

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

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

**ORIGINAL**

AGAVE ENERGY COMPANY'S MOTION TO  
AMEND ORDER NO. R-13507, LEA COUNTY,  
NEW MEXICO

Case No. 14720

REPORTER'S TRANSCRIPT OF PROCEEDINGS  
COMMISSIONER HEARING

BEFORE: JAMI BAILEY, Chairman  
DR. ROBERT BALCH, Commissioner  
SCOTT DAWSON, Commissioner

June 28, 2012  
Santa Fe, New Mexico

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This matter came on for hearing before the New Mexico Oil Conservation Commission, JAMI BAILEY, Chairman, on Thursday, June 28, 2012, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South St. Francis Drive, Room 102, Santa Fe, New Mexico.

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A P P E A R A N C E S

FOR THE OIL CONSERVATION COMMISSION:

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FOR AGAVE ENERGY COMPANY:

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ALSO PRESENT:

Florene Davidson

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1                   CHAIRMAN BAILEY: Good morning. This is  
2 the meeting of the Oil Conservation Commission on June  
3 28th, in Porter Hall, in the Wendell Chino Building here  
4 in Santa Fe, New Mexico.

5                   I am Jami Bailey, Chairman of the Commission.  
6 To my right is Scott Dawson, designee of the Commissioner  
7 of Public Lands; and to my left is Dr. Robert Balch, who  
8 is the designee of the Secretary of Energy, Minerals and  
9 Natural Resources. All three Commissioners are here  
10 today, so there is a quorum of the Commission.

11                  We have cases to be continued. Case Number  
12 14763, which is the application of Mack Energy  
13 Corporation for compulsory pooling in Lea County, New  
14 Mexico, will be continued to the July 18th, 2012,  
15 Commission meeting.

16                  Case 14764, which is the application of  
17 Cimarex Energy Company of Colorado for approval of a  
18 non-standard oil spacing and proration unit, unorthodox  
19 location and compulsory pooling in Lea County, New  
20 Mexico, that case is continued to the July 18th, 2012,  
21 Commission meeting.

22                  Now I call Case Number 14720, which is the  
23 application of Agave Energy Company's Motion to Amend  
24 Order Number R-13507, requesting the Commission to amend  
25 Order R-13507, which authorizes Agave Energy to dispose

1 of treated acid gas, TAG, from the Red Hills Gas  
2 Processing Plant by injecting the TAG stream into Agave  
3 Energy's Red Hills AGI Number 1 well.

4 Ask for appearances.

5 MR. LARSON: Good morning, Madam Chair,  
6 Commissioners. Gary Larson, of Hinkle, Hensley, Shanor &  
7 Martin, for Agave Energy Company. I have three  
8 witnesses.

9 CHAIRMAN BAILEY: Would you call your  
10 first witness? And do you have an opening statement?

11 MR. LARSON: I'll waive opening statement.

12 I do have some extra copies of our exhibit. I  
13 don't know if the Commissioners have copies with them,  
14 but I do have extra copies.

15 I'll first call Mr. Ivan Villa.

16 IVAN VILLA

17 Having been first duly sworn, testified as follows:

18 DIRECT EXAMINATION

19 BY MR. LARSON:

20 Q. Mr. Villa, could you state your full name for  
21 the record?

22 A. Ivan Villa.

23 Q. And by whom are you employed and in what  
24 capacity?

25 A. I am the Engineering Manager for Agave Energy

1 Company.

2 Q. Did you testify before the Commission at the  
3 hearing in December of 2011 on Agave's application for  
4 injection authority?

5 A. Yes, I did.

6 Q. And did the Commission qualify you as an  
7 expert in engineering at that time?

8 A. Yes, they did.

9 MR. LARSON: Madam Chair, I ask that  
10 Mr. Villa be qualified as an expert engineer for purposes  
11 of the hearing today.

12 CHAIRMAN BAILEY: He is so accepted.

13 MR. LARSON: Thank you.

14 Q. (By Mr. Larson) Before we move on with the  
15 slides, Mr. Villa, could you inform the Commissioners  
16 what that photo shows?

17 A. Yes. The slide depicts the basic energy  
18 workover unit that was rigging up on our Government  
19 Number 2 Well last Thursday, the 21st.

20 Q. When you say, "Our Government Number 2,"  
21 that's a plugged and abandoned well?

22 A. Yes. It's part of our plugging program.  
23 That's correct.

24 Q. If you'll move on to the next slide.

25 And you testified at the previous hearing that

1 Agave's plan was to begin operating the Red Hills Gas  
2 Processing Plant in March of this year. Did Agave meet  
3 that target date?

4 A. No, they didn't. No, we didn't.

5 Q. What's the current status of the plant  
6 construction?

7 A. Currently, the construction is approximately  
8 about 84 percent complete. We've got a slide here that  
9 depicts a couple of the major milestones for the plant.  
10 We did prepare the site in July of last year. We did  
11 erect the demethanizer tower May 2012. We're in the  
12 process of rigging up to move in the amine contactor  
13 tower on the 9th of July.

14 Right now, the way things are looking, we're  
15 scheduled for completion September 1st of 2012, with  
16 commissioning of the plant October 1st, 2012.

17 Q. And once the plant comes on line, when do you  
18 anticipate receiving sweet field gas at the plant?

19 A. Immediately as soon as the plant comes on  
20 line.

21 Q. Do you have a sense of when the plant will  
22 start accepting sour gas with CO2 and H2S?

23 A. Right now, our timing is looking like  
24 September, October of 2013. There's a couple of  
25 long-lead critical path items, surface equipment. But

1 right now, that's what the game plan looks like.

