

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31, 1991

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL:		OIL WELL ☐	GAS WELL ☒	DRY ☐			
b. TYPE OF COMPLETION:		NEW WELL ☒	WORK OVER ☐	DEEP-EN ☐	PLUG BACK ☐	DIFF. REVR. ☐	Other ☐
2. NAME OF OPERATOR Cimarex Energy Co. of Colorado							
3. ADDRESS AND TELEPHONE NO. P O Box 140907 Irving Tx. 75014-0907							
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 210' FSL & 510' FWL At top prod. interval reported below 1098' FSL & 929' FWL At total depth 1299' FSL & 1016' FWL							
14. PERMIT NO.				DATE ISSUED			
15. DATE SPUDDED 02-10-06				16. DATE T.D. REACHED 03-09-06		17. DATE COMPL. (Ready to prod.) 09-26-06	
18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 3352' GR				19. ELEV. CASINGHEAD			
20. TOTAL DEPTH, MD & TVD MD 12450' TVD 12283'		21. PLUG BACK T.D., MD & TVD MD 12396' TVD 12237'		22. IF MULTIPLE COMPL., HOW MANY*		23. INTERVALS DRILLED BY All	
24. PRODUCING INTERVAL(S). OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* MD: Undesignated Upper Penn Wildcat 10354' - 10568' TVD: Undesignated Upper Penn Wildcat 10220' - 10458'						25. WAS DIRECTIONAL SURVEY MADE Yes	
26. TYPE ELECTRIC AND OTHER LOGS RUN Dual Spaced Neutron, DLL Microguard, Cement Bond Log						27. WAS WELL CORED No	
28. CASING RECORD (Report all strings set in well)							
CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD		AMOUNT PULLED	
13-3/8" H-40	48#	215'	17-1/2"	240 bbl circ 63 bbl			
9-5/8" J-55	40 #	2760'	12-1/4"	1000 sx circ 80 sx			
5-1/2" P-110	17#	12450'	8-3/4"	2540 sx TOC surface			
29. LINER RECORD							
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)			
30. TUBING RECORD							
SIZE	DEPTH SET (MD)	PACKER SET (MD)					
2-3/8"	10324'	10324'					
31. PERFORATION RECORD (Interval, size and number)				32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
11968'-11980 6 jsp 72 holes RBP @ 11950'				DEPTH INTERVAL (MD)			
11838'-11892' 6 spf 72 holes RBP @ 11820' w/ 2 sx cmt				AMOUNT AND KIND OF MATERIAL USED			
11712'-11746' 6 spf 90 holes CIBP @ 11680' w/ 4 sx cmt				11968'-11980' 14271gal foam 45# gel 85:15 7% KCL, CO2,			
10354'-10568' 3 spf 288 holes				Methanol, 20000# Versaprop			
				11712'-11746' 3000gal 7-1/2% Ferchek, 15% Methanol, 69.5 bbl 7% KCL			
				10354'-10360' 345295gal SIWtr & Delta-Frac 140, 110220#			
33. PRODUCTION							
DATE FIRST PRODUCTION 09-26-06		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing				WELL STATUS (Producing or shut-in) Producing	
DATE OF TEST 09-26-06	HOURS TESTED 24	CHOKE SIZE WO	PROD'N. FOR TEST PERIOD	OIL—BBL. 168	GAS—MCF. 170	WATER—BBL. 45	GAS-OIL RATIO 1012
FLOW. TUBING PRESS. 65	CASING PRESSURE 640	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	GRAVITY-API (CORR.)	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Sold							
35. LIST OF ATTACHMENTS Electric logs and Inclination Summary							
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records							
SIGNED <u>Natalie Kuehn</u>		TITLE <u>Regulatory Analyst</u>		DATE <u>12-06-06</u>		FREDERICK WRIGHT PETROLEUM ENGINEER	

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
				Delaware	2100'	2099'
				Bone Spring	5614'	5613'
				Wolfcamp	8789'	8709'
				Cisco-Canyon	10352'	10219'
				Strawn	10616'	10474'
				Atoka	10810'	10665'
				Morrow	11428'	11276'
				Lower Morrow	12105'	11953'

OPERATOR GRUY PETROLEUM
WELL/LEASE TAOS FED. 1
COUNTY EDDY

080-0041

STATE OF NEW MEXICO
DEVIATION REPORT

156	1.25
561	1.00
871	1.00
1,183	1.00
1,436	2.00
1,594	1.00
1,784	1.00
2,005	1.00
2,385	1.00
2,630	0.50
2,976	0.50
3,356	1.00
3,735	0.50
4,147	0.50
4,487	1.00
4,905	1.00
5,380	1.00
5,759	1.50

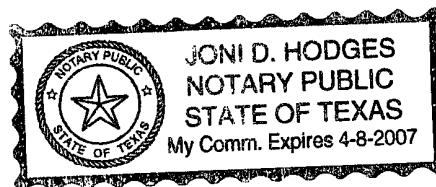
BY: _____

STATE OF TEXAS
COUNTY OF MIDLAND

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

March 23, 2006 , by Steve

Joni D. Hodges
Notary Public for Midland County, Texas
My Commission Expires: 4/08/07



DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-34520	Pool Code	Pool Name Cottonwood Draw; Upper Penn
Property Code	Property Name TAOS FEDERAL	Well Number 1
OGRID No. 162683	Operator Name Cimarex Energy Co. of Colorado	Elevation 3352'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	31	24-S	27-E		210	SOUTH	510	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	31	24-S	27-E		1299	SOUTH	1016	WEST	EDDY
Dedicated Acres 304	Joint or Infill N	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LOT 1 36.00 AC	GEODETIC COORDINATES NAD 27 NME Y=424404.9 N X=530158.8 E LAT.=32°10'00.37" N LONG.=104°14'09.13" W	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>Zeno Farris</i> Signature Zeno Farris Printed Name Mgr Operations Admin Title 12-06-06 Date
LOT 2 36.00 AC	NM-96208	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. OCTOBER 20, 2005 Date Surveyed Signature & Seal of Professional Surveyor <i>Ronald J. Eidson</i> 05.11.1571 Certificate No. RONALD J. EIDSON 3239
LOT 3 36.00 AC		
LOT 4 36.00 AC	Taos Fed #1 1016' 36.00 AC 929' 1098' 1299' DETAIL 3350.4' 3374.7' 600' 3393.3' 3357.5' SEE DETAIL 510' 210'	



Cimarex Energy Co., Inc.

Eddy Co., New Mexico

Taos Federal #1

Taos Federal #1

S-Well #1

Survey: MWD Survey #1

Standard Survey Report

14 March, 2006





Black Viper Energy Services Survey Report



Company:	Cimarex Energy Co., Inc.	Local Co-ordinate Reference:	Well Taos Federal #1
Project:	Eddy Co., New Mexico	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Taos Federal #1	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Well:	Taos Federal #1	North Reference:	Grid
Wellbore:	S-Well #1	Survey Calculation Method:	Minimum Curvature
Design:	S-Well #1	Database:	EDM 2003.11 Server Db

Project:	Eddy Co., New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Taos Federal #1			
Site Position:		Northing:	424,404.90 ft	Latitude:	32° 10' 00.358" N
From:	Map	Easting:	530,158.80 ft	Longitude:	104° 14' 09.139" W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.05 °

Well	Taos Federal #1					
Well Position	+N/-S	0.00 ft	Northing:	424,404.90 ft	Latitude:	32° 10' 00.358" N
	+E/-W	0.00 ft	Easting:	530,158.80 ft	Longitude:	104° 14' 09.139" W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	0.00 ft

Wellbore	S-Well #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2/7/2006	8.50	60.14	49,078

Design:	S-Well #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	6,028.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	24.78	

Survey Program		Date	3/14/2006		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
200.00	6,028.00	Gyro Survey #1 (OH)	GM	Gyro Multi-Shot	
6,095.00	11,821.00	MWD Survey #1 (S-Well #1)	MWD	Standard MWD	
11,990.00	12,368.00	SS Survey #1 (S-Well #1)	S.S.	Single Shot Survey	

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)
6,028.00	1.63	192.43	6,026.76	-49.08	23.49	-34.72	0.00	0.00	0.00
6,095.00	1.90	164.30	6,093.73	-51.08	23.59	-36.49	1.34	0.40	-41.99
First MWD Survey									
6,127.00	1.60	137.80	6,125.72	-51.92	24.03	-37.07	2.67	-0.94	-82.81
6,158.00	1.60	93.90	6,156.71	-52.27	24.75	-37.09	3.86	0.00	-141.61
6,190.00	2.20	60.90	6,188.69	-52.01	25.73	-36.43	3.82	1.88	-103.13
6,221.00	3.00	42.20	6,219.66	-51.12	26.80	-35.18	3.73	2.58	-60.32
6,253.00	3.80	27.00	6,251.60	-49.55	27.84	-33.32	3.75	2.50	-47.50
6,285.00	4.70	17.00	6,283.52	-47.35	28.71	-30.96	3.63	2.81	-31.25
6,316.00	5.40	12.20	6,314.40	-44.71	29.39	-28.28	2.64	2.26	-15.48
6,348.00	6.00	11.50	6,346.24	-41.60	30.04	-25.18	1.89	1.88	-2.19



