9098.02	86.64 S	87.92 W	123.35
9194.00 4.57	4.500	184.500	9191.90	90.61 S	89.45 W	127.28
9204.00 28.41	7.300	179.700	9201.84	91.63 S	89.48 W	128.05
9214.00 31.00	10.400	180.000	9211.72	93.17 S	89.47 W	129.17
9224.00 24.01	12.800	180.300	9221.52	95.18 S	89.48 W	130.64
9236.00 20.91	15.300	181.200	9233.16	98.09 S	89.52 W	132.79
9246.00 23.00	17.600	181.100	9242.75	100.93 S	89.57 W	134.89
9256.00 24.00	20.000	181.000	9252.22	104.15 S	89.63 W	137.28
9267.00 21.03	22.300	180.300	9262.47	108.12 S	89.68 W	140.20
9277.00 26.08	24.900	179.800	9271.64	112.12 S	89.68 W	143.12
9287.00 23.59	27.200	178.600	9280.62	116.51 S	89.62 W	146.27
9296.00 21.17	29.100	178.900	9288.55	120.75 S	89.52 W	149.30
9306.00 27.55	31.700	177.100	9297.18	125.81 S	89.34 W	152.86
9316.00 25.71	34.200	176.000	9305.57	131.24 S	89.02 W	156.59
9328.00 26.02	36.900	173.300	9315.33	138.18 S	88.36 W	161.20
9338.00 32.20	40.000	171.900	9323.16	144.35 S	87.56 W	165.14
9348.00 32.68	43.200	170.900	9330.64	150.91 S	86.56 W	169.24
9360.00 34.19	47.300	170.700	9339.09	159.32 S	85.20 W	174.44
9370.00 37.07	51.000	170.400	9345.63	166.78 S	83.96 W	179.02
9380.00 34.33	54.400	171.000	9351.69	174.63 S	82.67 W	183.86
9391.00 29.37	57.500	172.100	9357.84	183.65 S	81.34 W	189.51
9401.00 40.13	61.300	173.600	9362.93	192.18 S	80.27 W	195.00
9411.00 32.69	64.100	175.500	9367.52	201.03 S	79.42 W	200.87
9423.00 33.18	67.900	176.800	9372.40	211.96 S	78.69 W	208.34
9433.00 35.01	71.400	176.700	9375.88	221.32 S	78.16 W	214.79

	Sunshine #1	Lateral Plan #1	Final Report	5-04-07.txt	
9443.00	74.900	176.600	9378.78	230.88 S	77.60 W 221.37
35.01					
9458.00	79.900	176.300	9382.05	245.48 S	76.69 W 231.39
33.39					
9468.00	83.300	176.100	9383.51	255.35 S	76.04 W 238.13
34.06					
9478.00	85.600	176.200	9384.47	265.28 S	75.37 W 244.91
23.02					
9489.00	87.900	176.600	9385.10	276.24 S	74.68 W 252.42
21.22					
9521.00	89.100	177.000	9385.94	308.18 S	72.89 W 274.47
3.95					
9553.00	89.500	176.700	9386.33	340.13 S	71.14 W 296.54
1.56					
9584.00	90.200	176.700	9386.41	371.08 S	69.35 W 317.87
2.26					
9616.00	90.500	176.700	9386.21	403.02 S	67.51 W 339.88
0.94					
9648.00	91.100	176.200	9385.77	434.96 S	65.53 W 361.79
2.44					
9679.00	91.700	176.600	9385.01	465.89 S	63.58 W 383.00
2.33					
9710.00	90.500	175.600	9384.41	496.81 S	61.47 W 404.08
5.04					
9742.00	89.800	176.000	9384.33	528.72 S	59.13 W 425.73
2.52					
9774.00	90.000	176.800	9384.39	560.66 S	57.12 W 447.62
2.58					
9805.00	89.900	176.700	9384.41	591.61 S	55.36 W 468.97
0.46					
9836.00	89.500	177.500	9384.57	622.57 S	53.80 W 490.45
2.89					
9868.00	89.100	177.900	9384.97	654.54 S	52.51 W 512.87
1.77					
9899.00	88.900	177.900	9385.51	685.52 S	51.38 W 534.66
0.65					
9930.00	89.700	177.400	9385.89	716.49 S	50.10 W 556.35
3.04					
9958.00	90.100	177.100	9385.93	744.46 S	48.76 W 575.81
1.79					
9989.00	90.400	177.500	9385.80	775.42 S	47.30 W 597.37
1.61					
10021.00	90.100	177.500	9385.66	807.39 S	45.91 W 619.71
0.94					
10053.00	90.200	178.200	9385.58	839.37 S	44.70 W 642.18
2.21					
10084.00	90.600	178.000	9385.36	870.35 S	43.68 W 664.05
1.44					
10115.00	90.400	178.300	9385.09	901.33 S	42.68 W 685.94
1.16					
10147.00	89.200	178.600	9385.20	933.32 S	41.81 W 708.65
3.87					
10179.00	89.400	178.000	9385.59	965.30 S	40.86 W 731.31
1.98					
10211.00	91.300	178.500	9385.40	997.29 S	39.88 W 753.94
6.14					
10243.00	93.300	178.200	9384.11	1029.24 S	38.96 W 776.60
6.32					
10275.00	92.400	178.500	9382.52	1061.19 S	38.04 W 799.24
2.96					
10306.00	89.500	177.500	9382.01	1092.16 S	36.96 W 821.07
9.90					
10338.00	89.500	177.200	9382.29	1124.13 S	35.48 W 843.34

