

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone: (575) 393-6161 Fax: (575) 393-0720
District II
 811 S. First St., Artesia, NM 88210
 Phone: (575) 748-1283 Fax: (575) 748-9720
District III
 1000 Rio Brazos Road, Aztec, NM 87410
 Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
 1220 S. St. Francis Dr., Santa Fe, NM 87505
 Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Form C-101
 Revised July 18, 2013

NM OIL CONSERVATION Minerals and Natural Resources

ARTESIA DISTRICT Oil Conservation Division

AMENDED REPORT

DEC 28 2016 1220 South St. Francis Dr.

RECEIVED Santa Fe, NM 87505

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, (PLUGBACK), OR ADD A ZONE

¹ Operator Name and Address Cimarex Energy Co. of Colorado 202 S. Cheyenne Ave Tulsa, OK 74103		² GRID Number 162683
		³ API Number 30015-32286
⁴ Property Code 29000	⁵ Property Name Echols Com	⁶ Well No. 2

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
M	12	23S	26E		1110	South	990	West	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

9. Pool Information

Pool Name Carlsbad, Strawn, South (Gas)	Pool Code 74120
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Additional Well Information

¹¹ Work Type P	¹² Well Type Gas	¹³ Cable/Rotary	¹⁴ Lease Type Fee	¹⁵ Ground Level Elevation 3258
¹⁶ Multiple	¹⁷ Proposed Depth PBTD: 10941'	¹⁸ Formation Strawn	¹⁹ Contractor	²⁰ Spud Date
Depth to Ground water:		Distance from nearest fresh water well		Distance to nearest surface water

We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

*Csg previously set

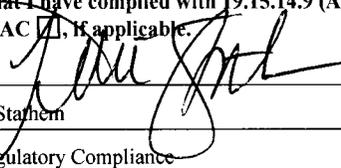
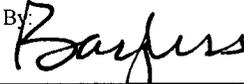
Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
*Surf	17.5	13-3/8"	48	487	490	surf
*Int	12.25	9-5/8"	40	3188	1300	surf
*Prod	8.75	5-1/2"	17	12045	1800	2020

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input type="checkbox"/> , if applicable. Signature:  Printed name: Terri Stathem Title: Manager Regulatory Compliance E-mail Address: tstathem@cimarex.com Date: 12-27-2016 Phone: 432-620-1936	OIL CONSERVATION DIVISION	
	Approved By: 	
	Title: DII SUPERVISOR	
	Approved Date: 29 DEC 16	Expiration Date: 29 DEC 18
	Conditions of Approval Attached	

*Casing previously set - no new casing

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30015-32286 ✓	² Pool Code 74120 ✓	³ Pool Name Carlsbad; Strawn, South (Gas) ✓
⁴ Property Code 29000 ✓	⁵ Property Name Echols Com ✓	
⁷ OGRID No. 162683 ✓	⁴ Operator Name Cimarex Energy of Colorado ✓	⁶ Well Number 2
⁹ Elevation 3258'		

¹⁰ Surface Location

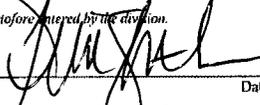
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	12	23S	26E	1110	1110	South	990	West	Eddy ✓

