

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION FOR
THE PURPOSE OF CONSIDERING:

APPLICATION OF CROWNQUEST OPERATING, CASE NO. 15766
LLC TO REINSTATE THE INJECTION
AUTHORIZED BY ORDER NO. R-4007,
LEA COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

July 20, 2017

Santa Fe, New Mexico

BEFORE: WILLIAM V. JONES, CHIEF EXAMINER
 MICHAEL McMILLAN, TECHNICAL EXAMINER
 DAVID K. BROOKS, LEGAL EXAMINER

 This matter came on for hearing before the
New Mexico Oil Conservation Division, William V. Jones,
Chief Examiner, Michael McMillan, Technical Examiner,
and David K. Brooks, Legal Examiner, on Thursday, July
20, 2017, at the New Mexico Energy, Minerals and Natural
Resources Department, Wendell Chino Building, 1220 South
St. Francis Drive, Porter Hall, Room 102, Santa Fe, New
Mexico.

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APPEARANCES

FOR APPLICANT CROWNQUEST OPERATING, LLC:

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INDEX

PAGE

Case Number 15766 Called	3
CrownQuest Operating, LLC's Case-in-Chief:	
Witnesses:	
Saul Leyva:	
Direct Examination by Ms. Kessler	3
Cross-Examination by Examiner Jones	18
Cross-Examination by Examiner McMillan	20
Recross Examination by Examiner Jones	21
Proceedings Conclude	24
Certificate of Court Reporter	25

EXHIBITS OFFERED AND ADMITTED

CrownQuest Operating, LLC Exhibit Numbers 1 through 5	18
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1 (1:42 p.m.)

2 EXAMINER JONES: I guess we can go back on
3 the record this afternoon and call Case Number 15766,
4 which is the application of CrownQuest Operating, LLC to
5 reinstate the injection authorized by Order Number
6 R-4007, in Lea County, New Mexico.

7 Call for appearances.

8 MS. KESSLER: Jordan Kessler, from the
9 Santa Fe office of Holland & Hart, on behalf of the
10 Applicant.

11 EXAMINER JONES: Any other appearances?

12 MS. KESSLER: I have one witness.

13 EXAMINER JONES: One witness.

14 Will the court reporter please swear the
15 witness?

16 SAUL LEYVA,
17 after having been first duly sworn under oath, was
18 questioned and testified as follows:

19 DIRECT EXAMINATION

20 BY MS. KESSLER:

21 **Q. Would you please state your name for the record**
22 **and tell the Examiners by whom you're employed and in**
23 **what capacity?**

24 A. My name is Saul Leyva. I'm employed by
25 CrownQuest Operating as a production engineer.

1 Q. What is your current position with CrownQuest?

2 A. Production engineer.

3 Q. Have you previously testified before the Oil
4 Conservation Division?

5 A. No.

6 Q. Can you please briefly review your education?

7 A. I went to the University of Texas in the
8 Permian Basin. I received my bachelor's in petroleum
9 engineering. I then proceeded to work for CrownQuest
10 where I've been for two-and-a-half years.

11 Q. When did you receive your bachelor's?

12 A. December of 2014.

13 Q. What have your responsibilities been with
14 CrownQuest?

15 A. Case manager to now production engineer.

16 Q. How long have you been in your current
17 position?

18 A. One year.

19 Q. And with that position, are you familiar with
20 injection and disposal issues in the Permian Basin?

21 A. Yes.

22 Q. Are you familiar, also, with the status of
23 CrownQuest's inactive wells?

24 A. Yes.

25 Q. And are you familiar with the application

1 that's been filed in this case?

2 A. Yes.

3 MS. KESSLER: Mr. Examiners, I'd tender
4 Mr. Leyva as an expert petroleum engineer.

5 EXAMINER JONES: He's so qualified.

6 Q. (BY MS. KESSLER) Mr. Leyva, has CrownQuest been
7 operating under an agreed compliance order with the
8 Division?

9 A. Yes.

10 Q. And is it your understanding that CrownQuest
11 currently has three inactive wells?

12 A. Yes.

13 Q. How many inactive wells are allowed by rule?

14 A. Two.

15 Q. Is the well that is the subject of the C-108
16 application in this hearing, which is the State 27 #2
17 SWD, currently on the inactive well list?