2 Q. Since the Commission issued its order in  
3 January of this year authorizing Agave to drill and  
4 operate the Red Hills AGI Well, what has Agave done to  
5 satisfy the requirement in the order that Agave re-enter  
6 and re-plug four plugged and abandoned wells within a  
7 one-mile radius of Red Hills AGI well?

8 A. We basically submitted and received approval  
9 for the sundry notice on the Government Number 1, also  
10 submitted and received approval for the C-103 on the  
11 Government Number 2 and the Simms Number 1. We've  
12 successfully negotiated the surface use agreement for all  
13 three wells, cleared the location and prepped it for the  
14 workover rig and, as we mentioned earlier, rigged up last  
15 Thursday on the first well.

16 Q. And initially did you task Geolex, Inc., with  
17 reviewing and evaluating the plugging data on these four  
18 wells?

19 A. Yes, we did.

20 Q. And is Geolex doing anything further with  
21 regard to compliance for the requirement of the  
22 Commission's order?

23 A. Yes. Geolex will oversee the plugging program  
24 for the wells and also oversee the drilling and  
25 completion of the Red Hills Acid Gas Injection Well.

1 Q. Did Geolex complete its post-hearing analysis  
2 of the four plugged and abandoned wells under your  
3 direction?

4 A. Yes..

5 MR. LARSON: That's all I have for  
6 Mr. Villa.

7 CHAIRMAN BAILEY: Any questions of the  
8 witness?

9 COMMISSIONER DAWSON: I have no questions.

10 EXAMINATION

11 BY COMMISSIONER BALCH:

12 Q. Can you say anything about the Smith well?  
13 You're not able to obtain service rights there or  
14 something?

15 A. Actually, we have set plans. We have moved  
16 forward with plans, as far as surface ownership, to move  
17 in on the Smith. We are just basically waiting on the  
18 outcome of the hearing today to move further with the  
19 work on the well.

20 COMMISSIONER BALCH: That's all I have.

21 CHAIRMAN BAILEY: That's all I have.

22 You may be excused. Okay.

23 MR. LARSON: I next call Jennifer  
24 Knowlton.

25

1 JENNIFER KNOWLTON

2 Having been first duly sworn, testified as follows:

3 DIRECT EXAMINATION

4 BY MR. LARSON:

5 Q. Ms. Knowlton, will you state your full name  
6 for the record, please?

7 A. Jennifer Knowlton.

8 Q. And by whom are you employed and in what  
9 capacity?

10 A. I'm the Environmental Manager for Agave Energy  
11 Company.

12 Q. Did you also testify before the Commission at  
13 the hearing in December of 2011?

14 A. I did.

15 Q. And were you qualified as an expert in  
16 environmental engineering?

17 A. I was.

18 MR. LARSON: Madam Chair, I ask that  
19 Ms. Knowlton be qualified as an expert in environmental  
20 engineering for purposes of today's hearing.

21 CHAIRMAN BAILEY: She is so qualified

22 MR. LARSON: Thank you.

23 Q. (By Mr. Larson) Mr. Villa has testified that  
24 the Red Hills Gas Processing Plant will come on line in  
25 the fall. What is the time frame for Agave drilling the

1 AGI well?

2 A. With the caveat for rig availability, some of  
3 the MSA work that we have to do in house, we hope to  
4 start on that location the first part of November of  
5 2012.

6 Q. What has been your role in Agave's efforts to  
7 address the requirement that it re-enter four plugged and  
8 abandoned wells near the AGI well?

9 A. I have co-managed that project with our  
10 engineering manager.

11 Q. And what have those efforts entailed?

12 A. Coordinating with Agave's Land Department on  
13 the surface use agreements, coordinating with Geolex on  
14 the technical issues, and preparing summaries and  
15 presenting those to our management as the project has  
16 progressed.

17 Q. And has Agave begun remedial work on any of  
18 those wells?

19 A. Yes. As we showed in the picture, we rigged  
20 up on the Government Number 2 last Thursday.

21 Q. And have you calculated the costs involved  
22 with re-entering and re-plugging the two Government wells  
23 and the third plugged and abandoned well that's  
24 identified in the order?

25 A. Yes. We estimate about a quarter million

1 dollars for each of those. That includes the plugging  
2 work, the geologic work, the surface prep and reclamation  
3 and the surface use costs.

4 Q. Does it also include the permitting with the  
5 OCD and BLM?

6 A. Yes, it does.

7 Q. Why hasn't Agave moved forward with the  
8 remedial work on the Smith Federal Number 1?

9 A. After the post-hearing analysis performed by  
10 Geolex, we used that post-hearing analysis to determine  
11 what our costs would be. And after reviewing Geolex's  
12 work on that, that's when we decided to ask for this  
13 hearing. So we decided to wait on the surface prep work  
14 until after this hearing today.

15 Q. Have you estimated what the cost would be for  
16 re-entering and re-plugging the Smith Federal Number 1?

17 A. Probably close to the same, a half million  
18 dollars -- a quarter of a million dollars. I'm sorry.  
19 The surface use agreement and the reclamation -- the prep  
20 and reclamation are about the same.

21 The drilling costs, of course, are going to be  
22 variable, depending on how long we have to stay at each  
23 well. But we're anticipating about a quarter of a  
24 million dollars.

25 Q. In your opinion, is it necessary, from either

1 an environmental or an engineering standpoint, for Agave  
2 to re-enter and re-plug the Smith Federal Number 1 Well?

3 A. No, it is not.

4 MR. LARSON: That's all I have for  
5 Ms. Knowlton.

6 CHAIRMAN BAILEY: Do you have any  
7 questions?

8 COMMISSIONER DAWSON: I do not have any  
9 questions.

10 CHAIRMAN BAILEY: Commissioner Balch, do  
11 you have any questions?

12 COMMISSIONER BALCH: Sure.

13 EXAMINATION

14 BY COMMISSIONER BALCH:

15 Q. What is it that makes the Smith well different  
16 than the other three?

17 A. Mr. Gutierrez will go into more detail about  
18 that. Its location and its geological formation. And  
19 he'll be going into more detail on that.