Black Viper Energy Services Survey Report



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Wellbore:	S-Well #1	Survey Calculation Method:	Minimum Curvature
Design:	S-Well #1	Database:	EDM 2003.11 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)	
6,379.00	6.30	13.50	6,377.06	-38.36	30.76	-21.94	1.19	0.97	6.45	
6,411.00	7.30	17.00	6,408.83	-34.71	31.76	-18.20	3.38	3.13	10.94	
6,443.00	7.90	17.80	6,440.55	-30.67	33.03	-14.00	1.90	1.88	2.50	
6,474.00	8.50	19.70	6,471.24	-26.48	34.45	-9.61	2.12	1.94	6.13	
6,506.00	8.50	16.60	6,502.88	-21.99	35.93	-4.91	1.43	0.00	-9.69	
6,538.00	8.90	22.80	6,534.52	-17.44	37.56	-0.09	3.18	1.25	19.38	
6,569.00	9.40	25.50	6,565.12	-12.95	39.58	4.83	2.13	1.61	8.71	
6,601.00	10.50	26.00	6,596.64	-7.97	41.98	10.36	3.45	3.44	1.56	
6,632.00	11.20	26.40	6,627.09	-2.73	44.56	16.20	2.27	2.26	1.29	
6,664.00	12.00	25.10	6,658.43	3.06	47.35	22.63	2.63	2.50	-4.06	
6,696.00	12.40	24.30	6,689.71	9.21	50.18	29.39	1.36	1.25	-2.50	
6,727.00	13.20	23.10	6,719.94	15.50	52.94	36.26	2.72	2.58	-3.87	
6,759.00	13.50	22.20	6,751.07	22.32	55.78	43.64	1.14	0.94	-2.81	
6,791.00	14.20	20.70	6,782.14	29.45	58.58	51.29	2.46	2.19	-4.69	
6,822.00	14.90	20.00	6,812.15	36.75	61.29	59.05	2.33	2.26	-2.26	
6,854.00	15.40	22.20	6,843.04	44.55	64.30	67.40	2.38	1.56	6.88	
6,885.00	15.40	23.50	6,872.92	52.13	67.50	75.62	1.11	0.00	4.19	
6,917.00	15.60	22.80	6,903.76	60.00	70.86	84.17	0.86	0.63	-2.19	
6,948.00	15.90	23.80	6,933.60	67.72	74.19	92.58	1.31	0.97	3.23	
6,980.00	15.70	23.30	6,964.39	75.71	77.67	101.29	0.76	-0.63	-1.56	
7,043.00	15.50	28.10	7,025.07	90.97	85.01	118.22	2.07	-0.32	7.62	
7,074.00	15.20	30.60	7,054.96	98.12	89.03	126.40	2.34	-0.97	8.06	
7,106.00	15.20	30.80	7,085.84	105.33	93.31	134.74	0.16	0.00	0.63	
7,138.00	15.50	29.60	7,116.70	112.65	97.57	143.18	1.37	0.94	-3.75	
7,169.00	15.70	28.80	7,146.56	119.93	101.64	151.49	0.95	0.65	-2.58	
7,201.00	15.80	27.20	7,177.36	127.60	105.71	160.16	1.39	0.31	-5.00	
7,233.00	15.80	25.00	7,208.15	135.42	109.55	168.87	1.87	0.00	-6.88	
7,264.00	15.80	23.90	7,237.98	143.11	113.04	177.31	0.97	0.00	-3.55	
7,296.00	15.70	22.30	7,268.78	151.10	116.45	185.99	1.39	-0.31	-5.00	
7,328.00	15.50	21.20	7,299.60	159.09	119.64	194.58	1.12	-0.63	-3.44	
7,359.00	15.20	20.10	7,329.49	166.77	122.53	202.77	1.35	-0.97	-3.55	
7,391.00	15.20	19.20	7,360.37	174.67	125.35	211.12	0.74	0.00	-2.81	
7,422.00	15.40	19.60	7,390.28	182.38	128.07	219.27	0.73	0.65	1.29	
7,454.00	15.30	19.60	7,421.13	190.36	130.91	227.70	0.31	-0.31	0.00	
7,486.00	15.00	20.30	7,452.02	198.22	133.76	236.04	1.10	-0.94	2.19	
7,517.00	14.80	21.00	7,481.98	205.68	136.57	243.99	0.87	-0.65	2.26	
7,549.00	14.80	20.80	7,512.92	213.32	139.49	252.14	0.16	0.00	-0.63	
7,581.00	14.90	21.60	7,543.85	220.97	142.46	260.33	0.71	0.31	2.50	
7,612.00	14.80	22.40	7,573.81	228.33	145.43	268.26	0.74	-0.32	2.58	
7,675.00	15.30	26.40	7,634.65	243.22	152.19	284.61	1.83	0.79	6.35	
7,707.00	16.00	24.50	7,665.47	251.01	155.90	293.24	2.71	2.19	-5.94	
7,739.00	15.80	22.10	7,696.24	259.06	159.37	302.00	2.15	-0.63	-7.50	
7,771.00	15.00	19.90	7,727.10	266.99	162.42	310.48	3.10	-2.50	-6.88	
7,802.00	14.70	18.60	7,757.06	274.49	165.04	318.39	1.45	-0.97	-4.19	
7,834.00	15.20	17.10	7,787.98	282.35	167.57	326.58	1.98	1.56	-4.69	
7,866.00	15.50	16.90	7,818.84	290.45	170.04	334.98	0.95	0.94	-0.63	
7,898.00	15.70	17.40	7,849.66	298.67	172.58	343.51	0.75	0.63	1.56	
7,929.00	15.50	19.20	7,879.51	306.59	175.20	351.79	1.69	-0.65	5.81	
7,961.00	15.30	21.90	7,910.37	314.54	178.18	360.26	2.33	-0.63	8.44	
7,993.00	15.00	22.50	7,941.25	322.29	181.34	368.62	1.06	-0.94	1.88	
8,024.00	15.10	22.20	7,971.19	329.73	184.40	376.66	0.41	0.32	-0.97	
8,056.00	15.30	22.10	8,002.07	337.50	187.56	385.04	0.63	0.63	-0.31	
8,087.00	15.40	22.00	8,031.97	345.11	190.64	393.24	0.33	0.32	-0.32	
8,120.00	14.80	24.70	8,063.83	353.00	194.04	401.83	2.80	-1.82	8.18	
8,151.00	15.00	24.10	8,093.78	360.26	197.34	409.80	0.81	0.65	-1.94	