18 A. Yes.

19 Q. Is it your understanding that bringing this
20 well back into compliance would bring CrownQuest to a
21 total number of authorized inactive wells?

22 A. Yes.

23 Q. Will authorization to reinstate Order R-4007
24 effectively bring this particular well back into
25 compliance?

1 A. Yes.

2 Q. Did you submit the C-108 application marked as
3 Exhibit 1?

4 A. No. Ann Ritchie did, but I worked with her.

5 Q. So you assisted in the preparation of the
6 documents and engineering calculations?

7 A. Yes.

8 Q. Does the C-108 application contain all of the
9 information that's required by the Division?

10 A. Yes.

11 Q. Have you also prepared some supplemental
12 materials that you'll be presenting today?

13 A. Yes.

14 Q. Please briefly summarize what CrownQuest is
15 seeking under this application.

16 A. We're seeking reauthorization to inject
17 produced water to the State 27 #2 SWD into the
18 Pennsylvanian Formation. The previous order for
19 injection was approved by the Division under Order
20 Number R-4007 on August the 12th, 1970. This order
21 permitted us to have an injection interval of -- from
22 9,789 feet to 9,924 feet through 2-3/8 plastic-coated
23 tubing, and allowed us to set a packer at 9,700 feet.
24 The order does not say anything on pressures.

25 Q. It was silent on pressures?

1 A. Yes.

2 Q. And is a copy of Order R-4007 included as
3 Exhibit 2?

4 A. Yes.

5 Q. And it's kind of hiding behind Tab B.

6 EXAMINER JONES: Okay. It is.

7 Q. (BY MS. KESSLER) Is CrownQuest seeking to
8 change any of the conditions that were approved by Order
9 R-4007?

10 A. No. We'll keep the same wellbore design. The
11 only thing we'll be adding is pressures.

12 Q. Okay. And as you mentioned, the order is
13 currently silent on pressures, correct?

14 A. Correct.

15 Q. And it was issued in approximately 1970. Is
16 that also correct?

17 A. That's correct.

18 Q. What pressures are you proposing, both maximum
19 and average?

20 A. Max, about 3,500 psi, and average, about 2,200.

21 Q. What volume of water will you be injecting?

22 A. 100 barrels a day.

23 Q. Do you actually anticipate the actual maximum
24 and average pressures will be significantly lower?

25 A. Yes. They will be a lot lower.

1 Q. And if the Division were to approve lower
2 injection pressures, that would be okay, too?

3 A. Yes.

4 Q. Is there anything that CrownQuest is seeking
5 that is different than the original order?

6 A. No. We'll be injecting produced water from the
7 State 22 #2 well and the State 26 Com #5 well.

8 Q. The lease disposal well?

9 A. (Indicating.)

10 Q. Why is CrownQuest seeking to reauthorize --
11 renewing their authority to inject?

12 A. We're just wanting to inject from the State 22
13 #2 well and the State 26 Com #5 well.

14 Q. And why did the authority lapse?

15 A. Two years ago, we had some complications with
16 the injection pump, which made us stop injecting, and
17 then at that same time, the OCD called for a MIT test,
18 which failed due to a problem with the procedure. It's
19 important to note that it didn't fail because of a
20 mechanical problem, but a procedure, as I stated.

21 After that, on June 30th, 2016, we received
22 notice that Order R-4007 had been expired due to not
23 injecting into that well for a year.

24 Q. Okay. Now, you mentioned a failure of the MIT
25 test, and you said that wasn't a mechanical issue. But

1 **have there been several subsequent MIT tests performed?**

2 A. Yes. There was one done right after that
3 passed. And the most recent one has actually been done
4 this year, in March, and it passed as well.