20 Q. Right. But as an environmental engineer, you  
21 are comfortable with that?

22 A. I am comfortable with his analysis, yes.

23 Q. What's your basis for -- I'd like to know why  
24 you have a comfort level with the decision?

25 A. When we did the post-hearing analysis and

1 Alberto presented it and explained it to us, the cement  
2 work -- both the cement work, the physical location is  
3 outside. And for me, in environmental, that's the  
4 biggest thing, is that the location is outside of our  
5 potential radius of impact. Even using a very large  
6 safety factor in calculating that radius of impact, the  
7 location is outside of it.

8 So even under the best of circumstances, over  
9 30 years, I don't think the acid gas plume will reach the  
10 Smith well.

11 COMMISSIONER BALCH: Okay. Thank you.

12 CHAIRMAN BAILEY: I don't have any  
13 questions.

14 Any redirect?

15 MR. LARSON: No. I'll save it for  
16 Mr. Gutierrez.

17 CHAIRMAN BAILEY: All right. You may be  
18 excused.

19 MR. LARSON: Alberto?

20 ALBERTO GUTIERREZ

21 Having been first duly sworn, testified as follows:

22 DIRECT EXAMINATION

23 BY MR. LARSON:

24 Q. Mr. Gutierrez, could you please state your  
25 full name for the record?

1 A. Yes. Alberto Alejandro Gutierrez.

2 Q. And what is the name of your company?

3 A. Geolex.

4 Q. And what is your position with Geolex?

5 A. I'm the president of Geolex.

6 Q. And besides geological and hydrogeological  
7 analyses, what other service does Geolex provide?

8 A. In the context of this work and in the context  
9 of our work on acid gas injection wells in general, we  
10 kind of do a turnkey service where we provide the  
11 geological investigations, the permitting, and then we  
12 actually oversee the drilling and completion of the  
13 wells.

14 Q. And did you also testify at the December  
15 hearing on Agave's application?

16 A. Yes, sir, I did.

17 Q. Were you qualified as an expert in petroleum  
18 geology and hydrogeology at that hearing?

19 A. Yes, I was.

20 MR. LARSON: Madam Chair, I also ask that  
21 Mr. Gutierrez be qualified as an expert in petroleum  
22 geology and hydrogeology for purposes of today's hearing.

23 CHAIRMAN BAILEY: He is qualified.

24 MR. LARSON: Thank you.

25 Q. (By Mr. Larson) I direct your attention to

1 the hard copy of what's been marked as Agave Energy  
2 Exhibit Number 1. Did you prepare this exhibit?

3 A. I did.

4 Q. When Geolex was tasked by Agave with  
5 addressing the re-entering and re-plugging requirements  
6 in Order R-13507, what work did Geolex do first?

7 A. The first thing that we did was to review  
8 again the full plugging records that were available from  
9 the OCD and the BLM on these wells, but not only the  
10 records that were on line, but the records that actually  
11 resided physically at the offices. And especially in the  
12 case of the BLM, that was critical in terms of just  
13 getting all of the information on the plugging.

14 We then also went back and looked at our  
15 initial analysis of the potential extent of the acid gas  
16 plume over a 30-year period and then went and did a more  
17 detailed look at the relative location of each of those  
18 wells that were required by the Commission to be plugged  
19 as part of the order in terms of their vulnerability, if  
20 you will, to being affected or being conduits for getting  
21 acid gas out of the injection zone.

22 Q. And based on that evaluation and post-hearing  
23 review of the records, what conclusion did you draw  
24 regarding the Simms Number 1, Government L Com Number 1  
25 and Government L Com Number 2 plugged and abandoned wells

1 that are identified in the Commission's order?

2 A. Well, as I testified in the hearing back in  
3 December, we did not feel that it was necessary to go  
4 back and re-enter these wells, based on their plugging  
5 status.

6 We did understand why the Commission was  
7 concerned about that. And the fact that the three wells,  
8 the Government 1 and 2 and the Simms, do end up falling  
9 within the -- or very close to being within our projected  
10 AGI plume after 30 years of injecting at an average rate  
11 of approximately 8 million a day, which is what it will  
12 balance out, based on our best estimates of the plant,  
13 those we determined were reasonable for the Commission to  
14 require that for those three wells because in large  
15 measure of their proximity to that projected acid gas  
16 plume after 30 years.

17 We then -- and we followed the same process  
18 for each of the four wells. And we came up with those  
19 three being -- you know, our recommendation to Agave was  
20 yes, let's proceed and make plans to plug those according  
21 to the requirements of the order.

22 When we went back and reviewed the Smith  
23 Federal Well, however, we felt that kind of it was like  
24 the reverse of throwing the baby out with the bath water.  
25 It's like the baby got thrown in with the bath water

1 here.

2 We believe that there's some fundamental  
3 issues relative to the plugging status of the well, four  
4 basic independent lines of evidence that indicate to us  
5 that that well is not a potential conduit for acid gas  
6 out of the injection zone. And those four independent  
7 lines of evidence we reviewed and had prepared.

8 And based on that, we recommended to Agave  
9 that we come back to the Commission with this new data,  
10 new analysis, and present to the Commission why we  
11 believe that plugging the Smith Federal is not necessary  
12 for protecting either other production zones in the area,  
13 the integrity of the injection zone, or any surface  
14 release of acid gas or freshwater impact.

15 Q. And what was the measurement of the radius  
16 that you testified to during the December hearing?

17 A. Based on our calculation, the well will, after  
18 30 years, have an approximate radius of about .39 miles  
19 away from the well in terms of the extent of the plume of  
20 acid gas away from the well.