Black Viper Energy Services

Survey Report



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Project:	Eddy Co., New Mexico	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Taos Federal #1	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Well:	Taos Federal #1	North Reference:	Grid
Wellbore:	S-Well #1	Survey Calculation Method:	Minimum Curvature
Design:	S-Well #1	Database:	EDM 2003.11 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)
8,183.00	15.40	24.80	8,124.66	367.90	200.81	418.19	1.38	1.25	2.19
8,215.00	15.30	24.40	8,155.52	375.60	204.34	426.66	0.46	-0.31	-1.25
8,246.00	15.00	24.70	8,185.45	382.97	207.70	434.76	1.00	-0.97	0.97
8,278.00	14.80	25.20	8,216.37	390.43	211.17	442.99	0.74	-0.63	1.56
8,309.00	14.80	25.10	8,246.34	397.60	214.54	450.91	0.08	0.00	-0.32
8,341.00	14.80	23.10	8,277.28	405.06	217.88	459.08	1.60	0.00	-6.25
8,372.00	15.00	21.80	8,307.24	412.42	220.92	467.04	1.26	0.65	-4.19
8,404.00	15.40	22.20	8,338.12	420.20	224.06	475.42	1.29	1.25	1.25
8,436.00	15.30	21.70	8,368.98	428.06	227.23	483.88	0.52	-0.31	-1.56
8,467.00	15.50	19.90	8,398.66	435.75	230.15	492.10	1.67	0.65	-5.81
8,499.00	15.50	20.50	8,429.70	443.78	233.10	500.62	0.50	0.00	1.88
8,531.00	15.40	18.40	8,460.54	451.82	235.94	509.11	1.78	-0.31	-6.56
8,562.00	15.50	22.30	8,490.42	459.55	238.81	517.34	3.37	0.32	12.58
8,594.00	15.30	23.40	8,521.28	467.38	242.11	525.83	1.11	-0.63	3.44
8,625.00	15.40	22.80	8,551.17	474.93	245.33	534.03	0.61	0.32	-1.94
8,657.00	15.60	24.40	8,582.01	482.77	248.76	542.58	1.48	0.63	5.00
8,688.00	15.80	25.30	8,611.85	490.38	252.28	550.97	1.02	0.65	2.90
8,752.00	14.90	29.30	8,673.57	505.43	260.03	567.88	2.17	-1.41	6.25
8,783.00	15.10	29.90	8,703.51	512.41	264.00	575.88	0.82	0.65	1.94
8,815.00	15.20	28.90	8,734.40	519.70	268.10	584.21	0.87	0.31	-3.13
8,846.00	15.30	27.30	8,764.31	526.89	271.94	592.35	1.40	0.32	-5.16
8,878.00	15.60	26.20	8,795.15	534.50	275.78	600.87	1.31	0.94	-3.44
8,910.00	15.80	24.90	8,825.96	542.31	279.51	609.53	1.26	0.63	-4.06
8,941.00	15.80	21.90	8,855.79	550.06	282.86	617.97	2.63	0.00	-9.68
8,973.00	15.70	19.50	8,886.59	558.18	285.93	626.63	2.06	-0.31	-7.50
9,004.00	15.30	17.60	8,916.46	566.03	288.57	634.86	2.08	-1.29	-6.13
9,036.00	15.10	18.40	8,947.34	574.01	291.16	643.19	0.91	-0.63	2.50
9,067.00	15.00	19.90	8,977.28	581.62	293.80	651.20	1.30	-0.32	4.84
9,099.00	15.00	18.20	9,008.19	589.44	296.50	659.44	1.37	0.00	-5.31
9,131.00	14.80	17.60	9,039.11	597.27	299.03	667.61	0.79	-0.63	-1.88
9,162.00	15.10	17.70	9,069.06	604.89	301.46	675.55	0.97	0.97	0.32
9,194.00	14.40	19.30	9,100.01	612.62	304.04	683.65	2.53	-2.19	5.00
9,226.00	14.10	20.70	9,131.02	620.02	306.73	691.50	1.43	-0.94	4.38
9,258.00	14.80	20.40	9,162.01	627.50	309.54	699.46	2.20	2.19	-0.94
9,289.00	14.20	18.90	9,192.02	634.81	312.15	707.19	2.28	-1.94	-4.84
9,321.00	14.30	20.30	9,223.04	642.23	314.79	715.03	1.12	0.31	4.38
9,352.00	13.90	21.30	9,253.10	649.29	317.47	722.57	1.51	-1.29	3.23
9,384.00	14.10	21.70	9,284.15	656.49	320.31	730.30	0.69	0.63	1.25
9,416.00	14.90	21.60	9,315.13	663.94	323.26	738.30	2.50	2.50	-0.31
9,447.00	15.10	21.40	9,345.08	671.40	326.21	746.31	0.67	0.65	-0.65
9,479.00	15.50	20.50	9,375.94	679.29	329.22	754.73	1.45	1.25	-2.81
9,511.00	15.20	22.80	9,406.80	687.16	332.35	763.19	2.12	-0.94	7.19
9,542.00	14.70	23.80	9,436.75	694.50	335.51	771.18	1.81	-1.61	3.23
9,574.00	15.30	25.30	9,467.66	702.04	338.95	779.46	2.23	1.88	4.69
9,606.00	15.60	23.60	9,498.50	709.80	342.48	787.99	1.70	0.94	-5.31
9,637.00	15.30	21.40	9,528.38	717.42	345.64	796.24	2.12	-0.97	-7.10
9,669.00	15.60	20.30	9,559.23	725.39	348.67	804.74	1.31	0.94	-3.44
9,701.00	15.30	20.50	9,590.07	733.38	351.64	813.24	0.95	-0.94	0.63
9,732.00	15.00	22.60	9,619.99	740.92	354.62	821.33	2.02	-0.97	6.77
9,764.00	14.60	24.90	9,650.93	748.40	357.91	829.50	2.22	-1.25	7.19
9,796.00	15.50	25.70	9,681.84	755.91	361.46	837.81	2.89	2.81	2.50
9,827.00	16.00	23.50	9,711.87	763.56	364.96	846.22	2.51	1.61	-7.10
9,859.00	15.90	23.30	9,742.44	771.63	368.45	855.01	0.36	-0.31	-0.63
9,890.00	16.10	23.20	9,772.24	779.48	371.83	863.55	0.65	0.65	-0.32
9,922.00	16.20	23.40	9,802.98	787.66	375.35	872.45	0.36	0.31	0.63



