

CASE 5719: LA RUE & MUNCH FOR  
AN EXCEPTION TO ORDER NO. R-3221,  
EDDY COUNTY, NEW MEXICO

CASE NO.

5719

---

APPLICATION,  
TRANSCRIPTS,  
SMALL EXHIBITS,  
ETC.

Lynn Teschendorf  
Legal Counsel for the Commission  
State Land Office Building  
Santa Fe, New Mexico

MR. RAMEY: Call Cases 5719 through 5723.

MS. TESCHENDORF: Case 5719, application of La Rue and Muncy for an exception to Order No. R-3221, Eddy County, New Mexico.

Case 5720, application of Harvey E. Yates for an exception to Order No. R-3221, Eddy County, New Mexico.

Case 5721, application of H & S Oil Company for an exception to Order No. R-3221, Eddy County, New Mexico.

Case 5722, application of Gene Snow for an exception to Order No. R-3221, Eddy County, New Mexico.

Case 5723, application of Marbob Energy Corporation for an exception to Order No. R-3221, Eddy County, New Mexico.

MR. RAMEY: Mr. Nutter, do you have a statement to make?

MR. NUTTER: I have here a letter from Mr. A. J. Losee, the attorney for the applicants, in which he requests a continuance of subject cases. He did not specify any particular date but I suggest that this hearing be continued until December 1, 1976.

MR. RAMEY: This hearing is hereby continued until December 1, 1976, 9 o'clock a.m., Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico. The hearing is adjourned.

## NEW MEXICO OIL CONSERVATION COMMISSION

COMMISSION HEARING

SANTA FE, NEW MEXICO

Hearing Date

JANUARY 17, 1977

TIME: 9:00 A.M.

NAME	REPRESENTING	LOCATION
Edward E. Kinney	H+S Oil Co, et al.	Artesia
P. L. Henschel	H+S oil et al	Artesia
D. L. Loefer	Loefer & Pearson	Artesia

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
January 17, 1977

COMMISSION HEARING

IN THE MATTER OF:

Applications of La Rue and Muncy,	)	CASES (De Novo)
Harvey E. Yates, H & S Oil Company,	)	5719
Gene Snow and Marbob Energy Corporation )	)	5720
for exception to Order No. R-3221,	)	5721
Eddy County, New Mexico.	)	5722
	)	5723

BEFORE: Joe D. Ramey, Director  
Emery C. Arnold, Member  
Phil R. Lucero, Member

Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: Lynn Teschendorf, Esq.  
Legal Counsel for the Commission  
State Land Office Building  
Santa Fe, New Mexico

For the Applicants: A. J. Losee, Esq.  
LOSEE & CARSON, P.A.  
Attorneys at Law  
300 American Home Building  
Artesia, New Mexico

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

I N D E X

Page

EDWARD E. KINNEY

Direct Examination by Mr. Losee	4
Cross Examination by Mr. Stamets	26
Cross Examination by Mr. Ramey	28
Cross Examination by Mr. Arnold	30

EXHIBIT INDEX

Offered      Admitted

Applicants' Exhibit One, Map	5	26
Applicants' Exhibit Two, Photos	11	26
Applicants' Exhibit Three, Map	15	26
Applicants" Exhibit Four, Map	15	26

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 MR. RAMEY: The hearing will come to order. We will  
2 call the first case on the docket.

3 MS. TESCHENDORF: Do you want us to call them all,  
4 sir?

5 MR. LOSEE: Yes.

6 MS. TESCHENDORF: We will consolidate Cases 5719,  
7 5720, 5721, 5722 and 5723 for purposes of testimony and these  
8 are the applications of La Rue and Muncy, Harvey E. Yates,  
9 H & S Oil Company, Gene Snow and Marbob Energy Corporation for  
10 an exception to Order No. R-3221, Eddy County, New Mexico.

11 MR. RAMEY: I'll ask for appearances.

12 MR. LOSEE: A. J. Losee appearing on behalf of the  
13 applicants. I have one witness, Mr. Ed Kinney.

14 MR. RAMEY: Would you swear the witness?

15 (THEREUPON, the witness was duly sworn.)

16 MR. LOSEE: I would like to apologize for our tardi-  
17 ness in appearance this morning and hope in view of the  
18 brevity of our presentation that it will be forgiven.

19 I'm not sure that counsel for the Commission did move  
20 but I would like to move to consolidate these cases for purposes  
21 of hearing and have the record so show.

