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MR. NUTTER: The hearing will come to order, please. We'll call now Case No. 5527.

MR. CARR: Case 5527. Application of Plains Radio Broadcasting Company for an exception to the provisions of Order No. R-3221, Chaves County, New Mexico.

MR. THOMPSON: Mr. Examiner, I'm R.E. Thompson of Atwood, Malone, Mann & Cooter on behalf of Plains Radio Broadcasting. We have one witness, Mr. Fred Pool, Jr.

(Witness sworn.)

FRED POOL, JR.

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

DIRECT EXAMINATION

BY MR. THOMPSON:

Q Mr. Pool, would you give your name and your place of residence?

A Fred Pool, Jr., Ruidoso, New Mexico.

Q Mr. Pool, are you employed by Plains Radio Broadcasting Company?

A Yes, sir.

Q And in what capacity?

A As a Consultant and Drilling Contractor.

Q Mr. Pool, have you testified before the OCC before and made your qualifications a matter of record?

A Yes, sir.

MR. THOMPSON: Mr. Examiner, are the Witness' qualifications acceptable?

MR. NUTTER: Yes, sir.

BY MR. THOMPSON:

Q Mr. Pool, would you discuss briefly what is proposed in Plains Radio Broadcasting's Application in this matter?

A Plains Radio has currently four producing wells and one in the process of being completed in Sections 9 and 16 and they are disposing of the water by hauling now, which we are making 55 barrels per day, but proposing to build a pit in Section 9 approximately in the center of Section -- well, it is a little south of the center -- of Section 9 and put the produced water in this pit.

Q Mr. Pool, the wells that Plains Radio is producing is marked on Exhibit A as I believe 9-1, 9-2, 9-3, 16-2, and 16-3, is that correct?

A Yes, sir.

Q Mr. Pool, if you would, explain what all that Exhibit A shows.

A Well 16-2 and 16-3 are the two wells that are producing the water now and making approximately 34 barrels of oil, I believe it is, and 55 barrels of water, which is being disposed of by hauling to Caprock now.

Q Mr. Pool, the only two wells, as I understand it, that are producing water at this time are 16-2 and 16-3?

A Yes, sir.

Q And they are producing a total of 55 barrels a day of water?

A Yes, sir.

Q Would you explain what is marked in yellow on Exhibit A?

A That is a test well, a water well, that we drilled up there, a stock-water well. I drilled the well myself and it's red bed now and we encountered water at 140 feet. We have analysis --

MR. NUTTER: (Interrupting) Where is that well now?

BY MR. THOMPSON:

Q Mr. Pool, would you explain the water well locations that are marked on Exhibit A and where they are?

A Well, wells they are using over at the ranch for stock water and house water are these wells up here north and a little bit east of the lease. That is the House Well, the Red Tip Well, and the "New Well" they call it. The depths are marked on there: 90 feet, 90 feet, and 110, and also the Amason Well over here to the east, on the east edge of the map. Those wells are tied together with water lines and water the whole ranch; they distribute that water to tanks, to stock-water tanks, steel tanks from those four wells.

Q Mr. Pool, what is the depth of the red beds and those water wells?

A It's down to the water; the water produced out of those wells are the first sand they encounter and it's red bed down to those. Now, you get on the tops of these little hills you have about 10 or 12 feet of caliche on the surface, and when you get under the caps of these hills, you see on these countour marks, you won't have caliche.

Q All right. The map is a topographical map showing the surface?

A Yes, sir.

Q Mr. Pool, would you explain what Exhibit B is

and what it shows?

A This Exhibit B is -- well, this production of the wells, how much water, how much oil the producing wells are making, and 9-3 just completed down to the pay on it getting ready to run the pipe -- haven't completed it yet -- to the San Andres, now the producing depth of these wells in the San Andres, 2100 feet. The cost for using -- the drilling of a disposal well or using a well, currently drilled well, is what this cost represents, and the cost for building a pit and laying the lines for it, the other one.

Q And the well in the event that the Application was not approved for -- in other words the disposal well -- would be 16-1 if this Application was not approved; what is marked as 16-1?

A Well, that would be applied for; it would have to be a hearing too because it is less than two miles from production.

Q All right. And if it was approved to go back into 16-1 the proposal there would be back in the same formation?

A Yes it would, San Andres.

Q All right. Mr. Pool, have you prepared any

figures showing the estimated comparative costs of the pit versus the pump and disposal back into another well location?

A Yes, sir, it would be approximately \$28,000 to \$30,000 against \$4000.

Q All right. Mr. Pool, were the wells 16-2 and 3 and 9-2 and 9-1, were they cable-tool drilled?

A 16-2 and 16-3 and 9-2 were cable-tool drilled, yes sir.

Q Do you know what the depth of the red bed is in that area?

