

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

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 Horizontal Re-Entry

2. Name of Operator
Cimarex Energy Co. of Colorado

3. Address
PO Box 140907; Irving, TX 75014

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

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

At surface 660' FNL & 1650' FWL

At top prod. interval reported below 660' FNL & 1650' FWL

At total depth 2310' FNL & 1875' FEL

14. Date Spudded 12.20.07
15. Date T D Reached 02.23.08

16. Date Completed 04.02.08
☐ D & A ☒ Ready to Prod.

18. Total Depth: MD 9,350'
TVD 10,665'
19. Plug Back TD MD 9,350'
TVD 10,665'

20. Depth Bridge Plug Set. MD 6,852'
TVD

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

Multiple Array Acoustilog

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 Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17 1/2"	13 3/8" H40	48	0'	350'		495 sx Prem Plus		did not Circulate	
						1" Top Job 108 sx		Surface	
12 1/4"	9-5/8" J55	40	0'	2662'		1075 sx prem plus		Surface	
8 3/4"	7" P110	26	0'	7,434'		1435 sx Super H		2230'	
	5 1/2" N80	17	7,434'	10,649'					
6 1/8"	4 1/2" p110	11.6	6716'	9050'		None			

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"	6,657'							

25 Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Abo						
B)						
C)						
D)						

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

Depth Interval	Amount and Type of Material
	Please see attachment...

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
04.05.08	05.08.08	24	→	35	42	110	42.3	0.871	Pumping
Choke Size	Tbg Press. Flwg 260	Csg. Press. 55	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
open	SI						1,200	Producing	

ACCEPTED FOR RECORD
JUL 26 2008
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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								

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

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.)

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	850'
				Queen	1,640'
				San Andres	2,410'
				Gloriette	3,920'
				Tubb	5,153'
				Abo	5,885'
				Wolfcamp	7,172'
				Strawn	9,745'
				Atoka	9,975'
				Morrow	10,320'
				Mississippian	10,468'

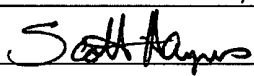
32. Additional remarks (include plugging procedure):

2 1/2"x2"x20' RHBC rod pump installed.

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, TOC Calculation, Frac Job

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) Scott Haynes Title Regulatory Analyst
 Signature  Date July 17, 2008

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.

Picketwire 5 Federal No. 1

5-17S-29E

Eddy County, NM

Depth Interval	Amount and Type of Material Used
8786'-9050'	Pump 119 bbl of 15% HCl NeFe acid, 357 bbl slickwater, SD, 119 bbl Deepspot 15% HCl acid, 595 bbl slickwater, 238 bbl Lightning 2000 x-linker pad, 0.5 ppg 30/50# white sand on lightning 2000 gel, 595 bbls slickwater, 238 bbl lightning 2000 x-linker pad, 1 ppg 30/50 # white sand & flush with 20# liner gel, Pump down 7" & 4 1/2" liner 74 BPM. Drop 2 3/4" ball. Pump 119 bbl of 15% HCl NeFe acid & 153 bbl slickwater, seat ball, open port at 8489' at 3675#. 15000# 30/50 white sand pumped.
8237'-8786'	Cont pumping 132 bbl slickwater, SD, 192 bbl slickwater, 119 bbl Deepspot 15% HCl acid, 595 bbl slickwater, 238 bbl Lightning 2000 x-linker pad, 1 ppg 30/50# white sand & flush with 20# liner gel. Drop 3" ball. Pump 119 bbl 15% HCl NeFe acid, 145 bbl slickwater, seat ball, open port 7937' at 4427#. Avg rate 76 BPM. 15000# 30/50 white sand pumped.
7683'-8237'	Cont pumping 131 bbl slickwater, SD, 119 bbls Deepspot 15% HCl acid, 595 bbl slickwater, 238 bbl Lightning 2000 x-linker pad, 0.5 ppg 30/50# white sand, 595 bbl slickwater, 238 bbls Lightning 2000 x-linker pad, 1 ppg 30/50# white sand & flush with 20# linear gel. Drop 3 1/4" ball. Pump 119 bbl 15% HCl NeFe acid, 137 bbl slickwater, seat ball, open port at 7415' at 1555#. Avg rate 73 BPM. 15000# 30/50# white sand pumped.
6716'-7683'	Cont pumping 137 bbl slickwater, SD, 119 bbl Deepspot 15% HCl acid, 595 bbl slickwater, 238 bbl Lightning 2000 x-linker pad, 0.5 30/50# white sand 595 bbls slickwater, 238 bbls lightning 2000 pad, 1 ppg 30/50# white sand & flush with 265 bbls slickwater. Avg rate 78 BPM.