Black Viper Energy Services

Survey Report



Company: Cimarex Energy Co., Inc.
Project: Eddy Co., New Mexico
Site: Taos Federal #1
Well: Taos Federal #1
Wellbore: S-Well #1
Design: S-Well #1

Local Co-ordinate Reference: Well Taos Federal #1
TVD Reference: WELL @ 0.00ft (Original Well Elev)
MD Reference: WELL @ 0.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.11 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)
9,954.00	15.80	22.40	9,833.74	795.78	378.78	881.27	1.52	-1.25	-3.13
9,986.00	15.30	22.90	9,864.56	803.70	382.08	889.84	1.62	-1.56	1.56
10,017.00	15.20	22.40	9,894.47	811.22	385.22	897.99	0.53	-0.32	-1.61
10,049.00	14.70	21.70	9,925.39	818.87	388.32	906.23	1.66	-1.56	-2.19
10,081.00	14.30	22.20	9,956.37	826.30	391.32	914.24	1.31	-1.25	1.56
10,113.00	13.50	24.50	9,987.43	833.36	394.36	921.92	3.04	-2.50	7.19
10,145.00	14.20	26.00	10,018.50	840.29	397.63	929.58	2.46	2.19	4.69
10,177.00	14.50	25.80	10,049.50	847.42	401.09	937.51	0.95	0.94	-0.63
10,209.00	14.20	23.00	10,080.51	854.64	404.37	945.44	2.36	-0.94	-8.75
10,241.00	14.80	23.70	10,111.49	862.00	407.55	953.45	1.95	1.88	2.19
10,273.00	14.20	25.00	10,142.47	869.30	410.85	961.46	2.13	-1.88	4.06
10,305.00	14.30	24.20	10,173.48	876.46	414.13	969.33	0.69	0.31	-2.50
10,336.00	14.70	21.20	10,203.50	883.62	417.12	977.09	2.74	1.29	-9.68
10,369.00	14.90	19.60	10,235.40	891.52	420.06	985.49	1.38	0.61	-4.85
10,400.00	15.20	19.10	10,265.34	899.11	422.72	993.51	1.05	0.97	-1.61
10,433.00	15.50	18.20	10,297.16	907.39	425.52	1,002.19	1.16	0.91	-2.73
10,465.00	15.40	19.80	10,328.00	915.45	428.29	1,010.67	1.37	-0.31	5.00
10,496.00	15.10	21.00	10,357.91	923.09	431.13	1,018.80	1.40	-0.97	3.87
10,528.00	14.80	22.00	10,388.83	930.77	434.16	1,027.04	1.24	-0.94	3.13
10,561.00	13.80	20.60	10,420.81	938.37	437.12	1,035.18	3.21	-3.03	-4.24
10,592.00	13.60	20.10	10,450.93	945.25	439.67	1,042.50	0.75	-0.65	-1.61
10,624.00	12.50	19.60	10,482.10	952.05	442.13	1,049.70	3.46	-3.44	-1.56
10,655.00	12.10	17.80	10,512.39	958.30	444.25	1,056.26	1.79	-1.29	-5.81
10,687.00	11.10	17.50	10,543.73	964.43	446.20	1,062.65	3.13	-3.13	-0.94
10,719.00	10.60	18.80	10,575.16	970.16	448.07	1,068.63	1.74	-1.56	4.06
10,750.00	10.50	22.30	10,605.64	975.47	450.06	1,074.29	2.09	-0.32	11.29
10,782.00	10.60	23.20	10,637.10	980.87	452.33	1,080.14	0.60	0.31	2.81
10,814.00	9.90	22.10	10,668.59	986.12	454.52	1,085.83	2.27	-2.19	-3.44
10,846.00	10.50	22.40	10,700.08	991.37	456.67	1,091.49	1.88	1.88	0.94
10,877.00	10.50	24.20	10,730.56	996.56	458.90	1,097.14	1.06	0.00	5.81
10,909.00	10.40	22.80	10,762.03	1,001.88	461.22	1,102.94	0.85	-0.31	-4.38
10,941.00	10.00	24.70	10,793.52	1,007.07	463.50	1,108.61	1.63	-1.25	5.94
10,972.00	9.60	25.00	10,824.07	1,011.85	465.72	1,113.88	1.30	-1.29	0.97
11,004.00	9.70	22.80	10,855.62	1,016.76	467.89	1,119.25	1.19	0.31	-6.88
11,036.00	9.10	22.80	10,887.19	1,021.58	469.91	1,124.47	1.88	-1.88	0.00