21 Q. And your recommendation to Agave resulted in  
22 the motion that I filed on behalf of Agave in our hearing  
23 today; is that correct?

24 A. Yes, sir.

25 Q. If you'll move to the next slide, what's the

1 technical basis for your conclusion regarding the Smith  
2 Federal Number 1?

3 A. As I mentioned, there's really four different  
4 and separate lines of evidence. The well's current  
5 plugging configuration is adequate to protect the Cherry  
6 Canyon Zone, and it will prevent the potential for acid  
7 gas to leave the injection zone if that acid gas were  
8 ever even to potentially come into contact with the well.  
9 And I'll go through each of these in more detail. That  
10 was an important issue.

11 The second issue, and perhaps the second and  
12 third, are -- really go together. The Smith Federal is  
13 located almost three-quarters of a mile or about  
14 three-quarters of a mile -- I think it's actually .76  
15 miles away from the location of the proposed AGI. That  
16 is significantly farther, almost twice the distance for  
17 all of the other three wells that are part of the order,  
18 the Simms and the Government 1 and 2.

19 And because of that, the area impacted by  
20 injection, if we calculate -- we all know that the  
21 circular or cylindrical model is only an approximation.  
22 However, even if we were off by a factor of three in our  
23 assessment of the shape or volume of the plume that would  
24 be created after 30 years of injection, this well would  
25 still fall outside of that radius.

1           In other words, if we either had a porosity  
2   that was -- or an ultimate reservoir capacity that was a  
3   third of what we think it is, or we injected more volume  
4   than we thought, we would still have only about a  
5   three -- with a 3X safety factor, we're still outside of  
6   that .76-mile distance to the Smith Federal.

7           And lastly, while we -- and I testified in the  
8   original hearing that I did not think that the dip made a  
9   huge difference in terms of the ultimate configuration of  
10  the plume, we did concede that the fact that the Cherry  
11  Canyon Zone is more porous and more productive to the  
12  north and to the northeast of the proposed well, that if  
13  there was any effect at all of the dip, it would result  
14  in migration preferentially to the north and northwest.  
15  And this well is located southeast of the proposed well.

16           So when you put all four of these lines of  
17  evidence together, it seemed to make sense to us that it  
18  would be reasonable to exclude this well from those  
19  re-entry requirements.

20           Q.     Just to clarify something in your third bullet  
21  point there in that slide, how did you calculate that 3X  
22  safety factor?

23           A.     Sure. We calculated the volume of acid gas  
24  that would be injected into the reservoir over the  
25  30-year period at an average rate of -- if I recall

1 correctly, I testified in the original hearing it was  
2 just around 8 million cubic feet a day.

3 And based on that volume, and then based on  
4 the porosity and irreducible water saturation within the  
5 reservoir, we calculated how much volume that plume would  
6 take up in a circular model or a cylindrical model in the  
7 reservoir, and that was a radius of .39 miles.

8 Then what we did was essentially assume that  
9 either we reduce the porosity, because there is some  
10 variation in porosity, so we reduced the porosity to a  
11 third of what the porosity is that we see on the logs, or  
12 we increase the volume by threefold, and then we looked  
13 at what radius would be affected. And that radius would  
14 be .68 miles if we did it three times. And so that's how  
15 we calculated that factor.

16 Q. If you could move to the next slide, please?

17 A. So then these next slides really summarize our  
18 analysis for each of these lines of evidence that I'm  
19 speaking of here.

20 The first one is relative to the cementing and  
21 the current plugging configuration in the Cherry Canyon.  
22 Just to refresh everybody's recollection, this well is a  
23 well that has been drilled and plugged, and it extends  
24 well below the Cherry Canyon, and it has a 9 5/8-inch  
25 casing that runs from about 5,200 feet to 12,400 feet,

1 which spans the Cherry Canyon Zone from 6215 to 6515.

2 Prior to plugging, the well was killed with  
3 heavy brine mud which filled the casing. They also then  
4 did a squeeze job at 6,900 feet, which is about 400 feet  
5 below the Cherry Canyon, and they injected 100 sacks of  
6 cement with a retainer set at 6,870.

7 And interestingly enough, this was a point  
8 that Commissioner Bailey raised in our original hearing  
9 in asking me about the cementing across there. And while  
10 it's difficult to say exactly where that cement is  
11 actually that was done from that squeeze job, because we  
12 don't have a bond log, my calculations show that it  
13 extends up into at least a portion of the Cherry Canyon,  
14 probably about the lowermost 60 or 70 feet of the Cherry  
15 Canyon. And that's based on a conservative 1.2 cubic  
16 feet per sack of the cement in the squeeze job, as best  
17 we can tell from the plugging records.

18 Then that well -- they pulled the casing from  
19 5,254 and then had two substantial plugs that were set  
20 over that casing stub and then an additional plug set  
21 above that. And of course, the surface casing remains in  
22 that well, cemented to the surface.

23 So in our view, the squeeze job, the spots  
24 combined with the heavy mud, effectively isolate the  
25 casing between 5,100 and 6,900 feet, which protects the

1 Cherry Canyon.

2 In this next drawing, you can see a blowup of  
3 the zone that we are interested in in the well. Here is  
4 where approximately the Cherry Canyon is. We had heavy  
5 brine mud that filled both the borehole inside there and  
6 then a set of plugs within the borehole and above here,  
7 and then here is the squeeze.

8 Now, we haven't attempted to show this to  
9 scale in terms of where that cement would lie. But as I  
10 said, in my calculations, between the 9 5/8 and the  
11 12 1/4-inch bore, that cement from this squeeze job would  
12 extend into the base of the Cherry Canyon here. So that  
13 covers the cementing of the well itself.

