

CONFIDENTIAL

New Mexico Oil Conservation Division, District I
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
1625 N. French Drive
Hobbs, NM 88240

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

2. Name of Operator
Cimarex Energy Co. of Colorado

3. Address
5215 N. O'Connor Blvd., Ste. 1500; Irving, TX 75039

3a. Phone No. (include area code)
972-443-6489

4. Location of Well (Report Location clearly and in accordance with Federal requirements)*

At surface 1980 FNL & 330 FWL

At top prod. interval reported below 1980 FNL & 330 FWL

At total depth 1928 FNL & 364 FEL

14. Date Spudded
10.20.08

15. Date T.D. Reached
11.06.08

16. Date Completed 12.17.08
☐ D & A ☒ Ready to Prod.

18. Total Depth: MD 13258'
TVD 8859'

19. Plug Back TD: MD 13258'
TVD 8859'

20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

No logs run

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit report)
Directional Survey ☐ No ☒ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17 1/2"	13 3/8 H-40	48#	0'	358'		530 sx Thix/PP		0'	
12 1/4"	9 5/8 J-55	40#	0'	3,976'		1250 sx IntC/PP		0'	
8 3/4"	7" P-110	26#	0'	8,500'		750 sx Econocem/Versacem		0'	
6 1/2" (horiz)	4 1/2" P-110	11.6# BTC 11.6# LTC	8,367' 9,123'	9,123' 13,000'					

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2 3/8"	8087' (vertical)							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Wolfcamp	8830'		no perms - fracture treated through iso-ports separated by iso-packers			
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
	please see attachment for 8-stage frac job details

28. Production - Interval A -

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
12.18.08	01.02.09	24	→	314	313	51	40.2	1.450	Pumping - submersible pump in hole
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
wo	SI 220	60	→				997	Producing	

28. Production - Interval B -

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
	SI		→						

ACCEPTED FOR RECORD
DAVID R. GLASS
MAR 12 2009
DAVID R. GLASS
PETROLEUM ENGINEER

* (See instructions and spaces for additional data on page 2)

JUL 16 2015

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

Sold

30. Summary of Porous Zones (Include Aquifers):

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.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				Yates	2312'
				Queen	3090'
				SanAndres	3940'
				Abo Shale	7340'
				Lower Abo Dolomite	8791'
				Wolfcamp LS	8830'

32. Additional remarks (include plugging procedure):

33. Indicate which items have been attached by placing a check in the appropriate boxes:

☐ Electrical/Mechanical Logs (1 full set req'd.)
 ☐ Geologic Report
 ☐ DST Report
 ☒ Directional Survey
☐ Sundry Notice for plugging and cement verification
 ☐ Core Analysis
 ☒ Other: PEAK Systems Drawing, Frac Job, Deviation Report

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Natalie Krueger Title Regulatory AnalystSignature Natalie Krueger Date March 9, 2009

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

Acid, Fracture, Treatment, Cement Squeeze, etc. Attachment

Enterprise 11 Federal Com No. 3

11-15S-31E

Chaves County, NM

Depth Interval	Amount and Type of Material Used
12758'-13258'	Pump 36 bbl slickwater, 119 bbl 15% HCl, 95 bbl slickwater before pump-off plug broke @ 4198#, pump 95 bbl slickwater SD, Pump 119 bbl Deep Spot HCl, 200 bbl slickwater (CASING SAVER FAILURE) 6100#, continue to displace acid in casing (400 bbl total). Pump 144 bbl Lightning-2000, ramp 9329# of 30/50 white sand, flush with 145 bbl slickwater, drop 2¼" ball followed by 122 bbl 15% HCl, 386 bbl slickwater, avg rate 58 bpm.
12317'-12764'	Ball open port @ 12,581,' pumped 122 bbl 15%, 386 bbl slickwater. Frac Abo with 9,045# of 30/50 White sand, ramped ½ to 1 ppg, 110 bbl Deep Spot acid, 122 bbl 15% HCl, 1387 bbl slickwater, 119 bbl Lighting 2000 Pad. Drop 2½" ball, flushed 122 bbl 15% HCl & 137 bbl Slickwater.
11735'-12309'	Open port @ 11,999' @ 5939#. Frac Abo with 10,030# of 30/50 White snd. Ramp½ to 1 ppg, avg rate 60 bpm, Drop 2¾" Ball, flush 125 bbl HCl, 360 bbl slickwater.
11156'-11729'	Open port @ 11,164 @ 5971#. Frac with 8,434# of 30/50 white sand, ramp½ to 1 ppg, avg rate 60 bpm. Drop 2¾" ball, flush 120 bbl 15%, 366 bbl flush.
10557'-11149'	Open Port @ 10,837 @ 5868 Psi. Drop 3" ball, Pumped 120 bbl 15% HCl & 366 bbl Slickwater. Frac Abo with 5208 gals 15% DeepSpot HCl, 5166 gals 15 % HCl, 4998 gals Lightning-2000, 40000 gals Slickwater with 9892# of 30/50 white sand, ramp ½ to 1 ppg, avg rate 4088 # @ 60 bpm. Drop 3¾" Ball followed by 119 bbl 15 % HCl.
9815'-10567'	Open Port @ 9997' @ 4123#. Frac Abo with 6300 gals DeepSpot, 6972 gals 15% HCl, 20000 gals Lighting-2000, 40000 gals slickwater, 11,08: 30/50 white sand, ramped½ to 1 ppg. Avg rate 60.5 bpm @ 4930#. Drop 3½" ball,
9237'-9820'	Open Port @ 9502' @ 5992#. Frac Abo with 8217# of 30/50 sand. Drop 3¾ " Ball.
8837'-9231'	Open Port @ 9125' @ 6801.' Frac Abo with 6621 # of 30/50 sand, ramp from½ to 1 ppg, ran short of sand. Avg. rate 46.2 bpm @ 4995 Psi.

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

State of New Mexico
Energy, Minerals and Natural Resources Department

HOBBS OGD

Form C-102

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

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

Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

RECEIVED

☐ AMENDED REPORT

API Number 30-005-29057	Pool Code	Pool Name Wolfcamp Wildcat
Property Code	Property Name ENTERPRISE 11 FED COM	Well Number 3
OGRID No. 162683	Operator Name CIMAREX ENERGY COMPANY OF COLORADO	Elevation 4404'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	11	15-S	31-E		1980	NORTH	330	WEST	CHAVES

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
H	11	15-S	31-E		1928	NORTH	364	EAST	CHAVES

Dedicated Acres 160	Joint or Infill	Consolidation Code P	Order No.
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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

SHL & P.P. Abo 1980 FNL & 330 FWL BHL 1928 FNL & 364 FEL 1980' 1928' 4582' 330' SEE DETAIL 364' VO-8072-0001 NM-105886 DETAIL 4405.1' 4401.8' 600' 4403.9' 4401.6' GFODFTIC COORDINATES NAD 27 NME SURFACE LOCATION Y=739623.0 N X=663654.1 E LAT.=33.032144° N LONG.=103.799343° W	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Zeno Farris 3/9/2009 Signature Date Zeno Farris Printed Name 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. NOVEMBER 14 2007 Date Surveyed NEW MEXICO AR Signature & Seal of Professional Surveyor 3239 Ronald J. Eidson 11/15/07 Certificate No. GARY EIDSON 12641 RONALD J. EIDSON 3239
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Cimarex Energy Co. of Colorado

Location: Chaves County, NM
Field: (Enterprise) Sec 11, T15S, R31E
Facility: Enterprise 11 Fed Com No. 3H

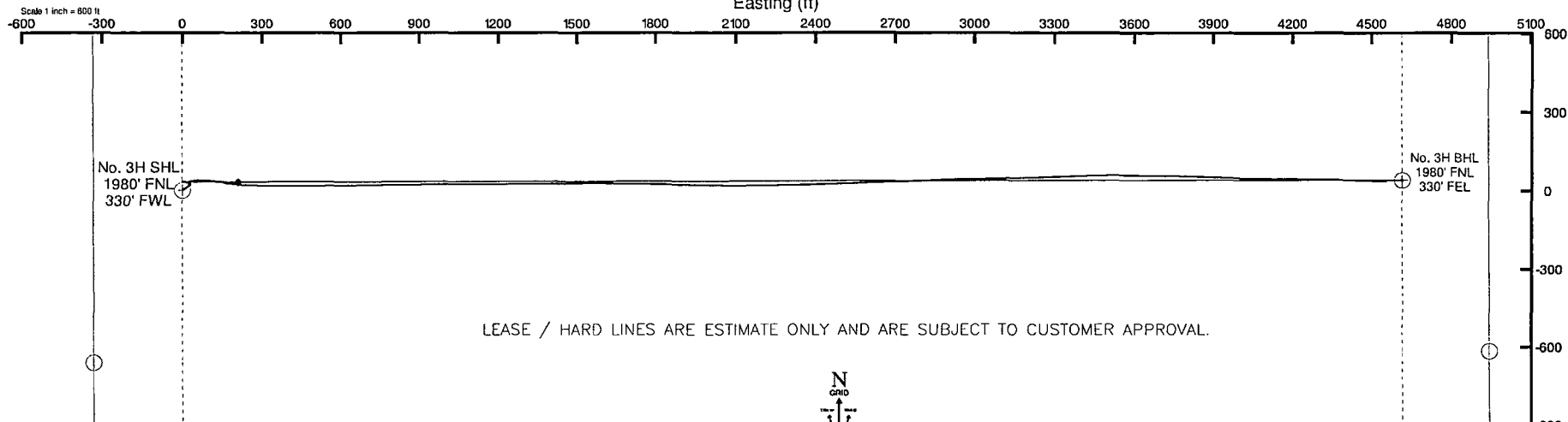
Slot: No. 3H SHL
Well: No. 3H
Wellbore: No. 3H PWB



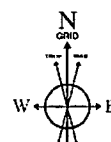
Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	8372.00	1.880	91.930	8371.40	31.44	12.91	0.00	13.19
EST. KOP	8620.00	1.950	89.869	8619.27	31.31	21.19	0.04	21.48
END OF CURVE	8913.49	89.402	89.869	8805.00	31.75	211.36	29.80	211.64
No. 3H BHL	13319.17	89.402	89.869	8851.00	41.80	4616.79	0.00	4616.98