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

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-35959	Pool Code	Pool Name Abo Wildcat
Property Code	Property Name PICKETWIRE "5" FEDERAL COM	Well Number 1
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3632'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	5	17 S	29 E		660	NORTH	1650	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
G	5	17 S	29 E		2310	NORTH	1875	EAST	EDDY

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

	OPERATOR CERTIFICATION I hereby certify that the information contained 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 pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Scott Haynes</i> 04-17-08 Signature Date Scott Haynes 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. OCTOBER 23 2007 Date Surveyed <i>Gary L. Jones</i> Signature & Professional Surveyor W. L. Jones Professional Surveyor Certificate No. Gary L. Jones 7977 Basin Surveys
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Operator: Cimarex Energy Co. of Colorado
Well/Lease: Picketwire 5 Federal 1
County: Eddy, NM

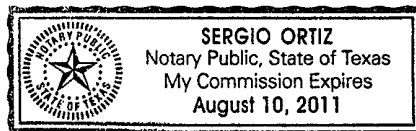
State of New Mexico
Deviation Report

117'	1.50
327'	1.50
357'	1.00
791'	3.50
1047'	3.00
1572'	3.00
1901'	0.14
2927'	1.00
3284'	1.00
3753'	1.00
4325'	1.00
4644'	1.00
5089'	1.00
5537'	1.00
6049'	1.00
6553'	1.00
7060'	1.00
7567'	1.00
8077'	1.00
8586'	1.00
9032'	1.00
9540'	1.00
10048'	1.00
10617'	1.00

State of:
County of:

The foregoing instrument was acknowledged before me on July 10th 2008, by
[Signature], on behalf of Cimarex Energy CO of Colorado

[Signature]
Notary Public For: TEXAS
My Commission Expires: 08-10-2011





Actual Wellpath Report

No.1H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 1 SHL
Area	Eddy County, NM	Well	No. 1
Field	(Pickett)Section 5 T17S R29E	Wellbore	No.1H AWB
Facility	Pickett Wire 5 Fed No. 1	Sidetrack from	No. 1 AWB OH at 6800.00 MD

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	1.00024	Report Generated	3/25/2008 at 1:50:04 PM
Convergence at slot	0.89° West	Database/Source file	WA_Midland/No.1H_AWB.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	1650.00	4620.00	31°00'04.365"N	106°03'20.861"W
Facility Reference Pt			1650.00	4620.00	31°00'04.365"N	106°03'20.861"W
Field Reference Pt			1650.00	4620.00	31°00'04.365"N	106°03'20.861"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 1 SHL (RT) to Facility Vertical Datum	0.00ft
Horizontal Reference Pt	Facility Center	Rig on No. 1 SHL (RT) to GRN. ELEV.	3649.00ft
Vertical Reference Pt	Rig on No. 1 SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 1 SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	GRN. ELEV.	Section Azimuth	133.23°



