

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BLDG.  
SANTA FE, NEW MEXICO

5 September 1984

EXAMINER HEARING

IN THE MATTER OF:

Application of Blanco Engineering, Inc. for salt water disposal, Eddy County, New Mexico.	CASE 8323
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BEFORE: Gilbert P. Quintana, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division:	Charles E. Roybal Attorney at Law Energy and Minerals Dept. 525 Camino de Los Marquez Santa Fe, New Mexico 87501
For the Applicant:	Chad Dickerson Attorney at Law LOSEE, CARSON, DICKERSON, P. A. P. O. Drawer 239 Artesia, New Mexico 88210

MR. QUINTANA: We'll call next  
Case 8323.

MR. ROYBAL: Case 8323,  
application of Blanco Engineering, Inc. for salt water  
disposal, Eddy County, New Mexico.

MR. DICKERSON: Mr. Examiner,  
I'm Chad Dickerson of Artesia, New Mexico, appearing on  
behalf of the applicant and I have one witness.

MR. QUINTANA: Are there any  
other appearances in this case?

(Witness sworn.)

PAUL G. WHITE,  
being called as a witness and having been duly sworn upon  
his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. DICKERSON:

Q Mr. White, would you state your name,  
your occupation, and where you reside, please?

A My name is Paul G. White. My occupation  
is petroleum engineer and President of Blanco Engineering,  
Incorporated, and I live in Artesia, New Mexico.

A You have previously appeared before this

1  
2 Division as a petroleum engineer and had your credentials  
3 made a matter of record, haven't you, Mr. White?

4 A Yes, sir, I have.

5 MR. DICKERSON: Is this witness  
6 qualified, Mr. Examiner?

7 MR. QUINTANA: He is so quali-  
8 fied.

9 Q Mr. White, would you briefly summarize  
10 the purpose of your request for a water injection well in  
11 Case 8323?

12 A We have made application for a salt water  
13 disposal well to dispose of produced waters in the Atoka-  
14 Glorieta-Yeso Pool from some oil wells that we have drilled  
15 there.

16 Q Let me direct your attention to the map  
17 which is a part of the form C-108 submittal, and ask you to  
18 direct the Examiner's attention on that map to the proposed  
19 injection well.

20 A The proposed injection well is the Pan  
21 American Flint No. 1 and it's located 1980 feet from the  
22 south line and 1980 feet from the east line, Section 22,  
23 Township 18 South, Range 26 East, Eddy County, New Mexico.

24 Q And your 1/2-mile circle area of review  
25 is indicated on that map as well, is it not?

A Yes, sir. That is the 1/2-mile radius.  
Yes, sir.

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Q Are there any other wells within that 1/2-mile circle which have penetrated the proposed injection zone?

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A There's only one well that has penetrated that--the proposed injection zone, and it's on the borderline. It's the Ingram Hawkins No. 1 in Section 27, 18 South, 26 East. It's no longer producing from the Atoka-Penn.

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MR. QUINTANA: Is that in the southwest quarter of that line? If you look directly southwest of the well, is that the well you're talking about?

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14

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16

A It's straight south of the well, sir. It's in Section 27. It would be 660 from the north line and 1980 from the--no 13--1980 from the east line in Section 27. It's right on the borderline.

17

18

MR. QUINTANA: Okay, thank you.

Q Mr. White, when and for what purpose was this proposed injection well originally drilled?

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A The well was originally drilled as an Atoka-Penn gas well and produced from the Atoka-Penn for several years. It produced a cumulative gas of approximately 5-1/2-billion feet and approximately 45,000 barrels of condensate and was abandoned as an Atoka-Penn producer in 1970.

24

25

Q Mr. White, what is the--how is that proposed injection well currently completed, as far as the

1  
2 mechanics of that operation?

3           A           At the present time the well--the well  
4 was plugged and all casing was left intact. The 13-3/8,  
5 which I have not shown on the diagram, was left and it's--  
6 has cement circulated. The 9 and 5 was left intact with ce-  
7 ment circulated. The 5-1/2 inch production string was left  
8 intact with the cement circulated. The Atoka-Penn perfora-  
9 tions were covered with 25 sacks of cement. There's no re-  
cord of a bridge plug.

10           Q           What will be necessary, in connection  
11 with your operations, for reopening, re-entering this well  
12 for injection purposes?

13           A           We would like to re-enter the 5-1/2  
14 casing and trip in the hole with bit casing scraper and  
15 tubing and clean the 25-sack plug off the top of the Atoka-  
16 Penn perforations, acidize, and get an injection rate for  
purposes of converting to salt water disposal well.

17           Q           What is your proposed average and maximum  
18 daily rate and volume of fluids to be injected?

19           A           We have--if we develop our Atoka-Yeso  
20 wells and drill them, we plan to have an average injection  
21 rate of 2,000 barrels of water per day not to exceed 3,500  
22 barrels of water a day.

23           Q           Again directing your attention to the map  
24 which forms part of C-108, describe for the Examiner where  
25 on that map the wells from which this produced water will be  
obtained are located.

1  
2 A These wells will all be--these projects  
3 will all be drilled in Section 25, Township 18 South, Range  
4 26 East, Eddy County, approximately two miles from the  
5 proposed injection well. It's a little better than two  
6 miles.