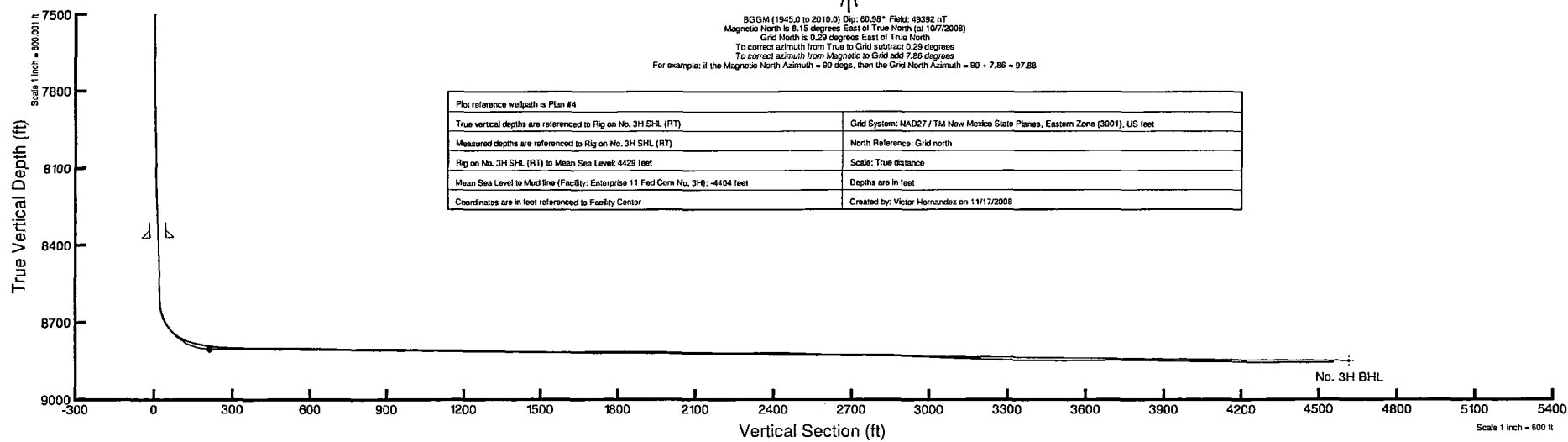
Easting (ft)



LEASE / HARD LINES ARE ESTIMATE ONLY AND ARE SUBJECT TO CUSTOMER APPROVAL.



BGGM (1945.0 to 2010.0) Dip: 60.98° Field: 49392 nT
Magnetic North is 8.15 degrees East of True North (at 10/7/2008)
Grid North is 0.29 degrees East of True North
To correct azimuth from True to Grid subtract 0.29 degrees
To correct azimuth from Magnetic to Grid add 7.86 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.86 = 97.86



Plot reference wellpath is Plan #4	
True vertical depths are referenced to Rig on No. 3H SHL (RT)	Grid System: MAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 3H SHL (RT)	North Reference: Grid north
Rig on No. 3H SHL (RT) to Mean Sea Level: 4429 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: Enterprise 11 Fed Com No. 3H): -4404 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by: Victor Hernandez on 11/17/2008

Azimuth 89.48° with reference 0.00 N, 0.00 E



Actual Wellpath Report

No. 3H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co. of Colorado	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Enterprise) Sec 11, T15S, R31E	Wellbore	No. 3H AWP
Facility	Enterprise 11 Fed Com No. 3H		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.99994	Report Generated	11/17/2008 at 3:14:58 PM
Convergence at slot	0.29° East	Database/Source file	WA_Midland/No. 3H_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	663654.10	739623.00	33°01'55.718"N	103°47'57.635"W
Facility Reference Pt			663654.10	739623.00	33°01'55.718"N	103°47'57.635"W
Field Reference Pt			663654.10	739623.00	33°01'55.718"N	103°47'57.635"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 3H SHL (RT) to Facility Vertical Datum	25.00ft
Horizontal Reference Pt	Facility Center	Rig on No. 3H SHL (RT) to Mean Sea Level	4429.00ft
Vertical Reference Pt	Rig on No. 3H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 3H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.48°



Actual Wellpath Report

No. 3H AWP

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INTEQ

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Area	Chaves County, NM	Well	No. 3H
Field	(Enterprise) Sec 11, T15S, R31E	Wellbore	No. 3H AWB
Facility	Enterprise 11 Fed Com No. 3H		

WELLPATH DATA (232 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
0.00	0.000	73.270	0.00	0.00	0.00	0.00	663654.10	739623.00	33°01'55.718"N	103°47'57.635"W	0.00	0.000	0.00
100.00	0.210	73.270	100.00	0.18	0.05	0.18	663654.28	739623.05	33°01'55.719"N	103°47'57.633"W	0.18	73.270	0.21
200.00	0.200	67.950	200.00	0.51	0.17	0.51	663654.61	739623.17	33°01'55.720"N	103°47'57.629"W	0.54	71.554	0.02
300.00	0.210	29.300	300.00	0.77	0.40	0.76	663654.86	739623.40	33°01'55.722"N	103°47'57.626"W	0.86	62.586	0.14
400.00	0.180	50.740	400.00	0.98	0.66	0.98	663655.08	739623.66	33°01'55.725"N	103°47'57.623"W	1.18	56.098	0.08
500.00	0.180	352.270	500.00	1.08	0.91	1.08	663655.18	739623.91	33°01'55.727"N	103°47'57.622"W	1.41	49.759	0.18
600.00	0.200	2.640	600.00	1.07	1.24	1.06	663655.16	739624.24	33°01'55.731"N	103°47'57.622"W	1.63	40.589	0.04
700.00	0.160	13.170	700.00	1.12	1.55	1.10	663655.20	739624.55	33°01'55.734"N	103°47'57.622"W	1.90	35.414	0.05
800.00	0.080	356.550	800.00	1.15	1.76	1.13	663655.23	739624.76	33°01'55.736"N	103°47'57.621"W	2.09	32.762	0.09
900.00	0.100	64.630	900.00	1.22	1.86	1.21	663655.30	739624.86	33°01'55.737"N	103°47'57.620"W	2.22	32.887	0.10
1000.00	0.240	66.630	1000.00	1.49	1.98	1.48	663655.58	739624.98	33°01'55.738"N	103°47'57.617"W	2.47	36.649	0.14
1100.00	0.310	21.040	1099.99	1.79	2.32	1.77	663655.87	739625.32	33°01'55.741"N	103°47'57.614"W	2.92	37.275	0.22
1200.00	0.080	317.710	1199.99	1.84	2.62	1.82	663655.92	739625.62	33°01'55.744"N	103°47'57.613"W	3.19	34.683	0.28
1300.00	0.120	179.070	1299.99	1.79	2.57	1.77	663655.87	739625.57	33°01'55.744"N	103°47'57.614"W	3.12	34.554	0.19
1400.00	0.110	297.450	1399.99	1.71	2.51	1.69	663655.79	739625.51	33°01'55.743"N	103°47'57.615"W	3.02	33.901	0.20
1500.00	0.180	288.650	1499.99	1.48	2.60	1.45	663655.55	739625.60	33°01'55.744"N	103°47'57.617"W	2.98	29.152	0.07
1600.00	0.090	359.990	1599.99	1.33	2.73	1.30	663655.40	739625.73	33°01'55.745"N	103°47'57.619"W	3.03	25.504	0.1
1700.00	0.210	56.810	1699.99	1.48	2.91	1.46	663655.56	739625.91	33°01'55.747"N	103°47'57.617"W	3.26	26.584	0.1
1800.00	0.330	41.860	1799.99	1.83	3.23	1.80	663655.90	739626.23	33°01'55.750"N	103°47'57.613"W	3.70	29.191	0.14
1900.00	0.670	60.270	1899.99	2.54	3.73	2.50	663656.60	739626.73	33°01'55.755"N	103°47'57.605"W	4.49	33.850	0.37
2000.00	1.080	74.790	1999.98	3.96	4.27	3.92	663658.02	739627.27	33°01'55.760"N	103°47'57.588"W	5.80	42.560	0.46
2100.00	1.420	66.470	2099.95	6.01	5.01	5.97	663660.07	739628.01	33°01'55.768"N	103°47'57.564"W	7.79	49.971	0.38
2200.00	1.210	70.950	2199.93	8.15	5.85	8.10	663662.20	739628.85	33°01'55.776"N	103°47'57.539"W	9.99	54.160	0.23
2300.00	1.300	61.290	2299.90	10.15	6.74	10.09	663664.19	739629.74	33°01'55.785"N	103°47'57.516"W	12.14	56.265	0.23
2400.00	1.080	71.640	2399.88	12.05	7.58	11.98	663666.08	739630.58	33°01'55.793"N	103°47'57.493"W	14.18	57.677	0.31
2500.00	0.780	56.860	2499.87	13.52	8.25	13.45	663667.55	739631.25	33°01'55.799"N	103°47'57.476"W	15.78	58.467	0.38
2600.00	0.820	55.450	2599.86	14.69	9.03	14.61	663668.70	739632.03	33°01'55.807"N	103°47'57.463"W	17.17	58.278	0.04
2700.00	0.630	44.560	2699.85	15.67	9.83	15.58	663669.68	739632.83	33°01'55.815"N	103°47'57.451"W	18.42	57.763	0.23
2800.00	0.490	46.340	2799.84	16.37	10.51	16.28	663670.37	739633.51	33°01'55.822"N	103°47'57.443"W	19.38	57.141	0.14
2900.00	0.430	53.590	2899.84	16.99	11.03	16.89	663670.99	739634.03	33°01'55.827"N	103°47'57.436"W	20.17	56.847	0.08



Actual Wellpath Report

No. 3H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
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WELLPATH DATA (232 stations)

