

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
October 22, 1969

EXAMINER HEARING

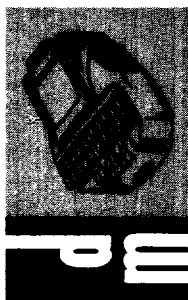
IN THE MATTER OF:)
)
)

Application of Resler and Sheldon)
for two waterflood projects, Lea)
County, New Mexico.)
)

CASE NO. 4223

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING



MR. NUTTER: We'll call next Case Number 4223.

MR. HATCH: Case 4223. Continued from the October 8, 1969, Examiner Hearing. Application of Resler and Sheldon for two waterflood projects, Lea County, New Mexico.

MR. WATSON: Neil B. Watson of the firm of Watson & Watson, Artesia, New Mexico, representing the Applicant, Resler and Sheldon.

(Whereupon, Applicant's Exhibits 1 through 6 were marked for identification.)

MR. WATSON: We have Mr. Vilas P. Sheldon, one of the co-owners and one of the Applicants, as the witness.

(Sworn in.)

MR. WATSON: For the record, Mr. Examiner, Order Number S1D102 was entered on May 20, 1969, and with reference to the Steeler Number One Well to permit the injection of salt water for disposal purposes in the Grayburg formation. I presume the Commission will take notice of that order.

MR. NUTTER: The Commission will take administrative notice of the order.

VILAS P. SHELDON

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. WATSON:

Q State your name, please.

A Vilas P. Sheldon.

Q You are one of the co-owners of Resler and Sheldon?

A Yes, sir. I am.

Q And you are one of the Applicants?

A Yes.

Q You have testified before the Commission before as an expert witness; right?

A I have; yes, sir.

Q You are a geologist?

A Yes. I am a geologist.

Q You are in active management of Resler and Sheldon and have been since its inception; is that correct?

A That is correct.

Q You are familiar with the application filed here -- the area of the particular wells and the purpose of the application?

A Yes, I am.

MR. WATSON: Are his qualifications acceptable? He stated he has testified here before.

MR. NUTTER: Yes, they are.

Q (By Mr. Watson) Your application is in two parts,

or, at least, involves two wells. Would you briefly state what the purpose of the application is, and with reference to each well, each area?

A The purpose of the application is to, as stated in the request, is for waterflood permits in the case of the Steeler Well. We propose to inject water into the Queen Penrose formation to stimulate production from offset wells. In the case of this Kelly Number Three Well, we propose to inject water into the Grayburg formation. Resler and Sheldon owns three offset wells, which have perforations open in the Grayburg formation.

Q Exhibit One and Exhibit Two are plats of the area of the Steeler Well and of the Kelly Well?

A Yes, they are.

Q Were those plats prepared by you?

A I prepared them -- yes, sir.

Q They show the wells involved, the additional wells of Resler and Sheldon and the wells of the other operators within a two-mile radius?

A That is correct. Yes, sir.

Q Have you notified all of the other operators within the two-mile radius of this application?

A Yes, we did.

Q Have any protests been received by you?

A Not by me.

MR. WATSON: Have any protests been received by the Commission?

MR. NUTTER: I don't believe there have been any.

Q (By Mr. Watson) All right. Is the Steeler Well committed to a quantity or any sort of a secondary recovery project at this time?

A No, sir. It is not.

Q How long have the Resler and Sheldon wells in this area been producing?

A Twelve and a half or thirteen years.

Q What is the state of the production from the wells at this time? Have they or have they not reached an advanced stage of depletion?

A They have. They're well under five barrels per well per day.

Q What quantities and under what pressures do you propose to inject water into the Steeler well?

A We propose to inject 500 barrels per day, initially, at -- on pressure or by vacuum, and later on, at whatever pressure it requires. I presume up to 2,000 pounds per square inch.

Q What would be the source of the water?

