

**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

In the Matter of the Application of Darrah)	Docket No. 25-CONS-3342-CWLE
Oil Company, L.L.C. for a well location)	
exception for its Drummond #1 well, to be)	CONSERVATION DIVISION
located in the S/2 SE/4 of Section 26,)	
Township 33 South, Range 5 East, Cowley)	License No. 35615
<u>County, Kansas.</u>)	

PRE-FILED REBUTTAL TESTIMONY OF

JARRED LEIS

DARRAH OIL COMPANY, LLC

1 **Q. Have you reviewed the Pre-Filed Testimony of Jake Eastes on behalf of Commission**
2 **Staff submitted in this docket?**

3 A. Yes.

4 **Q. At 6:6-13 of Mr. Eastes' testimony, he requests the logs and drill stem tests from**
5 **analog wells in the field that form the justification for drilling the Drummond #1 well**
6 **at the proposed location. Has this information been furnished to Mr. Eastes for**
7 **review?**

8 A. Yes, that information was provided to Mr. Eastes and Commission Staff on August 7, 2025.
9 Specifically, I furnished the drilling logs for the Brown #1, Brown #3, Muret #5 and Muret
10 #6 wells. These are the four wells surrounding the proposed location of the Drummond #1
11 well and are direct offsets. Drill stem tests were not taken on these wells. The nearest well
12 with a drill stem test was the Muret #1, drilled in the S/2 of Section 26 directly west of the
13 proposed Drummond #1. The completion card for the Muret #1 includes the results of
14 several drill stem tests taken during while it was being drilled.

15 As explained in my Pre-Filed Direct Testimony at 3:6-15 and 3:21-29, the logs demonstrate
16 a likelihood of encountering approximately 15' of pay in the Mississippi chert, along with
17 a positive structural position to drill the Drummond #1 to test the Mississippi chert and
18 Lime, both shown to contain commercial quantities of oil in the area. The drill stem test
19 results shown on the Muret #1 completion card evidence a tight and poorly developed
20 reservoir with low permeability. The logs for the Muret #1 and the other wells show
21 adequate porosity of +/- 14%, which allows for hydrocarbons to be drained, but from a
22 relatively small area given the lack of natural permeability. Even when these wells are

1 completed with a frac designed to improve permeability, the lack of natural permeability
2 limits the drainage radius from these wells.

3 Notwithstanding these typically unfavorable reservoir characteristics, the Muret Lease and
4 Brown Lease have cumulatively produced more than 400,000 BO. I believe the logs and
5 drill stem tests show that this oil was likely drained from a relatively small area, and why
6 I believe the Drummond #1 well will show minimal pressure depletion and is likely to
7 produce commercial quantities of oil.

8 **Q. At 6:14-20 of Mr. Eastes' testimony, he requests a list of wells drilled in the area of**
9 **the Drummond #1 in the last 10 years that show initial production rates as high as 75**
10 **BOPD. Have you provided this list to Mr. Eastes for review?**

11 A. Yes. A list of wells was provided to Mr. Eastes and Commission Staff on August 11, 2025.
12 Specifically, Raney Oil Company, LLC, drilled the Jones 1A in the SW/4 SE/4 of Section
13 31-T33S-R6E and Jones 2A in the NW/4 NE/4 of Section 6-T34S-R6E. These wells
14 combined to produce more than 5,000 BO in July of 2021, for an average initial production
15 of 84 BOPD. Additionally, Raney Oil's House 1A and House 1B wells drilled in the E/2
16 SE/4 of Section 31-T33S-R6E appeared to have initial production rates of 92 BOPD in
17 May of 2021. These four wells are drilled approximately three miles to the east and south
18 of the proposed Drummond #1 into a similar reservoir that will be targeted by the
19 Drummond #1.

20 Two other comparatives are the Ronny 1-35 and Pattie 1-35 drilled by VAL Energy, Inc.
21 ("VAL") in the same Section 35 that the Brown Lease is situated in, which wells were
22 completed last summer. The three-month average initial production from these two wells
23 exceeded 50 BOPD each. Notably those wells are situated in close proximity to other wells

1 that had historically produced from the Mississippi formation, yet are still able to recover
2 significant quantities of oil from what I presume is a location in the reservoir that has not
3 experienced significant pressure depletion. The proposed Drummond #1 is updip from
4 these two wells, and I expect to experience better initial production rates as a result.