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3000.00	0.370	64.730	2999.84	17.58	11.39	17.48	663671.58	739634.39	33°01'55.830"N	103°47'57.429"W	20.86	56.910	0.10
3100.00	0.350	70.040	3099.84	18.16	11.63	18.06	663672.16	739634.63	33°01'55.833"N	103°47'57.422"W	21.48	57.213	0.04
3200.00	0.330	59.730	3199.84	18.70	11.88	18.60	663672.69	739634.88	33°01'55.835"N	103°47'57.415"W	22.07	57.421	0.06
3300.00	0.380	55.920	3299.83	19.23	12.21	19.12	663673.22	739635.21	33°01'55.838"N	103°47'57.409"W	22.69	57.429	0.06
3400.00	0.480	48.910	3399.83	19.82	12.67	19.71	663673.81	739635.67	33°01'55.843"N	103°47'57.402"W	23.43	57.256	0.11
3500.00	0.410	31.290	3499.83	20.33	13.26	20.21	663674.31	739636.26	33°01'55.849"N	103°47'57.396"W	24.17	56.740	0.15
3600.00	0.320	24.570	3599.83	20.64	13.82	20.51	663674.61	739636.81	33°01'55.854"N	103°47'57.393"W	24.73	56.040	0.10
3700.00	0.390	52.700	3699.82	21.03	14.28	20.90	663675.00	739637.27	33°01'55.859"N	103°47'57.388"W	25.31	55.665	0.19
3800.00	0.630	49.610	3799.82	21.72	14.84	21.59	663675.69	739637.84	33°01'55.864"N	103°47'57.380"W	26.20	55.499	0.24
3900.00	0.530	47.420	3899.81	22.49	15.51	22.35	663676.45	739638.51	33°01'55.871"N	103°47'57.371"W	27.20	55.244	0.10
4000.00	0.450	72.280	3999.81	23.21	15.94	23.06	663677.16	739638.94	33°01'55.875"N	103°47'57.363"W	28.04	55.350	0.22
4100.00	0.570	58.150	4099.81	24.01	16.32	23.86	663677.96	739639.32	33°01'55.879"N	103°47'57.353"W	28.91	55.625	0.17
4200.00	0.400	47.920	4199.80	24.69	16.82	24.54	663678.64	739639.82	33°01'55.884"N	103°47'57.345"W	29.75	55.577	0.19
4300.00	0.560	63.620	4299.80	25.39	17.27	25.24	663679.34	739640.27	33°01'55.888"N	103°47'57.337"W	30.58	55.618	0.21
4400.00	0.610	38.040	4399.80	26.17	17.91	26.00	663680.10	739640.90	33°01'55.894"N	103°47'57.328"W	31.57	55.450	0.26
4500.00	0.530	54.120	4499.79	26.87	18.60	26.71	663680.81	739641.59	33°01'55.901"N	103°47'57.320"W	32.54	55.150	0.18
4600.00	0.700	43.240	4599.78	27.67	19.31	27.50	663681.60	739642.31	33°01'55.908"N	103°47'57.310"W	33.60	54.921	0.1
4700.00	0.520	23.820	4699.78	28.28	20.17	28.10	663682.20	739643.17	33°01'55.917"N	103°47'57.303"W	34.59	54.328	0.2
4800.00	0.770	34.000	4799.77	28.85	21.14	28.66	663682.76	739644.14	33°01'55.926"N	103°47'57.297"W	35.62	53.582	0.27
4900.00	0.560	22.850	4899.77	29.43	22.15	29.23	663683.32	739645.15	33°01'55.936"N	103°47'57.290"W	36.67	52.840	0.25
5000.00	0.550	339.790	4999.76	29.46	23.05	29.25	663683.35	739646.05	33°01'55.945"N	103°47'57.290"W	37.24	51.758	0.41
5100.00	0.620	314.990	5099.76	28.92	23.89	28.70	663682.80	739646.88	33°01'55.953"N	103°47'57.296"W	37.34	50.233	0.26
5200.00	0.540	334.560	5199.75	28.34	24.69	28.12	663682.22	739647.69	33°01'55.961"N	103°47'57.303"W	37.42	48.709	0.21
5300.00	0.500	294.100	5299.75	27.74	25.30	27.52	663681.61	739648.30	33°01'55.967"N	103°47'57.310"W	37.38	47.406	0.36
5400.00	0.490	312.020	5399.74	27.03	25.76	26.80	663680.90	739648.76	33°01'55.972"N	103°47'57.318"W	37.17	46.132	0.15
5500.00	0.360	287.090	5499.74	26.42	26.14	26.18	663680.28	739649.14	33°01'55.976"N	103°47'57.326"W	37.00	45.046	0.22
5600.00	0.590	291.970	5599.74	25.64	26.43	25.40	663679.50	739649.42	33°01'55.979"N	103°47'57.335"W	36.66	43.872	0.23
5700.00	0.500	301.430	5699.73	24.80	26.85	24.55	663678.65	739649.84	33°01'55.983"N	103°47'57.345"W	36.38	42.448	0.13
5800.00	0.750	293.680	5799.73	23.83	27.34	23.58	663677.68	739650.33	33°01'55.988"N	103°47'57.356"W	36.10	40.785	0.26
5900.00	1.070	292.120	5899.71	22.37	27.95	22.12	663676.22	739650.95	33°01'55.994"N	103°47'57.373"W	35.64	38.357	0.32



Actual Wellpath Report

No. 3H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Enterprise) Sec 11, T15S, R31E	Wellbore	No. 3H AWB
Facility	Enterprise 11 Fed Com No. 3H		

WELLPATH DATA (232 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
6000.00	0.990	298.030	5999.70	20.75	28.71	20.49	663674.59	739651.71	33°01'56.001"N	103°47'57.392"W	35.27	35.519	0.13
6100.00	1.020	285.840	6099.68	19.14	29.36	18.87	663672.97	739652.35	33°01'56.008"N	103°47'57.411"W	34.90	32.735	0.22
6200.00	1.100	282.930	6199.67	17.35	29.81	17.08	663671.18	739652.81	33°01'56.013"N	103°47'57.432"W	34.36	29.808	0.10
6300.00	1.060	289.420	6299.65	15.55	30.34	15.27	663669.37	739653.33	33°01'56.018"N	103°47'57.453"W	33.96	26.722	0.13
6400.00	0.820	285.140	6399.63	13.99	30.83	13.71	663667.81	739653.83	33°01'56.023"N	103°47'57.472"W	33.74	23.973	0.25
6500.00	0.960	281.990	6499.62	12.48	31.19	12.20	663666.30	739654.19	33°01'56.026"N	103°47'57.489"W	33.49	21.361	0.15
6600.00	0.940	291.240	6599.61	10.90	31.66	10.62	663664.71	739654.66	33°01'56.031"N	103°47'57.508"W	33.40	18.534	0.15
6700.00	0.700	276.570	6699.60	9.53	32.03	9.24	663663.34	739655.03	33°01'56.035"N	103°47'57.524"W	33.34	16.098	0.32
6800.00	0.870	287.230	6799.59	8.20	32.33	7.91	663662.01	739655.32	33°01'56.038"N	103°47'57.540"W	33.28	13.753	0.22
6900.00	0.690	298.770	6899.58	6.96	32.84	6.66	663660.76	739655.84	33°01'56.043"N	103°47'57.554"W	33.51	11.463	0.24
7000.00	0.710	264.570	6999.57	5.81	33.07	5.51	663659.61	739656.07	33°01'56.045"N	103°47'57.568"W	33.53	9.467	0.41
7100.00	0.730	273.410	7099.57	4.56	33.05	4.26	663658.36	739656.05	33°01'56.045"N	103°47'57.583"W	33.32	7.348	0.11
7200.00	0.610	265.090	7199.56	3.39	33.04	3.10	663657.20	739656.04	33°01'56.045"N	103°47'57.596"W	33.19	5.352	0.15
7300.00	0.830	269.830	7299.55	2.14	32.99	1.84	663655.94	739655.99	33°01'56.045"N	103°47'57.611"W	33.05	3.193	0.23
7400.00	0.310	279.650	7399.55	1.15	33.04	0.85	663654.95	739656.04	33°01'56.045"N	103°47'57.623"W	33.05	1.473	0.53
7500.00	0.170	222.840	7499.54	0.78	32.97	0.48	663654.58	739655.97	33°01'56.045"N	103°47'57.627"W	32.98	0.838	0.26
7600.00	0.150	76.290	7599.54	0.81	32.90	0.51	663654.61	739655.89	33°01'56.044"N	103°47'57.627"W	32.90	0.886	0.1
7700.00	0.350	117.680	7699.54	1.20	32.79	0.91	663655.01	739655.78	33°01'56.043"N	103°47'57.622"W	32.80	1.583	0.2
7800.00	0.400	73.680	7799.54	1.81	32.74	1.51	663655.61	739655.74	33°01'56.042"N	103°47'57.615"W	32.78	2.643	0.28
7900.00	0.700	96.480	7899.54	2.75	32.77	2.45	663656.55	739655.77	33°01'56.043"N	103°47'57.604"W	32.86	4.282	0.37
8000.00	0.960	103.830	7999.53	4.17	32.50	3.87	663657.97	739655.50	33°01'56.040"N	103°47'57.587"W	32.73	6.797	0.28
8100.00	0.970	104.200	8099.51	5.80	32.09	5.51	663659.61	739655.09	33°01'56.036"N	103°47'57.568"W	32.56	9.738	0.01
8200.00	1.340	89.460	8199.49	7.79	31.90	7.50	663661.60	739654.90	33°01'56.034"N	103°47'57.545"W	32.77	13.228	0.47
8300.00	2.060	98.000	8299.45	10.73	31.66	10.45	663664.55	739654.66	33°01'56.031"N	103°47'57.510"W	33.34	18.262	0.76
8372.00	1.880	97.930	8371.40	13.19	31.44	12.91	663667.01	739654.44	33°01'56.029"N	103°47'57.481"W	33.99	22.323	0.38
8588.00	2.000	97.700	8587.28	20.46	30.81	20.18	663674.28	739653.81	33°01'56.022"N	103°47'57.396"W	36.84	33.227	0.11
8620.00	1.700	94.700	8619.26	21.49	30.70	21.21	663675.31	739653.70	33°01'56.021"N	103°47'57.384"W	37.32	34.641	0.98
8652.00	8.700	67.800	8651.12	24.21	31.58	23.93	663678.03	739654.58	33°01'56.030"N	103°47'57.352"W	39.62	37.154	22.58
8684.00	20.900	77.300	8682.00	32.07	33.76	31.77	663685.87	739656.75	33°01'56.051"N	103°47'57.259"W	46.35	43.263	38.75
8716.00	32.700	81.600	8710.51	46.27	36.28	45.94	663700.04	739659.28	33°01'56.075"N	103°47'57.093"W	58.54	51.699	37.35



