District 1 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

NM OIL CONSERVATION and Natural Resources ARTESIA DISTRICT

HEE 1 4 2017 Oil Conservation Division

AMENDED REPORT

1220 South St. Francis Dr.

RECEIVED Santa Fe, NM 87505

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

			Operator Name			2 OGRID Number					
		C	imarex Energy Co 202 S. Cheye Tulsa, OK		162683						
			Tulsa, OK		³ API Number 30015-33963						
* Prop 34	Property Code S Property Name 34631 Park State 36 Com							°. W	ell No. 1		
	^{7.} Surface Location										
UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County		
I	36	24S	25E		1500	South	1100	East	Eddy		
	_			⁸ Propo	sed Bottom Hol	e Location					
UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County		
		1 1									
	1		·····					<u> </u>			
				9.]	Pool Information	1					
				Pc	ol Name				Pool Code		
WC-015 S2425	536I; Strawn (Gas) – 98221 / I	Purple Sage – Woflca	ump (gas) 98220 /	Walnut Canyon; Upper I	Penn (Gas) 97566			98221,98220,97566		
				Additic	onal Well Inform	ation					
11. Wo								ease Type ^{15.} Ground Level Elevation			

^{11.} Work Type	12.	Well Type Gas	^{13.} Cable/Rotary	^{14.} Lease Sta	••	^{15.} Ground Level Elevation 3539'
¹⁶ Multiple		oposed Depth TD: 11385'	^{18.} Formation Strawn or Cisco Wolfcamp	^{19.} Cont	ractor	^{20.} Spud Date
Depth to Ground water:		Distance fi	rom nearest fresh water well		Distance to r	hearest surface water

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

RN	-
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KN.		^{n.} Proposed Casir	g and Cement Program	*Csg pro		
Туре	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
*Surf	17.5	13-3/8"	54.5	203	225	circ
*Int	12.25	9-5/8"	40	1945	700	circ
*Prod	8.75	5-1/2"	17	12074	2610	1900'
		Caria	a/Comont Brograms Add	·····		

#### Casing/Cement Program: Additional Comments

#### ^{22.} Proposed Blowout Prevention Program

Туре	Working Pressure	Test Pressure	Manufacturer		

best of my know dge and be		OIL CONSERVATION DIVISION				
I further certify that I have 19.15.14.9 (B) NMAC [], if Signature:	complied with 19.15.14.9 (A) NMAC 🛛 a applicable.	Approved By:				
Printed name Terri Stathem		Raymond W Jodany Title: Geologist				
Title: Regulatory E-mail Address: kirhodes@c	imarex.com	Approved Date: 3-3-2017 Expiration Date: 3-3-2019				
Date: 01/19/17	Phone: 918-560-7081	Conditions of Approval Attached DHC 4806.				

*Casing previously set - no new casing

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AMENDED REPORT

		W	ELL LC	DCATIO]	N AND ACR	EAGE DEDIC	ATION PLAT	ſ			
20 0	'API Number 30-015-33963			² Pool Code		³ Pool Name					
50-0	12-323	03		98221		WC-015 S	242536l; Stra	awn (G	ias)		
¹ Property Code 34631 Park State					State 36	5 Com	~		1 [°]	Vell Number	•
⁷ OGRID No. 162683 Cimarex Energy of Colorado						1	Elevation 3539'				
Surface Location											
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/	West line		County
	36	25S	25E		1500	South	1100	Ea	ast	Eddy	
			" Bo	ttom Hol	e Location If	Different From	I Surface				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East	East/West line County		
12 Dedicated Acres	12 Dedicated Acres 13 Joint or Infill 14 Consolidation Code 15 Order No.										
320											

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				"OPERATOR CERTIFICATION
				I hereby certify that the information contained herein is true and complete
				to the best of my knowledge and helief, 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 alcontract with an owner of such a mineral or working
	9 a. u.		× .	Interest, or to a volumery pooling agreement or a compulsory pooling
				order heretofore entered by the division.
				2-13-17
			()	Signature Date
			l l	Terri Stathem
				Printed Name
				tstathem@cimarex.com
				E-mail Address
				<b>"SURVEYOR CERTIFICATION</b>
				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
			1100'	same is true and correct to the best of my belief.
			T	
				Date of Survey
				Signature and Seal of Professional Surveyor:
				•
			1500′	
			Ħ	
				Certificate Number
-		1		

District 1 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fnx: (575) 393-6720 District 11 811 S. First SI., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District 111 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District 1V 1220 S. St. Francis Dr., Santa Fo, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

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AMENDED REPORT

		WI	ELL LO	CATIO	N AND ACR	EAGE DEDIC	ATION PLA	T		
	API Numbe	r co		² Pool Code ³ Pool Name						
<b>30-015-33963</b> 98220						Purple Sage	- Wolfcamp	(GAS)		
¹ Property Code 34631 Park State					State 36	anerty Name ⁶ Well Number				
	¹ OGRID No. 162683 Cimarex Energy of Colorado ³ Elevation 3539 ⁷							Elevation 3539'		
" Surface Location										
UL or lot no.		Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East	/West line	Count
	36	255	25E		1500	South	1100	E	ast	Eddy
			" Bot	tom Hol	e Location If	Different From	u Surface			
UL or lot no.	Section	Township	Range	Lat Idn	Feet from the	North/South line	Feet from the	East	/West line	Count
¹² Dedicated Acres 320	i ³ Joint o	r Infill ¹⁴ Cor	solidation C	Cade ¹⁵ Ord	ler No.					