7 Q And your proposed system is a closed type  
8 system?

9 A Yes, sir. It is a closed system.

10 Q What average and maximum injection  
11 pressures do you anticipate in this well?

12 A We anticipate, from a study of Yates  
13 Petroleum injecting into the same zone, we anticipate an  
14 average injection pressure to start with of 400 pounds per  
15 square inch; a maximum injection pressure of 1400 pounds per  
16 square inch.

17 Q And that maximum is not in excess of 2/10  
18 per foot of vertical depth?

19 A No, sir. The .2 per vertical depth to  
20 the top perforations would be 1819 psi.

21 Q Do you propose to utilize the existing  
22 perforations?

23 A Yes, sir. That's correct.

24 Q Mr. White, have you made an examination  
25 of the proposed injection water to determine its compatabil-  
ity with the zone in which it is to be injected?

A Yes, sir. We've had Unichem Chemical

1  
2 Company analyze the Atoka-Penn waters and the Atoka-  
3 Glorieta-Yeso waters for compatability and they were--there  
4 was no evidence of incompatability.

5 Q Geological information and logs on this  
6 proposed injection well have previously been submitted to  
7 the Division, have they not?

8 A Yes, sir, they have.

9 Q Mr. White, what is the--what other  
10 possibly productive zones of oil and gas are located in this  
11 area both above and below the proposed injection interval?

12 A There are no zones below this proposed  
13 injection interval, and zones above are the Abo, and there's  
14 quite a number of San Andres and Grayburg wells, shallow  
15 wells, located in this area at from 1600 feet down to 2200  
16 feet.

17 Q What is the geologic name and depth of  
18 all the sources of underground drinking water in the area?

19 A The underground drinking water, the  
20 maximum depth is in the Artesian water zone and the maximum  
21 depth is 850 foot deep.

22 Q Have you examined all available  
23 engineering and other data and determined that in your  
24 opinion there is no evidence of underground faults or other  
25 hydrologic connection between the injection zone and the  
sources of underground drinking water?

A Yes, sir. We've researched this quite

1  
2 thoroughly and we feel like there's no chance of any  
3 contamination or any faults or anything in the area where we  
4 would be injecting the salt water.

5 Q Describe the proposed stimulation program  
6 for your injection well.

7 A We propose to, after clean-out of the  
8 cement on top of the Atoka-Penn perforations, to acidize  
9 with 2,000 to 2,500 gallons of 15% regular non-emulsifying  
acid.

10 Q What is the proposed mechanics of your  
11 completion of this well? What type tubing will you utilize?

12 A We propose to, after clean-out and  
13 the establishment of proper water injection rates and  
14 pressures, we propose to run a Baker nickel-plated packer on  
15 2-7/8 inch upset tubing that's plastic-lined and set the  
packer above the Atoka-Penn perforations.

16 Q Mr. White, once again with regard to that  
17 Hawkins gas well which you indicated in Section 27, the only  
18 well in the vicinity which had penetrated the proposed  
19 injection interval of your well, what is the current status  
20 of that well?

21 A As far as I know, the well is just tempo-  
22 rarily abandoned. There's no production from the Atoka-Penn  
23 zone at all. It's been listed as not having produced for,  
24 oh, six or seven years. The casing is intact. Everything  
25 is still there. The 5-1/2 casing was cemented with 600  
sacks of cement.



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2 Q The last form attached to the C-108, Mr.  
3 White, is proof of notice whereby you gave notice of your  
4 application to the owner of the surface and all offset lease-  
5 hold operators, is it not.

6 A Yes, sir. That's right.

7 MR. DICKERSON: Mr. Examiner, I  
8 move the admission of Exhibit One, the C-108, submittal at  
9 this time, and I have no further questions.

10 MR. QUINTANA: Exhibit One will  
11 be so admitted.

12 Mr. White, I might have missed  
13 it, but did you say that there was samples of the fresh wa-  
14 ter wells within the area?

15 A Yes, sir. There's two water wells--  
16 there's two fresh water wells, one used for irrigation  
17 presently. On the line, down the west line of Section 23--  
18 it's on the west line right about the center of 23, the  
19 locations, exact locations are on the water analysis sheet  
20 that we submitted, and those two wells are, one well is pro-  
21 ducing and irrigating now and the other one is a standby  
22 well, and we took samples from those two wells.

23 MR. QUINTANA: Thank you. One  
24 further question. That gas well that did penetrate the  
25 proposed disposal zone on the outskirts of the 1/2-mile  
radius, do you anticipate any water from your disposal well  
possibly reaching that in any short period of time?

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2           A       No, sir. I do not. From the 'cum' gas  
3 recoveries and the 'cum' liquid recoveries from other wells  
4 that's been used in the Atoka-Penn as salt water disposal,  
5 we anticipate being able to put approximately 3.3-million  
6 barrels of water into the well before we would penetrate  
anything in the 1/2-mile circle.

7                               MR. QUINTANA: Thank you. Are  
8 there any further questions of the witness?

9                               The witness may then be excused.

10           A       Thank you, sir.

11                              MR. QUINTANA: Case 8323 will  
12 be taken under advisement.

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14                              (Hearing concluded.)  
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## C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete and correct transcript of the proceedings in the hearing of Case No. 8323, heard by me on SEPT. 5 1984.

Gilbert P. Quintana, Examiner  
Oil Conservation Division