Actual Wellpath Report

No. 3H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Enterprise) Sec 11, T15S, R31E	Wellbore	No. 3H AWP
Facility	Enterprise 11 Fed Com No. 3H		

WELLPATH DATA (232 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
8748.00	44.200	89.600	8735.55	66.06	37.63	65.72	663719.82	739660.63	33°01'56.087"N	103°47'56.860"W	75.73	60.208	39.09
8780.00	55.200	93.800	8756.22	90.40	36.83	90.07	663744.16	739659.83	33°01'56.078"N	103°47'56.575"W	97.31	67.759	35.79
8810.00	66.500	95.300	8770.81	116.45	34.74	116.14	663770.23	739657.74	33°01'56.056"N	103°47'56.268"W	121.23	73.348	37.92
8842.00	76.300	97.700	8781.00	146.51	31.29	146.23	663800.32	739654.29	33°01'56.021"N	103°47'55.915"W	149.54	77.922	31.44
8874.00	79.300	97.900	8787.77	177.46	27.05	177.22	663831.31	739650.05	33°01'55.977"N	103°47'55.552"W	179.27	81.323	9.39
8906.00	81.300	95.900	8793.16	208.73	23.26	208.53	663862.62	739646.26	33°01'55.938"N	103°47'55.184"W	209.82	83.636	8.78
8938.00	84.100	94.400	8797.22	240.31	20.41	240.14	663894.22	739643.41	33°01'55.908"N	103°47'54.813"W	241.00	85.141	9.91
8970.00	86.500	92.200	8799.85	272.13	18.58	271.97	663926.06	739641.58	33°01'55.889"N	103°47'54.439"W	272.61	86.092	10.16
9002.00	87.500	91.800	8801.52	304.05	17.46	303.91	663957.99	739640.46	33°01'55.876"N	103°47'54.064"W	304.41	86.711	3.37
9034.00	89.500	90.800	8802.36	336.03	16.74	335.89	663989.97	739639.74	33°01'55.867"N	103°47'53.689"W	336.30	87.147	6.99
9065.00	90.300	90.800	8802.41	367.02	16.30	366.88	664020.96	739639.30	33°01'55.861"N	103°47'53.324"W	367.25	87.456	2.58
9097.00	90.100	89.900	8802.30	399.01	16.11	398.88	664052.96	739639.11	33°01'55.858"N	103°47'52.949"W	399.21	87.687	2.88
9129.00	90.100	89.700	8802.25	431.01	16.22	430.88	664084.96	739639.22	33°01'55.857"N	103°47'52.573"W	431.19	87.844	0.62
9161.00	89.700	90.000	8802.30	463.01	16.30	462.88	664116.95	739639.30	33°01'55.856"N	103°47'52.197"W	463.17	87.983	1.56
9193.00	89.500	89.300	8802.52	495.01	16.50	494.88	664148.95	739639.50	33°01'55.857"N	103°47'51.821"W	495.16	88.090	2.27
9225.00	89.300	89.500	8802.86	527.01	16.83	526.88	664180.94	739639.83	33°01'55.858"N	103°47'51.445"W	527.15	88.170	0.88
9257.00	89.100	89.400	8803.31	559.00	17.14	558.87	664212.94	739640.14	33°01'55.860"N	103°47'51.069"W	559.14	88.243	0.7
9288.00	88.700	89.100	8803.90	590.00	17.55	589.86	664243.93	739640.55	33°01'55.862"N	103°47'50.705"W	590.13	88.296	1.61
9320.00	88.100	89.000	8804.80	621.99	18.08	621.85	664275.91	739641.08	33°01'55.866"N	103°47'50.330"W	622.11	88.335	1.90
9352.00	88.000	88.600	8805.88	653.96	18.75	653.82	664307.88	739641.75	33°01'55.871"N	103°47'49.954"W	654.09	88.358	1.29
9384.00	87.800	88.300	8807.06	685.94	19.61	685.79	664339.85	739642.61	33°01'55.878"N	103°47'49.579"W	686.07	88.362	1.13
9416.00	89.600	88.800	8807.78	717.92	20.42	717.77	664371.82	739643.42	33°01'55.884"N	103°47'49.203"W	718.06	88.370	5.84
9448.00	90.200	89.600	8807.84	749.92	20.87	749.76	664403.82	739643.87	33°01'55.887"N	103°47'48.827"W	750.06	88.406	3.12
9479.00	90.300	89.200	8807.70	780.92	21.19	780.76	664434.81	739644.19	33°01'55.889"N	103°47'48.463"W	781.05	88.445	1.33
9511.00	90.300	89.700	8807.54	812.92	21.50	812.76	664466.81	739644.50	33°01'55.890"N	103°47'48.087"W	813.05	88.485	1.56
9543.00	90.500	90.000	8807.31	844.92	21.58	844.76	664498.81	739644.58	33°01'55.889"N	103°47'47.711"W	845.04	88.536	1.13
9575.00	90.400	89.900	8807.06	876.92	21.61	876.76	664530.80	739644.61	33°01'55.888"N	103°47'47.335"W	877.03	88.588	0.44
9607.00	88.900	88.900	8807.26	908.92	21.95	908.76	664562.80	739644.95	33°01'55.890"N	103°47'46.960"W	909.02	88.617	5.63
9639.00	88.800	88.400	8807.90	940.91	22.70	940.74	664594.78	739645.70	33°01'55.896"N	103°47'46.584"W	941.01	88.618	1.59
9671.00	88.800	89.300	8808.57	972.90	23.34	972.73	664626.77	739646.34	33°01'55.900"N	103°47'46.208"W	973.01	88.625	2.81



Actual Wellpath Report

No. 3H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co. of Colorado	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Enterprise) Sec 11, T15S, R31E	Wellbore	No. 3H AWB
Facility	Enterprise 11 Fed Com No. 3H		

WELLPATH DATA (232 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
9703.00	88.800	89.100	8809.24	1004.89	23.79	1004.72	664658.75	739646.79	33°01'55.903"N	103°47'45.832"W	1005.00	88.644	0.62
9734.00	88.800	89.100	8809.89	1035.88	24.28	1035.71	664689.74	739647.27	33°01'55.906"N	103°47'45.468"W	1035.99	88.657	0.00
9766.00	88.700	89.500	8810.59	1067.87	24.67	1067.70	664721.73	739647.67	33°01'55.909"N	103°47'45.093"W	1067.98	88.677	1.29
9798.00	89.400	89.900	8811.12	1099.87	24.83	1099.69	664753.72	739647.83	33°01'55.909"N	103°47'44.717"W	1099.97	88.706	2.52
9830.00	89.600	89.900	8811.40	1131.87	24.89	1131.69	664785.72	739647.89	33°01'55.908"N	103°47'44.341"W	1131.96	88.740	0.62
9862.00	89.800	90.400	8811.56	1163.86	24.81	1163.69	664817.72	739647.81	33°01'55.905"N	103°47'43.965"W	1163.95	88.779	1.68
9894.00	90.200	90.000	8811.56	1195.86	24.70	1195.69	664849.71	739647.69	33°01'55.902"N	103°47'43.589"W	1195.94	88.817	1.77
9926.00	88.600	89.200	8811.90	1227.86	24.92	1227.68	664881.71	739647.92	33°01'55.903"N	103°47'43.214"W	1227.94	88.837	5.59
9957.00	88.500	90.000	8812.68	1258.85	25.13	1258.67	664912.69	739648.13	33°01'55.904"N	103°47'42.850"W	1258.92	88.856	2.60
9989.00	88.500	90.000	8813.52	1290.84	25.13	1290.66	664944.68	739648.13	33°01'55.902"N	103°47'42.474"W	1290.91	88.884	0.00
10021.00	88.700	89.600	8814.30	1322.83	25.25	1322.65	664976.67	739648.24	33°01'55.901"N	103°47'42.098"W	1322.89	88.906	1.40
10053.00	88.700	89.800	8815.03	1354.82	25.41	1354.64	665008.66	739648.41	33°01'55.902"N	103°47'41.722"W	1354.88	88.925	0.62
10084.00	88.400	89.200	8815.81	1385.81	25.68	1385.63	665039.65	739648.68	33°01'55.903"N	103°47'41.358"W	1385.87	88.938	2.16
10115.00	88.600	89.200	8816.62	1416.80	26.12	1416.62	665070.63	739649.12	33°01'55.905"N	103°47'40.994"W	1416.86	88.944	0.65
10147.00	89.900	88.900	8817.04	1448.79	26.65	1448.61	665102.62	739649.65	33°01'55.909"N	103°47'40.619"W	1448.86	88.946	4.17
10179.00	89.700	88.900	8817.16	1480.79	27.26	1480.60	665134.61	739650.26	33°01'55.913"N	103°47'40.243"W	1480.86	88.945	0.62
10211.00	89.300	89.200	8817.43	1512.79	27.79	1512.60	665166.60	739650.79	33°01'55.917"N	103°47'39.867"W	1512.85	88.947	1.11
10243.00	89.400	88.900	8817.80	1544.79	28.32	1544.59	665198.60	739651.32	33°01'55.921"N	103°47'39.491"W	1544.85	88.949	0.91
10275.00	90.000	90.000	8817.96	1576.78	28.63	1576.59	665230.59	739651.63	33°01'55.922"N	103°47'39.115"W	1576.85	88.960	3.92
10307.00	90.800	91.300	8817.74	1608.78	28.27	1608.59	665262.59	739651.27	33°01'55.917"N	103°47'38.740"W	1608.83	88.993	4.77
10339.00	90.900	91.500	8817.27	1640.75	27.49	1640.57	665294.57	739650.48	33°01'55.907"N	103°47'38.364"W	1640.80	89.040	0.70
10370.00	91.100	91.100	8816.73	1671.73	26.78	1671.56	665325.56	739649.78	33°01'55.899"N	103°47'38.000"W	1671.77	89.082	1.44
10402.00	91.100	91.100	8816.11	1703.72	26.17	1703.55	665357.54	739649.17	33°01'55.891"N	103°47'37.624"W	1703.75	89.120	0.00
10439.00	89.300	90.900	8815.98	1740.70	25.52	1740.54	665394.53	739648.52	33°01'55.883"N	103°47'37.190"W	1740.73	89.160	4.89
10466.00	89.500	90.400	8816.27	1767.69	25.22	1767.54	665421.53	739648.21	33°01'55.879"N	103°47'36.873"W	1767.72	89.183	1.99
10498.00	89.800	90.900	8816.46	1799.69	24.85	1799.53	665453.52	739647.85	33°01'55.873"N	103°47'36.497"W	1799.71	89.209	1.82
10530.00	89.700	91.200	8816.60	1831.67	24.27	1831.53	665485.52	739647.27	33°01'55.866"N	103°47'36.121"W	1831.69	89.241	0.99
10562.00	89.700	91.200	8816.77	1863.66	23.60	1863.52	665517.51	739646.59	33°01'55.858"N	103°47'35.746"W	1863.67	89.275	0.00
10594.00	89.600	91.600	8816.96	1895.64	22.81	1895.51	665549.49	739645.81	33°01'55.848"N	103°47'35.370"W	1895.65	89.310	1.29
10625.00	89.300	91.300	8817.26	1926.62	22.03	1926.50	665580.48	739645.03	33°01'55.839"N	103°47'35.006"W	1926.63	89.345	1.37