14 As I mentioned, of course we still have all of  
15 this surface casing, which is 13 and -- I'm sorry 13 3/8,  
16 all the way down to 5,200 feet, and it is cemented all  
17 the way to the surface with 4,400 sacks of cement.

18 So we clearly have isolated the upper zones,  
19 which are the productive zones in this area. And we have  
20 isolated the lower zones that are potentially productive  
21 in this area as well in this well.

22 Q. You alluded to the question that the  
23 Commission Chair posed to you during the previous  
24 hearing, which specifically was: Is there unprotected  
25 annulus in the well from 6,450 to 5,300?

1           As you sit here today, would your answer be  
2 different than the one you gave her in December?

3           A.     Well, what I said is I couldn't tell exactly.  
4 And you know, I can't define exactly what the limits of  
5 that cement are. But based on the calculations, it's  
6 reasonable to anticipate that certainly the basal portion  
7 of that Cherry Canyon is isolated there, and we do have  
8 casing with cement across it.

9           The next item that I raised, which is the  
10 distance of the well, and I think this map shows it  
11 pretty dramatically. If you see, this is -- the red  
12 circle right here is the approximate extent of acid gas  
13 after 30 years of injection.

14           And this is important to note. If you look at  
15 where the three other wells are that we're referring to,  
16 we've got the Simms, which is located right here; we have  
17 the Government Number 2, which is located right here; and  
18 the Government Number 1, which is located right here.

19           Even though the Government 1 is also farther  
20 from this and not intersecting our anticipated radius of  
21 injection, it is in the direction where the Cherry Canyon  
22 is the most permeable and most likely deflection, if you  
23 will, of a circular or cylindrical model.

24           The Smith Federal --

25                   CHAIRMAN BAILEY: Could I interrupt?

1 THE WITNESS: Sure.

2 CHAIRMAN BAILEY: You said the well is  
3 located here, the well is located here. For the record,  
4 could you define north, south, east, west of the  
5 projected zone here?

6 THE WITNESS: Certainly. The Simms Number  
7 1 Well is located approximately .4 miles to the northwest  
8 of the proposed well. The Government Number 2 is located  
9 approximately .4 miles to the east, or slightly  
10 northeast. The Government Number 2 is located  
11 approximately .7 miles to the northeast of the proposed  
12 location and to the northeast of the Government Number 2.  
13 And then the Smith Federal is located approximately .75  
14 miles to the southeast of the proposed AGI.

15 CHAIRMAN BAILEY: Thank you.

16 THE WITNESS: This yellow circle shows the  
17 calculated radius with the 3X safety factor that I was  
18 discussing. So in other words, if our porosity really is  
19 significantly lower than we anticipate, we don't think  
20 there's any chance it's going to be three times off. But  
21 what we tried to do is show how far this well really is,  
22 in terms of its relative position, to the anticipated  
23 plume of acid gas after 30 years. So that covers the  
24 distance away from the well, as well as the area impacted  
25 by injection.

1           Now, the other and last item, as I mentioned,  
2 is just strictly the structural position. And this is a  
3 structure-contour map of the Cherry Canyon, which shows  
4 you that essentially the Smith Federal is approximately  
5 50 feet downdip of the position of the Red Hills AGI.

6           You can see that same thing here in this  
7 cross-section. So that you actually see that the Cherry  
8 Canyon Zones that we are proposing for injection,  
9 actually these lower Cherry Canyon Zones, are the primary  
10 zones we anticipate will be utilized, and the Smith  
11 Federal is south and east and downdip of that.

12           Q.     (By Mr. Larson) Alberto, you had another  
13 slide with a cross-section?

14           A.     Right. I mean I think -- yeah. The  
15 cross-section, that is what I just showed, right. You  
16 can see how it is downdip from the Smith Federal.

17           And in summary, you know, Agave has initiated  
18 a plugging program for the following three wells: The  
19 Government Number 2 -- and I can give you an  
20 up-to-the-minute or I guess up to about an  
21 hour-and-a-half-ago report on where we are with the  
22 Government Number 2.

23           Yesterday we milled a grand total of about 19  
24 feet, because there's some metal junk mixed in with the  
25 cement plug at 550 feet in that well. But this morning,

1 when I talked to our site supervisor, he informed me that  
2 it looked like they had made about a foot and a half in  
3 about half an hour this morning, which was a lot better  
4 than what they were doing yesterday.

5 And they are monitoring the returns in the mud  
6 pit. And if it appears that they're through the metal  
7 junk that they were milling through yesterday, they'll  
8 trip out of the hole, go back in with a more aggressive  
9 bit, and hopefully we can make some quicker progress.

10 But this is the typical thing that you  
11 encounter in some of these old wells that are plugged.  
12 You don't know what people have actually put in them.  
13 Here it appears there was just a piece of tubing or pipe  
14 stuck in the cement itself, in the cement plug, that we  
15 had to mill through. So that's where we are with the  
16 Government Number 2.

17 Our plan is that we would move from the  
18 Government Number 2, which is actually the most difficult  
19 of the three wells to address, because it has casing that  
20 has been pulled from the Cherry Canyon Zone. So we  
21 wanted to do that one first. And we're moving along. I  
22 hope to have it completed by this time next week.

23 Then we will move to the Government Number 1  
24 and do it, and then to the Simms Number 1. And depending  
25 on the outcome of this request, we would either remove

1 the Smith Federal from the plugging program or we would  
2 continue and plug it after the Simms Number 1.

3 As I mentioned, we have -- or as Jennifer  
4 mentioned, we have -- Geolex prepared for Agave some  
5 detailed remediation plans for these wells. Agave has  
6 obtained access from all the landowners. We've done the  
7 surface prep for the three wells that we're currently  
8 working on, and we are executing the plugging program for  
9 those wells in the sequence that I just laid out.