22 MR. RAMEY: That will be fine, Mr. Losee, to consoli-  
23 date.

24 EDWARD E. KINNEY

25 called as a witness, having been first duly sworn, was



1 examined and testified as follows:

2 DIRECT EXAMINATION

3 BY MR. LOSEE:

4 Q Would you state your name, residence and occupation?

5 A Edward E. Kinney, I reside in Artesia, New Mexico,  
6 I'm a consultant in oil and water matters in Artesia.

7 Q Have you previously testified before this Commission  
8 and had your qualifications accepted as a geologist and an  
9 expert in water matters?

10 A I have previously testified before this Commission  
11 with regards to oil matters, not as to water matters in  
12 particular.

13 Q Would you give the Commission some of your -- first  
14 your educational background in connection with water matters?

15 A I studied ground water under Tollman at Stanford  
16 University and I have worked on the City of Carlsbad water  
17 case a couple of years ago and I have appeared in several cases  
18 before the State Engineer as an expert witness in water  
19 matters.

20 MR. LOSEE: Are Mr. Kinney's qualifications acceptable?

21 MR. RAMEY: Yes, we will consider him qualified.

22 Q (Mr. Losee continuing.) Would you state the purpose  
23 of this application in these four cases or applications?

24 A The purpose of these applications is to seek variance  
25 to the regulations to permit the disposition of or disposal of

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

**sid morrish reporting service**  
*General Court Reporting Service*  
 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
 Phone (505) 982-9212

1 produced oil field waters into unlined earthen pits.

2 Q How many wells, Mr. Kinney, are involved?

3 A Twelve wells, to the best of my recollection.

4 Q How many pits?

5 A Seven pits.

6 Q Now, you are aware that this is a De Novo proceeding  
 7 and the prior orders of the Commission in these cases denied  
 8 the applications, are you not?

9 A Yes, sir.

10 Q Would you briefly explain the findings in those  
 11 orders?

12 A In the previous hearings fresh water was determined  
 13 to be in the vicinity of the pits. It was also determined  
 14 that surface drainage was away from the fresh water but no  
 15 determination or no evidence was given as to subsurface  
 16 draining, underground water movement and for that reason the  
 17 application was denied.

18 Q Okay, would you please refer to what has been  
 19 marked as Applicants' Exhibit One and explain what is portrayed  
 20 by this exhibit?

21 A Applicants' Exhibit One is two maps of the USGS  
 22 topographic series, one labeled Oil City, the other Clayton  
 23 Basin, that have been joined together to form one map covering  
 24 the area adjacent to the leases held by the various parties  
 25 in these cases.

**sid morrish reporting service**  
*General Court Reporting Service*  
 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
 Phone (505) 982-9212

1 Q What does the yellow area indicate?

2 A The yellow area is a coloring between the thirty-five  
 3 hundred and thirty-five ten contour, surface contour on these  
 4 maps for the purpose of showing the surface structure of the  
 5 area, to show the Loco Hills Ridge, the Nimenim Ridge and the  
 6 valleys in between.

7 Q Okay, now, the brown is also --

8 A The brown is also for the same purpose, it is the  
 9 contour interval between thirty-four fifty and thirty-four  
 10 sixty to give a little more depth to the outline of the  
 11 geography.

12 Q Okay, now, where does the Loco Hills Ridge run with  
 13 respect to these wells which are the subject of this application?

14 A The Loco Hills Ridge starts in Section 5 of Township  
 15 19 South, Range 29 East -- wait a minute, it's 30 East,  
 16 excuse me -- and proceeds north by northeast right through the  
 17 center of the H & S property, the La Rue and Muncy property.

18 Most of the leases lie to the west of this ridge,  
 19 with just the two, the H & S and the La Rue and Muncy lying on  
 20 top of the ridge.

21 Q What are the red dots, what does that signify?

22 A The red dots are the locations of the disposal pits  
 23 presently on the leases.

24 Q Now, with respect to those pits that lie west of the  
 25 Loco Hills Ridge, where will they drain if they overflow?

1 A If they overflow they will drain southerly and then  
2 somewhat southwesterly down into the area in Section 18 of  
3 Township 19 South, Range 30 East.

4 Q In other words, southerly from the leases?

5 A Southerly from the leases, yes, sir. The leases  
6 are in Sections 32 and 33 and the drainage will be to the  
7 south until you hit Section 8 and then kind of southwesterly  
8 into Section 18.