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				"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 pressuing to a contract with an owner of such a mineral or working
	1.66		×.	Interest, or to a voluntary pooling agreement or a compulsory pooling
				order heretoffre entered by the fivision,
				Signature Terri Stathem
				Printed Name
				tstathem@cimarex.com
				E-mail Address
				"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
			1100'	same is true and correct to the best of my belief.
		·		Date of Survey
				Signature and Seal of Professional Surveyor:
			1500'	
			1	
				Certificato Number
-		1		

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AMENDED REPORT

	WELL LOCATION AND ACREAGE DEDICATION PLAT										
	PI Number			² Pool Code ³ Pool Name							
30-0	15-339	63		97566		Walnut Cany	on; Upper F	Penn (G/	AS)		
⁴ Property Code 34631 Park State					State 36	enerty Name ⁶ Well Number					
¹ OGRID No. 162683 Cimarex Energy of Colorado ³ E							'Elevation 3539'				
Surface Location											
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/W	est line	County	
	36	25S	25E		1500	South	1100	Eas	st	Eddy	
			" Bo	ttom Hol	e Location If	Different From	I Surface				
UL or lot no.	Section	Towaship	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/W	East/West line		
¹² Dedicated Acres 320	² Dedicated Acres 1 ³ Joint or Infill 1 ⁴ Consolidation Code 1 ⁴ Order No. 320										

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			"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 parsuant jo a contract with an owner of such a induced or working
	5 m	×.	Interest, or to a pluntary puoling agreement or a compulsory pooling
			order heretofore papered by the prvision.
			Signature Terri Stathem
			Printed Name
			<u>tstathem@cimarex.com</u>
			E-mail Address
			<b>"SURVEYOR CERTIFICATION</b>
			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
		_ 1100'	same is true and correct to the best of my belief.
		<b>Q</b> -1100	
			Date of Survey
			Signature and Seal of Professional Surveyor:
		1500′	
	•		Certificate Number
A -			



Park State 36 Com 1 Plugback Procedure

<u>Well Data</u>	
КВ	23'
TD	12,073'
PBTD	12,007'
Casing	13-3/8" 54.5# J-55 @ 200'. Cmt'd w/ 225 sx, cmt circ 9-5/8" 40# N-80 & P-110 @ 1,940'. Cmt'd w/ 700 sx, cmt circ 5-1/2" 17# P-110 @ 12,072'. Cmtd w/ 1,260 sx. TOC @ 650' by CBL
Tubing	2-3/8" 4.7# L-80 8rd, EOT @ 8,951'
Current Prod. Perfs	Wolfcamp (9,029' – 9,496')
Proposed RC Perfs	Strawn (10,310' – 10,450')

## Procedure – Recomplete to Strawn

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. Release packer and TOOH w/ 2-3/8" 4.7# L-80 tbg. Stand back tbg. Scan tubing during TOOH.
- 6. RU wireline

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- 7. RIH w/ GR/JB to +/- 10,450'
- 8. RIH w/ casing guns to perforate Strawn 10,310' 10,450'
- 9. RIH to set packer w/ pump out plug set to 1800 psi differential pressure at +/- 10,260'
- 10. RDMO Wireline
- 11. TIH w/ 2-3/8" tbg and gas lift valves to latch into packer
- 12. ND BOP, NU WH
- 13. RDMO pulling unit
- 14. RU pump truck and pump out plug
- 15. MIRU Propetro acid
- 16. Pump 20,000 total gallons of 20% NEFE HCl with 225 ball sealers down 2-3/8" tubing
- 17. Flush with 1 tubing volume 2% KCl
- 18. Put well on production. Swab well as necessary. Produce Strawn via tubing and Wolfcamp via annulus.

If Strawn unsuccessful Cimarex will proceed with abandoning the Strawn and plug back to the Cisco & and additional Wolfcamp perfs and commingle production

## Cisco Canyon & Wolfcamp Recompletion Procedure

Proposed RC Perfs Wolfcamp (8,400' – 9,900') & Cisco Canyon (9,900' – 10,310')

- 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# L-80 tbg. Stand back Tubing.
- 6. MIRU WL
- 7. RIH w/ GR/JB to +/- 10,345'
- 8. RIH w/ CIBP to +/- 10,345'
- 9. RIH to bail 35' of cement on top of CIBP set at +/- 10,345'
- 10. ND 5k BOP, RDMO PU
- 11. RU two 10k frac valves and flow cross
- 12. MIRU water transfer with frac tanks to contain water to be pumped from frac pond
- 13. 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.
- 14. RU frac valves, flow cross, goat head, and wireline lubricator.
- 15. RIH w/ gauge ring/junk basket for 5-1/2" 17# P-110 csg to +/- 10,310'
- 16. Perforate Cisco Canyon from 9,900' 10,310'.
- 17. RU frac and flowback equipment.
- 18. Acidize and frac Cisco Canyon perfs down casing with diverter.
- 19. Perforate Wolfcamp from 8,400' 9,900'.
- 20. Acidize and frac Wolfcamp perfs down casing.
- 21. RD frac
- 22. Flow back well for 24 hours, then SI well overnight.
- 23. RU wireline and lubricator.
- 24. RIH w/ GR/JB for 5-1/2" 17# P-110 to +/- 8,350'
- 25. 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 +/- 8,350'. 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
- 26. RD WL and lubricator

- 27. ND goat head and frac valve, NU BOP, MIRU Pulling Unit
- 28. TIH w/ on/off tool overshot, GLVs, and 2-3/8" 4.7# L-80 tbg.
- 29. Latch overshot onto on-off tool and space out tubing
- 30. ND BOP, NU WH

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- 31. RDMO pulling unit
- 32. RU pump truck and pump out plug. Put well on production.
- 33. 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 OCD and file for an adjustment of allocation factor if necessary.



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