10 Both the districts in the case of the Simms 1  
11 and Government 2 have approved the C-103s with the  
12 plugging program. And I have been informing, or our site  
13 manager, one of us, has been in contact with E.L. at the  
14 district on a daily or every-other-day basis to give him  
15 progress on these wells. And we'll do the same thing on  
16 the Simms Number 1 to the BLM and the OCD on the  
17 Government Number 1.

18 So for the reasons that I detailed earlier, we  
19 believe it is prudent and safe to leave the Smith Federal  
20 in its current condition and that it doesn't pose any  
21 significant hazard to the Cherry Canyon or to adjacent  
22 formations because of the four lines of evidence that I  
23 discussed.

24 So we would request that the Commission  
25 reconsider the need to re-enter and remediate that

1 particular well, because we believe its current condition  
2 is protective of the environment and of public health and  
3 of correlative rights.

4 Q. Is it your professional opinion that the  
5 current plugging condition of the Smith Federal Number 1  
6 is sufficient to protect the Cherry Canyon?

7 A. I'd say yes, it is, in conjunction with all  
8 four of the lines of evidence that we discussed.

9 Q. And in your opinion, is there any reasonable  
10 likelihood that the TAG plume created by the injection of  
11 CO2 and H2S will reach the Smith Federal Number 1?

12 A. No. I'm convinced that it will not.

13 Q. In your opinion, would it be appropriate and  
14 reasonable to require Agave to spend a quarter of a  
15 million dollars to re-enter and re-plug the Smith Federal  
16 Number 1 Well?

17 A. No, I do not. That's why I made this  
18 recommendation.

19 MR. LARSON: Madam Chair, I move the  
20 admission of Agave Exhibit Number 1.

21 CHAIRMAN BAILEY: It is admitted.

22 (Exhibit 1 was admitted.)

23 MR. LARSON: Thank you. That's all I have  
24 for Mr. Gutierrez.

25 CHAIRMAN BAILEY: Commissioner Dawson, do

1 you have any questions?

2 COMMISSIONER DAWSON: I do have a few  
3 questions.

4 EXAMINATION

5 BY COMMISSIONER DAWSON:

6 Q. On your cross-section -- can you go to the  
7 cross-section that you have on your presentation, please?

8 A. Yes, sir.

9 Q. The Smith Federal Number 1 -- okay. The Smith  
10 Federal Number 1, is that the far -- I can't really read  
11 this very well.

12 A. Sure. I'm sorry. Let me see if I can blow it  
13 up a little.

14 This is the Smith Federal Number 1, right  
15 here. And if you look at the trace of the cross-section,  
16 you can see -- the cross-section doesn't really go  
17 through the Red Hills AGI, but the location of the Red  
18 Hills AGI is projected onto it.

19 So there's this well, and the next well is the  
20 Smith Federal, and then the bottom well in this  
21 cross-section is way down here. So those wells are --  
22 the AGI well site is here. It would be projected into  
23 the same location as that well that is located to the  
24 east of it. And then this is the Smith Federal, right  
25 here.

1           If you go back to the map again, to the  
2 cross-section line, you can see this well right here is  
3 the one that's right next to where we would project the  
4 Red Hills AGI. It's on strike with that one. And then  
5 here is the Smith Federal. It's the next one along the  
6 cross-section.

7           So it would be -- this is the Smith Federal.  
8 And this is the one that is -- essentially we believe to  
9 be what we will encounter when we drill the Red Hills  
10 AGI. It's directly on strike with the well.

11          Q.     What well is that? What's the name of that  
12 well, the one that you're using as an analogy here?

13          A.     That well right here is the Government Number  
14 2.

15          Q.     On the far right well located on your  
16 cross-section that has the blue arrow on it --

17          A.     Yes, sir.

18          Q.     Can you go back to your cross-section?

19          A.     Yep. This well right here.

20          Q.     Yeah. It indicates that there's some  
21 perforations in that zone that's planned to be injected  
22 into?

23          A.     Yes, sir.

24          Q.     Do you know how old that well is and/or when  
25 it was drilled and completed?

1           A.     Right off the top of my head, I don't.  But  
2     that well was in our -- I believe in our original  
3     application.  Let me see if I can find that information  
4     for you.

5                     It is quite -- just so that we put it in  
6     context, though, it is quite a ways away from -- that  
7     well is all the way down here, almost three miles away  
8     from the current proposed AGI site.  So that well is this  
9     one down here.

10           Q.     Yeah.  But it was a Cherry Canyon producer at  
11     one time?

12           A.     It was perforated in the Cherry Canyon.  I  
13     don't think it produced anything but water out of the  
14     Cherry Canyon.

15           Q.     It was not a prolific or a commercial well?

16           A.     No, it was not.

17           Q.     When you prepared this cross-section, what did  
18     you hang that cross-section on?  Is that a structural or  
19     a stratigraphic cross-section?

20           A.     No.  It's essentially a structural  
21     cross-section.  We just hung it on --

22           Q.     Ground level ground elevation?

23           A.     Yes.  That's right.

24           Q.     So on your plugging is not needed slide --

25           A.     Yes, sir.

1 Q. -- the Smith Federal Number 1 regarding  
2 plugging is not needed because current plugging  
3 configuration protects the Cherry Canyon, on your data  
4 that you used for the plugs that were above and below the  
5 Cherry Canyon, that was from the completion card from the  
6 well? Is that where you got that information, or from  
7 the OCD well files?

8 A. Yes, sir.

9 Q. Did it have any indication as to what pound  
10 the heavy brine mud that was utilized in --

11 A. No, it did not have a specific weight. There  
12 were some records on the drilling of the well that  
13 indicated that they were using about 10 1/2 to  
14 10 3/4-pound mud. So I can only assume that it would be  
15 that or maybe slightly heavier, if it had lost some  
16 fluid.