Sunshine #1 Lateral Plan #1 Final Report 5-04-07.txt

0.94						
10370.00	89.400	177.600	9382.59	1156.09 S	34.03 W	865.64
1.29						
10401.00	89.800	177.400	9382.81	1187.06 S	32.68 W	887.28
1.44						
10433.00	89.600	177.400	9382.98	1219.03 S	31.23 W	909.57
0.63						
10464.00	89.200	177.400	9383.30	1250.00 S	29.82 W	931.17
1.29						
10496.00	90.000	177.200	9383.53	1281.96 S	28.31 W	953.43
2.58						
10527.00	90.200	176.500	9383.47	1312.91 S	26.61 W	974.82
2.35						
10559.00	90.900	176.200	9383.16	1344.85 S	24.57 W	996.69
2.38						
10591.00	90.800	175.600	9382.69	1376.76 S	22.29 W	1018.37
1.90						
10622.00	91.200	175.000	9382.15	1407.65 S	19.75 W	1039.14
2.33						
10653.00	91.600	175.200	9381.39	1438.53 S	17.10 W	1059.82
1.44						
10685.00	90.600	176.200	9380.78	1470.43 S	14.70 W	1081.43
4.42						
10717.00	89.600	176.700	9380.72	1502.37 S	12.72 W	1103.34
3.49						
10749.00	90.100	176.700	9380.80	1534.32 S	10.88 W	1125.35
1.56						
10780.00	91.100	177.600	9380.48	1565.28 S	9.33 W	1146.86
4.34						
10812.00	90.300	177.300	9380.09	1597.24 S	7.91 W	1169.17
2.67						
10843.00	89.500	177.500	9380.14	1628.21 S	6.51 W	1190.77
2.66						
10874.00	89.500	177.300	9380.41	1659.18 S	5.10 W	1212.37
0.65						
10906.00	90.400	176.900	9380.44	1691.14 S	3.48 W	1234.55
3.08						
10938.00	90.600	176.900	9380.16	1723.09 S	1.75 W	1256.64
0.63						
10969.00	90.500	177.300	9379.86	1754.05 S	0.18 W	1278.12
1.33						
11001.00	90.100	177.700	9379.70	1786.02 S	1.21 E	1300.46
1.77						
11032.00	88.300	177.500	9380.13	1816.98 S	2.51 E	1322.13
5.84						
11071.00	88.300	177.500	9381.29	1855.93 S	4.21 E	1349.35
0.00						

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to WELL. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from Slot and calculated along an Azimuth of 223.231° (Grid).

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.
Central meridian is -104.333°.
Grid Convergence at Surface is 0.639°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 11071.00ft., the Bottom Hole Displacement is 1855.93ft., in the Direction of 223.231° (Grid).

Sunshine #1 Lateral Plan #1 Final Report 5-04-07.txt

Cimarex Energy Co., Inc.

