

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

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.*5. Lease Serial No.
NMNM14468

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
GRYNBERG 11 FED COM 4H9. API Well No.
30-015-3419710. Field and Pool, or Exploratory
WHITE CITY; PENN11. County or Parish, and State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other2. Name of Operator
CIMAREX ENERGY COMPANY
Contact: ARICKA EASTERLING
E-Mail: aeasterling@cimarex.com3a. Address
202 S. CHEYENNE AVE, SUITE 1000
TULSA, OK 741033b. Phone No. (include area code)
Ph: 918-560-70604. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 11 T25S R26E NWNW 880FNL 1270FWL**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	Subsurface Commingling
	☐ 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 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 Energy Co. respectfully requests approval to down hole commingle the Grynberg 11 Federal Com 4H.

NM OIL CONSERVATION
ARTESIA DISTRICT

Cimarex proposes to perf and stimulate the Ciscamp 9997-10210, Perf and stimulate the Wolfcamp 9142-9689. Allocation percentages for each zone will be based on a production log and furnished after production and cleanup.

MAY 05 2016

Please see attached documentation.

Returned Notice of Intent with comment:**RECEIVED**

A Notice of Intent for this project will be considered for approval after verification that the APD Condition of Approval "The Minimum fill of cement behind the 5 1/2" production casing is 500ft. above the uppermost hydrocarbon bearing interval" is met. A CBL ran from 10,000ft to top of cement will be accepted. An electronic copy of the CBL may be attached to a pswartz@blm.gov email and this notice of intent resubmitted.

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #335209 verified by the BLM Well Information System
For CIMAREX ENERGY COMPANY, sent to the Carlsbad**

Name (Printed/Typed) ARICKA EASTERLING

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 03/31/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Paul R. Swartz

Title

PET

Date 4/25/16

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

CFO

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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Cimarex Energy Co.
202 S. Cheyenne Ave.
Suite 1000
Tulsa, Oklahoma 74103-4346
PHONE: 918.585.1100
FAX: 918.585.1133



March 30, 2016

New Mexico Oil Conservation Division
Mr. Michael McMillian
1220 South St. Francis Dr.
Santa Fe NM, 87505

RE: Grynberg 11 Federal Com 4
Sec.11-25S-26E
30-015-34197
C-107A Wolfcamp and Ciscamp

Dear Mr. McMillian,
Enclosed is an original form C-107A (Application for Downhole Commingle) for the well mentioned above.

Cimarex proposes perf and stimulate the Ciscamp 9997'-10210'. Perf and stimulate the Wolfcamp 9142'-9689'. Allocation percentages for each zone will be based on production log and furnished after production and cleanup.

It is anticipated that the reservoir pressure from these two shale zones will be compatible and the resulting volumes would not warrant a casing/ tubing dual completion.

Royalty, overriding, and working interest owners are diverse in each zone.

Please find enclosed the following documents for the subject well:

- Administrative application check list
- Plats
- Recomplete procedure
- Wellbore diagram
- Owner notification letter

If you have any questions or need further information. Please call me at 918-560-7060.

Sincerely,

Aricka Easterling
Aricka Easterling
Regulatory Analyst



Grynberg 11 Federal Com 4
Recomplete to Ciscamp
Michael Karner 3-23-2016

Well Data

KB	19' above GL
TD	12,081'
PBTD	11,516'
Casing	13-3/8" 48# H-40 @ 221'. Cmt'd w/ 230 sx, cmt circ. 9-5/8" 40# J-55 @ 2,675'. Cmt'd w/ 780 sx, cmt circ. 5-1/2" 17# P-110 @ 12,081'. Cmt'd w/ 2245 sx. DV @ 7,326'. TOC @ 8,980'.
Tubing	2-7/8" 6.5# L-80 8rd @ $\pm$ 11,190' (363 jts)
Packer	Halliburton 5-1/2" x 17# x 2-3/8" RTTS @ $\pm$ 11,190'
Prod. Perfs	Morrow (11,215' - 11,456')
Proposed Perfs	Wolfcamp (9,142' - 9,689') & Cisco Canyon (9,997' - 10,210')

Procedure

Notify BLM 24 hours prior to start of workover operations.