17 Q. Did you ever prepare a porosity map for those  
18 wells?

19 A. We did, as part of our original C-108. And in  
20 the original hearing we, presented it. And if you --

21 Q. I thought you did.

22 A. Yeah. And it basically had a sweet spot of  
23 porosity that extended to the east and northeast of the  
24 well, of the proposed AGI. As you went to the west and  
25 northwest, we basically went from about 170 feet of pay

1 to like 140 feet of pay. And then up to the northeast in  
2 the Cherry Canyon, we had close to 220 feet.

3 Q. Do you feel there's any potential for  
4 commercial Cherry Canyon production within that radius,  
5 that .68 radius?

6 A. Absolutely not, no.

7 COMMISSIONER DAWSON: I think that's all  
8 the questions I have. Thank you.

9 CHAIRMAN BAILEY: Commissioner Balch?

10 COMMISSIONER BALCH: I also have some  
11 clarifications, if you will, for the cross-section.

12 Good morning, Mr. Gutierrez.

13 THE WITNESS: Good morning.

14 EXAMINATION

15 BY COMMISSIONER BALCH:

16 Q. So if you go back to the cross-section, I'd  
17 just like to place myself geographically here in a  
18 vertical sense. You're planning on injecting in the  
19 bottom three zones?

20 A. It will depend on what we -- currently our  
21 approval is to inject into the Cherry Canyon, which could  
22 be any one of these zones. But generally our assessment,  
23 based on the nearest logs -- now granted, the old  
24 Government Number 2, they're old logs. So when we drill  
25 the well and have our own logs and our own core data,

1 we'll have a better sense.

2 But from everything we can tell right now, the  
3 most likely zones would be the bottom three or four zones  
4 there.

5 Q. And in the Government Number 2 well, which I  
6 think you --

7 A. This is essentially the Government Number 2.

8 Q. Could you give me a depth of the top-most  
9 Cherry Canyon and a depth of the bottom-most Cherry  
10 Canyon?

11 A. Yes, sir.

12 Q. I know this is in the record. I just want to  
13 refresh my memory.

14 A. The Government Number 2 Well, the bottom of  
15 the Cherry Canyon is approximately 6,450 feet, and the  
16 top is 6,150 feet. And as it turns out, there is a  
17 balance plug set -- we will set a balance plug across  
18 that zone. Right now, that zone is naked in the  
19 Government Number 2.

20 Q. In the Smith Federal, I'd like to locate the  
21 current plugs on my copy of that map or cross-section.

22 A. Okay. These are the current plugs in the  
23 Smith Federal. There was a squeeze of 100 sacks at 8,985  
24 feet, with six holes, which they squeezed 100 sacks into.  
25 There's actually a plug below that one, as well.

1 I don't have that right off the top of my  
2 head, where that plug is. But there is -- let me see if  
3 I can blow that up. I should have brought my original  
4 application.

5 Q. I'm glad it just wasn't my eyesight.

6 A. No, it's not.

7 So there is a cast iron bridge plug that was  
8 set at 10,250 feet. And they spotted -- it looks like  
9 33 -- I can't read it right here. I'll have to go back  
10 and look at the original record. It was so far below the  
11 area that we were going to --

12 Q. If you go to the cross-section, 6,900 feet  
13 would be about where on the cross-section?

14 A. Okay. In the Smith Federal Well, 6,900 feet  
15 would be approximately here, right about here, below the  
16 bottom of the Cherry Canyon. Because the bottom of the  
17 Cherry Canyon is at approximately 6,515 feet in the Smith  
18 Federal.

19 Q. And then I think the other plugs at 52 and 54,  
20 is that also on the cross-section? Was that above the  
21 cross-section?

22 A. The upper plug is going to be approximately  
23 here in the cross-section. It's near the top of the  
24 cross-section, yes. And that would be these two plugs up  
25 here. They're kind of at the bottom of the casing shoe

1 and across the connection between the intermediate and  
2 the surface casing.

3 Q. You said the difference in altitude is about  
4 50 feet --

5 A. Yes, sir.

6 Q. -- top structure?

7 A. Yes, sir.

8 COMMISSIONER BALCH: That's all I have.

9 CHAIRMAN BAILEY: Commissioner Dawson, do  
10 you have any more questions?

11 COMMISSIONER DAWSON: Yeah, I have one  
12 more question.

13 FURTHER EXAMINATION

14 BY COMMISSIONER DAWSON:

15 Q. You said you were in contact with the district  
16 office, and they have approved your C-103s, your sundry  
17 notices --

18 A. Yes, sir.

19 Q. -- for the work plan?

20 A. Yes, sir.

21 Q. You said, "E.L." Who is --

22 A. That's Elidio Gonzales. He is the acting  
23 district director at the Hobbs District.

24 Q. Did the OCD personnel -- did they come out, or  
25 are they planning on coming out and witnessing any of

1 these pluggings?

2 A. We've certainly made that available to them.  
3 They haven't come out yet to see the Government Number 2.  
4 But frankly, it's not very exciting right now.

5 When we get to where we are actually in that  
6 one, drilling out the bottom of -- drilling back into the  
7 open hole where the casing has been pulled, I think they  
8 probably will come out at that point.

9 But we're keeping them apprised on a daily  
10 basis of, you know, our progress. And they're certainly  
11 welcome to come out any time.

12 COMMISSIONER DAWSON: No further  
13 questions. Thank you.

14 EXAMINATION  
15 BY CHAIRMAN BAILEY:

16 Q. Has E.L. Gonzales told you about the plugging  
17 program, that he has saved us three-quarters of a million  
18 dollars on the plugging program that was just completed  
19 using Basic as a plugger?