Lea County (NAD 83)

Sunshine #1

Sunshine #1

Lateral #1

Survey: MWD Survey #1

Standard Survey Report

04 May, 2007



Black Viper Energy

Survey Report



Company:	Cimarex Energy Co., Inc	Local Co-ordinate Reference:	Well: Sunshine #1
Project:	Lea County (NAD: 83)	TVD Reference:	WELL @ 3775 00ft (Original Well Elev)
Site:	Sunshine #1	MD Reference:	WELL @ 3775 00ft (Original Well Elev)
Well:	Sunshine #1	North Reference:	Grd
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	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		Sunshine #1			
Site Position:		Northing:	735,457 37 ft	Latitude:	33° 0' 58 509 N
From:	Map	Easting:	900,964 04 ft	Longitude:	103° 9' 36 424 W
Position Uncertainty:	0 00 ft	Slot Radius:	"	Grid Convergence:	0 64 °

Well:	Sunshine #1					
Well Position	+N/-S	0 00 ft	Northing:	735,457 37 ft	Latitude:	33° 0' 58 509 N
	+E/-W	0 00 ft	Easting:	900,964 04 ft	Longitude:	103° 9' 36 424 W
Position Uncertainty		0 00 ft	Wellhead Elevation:	ft	Ground Level:	0 00 ft

Wellbore	Lateral #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/8/2006	7 99	61 12	49,622

Design:	Lateral #1				
Audit Notes:					
Version:	1 0	Phase:	ACTUAL	Tie On Depth:	9,100 00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0 00	0 00	0 00	223 23	

Survey Program		Date	5/4/2007		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100 00	9,100 00	Gyro Survey #1 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s	
9,100 00	11,071 00	MWD Survey #1 (Lateral #1)	MWD	MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,100 00	1 55	256 91	9,098 02	-86 64	-87 92	123 35	0 00	0 00		0 00
9,194 00	4 50	184 50	9,191 90	-90 61	-89 45	127 28	4 57	3 14		-77 03
First MWD Survey										
9,204 00	7 30	179 70	9,201 84	-91 63	-89 48	128 05	28 41	28 00		-48 00
9,214 00	10 40	180 00	9,211 72	-93 17	-89 47	129 17	31 00	31 00		3 00
9,224 00	12 80	180 30	9,221 52	-95 18	-89 48	130 64	24 01	24 00		3 00
9,236 00	15 30	181 20	9,233 16	-98 09	-89 52	132 79	20 91	20 83		7 50
9,246 00	17 60	181.10	9,242 75	-100 93	-89 57	134 89	23 00	23 00		-1 00
9,256 00	20 00	181 00	9,252 22	-104 15	-89 63	137 28	24 00	24 00		-1 00
9,267 00	22 30	180 30	9,262 47	-108 12	-89 68	140 20	21 03	20 91		-6 36
9,277 00	24 90	179 80	9,271 64	-112 12	-89 68	143 12	26 08	26 00		-5 00
9,287 00	27 20	178 60	9,280 62	-116 51	-89 62	146 27	23 59	23 00		-12 00

