2017-09-20 14:17:12 Kansas Corporation Commission /s/ Lynn M. Retz

THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

Before Commissioners:	Pat Apple, Chairman Shari Feist Albrecht Jay Scott Emler			
In the matter of the application of Lario Oil & Gas Company for an order authorizing the unitization and unit operations of the Feiertag			Docket No. 17-CONS-3516-CUNI CONSERVATION DIVISION	
Unit in Scott County, Kansas.))	License No. 5214	

SURREBUTTAL TESTIMONY

OF

JIM HEMMEN

Q.	What is your name?			
Α.	Jim Hemmen.			
Q.	Are you the same Jim Hemmen who submitted direct and rebuttal testimony in this matter?			
Α.	Yes.			
Q.	Have you reviewed the rebuttal testimony filed on behalf Applicant and Protestant?			
Α.	Yes.			
Q.	Do you have any further testimony to provide regarding this docket?			
Α.	Yes. In my direct testimony, I requested that Applicant provide additional testimony about			
	various aspects of its application. Applicant's rebuttal testimony satisfied the concerns			
	raised in my direct testimony, except one.			
Q.	What is that one concern?			
Α.	I am not convinced that all eleven of the formations in the proposed unit constitute part of a			
	pool as defined by K.S.A. 55-1302(b), and as required under K.S.A. 55-1303.			
Q.	What is the basis for that concern?			
А.	Applicant is proposing unitization of eleven formations. In order to be a pool under K.S.A.			
	55-1302(b), the formations have to be reservoirs in communication so as to constitute a			
	single pressure system, so that production from one part of the pool affects the pressure			
	throughout its extent. What you need, I think, is empirical evidence that all of the targeted			
	formations constitute a single pressure system. Staff has not seen such evidence.			
	Applicant has attempted to provide such data, but I am not convinced it demonstrates a			
	single pressure system. For example, although Applicant's Exhibit 14 provides some			
pressure data, the provided pressures are quite a way apart in terms of magnitude and				
	obviously demonstrate the differing degrees of depletion within the different formations.			
	While differing degrees of depletion would be expected because of the chronology of			
development in the formations, I believe the measured pressures should have less varia				
the formations are indeed in communication. I would note that Exhibit 14 has each				
entry shown under just one formation header, and appears to only provide initial pre-				
	identified during drilling, but not current bottom-hole pressures, which is not ideal from the			
	perspective of demonstrating a single pressure system. While Applicant's Exhibits 15.1			
	through 15.11 also provide bottom-hole pressure versus time graphs for each formation,			
	there are few data points from which to plot pressure declines of the individual formations.			

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So I do not believe any meaningful comparison of the pressure declines of the individual
 formations can be derived from the study of these graphs.

Mr. Birk references "multi-zone completions and production techniques throughout the unit area," (Birk Rebuttal 1:14-15) but none of the wellbores have all eleven formations open at this time (Birk Rebuttal 2:12-13). The Feiertag A #2-15 has eleven formations open, but two are not formations intended to be unitized. The next wellbores completed in the most formations are the Haupt A #1-15 and Feiertag A #3-15, with nine and seven formations, respectively. I just do not see enough data to make the leap of faith needed to conclude all eleven formations are in communication.

10 I will say that the statutory requirement that the formations must be in pressure 11 communication for approval under K.S.A. 55-1301 et seq. seems somewhat arbitrary, when 12 the existence of pressure communication can be artificially controlled. For example, if 13 Applicant would perforate each of the eleven zones proposed to be unitized in each of its existing wellbores, that would certainly create conduits for pressure equilibration between 14 15 formations. And for example, if only certain smaller subsets of the eleven formations are in communication, then Applicant could obtain approval for unitization of each subset and 16 17 obtain a similar outcome regarding total production.

From a business perspective, I imagine these are horrible ideas that, if implemented, could constitute economic waste. Statutorily there may be other ways for Applicant to get what it wants, although I am not necessarily qualified to comment on that. Still, Applicant has applied for unitization under K.S.A. 55-1301 *et seq.*, and the statute says what it says.

22 Q. So does Staff have a recommendation regarding Applicant's application?

A. Yes. The plan appears to be an economically feasible, reasonably necessary project designed
to create valuable additional recovery in a fair and equitable manner, but Staff does not
believe it can be approved under K.S.A. 55-1301 *et seq*. because the formations proposed to
be unitized do not appear to constitute a single pressure system. If Applicant can convince
the Commission otherwise, that would be great, and I would encourage the Commission to
think closely about this issue, but Staff cannot recommend approval at this time.
Q. Does this conclude your surrebuttal testimony as of this date, September 15, 2017?

30 A. Yes.

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Shari Fe	Pat Apple, Chairman Shari Feist Albrecht Jay Scott Emler			
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& Gas Company for an order authorizing	the)		
		>	CONCI	

Docket No. 17-CONS-3516-CUNI

unitization and unit operations of the Feiertag) CONSERVATION DIVISION

License No. 5214

CERTIFICATE OF SERVICE

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I, Cynthia K. Maine, certify that on $\frac{9/20/2017}{}$, 2017, I did cause a true and correct copy of the Surrebuttal Pre-Filed Testimony of Jim Hemmen to be served by United States mail, first class, postage prepaid to the following:

Timothy E. McKee Amy Fellows Cline Triplett Woolf & Garretson, LLC 2959 N. Rock Road, Suite 300 Wichita, Kansas 67226 *Attorneys for Lario Oil and Gas Company*

Unit in Scott County, Kansas.

Diana Edmiston Edmiston Law Office, LLC 200 E. 1st Street, Suite 301 Wichita, Kansas 67202 *Attorney for Cholla Production, LLC*

And delivered by email to:

Michael J. Duenes, KCC Prehearing Officer

C∮nthia K. Maine Administrative Assistant Kansas Corporation Commission