ce, inc.	DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS	NEW MEXICO	BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO October 28, 1970 EXAMINER HEARING
r reporting service,	SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATE MENTS, EXPERT TESTIMONY, D.		) IN THE MATTER OF: Application of Byron McKnight for an ) Case No. 4445 exception to Order No. R-111-A, Lea ) County, New Mexico. )
dearnley-meier	SPECIALIZING IN: DEPOSITIO		BEFORE: Elvis A. Utz, Examiner
			TRANSCRIPT OF HEARING

EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

STATE MENTS.

HEARINGS,

DEPOSITIONS,

SPECIALIZING IN:

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1120 SIMMS BLDG. • P.O. BOX 1 1203 FIRST NATIONAL BANK EAST MR. HATCH: This is the application of Byron McKnight for an exception to Order No. R-111-A, Lea County, New Mexico.

MR. LOSEE: Mr. Examiner, A. J. Losee from Artesia appearing on behalf of the applicant. I have one witness, Mr. McKnight.

## BYRON MCKNIGHT,

a witness, having been first duly sworn according to law, upon his oath, testified as follows:

#### DIRECT EXAMINATION

### BY MR. LOSEE:

- Q Would you state your name, please?
- A Byron McKnight.
- Q Where do you live, Mr. McKnight?
- A Hobbs, New Mexico.
- Q What is your occupation?
- A I am a Consulting Geologist.
- Q You have previously testified before this Commission and had your qualifications accepted?
- A Yes. I have.
- Q Now, would state the purpose of this application?

# The purpose of this application is to get an exception from the State's R-111- Rule stating casing requirements



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in the potash area.

What is the location of the proposed wells? The one is located in the northwest, northwest of Section 35, 19, 33, Lea County. The footage location there would be three hundred thirty feet from the north, three hundred thirty feet from the west. What is the designation or name of that well? That well is the Mark Smith Ranch No. 1. The second well we are asking exception for is located in Section 34 of the same Township, northeast, northeast that section, three hundred thirty from the north, three hundred thirty from the east.

- Please refer to what has been marked as Exhibit 1 and explain what is portrayed on this exhibit.
- A This exhibit, the plat, indicates the acreage in question with the proposed wells indicated. Also indicated is the discovery well in Section 26, Pan American State Federal No. 1.
  - Now, which potash operators are located within a distance of one mile of these two locations?

A The Potash Corporation of America and U. S. Potash and Chemical Company.

They hold leases within that distance, do they not?

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Yes, but not on the property, not on the lease. Α Where is the closest potash development to these well Q locations? It would be west of this location, about fifteen or Α twenty miles. Whose mine is that? 0 A I think that would be Kerr McGee's. Have you prepared and filed with the U.S.G.S., the Q lessor of both of these leases, notice of intention and plats showing the location of these two wells? A I have filed that information concerning the Mark Smith No. 1, the well located in Section 35. They are holding those in abeyance until the outcome of this hearing. However, they have indicated their willingness to approve them. Now, your exhibits 2 and 2A are the notice of intention Q

- and the plat showing the location of the Mark Smith No. 1, is that correct?
- A That is correct.
- Q And the U.S.G.S., pending the outcome of this hearing, has advised you that they will approve that proposed casing program?

Yes, sir, in both their Hobbs and Roswell offices and

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they have advised the mining supervisor in Crosby of this. He has also indicated his willingness to let us drill these wells.

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Now, you have also prepared a notice of intention to drill and a plat on your J. Craig No. 1 well, have you not?

This is true.

Did you cause copies of these notices of intention and plats to be furnished to the P C A and the United Chemical?

Yes. I did. Α

> Please refer to what has been marked as Exhibit 3, being the gamma ray log of this Pan American Bates Federal No. 1 and explain what is important on this log.