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WELLPATH DATA (130 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]	Comments
0.00	0.000	109.098	0.00	0.00	0.00	0.00	1650.00	4620.00	31°00'04.365"N	106°03'20.861"W	0.00	0.000	0.00	
100.00	0.480	109.098	100.00	0.38	-0.14	0.40	1650.40	4619.86	31°00'04.363"N	106°03'20.856"W	0.42	109.098	0.48	
200.00	0.917	97.294	199.99	1.41	-0.38	1.59	1651.59	4619.62	31°00'04.361"N	106°03'20.842"W	1.63	103.330	0.46	
300.00	1.553	74.412	299.97	2.76	-0.11	3.68	1653.69	4619.89	31°00'04.364"N	106°03'20.818"W	3.69	91.756	0.79	
400.00	1.796	71.322	399.93	4.20	0.75	6.47	1656.48	4620.75	31°00'04.373"N	106°03'20.786"W	6.52	83.366	0.26	
500.00	2.076	69.931	499.87	5.75	1.88	9.66	1659.66	4621.88	31°00'04.385"N	106°03'20.750"W	9.84	79.008	0.28	
600.00	2.136	68.150	599.80	7.35	3.19	13.09	1663.09	4623.19	31°00'04.398"N	106°03'20.711"W	13.47	76.299	0.09	
700.00	1.742	72.939	699.74	8.89	4.33	16.27	1666.28	4624.33	31°00'04.410"N	106°03'20.674"W	16.84	75.097	0.43	
800.00	1.376	78.507	799.71	10.34	5.02	18.90	1668.91	4625.02	31°00'04.417"N	106°03'20.644"W	19.56	75.139	0.40	
900.00	1.025	86.633	899.68	11.64	5.31	20.97	1670.98	4625.31	31°00'04.420"N	106°03'20.621"W	21.63	75.798	0.39	
1000.00	0.728	98.293	999.67	12.78	5.27	22.49	1672.50	4625.27	31°00'04.420"N	106°03'20.603"W	23.10	76.817	0.35	
1100.00	0.490	112.680	1099.67	13.70	5.01	23.52	1673.52	4625.01	31°00'04.418"N	106°03'20.591"W	24.05	77.969	0.28	
1200.00	0.444	115.187	1199.66	14.47	4.68	24.26	1674.27	4624.68	31°00'04.415"N	106°03'20.583"W	24.71	79.077	0.05	
1300.00	0.360	121.315	1299.66	15.15	4.35	24.88	1674.89	4624.36	31°00'04.412"N	106°03'20.576"W	25.26	80.075	0.09	
1400.00	0.386	144.380	1399.66	15.78	3.92	25.35	1675.35	4623.92	31°00'04.407"N	106°03'20.570"W	25.65	81.215	0.15	
1500.00	0.335	166.100	1499.66	16.36	3.36	25.61	1675.62	4623.36	31°00'04.402"N	106°03'20.567"W	25.83	82.528	0.14	
1600.00	0.441	188.493	1599.65	16.82	2.69	25.63	1675.63	4622.70	31°00'04.395"N	106°03'20.567"W	25.77	83.997	0.18	
1700.00	0.455	202.244	1699.65	17.19	1.95	25.42	1675.43	4621.95	31°00'04.388"N	106°03'20.569"W	25.49	85.620	0.11	
1800.00	0.382	220.429	1799.65	17.34	1.33	25.05	1675.06	4621.33	31°00'04.382"N	106°03'20.573"W	25.09	86.969	0.15	
1900.00	0.307	231.585	1899.65	17.32	0.91	24.63	1674.63	4620.91	31°00'04.377"N	106°03'20.578"W	24.64	87.892	0.10	
2000.00	0.309	274.463	1999.65	17.07	0.76	24.15	1674.16	4620.76	31°00'04.376"N	106°03'20.583"W	24.16	88.195	0.23	
2100.00	0.431	313.879	2099.64	16.49	1.04	23.61	1673.62	4621.04	31°00'04.379"N	106°03'20.590"W	23.63	87.472	0.27	