A Yes, sir, it is approximately 200 feet.

Q Mr. Pool, is Plains Radio Broadcasting the owner of the surface where the pit is proposed to be located?

A Yes, sir, they are.

Q And are they the owner of the surface for a five-mile radius of that pit?

A Yes, sir.

Q Do you know, Mr. Pool, whether the volume of water that is being produced out of 16-2 and 16-3 is decreasing or increasing or is it stable?

A It's decreasing and the oil production is

decreasing too.

Q Mr. Pool, would you explain what is shown on Exhibits C, D, and E?

A Exhibit E, on this one page is the produced water out of the well, L.E. Ranch 16-2 is what I labeled it, and shows the chemical and mineral content of the water. Then L.E. Ranch House Well, that's the combination of the four wells tied together that they are using to water the ranch for cattle or the house; that's real good water. This Exhibit D is the well we are drilling north of the highway; it's in Section 31, 9, 29, and we just drilled a surface hole and caught some of the water and analyzed it so we would know what it was, and it is a little more mineralized than the water out of the surface holes over here in 16 and 9.

MR. RAMEY: Where is this well in relation to the ranch; is it on the map?

MR. POOL: No, sir, it is approximately nine miles northeast of the wells down there; it is in Section 31 of 9, 29. I have a map here that shows it if you would like to look at it.

(Whereupon, a discussion  
was held off the record.)

BY MR. THOMPSON:

Q Mr. Pool, what is the distance from the proposed tip to the closest well position?

A Approximately two-and-a-half miles.

Q Is that what is marked on Exhibit A as the "House Well"?

A Yes, sir.

Q Mr. Pool, in your opinion is the red bed formation sufficient to prevent permeation of the disposal water?

A Yes, sir, I think it is. I don't think it would migrate downward; it would hold the water and there would be no loss in any direction. You notice on this contour map that there is a flat there, about a half-mile wide flat. Upon 37, 10, on 9-3 we had some caliche out on the surface, but down here, under 37, 10 contour, those wells' location, there was no caliche on the surface.

Q Mr. Pool, were Exhibits A, B, C, D, and E prepared either by you or under your supervision?

A Yes, sir.

MR. THOMPSON: Mr. Examiner, we would offer Exhibits A through E.

MR. NUTTER: Applicant's Exhibits A through E

will be admitted into evidence.

(Whereupon, Applicant's

Exhibits A through E were admitted  
into evidence.)

BY MR. THOMPSON:

Q Mr. Pool, if the Application were granted by the Commission, would Plains Radio be willing to keep the Commission advised as to the status of amounts of water being produced and placed into the pit?

A Yes, sir.

MR. THOMPSON: That concludes our direct examination.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Pool, is the L.E. Ranch headquarters that is shown in Section 5, is that an active house where people are living at the present time?

A Yes, sir, it is.

Q Are those people aware of your proposal to use a pit for water disposal?

A Yes, sir.

Q Have they objected to it or what is their attitude toward the use of a pit out there?

A No, sir, they haven't objected. That is the headquarters of the whole ranch; Plains Radio owns the ranch and the surface.

Q I see. Now, what are these water wells actually producing from; a sand in the red beds?

A Yes, sir, that's what it is.

Q Is that a continuous sand through there?

A No, sir, it is erratic sand. If you will notice in the quality of the water on these analyses, it will vary in the area; it is not a blanket sand over the whole area. Some places you will get good water wells and in some places you won't. Now, years ago -- I can't submit this as direct testimony because I don't have the facts on it -- but Mr. White, who use to own the ranch, told me that he drilled several wells down here in Sections 23, 24, 25, and 26 looking for good water for stock water but some places they didn't get any water and in some they got this water that is real brackish, but good water is not continuous over the ranch, not at that depth.

Q Was the sand in the red beds encountered in any of these wells here in Sections 9 or 16?

A No, sir, not down to 140 feet; the first we got

was at 140 feet, and there was sand, a red sand, and that's where this water came from that I had analyzed.

Q The same as the Amason Well over here?

A No, sir.

Q Or that's the one -- in the one up in Section 31?

A No, sir, no. That's a surface hole up nine miles that we're drilling. Like I say, I had a sample of it so we would know the quality of the water bed, but it came from a sand in the red beds too.

Q I see.

A There are just some places they're present and some places they're not.

Q Well, now, all of these deals here that are marked on this map, like the one right here in Section 9, the water trough, is that just surface water?

A That's by pipe; that's by placing pipe; they piped water down to a water trough.

Q I see. Now I see a few things marked "Tank," like over here in Section 7, "Horse Pasture Tank," what's that, surface water or what's that?

A That is water by a plastic line -- what's that, Section 7?

Q Seven, a couple of miles west.

