

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
ARTESIA DISTRICT
NOV 07 2017
Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505
RECEIVED

☐ AMENDED REPORT

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 OGRID 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	Pool Code
Carlsbad; Upper Penn; South (Gas) & Purple Sage; Wolfcamp (Gas)	96594 & 98220

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 Cisco & Wolfcamp	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 ☒ and/or 19.15.14.9 (B) NMAC ☐, if applicable.

Signature: *Amithy Crawford*

Printed name: Amithy Crawford

Title: Regulatory Analyst

E-mail Address: acrawford@cimarex.com

Date: 11-6-2017

Phone: 432-620-1909

OIL CONSERVATION DIVISION

Approved By:

Raymond M. Bodany

Title: *Geologist*

Approved Date: *11-15-17*

Expiration Date: *11-15-19*

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 98220	³ Pool Name Purple Sage; Wolfcamp (Gas)
⁴ Property Code 29000	⁵ Property Name Echols Com	⁶ Well Number 2
⁷ OGRID No. 162683	⁸ Operator Name Cimarex Energy of Colorado	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	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</p> <p><i>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.</i></p> <p> Signature</p> <p>11-6-17 Date</p> <p>Amithy Crawford Printed Name</p> <p>acrawford@cimarex.com E-mail Address</p>
				<p>¹⁸ SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor.</p> <p>Certificate Number</p>

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Energy, Minerals & Natural Resources
NM OIL CONSERVATION
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					¹⁸ 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. Date of Survey Signature and Seal of Professional Surveyor: Certificate Number



Plugback Procedure – Echols Com 2

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
Proposed RC Perfs	Wolfcamp (8,748' – 10,112') & Cisco Canyon (10,112' – 10,503')

Procedure

Notify BLM 24 hours prior to start of workover operations.

1. Test anchors prior to MIRU PU.
2. MIRU PU, rental flare, and choke manifold.
3. Kill well with produced water if available or FW as necessary.
4. ND WH, NU 5K BOP
5. Release packer and TOOH w/ 2-3/8" 4.7# N-80 tbg. Stand back Tubing.
6. MIRU WL
7. RIH w/ CIBP and set at +/- 10,976'
8. RIH w/ WL to bail 35' of cement on top of WL set at +/- 10,976'
9. RIH w/ CIBP and set at +/- 10,539.
10. RU Pump truck and pressure test casing to 8,500 psi on a chart for 30 minutes with no more than 10% leak off.
11. ND 5k BOP, RDMO PU
12. RU two 10k frac valves and flow cross
13. MIRU water transfer with frac tanks to contain water to be pumped from frac pond
14. Test frac valves and flow cross prior to frac job. Arrange for these items, manlift, forklift, and Pace testers to be on location the day before the frac job to test so that we do not have the frac waiting on a successful test the following day.
15. RU frac valves, flow cross, goat head, and wireline lubricator.
16. RIH w/ gauge ring/junk basket for 5-1/2" 17# N-80 & P-110 csg to +/- 10,368'
17. Perforate Cisco Canyon from 10,112' – 10,503'.
18. RU frac and flowback equipment.
19. Acidize and frac Cisco Canyon perfs down casing.
20. Set 10k flow through composite plug 15' uphole of top perforation
21. Test to 8,500 psi
22. Perforate Wolfcamp from 8,748' – 10,112'.



23. Acidize and frac Wolfcamp perfs down casing.
24. Set 10k flow through composite plug 15' above top perforation
25. Test to 8,500 psi
26. RD frac
27. MIRU 2" coiled tbg unit.
28. RIH w/ blade mill & downhole motor on 2" CT and drill out sand and composite plugs using freshwater for circulation. Pump sweeps each time a plug is tagged, each time a plug is drilled out, and every 60 bbls pumped.
29. Clean out to PBTD 10,218'
30. POOH w/ blade mill, motor & CT
31. RDMO coiled tbg unit.
32. Flow back well for 24 hours, then SI well overnight.
33. RU wireline and lubricator.
34. RIH w/ GR/JB for 5-1/2" 17# N-80 to +/- 8,698'
35. RIH w/ 2-3/8" WEG, 2-3/8" pump out plug pinned for 1,500 – 2,000 psi differential pressure, 10' 2-3/8" 4.7# L-80 tbg sub w/ 1.875" XN profile nipple w/ blanking plug in place, 5-1/2" Arrowset 1X packer and on-off tool stinger w/ 1.875" X profile nipple. Set packer +/- 8,698'. 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
36. RD WL and lubricator
37. ND goat head and frac valve, NU BOP, MIRU Pulling Unit
38. TIH w/ on/off tool overshot, GLVs, and 2-3/8" 4.7# L-80 tbg.
39. Latch overshot onto on-off tool and space out tubing
40. ND BOP, NU WH
41. RDMO pulling unit
42. RU pump truck and pump out plug. Put well on production.
43. **Run Production Log for allocation purposes after recovering load. Run additional production logs if actual production varies significantly from expected performance. Send copies of these logs to BLM and file for an adjustment of allocation factor if necessary.**

CIMAREX

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

TOC @ 9200' by CBL

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 Ciscamp 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

02/07/2017