2200.00	0.368	300.765	2199.64	15.80	1.47	23.06	1673.07	4621.47	31°00'04.383"N	106°03'20.596"W	23.11	86.360	0.11	
2300.00	0.160	284.809	2299.64	15.36	1.67	22.65	1672.66	4621.67	31°00'04.385"N	106°03'20.601"W	22.71	85.791	0.22	
2400.00	0.105	242.878	2399.64	15.21	1.66	22.44	1672.44	4621.66	31°00'04.385"N	106°03'20.603"W	22.50	85.766	0.11	
2500.00	0.122	255.171	2499.64	15.12	1.59	22.25	1672.26	4621.59	31°00'04.384"N	106°03'20.605"W	22.31	85.908	0.03	
2600.00	0.103	64.049	2599.64	15.10	1.60	22.23	1672.23	4621.60	31°00'04.384"N	106°03'20.606"W	22.29	85.873	0.22	
2700.00	0.151	70.403	2699.64	15.19	1.69	22.43	1672.44	4621.69	31°00'04.385"N	106°03'20.603"W	22.50	85.699	0.05	
2800.00	0.215	67.782	2799.64	15.33	1.80	22.73	1672.74	4621.80	31°00'04.386"N	106°03'20.600"W	22.80	85.466	0.07	
2900.00	0.130	44.074	2899.64	15.41	1.96	22.98	1672.99	4621.96	31°00'04.388"N	106°03'20.597"W	23.07	85.138	0.11	
3000.00	0.086	353.753	2999.64	15.35	2.11	23.05	1673.06	4622.11	31°00'04.389"N	106°03'20.596"W	23.15	84.767	0.10	
3100.00	0.423	319.871	3099.64	14.93	2.47	22.81	1672.81	4622.47	31°00'04.393"N	106°03'20.599"W	22.94	83.822	0.36	
3200.00	0.634	319.503	3199.63	14.01	3.17	22.21	1672.22	4623.17	31°00'04.400"N	106°03'20.606"W	22.44	81.872	0.21	
3300.00	0.771	291.740	3299.63	12.83	3.84	21.23	1671.23	4623.84	31°00'04.406"N	106°03'20.617"W	21.57	79.740	0.36	
3400.00	0.831	286.701	3399.62	11.56	4.30	19.91	1669.91	4624.30	31°00'04.410"N	106°03'20.633"W	20.37	77.811	0.09	
3500.00	0.673	284.883	3499.61	10.39	4.66	18.64	1668.65	4624.66	31°00'04.414"N	106°03'20.647"W	19.22	75.969	0.16	
3600.00	0.465	275.663	3599.60	9.55	4.85	17.67	1667.68	4624.85	31°00'04.415"N	106°03'20.658"W	18.33	74.655	0.23	
3700.00	0.325	274.375	3699.60	9.01	4.91	16.99	1666.99	4624.91	31°00'04.416"N	106°03'20.666"W	17.68	73.874	0.14	
3800.00	0.301	265.518	3799.60	8.61	4.91	16.44	1666.45	4624.91	31°00'04.416"N	106°03'20.673"W	17.16	73.365	0.05	
3900.00	0.358	270.254	3899.60	8.21	4.89	15.87	1665.87	4624.89	31°00'04.416"N	106°03'20.679"W	16.61	72.861	0.06	
4000.00	0.528	278.944	3999.59	7.60	4.97	15.10	1665.10	4624.97	31°00'04.416"N	106°03'20.688"W	15.90	71.793	0.18	
4100.00	0.557	273.919	4099.59	6.84	5.07	14.16	1664.16	4625.07	31°00'04.417"N	106°03'20.699"W	15.04	70.295	0.06	
4200.00	0.553	278.337	4199.58	6.07	5.17	13.20	1663.20	4625.18	31°00'04.418"N	106°03'20.710"W	14.18	68.591	0.04	
4300.00	0.530	279.143	4299.58	5.29	5.32	12.26	1662.27	4625.32	31°00'04.419"N	106°03'20.721"W	13.37	66.556	0.02	
4400.00	0.592	273.988	4399.58	4.51	5.43	11.29	1661.29	4625.43	31°00'04.420"N	106°03'20.732"W	12.53	64.927	0.08	



