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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 FAE II OPERATING, LLC TO CONVERT PRODUCING WELLS TO INJECTION WELLS FOR WATERFLOOD OPERATIONS, LEA COUNTY, NEW MEXICO.

CASE NO. 22593

REPORTER'S TRANSCRIPT OF VIRTUAL PROCEEDINGS EXAMINER HEARING March 3, 2022 SANTA FE, NEW MEXICO

This matter came on for virtual hearing before the New Mexico Oil Conservation Division, HEARING OFFICER WILLIAM BRANCARD and TECHNICAL EXAMINER DEAN McCLURE on Thursday, March 3, 2022, through the Webex Platform.

Reported by: Irene Delgado, NMCCR 253 PAUL BACA PROFESSIONAL COURT REPORTERS 500 Fourth Street, NW, Suite 105 Albuquerque, NM 87102 505-843-9241

Page 2 APPEARANCES For the Applicant: DANA HARDY HINKLE SHANOR LLP P.O. Box 0268 Santa Fe, NM 87504 505-982-4554 INDEX CASE CALLED SUMMARY OF CASE AND EXHIBITS TAKEN UNDER ADVISEMENT REPORTER CERTIFICATE EXHIBIT INDEX Admitted All Exhibits and Attachments

Page 3 1 HEARING EXAMINER BRANCARD: Good afternoon, 2 everyone. It is still March 3, 2022. This is still the hearing of the New Mexico Oil Conservation Division. 3 4 Continuing on today, we have managed to get through 67 items on the agenda, we have two more to go, piece of cake. 5 6 So our items today, this afternoon, are 22593, 7 FAE Operating, and 22599. So I'm going to start with 22593, 8 FAE II Operating LLC. 9 MS. HARDY: Good afternoon, Mr. Examiner. Dana 10 Hardy on behalf of FAE II Operating LLC. HEARING EXAMINER BRANCARD: Thank you. Is there 11 12 anyone else here today for Case 22593, LaMunyon. I should 13 say, with us today is distinguished Examiner Phillip Goetze, 14 who I believe will be taking his seat to join us. How are you, Mr. Goetze. 15 MR. GOETZE: Yes, sir, I'm ready to go. 16 17 HEARING EXAMINER BRANCARD: With that, Ms. Hardy, 18 you may begin your presentation. MS. HARDY: Thank you. FAE seeks an order 19 authorizing it to convert its CE LaMunyon Well Number 71Y, 20 73, 74, 75, 76, 77, 80 and 81 from producers to injectors 21 within its CE LaMunyon lease waterflood project which is in 22 23 the McKee zone of the Simpson formation located in Sections 24 22, 27 and 28, Township 23 South, Range 37 East, in Lea 25 County. FAE also seeks authorization to convert future

1 producers to injectors administratively.

2	The approved project area consists of 320 acres
3	of the following land in Township 23 South, Range 37 East,
4	the NW/4 of the SW/4 and the S/2 of the SW/4 of Section 22,
5	the NW/4 of Section 27, and NE/4 of the NE/4 of Section 28.
6	The project was approved by order R-3297 and was
7	expanded by order WFX 299, and the acreage involved in this
8	project is federal.
9	Our exhibits include the affidavit of Steven
10	Lehrbass who addresses land issues, Charles Hooper who
11	addresses geology, and Vanessa Neal who addresses
12	engineering.
13	Mr. Lehrbass has previously testified and been
14	recognized as an expert in petroleum land matters. His
15	exhibits include a plat of the tracts and ownership, a map
16	of the injectors and producers and C-108s, the hearing
17	notice letter and an affidavit of publication. And we did
18	timely provide notice to all affected parties both by
19	certified mail and publication, and we didn't receive any
20	objection. The BLM because it owns the minerals was also
21	notified by certified mail and it did receive our notice.
22	Mr. Hooper is a geologist who has not previously
23	testified before the Division. His CV is attached to his
24	affidavit as Exhibit C-1. His exhibits include the type
25	log, structure map and cross section. He concludes there

are no faults or geologic impediments that would impede the
efficiency of the project.

He also states that injection will not impair hydrocarbon bearing zones, that injection fluid will be confined to injection intervals and that there is no hydrogeologic connection between the injection interval and any drinking source of water. Based on his analysis, he states that granting the application will protect correlative rights and prevent waste.

10 Miss Neal is the vice president of engineering at 11 FAE. She has not previously testified before the Division 12 and has provided her CV as Exhibit C-1. Her other exhibits 13 include a production curve and an incremental production and 14 economic summary.