11,068.00	9.20	24.50	10,918.78	1,026.24	471.96	1,129.56	0.90	0.31	5.31
11,099.00	9.10	24.40	10,949.39	1,030.72	474.00	1,134.49	0.33	-0.32	-0.32
11,131.00	8.40	23.50	10,981.01	1,035.17	475.97	1,139.35	2.23	-2.19	-2.81
11,162.00	7.50	24.80	11,011.72	1,039.09	477.72	1,143.64	2.96	-2.90	4.19
11,194.00	6.70	21.40	11,043.47	1,042.72	479.28	1,147.59	2.82	-2.50	-10.63
11,254.00	5.10	17.70	11,103.15	1,048.52	481.37	1,153.73	2.74	-2.67	-6.17
11,285.00	5.00	18.40	11,134.03	1,051.11	482.22	1,156.44	0.38	-0.32	2.26
11,317.00	4.60	19.40	11,165.92	1,053.65	483.08	1,159.11	1.28	-1.25	3.13
11,380.00	4.30	19.70	11,228.73	1,058.25	484.72	1,163.98	0.48	-0.48	0.48
11,444.00	2.40	27.50	11,292.62	1,061.70	486.14	1,167.70	3.05	-2.97	12.19
11,475.00	2.10	32.60	11,323.59	1,062.76	486.75	1,168.92	1.16	-0.97	16.45
11,506.00	1.90	33.10	11,354.57	1,063.66	487.34	1,169.99	0.65	-0.65	1.61
11,569.00	1.90	25.80	11,417.54	1,065.48	488.36	1,172.06	0.38	0.00	-11.59
11,632.00	1.50	13.00	11,480.51	1,067.22	489.00	1,173.92	0.87	-0.63	-20.32
11,695.00	2.20	39.00	11,543.48	1,068.97	489.95	1,175.89	1.71	1.11	41.27
11,758.00	2.10	38.10	11,606.44	1,070.81	491.42	1,178.19	0.17	-0.16	-1.43
11,821.00	1.70	38.40	11,669.40	1,072.46	492.71	1,180.22	0.64	-0.63	0.48

Last MWD Survey



Black Viper Energy Services
Survey Report



Company: Cimarex Energy Co., Inc.
Project: Eddy Co., New Mexico
Site: Taos Federal #1
Well: Taos Federal #1
Wellbore: S-Well #1
Design: S-Well #1

Local Co-ordinate Reference: Well Taos Federal #1
TVD Reference: WELL @ 0.00ft (Original Well Elev)
MD Reference: WELL @ 0.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.11 Server Db

Targets

Target Name hit/miss target Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S ft	+E/-W ft	Northing (ft)	Easting (ft)	Latitude	Longitude
PP #4 [TF#1] - survey misses by 5.25ft at 8779.36ft MD (8700.00 TVD, 511.59 N, 263.52 E) - Point	0.00	0.00	8,700.00	511.60	258.27	424,916.50	530,417.07	32° 10' 05.419" N	104° 14' 06.128" W
PBHL [TF#1] - survey misses by 631.56ft at 11821.00ft MD (11669.40 TVD, 1072.46 N, 492.71 E) - Rectangle (sides W300.00 H300.00 D0.00)	0.00	0.00	12,300.00	1,040.00	480.00	425,444.90	530,638.80	32° 10' 10.646" N	104° 14' 03.543" W
PBHL #2 [TF#1] - survey misses by 739.63ft at 11821.00ft MD (11669.40 TVD, 1072.46 N, 492.71 E) - Rectangle (sides W220.00 H220.00 D0.00)	0.00	0.00	12,300.00	780.00	240.00	425,184.90	530,398.80	32° 10' 08.075" N	104° 14' 06.338" W
Corner [TF#1] - survey misses by 129.16ft at 8779.36ft MD (8700.00 TVD, 511.59 N, 263.52 E) - Point	0.00	0.00	8,700.00	450.00	150.00	424,854.90	530,308.80	32° 10' 04.810" N	104° 14' 07.389" W

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,095.00	6,093.73	-51.08	23.59	First MWD Survey
11,821.00	11,669.40	1,072.46	492.71	Last MWD Survey

Checked By: _____ Approved By: _____ Date: _____



Cimarex Energy Co., Inc.