Actual Wellpath Report

No. 3H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Enterprise) Sec 11, T15S, R31E	Wellbore	No. 3H AWP
Facility	Enterprise 11 Fed Com No. 3H		

WELLPATH DATA (232 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
10657.00	88.900	91.700	8817.76	1958.60	21.19	1958.48	665612.46	739644.19	33°01'55.829"N	103°47'34.630"W	1958.60	89.380	1.77
10689.00	88.700	91.500	8818.43	1990.57	20.30	1990.47	665644.44	739643.30	33°01'55.819"N	103°47'34.255"W	1990.57	89.416	0.88
10721.00	88.800	91.100	8819.13	2022.54	19.57	2022.45	665676.42	739642.57	33°01'55.810"N	103°47'33.879"W	2022.54	89.446	1.29
10753.00	89.200	90.800	8819.69	2054.53	19.04	2054.44	665708.41	739642.04	33°01'55.803"N	103°47'33.503"W	2054.53	89.469	1.56
10784.00	89.900	90.100	8819.93	2085.52	18.80	2085.44	665739.41	739641.80	33°01'55.799"N	103°47'33.139"W	2085.52	89.484	3.19
10816.00	89.900	89.900	8819.99	2117.52	18.80	2117.44	665771.41	739641.80	33°01'55.797"N	103°47'32.763"W	2117.52	89.491	0.62
10848.00	89.000	89.200	8820.30	2149.52	19.05	2149.43	665803.40	739642.05	33°01'55.798"N	103°47'32.388"W	2149.52	89.492	3.56
10880.00	88.900	88.800	8820.88	2181.51	19.61	2181.42	665835.39	739642.61	33°01'55.802"N	103°47'32.012"W	2181.51	89.485	1.29
10911.00	88.800	88.800	8821.51	2212.50	20.26	2212.41	665866.37	739643.26	33°01'55.807"N	103°47'31.648"W	2212.50	89.475	0.32
10943.00	89.400	89.500	8822.01	2244.50	20.73	2244.40	665898.36	739643.73	33°01'55.810"N	103°47'31.272"W	2244.50	89.471	2.88
10975.00	90.500	89.100	8822.04	2276.50	21.12	2276.40	665930.36	739644.12	33°01'55.812"N	103°47'30.896"W	2276.50	89.468	3.66
11007.00	90.800	89.600	8821.67	2308.50	21.49	2308.40	665962.35	739644.49	33°01'55.814"N	103°47'30.520"W	2308.50	89.467	1.82
11039.00	90.300	89.200	8821.37	2340.49	21.82	2340.39	665994.35	739644.82	33°01'55.816"N	103°47'30.145"W	2340.49	89.466	2.00
11071.00	90.100	88.100	8821.25	2372.49	22.58	2372.38	666026.34	739645.57	33°01'55.822"N	103°47'29.769"W	2372.49	89.455	3.49
11103.00	89.900	88.200	8821.25	2404.48	23.61	2404.37	666058.32	739646.61	33°01'55.830"N	103°47'29.393"W	2404.48	89.437	0.70
11135.00	89.800	88.400	8821.34	2436.47	24.56	2436.35	666090.30	739647.56	33°01'55.838"N	103°47'29.017"W	2436.48	89.422	0.70
11167.00	88.800	89.100	8821.73	2468.47	25.26	2468.34	666122.29	739648.25	33°01'55.843"N	103°47'28.642"W	2468.47	89.414	3.1
11198.00	87.700	87.500	8822.68	2499.45	26.18	2499.31	666153.26	739649.17	33°01'55.851"N	103°47'28.278"W	2499.45	89.400	6.26
11230.00	88.100	88.000	8823.85	2531.41	27.43	2531.27	666185.21	739650.43	33°01'55.862"N	103°47'27.902"W	2531.41	89.379	2.00
11262.00	88.200	87.700	8824.88	2563.38	28.63	2563.23	666217.17	739651.63	33°01'55.872"N	103°47'27.527"W	2563.39	89.360	0.99
11293.00	88.300	87.800	8825.83	2594.35	29.85	2594.19	666248.13	739652.85	33°01'55.882"N	103°47'27.163"W	2594.36	89.341	0.46
11325.00	89.000	88.200	8826.58	2626.33	30.96	2626.16	666280.10	739653.96	33°01'55.892"N	103°47'26.788"W	2626.34	89.324	2.52
11357.00	89.500	88.100	8827.00	2658.32	32.00	2658.14	666312.07	739654.99	33°01'55.900"N	103°47'26.412"W	2658.33	89.310	1.59
11389.00	89.400	88.000	8827.31	2690.31	33.09	2690.12	666344.05	739656.08	33°01'55.909"N	103°47'26.036"W	2690.32	89.295	0.44
11420.00	89.900	87.600	8827.50	2721.30	34.28	2721.10	666375.03	739657.27	33°01'55.920"N	103°47'25.672"W	2721.31	89.278	2.07
11452.00	90.000	87.400	8827.52	2753.28	35.67	2753.07	666406.99	739658.67	33°01'55.932"N	103°47'25.297"W	2753.30	89.258	0.70
11484.00	89.700	87.400	8827.61	2785.26	37.12	2785.03	666438.96	739660.12	33°01'55.945"N	103°47'24.921"W	2785.28	89.236	0.94
11516.00	88.600	87.300	8828.08	2817.23	38.60	2816.99	666470.92	739661.60	33°01'55.958"N	103°47'24.546"W	2817.26	89.215	3.45
11548.00	87.600	87.300	8829.14	2849.19	40.11	2848.94	666502.86	739663.11	33°01'55.971"N	103°47'24.170"W	2849.22	89.193	3.12
11580.00	87.700	87.400	8830.46	2881.14	41.59	2880.88	666534.80	739664.58	33°01'55.984"N	103°47'23.795"W	2881.18	89.173	0.44



Actual Wellpath Report

No. 3H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Enterprise) Sec 11, T15S, R31E	Wellbore	No. 3H AWB
Facility	Enterprise 11 Fed Com No. 3H		

WELLPATH DATA (232 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
11612.00	87.500	88.800	8831.80	2913.10	42.65	2912.83	666566.75	739665.64	33°01'55.993"N	103°47'23.420"W	2913.15	89.161	4.42
11643.00	87.600	88.700	8833.12	2944.07	43.32	2943.80	666597.71	739666.32	33°01'55.998"N	103°47'23.056"W	2944.12	89.157	0.46
11675.00	87.400	89.100	8834.52	2976.04	43.94	2975.76	666629.68	739666.93	33°01'56.002"N	103°47'22.681"W	2976.09	89.154	1.40
11707.00	87.300	89.100	8836.00	3008.00	44.44	3007.72	666661.64	739667.44	33°01'56.006"N	103°47'22.305"W	3008.05	89.154	0.31
11739.00	87.400	89.000	8837.48	3039.97	44.97	3039.68	666693.60	739667.97	33°01'56.009"N	103°47'21.930"W	3040.02	89.152	0.44
11771.00	87.000	88.800	8839.04	3071.93	45.58	3071.64	666725.55	739668.58	33°01'56.014"N	103°47'21.554"W	3071.98	89.150	1.40
11803.00	87.700	88.400	8840.52	3103.89	46.36	3103.60	666757.50	739669.36	33°01'56.020"N	103°47'21.179"W	3103.94	89.144	2.52
11835.00	88.100	88.900	8841.69	3135.86	47.12	3135.57	666789.47	739670.11	33°01'56.025"N	103°47'20.803"W	3135.92	89.139	2.00
11866.00	87.600	88.700	8842.85	3166.84	47.77	3166.54	666820.44	739670.76	33°01'56.030"N	103°47'20.440"W	3166.90	89.136	1.74
11898.00	88.000	88.300	8844.08	3198.81	48.60	3198.50	666852.40	739671.60	33°01'56.037"N	103°47'20.064"W	3198.87	89.129	1.77
11930.00	87.800	88.100	8845.26	3230.78	49.61	3230.47	666884.36	739672.60	33°01'56.045"N	103°47'19.689"W	3230.85	89.120	0.88
11961.00	87.600	87.700	8846.50	3261.75	50.74	3261.42	666915.32	739673.74	33°01'56.055"N	103°47'19.325"W	3261.81	89.109	1.44
11993.00	87.800	87.900	8847.78	3293.71	51.97	3293.37	666947.27	739674.97	33°01'56.065"N	103°47'18.950"W	3293.78	89.096	0.88
12025.00	88.700	88.500	8848.76	3325.68	52.97	3325.34	666979.23	739675.97	33°01'56.074"N	103°47'18.574"W	3325.76	89.087	3.38
12057.00	88.900	88.000	8849.43	3357.67	53.95	3357.32	667011.21	739676.95	33°01'56.082"N	103°47'18.199"W	3357.75	89.079	1.68
12089.00	89.400	88.200	8849.91	3389.65	55.01	3389.30	667043.18	739678.01	33°01'56.091"N	103°47'17.823"W	3389.74	89.070	1.68
12121.00	89.600	88.700	8850.19	3421.65	55.88	3421.28	667075.17	739678.87	33°01'56.098"N	103°47'17.447"W	3421.74	89.064	1.68
12152.00	89.500	88.800	8850.43	3452.64	56.55	3452.27	667106.16	739679.55	33°01'56.103"N	103°47'17.083"W	3452.74	89.061	0.46
12184.00	89.400	88.500	8850.74	3484.64	57.31	3484.26	667138.15	739680.30	33°01'56.108"N	103°47'16.707"W	3484.74	89.058	0.99
12216.00	90.100	88.700	8850.88	3516.64	58.09	3516.25	667170.14	739681.09	33°01'56.115"N	103°47'16.332"W	3516.73	89.054	2.28
12248.00	90.500	90.300	8850.71	3548.63	58.37	3548.25	667202.13	739681.36	33°01'56.116"N	103°47'15.956"W	3548.73	89.058	5.15
12280.00	90.400	91.200	8850.46	3580.62	57.95	3580.25	667234.12	739680.95	33°01'56.110"N	103°47'15.580"W	3580.72	89.073	2.83
12312.00	90.500	91.000	8850.21	3612.61	57.34	3612.24	667266.12	739680.33	33°01'56.102"N	103°47'15.204"W	3612.70	89.091	0.70
12344.00	90.300	90.700	8849.98	3644.60	56.86	3644.24	667298.11	739679.86	33°01'56.096"N	103°47'14.828"W	3644.68	89.106	1.13
12376.00	90.600	90.700	8849.73	3676.59	56.47	3676.23	667330.10	739679.47	33°01'56.090"N	103°47'14.453"W	3676.67	89.120	0.94
12407.00	90.400	90.600	8849.46	3707.59	56.12	3707.23	667361.10	739679.11	33°01'56.085"N	103°47'14.089"W	3707.65	89.133	0.72
12439.00	90.400	90.600	8849.24	3739.58	55.78	3739.23	667393.09	739678.78	33°01'56.080"N	103°47'13.713"W	3739.64	89.145	0.00
12471.00	89.900	91.300	8849.15	3771.57	55.25	3771.22	667425.09	739678.25	33°01'56.073"N	103°47'13.337"W	3771.63	89.161	2.69
12503.00	89.000	91.800	8849.46	3803.54	54.39	3803.21	667457.07	739677.38	33°01'56.063"N	103°47'12.961"W	3803.60	89.181	3.22
12535.00	88.500	92.200	8850.16	3835.51	53.27	3835.18	667489.04	739676.27	33°01'56.050"N	103°47'12.586"W	3835.55	89.204	2.00