A We propose to secure water from the tank truck

companies operating in the area. It will be water -- it will be oil field brine that has to be disposed of.

Q How will this be injected into the formation?

A Down in the case of the Steeler Well. It will be injected down the annulus between the tubing and casing.

Q This is shown on your Exhibit Number Three?

A Yes, sir. It is. In the case of the Kelly Well, it will be introduced on the 2 3/8 inch tubing.

Q And that is shown on your diagramatic sketch of the Kelly Number Three well, Exhibit Number Four?

A Yes, it is.

Q Do you have anything else you wish to add with reference to the Steeler Well, Mr. Sheldon?

A I can't think of anything.

Q Does the Commission have any questions with reference to this, or do you wish to wait?

MR. NUTTER: Mr. Watson, go ahead, and I'll have some questions when you finish.

MR. WATSON: All right.

A (By Mr. Watson) With reference to the Kelly, Number One Well, you are seeking permission to dispose of salt water or have a secondary recovery program by injection of water in this well; is that correct?

A Yes, sir. That is correct.

Q The well and the lease of Resler and Sheldon and the leases within a two-mile radius are shown on your exhibits One and Two?

A Yes; that is true.

Q And you have received no objections?

A No, sir.

Q You have notified all of the adjoining operators in this area?

A Yes, sir. They were notified by mail.

Q All right. How do you propose to inject the fluid into this formation?

A Well --

Q And into this --

A Down the tubing, down the 2 3/8 inch tubing, initially, as in the other case. Initially, under vacuum. Later, a pump will be installed.

Q What quantities of water and from what source will the water be?

A Five hundred barrels per day. The source will be from tank truck. It will be oil field brine.

Q You propose to waterflood the Grayburg formation?

A Yes.

Q In this Kelly?

A The Grayburg formation.

Q Is there any presently completed secondary recovery program for waterflooding?

A No, there is not.

Q Or has there been any study made for this purpose?

A Yes, sir. Skelly Penrose C unit is a study. They contemplate forming a unit in the Langlie-Mattix Pool for water flood purposes in the Queen. They do not contemplate actual waterflooding of the Grayburg. However, it should be stated and openly stated that they do, that it is discussed to include the top 150 feet of the Grayburg in the Penrose C Unit, but I reiterate -- there is no plan to flood the Grayburg.

Q Have the wells on your Kelly lease, the Resler and Sheldon wells, have they reached an advanced state of depletion?

A Yes, they are possibly three barrels per day.

Q Have these wells virtually reached their economic limit of production through primary methods?

A So far as oil is concerned, yes. Very, very close. Resler and Sheldon still sells gas from the lease and will continue to do so regardless of this proposal.

Q Do you have anything else to add with reference to this Kelly Number Three Well?

A Insofar as waterflooding is concerned, I don't

believe so.

Q With reference to an alternate proposal to dispose of salt water into this well, do you have anything else to add?

A Really nothing additional. It is an alternative suggestion. In Resler and Sheldon's opinion, it would accomplish precisely the same purpose. It has been submitted on the form C-108 to the Commission. The various information desired. We have extra copies of that there.

Q Yes. You have an application to dispose and that application is on file?

A I believe the exhibit is self-explanatory. I'll be glad to discuss it at any length desired.

MR. NUTTER: I have one here for Kelly. Let's see. If I have one for the Steeler.

Q (By Mr. Watson) The Steeler has been approved for salt water disposal in the --

A In the Grayburg formation.

Q We're now seeking a secondary recovery program in the Queens formation and that is the only application you have there, I believe, is this letter of September 12. And we have another letter of September 12, which is the application to dispose of salt water in the Kelly. We'll mark these.

MR. NUTTER: Now, I've got the application to the Kelly.

Q (By Mr. Watson) You adopted these copies then?

A No, sir.

Q All right. Maybe we --

A There was no application for the Steeler submitted.

MR. WATSON: (To the Reporter) Would you mark these for me, please? These will be 7 and 8, please.