5 **Q. What is the ownership of the land where the**
6 **proposed injection well is located?**

7 A. It is state-owned, state land and state
8 minerals.

9 **Q. State surface and state minerals?**

10 A. Yes.

11 **Q. Now, I'd like to turn to Exhibit 1, which is**
12 **the C-108. And I put tabs to try and help us navigate.**
13 **So if we can turn to what I've marked as Tab A, and is**
14 **this the overview land map that shows the well location**
15 **of the subject well and the state leases?**

16 A. Yes.

17 **Q. And this is the half-mile area of review?**

18 A. Yes.

19 **Q. I only see one other well within the area of**
20 **review; is that correct?**

21 A. Correct.

22 **Q. That's directly to the east?**

23 A. Yes.

24 **Q. Has notice of the C-108 and notice of this**
25 **hearing been sent to any of the leasehold operators or**

1 mineral interest owners within the half-mile area of
2 review?

3 A. Yes, it has. The State Land Office was
4 notified. And since CrownQuest is the only operator for
5 that well, we know about it.

6 Q. Okay. So the well that's directly to the east
7 that's right on the line of the half-mile area of
8 review, that is owned by CrownQuest; is that correct?

9 A. Yes. CrownQuest operated, 100 percent working
10 interest.

11 Q. So there are no other leasehold interest owners
12 or operators within a half mile?

13 A. No.

14 Q. And what is this well -- what's the name of the
15 well that's within the half-mile area of review?

16 A. It's the State 26 Com #5.

17 Q. Are the green-card receipts for all parties
18 notified for the -- for the C-108 included behind Tab B?

19 A. Yes.

20 Q. And that would just be to the State Land
21 Office?

22 A. Correct.

23 Q. Okay. Based on notice provided to those
24 interest owners within the half-mile area of review and
25 through notice of publication, is it your understanding

1 that CrownQuest provided notice of the C-108 as required
2 by the Division rules?

3 A. Yes.

4 Q. And is the legal publication notice included
5 behind Tab C?

6 A. Yes.

7 Q. That was just for the C-108, correct, not for
8 the hearing?

9 A. Correct.

10 Q. Is Exhibit 3 an affidavit prepared by my
11 office, with a letter to the State Land Office,
12 providing notice of this hearing?

13 A. Yes.

14 Q. And does CrownQuest currently hold the oil and
15 gas lease where this injection well is located?

16 A. Yes.

17 Q. I'd like to look at Tab D. Is this a
18 configuration of the proposed injection well?

19 A. Yes.

20 Q. And it's the same as the one that was already
21 authorized; is that correct?

22 A. That's correct.

23 Q. No proposed changes to the wellbore?

24 A. No changes.

25 Q. Is the injection well configuration and

1 **construction protective of freshwater sources in the**
2 **area?**

3 A. Yes. We've cased and cemented all freshwater
4 sources.

5 Q. **Are the freshwater sources all located in the**
6 **strata that's above the injection zones?**

7 A. Yes. They're located around a depth of 171
8 feet from the surface.

9 Q. **What's the plan for stimulating this well?**

10 A. There is no plan.

11 Q. **All right. Now, we talked briefly about the**
12 **State 26 Com #5. If we can turn back to Tab A, this is**
13 **the only well within the area of review; is that**
14 **correct?**

15 A. That's correct.

16 Q. **Operated -- owned and operated by CrownQuest,**
17 **you said, correct?**

18 A. Correct.

19 Q. **Is this also producing from the target**
20 **formation in which you seek to inject?**

21 A. Yes.

22 Q. **Why are you seeking disposal?**

23 A. We're just wanting to dispose -- produce water
24 from the State 26 Com #5 well and the State 22 #2 well.

25 Q. **Where is that well located?**

1 A. The State 22?

2 **Q. (Indicating.)**

3 A. That is north of the SWD.

4 **Q. And it's outside the half-mile area of review;**
5 **is that correct?**

6 A. Correct.

7 **Q. Do you expect injection into the subject well**
8 **to impact production from the State 26 #5 well?**

9 A. No. We haven't seen any -- any evidence
10 suggesting that it would do so in the last seven years.

11 **Q. So you've been injecting for approximately**
12 **seven years into this well without seeing any**
13 **relationship; is that correct?**