Miss Neal states that granting the application will serve the interests of conservation, the production of waste and protection of correlative rights. With that, I ask FAE's witnesses be qualified as experts and the exhibits be admitted and I do have the witnesses available for questions from the Division.

21 (Audio-video connection disrupted.)

22 TECHNICAL EXAMINER McCLURE: You are muted,23 Mr. Brancard, if you are talking.

24MR. GOETZE: Is he still there? He may have gone25away.

Page 6 1 TECHNICAL EXAMINER McCLURE: You could probably 2 step in, or do you want to wait for Bill. 3 MR. GOETZE: The Examiner is always critical, but 4 we do have questions for some of your witnesses. We will give you a heads up on that. 5 6 MS. HARDY: Thank you. I expect that you would. 7 There he is. HEARING EXAMINER BRANCARD: Hello? Hello? I go 8 9 to the office thinking my bandwidth is better, but 10 apparently not. Can you hear me now? MS. HARDY: Yes, we can. 11 12 HEARING EXAMINER BRANCARD: I was, you know, 13 lifting my right hand saying, "Can all the witnesses raise 14 their right hands." 15 MS. HARDY: See if they can crowd into --HEARING EXAMINER BRANCARD: There they are, 16 17 perfect, excellent. Now I can look at little pictures. 18 (Oath administered to witnesses collectively.) HEARING EXAMINER BRANCARD: Good job. So first 19 issue, Ms. Hardy, was qualifying these witnesses as experts 20 today so they could offer their opinions. Do we have any 21 problems with that, Mr. Goetze? 22 23 MR. GOETZE: No, they are appear to be qualified 24 based on their backgrounds. 25 HEARING EXAMINER BRANCARD: So we will qualify

Page 7 1 these experts as witnesses for the areas that you have 2 indicated, Ms. Hardy. 3 MS. HARDY: Thank you. 4 HEARING EXAMINER BRANCARD: I guess so we start with you, Mr. Goetze, with some questions. 5 MR. GOETZE: Sure. First item, this waterflood 6 7 currently is nonexistent. Do you understand that? 8 UNIDENTIFIED WITNESS: Yes. 9 MR. GOETZE: Wait. Let's do this, this was to 10 Ms. Hardy and we'll follow up. Who else, who would speak on that matter? 11 12 MS. HARDY: Mr. Goetze, it was my understanding 13 that the production within this project has been maintained, 14 and that (inaudible) converting the injection wells. 15 TECHNICAL EXAMINER GOETZE: Unfortunately when Gulf made application for conversion of one of the wells 16 SWD, they shut down in a letter July 8, 1977. Surprisingly 17 it is not in the well file or in the order, but what it is 18 is that essentially Gulf at that time was waterflood 19 operations had been discontinued, the last two producing 20 wells, 6 and 7, have been plugged and abandoned and 21 recompleted to another zone. So they took the Number 9, 22 LaMunyon Number 9 and turned it into a saltwater disposal 23 24 zone using the same Simpson interval. 25 Not that I am -- I'm going here is the question,

Page 8 you still want to maintain the same configuration for this 1 2 waterflood, in other words the same acreage, is this 3 adequate? 4 MS. HARDY: I think that would be a question for Mr. Lehrbass. 5 6 MR. LEHRBASS: Yes, that's correct. 7 TECHNICAL EXAMINER GOETZE: Okay. And you 8 have -- these are all federal leases with, with only FAE as the working interest, and so you have control over this same 9 10 outline of the project area that was there already? MR. LEHRBASS: It's a single federal lease, yes. 11 12 MR. GOETZE: Okay, very good. So next item, 13 since we are going -- well, there was couple of things in 14 review of the C-108, we have a discussion of 600 barrels of 15 water, I assume that's 600 barrels per well per day? And that would be a question for --16 17 MS. NEAL: That's correct. MS. HARDY: Ms. Neal. 18 19 MS. NEAL: Yes, that's correct. TECHNICAL EXAMINER GOETZE: Okay. Thank you, Ms. 20 Then I will probably direct the next thing to you, 21 Neal. also, Ms. Neal. Right now we are looking at -- there was 22 23 the discussion on the pressure gradient. To clarify that, 24 the shallowest one you have in there is the Number 76. You 25 folks have had talked about 1400, actually you would be able