Actual Wellpath Report

No.1H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 1 SHL
Area	Eddy County, NM	Well	No. 1
Field	(Pickett)Section 5 T17S R29E	Wellbore	No.1H AWB
Facility	Pickett Wire 5 Fed No. 1	Sidetrack from	No. 1 AWP OH at 6800.00 MD

WELLPATH DATA (130 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]	Comments
4500.00	0.561	273.985	4499.57	3.73	5.50	10.29	1660.29	4625.50	31°00'04.421"N	106°03'20.743"W	11.66	61.880	0.03	
4600.00	0.540	283.416	4599.57	2.94	5.64	9.34	1659.34	4625.64	31°00'04.422"N	106°03'20.754"W	10.91	58.874	0.09	
4700.00	0.635	292.724	4699.56	2.01	5.96	8.37	1658.37	4625.97	31°00'04.425"N	106°03'20.766"W	10.28	54.533	0.14	
4800.00	0.640	295.910	4799.55	0.96	6.42	7.36	1657.36	4626.42	31°00'04.429"N	106°03'20.777"W	9.77	48.882	0.04	
4900.00	0.691	298.209	4899.55	-0.15	6.95	6.32	1656.33	4626.95	31°00'04.434"N	106°03'20.789"W	9.40	42.293	0.06	
5000.00	0.728	296.365	4999.54	-1.34	7.52	5.22	1655.22	4627.52	31°00'04.440"N	106°03'20.802"W	9.15	34.790	0.04	
5100.00	0.668	297.309	5099.53	-2.51	8.07	4.14	1654.14	4628.07	31°00'04.445"N	106°03'20.815"W	9.07	27.144	0.06	
5200.00	0.621	293.801	5199.53	-3.58	8.55	3.12	1653.12	4628.56	31°00'04.450"N	106°03'20.826"W	9.11	20.057	0.06	
5300.00	0.653	274.420	5299.52	-4.54	8.82	2.06	1652.06	4628.82	31°00'04.452"N	106°03'20.839"W	9.05	13.147	0.22	
5400.00	0.654	269.474	5399.51	-5.40	8.86	0.92	1650.92	4628.86	31°00'04.452"N	106°03'20.852"W	8.90	5.932	0.06	
5500.00	0.604	267.220	5499.51	-6.17	8.82	-0.18	1649.82	4628.83	31°00'04.452"N	106°03'20.864"W	8.83	358.849	0.06	
5600.00	0.632	250.826	5599.50	-6.80	8.62	-1.22	1648.77	4628.62	31°00'04.450"N	106°03'20.876"W	8.70	351.911	0.18	
5700.00	0.679	239.220	5699.50	-7.21	8.13	-2.25	1647.75	4628.14	31°00'04.445"N	106°03'20.888"W	8.44	344.509	0.14	
5800.00	0.598	222.591	5799.49	-7.37	7.45	-3.12	1646.88	4627.45	31°00'04.438"N	106°03'20.898"W	8.07	337.292	0.20	
5900.00	0.585	203.279	5899.48	-7.19	6.59	-3.67	1646.33	4626.60	31°00'04.429"N	106°03'20.904"W	7.55	330.893	0.20	
6000.00	0.729	203.808	5999.48	-6.80	5.54	-4.13	1645.87	4625.54	31°00'04.419"N	106°03'20.909"W	6.91	323.309	0.14	
6100.00	0.626	213.282	6099.47	-6.50	4.50	-4.69	1645.31	4624.50	31°00'04.409"N	106°03'20.915"W	6.50	313.857	0.15	
6200.00	0.670	209.361	6199.46	-6.26	3.54	-5.27	1644.73	4623.54	31°00'04.399"N	106°03'20.922"W	6.35	303.850	0.06	
6300.00	0.683	204.691	6299.46	-5.93	2.49	-5.81	1644.19	4622.49	31°00'04.388"N	106°03'20.928"W	6.32	293.164	0.06	
6400.00	0.641	188.395	6399.45	-5.43	1.39	-6.14	1643.86	4621.39	31°00'04.378"N	106°03'20.931"W	6.29	282.760	0.19	
6500.00	0.700	187.926	6499.44	-4.75	0.23	-6.31	1643.69	4620.23	31°00'04.366"N	106°03'20.933"W	6.31	272.107	0.06	
6600.00	0.736	182.096	6599.44	-3.98	-1.01	-6.41	1643.59	4618.99	31°00'04.354"N	106°03'20.934"W	6.49	261.013	0.08	