Eddy Co., New Mexico

Taos Federal #1

Taos Federal #1

S-Well #1

Survey: SS Survey #1

Standard Survey Report

14 March, 2006





Black Viper Energy Services Survey Report



Company:	Cimarex Energy Co., Inc.	Local Co-ordinate Reference:	Well Taos Federal #1
Project:	Eddy Co., New Mexico	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Taos Federal #1	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Well:	Taos Federal #1	North Reference:	Grid
Wellbore:	S-Well #1	Survey Calculation Method:	Minimum Curvature
Design:	S-Well #1	Database:	EDM 2003.11 Server Db

Project:	Eddy Co., New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Taos Federal #1			
Site Position:		Northing:	424,404.90 ft	Latitude:	32° 10' 00.358" N
From:	Map	Easting:	530,158.80 ft	Longitude:	104° 14' 09.139" W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.05 °

Well	Taos Federal #1					
Well Position	+N/-S	0.00 ft	Northing:	424,404.90 ft	Latitude:	32° 10' 00.358" N
	+E/-W	0.00 ft	Easting:	530,158.80 ft	Longitude:	104° 14' 09.139" W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	0.00 ft

Wellbore	S-Well #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2/7/2006	8.50	60.14	49,078

Design:	S-Well #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	6,028.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	24.78	

Survey Program		Date 3/14/2006		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
200.00	6,028.00	Gyro Survey #1 (OH)	GM	Gyro Multi-Shot
6,095.00	11,821.00	MWD Survey #1 (S-Well #1)	MWD	Standard MWD
11,990.00	12,368.00	SS Survey #1 (S-Well #1)	S.S.	Single Shot Survey

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)
11,821.00	1.70	38.40	11,669.40	1,072.46	492.71	1,180.22	0.00	0.00	0.00
11,990.00	2.00	40.00	11,838.31	1,076.68	496.17	1,185.50	0.18	0.18	0.95
First SS Survey									
12,179.00	3.75	260.00	12,027.19	1,078.13	492.20	1,185.16	2.88	0.93	-74.07
12,368.00	4.00	165.00	12,215.92	1,070.69	487.81	1,176.56	3.02	0.13	-50.26
Last SS Survey									



Black Viper Energy Services

Survey Report



Company: Cimarex Energy Co., Inc.
Project: Eddy Co., New Mexico
Site: Taos Federal #1
Well: Taos Federal #1
Wellbore: S-Well #1
Design: S-Well #1

Local Co-ordinate Reference: Well Taos Federal #1
TVD Reference: WELL @ 0.00ft (Original Well Elev)
MD Reference: WELL @ 0.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.11 Server Db

Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
h/u/miss target	(°)	(°)	(ft)	ft	ft	(ft)	(ft)		
PP #4 [TF#1]	0.00	0.00	8,700.00	511.60	258.27	424,916.50	530,417.07	32° 10' 05.419" N	104° 14' 06.128" W
- survey misses by 3030.98ft at 11821.00ft MD (11669.40 TVD, 1072.46 N, 492.71 E)									
- Point									
PBHL [TF#1]	0.00	0.00	12,300.00	1,040.00	480.00	425,444.90	530,638.80	32° 10' 10.646" N	104° 14' 03.543" W
- survey misses by 89.85ft at 12368.00ft MD (12215.92 TVD, 1070.69 N, 487.81 E)									
- Rectangle (sides W300.00 H300.00 D0.00)									
PBHL #2 [TF#1]	0.00	0.00	12,300.00	780.00	240.00	425,184.90	530,398.80	32° 10' 08.075" N	104° 14' 06.338" W
- survey misses by 391.13ft at 12368.00ft MD (12215.92 TVD, 1070.69 N, 487.81 E)									
- Rectangle (sides W220.00 H220.00 D0.00)									
Corner [TF#1]	0.00	0.00	8,700.00	450.00	150.00	424,854.90	530,308.80	32° 10' 04.810" N	104° 14' 07.389" W
- survey misses by 3053.23ft at 11821.00ft MD (11669.40 TVD, 1072.46 N, 492.71 E)									
- Point									