14 A. That's correct.

15 **Q. Have you prepared Exhibit 3 to illustrate --**
16 **I'm sorry -- Exhibit 4 to illustrate that point?**

17 A. That's correct.

18 **Q. Can you please review this for us?**

19 A. Exhibit 4 shows the production from the State
20 26 Com #5 well and the injection from the State 27 #2
21 well. We can see here on the top in the Comments, we
22 have a 24-month average production prior to injection
23 into the State 27 #2 well. And this shows that the
24 State 26 #5 well made a total of 358 barrels of average
25 production. After injecting started, which is in

1 January 1994, we see that 24 months after that, our
2 production was still at 371 barrels. So we can see that
3 the impact, if any, is very minimal.

4 We also see down here towards the bottom in
5 the Comments section that our cumulative water
6 production for the State 26 Com #5 is only about 3
7 percent of the total water injected in the last 53
8 months. So this is evidence that shows us that there is
9 no impact with the production of the State 26 Com #5
10 well.

11 Q. And you also mentioned that you will have very
12 low injection volumes, correct?

13 A. Correct.

14 Q. And low injection pressures?

15 A. Correct.

16 Q. What is the source of the water that you're
17 proposing to inject?

18 A. From the State 22 #2 and the State 26 Com #5
19 well.

20 Q. Is that produced water from the same zone as
21 you're proposing to inject into?

22 A. Yes, Upper Pennsylvanian.

23 Q. The Upper Penn?

24 A. Yes.

25 Q. And given that injection will be through the

1 **same formation, do you believe that there will be any**
2 **water compatibility issues?**

3 A. No. We have not seen any in the last seven
4 years, so we don't perceive any.

5 Q. And did you include a water sampling analysis
6 in your C-108?

7 A. Yes.

8 Q. Is that behind Tab E?

9 A. That is correct.

10 Q. Will the proposed injection system be open or
11 closed?

12 A. Closed.

13 Q. And how will CrownQuest monitor this well to
14 ensure the integrity of the wellbore?

15 A. We placed an inert fluid in the annulus between
16 the tubing and the casing to protect integrity. We'll
17 also be monitoring our pressures and complying with OCD
18 testing.

19 Q. Can you explain why the pressures have not been
20 reported thus far to the Division?

21 A. There was a lapse in personnel that was working
22 there, and they just -- that person is no longer working
23 there, so there is no -- there is no way to find out why
24 that wasn't -- why that was happening.

25 Q. And CrownQuest, assuming that this injection

1 well is re-permitted, will report monthly all pressures;
2 is that correct?

3 A. Yes, we will.

4 Q. Are there freshwater zones in the area?

5 A. No. Just on the surface, at about 171 feet.

6 Q. And this is cased and cemented through all of
7 those zones; is that correct?

8 A. That is correct.

9 Q. Have you identified any freshwater wells within
10 a mile -- I'm sorry -- within a half mile?

11 A. No.

12 Q. And has appropriate geologic data been
13 included, per the requirements of the C-108?

14 A. Yes. The only log that we have for this well
15 is included.

16 Q. But it wasn't initially included with the
17 C-108; is that correct?

18 A. That's correct.

19 Q. Have you included that as Exhibit 5?

20 A. Yes.

21 Q. And what -- what is this log?

22 A. This is the cross section. This is the only
23 log that we have for the State 27 #2 well, which is just
24 a resistivity log, a spontaneous potential log and a
25 caliper. So this is the cross section of the State 27

1 #2 and the State 26 Com #5 well, which is within that
2 half-mile area of review.

3 Q. And it shows the perfs for each of these wells?

4 A. Correct. It shows the perfs at the bottom in
5 red.

6 Q. Have you examined the available geologic and
7 engineering data in this reservoir?

8 A. Yes.

9 Q. And have you found any evidence of open faults
10 or other hydrologic connections between the injection
11 interval and any underground source of drinking water?

