

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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OCD Hobbs

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM84729
2. Name of Operator CIMAREX ENERGY COMPANY OF CO		6. If Indian, Allottee or Tribe Name
3a. Address 600 NORTH MARIENFELD STREET, SUITE 600 MIDLAND, TX 79701		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 432-571-7848		8. Well Name and No. CUERVO FEDERAL 21H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 14 T23S R32E NWNE 330FNL 2310FEL		9. API Well No. 30-025-41495-00-X1
		10. Field and Pool, or Exploratory DIAMONDTAIL
		11. County or Parish, and State LEA COUNTY, NM

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12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Cimarex Energy respectfully requests the following changes to the original APD:

Original APD
TVD: 11,035'
MD: 15,509'
9-5/8" Intermediate Casing: 40# N-80 LTC
5-1/2" Production Casing: 17# P-110 LTC/BTC

Proposed Changes
New TVD: 9,725'
New MD: 14,069'
9-5/8" Intermediate Casing: 40# J-55 LTC

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #249572 verified by the BLM Well Information System For CIMAREX ENERGY COMPANY OF CO, sent to the Hobbs Committed to AFMSS for processing by CHRISTOPHER WALLS on 06/13/2014 (14CRW0186SE)	
Name (Printed/Typed) PAULA BRUNSON	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 06/13/2014
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By _____	Title _____
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	
Office _____	

APPROVED
JUN 13 2014
As/ Chris Walls
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