Black Viper Energy

Survey Report



Company:	Cimarex Energy Co., Inc	Local Co-ordinate Reference:	Well Sunshine #1
Project:	Lea County (NAD 83)	TVD Reference:	WELL @ 3775 00ft (Original Well Elev)
Site:	Sunshine #1	MD Reference:	WELL @ 3775 00ft (Original Well Elev)
Well:	Sunshine #1	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003 14 Server Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,296 00	29 10	178 90	9,288 55	-120 75	-89 52	149 30	21 17	21 11	3 33
9,306 00	31 70	177 10	9,297 18	-125 81	-89 34	152 86	27 55	26 00	-18 00
9,316 00	34 20	176 00	9,305 57	-131.24	-89 02	156 59	25 71	25 00	-11 00
9,328 00	36 90	173 30	9,315 33	-138 18	-88 36	161 20	26 02	22 50	-22 50
9,338 00	40 00	171 90	9,323 16	-144 35	-87 56	165 14	32 20	31 00	-14 00
9,348 00	43 20	170 90	9,330 64	-150 91	-86 56	169 24	32 68	32 00	-10 00
9,360 00	47 30	170 70	9,339 09	-159 32	-85 20	174 44	34 19	34 17	-1 67
9,370 00	51 00	170 40	9,345 63	-166 78	-83 96	179 02	37 07	37 00	-3 00
9,380 00	54 40	171 00	9,351 69	-174 63	-82 67	183 86	34 33	34 00	6 00
9,391 00	57 50	172 10	9,357 84	-183 65	-81 34	189 51	29 37	28 18	10 00
9,401 00	61 30	173 60	9,362 93	-192 18	-80 27	195 00	40 13	38 00	15 00
9,411 00	64 10	175 50	9,367 52	-201 03	-79 42	200 87	32 69	28 00	19 00
9,423 00	67 90	176 80	9,372 40	-211 96	-78 69	208 34	33 18	31 67	10 83
9,433 00	71 40	176 70	9,375 88	-221 32	-78 16	214 79	35 01	35 00	-1 00
9,443 00	74 90	176 60	9,378 78	-230 88	-77 60	221 37	35 01	35 00	-1 00
9,458 00	79 90	176 30	9,382 05	-245 48	-76 69	231 39	33 39	33 33	-2 00
9,468 00	83 30	176 10	9,383 51	-255 35	-76 04	238 13	34 06	34 00	-2 00
9,478 00	85 60	176 20	9,384 47	-265 28	-75 37	244 91	23 02	23 00	1 00
9,489 00	87 90	176 60	9,385 10	-276 24	-74 68	252 42	21 22	20 91	3 64
9,521 00	89 10	177 00	9,385 94	-308 18	-72 89	274 47	3 95	3 75	1 25
9,553 00	89 50	176 70	9,386 33	-340 13	-71 14	296 54	1 56	1 25	-0 94
9,584 00	90 20	176 70	9,386 41	-371 08	-69 35	317 87	2 26	2 26	0 00
9,616 00	90 50	176 70	9,386 21	-403 02	-67 51	339 88	0 94	0 94	0 00
9,648 00	91 10	176 20	9,385 77	-434 96	-65 53	361 79	2 44	1 88	-1 56
9,679 00	91 70	176 60	9,385 01	-465 89	-63 58	383 00	2 33	1 94	1 29
9,710 00	90 50	175 60	9,384 41	-496 81	-61 47	404 08	5 04	-3 87	-3 23
9,742 00	89 80	176 00	9,384 33	-528 72	-59 13	425 73	2 52	-2 19	1 25
9,774 00	90 00	176 80	9,384 39	-560 66	-57 12	447 62	2 58	0 63	2 50
9,805 00	89 90	176 70	9,384 41	-591 61	-55 36	468 97	0 46	-0 32	-0 32
9,836 00	89 50	177 50	9,384 57	-622 57	-53 80	490 45	2 89	-1 29	2 58
9,868 00	89 10	177 90	9,384 97	-654 54	-52 51	512 87	1 77	-1 25	1 25
9,899 00	88 90	177 90	9,385 51	-685 52	-51 38	534 66	0 65	-0 65	0 00
9,930 00	89 70	177 40	9,385 89	-716 49	-50 10	556 35	3 04	2 58	-1 61
9,958 00	90 10	177 10	9,385 93	-744 46	-48 76	575.81	1 79	1 43	-1 07
9,989 00	90 40	177 50	9,385 80	-775 42	-47 30	597 37	1 61	0 97	1 29
10,021 00	90 10	177 50	9,385 66	-807 39	-45 91	619 71	0 94	-0 94	0 00
10,053 00	90 20	178 20	9,385.58	-839 37	-44 70	642 18	2 21	0 31	2 19
10,084 00	90 60	178 00	9,385 36	-870 35	-43 68	664 05	1 44	1 29	-0 65
10,115 00	90 40	178 30	9,385 09	-901 33	-42 68	685 94	1 16	-0 65	0 97
10,147 00	89 20	178 60	9,385 20	-933 32	-41 81	708 65	3 87	-3 75	0 94
10,179 00	89 40	178 00	9,385 59	-965 30	-40 86	731 31	1 98	0 63	-1 88
10,211 00	91 30	178 50	9,385 40	-997 29	-39 88	753 94	6 14	5 94	1 56
10,243 00	93 30	178 20	9,384 11	-1,029 24	-38 96	776 60	6 32	6 25	-0 94
10,275 00	92 40	178 50	9,382 52	-1,061 19	-38 04	799 24	2 96	-2 81	0 94
10,306 00	89 50	177 50	9,382 01	-1,092 16	-36 96	821 07	9 90	-9 35	-3 23
10,338 00	89 50	177 20	9,382 29	-1,124 13	-35 48	843 34	0 94	0 00	-0 94
10,370 00	89 40	177 60	9,382 59	-1,156 09	-34 03	865 64	1 29	-0 31	1 25
10,401 00	89 80	177 40	9,382 81	-1,187 06	-32 68	887 28	1 44	1 29	-0 65
10,433 00	89 60	177 40	9,382 98	-1,219 03	-31 23	909 57	0 63	-0 63	0 00
10,464.00	89 20	177 40	9,383 30	-1,250 00	-29 82	931.17	1 29	-1 29	0.00
10,496 00	90 00	177 20	9,383 53	-1,281 96	-28 31	953 43	2 58	2 50	-0 63
10,527 00	90 20	176 50	9,383 47	-1,312 91	-26 61	974 82	2 35	0 65	-2 26
10,559 00	90 90	176 20	9,383 16	-1,344 85	-24 57	996 69	2 38	2 19	-0 94
10,591 00	90 80	175 60	9,382 69	-1,376 76	-22 29	1,018 37	1 90	-0 31	-1 88