9 Q Okay, now, I notice one of the pits is on top of  
10 the ridge, where will it drain?

11 A Essentially it is a flat area there and there is not  
12 much likelihood of any directional drainage. Let me say this  
13 in regard to the previous question that in the event of a hard  
14 rain, none of these pits are likely to overflow for the simple  
15 reason that each is located in a structural depression that  
16 is high enough to contain the water but lower than some of  
17 these contours that appear here. There is four or five feet  
18 of embankment, just natural depressions in the blow sand.

19 Q Okay, now, Mr. Kinney, you were telling me what  
20 would happen to the water on top of the ridge?

21 A The water on the top of the ridge, it will just  
22 sink down into the sands. It's too flat there, I don't think  
23 that it will flow either way but if it did, part of it might  
24 go to the southeast and part might go to the southwest but  
25 essentially it would just sink right into the top of the

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 ridge there.

2 Q All right, now, one of the pits is located on the  
3 east side of that?

4 A Okay, that pit that is located on the east side of  
5 the Loco Hills Ridge will drain to the southeast into the  
6 the little depression that shows at the bottom of Section 34  
7 and then if there is any excess it would tend to flow on down  
8 south toward the Amax Potash mine.

9 Q Okay, now, is that opinion supported by the topography  
10 shown on this map?

11 A Yes, sir, by the contours.

12 Q Okay, now, you talked about the water sinking into  
13 the blow sand, at least with respect to the pit up on the  
14 ridge, what will happen to that water when it sinks into the  
15 blow sand?

16 A The water that will sink into the blow sand or the  
17 dune sand will percolate downward until it comes to the top  
18 of the Redbed section, which is in some cases a few feet to a  
19 maximum of a very few tens of feet of blow sand there and  
20 then it will be discharged back into the atmosphere through  
21 evaporation and transpiration.

22 Q Okay, will the residue form any caliche-like --

23 A The solids contained in the water as it percolates  
24 downward will be precipitated as the waters evaporate and it  
25 will form a caliche-like hardened layer consisting of the

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 salts that were in the water.

2 Q And that's going to occur, really, just a few feet  
3 below the surface?

4 A Just a few feet below the surface and if any place,  
5 it will be right on top of the very fine-grained Dockum.

6 Q Now, let me ask you from this map, would you point  
7 out the location of the only fresh water within three miles?

8 A The fresh water on this map is located over where  
9 the arrow shows in Section 26 of the southeast quarter of  
10 Section 26. It says water well on the map and right at the  
11 end of it is a black dot representing a house, a ranch house  
12 at the Walters camp of the Snider Ranch and the water well is  
13 located right by the ranch house.

14 Q Okay, now, would there be any surface drainage from  
15 these pits in the direction of that water well?

16 A No, sir, there will not be any. The brown contours  
17 in there show too many high ridges and the contours can --  
18 the geographic structure will cause the water to flow south  
19 or southwest or southeast but not north.

20 Q Okay, now, I notice this is called Walters Lake up  
21 there in a northeasterly direction, is that actually a lake?

22 A Walters Lake and the little blue dot in the southeast  
23 corner of Section 22, a little blue dot in Section 26, all of  
24 these are intermittent lakes, dry lakes. After a heavy rain  
25 the water will stand for a short time but not permanently.

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 Q Okay, now, I notice right up opposite that Walters  
2 Lake is a purple area by which you have written Duval. What is  
3 located there?

4 A That's the north mine shaft and waste dump of the  
5 Duval Potash Company. Their main operation is further south  
6 on the Carlsbad Highway.

7 Q Now, they have put the waste on the top of the ground,  
8 haven't they?

9 A Yes, sir.

10 Q And you've got some pictures of it, have you not?

11 A Yes, sir.

12 Q Okay, now, south of the leases is another purple  
13 area which you have written Amax by the side of, what is  
14 located there?

15 A That is the mill mine entrance and disposal pits,  
16 waste dumps of the Amax Potash Corporation.

17 Q Okay, now, how big is that waste dump?

18 A Well, the whole waste area there covers forty to  
19 eighty acres, waste dump and water disposal area around the  
20 Amax mine.

21 Q Are they discharging water into that pit there?

22 A Yes, the underflow from their mill. The waste is  
23 salt brine being discharged into a pit outside there.

24 MR. SAMMY: Excuse me, Mr. Losee, is that in Section  
25 10 that you are talking about?

1 MR. LOSEE: Yes, sir.

2 A Yes, all that purple area there. That purple area  
3 there is put on by the USGS, it's not mine.

4 Q (Mr. Losee continuing.) Now, is that waste water  
5 that they are putting in that pit more briney than the water  
6 produced in these oil wells?