¹¹ 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

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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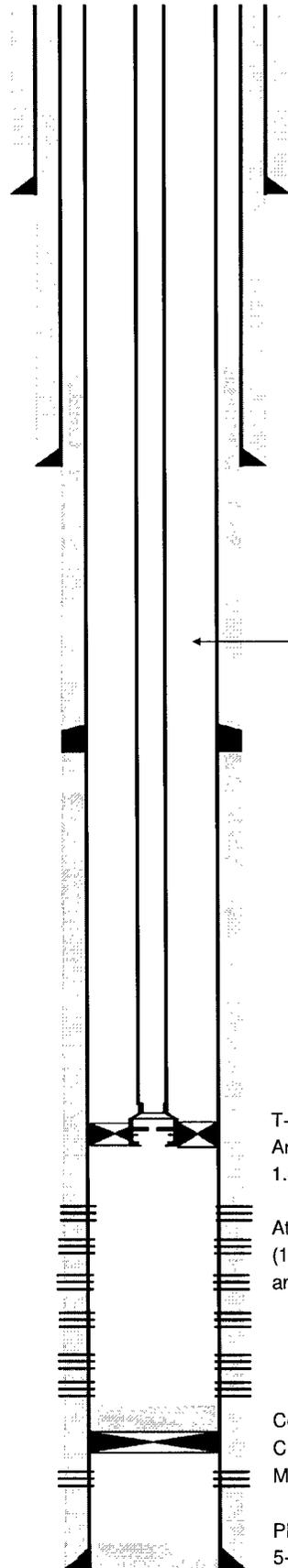
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁶ 	<p>¹⁷ 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 or has a right to drill this well at this 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.</p> <p>Signature:  Date: 12/21/16</p> <p>Printed Name: Terri Stathem</p> <p>E-mail Address: tstathem@cimarex.com</p>



Current WBD
KB - 18' above GL

Cimarex Energy Co. of Colorado
Echols #2
1110' FSL & 990' FWL
Sec. 12, T-23-S, R-26-E, Eddy Co., NM
M. Karner 03/18/2015



13-3/8", 48# H-40 csg @ 487'
cmtd w/ 490 sx, cmt circ

TOC @ 2020' by TS

9-5/8", 40# J-55 csg @ 3188'
cmtd w/ 1300 sx, cmt circ

← 337 jts 2 3/8" 4.7# L-80 Tbg

DV Tool @ 7011'
cmtd w/ 800 sx

T-2 On-off Tool w/ 1.81" F Profile nipple @ 10,973'
Arrowset 1X pkr @ 10980'
1.87" XN profile nipple w/ 1.79" no go @ 10,991'

Atoka Perfs (11,026' - 11,038'), (11,080' - 11,127'),
(11,155' - 11,166'), (11,172' - 11,182'), (11,206' - 11,217'),
and (11,231' - 11,238')

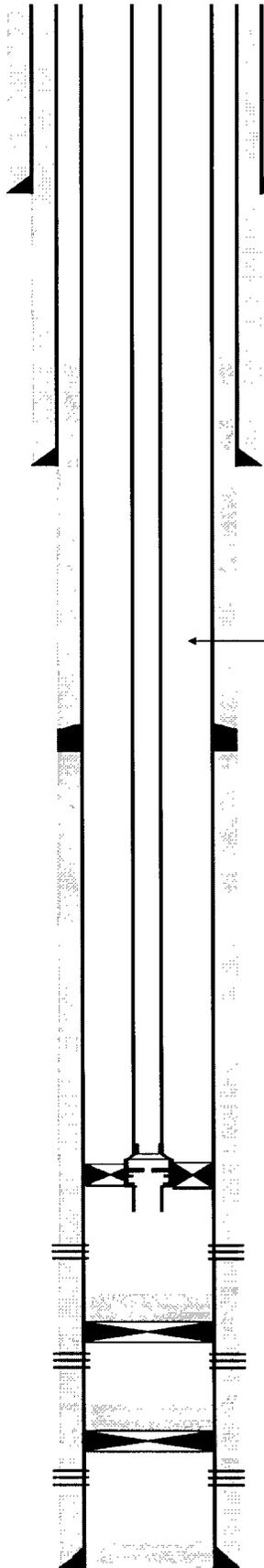
Cement bailed from 11,365' - 11,400'
CIBP at 11,400'
Morrow perfs (11474' - 11909')

PBTD @ 12023'
5-1/2" 17# N-80 & P-110 @ 12045' cmtd w/ 1000 sx
TD @ 12050'