1. RU pump truck and pressure test casing to 1,000 psi prior to MIRU PU.
2. Test anchors prior to MIRU PU.
3. MIRU PU, rental flare, and choke manifold.
4. Kill well with FW as necessary.
5. ND WH, NU BOP
6. Release Halliburton RTTS packer at 11,172' and TOOH w/ 2-7/8" 6.4# L-80 tbg. Stand back tubing.
Note: In the event that it is not possible to release the packer, plan to set a blanking plug in the packer, release from the on/off tool, and leave the packer in the well rather than fish for the packer. The packer is 65' from the top of the Morrow perfs, so it should be left behind, and the CIBP should be set as close to this as possible (CIBP must be set within 100' of the top of the Morrow perfs at 11,215', so packer must be set below 11,115' but above the packer set at 11,172' if we are unable to release the packer).
7. MIRU WL and 5k short lubricator
8. RIH w/ 4.6" GR/JB/CCI to +/- 11,180'
9. RIH w/ CIBP and set @ +/- 11,165' (OD of CIBP = 4.24")
10. TIH w/ 2-7/8" 6.4# L-80 collar, 1.875" seat nipple, and 2-7/8" 6.4# L-80 tbg to tag CIBP @ +/- 11,165'. Hydrotest in hole to 5,000 psi while going in hole. From downhole up:
 - a. 2-3/8" 4.7# L-80 collar to protect threads of bottom 2-7/8" 6.4# L-80 tubing joint and to provide more surface area to set down on cement after it is pumped.
 - b. 1 joint of 2-7/8" 6.4# L-80 tbg

- c. 1.812" seat nipple in case it becomes necessary to run a gauge ring, swab bar, etc. (the seat nipple in the well is 1.812". Plan to use this if it is in good condition. Otherwise a 1.875" seat nipple or larger can be used instead.)
- d. 2-7/8" 6.4# L-80 tbg until bridge plug is tagged at +/- 11,165'.
- 11. Pump 400' (50 sacks) of Class H cement on top of CIBP and displace with FW to pump balanced plug as follows:
 - a. 5 bbl FW spacer
 - b. 30 sacks Class H cement mixed to 16.4 ppg, 1.07 cuft/sk, 4.3 gal water/sk (5.1 bbls total)
 - c. Displace with FW to pump balanced plug

Note: BLM requirement is enough cement must be pumped to cover 100' of hole plus an additional 10' of slurry per 1,000' of depth. Therefore 212' of cement is required. 50 sacks class H cement with yield of 1.07 cuft/sack will equate to 400' in 5-1/2" 17# P-110 casing.
- 12. POOH slowly to +/- 9,939' (1,000' above TOC) laying down 2-7/8" 6.4# L-80 tubing. Reverse circulate 68 bbls FW (tubing volume + 10 bbls)
- 13. TOOH to surface laying down 2-7/8" 6.4# L-80 tbg.
- 14. WOC 8 hours
- 15. RU pump truck and pressure test casing to 5,000 psi w/ FW
- 16. ND BOP, NU WH, RDMO pulling unit
- 17. MIRU 15k Guardian stage tool
- 18. Stroke 15k Guardian stage tool through wellhead to isolate 5k wellhead
- 19. RU pump truck and test casing to 8,500 psi (max treating pressure). This test must be held for 30 minutes with no more than 10% leakoff and the results must be submitted to the BLM
- 20. MIRU water transfer with 2 frac tanks to contain water to be pumped from frac pond 2.15 miles west.
- 21. MIRU WL and 5k short lubricator
- 22. RIH w/ GR/JB to tag TOC at +/- 10,939'. Record TOC on report as per BLM requirements.
- 23. Test frac valves and flow cross prior to 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.
- 24. Perforate stage one Cisco Canyon as per design below at 3 spf at 120 degree phasing 2/ 3-1/8" casing guns total 63 shots. Depth reference Halliburton Spectral Density Dual Spaced Neutron Log dated December 19, 2005:

Stage	Formation	Top Perf	Bottom Perf	Net Ft	# Shots (3 SPF)	Total # Shots
1	Cisco Canyon	10,100	10,103	3	9	63
		10,115	10,119	4	12	
		10,133	10,136	3	9	
		10,158	10,162	4	12	
		10,193	10,196	3	9	
		10,206	10,210	4	12	

25. RU frac and flowback equipment.
26. Acidize and frac stage 1 Cisco Canyon perfs (10,100' – 10,210') down 5-1/2" 17# P-110 casing w/ 2,000 gallons acid and 75,000 gallons 15# linear gel followed by 156,250 gallons slick water containing 75,000# 100 mesh and 150,000 40/70 sand. **Monitor 9-5/8" x 5-1/2" annulus during job.**
27. Set 10k flow through composite plug at 10,090'
28. Test to 8,500 psi
29. Perforate stage two Cisco Canyon as per design below at 3 spf at 120 degree phasing 2/ 3-1/8" casing guns total 63 shots. Depth reference Halliburton Spectral Density Dual Spaced Neutron Log dated December 19, 2005:

Stage	Formation	Top Perf	Bottom Perf	Net Ft	# Shots (3 SPF)	Total # Shots
2	Cisco Canyon	9,997	10,000	3	9	54
		10,012	10,015	3	9	
		10,033	10,036	3	9	
		10,050	10,053	3	9	
		10,065	10,068	3	9	
		10,078	10,081	3	9	

30. Acidize and frac stage 2 Cisco Canyon perfs (9,997' – 10,081') down 5-1/2" 17# P-110 casing w/ 2,000 gallons acid and 75,000 gallons 15# linear gel followed by 156,250 gallons slick water containing 75,000# 100 mesh and 150,000 40/70 sand. **Monitor 9-5/8" x 5-1/2" annulus during job.**
31. Set 10k flow through composite plug at 9,699'
32. Test to 8,500 psi
33. Perforate stage three Wolfcamp as per design below at 3 spf at 120 degree phasing 2/ 3-1/8" casing guns total 63 shots. Depth reference Halliburton Spectral Density Dual Spaced Neutron Log dated December 19, 2005:

Stage	Formation	Top Perf	Bottom Perf	Net Ft	# Shots (3 SPF)	Total # Shots
3	Wolfcamp D	9,518	9,520	2	6	60
		9,538	9,540	2	6	
		9,565	9,567	2	6	
		9,594	9,596	2	6	
		9,615	9,618	3	9	
		9,639	9,642	3	9	
		9,663	9,666	3	9	
		9,686	9,689	3	9	

34. Acidize and frac stage 3 Wolfcamp perfs (9,518' – 9,689') down 5-1/2" 17# P-110 casing w/ 2,000 gallons acid and 75,000 gallons 15# linear gel followed by 156,250 gallons slick water containing 75,000# 100 mesh and 150,000 40/70 sand. **Monitor 9-5/8" x 5-1/2" annulus during job.**
35. Set 10k flow through composite plug at 9,486'
36. Test to 8,000 psi

37. Perforate stage four Wolfcamp as per design below at 3 spf at 120 degree phasing 2/ 3-1/8" casing guns total 63 shots. Depth reference Halliburton Spectral Density Dual Spaced Neutron Log dated December 19, 2005:

Stage	Formation	Top Perf	Bottom Perf	Net Ft	# Shots (3 SPF)	Total # Shots
4	Wolfcamp C	9,322	9,324	2	6	57
		9,357	9,360	3	9	
		9,378	9,381	3	9	
		9,392	9,394	2	6	
	Wolfcamp D	9,430	9,433	3	9	
		9,452	9,455	3	9	
		9,473	9,476	3	9	