7 A Yes, sir, it's super saturated salt water.

8 Q And what in relation to the volume?

9 A The volume is many times greater, I don't know what  
10 their volume is but it will be many times greater than these  
11 wells produce.

12 Q Okay, let me ask you to refer to what has been  
13 marked as Exhibit Two, being an envelope?

14 (THEREUPON, a discussion was held  
15 off the record.)

16 Q (Mr. Losee continuing.) Now, Mr. Kinney, this is  
17 a series of pictures taken in that area, is it not?

18 A Yes, sir.

19 Q Are these in numerical order?

20 A Yes, sir.

21 Q Okay, if you will explain what area is shown by  
22 each picture and I will pass it up to the Commission.

23 A All right, picture number two is a picture of the  
24 Snow Elk Lease on the northwest of the southwest of Section 32  
25 and it shows the disposal pit which is a shallow depression in

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212



1 the blow sand on the lease.

2 Picture three is a view from another angle of the  
3 same disposal pit on the Snow lease.

4 Q That lease is the most westerly lease?

5 A The most westerly lease of the group.

6 Well, they're not in numerical order, excuse me.

7 Picture number one is the Heyco pit in blow sand about nineteen  
8 eighty from the north and east of Section 32, 18 South,  
9 30 East and it shows on this Exhibit Number One as a dot in the  
10 center of the Heyco green lease there.

11 Picture number four is the northeast corner of the  
12 Heyco disposal pit in the center of their lease and shows the  
13 northeast corner, which would be right in the center of the  
14 picture, it shows the hummocky nature where the pits are  
15 located so that in the event of rainfall, excess rainfall,  
16 there isn't any way that it would get onto general drainage.

17 Picture number five is the Heyco disposal pit about  
18 sixty north and thirteen hundred east, Section 32, 18 South,  
19 30 East. The pit is located in a depression, natural depression,  
20 in the terrain and will not flood into the main stream of the  
21 draw.

22 Picture number six is a picture of the Marbob disposal  
23 pit about twenty-three ten from the north and nine ninety from  
24 the west of Section 28, Township 18 South and Range 30 East in  
25 a low spot in the blow sand and it is in the center of the

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 picture with a small amount of caliche showing at the top,  
2 again in a structural depression.

3 Picture number seven is another view of the Marbob  
4 disposal pit and the pit is dug down into caliche and there is  
5 caliche around it and presumably in the bottom.

6 Picture number eight is Duval's waste dump at the  
7 north mine shaft in Section 22, Township 18 South, Range 30  
8 East. The white appearing on the dump is the salt efflorescence.  
9 The Walters Lake as shown on the map in Exhibit One lies in  
10 the valley to the east or to the right of the dump in this  
11 picture.

12 Picture number nine is the La Rue and Muncy disposal  
13 pit on the top of the Loco Hills mesa, sixteen fifty from  
14 the north and twenty-three ten from the west of Section 33,  
15 Township 18 South, Range 30 East. The pit is dug into caliche.

16 Picture number ten is the H & S Oil Company disposal  
17 pit about three thirty north and sixteen fifty west in Section  
18 33, Township 18 South, Range 30 East. The pit is located in  
19 blow sand in an area swale.

20 Picture number eleven is the La Rue and Muncy  
21 disposal pit on the east side of the Loco Hills Ridge about  
22 sixteen fifty from the north and east of Section 33, Township  
23 18 South, Range 30 East. The pit is located entirely in blow  
24 sand.

25 Picture number twelve is the area south and east of

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 the La Rue and Nuncy east disposal pit, sixteen fifty north and  
2 east of Section 33 and the area is in a local swale, the flood  
3 waters will not reach the main valley.

4 Q Mr. Kinney, you took those pictures yourself, did  
5 you not?

6 A Yes, sir.

7 Q And what general purpose are the pictures offered  
8 for?

9 A The pictures are offered to show the exact nature of  
10 the rock in which the pits are located and also to depict as  
11 best pictures can the swales in which the pits are located.

12 MR. LOSEE: At this time, if the Commission please,  
13 we move to introduce the testimony and the exhibits in the  
14 original hearing before the Examiner in this case and particu-  
15 larly with respect to the pictures showing the Amax dump  
16 right to the south and east of these wells and also for the  
17 purpose of showing the water analysis from that pit and from  
18 these wells.

19 (THEREUPON, a discussion was held  
20 off the record.)

