

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

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.*

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SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
Cimarex Energy Co. of Colorado

3a. Address
PO Box 140907; Irving, TX 75014-0907

3b. Phone No. (include area code)
972-401-3111

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
24-16S-28E
SHL 2260' FNL & 330' FWL, BHL 1980' FNL & 330' FEL

5. Lease Serial No.
SHL NM-97128

BHL State
Minerals

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
Pending

8. Well Name and No.
Cave Lake 24 Federal Com No. 3

9. API Well No.
30-015-36144

10. Field and Pool, or Exploratory Area
Abo Wildcat

11. County or Parish, State
Eddy County, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input checked="" type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, included estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat 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 recompleat 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 wishes to change its casing program for the well mentioned above as shown on the attached pages.

Accepted 9 5/8"
Approved 7" / 4 1/2"

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Natalie Krueger
Signature

Title

Regulatory Analyst

Date

March 27, 2008

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Office

APPROVED

APR 4 2008
Date

WESLEY W. INGRAM
PETROLEUM ENGINEER

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.

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

(Instructions on reverse)

Accepted for record - NMOCD

Cave Lake 24 Federal Com No. 3
Cimarex Energy Co. of Colorado
Unit E, Section 24
T16S, R28E Eddy County, NM

Location: SHL 2260' FNL & 330' FWL
BHL 1980' FNL & 330' FEL *Proposed Horizontal Abo Test*

Elevation above sea level: 3,614 GR

Geologic name of surface formation: Quaternary Alluvium Deposits

Proposed drilling depth: Pilot Hole 7,350' MD 11,364' TVD 6,800'

Estimated tops of geological markers:

San Andres	1,820'
Abo Shale	5,340'
Wolfcamp	6,875'

Possible mineral bearing formation:

Abo Oil 6,825' - 6,875'

Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0 to 340'	8.4 - 8.6	30-32	NC	FW spud mud, use high-viscosity sweeps to keep hole clean
340' to 2,500'	10.0	28-29	NC	Brine Water
2,500' to 7,350'	8.4 - 9.5	28-29	NC	Fresh water and brine
7,350' to 11,364'	8.4 - 9.5	28-29	NC	2% KCl

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted. Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until production casing is run and cemented.

Drilling Plan:

Drill 8¾" pilot hole to 7,350.' Set KO Plug @ 6,690.' Mill window from 6,675' to 6,6855' and kick off horizontal leg @ 6,680.' Drill 6½" hole to TD (11,364' MD and 6,800' TVD). Set RSB Packer @ 6,573' and run 4½" 11.6# P-110 **BTC** Liner from 6,573' to 7,073' (through curve). Run 4½" 11.6# P-110 **LTC** Liner from 7,073' to TD (11,364' MD and 6,800' TVD). Peak Completion Assembly will be used.

No cement required for Peak Systems Liner.

numbers don't match

Cave Lake 24 Federal Com No. 3
Cimarex Energy Co. of Colorado
Unit E, Section 24
T16S, R28E Eddy County, NM

Casing & Cementing Program:

Hole Size	Depth		Casing OD		Weight	Thread	Collar	Grade
17½"	0	to 340'	New	13⅜"	48#	8-R	STC	H-40
12¼"	0	to 2,500'	New	9⅝"	40#	8-R	LTC	J-55
8¾"	0	to 7,350'	New	7"	26#	8-R	LTC	P-110
6⅝"	0	to 11,364'	New	4½"	11.6#	8-R	BTC/LTC	P-110

Cementing & Setting Depth:

13⅜" Surface Lead: 110 sx Light Premium Plus + 0.125# Poly-e-flake + 1% CaCl₂ (wt 14.2, yld 1.64)
Tail: 220 sx Premium Plus + 2% CaCl₂ (wt 14.8, yld 1.4)
TOC Surface

9⅝" Intermediate Lead: 415 sks Interfill C + 0.125# Poly-e-flake (wt 11.9, yld 2.45)
Tail: 215 sks Premium Plus + 1% CaCl₂ (wt 14.8, yld 1.33)
TOC Surface

7" Pilot Hole Lead: 270 sx Interfill H + 0.1% HR-7 + 0.125# Poly-e-flake (wt 11.5, yld 2.76)
Tail: 170 sx Super H + 0.5% Halad-344 + 0.4% CFR-3 + 1# Salt + 5# Gilsonite + 0.125# Poly-e-flake + 0.35% HR-7 (wt 13.2, yld 1.61)
TOC 2,000'

4½" Liner ~~Peak Systems Iso-Pack Liner will not require cementing.~~ Set 500' of BTC from 6523' to 7023.' For the rest of the lateral leg, set LTC (7024'-11364').

Fresh water will be protected by setting 13⅜" casing at 340' and cementing to Surface
Hydrocarbon zones will be protected by setting 9⅝" casing at 2,500' and cementing to Surface
and by setting 7" casing at 7,350' and cementing to 2000'