38. Acidize and frac Stage 4 Wolfcamp perfs (9322' – 9476') down 5-1/2" csg w/ 2000 gals acid & 75,000 gals 15# linear gel followed by 200,000 gals slick water containing 100,000# 100 mesh & 200,000# 40/70 sand. **Monitor 9-5/8" x 5-1/2" annulus during job.**
39. Set 10k flow through composite plug at 9,297'
40. Test to 8,000 psi
41. Perforate stage five Wolfcamp as per design below at 3 spf at 120 degree phasing 2/ 3-1/8" casing guns total 63 shots. Depth reference Halliburton Spectral Density Dual Spaced Neutron Log dated December 19, 2005:

5	Wolfcamp B	9,142	9,144	2	6	60
		9,159	9,162	3	9	
		9,176	9,179	3	9	
		9,207	9,210	3	9	
		9,226	9,229	3	9	
		9,261	9,264	3	9	
		9,284	9,287	3	9	

42. Acidize and frac Stage 5 Wolfcamp perfs (9142' – 9287') down 5-1/2" w/ 2000 gals acid & 75,000 gals 15# linear gel followed by 200,000 gals slick water containing 100,000# 100 mesh & 200,000# 40/70 sand. **Monitor 9-5/8" x 5-1/2" annulus during job. Discuss 9-5/8" x 5-1/2" annulus pressure during stimulation with BLM.**
43. RD frac
44. MIRU 2" coiled tbg unit.
45. TIH w/ 4-3/4" tri cone bit & extreme downhole motor on 2" CT and drill out sand and composite plugs @ 9297', 9486', 9699' & 10090'. Make a minimum of 2 gel sweeps while drilling out composite plugs.
46. Clean out to PBD @ ± 10,939'
47. TOOH w/ tri cone bit, motor & CT
48. RDMO coiled tbg unit.
49. Flow back well for 24 hours, then SI well overnight.
50. RU wireline and full 10k lubricator.
51. RIH w/ GR/JB to +/- 9,100'

52. 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 at +/- 9,100'. From downhole up:
 - a. 2-3/8" WEG at +/- 9,118'
 - b. 2-3/8" pump out plug pinned for 1,500 – 2,000 psi differential pressure at +/- 9,117.5'
 - c. 1.875" XN profile nipple w/ blanking plug at +/- 9,117'
 - d. 10' 2-3/8" 4.7# L-80 tbg sub at +/- 9,107'
 - e. 5-1/2" x 2-3/8" Arrowset 1X packer and on-off tool stinger w/ 1.875" X profile nipple set at +/- 9,100'
 53. RD WL and 10k lubricator
 54. MIRU PU
 55. ND goat head and frac valve, NU BOP
 56. MI 9,100' 2-3/8" 4.7# L-80 tbg. Strap tbg and check tbg tally.
 57. TIH w/ on/off tool overshoot, GLVs, and new 2-3/8" 4.7# L-80 tbg. GLVs to be set at +/- 9,090', 9,050', 8,500', 8,000', 7,500', 6,800', 5,850', 4,700', 3,350', and 1,750'
 58. Latch overshoot onto on-off tool and space out tubing
 59. ND BOP, NU WH
 60. RDMO pulling unit
 61. RU pump truck and pump out plug. Put well on production.
 62. Run Production log for allocation purposes.
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CIMAREX

CURRENT
KB - 19' above GL

Cimarex Energy Co. of Colorado

Grynberg 11 Federal Com 4

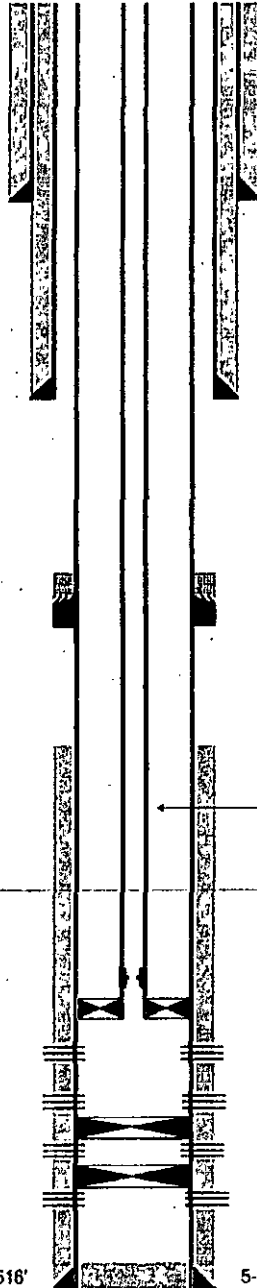
API #: 30-015-34197

880' FNL & 1270' FWL

Sec. 11, T25S, R26E, Eddy Co., NM

H. Hubbard

4/15/2015



13-3/8" 48# H-40 csg @ 221'
cmt'd w/ 230 sx, Cmt circ.