Black Viper Energy

Survey Report



Company:	Cimarex Energy Co., Inc	Local Co-ordinate Reference:	Well: Sunshine #1
Project:	Lea County (NAD 83)	TVD Reference:	WELL @ 3775 00ft (Original Well Elev)
Site:	Sunshine #1	MD Reference:	WELL @ 3775 00ft (Original Well Elev)
Well:	Sunshine #1	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003 14 Server Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
10,622 00	91 20	175 00	9,382 15	-1,407 65	-19 75	1,039 14	2 33	1 29	-1 94	
10,653 00	91 60	175 20	9,381 39	-1,438 53	-17 10	1,059 82	1 44	1 29	0 65	
10,685 00	90 60	176 20	9,380 78	-1,470 43	-14 70	1,081 43	4 42	-3 13	3 13	
10,717 00	89 60	176 70	9,380 72	-1,502 37	-12 72	1,103 34	3 49	-3 13	1 56	
10,749 00	90 10	176 70	9,380 80	-1,534 32	-10 88	1,125 35	1 56	1 56	0 00	
10,780 00	91 10	177 60	9,380 48	-1,565 28	-9 33	1,146 86	4 34	3 23	2 90	
10,812 00	90 30	177 30	9,380 09	-1,597 24	-7 91	1,169 17	2 67	-2 50	-0 94	
10,843 00	89 50	177 50	9,380 14	-1,628 21	-6 51	1,190 77	2 66	-2 58	0 65	
10,874 00	89 50	177 30	9,380 41	-1,659 18	-5 10	1,212 37	0 65	0 00	-0 65	
10,906 00	90 40	176 90	9,380 44	-1,691 14	-3 48	1,234 55	3 08	2 81	-1 25	
10,938 00	90 60	176 90	9,380 16	-1,723 09	-1 75	1,256 64	0 63	0 63	0 00	
10,969 00	90 50	177 30	9,379 86	-1,754 05	-0 18	1,278 12	1 33	-0 32	1 29	
11,001 00	90 10	177 70	9,379 70	-1,786 02	1 21	1,300 46	1 77	-1 25	1 25	
11,032 00	88 30	177 50	9,380 13	-1,816 98	2 51	1,322 13	5 84	-5 81	-0 65	
Last MWD Survey										
11,071 00	88 30	177 50	9,381 29	-1,855 93	4 21	1,349 35	0 00	0 00	0 00	
Proj. to Bit										

Targets										
Target Name	hit/miss	target Dip	Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	
Shape		(°)		(°)	(ft)	(ft)	(ft)	(ft)	(ft)	
PBHL#1[SS#1]		0 00	0 00		9,385 00	-1,855 50	0 00	733,601 87	900,964 04	33° 0' 40 153 N 103° 9' 36 667 W
- survey misses by 5 61ft at 11070 50ft MD (9381 27 TVD, -1855 43 N, 4 19 E)										
- Point										

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
9,194 00	9,191 90	-90 61	-89 45	First MWD Survey	
11,032 00	9,380 13	-1,816 98	2 51	Last MWD Survey	
11,071 00	9,381 29	-1,855 93	4 21	Proj to Bit	

Checked By _____ Approved By _____ Date: _____