(Whereupon, Applicant's Exhibits 7 and 8 were marked for identification.)

Q I hand you Exhibits 7 and 8, which we are offering and ask you to state if those reflect the injection facility layouts with reference to a proposed secondary recovery program in the area that you testified about?

A Yes, I could testify to that.

Q Where did you obtain those?

A They represent the latest proposal of the two units that are being organized.

Q But those units have not been completed as yet?

A They are not official units. They have not been completed.

Q With reference to the application that you have pending here, what is shown with reference to the Steeler Well?

A The Steeler Well is not in either of the organizational units. It happens to lie between them.

Q With reference to the Kelly Number Three Well?

A The Kelly lease is within the proposed Skelly Penrose C Unit, but as stated earlier, the Skelly Penrose C Unit is being put together for consequent flooding. And I can quote, "No actual flooding of the Grayburg is planned." That comes from the organizational preliminary report of Penrose C Unit.

Q Did you prepare Exhibits 7 and 8?

A I did not.

Q I mean, were they prepared by you, from copies out of the proposed Skelly Unit?

A Yes, sir. And I have attended the meetings and verified the information thereon.

Q They are correct, as far as you know?

A I think so.

Q Did you also prepare Exhibits 1 and 2, the plat showing the location of the wells within two miles?

A Yes, I prepared this.

Q And did you prepare Exhibits 3 and 4, the sketch of the injection wells?

A I did, sir.

Q Exhibits 5 and 6, the logs, they were from the files

of Resler and Sheldon?

A They were from the files of Resler and Sheldon.

Q And Exhibits 7 and 8 were the ones you have just testified about?

A Yes.

Q We will offer Applicant's Exhibits 1, 2, 3, 4, 5, 6, 7, and 8.

MR. NUTTER: Applicant's Exhibits 1 through 8 will be admitted into evidence.

(Whereupon, Applicant's Exhibits 1 through 8 were admitted into evidence.)

Q (By Mr. Watson) Do you have anything else that you wish to add to your testimony, Mr. Sheldon, regarding these applications?

A No.

MR. WATSON: Does the Examiner have any questions?

MR. NUTTER: Yes, I do.

CROSS EXAMINATION

BY MR. NUTTER:

Q Now, first of all, Mr. Sheldon, referring to your Exhibit Number Two, which is the plat for the Kelly Well. Now, you mentioned that there were three producing wells on that lease, producing from the Grayburg. Which would those wells be, please?

A Three additional wells. They would be Wells 1, 2, and 4.

Q Okay. Now, the Number 2 is directly north?

A Directly north.

Q Number 4 is directly east?

A And the Number 1 is a diagonal northeast.

Q That's just west of the pump well on that plan, then, isn't it?

MR. WATSON: Yes, I believe it would be.

A No, it's 1980 from south and west.

Q (By Mr. Nutter) Well, now, the --

A The Number 1 Well is 1980 from the south and west corner of the section. It is a northeast diagonal acre across from the Number 3 Well.

Q Now, on this plat that I've got, I think there is another little well right west of that.

A Yes.

Q And so, that's the Grayburg well?

A That's the Grayburg well.

Q An injection into the Kelly Number 3 will be into the Grayburg formation and the perforated interval from 3555 to 3617; is that correct?

A That is correct. It is definitely Grayburg. It's alunitic lime. It's not sandstone.

Q And this is equipped with 10 3/4 inch casing with cement circulated, and with 7-inch casing at total depth -- or what is the depth of that?

A At the total depth of that?

Q Cemented with 600 sacks and you calculate the top of that cement would be 440 feet from the surface?

A That is the Halliburton table calculation.

Q Okay. Now, referring to the, and this would be waterflood, because there are three producing wells from the same formation that you are going to be injecting water into?

A Yes, sir.

Q Now, on this other well, there are actually no producing wells on the lease completed in the Penrose section of the Queen?