21 MR. RAMEY: That will be satisfactory, Mr. Losee,  
22 we will incorporate the record into this hearing.

23 Q (Mr. Losee continuing.) Will you refer to what has  
24 been marked as Exhibit Three, Mr. Kinney, and explain what is  
25 shown by this exhibit?

1 A Exhibit Three is a map prepared by Hendricks and  
2 Jones for geology and groundwater resources of Eddy County,  
3 Groundwater Report Number Three published by the New Mexico  
4 Bureau of Mines and Mineral Resources. It's called The General  
5 Direction of Movement of Groundwater in Eddy County, New Mexico.

6 This map shows the subject leases from which disposal  
7 water is desired to be produced and in the same colors, two  
8 shades of blue, red, green and orange in Township 18 South,  
9 Range 30 East and the arrows on this map show the direction of  
10 groundwater movement. The arrows all point south in this  
11 area and show that the drainage will be to the south, possibly  
12 a little to the southwest and no drainage will go from the  
13 leases towards those lakes to the northeast.

14 Q Do you have anything else to offer with respect to  
15 this exhibit?

16 A No, sir.

17 Q Please refer to what has been marked as Exhibit Number  
18 Four and explain what is shown on this exhibit?

19 A Exhibit Four is a map prepared by me showing the  
20 top of the Rustler in Township 18 South, Range 30 East.

21 The top of the Rustler or top of the anhydrite  
22 as is particularly referred to as TA, is shown in all wells with  
23 vertical lettering. Also shown on this are known fresh waters  
24 from cable tool wells which are shown in numbers with a slant  
25 and a line drawn under the number.

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 The solid contour line on the map is the surface  
2 geography showing the Loco Hills Ridge on the left side and  
3 the Himerim Ridge on the right side and the valley lying in  
4 between.

5 The dotted contour, there are just two contours, one  
6 at plus thirty-one hundred, the other at plus thirty-one fifty  
7 on the top of the Rustler or the top of the anhydrite, taken  
8 from electric logs in the area.

9 This shows a considerable reentrant right in Sections  
10 27 and 28 over the whole to the west. We are dealing in this  
11 area with near the wedge edge of the Salada formation near the  
12 outcrop edge of the Rustler formation and we have local sub-  
13 sidence occurring you will note in Section 28 at the north half.  
14 We have one elevation on the top of the anhydrite at plus  
15 thirty-one seventy-nine and one to the west of it at plus  
16 thirty-one ten with a regional dip being to the southeast in  
17 this whole area. That is an anomaly you also find down in  
18 the stippled area on Marbob where the top of the anhydrite is  
19 plus thirty-one twenty-four. These do not jibe with the higher  
20 elevations to the south and east, showing that we already have  
21 a certain amount of local subsidence due to solution of the  
22 Salada formation underlying the Rustler.

23 We also have instances shown further to the northwest  
24 where there is a non-uniformity of dip to the southeast.

25 Q What effect does that have on the flow of water under-

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 ground?

2 A Well, if there were any fractures being developed  
3 from the natural subsidence it would create some flows of  
4 water but there are none, there are no flows of water so that  
5 the natural subsidence hasn't affected the area in any way.

6 Q All right, now, the cable tool holes that you  
7 mentioned that found some fresh water, what horizon did they  
8 find the water in? It wasn't fresh water was it?

9 A Some of it, yes. The water in the wells, there are  
10 five wells, two in Section 15 and two in Section 22 and one  
11 in Section 23, that all found some water that was fresher  
12 than the underlying Rustler water. It is from the Permian group  
13 and it is sufficiently fresh that it can be used for livestock.

14 Q Okay, now, is there any possibility of surface  
15 drainage from these wells up in that direction?

16 A No, sir.

17 Q What about subsurface?

18 A No, sir, the dip is in the opposite direction.

19 Q Now, as a matter of fact, Mr. Kinney, isn't it  
20 true that that large mine deposit of Duval's lies in between  
21 those wells, those fresh water, and the leases that are in  
22 question here?

23 A Yes, sir. One other fresh water well exists in  
24 Section 26 in the southeast quarter at the point where the  
25 data says plus thirty-two ten. The circle indicates the

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 approximate position of the water well where the full blue  
2 circle or the dark blue circle to the right of that would  
3 indicate the position of the intermittent fresh water lake  
4 at the Walters camp of the Snider Ranch.

5 Q Okay. Now, you've also got Walters Lake shown on  
6 this, again is that a --

7 A Walters Lake, the one I have shown on the map is the  
8 Walters Lake that is shown on the USGS topo sheet submitted as  
9 Exhibit Number One, in the position that they show it.