9-5/8" 40# J-55 @ 2675'
cmt'd w/ 780 sx, Cmt circ.

No CBL above 7100', questionable cmt 7100'-7200'

DV @ 7,327'

TOC @ 8,980' by CBL

363 jls 2-7/8" 6.5# L-80 tbg

Baker "F" profile nipple @ 11,183'

Halliburton RTTS pkr @ 11,190'

Morrow perms (11,215'-222')

Morrow perms (11,398'-403' & 11,449'-456')

CIBP @ 11,516'

Morrow perms (11,530'-534')

CIBP @ 11,540'

Morrow perms (11,533'-550')

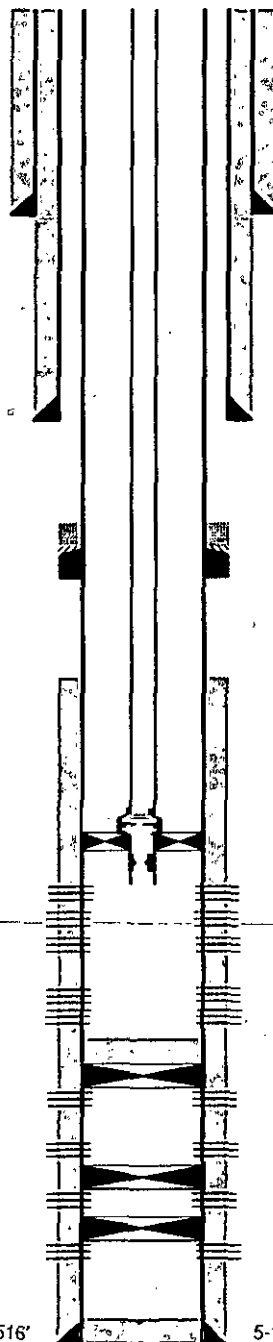
PBTD @ 11516'
TD @ 12081'

5-1/2" 17# P-110 csg @ 12081'
cmt'd w/ 2245 sx

CIMAREXPROPOSED WBD
KB - 19' above GLCimarex Energy Co. of Colorado
Grynberg 11 Federal Com 4
API #: 30-015-34197
880' FNL & 1270' FWL
Sec. 11, T25S, R26E, Eddy Co., NM

M. Karner

3/28/2016

13-3/8" 48# H-40 csg @ 221'
cmt'd w/ 230 sx, Cmt circ.9-5/8" 40# J-55 @ 2675'
cmt'd w/ 780 sx, Cmt circ.

No CBL above 7100', cement is present to 7100'.

DV @ 7,327'

TOC @ 8,980' by CBL_r

Arrowset 1X pkr @ ± 9,100' & O/O tool w/ "X" nipple

Wolfcamp perms (9,142' - 9,287') *PROPOSED*Wolfcamp perms (9,322' - 9,476') *PROPOSED*Wolfcamp perms (9,518' - 9,689') *PROPOSED*Cisco Canyon perms (9,997' - 10,081') *PROPOSED*Cisco Canyon perms (10,100' - 10,210') *PROPOSED*

PBD @ ± 10,930'

CIBP @ ± 11,165' w/ 25 sx cmt

Morrow perms (11,215'-222')

Morrow perms (11,398'-403' & 11,449'-456')

CIBP @ 11,516'

Morrow perms (11,530'-534')

CIBP @ 11,540'

Morrow perms (11,533'-550')

PBD @ 11516'
TD @ 12081'5-1/2" 17# P-110 csg @ 12081'
cmt'd w/ 2245 sx