A Not the lease; no, sir. There is a well to the east.

Q On your May lease?

A On the May lease.

Q And is that well producing from the Queen?

A It's open. Yes, it's producing.

Q Now, the previous order for this Steeler Well authorized injection into the Grayburg from 3681 to 3689?

A That is correct.

Q And the schematic diagram that we have here is Exhibit Three, showing the perforations below the packer to be those 3681 to 3689, which was what was authorized by SWD102?

A Yes, sir.

Q But, now, you propose to go down the annulus and inject the water into the Queen formation and the perforations 3439 to 3562?

A That is correct; sir.

Q Those were above the packer?

A Or alternatively, we could move the packer.

Q Up above?

A Up above.

Q So, really, this would be for injection into the Queen and Grayburg?

A Well, we already have permission to inject in the Grayburg and are so doing. It's taking 500 barrels a day at the moment. It took --

Q Well, if we interceded this order with a new order, then, we would authorize injection from 3439 to the top of perforation in the Queen down to 3689 in the bottom of the perforation in the Grayburg?

A That would be extremely satisfactory; yes, sir, because there would be no purpose from our standpoint to

segregate the two, although the well is set up now, so that could be done very easily, and we could or would put a motor on each.

Q Well, wouldn't it be preferable to pull the packer up and set the packer above those perforations and then go down the tubing?

A It would be some safer from eventual corrosion; yes, sir.

Q I think the order from the Commission should specify that the injection be down the tubing.

A That would be most satisfactory. It is a retrievable packer. We would pull it right up.

Q Yes, sir. Do you have anything else, or are we straight now on the formation?

A Well, it takes quite a lot of study of those laws.

Q Does that take care of it?

A I think so.

Q Does anyone else have any further questions of the witness? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Watson?

MR. WATSON: No, thank you.

MR. NUTTER: Does anyone have anything to offer in

Case 4223? The hearing is adjourned.

I N D E X

<u>WITNESS</u>		<u>PAGE</u>
VILAS P. SHELDON		
Direct Examination by Mr. Watson		3
Cross Examination by Mr. Nutter		12
 <u>EXHIBIT</u>	 <u>MARKED</u>	 <u>OFFERED AND ADMITTED</u>
Applicant's 1 through 6	2	12
Applicant's 7 and 8	10	12

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, DAVID BINGHAM, a Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

David Bingham
 COURT REPORTER

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4223 heard by me on 10/22, 1969.

[Signature]
 Examiner
 New Mexico Oil Conservation Commission

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
October 8, 1969

EXAMINER HEARING

IN THE MATTER OF:)
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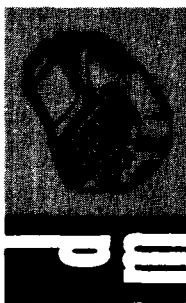
Application of Resler and Sheldon)
for two waterflood projects, Lea)
County, New Mexico.)
)

Case No.

4223

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING



MR. UTZ: Case 4223.

MR. HATCH: Case 4223. Application of Resler and Sheldon for two waterflood projects, Lea County, New Mexico.

I tried to contact Mr. Sheldon this morning at his home and at his office, and I have not been able to reach him.

So, I suggest that the case be continued to the next Examiner's Hearing, which will be on October the 22nd. And I will see if I can contact him during that time.

MR. UTZ: Case 4223 will be continued to October the 22nd.

And the hearing is adjourned.

(WHEREUPON, the hearing was adjourned at 2:05 P.M.)

I N D E XPage

Discussion

2

STATE OF NEW MEXICO)
) SS
 COUNTY OF BERNALILLO)

I, CA FENLEY, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand this 20th day of November, 1969.



CA FENLEY - COURT REPORTER

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4223 heard by me on Oct. 8, 1969.

 Examiner
 New Mexico Oil Conservation Commission

dearnley-meier

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