6700.00	0.704	190.361	6699.43	-3.22	-2.26	-6.55	1643.45	4617.74	31°00'04.341"N	106°03'20.935"W	6.93	250.958	0.11	
6800.00	0.819	193.521	6799.42	-2.53	-3.56	-6.82	1643.17	4616.44	31°00'04.328"N	106°03'20.938"W	7.70	242.463	0.12	
6854.00	12.300	150.200	6852.98	3.18	-8.94	-4.05	1645.95	4611.05	31°00'04.276"N	106°03'20.906"W	9.82	204.344	21.70	
6869.00	16.600	148.500	6867.51	6.77	-12.16	-2.13	1647.87	4607.84	31°00'04.244"N	106°03'20.883"W	12.34	189.945	28.80	
6886.00	21.100	146.900	6883.59	12.09	-16.79	0.81	1650.81	4603.20	31°00'04.199"N	106°03'20.848"W	16.81	177.240	26.64	
6901.00	24.600	146.400	6897.41	17.76	-21.66	4.01	1654.01	4598.34	31°00'04.151"N	106°03'20.811"W	22.03	169.503	23.37	
6917.00	28.600	144.500	6911.71	24.76	-27.55	8.08	1658.08	4592.44	31°00'04.093"N	106°03'20.763"W	28.71	163.653	25.56	
6932.00	31.900	142.200	6924.67	32.20	-33.61	12.60	1662.60	4586.38	31°00'04.034"N	106°03'20.710"W	35.89	159.454	23.31	
6949.00	35.700	140.800	6938.79	41.56	-41.00	18.49	1668.49	4578.99	31°00'03.962"N	106°03'20.641"W	44.98	155.732	22.82	
6964.00	38.900	138.900	6950.73	50.58	-47.95	24.35	1674.36	4572.04	31°00'03.894"N	106°03'20.572"W	53.78	153.075	22.67	
6981.00	42.500	137.400	6963.61	61.63	-56.20	31.75	1681.76	4563.79	31°00'03.813"N	106°03'20.486"W	64.55	150.536	21.94	
6992.00	45.500	136.400	6971.52	69.25	-61.78	36.97	1686.98	4558.21	31°00'03.759"N	106°03'20.425"W	71.99	149.101	27.99	
7013.00	50.500	135.300	6985.57	84.84	-72.97	47.84	1697.85	4547.02	31°00'03.650"N	106°03'20.298"W	87.25	146.749	24.12	
7028.00	53.200	136.000	6994.84	96.62	-81.40	56.09	1706.10	4538.58	31°00'03.568"N	106°03'20.202"W	98.85	145.433	18.37	
7041.00	57.200	137.400	7002.25	107.27	-89.17	63.40	1713.42	4530.81	31°00'03.492"N	106°03'20.116"W	109.41	144.586	32.01	
7056.00	61.200	136.500	7009.93	120.13	-98.58	72.20	1722.21	4521.39	31°00'03.400"N	106°03'20.014"W	122.19	143.783	27.16	
7074.00	65.300	136.100	7018.03	136.17	-110.20	83.30	1733.32	4509.77	31°00'03.287"N	106°03'19.884"W	138.14	142.914	22.86	
7090.00	68.800	133.800	7024.27	150.90	-120.60	93.73	1743.75	4499.37	31°00'03.186"N	106°03'19.762"W	152.74	142.147	25.57	
7105.00	72.200	130.200	7029.28	165.03	-130.06	104.24	1754.26	4489.91	31°00'03.094"N	106°03'19.640"W	166.67	141.290	32.02	
7119.00	75.500	130.100	7033.17	178.46	-138.73	114.51	1764.54	4481.24	31°00'03.009"N	106°03'19.520"W	179.89	140.462	23.58	
7137.00	77.700	131.600	7037.35	195.95	-150.18	127.76	1777.79	4469.78	31°00'02.898"N	106°03'19.366"W	197.17	139.613	14.67	
7152.00	79.500	130.000	7040.31	210.64	-159.79	138.89	1788.92	4460.17	31°00'02.805"N	106°03'19.237"W	211.71	139.003	15.92	
7169.00	81.400	128.900	7043.13	227.37	-170.44	151.83	1801.87	4449.52	31°00'02.701"N	106°03'19.086"W	228.26	138.305	12.87	