Actual Wellpath Report

No. 3H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co. of Colorado	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Enterprise) Sec 11, T15S, R31E	Wellbore	No. 3H AWB
Facility	Enterprise 11 Fed Com No. 3H		

WELLPATH DATA (232 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
12567.00	88.600	91.700	8850.97	3867.47	52.18	3867.15	667521.01	739675.18	33°01'56.038"N	103°47'12.210"W	3867.50	89.227	1.59
12599.00	88.700	91.900	8851.72	3899.43	51.18	3899.13	667552.98	739674.17	33°01'56.026"N	103°47'11.835"W	3899.46	89.248	0.70
12631.00	88.800	91.900	8852.42	3931.39	50.12	3931.10	667584.96	739673.11	33°01'56.014"N	103°47'11.459"W	3931.42	89.270	0.31
12662.00	89.000	91.900	8853.02	3962.36	49.09	3962.08	667615.93	739672.09	33°01'56.003"N	103°47'11.096"W	3962.38	89.290	0.65
12694.00	89.300	90.800	8853.49	3994.34	48.33	3994.07	667647.92	739671.33	33°01'55.993"N	103°47'10.720"W	3994.36	89.307	3.56
12726.00	89.500	91.500	8853.83	4026.32	47.69	4026.06	667679.91	739670.69	33°01'55.985"N	103°47'10.344"W	4026.34	89.321	2.27
12758.00	89.600	91.500	8854.08	4058.30	46.85	4058.05	667711.89	739669.85	33°01'55.976"N	103°47'09.969"W	4058.32	89.338	0.31
12790.00	89.300	90.600	8854.38	4090.29	46.27	4090.04	667743.88	739669.27	33°01'55.968"N	103°47'09.593"W	4090.30	89.352	2.96
12821.00	89.000	90.000	8854.84	4121.28	46.11	4121.03	667774.88	739669.10	33°01'55.965"N	103°47'09.229"W	4121.29	89.359	2.16
12853.00	88.600	90.700	8855.51	4153.27	45.91	4153.03	667806.87	739668.91	33°01'55.961"N	103°47'08.853"W	4153.28	89.367	2.52
12885.00	89.400	90.500	8856.07	4185.26	45.58	4185.02	667838.86	739668.57	33°01'55.956"N	103°47'08.477"W	4185.27	89.376	2.58
12917.00	89.400	90.800	8856.41	4217.25	45.21	4217.02	667870.85	739668.21	33°01'55.951"N	103°47'08.102"W	4217.26	89.386	0.94
12949.00	88.700	90.600	8856.94	4249.24	44.82	4249.01	667902.84	739667.82	33°01'55.946"N	103°47'07.726"W	4249.25	89.396	2.28
12981.00	89.300	90.900	8857.50	4281.23	44.40	4281.00	667934.83	739667.40	33°01'55.940"N	103°47'07.350"W	4281.23	89.406	2.10
13012.00	89.400	91.000	8857.85	4312.22	43.89	4312.00	667965.83	739666.89	33°01'55.933"N	103°47'06.986"W	4312.22	89.417	0.46
13044.00	88.900	91.400	8858.32	4344.20	43.22	4343.98	667997.81	739666.22	33°01'55.925"N	103°47'06.610"W	4344.20	89.430	2.00
13076.00	89.900	92.100	8858.66	4376.17	42.24	4375.97	668029.79	739665.24	33°01'55.913"N	103°47'06.235"W	4376.17	89.447	3.
13108.00	90.100	91.100	8858.66	4408.15	41.35	4407.95	668061.78	739664.35	33°01'55.903"N	103°47'05.859"W	4408.15	89.463	3.1
13140.00	89.200	92.000	8858.85	4440.13	40.48	4439.94	668093.76	739663.48	33°01'55.893"N	103°47'05.484"W	4440.13	89.478	3.98
13172.00	89.700	91.600	8859.16	4472.10	39.48	4471.92	668125.75	739662.48	33°01'55.881"N	103°47'05.108"W	4472.10	89.494	2.00
13204.00	90.500	92.000	8859.10	4504.07	38.47	4503.91	668157.73	739661.47	33°01'55.870"N	103°47'04.732"W	4504.07	89.511	2.80
13258.00†	90.500	92.000	8858.63	4558.02	36.59	4557.87	668211.69	739659.59	33°01'55.848"N	103°47'04.099"W	4558.02	89.540	0.00

HOLE & CASING SECTIONS Ref Wellbore: No. 3H AWB Ref Wellpath: No. 3H AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
7in Casing	0.00	8372.00	8372.00	0.00	8371.40	0.00	0.00	31.44	12.91



Actual Wellpath Report

No. 3H AWP

Page 10 of 10



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Enterprise) Sec 11, T15S, R31E	Wellbore	No. 3H AWB
Facility	Enterprise 11 Fed Com No. 3H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
No. 3H BHL		8851.00	41.80	4616.79	668270.60	739664.80	33°01'55.897"N	103°47'03.406"W	point

WELLPATH COMPOSITION					Ref Wellbore: No. 3H AWB	Ref Wellpath: No. 3H AWP
Start MD [ft]	End MD [ft]	Positional Uncertainty Model		Log Name/Comment	Wellbore	
0.00	8372.00	Generic gyro - continuous (Standard)		GYRO	No. 3H AWB	
8372.00	13204.00	NaviTrak (Standard)		MWD	No. 3H AWB	
13204.00	13258.00	Blind Drilling (std)		Projection to bit	No. 3H AWB	



Peak Completion

WINDOW @ 8637'ET

Strata-Port @ 9125'

3 3/4" Ball Activated

Hydro-Pak Anchor @ 9179'

Iso-Pak Packer @ 9236'

Strata-Port @ 9502'

3 1/2" Ball Activated

Iso-Pak Packer @ 9820'

Strata-Port @ 9997'

3 1/4" Ball Activated

Iso-Pak Packer @ 10573'

Strata-Port @ 10837'

3" Ball Activated

Iso-Pak Packer @ 11155'

Strata-Port @ 11464'

2 3/4" Ball Activated

Iso-Pak Packer @ 11734'

Strata-Port @ 11999'

2 1/2" Ball Activated

Iso-Pak Packer @ 12314'

Strata-Port @ 12581'

2 1/4" Ball Activated

Iso-Pak Packer @ 12764'

Top of Retrievable Seal Bore Packer @ 8367'

DOWN HOLE WELL PROFILE

WELL NAME	Enterprise 11 Fed #3H	DATE	11/15/08
SUPERVISOR	Jeff Lajoie	TOOL HAND	Doug Taylor
PHONE #	432-208-3080	PHONE #	575-631-4313
RIG #	Cactus #107	FIELD TICKET #	10928

ELEVATIONS

KB ELEV	GL ELEV	KB TO THF	KB TO SCF	RIG KBD	PSTD
				19	
CASING/OPEN HOLE LAYOUT	OD (IN)	CANDED DEPTH	WEIGHT (LB/FT)	TOP OF (FTKB)	
CASING DESCRIPTION	7"		26#		
WINDOW DESCRIPTION	7"	8637.00	26#		
OPEN HOLE DESCRIPTION	6 1/8"	13258.00	JUNCTION @	8637.00	

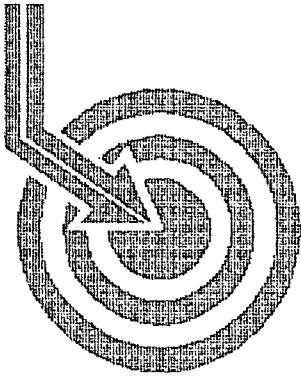
DESCRIPTION

STEERING DIRECTIONS

DOWNHOLE DESCRIPTION FROM BOTTOM UP (Tubing String)