Well, firstly note that the R-111-A rule would not apply to this well in that Pan American set two hundred and seventy-five feet of eight and five-eights inch casing, cementing it with one hundred seventy-five sacks and did not set a salt string. The next string of pipe that was run in the well was set at a total depth of three thousand three hundred ninety-seven feet, cemented with thirteen hundred eighty-five sacks of cement. Also this exhibit demonstrates the top of the Rustler formation, the top of

EXPERT TESTIMONY, DAILY COPY, CONVENTIONS pay in this particular well. 0 ALBUQUERQUE, NEW MEXICO ALBUQUERQUE, NEW MEXICO locations? HEARINGS, STATE MENTS. PHONE 243-6691
PHONE 256-1294 Α • SPECIALIZING IN: DEPOSITIONS, BOX 1 EAST of that section is not in the R-111-A area. 1120 SIMMS BLDG. • P.O. 1203 FIRST NATIONAL BANK Q casing program and fluid program? Well, this would be demonstrated on our Exhibit No. 4. Α We propose to set three hundred feet of surface casing; drill the well with Briney fluid, using brine as a drilling fluid and then in the event of a pay encountered, we

complete the well to circulate the cement to the surface on the long string, the production string.

- You didn't mention it, but your diagram shows that your surface is going to be circulated?
- Α Yes.

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And prior to drilling into the pay would you have your hole filled with mud?



the salt, the base of the salt, top of the Yates and the

Let me ask you, referring, really, back to your Exhibit No. 1, do you know where the boundary of the potash oil area is in order R-111-A with relationship to the two

Yes. We were just barely inside that and that R-111-A encompasses the northwest quarter of Section 34 -northwest, northwest quarter of Section 34. The remainder

How do you propose to drill these two wells; what type of

TESTIMONY, DAILY COPY, CONVENTIONS Α Yes. 0 Do you have an opinion as to whether this proposed cas- Albuquerque, New MEXICO Albuquerque, New MEXICO dearnley-meier authe servee, he Α Yes. EXPERT STATE MENTS. PHONE 243-6691
PHONE 256-1294 HEARINGS, Q 1092 DEPOSITIONS, BOX 1 1120 SIMMS BLDG. • P.O. 1 1203 FIRST NATIONAL BANK А Yes. SPECIALIZING IN:

ing program will protect the potash deposits, if any, in this area? It will. There will be, since we are drilling

with brine, there will be no excessive enlargement of the salt section due to dissolving of the salt by fresh water or relatively fresh water.

Will this proposed casing program prevent waste and protect correlative rights?

It will.

MR. LOSEE: If the Examiner please, if you do not have letters from the United Chemical and P C A, I will introduce them. They indicated they were going to advise the Commission.

MR. UTZ: I think we have a letter from both of them.

Q Mr. McKnight, were Exhibits 1 through 4 prepared by you or under your direction?

They were. Α Yes, sir.

MR. LOSEE: We move the introduction of Exhibits 1 through 4.

MR. UTZ: Without objections, Exhibits 1 through 4



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will be entered into the record of this case.

(Whereupon, Applicant's Exhibits 1 through 4 were marked into the record.)

MR. LOSEE: I have no further direct examination.

#### CROSS EXAMINATION

BY MR. UTZ:

Where was the Pan American well on which you have the log drilled?

It is in Section 26, three hundred thirty from the south line -- no -- six hundred sixty from the south line, nineteen eighty from the west line. It is indicated on the diagram with a green circle.

Oh, yes. Now, the only way that you propose to deviate from the casing program of R-111-A is that you will leave the intermediate salt string out?

A Yes. This is true.

Q And that your production string cement will be circulated?

A Yes.

You anticipate any problems circulating cement?

Well, none other than just an excessive volume of cement, excessive to which you'd normally use to set a string in this field.

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Your cavities in the salt section, you mean?

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Well, by drilling the well with brine we anticipate a minimal amount of hole enlargement.

Has anyone else that you know of in this area had any problem circulating cement on the production string? The Pan American well was circulated -- well, let No. me retract that -- I don't know whether it was or not. They did use thirteen hundred sacks of cement. It is a lot of cement for a string of pipe to be set in.

MR. UTZ: Any other questions of the witness?

MR. HATCH: The Commission has received letters from Potash Company of America and U. S. Potash and Chemical Company saying they are not entering a formal protest and it should not be considered as an approval.

MR. UTZ: The witness may be excused.

Is that all the correspondence? MR. HATCH: Yes. MR. UTZ: Any statements?

The case will be taken under advisement.



STATE OF NEW MEXICO COUNTY OF BERNALILLO

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I, PETER A. LUMIA, 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; and that the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

PETER Peter A. Lumia, C.S.R.

I do hereby mertif 10 3 t) 'n. New Nexico Gil Convervation Section

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