12 A. Yeah. There are no faults or hydrologic events
13 in that area.

14 Q. And in your opinion, will the injected fluid
15 stay in the identified zone?

16 A. Yes. We haven't seen evidence of it migrating
17 in the last seven years.

18 Q. And in your opinion, is the granting of this
19 application in the best interest of conservation of
20 resources?

21 A. Yes.

22 Q. Were Exhibits 1 through 5 prepared by you or
23 compiled under your direction and supervision?

24 A. Yes.

25 MS. KESSLER: Mr. Examiner, I'd move

1 admission of Exhibits 1 through 5.

2 EXAMINER JONES: Exhibits 1 through 5 are
3 admitted.

4 (CrownQuest Operating, LLC Exhibit Numbers
5 1 through 5 are offered and admitted into
6 evidence.)

7 CROSS-EXAMINATION

8 BY EXAMINER JONES:

9 Q. I think you covered it pretty good, but I guess
10 the big question is -- you only have two wells at this
11 time you want to use into this disposal well, but you've
12 got a bunch of old plugged wells around here. You're
13 not going to re-enter anything or --

14 A. There are no plans to re-enter anything, sir.

15 Q. Is this -- is this in the area of any kind of
16 horizontal play?

17 A. No, sir. We believe there is a horizontal well
18 east about a mile away from this well, but that is the
19 only horizontal well in the area.

20 Q. Is it a Bone Spring or something?

21 A. I'm not sure what it is exactly. I just know
22 it wasn't -- apparently wasn't very successful so it's
23 the only one.

24 Q. Well, it's located in 14 South, 32 East, so
25 probably could be, what, Yeso or San Andres or something

1 **like that?**

2 A. I would imagine San Andres, probably, in that
3 area.

4 Q. Which sometimes these disposal wells are really
5 valuable for -- for future drilling in the area, and I
6 just didn't know if you wanted it to be -- limitation to
7 be put in this order or limitations within a half mile
8 with any producing well or whether you've thought about
9 that at all.

10 A. Limitations with what?

11 Q. Limitations as to use of the well for only the
12 two wells that you're talking about --

13 A. Oh, okay.

14 Q. -- or for maybe that it could be used in the
15 future as long as there is -- no production is coming
16 from -- from the Upper Penn within a half mile.

17 A. Yeah. So like I've said, we don't have any
18 plans to do any more infill drilling in the area, so
19 that's why we've only said that we'll be injecting from
20 those two wells. Of course, in the future, if that
21 changes --

22 Q. Okay. You had one well that was approved --
23 expired TA on the -- the list. And is that -- is there
24 a reason why that was expired TA?

25 A. I'm not aware of the reason, but we have been

1 working to get back into compliance. In the last year,
2 we've plugged 23 wells.

3 **Q. Oh, really?**

4 A. So these last few wells that we're working on,
5 which this is one of them, we're trying to definitely
6 bring all of the wells back into compliance.

7 **Q. Okay. So you said you have ACOI in effect?**

8 A. We have been working under an ACOI until March,
9 where I spoke to Mr. Sanchez. And due to the amount of
10 wells that we had plugged at that point, he said we
11 could just -- if we continued working on our wells, then
12 we could just work that way, and he would -- he would
13 update himself on the status, and we would be contacted
14 then.

15 **Q. Okay.**

16 A. So that's when -- when we finished that March
17 1st, that's when we focused our attention on this well,
18 and here we are.

19 **Q. Okay. So is there anything deeper,**
20 **prospective? Are there gas zones deeper?**

21 A. No, sir, not that we've seen.

22 **Q. Yeah. If someone would have asked for the well**
23 **to be extended -- the permit to be extended before it**
24 **ran out, you know, you could have done that just through**
25 **a letter.**

1 A. Yes, sir.

2 Q. And it wouldn't -- just a case of keeping up
3 with that stuff.

4 A. Yes, sir.

5 EXAMINER JONES: Mike?

6 CROSS-EXAMINATION

7 BY EXAMINER McMILLAN:

8 Q. Okay. Yeah. I've got a question.

9 This relates to your diagram in D, and it
10 relates to the hearing order. So I'm looking at 2.
11 Okay. The hearing order says it's 9,789 to 9,924. Your
12 application says to 9,970. And you said you're going to
13 follow the order. So what is going to be your injection
14 interval?