BOTTOM @	DESCRIPTION	LENGTH	ID	OD
13000.00	Peak Pump Off Plug with 3/4" ID and check valve assembly	0.90	0.75	4.50
12999.10	3 1/2 8rd Pin x 4 1/2 LTC Box, P-110 cross-over	0.55	4.00	5.00
12998.55	2 Joints 4 1/2, 11.6#, P-110 LTC Liner	88.30	4.00	4.50
12910.25	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.00	4.00	4.50
12908.25	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88
12907.67	7 x 4 1/2 Peak Hydro-Pak Anchor #1	4.30	4.00	5.88
12903.37	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.00	4.00	4.50
12897.37	3 Joints 4 1/2, 11.6#, P-110 LTC Liner	130.54	4.00	4.50
12766.83	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.05	4.00	4.50
12764.78	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88
12764.20	7 x 4 1/2 eak Extreme Service Isolation Packer with 10K HTHP Element System #1	5.55	4.00	5.75
12758.65	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.10	4.00	4.50
12752.55	4 Joints 4 1/2, 11.6#, P-110 LTC Liner	171.54	4.00	4.50
12581.01	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 2" ID Seat (2 1/4" Ball Actuated) #1	2.90	2.06	5.88
12578.11	6 Joints 4 1/2, 11.6#, P-110 LTC Liner	260.65	4.00	4.50
12317.46	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.05	4.00	4.50
12315.41	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88
12314.83	7 x 4 1/2 eak Extreme Service Isolation Packer with 10K HTHP Element System #2	5.55	4.00	5.75
12309.28	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.10	4.00	4.50
12303.18	7 Joints 4 1/2, 11.6#, P-110 LTC Liner	304.17	4.00	4.50
11999.01	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 2 1/4" ID Seat (2 1/2" Ball Actuated) #2	2.90	2.31	5.88
11996.11	6 Joints 4 1/2, 11.6#, P-110 LTC Liner	258.79	4.00	4.50
11737.32	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.05	4.00	4.50
11735.27	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	4.50
11734.69	7 x 4 1/2 eak Extreme Service Isolation Packer with 10K HTHP Element System #3	5.55	4.00	5.75
11729.14	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.10	4.00	4.50
11723.04	6 Joints 4 1/2, 11.6#, P-110 LTC Liner	258.31	4.00	4.50
11464.73	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 2 1/2" ID Seat (2 3/4" Ball Actuated) #3	2.90	2.56	5.88
11461.83	7 Joints 4 1/2, 11.6#, P-110 LTC Liner	304.03	4.00	4.50
11157.80	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.05	4.00	4.50
11155.75	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88
11155.17	7 x 4 1/2 eak Extreme Service Isolation Packer with 10K HTHP Element System #4	5.55	4.00	5.75
11149.62	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.10	4.00	4.50
11143.52	7 Joints 4 1/2, 11.6#, P-110 LTC Liner	306.34	4.00	4.50
10837.18	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 2 3/4" ID Seat (3" Ball Actuated) #4	2.90	2.81	5.88
10834.28	6 Joints 4 1/2, 11.6#, P-110 LTC Liner	258.33	4.00	4.50
10575.95	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.05	4.00	4.50
10573.90	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88
10573.32	7 x 4 1/2 eak Extreme Service Isolation Packer with 10K HTHP Element System #5	5.55	4.00	5.75
10567.77	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.10	4.00	4.50
10561.67	13 Joints 4 1/2, 11.6#, P-110 LTC Liner	563.87	4.00	4.50
9997.80	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 3" ID Seat (3 1/4" Ball Actuated) #5	2.90	3.06	5.88
9994.90	4 Joints 4 1/2, 11.6#, P-110 LTC Liner	172.15	4.00	4.50
9822.75	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.05	4.00	4.50
9820.70	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88
9820.12	7 x 4 1/2 eak Extreme Service Isolation Packer with 10K HTHP Element System #6	5.55	4.00	5.75
9814.57	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.10	4.00	4.50
9808.47	7 Joints 4 1/2, 11.6#, P-110 LTC Liner	305.75	4.00	4.50
9502.72	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 3 1/4" ID Seat (3 1/2" Ball Actuated) #6	2.90	3.31	5.88
9499.82	6 Joints 4 1/2, 11.6#, P-110 LTC Liner	260.69	4.00	4.50
9239.13	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.05	4.00	4.50
9237.08	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88
9236.50	7 x 4 1/2 eak Extreme Service Isolation Packer with 10K HTHP Element System #7	5.55	4.00	5.75
9230.95	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.10	4.00	4.50
9224.85	1 Joints 4 1/2, 11.6#, P-110 LTC Liner	43.02	4.00	4.50
9181.83	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.00	4.00	4.50
9179.83	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88
9179.25	7 x 4 1/2 Peak Hydro-Pak Anchor #1	4.30	4.00	5.88
9174.95	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.00	4.00	4.50
9168.95	1 Joint 4 1/2, 11.6#, P-110 LTC Liner	43.02	4.00	4.50
9125.93	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 3 1/2" ID Seat (3 3/4" Ball Actuated) #7	2.90	3.56	5.88
9123.03	17 Joints 4 1/2, 11.6#, P-110 BTC Liner	754.05		
8368.98	4 1/2 BTC, 11.6#, P-110 double pin			
8367.88	7 x 4 Peak Extreme Service Retrievable Seal Bore Packer			
8362.40	7 x 3 1/2 Peak Extreme Service Hydraulic Dual Stack Setting			
8357.35	3 1/2 8rd Pin x 3 1/2 IF Box, cross-over			
8356.05	3 1/2 Drill Pipe Sub with 3			
8348.40	87 Stands & Double (263			
-17.87	Stick Up			

WEIGHT OF TUBING
PUSH/PULL TEST
LINER STRING



Scientific Drilling

CIMAREX ENERGY

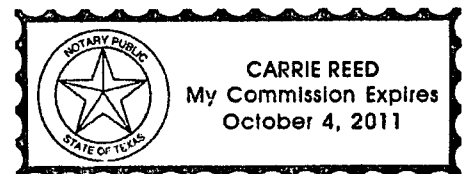
Field: Wildcat
Site: Chaves County, NM
Well: Enterprise 11 State Com #3H
Wellpath: VH - Job #32K1108868
Survey: 11/03/08

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

.....Luhan..... Company Representative

Notorized this date 22nd of December, 2008.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International

Survey Report

Company: CIMAREX ENERGY

Field: Wildcat

Site: Chaves County, NM

Well: Enterprise 11 State Com #3H

Wellpath: VH - Job #32K1108868

Date: 12/17/2008

Co-ordinate(NE) Reference:

Vertical (TVD) Reference:

Section (VS) Reference:

Survey Calculation Method:

Time: 14:51:01

Site: Chaves County, NM, True North

SITE 0.0

Well (0.00N,0.00E,89.48Azi)

Minimum Curvature

Page: 1

Db: Sybase

Survey: 11/03/08

Start Date:

11/03/2008

KSRG 0'-8372'

Company: Scientific Drilling Internatio

Engineer:

Guebara w/GeoGyro

Tool: Keeper, Keeper Gyro

Tied-to:

From Surface

Survey

MD ft	Incl deg	Azlm deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	359.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.21	73.27	100.00	0.18	0.05	0.18	0.21	0.18	73.27
200.00	0.20	67.95	200.00	0.51	0.17	0.51	0.02	0.54	71.55
300.00	0.21	29.30	300.00	0.77	0.40	0.76	0.14	0.86	62.59
400.00	0.18	50.74	400.00	0.98	0.66	0.98	0.08	1.18	56.10
500.00	0.18	352.27	500.00	1.08	0.91	1.08	0.18	1.41	49.76
600.00	0.20	2.64	600.00	1.07	1.24	1.06	0.04	1.63	40.59
700.00	0.16	13.17	700.00	1.12	1.55	1.10	0.05	1.90	35.41
800.00	0.08	356.55	800.00	1.15	1.76	1.13	0.09	2.09	32.76
900.00	0.10	64.63	900.00	1.22	1.86	1.21	0.10	2.22	32.89
1000.00	0.24	66.63	1000.00	1.49	1.98	1.48	0.14	2.47	36.65
1100.00	0.31	21.04	1099.99	1.79	2.32	1.77	0.22	2.92	37.27
1200.00	0.08	317.71	1199.99	1.84	2.62	1.82	0.28	3.19	34.68
1300.00	0.12	179.07	1299.99	1.79	2.57	1.77	0.19	3.12	34.55
1400.00	0.11	297.45	1399.99	1.71	2.51	1.69	0.20	3.02	33.90
1500.00	0.18	288.65	1499.99	1.48	2.60	1.45	0.07	2.98	29.15
1600.00	0.09	359.99	1599.99	1.33	2.73	1.30	0.17	3.03	25.50
1700.00	0.21	56.81	1699.99	1.48	2.91	1.46	0.18	3.26	26.58
1800.00	0.33	41.86	1799.99	1.83	3.23	1.80	0.14	3.70	29.19
1900.00	0.67	60.27	1899.99	2.54	3.73	2.50	0.37	4.49	33.85
2000.00	1.08	74.79	1999.98	3.96	4.27	3.92	0.46	5.80	42.56
2100.00	1.42	66.47	2099.95	6.01	5.01	5.97	0.38	7.79	49.97
2200.00	1.21	70.95	2199.93	8.15	5.85	8.10	0.23	9.99	54.16
2300.00	1.30	61.29	2299.90	10.15	6.74	10.09	0.23	12.14	56.27
2400.00	1.08	71.64	2399.88	12.05	7.58	11.98	0.31	14.18	57.68
2500.00	0.78	56.86	2499.87	13.52	8.25	13.45	0.38	15.78	58.47
2600.00	0.82	55.45	2599.86	14.69	9.03	14.61	0.04	17.17	58.28
2700.00	0.63	44.56	2699.85	15.67	9.83	15.58	0.23	18.42	57.76
2800.00	0.49	46.34	2799.84	16.37	10.51	16.28	0.14	19.38	57.14
2900.00	0.43	53.59	2899.84	16.99	11.03	16.89	0.08	20.17	56.85
3000.00	0.37	64.73	2999.84	17.58	11.39	17.48	0.10	20.86	56.91
3100.00	0.35	70.04	3099.84	18.16	11.63	18.06	0.04	21.48	57.21
3200.00	0.33	59.73	3199.84	18.70	11.88	18.60	0.06	22.07	57.42
3300.00	0.38	55.92	3299.83	19.23	12.21	19.12	0.06	22.69	57.43
3400.00	0.48	48.91	3399.83	19.82	12.67	19.71	0.11	23.43	57.26
3500.00	0.41	31.29	3499.83	20.33	13.26	20.21	0.15	24.17	56.74
3600.00	0.32	24.57	3599.83	20.64	13.82	20.51	0.10	24.73	56.04
3700.00	0.39	52.70	3699.82	21.03	14.28	20.90	0.19	25.31	55.66
3800.00	0.63	49.61	3799.82	21.72	14.84	21.59	0.24	26.20	55.50
3900.00	0.53	47.42	3899.81	22.49	15.51	22.35	0.10	27.20	55.24
4000.00	0.45	72.28	3999.81	23.21	15.94	23.06	0.22	28.04	55.35
4100.00	0.57	58.15	4099.81	24.01	16.32	23.86	0.17	28.91	55.62
4200.00	0.40	47.92	4199.80	24.69	16.82	24.54	0.19	29.75	55.58
4300.00	0.56	63.62	4299.80	25.39	17.27	25.24	0.21	30.58	55.62
4400.00	0.61	38.04	4399.80	26.17	17.91	26.00	0.26	31.57	55.45
4500.00	0.53	54.12	4499.79	26.87	18.60	26.71	0.18	32.54	55.15
4600.00	0.70	43.24	4599.78	27.67	19.31	27.50	0.21	33.60	54.92
4700.00	0.52	23.82	4699.78	28.28	20.17	28.10	0.27	34.59	54.33
4800.00	0.77	34.00	4799.77	28.85	21.14	28.66	0.27	35.62	53.58