JUN 24 2014

Additional data for EC transaction #249572 that would not fit on the form

32. Additional remarks, continued

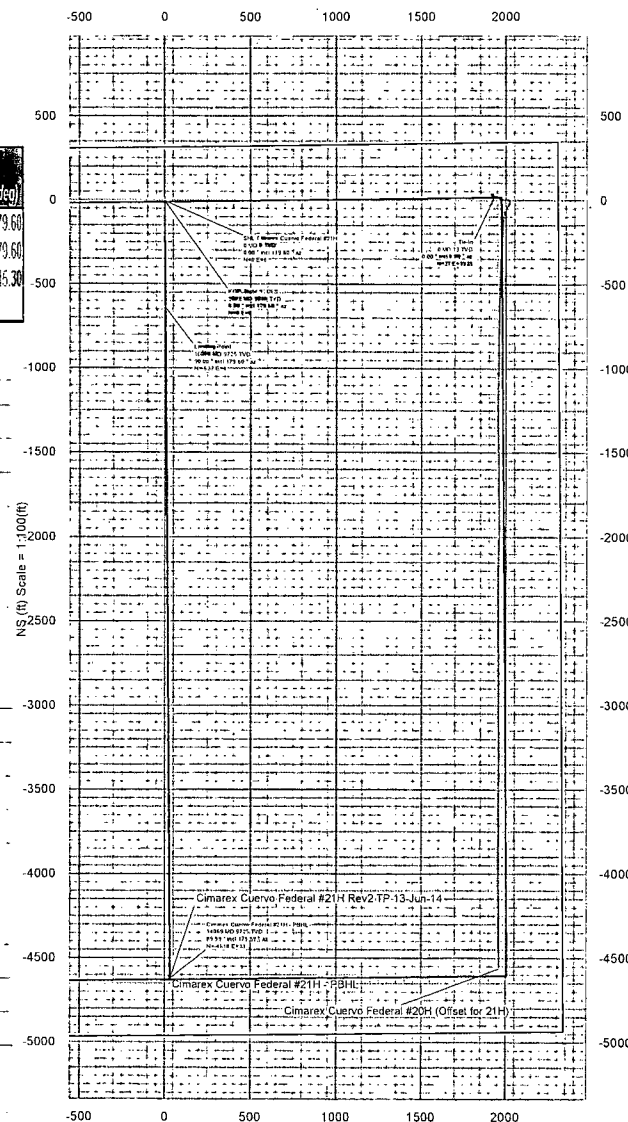
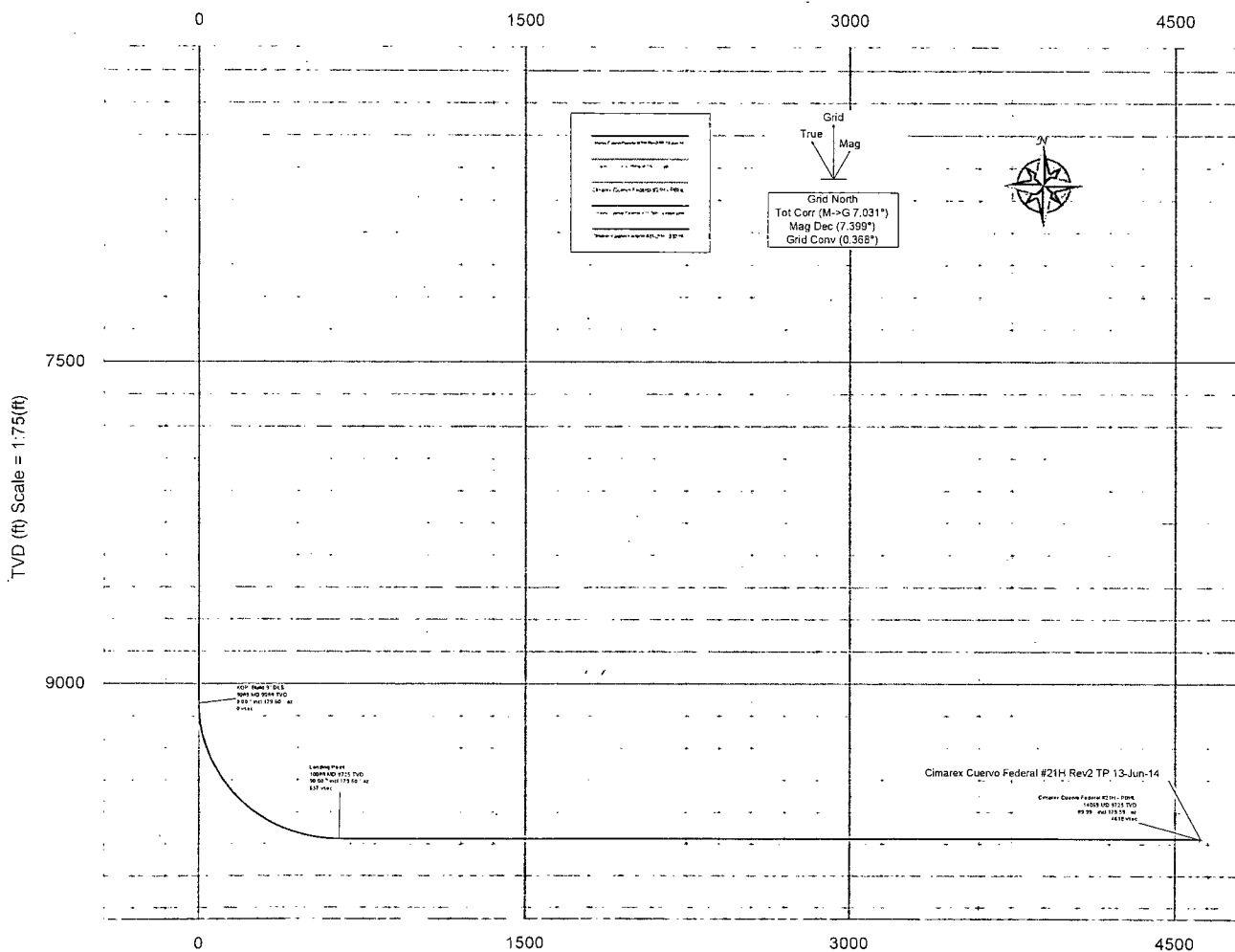
5-1/2" Production Casing: 20# L-80 LTC/BTC

Please see attached revised directional plan.

Borehole:	Well:	Field:	Structure:
Original Borehole	Cimarex Cuervo Federal #21H	NM Lea County (NAD 83)	Cimarex Cuervo Federal #21H

Gravity & Magnetic Parameters	Surface Location	Miscellaneous
Model: BGGM 2013 Dip: 60.172° Date: 20-Mar-2014	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Slot: Cimarex Cuervo Federal #21H
MagDec: 7.399° FS: 48381.818mT Gravity FS: 990.684mg (9.80665 Based)	Lat: N 32 18 39.89 Northings: 477587.11US Grid Conv: 0.3683°	TVD Ref: RKB(3758ft above MSL)
	Lon: W 103 38 39.69 Eastings: 754189.11US Scale Fact: 0.99956098	Plan: Cimarex Cuervo Federal #21H Rev2 TP 13-Jun-14