Page 9 to go up to as much as 1837 PSI without getting a step rate 1 2 test, so you're aware that; correct? 3 MS. NEAL: Yes. I know the original order was 4 also assuming injection at 2000 PSI originally. 5 TECHNICAL EXAMINER GOETZE: That was 1967. And 6 the other thing, too, in the discussion of reviewing it, it 7 is my understanding you are pulling for (inaudible) in the 8 McKee sands within the upper portion of the Simpson; 9 correct? 10 MS. NEAL: It will be flooding the same sand that was flooded in the past, so we are doing a -- correct. 11 12 TECHNICAL EXAMINER GOETZE: And typically, based 13 on some of the perf locations, they stuck lower, so I just 14 wanted to make sure of that. Let's see. 15 So for Ms. Hardy, essentially what we would do is process this project using the same outline establishing new 16 17 waterfloods. You would provide us with the information of reserves potential. I do have requests for supplemental 18 information. And so get out your note pad. 19 20 MS. HARDY: I'm ready. 21 TECHNICAL EXAMINER GOETZE: Okay. First item, would you provide a better quality of the log you used for 22 23 the type section? Looking at it you can't see the numbers, 24 you can't -- I mean I can see where you are -- where you 25 are looking at the injection and zones. I would like -- if

you could break it up so we could see it with a little
clarity, I would like to see that.

3 MS. HARDY: Okay. 4 TECHNICAL EXAMINER GOETZE: Second item, plan of 5 operation. Now, we talk about injection and typically with injection and waterflood projects, not only do we want to 6 see what you are doing with the injections, but provide us 7 8 with at least some sort of plan of operation with producers. 9 My main concern here is that we got your 10 injectors are in a pattern which is on the peripheral of the structure. In order to ensure a sense that we are looking 11 at correlative rights and not wasting, I would like a little 12 13 more clarification. We have a very good description about 14 injection, what are we doing with the production? 15 Third item, lab reports, in the world I work when

you get a lab report you give it all from the front cover 16 page to the chain of custody. This is an EPA requirement. 17 It's fine to give us the highlights of what you like, but at 18 the same time, lab reports, lab reports, and this is because 19 we raise questions or at least we are told to raise 20 questions about procedure, chain of custody, QACPC as far as 21 pulling times and analysis. So again, provide those in PDF. 22 23 Item four, and this is the one that's going to be 24 a little bit of a new concept for you folks. I would like 25 someone within the group to give an assessment who feels

confident enough about the situation or potential for
induced seismicity.

I would suggest looking at a ten-mile radius around at least this project area. The concern here is that we do have an observed certain events above 25 down in the draw area. They are attributed to not disposal, but to waterflood. And when Dr. Sanford did the work for WIPP, he also identified seismicity associated with waterflood in the central platform.

I'm not asking for Zoeback model or anything like this, I want consideration what activities were in the area and demonstration. So it can be pretty much a literature search as well as going through the earthquake catalogues. I want that -- what I'm looking for is the documentation.

15 The other thing I would like clarity on, even though this is a small operation, is your lower confining 16 17 layer, at least give a sense either through logs or geologic interpretation that there is separation at least from the 18 Ellenberger. The Ellenberger is notorious for being a very 19 porous formation and has caused issues with direct 20 communication. Again the scale of this project, I do not 21 feel it would be something along the line of a disposal 22 23 operation, but at the same time, we are looking at all 24 sources of induced seismicity whether it's fracking, 25 disposal, or secondary recovery.

Page 12 So there is four items there. Other than that 1 your submittal on March 1 answered al of my questions. 2 There was information on total recovery what's left in the 3 4 ground as well as the engineering side of the reservoir. 5 So with that, I have no more questions. 6 Mr. Brancard? 7 HEARING EXAMINER BRANCARD: I'm not hearing any responses from the witnesses. Are they okay with all of 8 those requests? Ms. Hardy? 9 10 MS. HARDY: Check out the witnesses, if they have an understanding of what they need to provide and whether 11 12 they can provide it. 13 MS. NEAL: We understand what you are requesting, 14 and we understand the reason for it, behind it, so --15 TECHNICAL EXAMINER GOETZE: I will reiterate. It's a good project, we have confidence in it and it's an 16 17 easy project to do. We just want to make sure the documentation is there should there be someone come back 18 down, and like I discovered this little letter from Gulf Oil 19 very deeply which changed everything. 20 21 So we are just dotting the t's and crossing the i's as we go. Okay? 22 23 MS. NEAL: Sounds good. 24 HEARING EXAMINER BRANCARD: As always, feel free 25 to contact Mr. Goetze if you have a question like what the

Page 13

1 heck does he mean by this.