5 **Q. At 6:20-7:4 of Mr. Eastes' testimony, he requests a more in-depth explanation as to**
6 **how advanced completion techniques could improve initial production from the**
7 **Drummond #1 well. Are you able to provide a more in-depth explanation on this**
8 **topic?**

9 **A.** Yes, I believe so.

10 With respect to well completion techniques, the technology in that area has advanced
11 significantly since the initial exploration of the Mississippi chert in the 1970's. New
12 logging tools, specifically micro-resistivity tools, allow geologists to see the zones in the
13 Mississippi chert and Lime are likely to be productive of oil. Micro-resistivity logs are
14 important because they show the potential permeability of reservoir, in this case the
15 Mississippi chert. These modern logging tools were not widely available or utilized in the
16 1970's when this field was originally explored, so this important information is not
17 historically available. This micro-resistivity data, together with advancements in
18 cementing and large volume hydraulic fracturing should allow for more efficient and
19 effective completions in the Mississippi chert, shown to have low permeability, than what
20 was available in the 1970's. Large volume frac were employed on the wells drilled by
21 Raney Oil I referred to above, and have proven to be highly effective.

22 **Q. At that same passage in Mr. Eastes' testimony, he requests a more in-depth**
23 **explanation as to why curtailing the well's natural initial producing capability could**

1 **result in the loss of reservoir and artificial energy. Are you able to provide a more in-**
2 **depth explanation on this topic?**

3 A. Yes, I think I can also explain this issue in greater detail.

4 Following a large volume hydraulic frac completion, it is important to allow a well to be
5 produced at its full production capability to allow for the recovery of frac fluid as quickly
6 as possible. The Cowley facies, which is typically found in the Mississippi formation in
7 this area, is high in naturally occurring clays. Artificially curtailing the recovery of frac
8 fluid could result in a chemical reaction with these clays, causing them to swell, effectively
9 clogging the reservoir. Reservoir energy is lost because the permeability and porosity
10 created through the frac closes back up as clays swell. If this were to happen, oil reserves
11 would become stranded in the reservoir, resulting in waste of natural resources. If the frac
12 fluid is recovered as quickly as possible by producing the well at its full production
13 capacity, the risk of swelling clays is minimized. This allows the water naturally in place
14 within the reservoir, which we know does not cause these clays to swell, to carry oil to the
15 wellbore to be produced, thereby preventing waste.

16 **Q. Have you reviewed the Direct Prefiled Testimony of James O. Brown on behalf of**
17 **protesters submitted in this docket?**

18 A. Yes.

19 **Q. Do you have any comments regarding the testimony provided by Mr. Brown?**

20 A. I would simply note that Mr. Brown does not purport to have any educational background
21 or experience in the field of geology. I would also note he offered no geologic evidence to
22 refute the geologic justification I offered for drilling the Drummond #1 well at the proposed
23 location. Instead, Mr. Brown's complaints appear to be focused on contractual issues

1 related to his lease agreement, and entirely unsupported claims of uncompensated drainage
2 and waste.

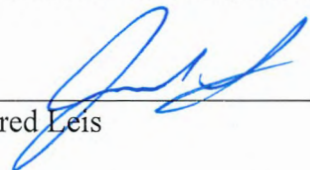
3 **Q. Does this conclude your testimony?**

4 A. Yes.

VERIFICATION

STATE OF KANSAS)
) ss:
COUNTY OF SEDGWICK)

Jarred Leis, being first duly sworn, deposes and says that he is the Jarred Leis referred to in the foregoing "PRE-FILED DIRECT TESTIMONY OF JARRED LEIS" to be filed before the State Corporation Commission of the State of Kansas in Docket No. 25-CONS-3342-CWLE, and that the contents thereof are true and correct to the best of his information, knowledge, and belief.



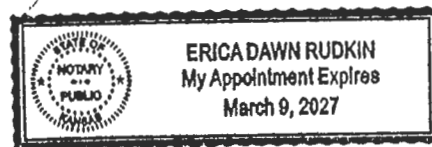
Jarred Leis

SIGNED AND SWORN to before me on this 20th day of August, 2025.



Notary Public

My Commission expires: 3-9-2027



CERTIFICATE OF SERVICE

The undersigned certifies that on this 22nd day of August, 2025, I caused the original of the foregoing **Pre-Filed Rebuttal Testimony of Jarred Leis** to be electronically filed with the Conservation Division of the State Corporation Commission of the State of Kansas, and caused true and correct copies of the same to be delivered by electronic mail to the following persons:

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