10 Q Is that a lake?

11 A It's an intermittent lake, a case where water  
12 impounds during flood seasons only.

13 Q It's not a permanent lake?

14 A It's not a permanent lake, no, sir.

15 Q Is there any drainage from surface or subsurface  
16 from the subject leases and pits towards Walters Lake?

17 A No, sir, the drainage is all to the south in this  
18 area and there will be no drainage from these leases to this  
19 Walters Lake nor to the Walters camp of the Snider Ranch.

20 Q All right, now, you have mentioned the Dockum group,  
21 would you describe that group to the Commission, please?

22 A The Dockum group is a Triassic deposition overlying  
23 the Permian formations in this area, overlying the Permian  
24 Rustler formation. Starting at the bottom up it consists of  
25 three hundred and fifty feet of red sandy shale with a few

sid morrish reporting service

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 fine-grained sandstones, then two hundred to three hundred  
2 feet of gray and red sandstone with lenses of red shale and  
3 conglomerate and a bit of conglomerate at the top. Then three  
4 hundred feet or more of red shale with thin intermittent sand-  
5 stones, all are covered by dune sands in this area and the  
6 actual outcrops are not readily seen.

7 Q What does the red shale carry?

8 A The red shale in this group are very fine grained  
9 with a high colloidal content which impedes water movement.

10 Q What about, is there a physical barrier formed by  
11 this Dockum group?

12 A These fine-grained shales, sandstones, mudstones,  
13 whichever word a person prefers to use, are known as an  
14 aquiclude, a-q-u-i-c-l-u-d-e. An aquiclude is a formation  
15 that holds the water but will not transmit sufficient water to  
16 support a seep or fill a well and these beds are strict  
17 aquicludes.

18 Q And so what you are saying is that the water if it  
19 gets in these Dockum group beds won't transmit itself subsurface?

20 A The shale beds are full of original water depositions,  
21 what is residual after compaction and fresh water will not or  
22 any other water will not move through it in any quantity, not  
23 even enough to sustain a seep.

24 With one exception. Now, there is one exception.  
25 There are a few little lenses in this group of slightly



**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 cleaner sandstone confined within the group, within the  
2 Dockum group and some of these fine grained, slightly cleaner  
3 sandstones carry a little water but they are not very extensive

4 Q Well, let me ask you this question, Mr. Kinney. This  
5 Walters water well is actually a fresh water well, is it not,  
6 in Section 26?

7 A Yes, sir.

8 Q Would you explain from what zone it is producing and  
9 how the water got there?

10 A The Walters camp water well of the Snider Ranch is  
11 two hundred and thirty feet deep with the casing set at two  
12 hundred and twenty feet and according to testimony of the  
13 agent for the Snider Ranch in Case Number 4710 the water level  
14 stood at a hundred and ninety feet. If the water level stands  
15 at a hundred and ninety feet and no water was encountered until  
16 they got down to two hundred and twenty feet and there is no  
17 showing that they had any before that point, then we have  
18 confined water, not water table water but confined water and  
19 it has to be in a lense surrounded by a confining bed which is  
20 the Dockum group. The lense has to be recharged somewhere up  
21 dip to provide a pressure to raise the water above the limits  
22 of the aquifer itself.

23 Q And so you are saying that this well is charged or  
24 recharged from water to the northwest?

25 A Probably to the northwest, possibly to the north

1 itself but most likely to the northwest, most likely in the  
2 area of Walters Lake or further on to the northwest where the  
3 dip would bring this particular sand lense closer to the  
4 surface and where the Dockum group would be thin enough, the  
5 shales over the area would be thin enough to permit the  
6 ingress of water.

7 Q And as I understand your justification for concluding  
8 that it's a confined water is that the water is actually in the  
9 well at a higher level than it was encountered in drilling?

10 A That's right.

11 Q Now, one other thing so that as you go from the  
12 surface down in this area you have, correct me if I'm wrong,  
13 the blow sand first and then the Dockum group?

14 A Yes, sir.

15 Q And then you go into the Rustler?

16 A Yes, sir.

17 Q Does the Rustler have fresh water?

18 A No, sir, the Rustler carries considerable water in  
19 two zones. The basal zone of the Rustler carries the water,  
20 in many places quite an abundant amount of water, heavily  
21 saturated in sodium chloride, plain salt. The middle member  
22 of the Rustler formation carries water in a lot of the areas,  
23 in the area of the mines, and it is saturated with a calcium  
24 sulphate or gypsum water. Neither one are fresh waters or  
25 potable waters.