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23

2 MS. NEAL: When would you like this documentation 3 by, a month?

4 TECHNICAL EXAMINER GOETZE: The sooner you get it 5 to us, the sooner we can write an order.

MS. NEAL: Okay, thank you.

7 TECHNICAL EXAMINER GOETZE: And hopefully we have overcome our past issues of paperwork. Okay? Thank you. 8 9 HEARING EXAMINER BRANCARD: Okay. I guess my 10 only question is, Ms. Hardy, is exactly what you are seeking in this case. So we have an existing waterflood project 11 12 from days of yore. Are we continuing that, or is this a new 13 project, or what -- where are we going with that? 14 MS. HARDY: Well, I think we're continuing the 15 project, although Mr. Goetze pointed out there is a letter buried very deep somewhere in the file that terminated the 16 17 project, and we did not see that anywhere in, in the files, of the well files, it sounds like it wasn't in them. 18 But I think we provided all the information 19 that's necessary to reinstate or continue the project and 20 convert the injection wells, especially since it's one 21 federal lease that's at issue, so we're not combining 22

24 HEARING EXAMINER BRANCARD: Mr. Goetze, would you

multiple leases or unitizing a larger area.

25 see us as writing a new order and basically approving a new

project and authorizing these wells to be converted into 1 2 injectors? TECHNICAL EXAMINER GOETZ: I would see this as 3 4 using the older water flood as a template for a project area 5 and then writing a new order for with new authority. 6 HEARING EXAMINER BRANCARD: Do you, given this is UIC, do you need individual orders for each individual well? 7 8 TECHNICAL EXAMINER GOETZE: No. This is area 9 permits so they would have the authority for multiple wells 10 within the project area to move about as they see. HEARING EXAMINER BRANCARD: Okay. As many of you 11 12 who follow me, I'm often trying to figure out exactly what 13 we have to do when we take a case under advisement. All 14 right. Mr. McClure, do you have any questions? 15 TECHNICAL EXAMINER McCLURE: No, I'm happy with leaving it with Phil. I have every faith. 16 17 HEARING EXAMINER BRANCARD: There's a vote of confidence. 18 19 TECHNICAL EXAMINER GOETZE: No, one less order to write, thank you. 20 21 HEARING EXAMINER BRANCARD: All right. Are there any other persons here with interests in Case 22593 FAE II 22 23 Operating. 24 (No audible response.) 25 HEARING EXAMINER BRANCARD: If not, Mr. Goetze,

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Page 15 do you think we are ready to take this under advisement, or 1 2 would you like to continue this case? TECHNICAL EXAMINER GOETZE: I don't think there 3 4 is a necessity for them -- if there is any questions I have, I can directly reach out to them, and so it's matter of just 5 procedural information. Unless of course we find we have an 6 earthquake down there suddenly, then they might be back, so. 7 8 Other than that, no, I think taking it under advisement would be good. Thank you. 9 10 HEARING EXAMINER BRANCARD: Ms. Hardy, did you -you got all of your exhibits before us. 11 12 MS. HARDY: I had requested they be admitted, I 13 don't think we heard a ruling on that. I think we lost you. 14 HEARING EXAMINER BRANCARD: There is no ruling on that, I was just trying to make sure that you admitted all 15 the ones you needed to. 16 17 MS. HARDY: Yes. 18 HEARING EXAMINER BRANCARD: So Case 22593, the exhibits will be admitted into the record and this case will 19 be taken under advisement. Thank you. 20 21 MS. HARDY: Thank you very much. 22 (Exhibits admitted.) (Taken under advisement.) 23 2.4 25

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1	STATE OF NEW MEXICO
2	COUNTY OF BERNALILLO
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4	REPORTER'S CERTIFICATE
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6	I, IRENE DELGADO, New Mexico Certified Court
7	Reporter, CCR 253, do hereby certify that I reported the
8	foregoing virtual proceedings in stenographic shorthand and
9	that the foregoing pages are a true and correct transcript
10	of those proceedings to the best of my ability.
11	I FURTHER CERTIFY that I am neither employed by
12	nor related to any of the parties or attorneys in this case
13	and that I have no interest in the final disposition of this
14	case.
15	I FURTHER CERTIFY that the Virtual Proceeding was
16	of poor to good quality.
17	Dated this 3rd day of March 2022.
18	/s/ Irene Delgado
19	
20	Irene Delgado, NMCCR 253 License Expires: 12-31-22
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