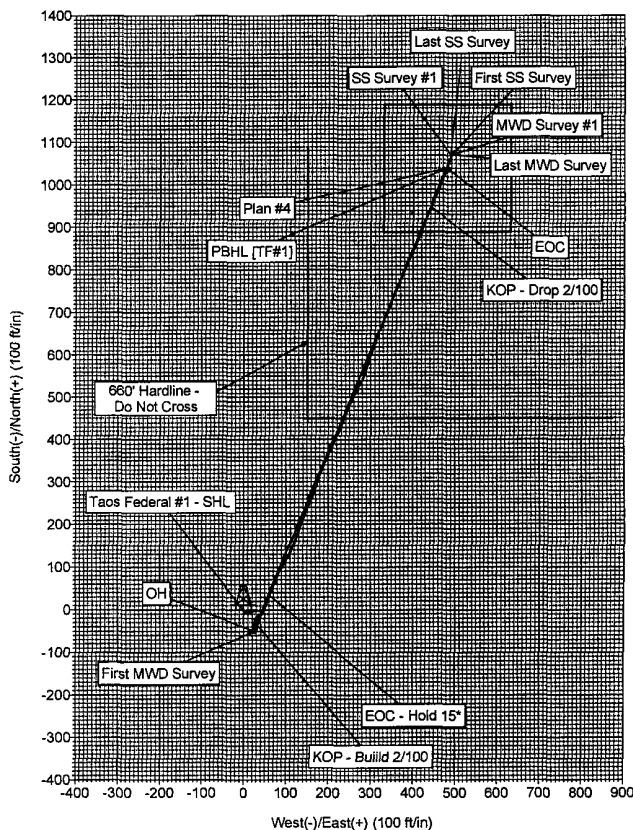
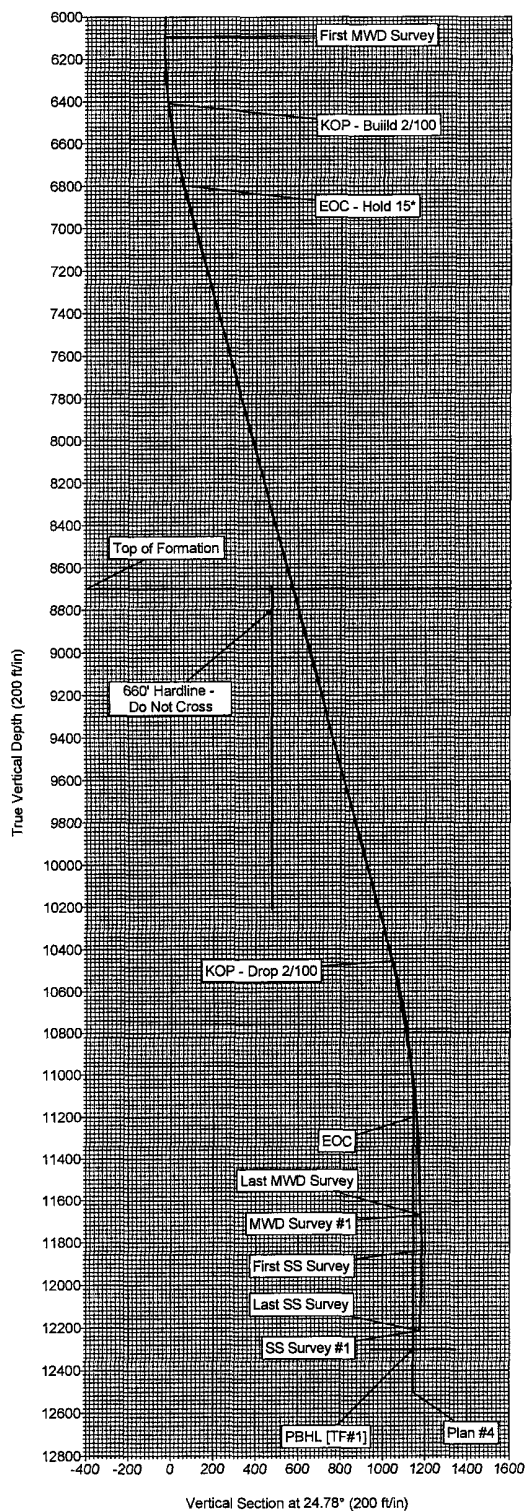
Survey Annotations

Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
11,990.00	11,838.31	1,076.68	496.17	First SS Survey
12,368.00	12,215.92	1,070.69	487.81	Last SS Survey

Checked By: _____ Approved By: _____ Date: _____



Project: Eddy Co., New Mexico
 Site: Taos Federal #1
 Well: Taos Federal #1
 Wellbore: S-Well #1
 Plan: Plan #4



ANNOTATIONS			
TVD	MD	Annotation	
6408.83	6411.00	KOP - Build 2/100	
6795.94	6805.94	EOC - Hold 15°	
10451.75	10593.00	KOP - Drop 2/100	
11200.00	11350.03	EOC	



Azimuths to Grid North
 True North: -0.05°
 Magnetic North: 8.45°
 Magnetic Field
 Strength: 49078.2nT
 Dip Angle: 60.14°
 Date: 2/7/2006
 Model: IGRF200510

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	6411.00	7.30	17.00	6408.83	-34.71	31.76	0.00	0.00	-18.20	
2	6805.94	15.13	22.76	6795.94	36.92	59.08	2.00	11.00	58.29	
3	10593.60	15.13	22.76	10452.33	948.45	441.58	0.00	0.00	1046.20	
4	11350.03	0.00	0.00	11200.00	1040.00	480.00	2.00	180.00	1145.43	
5	12450.03	0.00	0.00	12300.00	1040.00	480.00	0.00	0.00	1145.43	PBHL [TF#1]
6	12650.03	0.00	0.00	12500.00	1040.00	480.00	0.00	0.00	1145.43	

Plan: Plan #4 (Taos Federal #1/S-Well #1)
 Created By: John Hattberg Date: 11/03/2004