A Oh, "Horse Pasture Tank." That's water by a plastic line. Now, there is a well over here, this Amalia Well over here in Section 13 was abandoned because the water got brackish and the stock wouldn't use it; wouldn't drink it.

Q Was there any pit disposal of any water in that vicinity?

A No, sir.

Q To cause that to become brackish?

A No, sir, that was abandoned 15 or 20 years ago.

Q This was just a natural phenomenon that salt water moved into the well?

A Right.

Q How about the "Rose Bowl Tank" down here in Section 15; what is the source of water in that tank?

A It is a surface tank caught by drainage; there is a gully flat in there and that water is rain water.

Q I see. Then we have a windmill down here in Section 21 directly south of the oil pool, what is the status of that windmill?

A The windmill is not operating. It was used to move water; they had a steel tank there and they piped

water down to it and used the windmill to pump water out of that tank to other wells.

Q It didn't draw any water out of the ground then?

A No, sir, it wasn't a well, a water well. They had no stock water useful down in that area; none of the water was fit for it. The only fresh water they have, which is real good water by analysis, is this House Well, the Red Tip Well, the New Well, and the Amason Well. Surface drainage is to the southwest there; you see this long draw that comes down through there; it is very gradual, it's not real deep. The surface drainage is to the southwest.

Q Well, it would appear from the contours that the surface drainage in the immediate vicinity of your oil pool would be to the northwest up to the ranch and then veers northeast up that long -- or down that long arroyo. Would that be it or is it in the opposite direction?

A The opposite direction.

Q The opposite direction?

A Yes, sir.

Q So it's coming from the long arroyo past the ranch house and then down to the southwest?

A Yes, sir. It drains down to the Pecos River eventually down there and turns back west about ten miles down here and drains back toward the River. That arroyo goes all the way to the River; I've followed it down.

Q What is the ownership of all this land in here; is this all fee land?

A Yes, sir.

Q No Federal lands or State lands in there?

A There are some State sections. Now, 16 is a State section. There are some State sections scattered through the ranch but most of it is fee land. I think there are 140 some thousand acres of fee land. There is -- well, there are three sections of State land that I can see in the two townships.

Q What would that be, 16 and 36 up here to the north maybe?

A Yes, sir, that's right, and it's Section 16 again East is a State section and then 11, 29 Township East.

Q You stated that the number 9-3 is in the process of being completed. Do you know if it's going to make water or not?

A No, sir, I can't tell yet, but it hasn't made

any water yet, but we can't tell until we acidize the well to see. It hasn't made any water naturally.

Q Now the 16-2 and the 16-3 are the only ones that are making any water now. Were they lower structurally than the 9-1 and 9-2?

A No, sir, they are not; they were perforated lower though, more a section of the Slaughter section was perforated.

Q And that is why they are probably making water and the others aren't?

A That's right. On the electric logs the wells look pretty identical, the four wells 16-2 and 3 and 9-1 and 9-2, but we just perforated two foot in the 9-2 and six foot in the 9-1, but in the 16-3 there was 15 feet perforated and in 16-2 there was 11 foot perforated, so the producing zones are very thin. You stay out of it and have a good cement job and you won't make any water, but you can't do that all of the time. We're also getting more production with the water out of the 16-3; we're making more oil.

Q With a bigger section open you're making more oil but also making water?

A Yes, sir.

Q Now, you stated that the water production was decreasing. What was the original rate of water production?

A Well, it's a very small increase; it went up first at about 65 barrels for a few days but then it came down to 55 pretty soon, and the history of the San Andres well, the oil will decline at the same rate as the water does; they will both come down. In other words we won't produce more water and less oil but the amount of ratio of both of them will be the same as the decline.

Q What does your symbol "PL" down here in Section 28 indicate?

A That is a farm out that we were contemplating and I just wrote that on there as a proposed location.

Q I see. That might be an oil well location?

A Yes, sir.

Q And now, getting back to 16-1, what is the status of that well and how is it equipped?

A It is plugged and abandoned now; 312 foot of 8-5/8ths cemented in it and it has been abandoned, cemented. I think there is a 300-foot plug in the bottom and one in the Queens and one in the bottom surface.

Q There is no long string in it though?

A No, sir. No long string ever run, never cemented. It made water right in the top of the San Andres; it's a low well.

MR. NUTTER: Are there any further questions of Mr. Pool? He may be excused. Do you have anything further, Mr. Thompson?

MR. THOMPSON: No, Mr. Examiner.

MR. NUTTER: Does anyone have anything they wish to offer in Case 5527? We will take the case under advisement.

STATE OF NEW MEXICO )  
 ) SS.  
COUNTY OF SANTA FE )

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

Richard L. Nye  
RICHARD L. NYE, Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5527 heard by me on July 16, 1975.  
Richard L. Nye, Examiner  
New Mexico Oil Conservation Commission