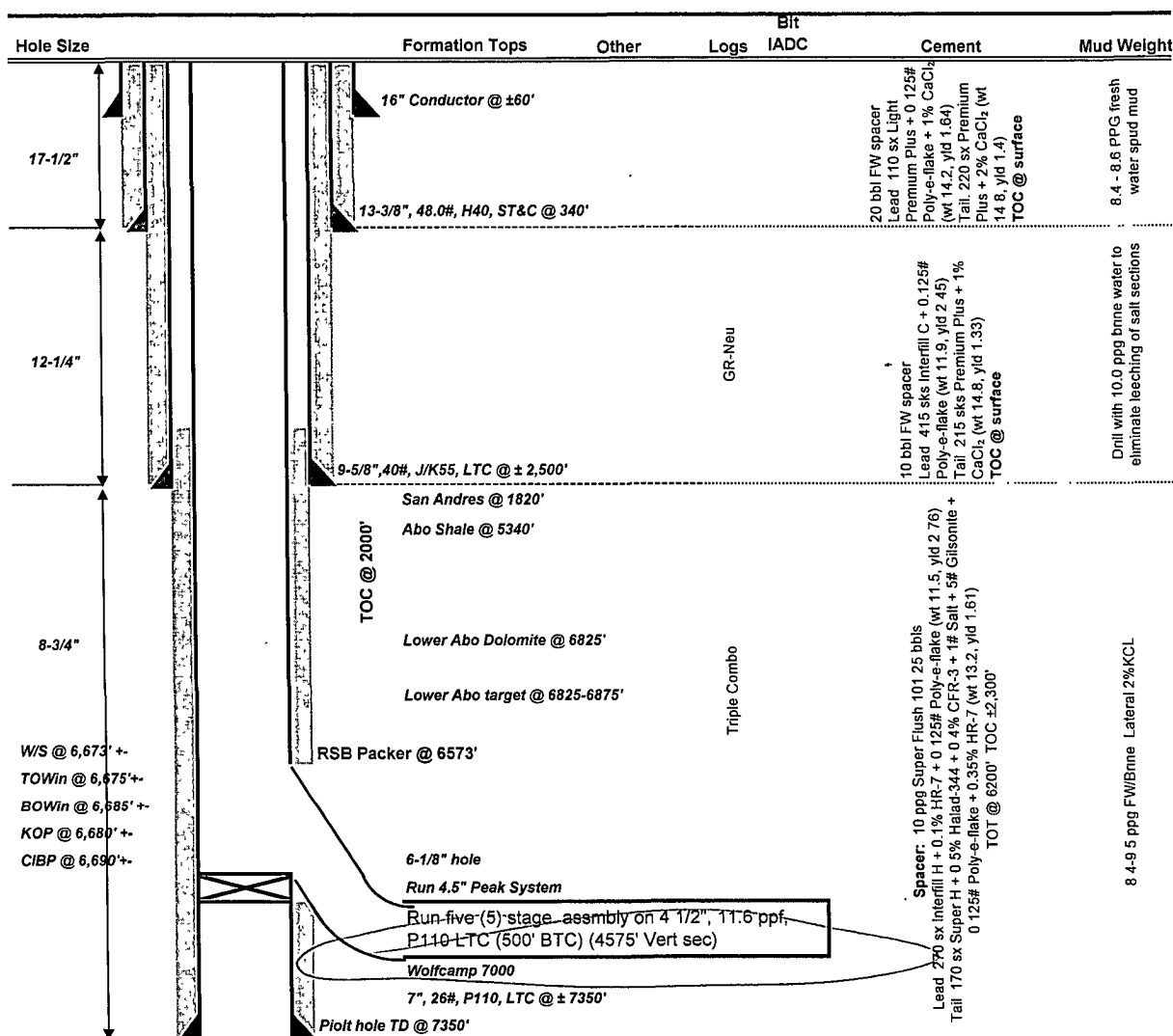


DRILLING PROGNOSIS Cimarex Energy Company

Well: Cave Lake 24 Fed Com #3
Location: 24-16S-28E
County, State: Eddy County, NM
Surface Location: 2260FNL,330FWL
Bottomhole Loc: 1980FNL,330FEL
E-Mail:
Wellhead:

Lse Serial #:
Field:
Objective:
TVD/MD: 6800 / 11364
Cementing: Halliburton
Mud:
Motors:
OH Logs: Halliburton
Rig: Pat 74
Offset Wells:

Xmas Tree
Tubing: 2 7/8" L80 EUE
Superintendent: Dee Smith
Engineer: Mark Audas



NOTES:

Install wellhead on 13-3/8" and NU BOP. Test this installation to 1000 psi w/ rig pump. Then after setting 9-5/8" in slips and installing the csg spool, NU BOP (5M) w/ rotating head and test BOP to 5M w/ test unit. Test casing.
Cement volumes for surface csg include a 100% excess in the open hole section. If drilling conditions deem necessary, fluid caliper hole and adjust volumes.
Cement volumes for intermediate csg include a 70% excess in the open hole section. If drilling conditions deem necessary, fluid caliper hole and adjust volumes.
Cement volumes for production csg include a 25% excess in the open hole section. Adjust volumes after caliper + 25% excess.

ALL INVOICES ARE TO SHOW **CIMAREX ENERGY** AS OPERATOR AND USE CIMAREX ACCOUNTING CODES.

**Cave Lake 24 Federal Com #3
Cimarex Energy Co. of Colorado
April 4, 2008
Casing Alteration
Conditions of Approval**

- 1. OPERATOR SET INTERMEDIATE CASING AT APPROXIMATELY 2500' WITHOUT APPROVAL. APPROVAL FOR ALL CHANGES MUST BE ON THE RIG PRIOR TO THE OPERATION.**
- 2. Plug at bottom of pilot hole from cementing of casing must be tagged and depth reported on subsequent report.**
- 3. Pilot hole will have to be plugged properly when the well is abandoned as well as horizontal leg with Iso-Pack liner.**
- 4. Additional cement may be required on 7" casing to achieve TOC of 2000'. One inch remedial will not be possible. TOC must be verified by operator and must be at 2000' or shallower.**
- 5. Seal on Peak Systems Iso-Pack liner is to be tested per Onshore Oil and Gas Order 2.III.B.1.b. Please call BLM for witness of seal test. Test required even if the packer section will be removed to verify that frac fluid will go into the Iso-Pack liner.**
- 6. Sundry required when CIBP is knocked to bottom to form sump area.**

WWI 040408