Proposed WBD
KB - 18' above GL

Cimarex Energy Co. of Colorado
Echols #2
1110' FSL & 990' FWL
Sec. 12, T-23-S, R-26-E, Eddy Co., NM
M. Karner 03/18/2015



13-3/8", 48# H-40 csg @ 487'
cmtd w/ 490 sx, cmt circ

TOC @ 2020' by TS

9-5/8", 40# J-55 csg @ 3188'
cmtd w/ 1300 sx, cmt circ

2 3/8" 4.7# L-80 Tbg

DV Tool @ 7011'
cmtd w/ 800 sx

T-2 On-off Tool w/ 1.81" F Profile nipple @ 10,311'
Arrowset 1X pkr @ 10318'

Strawn perfs (10,368' - 10,702')

CIBP at 10,976' w/ 25 sx pumped on top
Atoka Perfs (11,026' - 11,238')

Cement bailed from 11,365' - 11,400'
CIBP at 11,400'
Morrow perfs (11,474' - 11,909')

PBSD @ 12023'
5-1/2" 17# N-80 & P-110 @ 12045' cmtd w/ 1000 sx
TD @ 12050'



Echols Com 2
Strawn Recompletion Procedure
Michael Karner 12/14/16

Well Data

KB	18'
TD	12,050'
PBTD	11,365'
Casing	13-3/8" 48# H-40 @ 487'. Cmt'd w/ 490 sx, cmt circ 9-5/8" 40# @ 3,188'. Cmt'd w/ 1,300 sx, cmt circ 5-1/2" 17# P-110 & N-80 @ 12,045'. Cmt'd w/ 1,800 sx. TOC @ 2,020' by TS
Tubing	2-3/8" 4.7# L-80 8rd, EOT @ 10,974'
Current Prod. Perfs	Atoka (11,026' – 11,238')
Proposed RC Perfs	Strawn (10,368' – 10,702')

Procedure

Notify NMOCD 24 hours prior to starting operations.

1. Test anchors prior to moving in rig.
2. Move in rig up pulling unit.
3. Kill well as necessary with 7% KCl.
4. Nipple down wellhead, nipple up 5,000 psi blow out preventer stack.
5. TOOH w/ 2-3/8" 4.7# L-80 tbg. Stand back tbg. Scan tubing during TOOH.
6. TIH w/ CIBP on 2-3/8" tbg to set CIBP at +/- 10,976'
7. Pump 25 sx cement down tbg on top of CIBP at +/- 10,976'. Abandon Atoka.
8. TOOH 1,000'
9. Reverse circulate 2 tbg volumes
10. WOC 6-8 hours
11. TOOH w/ tbg and stand back tbg
12. Test casing to 5,000 psi on chart for 30 minutes with no more than 10% leakoff.
13. RIH w/ 4.6" gauge ring and junk basket on electric line to +/- 10,702'
14. RIH with 3-1/8" casing guns on electric line and perforate **Strawn from 10,368' – 10,702'**
15. RIH w/ BHA described below to set packer at 10,318'. From downhole up:
 - a. 2-3/8" WEG
 - b. 2-3/8" pump out plug pinned for 1,500 – 2,000 psi differential pressure
 - c. 1.875" XN profile nipple
 - d. 10' 2-3/8" 4.7# L-80 tbg sub
 - e. 5-1/2" x 2-3/8" Arrowset 1X packer and on-off tool stinger w/ 1.875" X profile nipple

16. RD WL and lubricator
17. TIH w/ on/off tool overshot, GLVs, and 2-3/8" 4.7# L-80 tbg. Hydrotest in hole to 8500 psi.
18. Latch overshot onto on-off tool and space out tubing
19. ND BOP, NU WH
20. RDMO pulling unit
21. RU pump truck and pump out plug
22. MIRU Propetro acid
23. Pump 19,000 total gallons of 15% NEFE HCl with 225 ball sealers down 2-3/8" tubing
24. Flush with 1 tubing volume 2% KCl
25. Put well on production. Swab well as necessary