Actual Wellpath Report

No.1H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 1 SHL
Area	Eddy County, NM	Well	No. 1
Field	(Pickett)Section 5 T17S R29E	Wellbore	No.1H AWB
Facility	Pickett Wire 5 Fed No. 1	Sidetrack from	No. 1 AWB OH at 6800.00 MD

WELLPATH DATA (130 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]	Comments
7184.00	83.200	129.800	7045.14	242.19	-179.86	163.32	1813.36	4440.09	31°00'02.610"N	106°03'18.952"W	242.95	137.759	13.39	
7216.00	86.800	126.400	7047.93	273.94	-199.53	188.40	1838.45	4420.43	31°00'02.419"N	106°03'18.661"W	274.42	136.642	15.45	
7231.00	88.600	123.400	7048.53	288.76	-208.10	200.70	1850.74	4411.85	31°00'02.336"N	106°03'18.518"W	289.11	136.038	23.31	
7264.00	89.200	123.400	7049.17	321.27	-226.26	228.24	1878.30	4393.68	31°00'02.161"N	106°03'18.198"W	321.38	134.751	1.82	
7296.00	88.400	123.800	7049.84	352.81	-243.97	254.89	1904.95	4375.98	31°00'01.990"N	106°03'17.889"W	352.83	133.746	2.79	
7328.00	88.200	124.800	7050.79	384.41	-261.99	281.31	1931.38	4357.95	31°00'01.815"N	106°03'17.582"W	384.41	132.963	3.19	
7360.00	88.200	126.600	7051.79	416.12	-280.65	307.28	1957.36	4339.28	31°00'01.634"N	106°03'17.281"W	416.16	132.407	5.62	
7392.00	88.300	126.900	7052.77	447.90	-299.79	332.91	1982.99	4320.14	31°00'01.449"N	106°03'16.983"W	448.00	132.003	0.99	
7423.00	88.100	128.300	7053.74	478.73	-318.70	357.46	2007.55	4301.23	31°00'01.266"N	106°03'16.697"W	478.90	131.719	4.56	
7487.00	87.700	130.100	7056.09	542.53	-359.12	407.02	2057.12	4260.80	31°00'00.873"N	106°03'16.121"W	542.80	131.422	2.88	
7550.00	88.000	133.200	7058.45	605.45	-400.95	454.06	2104.17	4218.95	31°00'00.467"N	106°03'15.573"W	605.75	131.446	4.94	
7612.00	88.500	133.900	7060.34	667.42	-443.65	498.97	2149.09	4176.25	31°00'00.051"N	106°03'15.050"W	667.68	131.641	1.39	
7675.00	90.000	135.700	7061.17	730.39	-488.03	543.67	2193.80	4131.85	30°59'59.618"N	106°03'14.528"W	730.58	131.913	3.72	
7739.00	90.000	136.400	7061.17	794.31	-534.11	588.08	2238.23	4085.76	30°59'59.169"N	106°03'14.010"W	794.43	132.246	1.09	
7802.00	90.000	136.100	7061.17	857.22	-579.62	631.65	2281.80	4040.24	30°59'58.726"N	106°03'13.501"W	857.29	132.540	0.48	
7866.00	89.900	136.000	7061.22	921.15	-625.69	676.07	2326.23	3994.16	30°59'58.276"N	106°03'12.983"W	921.17	132.784	0.22	
7924.00	90.200	137.500	7061.17	979.03	-667.94	715.81	2365.98	3951.90	30°59'57.865"N	106°03'12.519"W	979.04	133.019	2.64	
7988.00	88.500	137.500	7061.90	1042.85	-715.12	759.04	2409.22	3904.71	30°59'57.404"N	106°03'12.014"W	1042.85	133.293	2.66	
8052.00	89.200	137.100	7063.18	1106.68	-762.14	802.43	2452.63	3857.67	30°59'56.946"N	106°03'11.507"W	1106.69	133.525	1.26	
8115.00	89.500	135.700	7063.90	1169.57	-807.76	845.88	2496.08	3812.04	30°59'56.501"N	106°03'11.000"W	1169.61	133.680	2.27	
8184.00	89.600	134.300	7064.44	1238.54	-856.55	894.66	2544.88	3763.24	30°59'56.025"N	106°03'10.431"W	1238.59	133.753	2.03	
8247.00	89.700	132.200	7064.83	1301.53	-899.71	940.55	2590.77	3720.07	30°59'55.605"N	106°03'09.896"W	1301.58	133.729	3.34	
8306.00	90.400	131.500	7064.77	1360.52	-939.08	984.50	2634.73	3680.70	30°59'55.222"N	106°03'09.384"W	1360.55	133.647	1.68	
8369.00	90.500	132.900	7064.28	1423.50	-981.39	1031.16	2681.41	3638.37	30°59'54.811"N	106°03'08.840"W	1423.53	133.583	2.23	
8433.00	90.300	132.900	7063.83	1487.50	-1024.96	1078.05	2728.31	3594.80	30°59'54.387"N	106°03'08.294"W	1487.52	133.554	0.31	
8497.00	88.900	132.500	7064.28	1551.49	-1068.36	1125.08	2775.35	3551.38	30°59'53.965"N	106°03'07.746"W	1551.51	133.519	2.28	
8561.00	88.000	132.200	7066.01	1615.46	-1111.46	1172.36	2822.64	3508.28	30°59'53.545"N	106°03'07.195"W	1615.47	133.472	1.48	
8624.00	89.700	134.300	7067.28	1678.44	-1154.61	1218.23	2868.53	3465.11	30°59'53.125"N	106°03'06.660"W	1678.46	133.464	4.29	
8688.00	89.600	134.400	7067.67	1742.43	-1199.35	1264.00	2914.30	3420.36	30°59'52.690"N	106°03'06.127"W	1742.45	133.497	0.22	
8752.00	89.700	135.000	7068.06	1806.41	-1244.36	1309.49	2959.80	3375.34	30°59'52.251"N	106°03'05.596"W	1806.43	133.539	0.95	
8815.00	88.600	135.000	7068.99	1869.37	-1288.91	1354.03	3004.35	3330.78	30°59'51.817"N	106°03'05.077"W	1869.40	133.589	1.75	
8878.00	89.500	134.300	7070.04	1932.34	-1333.17	1398.84	3049.18	3286.50	30°59'51.386"N	106°03'04.554"W	1932.38	133.623	1.81	
8942.00	89.100	134.300	7070.82	1996.32	-1377.87	1444.64	3094.99	3241.80	30°59'50.951"N	106°03'04.020"W	1996.38	133.645	0.62	
9006.00	89.600	132.200	7071.54	2060.32	-1421.72	1491.25	3141.61	3197.94	30°59'50.524"N	106°03'03.477"W	2060.37	133.633	3.37	
9070.00	88.700	132.200	7072.49	2124.30	-1464.70	1538.66	3189.03	3154.95	30°59'50.106"N	106°03'02.925"W	2124.34	133.589	1.41	
9133.00	89.400	130.800	7073.54	2187.26	-1506.44	1585.83	3236.22	3113.20	30°59'49.700"N	106°03'02.375"W	2187.29	133.529	2.48	
9196.00	88.200	130.400	7074.86	2250.18	-1547.43	1633.66	3284.05	3072.20	30°59'49.302"N	106°03'01.819"W	2250.19	133.447	2.01	
9260.00	89.400	130.100	7076.20	2314.07	-1588.77	1682.49	3332.90	3030.85	30°59'48.900"N	106°03'01.250"W	2314.08	133.359	1.93	
9302.00	88.200	130.100	7077.08	2356.00	-1615.82	1714.61	3365.02	3003.79	30°59'48.637"N	106°03'00.876"W	2356.00	133.301	2.86	
9350.00	88.200	130.100	7078.59	2403.91	-1646.72	1751.31	3401.73	2972.88	30°59'48.337"N	106°03'00.449"W	2403.91	133.237	0.00	PROJ. TO BIT