15 A. Injection interval is 9,789 to 9,924 as of now.
16 We were approved for 9,970, but we -- we -- I guess when
17 everything was still -- when we were still injecting
18 into that well, there was a cast-iron bridge plug that
19 was placed above the bottom set of perms. So there is
20 really no difference -- well, I guess the only
21 difference is we'll be injecting to 9,924.

22 Q. Okay. And then I need clarification on what
23 you said your maximum pressure was.

24 A. We -- our max allowable pressure would be 3,500
25 psi.

1 Q. Okay. Well, then, the .2 gradient is 1,958?

2 A. Yes, sir.

3 Q. So --

4 A. We can -- when I made this application, I put
5 max allowable pressure based on the tubing based on the
6 wellbore design, but we'll be more than willing to go
7 ahead and go by the .2 psi per-foot rule.

8 RECROSS EXAMINATION

9 BY EXAMINER JONES:

10 Q. You're not going to exceed much pressure at
11 all?

12 A. No. We don't foresee that, sir.

13 Q. Unless you start using it for other wells?

14 A. Yes.

15 Q. When's the last time you checked TD on this
16 well or run any kind of caliper log?

17 A. Caliper log? I do not know the last time that
18 was available.

19 Q. Do you have any logs available so you can send
20 to our Hobbs office?

21 A. The only log I found was the log with this
22 cross section. That is the only log that we got from
23 the company we bought this well from.

24 Q. Okay. And this was the cross section on the
25 original application; is that right?

1 A. We did not send this cross section on the
2 original application, so that's why we're adding it
3 today.

4 Q. Okay. So you don't have anything in your files
5 at all? No gamma ray or anything --

6 A. No, sir.

7 Q. -- on this well?

8 A. Yeah.

9 Q. Well, next time you pull your tubing, you might
10 be able to run something, you know --

11 A. Okay.

12 Q. -- just to see if -- you know, because when
13 these wells are plugged, you have to kind of start
14 looking uphole at all the different intervals.

15 A. Yes, sir.

16 Q. And there is not circulated cement, so it might
17 just be pulling a bond log, you know, with a gamma ray
18 to surface or something like that.

19 A. Okay.

20 Q. That would -- that would probably -- that would
21 probably be better than nothing. But you don't
22 anticipate pulling your tubing anytime soon, obviously.

23 A. No, sir.

24 Q. All right.

25 EXAMINER JONES: You guys have anything

1 else?

2 EXAMINER McMILLAN: I don't have anything
3 at this time.

4 EXAMINER BROOKS: No questions.

5 EXAMINER JONES: Okay. Thanks for coming.

6 THE WITNESS: Thank you.

7 EXAMINER JONES: With that, we'll take
8 15766 under advisement.

9 (Case Number 15766 concludes, 2:07 p.m.)

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1 STATE OF NEW MEXICO
2 COUNTY OF BERNALILLO

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4 CERTIFICATE OF COURT REPORTER

5 I, MARY C. HANKINS, Certified Court
6 Reporter, New Mexico Certified Court Reporter No. 20,
7 and Registered Professional Reporter, do hereby certify
8 that I reported the foregoing proceedings in
9 stenographic shorthand and that the foregoing pages are
10 a true and correct transcript of those proceedings that
11 were reduced to printed form by me to the best of my
12 ability.

13 I FURTHER CERTIFY that the Reporter's
14 Record of the proceedings truly and accurately reflects
15 the exhibits, if any, offered by the respective parties.

16 I FURTHER CERTIFY that I am neither
17 employed by nor related to any of the parties or
18 attorneys in this case and that I have no interest in
19 the final disposition of this case.

20

21

22 MARY C. HANKINS, CCR, RPR
23 Certified Court Reporter
24 New Mexico CCR No. 20
25 Date of CCR Expiration: 12/31/2017
Paul Baca Professional Court Reporters

25