Scientific Drilling International

Survey Report

Company: CIMAREX ENERGY Field: Wildcat Site: Chaves County, NM Well: Enterprise 11 State Com #3H Wellpath: VH - Job #32K1108868	Date: 12/17/2008 Time: 14:51:01 Page: 2 Co-ordinate(NE) Reference: Site: Chaves County, NM, True North Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: Well (0.00N,0.00E,89.48Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
--	---

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.00	0.56	22.85	4899.77	29.43	22.15	29.23	0.25	36.67	52.84
5000.00	0.55	339.79	4999.76	29.46	23.05	29.25	0.41	37.24	51.76
5100.00	0.62	314.99	5099.76	28.92	23.89	28.70	0.26	37.34	50.23
5200.00	0.54	334.56	5199.75	28.34	24.69	28.12	0.21	37.42	48.71
5300.00	0.50	294.10	5299.75	27.74	25.30	27.52	0.36	37.38	47.41
5400.00	0.49	312.02	5399.74	27.03	25.76	26.80	0.15	37.17	46.13
5500.00	0.36	287.09	5499.74	26.42	26.14	26.18	0.22	37.00	45.05
5600.00	0.59	291.97	5599.74	25.64	26.43	25.40	0.23	36.66	43.87
5700.00	0.50	301.43	5699.73	24.80	26.85	24.55	0.13	36.38	42.45
5800.00	0.75	293.68	5799.73	23.83	27.34	23.58	0.26	36.10	40.78
5900.00	1.07	292.12	5899.71	22.37	27.95	22.12	0.32	35.64	38.36
6000.00	0.99	298.03	5999.70	20.75	28.71	20.49	0.13	35.27	35.52
6100.00	1.02	285.84	6099.68	19.14	29.36	18.87	0.22	34.90	32.74
6200.00	1.10	282.93	6199.67	17.35	29.81	17.08	0.10	34.36	29.81
6300.00	1.06	289.42	6299.65	15.55	30.34	15.27	0.13	33.96	26.72
6400.00	0.82	285.14	6399.63	13.99	30.83	13.71	0.25	33.74	23.97
6500.00	0.96	281.99	6499.62	12.48	31.19	12.20	0.15	33.49	21.36
6600.00	0.94	291.24	6599.61	10.90	31.66	10.62	0.15	33.40	18.53
6700.00	0.70	276.57	6699.60	9.53	32.03	9.24	0.32	33.34	16.10
6800.00	0.87	287.23	6799.59	8.20	32.33	7.91	0.22	33.28	13.75
6900.00	0.69	298.77	6899.58	6.96	32.84	6.66	0.24	33.51	11.46
7000.00	0.71	264.57	6999.57	5.81	33.07	5.51	0.41	33.53	9.47
7100.00	0.73	273.41	7099.57	4.56	33.05	4.26	0.11	33.32	7.35
7200.00	0.61	265.09	7199.56	3.40	33.04	3.10	0.15	33.19	5.35
7300.00	0.83	269.83	7299.55	2.14	32.99	1.84	0.23	33.05	3.19
7400.00	0.31	279.65	7399.55	1.15	33.04	0.85	0.53	33.05	1.47
7500.00	0.17	222.84	7499.54	0.78	32.97	0.48	0.26	32.98	0.84
7600.00	0.15	76.29	7599.54	0.81	32.90	0.51	0.31	32.90	0.89
7700.00	0.35	117.68	7699.54	1.20	32.79	0.91	0.26	32.80	1.58
7800.00	0.40	73.68	7799.54	1.81	32.74	1.51	0.28	32.78	2.64
7900.00	0.70	96.48	7899.54	2.75	32.77	2.45	0.37	32.86	4.28
8000.00	0.96	103.83	7999.53	4.17	32.50	3.87	0.28	32.73	6.80
8100.00	0.97	104.20	8099.51	5.80	32.09	5.51	0.01	32.56	9.74
8200.00	1.34	89.46	8199.49	7.79	31.90	7.50	0.47	32.77	13.23
8300.00	2.06	98.00	8299.45	10.73	31.66	10.45	0.76	33.34	18.26
8372.00	1.88	91.93	8371.40	13.19	31.44	12.91	0.38	33.99	22.32



**Scientific
Drilling**

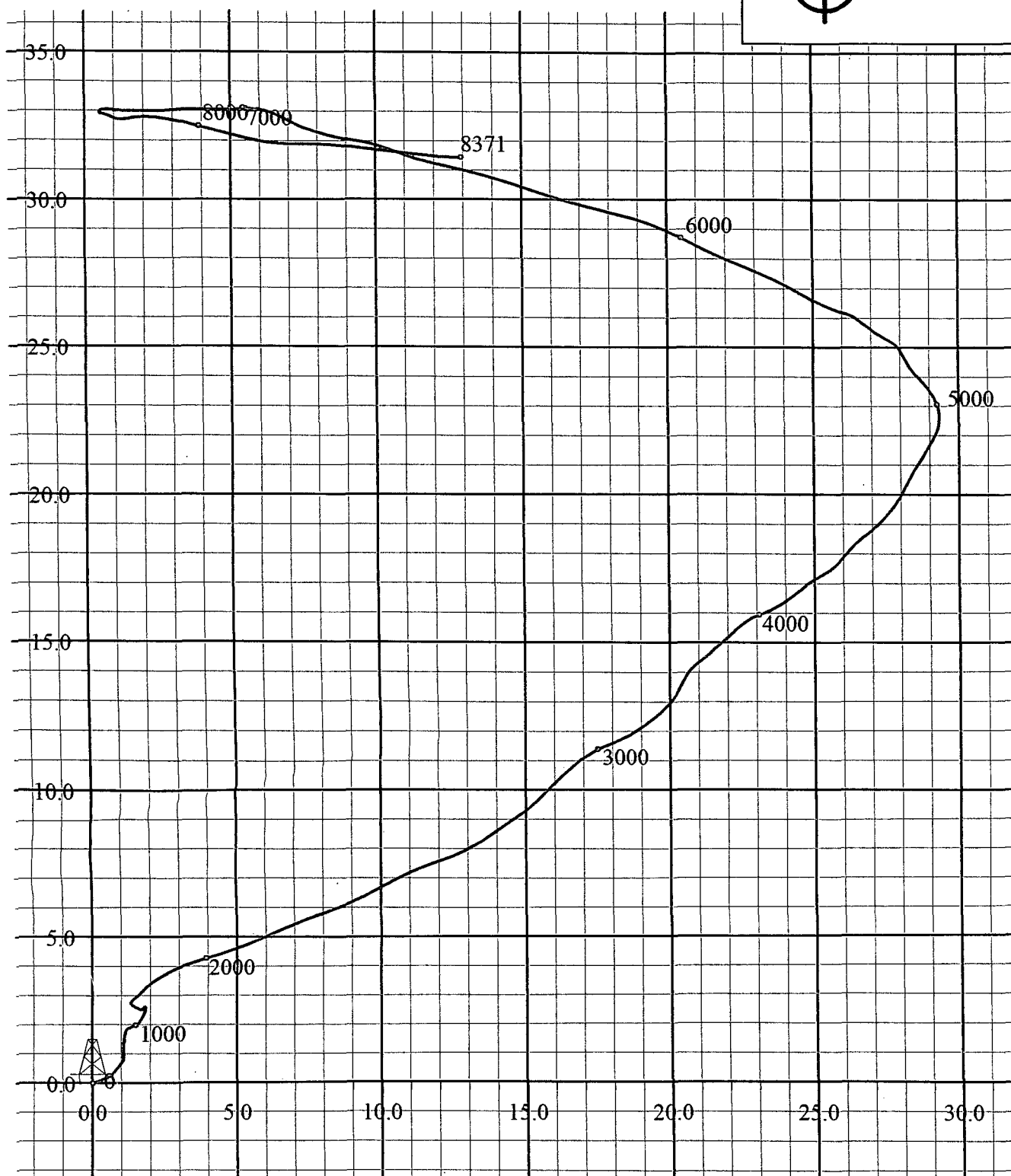
Field: Wildcat
Site: Chaves County, NM
Well: Enterprise 11 State Com #3H
Wellpath: VH - Job #32K1108868
Survey: 11/03/08



Azimuths to True North
Magnetic North: 0.00°

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 12/17/2008
Model: igrf2000

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



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