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 Q So, as I understand your testimony, Mr. Kinney, it  
2 is that in this area the only fresh water that has been  
3 found is in a confined area in the Dockum group?

4 A Correct. There are a few waters there that will meet  
5 the fresh water test.

6 Q But as a rule the Dockum group because of the  
7 nature of its rocks will not transmit water horizontally.

8 A The group as a whole will not transport any water,  
9 only the few limited lenses.

10 Q And below that is the Rustler which has no fresh  
11 water?

12 A No fresh water.

13 Q Okay. Now, Mr. Kinney, to the south are Southwest  
14 Potash or Amax's refinery, has there been any subsidence  
15 evidenced on the surface by virtue of that mining operation?

16 A Yes, sir, there has been subsidence over the mining  
17 areas where they have pulled the pillars and allowed the  
18 ground to settle.

19 Q Now, that's to the south of these subject leases?

20 A South of the subject leases, near the Amax mine.

21 Q Okay, describe those cracks or fractures, if you  
22 would, please?

23 A In general in the subsidence areas there is no  
24 cracking, the big broad area settles just slowly and makes a  
25 concave area at the top. However, on a few edges where the

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 subsidence ends or commences, whichever word you care to use,  
2 you do get a fracture that comes to the surface and at the  
3 surface is the only place we see any openness inasmuch as the  
4 shales with their high colloidal content are a type of forma-  
5 tion that heals instantly and does not have any material in it  
6 to sustain open spaces in the formation along the fracture,  
7 except at the very top, a few feet from the surface down where  
8 the overburden has been insufficient to cause it to immediately  
9 heal. It will heal in time but it is a very limited amount of  
10 open fracture.

11 Q So you are saying that when this subsidence occurs  
12 that outside of at the very surface, it immediately heals?

13 A Yes.

14 Q By that, it cements?

15 A It seals itself, it just never opens up, the formation  
16 just stays tight together along the fracture.

17 Q Okay. Is there any possibility in your opinion of  
18 water from these pits getting in those cracks and going  
19 towards the northeast towards this Walters Lake well?

20 A In my opinion there is no possibility of water  
21 moving down these fracture zones, either towards the Walters  
22 well or any other place along those fracture zones.

23 Q Because they have healed?

24 A Because it is right in the same type of formation  
25 and the fact of the fracture is not enough to change the nature

1 of the rock or to provide open spaces for water to percolate.

2 Q Now, that subsidence has been caused when the  
3 Southwest Potash moves out of an area they have mined?

4 A Moved out of an area and allowed the land to settle,  
5 yes, sir.

6 Q Has Southwest Potash had any problems with water in  
7 the mined out area?

8 A No, the Southwest Potash, or Amax, has allowed their  
9 area to subside and then reentered the subsided area and is  
10 mining a bed over the original bed and are not troubled with  
11 water, they are in there mining and they are drawing their  
12 ore underneath the Rustler which carries many times more water  
13 than the Dockum group would ever.

14 Q And so what you're saying is that after subsidence  
15 has occurred they go back in and mine above it?

16 A That's right.

17 Q And yet they are below the Rustler, this sand that  
18 is full of high chloride non-potable water?

19 A Yes, sir.

20 Q And they still haven't had any problem?

21 A They haven't had any problems.

22 Q Now, you earlier mentioned their forty to eighty  
23 acre pit, tailing pit or brine pit, have they had any evidence  
24 of migration of salt from that pit?

25 A They have had no evidence that they know of to date

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 of any migration to water wells surrounding those pits.

2 Q Now, you visited with the --

3 A I visited with the Chief Engineer, the Chief Mining  
4 Engineer of Amax Potash in regard to their mining operations  
5 and their problems, if any.

6 Q Okay. Mr. Kinney, in your opinion will produced  
7 water in the seven pits shown on your exhibits and the subject  
8 of this application, will that produced water percolate --  
9 well, first let me ask you, will it run along the surface  
10 towards the water well in Section 26 or towards the northwest  
11 or northeast towards those water wells?

12 A No, sir.

13 Q Okay, what about it percolating subsurface, will it?

14 A No, sir, it will not percolate to the northeast, it  
15 will settle into the dune sand and then be discharged again  
16 by evaporation and transpiration to the surface.

17 Q And in your opinion there is no probability that  
18 that water from, the produced water from these pits would  
19 enter the aquifer or the confined area that is charging this  
20 Walters well?