Actual Wellpath Report

No.1H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 1 SHL
Area	Eddy County, NM	Well	No. 1
Field	(Pickett)Section 5 T17S R29E	Wellbore	No.1H AWB
Facility	Pickett Wire 5 Fed No. 1	Sidetrack from	No. 1 AWB OH at 6800.00 MD

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
No. 1 BHL		7045.00	-1649.60	1754.58	3405.00	2970.00	30°59'48.309"N	106°03'00.411"W	point

WELLPATH COMPOSITION Ref Wellbore: No.1H AWB Ref Wellpath: No.1H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	6800.00	Gyrodatta standard - Drop gyro or Multi-shot	GYRO	No. 1 AWB OH
6800.00	9350.00	NaviTrak (Magcorr1)	MWD	No.1H AWB



Cimarex Energy Co.

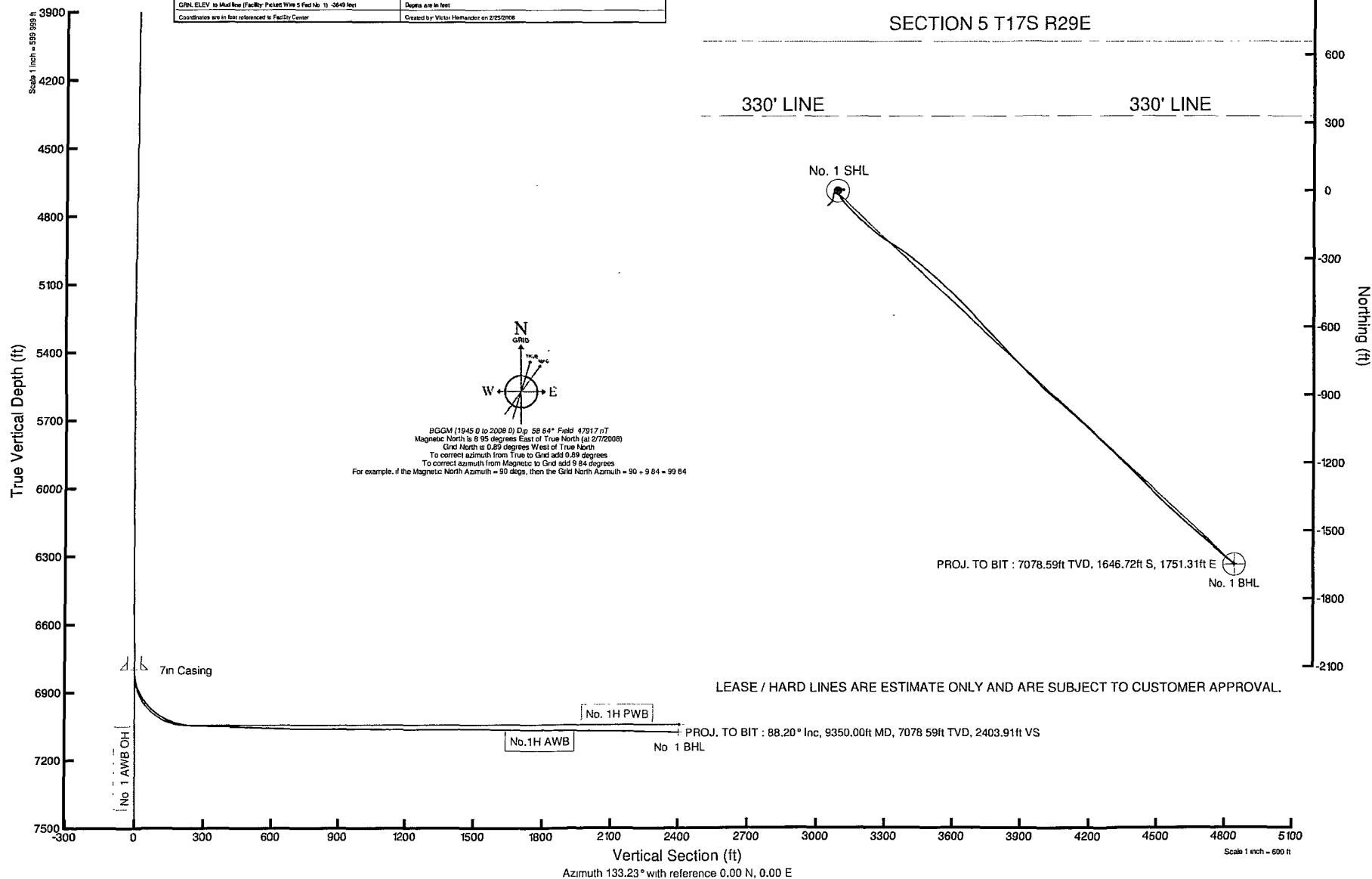
Location: Eddy County, NM
Field: (Pickett) Section 5 T17S R29E
Facility: Pickett Wire 5 Fed No. 1

Slot: No. 1 SHL
Well: No. 1
Wellbore: No. 1H AWB



INTEQ

Plot reference wellbore is No. 1H AWB	
True vertical depths are referenced to Rig on No. 1 SHL (RT)	Grid System: NAD83 / TX New Mexico State Planes, Eastern Zone (2011) US feet
Measured depths are referenced to Rig on No. 1 SHL (RT)	North Reference: Grid north
Rig on No. 1 SHL (RT) to GRN ELEV 3843 feet	Scale: True distance
GRN ELEV to Mudflow (Facility: Pickett Wire 5 Fed No. 1) - 3843 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	
Created by Victor Hernandez on 2/22/2008	



WINDOW@6796FT

Top of RSB Packer 6716'

DOWN HOLE WELL PROFILE

[illegible]

**TOTAL MEASURED DEPTH
@ 9350 FT**

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

**** Cimarex Energy ****