20 A. No, he hasn't. I haven't spoken to him about  
21 that.

22 Q. I was just wondering why Basic would be  
23 charging you a quarter of a million dollars per well, if  
24 there were some unusual circumstances, when that number  
25 is so much higher than what the OCD has been paying this

1 summer.

2 A. I don't know, Commissioner Bailey. I think it  
3 depends on each individual well. You know, I mean the  
4 AFE that we have for those wells from Basic runs  
5 approximately somewhere between 175- to 200,000 or so per  
6 well just for Basic's services.

7 I think the quarter million dollars also takes  
8 into account the surface access agreements, the -- our  
9 services, overseeing the plugging, the permitting, and  
10 the actual reclamation of the site afterwards, the  
11 surface work that has to be done.

12 But I don't know how deep the wells were or  
13 what plugging had to be done. But I think in most cases,  
14 where they're talking about plugging wells that haven't  
15 been plugged, they're not having to go and drill out all  
16 these old plugs. I think that's mainly what's taking the  
17 time.

18 Q. Have you notified the affected parties within  
19 the AOR of your request to not plug this well?

20 A. We provided notice to Mr. Bruce. We have not  
21 re-noticed everyone that was noticed in the original  
22 hearing.

23 Q. So affected parties within this Area of Review  
24 may not be aware of your application today, other than  
25 Mr. Bruce's client?

1           A.       Yes.  Except for the fact, if we recall that  
2   from the -- in terms of operators in the area, it was a  
3   unitized area that Kaiser-Francis is operating.  So  
4   they're the sole operator in that area.

5                   And certainly the surface owners, the primary  
6   surface owners, the Maderas, are well aware of our plans,  
7   since we had obtained access from them not only for these  
8   wells, but in fact we purchased the land to build the  
9   plant on from them.

10                   But we have not gone out and specifically  
11   notified -- re-noticed everyone that was originally  
12   noticed.  Although, in my mind, that was only the surface  
13   owners, the Maderas and the unitized operators,  
14   Kaiser-Francis, in that whole one-mile area.

15                   CHAIRMAN BAILEY:  Those are all the  
16   questions I have.

17                   Do you have any redirect?

18                   MR. LARSON:  I do not.

19                   CHAIRMAN BAILEY:  Then you may be excused.

20                   Do you have a closing statement?

21                   MR. LARSON:  I do.  In accordance with the  
22   requirements of Order Number R-13507, Agave has moved  
23   forward with analyzing plugging data on the four wells  
24   identified in the order and has actually moved forward  
25   with re-entering and re-plugging three of those wells.

1                   However, Agave's witnesses, I think, have  
2 demonstrated today that it's neither necessary nor cost  
3 effective for Agave to re-enter and plug the Smith  
4 Federal Number 1 Well. Accordingly, I request that the  
5 Commission grant the relief requested by Agave in its  
6 motion. Thank you.

7                   CHAIRMAN BAILEY: Commissioners, would you  
8 like to go into closed session to debate?

9                   COMMISSIONER BALCH: I'll move to go into  
10 closed session.

11                   COMMISSIONER DAWSON: I'll second.

12                   CHAIRMAN BAILEY: All those in favor?

13                   In accordance with New Mexico Statute 10-15-1  
14 and the OCC resolution on Open Meetings, we will go into  
15 closed session to debate this case.

16                   (Whereupon the Commission went into closed session.)

17                   CHAIRMAN BAILEY: Do I hear a motion to go  
18 back on the record?

19                   COMMISSIONER DAWSON: I will motion.

20                   COMMISSIONER BALCH: And I will second.

21                   CHAIRMAN BAILEY: All those in favor?

22                   We are coming back on the record from a closed  
23 session that was conducted in accordance with New Mexico  
24 Statute 10-15-1 and the OCC resolution on the Open  
25 Meetings. The only thing that was discussed was the acid

1 gas injection well.

2 And the unanimous decision of the Commission  
3 is to grant the request. I asked Mr. Larson to develop a  
4 draft rule for the attorney to save him some time and  
5 some effort

6 MR. LARSON: Certainly in the form of a  
7 proposed draft order?

8 CHAIRMAN BAILEY: Yes. I meant order, not  
9 rule.

10 Okay. Is there any other discussion or  
11 business before the Commission today?

12 MR. BRANCARD: Madam Chair, just to  
13 clarify, you'll do a formal motion at the time the order  
14 is approved?

15 CHAIRMAN BAILEY: Okay. Yes.

16 Do I hear a motion to approve the application  
17 to develop an order approving the application?

18 COMMISSIONER BALCH: I will make that  
19 motion.

20 COMMISSIONER DAWSON: And I will second.

21 CHAIRMAN BAILEY: All those in favor?

22 Any other business? Okay. Thank you very  
23 much.

24 (The hearing was concluded at 10:45 a.m.)

25

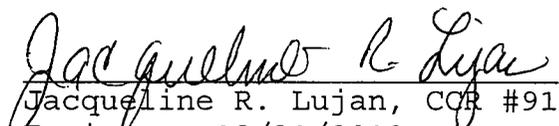
## REPORTER'S CERTIFICATE

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I, JACQUELINE R. LUJAN, New Mexico CCR #91, DO  
HEREBY CERTIFY that on June 28, 2012, proceedings in the  
above captioned case were taken before me and that I did  
report in stenographic shorthand the proceedings set  
forth herein, and the foregoing pages are a true and  
correct transcription to the best of my ability.

I FURTHER CERTIFY that I am neither employed by  
nor related to nor contracted with any of the parties or  
attorneys in this case and that I have no interest  
whatsoever in the final disposition of this case in any  
court.

WITNESS MY HAND this 11th day of July, 2012.

  
Jacqueline R. Lujan, CCR #91  
Expires: 12/31/2012