Comments	Survey MD(ft)	Inclination(deg)	Azimuth(deg)	TVD(ft)	Sub-Sea TVD	VS(ft)	HS(ft)	EW(ft)	Latitude(deg)	Longitude(deg)	Eastings(ftUS)	Northings(ftUS)	Closure(ft)	Closure Azimuth(deg)	DLSG(100ft)	Tool Face(deg)
SHL Cimarex Cuervo Federal #21H	0.00	0.00	179.60	0.00	-3758.00	0.00	0.00	0.00	N 32 18 39.895	W 103 38 39.695	754189.10	477587.10	0.00	0.00		179.60
KOP, Build 9° DLS	9083.00	0.00	179.60	9083.00	5330.00	0.00	0.00	0.00	N 32 18 39.895	W 103 38 39.695	754189.10	477587.10	0.00	0.00	0.00	179.60
Landing Point	10089.00	90.00	179.60	9724.62	5956.62	636.62	-636.60	4.44	N 32 18 33.586	W 103 38 39.691	754193.54	476950.52	636.62	179.60	9.00	-145.30
Cimarex Cuervo Federal #21H - PEHL	14069.18	89.99	179.59	9725.00	5957.00	4617.80	-4617.69	32.50	N 32 17 54.192	W 103 38 39.662	754221.60	472969.60	4617.80	179.60	0.00	



Vertical Section (ft) Azim = 179.597° Scale = 1:75(ft) Origin = 0N/-S, 0E/-W

CONTROLLED	
Drawn by	Checked by
Scale	Sheet
Date	13-Jun-2014
Original	Revised
Drawn by	Checked by
Scale	Sheet
Date	13-Jun-2014

Cimarex Cuervo Federal #21H Rev2 TP 13-Jun-14 Proposal Geodetic Report (Non-Def Plan)



Report Date: June 13, 2014 - 10:18 AM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Cuervo Federal #21H / Cimarex Cuervo Federal #21H
Well: Cimarex Cuervo Federal #21H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Cuervo Federal #21H Rev2 TP 13-Jun-14
Survey Date: March 20, 2014
Tort / AHD / DDI / ERD Ratio: 90.013 ° / 4617.804 ft / 5.779 / 0.475
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 18' 39.88548", W 103° 38' 39.69481"
Location Grid N/E Y/X: N 477587.100 ftUS, E 754189.100 ftUS
CRS Grid Convergence Angle: 0.3683 °
Grid Scale Factor: 0.99996098
Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.597 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3758.000 ft above MSL
Seabed / Ground Elevation: 3728.000 ft above MSL
Magnetic Declination: 7.399 °
Total Gravity Field Strength: 998.6936mgn (9.80665 Based)
Gravity Model: DOX
Total Magnetic Field Strength: 48361.818 nT
Magnetic Dip Angle: 60.172 °
Declination Date: March 20, 2014
Magnetic Declination Model: BGGM 2013
North Reference: Grid North
Grid Convergence Used: 0.3683 °
Total Corr Mag North->Grid North: 7.0311 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL Cimarex Cuervo Federal #21H	0.00	0.00	179.60	0.00	0.00	0.00	0.00	N/A	477587.10	754189.10	N 32 18 39.89 W 103 38 39.69	
KOP, Build 9° DLS	9088.00	0.00	179.60	9088.00	0.00	0.00	0.00	0.00	477587.10	754189.10	N 32 18 39.89 W 103 38 39.69	
Landing Point Cimarex Cuervo Federal #21H - PBHL	10088.00	90.00	179.60	9724.62	636.62	-636.60	4.44	9.00	476950.52	754193.54	N 32 18 33.59 W 103 38 39.69	
	14069.18	89.99	179.59	9725.00	4617.80	-4617.69	32.50	0.00	472969.60	754221.60	N 32 17 54.19 W 103 38 39.66	

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	30.000	1/100.000	30.000	30.000	SLB_MWD-POOR-Depth Only	Original Borehole / Cimarex Cuervo Federal #21H Rev2 TP
	1	30.000	9088.000	1/100.000	30.000	30.000	SLB_MWD-POOR	Original Borehole / Cimarex Cuervo Federal #21H Rev2 TP
	1	9088.000	14069.184	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Cuervo Federal #21H Rev2 TP

CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Cimarex Energy Co. of Colorado
LEASE NO.:	NMNM-84729
WELL NAME & NO.:	Cuervo Federal 21H
SURFACE HOLE FOOTAGE:	0330' FNL & 2310' FEL
BOTTOM HOLE FOOTAGE:	0330' FSL & 2310' FEL
LOCATION:	Section 14, T. 23 S., R 32 E., NMPM
COUNTY:	Lea County, New Mexico

Operator to keep intermediate casing fluid filled while running into hole to meet BLMs minimum collapse safety factor.

1. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers approved as written.

2. The minimum required fill of cement behind the **5-1/2** inch production casing is:

☒ Cement as proposed by operator. Operator shall provide method of verification.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

CRW 061314