21 A No. The recharge has to be done north or northwest  
22 from that position.

23 Q Were Exhibits One through Four prepared by you or  
24 under your direction?

25 A Yes, sir.

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

**sid morrish reporting service**  
*General Court Reporting Service*  
 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
 Phone (505) 982-9212

1 Q Including the pictures which you took?

2 A Yes, sir.

3 MR. LOSEE: We move to introduce Exhibits One through  
 4 Four.

5 MR. RAMEY: They will be admitted.

6 (THEREUPON, Applicants' Exhibits One  
 7 through Four were admitted into evidence.)

8 MR. LOSEE: That's all of the direct, Mr. Ramey.

9 MR. RAMEY: Any questions of the witness? Mr. Stamets?

10  
 11 CROSS EXAMINATION

12 BY MR. STAMETS:

13 Q What volumes of water are being produced by those  
 14 wells at the present time?

15 A I cannot answer that exactly, I did not make any  
 16 measurements myself. I note that the oil wells are discharging  
 17 volumes of a barrel or two a day, up to volumes perhaps in  
 18 the fifty to sixty barrel range. I asked that the operators  
 19 file proper reports with the Commission.

20 MR. STAMETS: Mr. Losee, you I believe, asked that  
 21 the record in the Examiner's Hearing be included in this case  
 22 and I believe there is testimony in there concerning water  
 23 volumes, concerning the waterflood which lies to the south  
 24 of these wells and the potential for an increase in the volume  
 25 of water produced by these wells resulting by such waterflood

1 activity.

2 MR. LOSEE: The answer is, yes, Mr. Stamets. I don't  
3 think the waterflood is to the south there, it's right in  
4 between. The waterflood is in between the two leases.

5 A. In between the Marbob and the Heyco.

6 MR. STAMETS: In the general vicinity anyhow?

7 MR. LOSEE: Yes.

8 Q (Mr. Stamets continuing.) I did observe from the  
9 pictures here, the Heyco pit six sixty from the north line  
10 and thirteen hundred feet from the east line of Section 32,  
11 18, 30, and it would appear from this picture that the pit is  
12 about to run over?

13 A. That was the way it appeared at the time, however,  
14 right to the south, it's a little bit hard to see in a two  
15 dimensional picture, if it did run over it couldn't go but  
16 a few feet because that swale is cut off by a ridge that comes  
17 in from the right-hand side. However, the water seems to be  
18 disappearing into the blow sand.

19 Q Even if the pit did run over the dike we see here  
20 it still couldn't drain any significant distance?

21 A. No.

22 Q Your testimony relative to the Walters camp well  
23 is that the source of that water lies some distance north or  
24 northwest of Section 26 and that the natural drainage, both  
25 surface and subsurface, would be such that there would be no

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212



**sid morrison reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 way that this disposed water could enter the formations and  
2 get to this well?

3 A. Yes, sir.

4 Q. Mr. Kinney, are you aware of the general exception  
5 to Order R-3221 that exists in the area of these potash mines?

6 A. Well, I'm aware that they are allowed to dispose of  
7 their brine waters on the surface. I'm not familiar with the  
8 exact wording.

9 Q. You are not familiar with the geographical extent of  
10 that exception?

11 A. No.

12 Q. I believe the Commission's records probably will  
13 reflect that that lies just immediately to the south of these

14 A. I think that's right.

15 Q. If that line had been drawn a couple of miles to the  
16 north you probably wouldn't even be in here today?

17 A. If it had been drawn as far as that Duval's north  
18 pit I wouldn't have been here certainly.

19 MR. STAMETS: That's all of the questions I have.

20

21 CROSS EXAMINATION

22 BY MR. RAMEY:

23 Q. Mr. Kinney, you mentioned something about water  
24 wells around the Amax pit?

25 A. Yes.

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 Q There are some fresh water wells?

2 A No, they are not fresh water wells, they are water  
3 wells that they get out of the area to use, they are primarily  
4 Rustler water wells that they are using to sluice their tailings  
5 with.

6 MR. RAMEY: Okay. One thing I would point out,  
7 Mr. Losee, it seems like there are a lot of pits in these  
8 pictures that don't have fencing around them or adequate  
9 fencing. It is something that probably should be done and  
10 there is one pit in particular that had very steep sides, if  
11 livestock or wildlife got in there, I'm sure that --

12 MR. LOSEE: Mr. Ramey, I'll be sure and advise my  
13 clients with respect to fencing pits.

14 MR. RAMEY: I will advise my district office also.

15 Q (Mr. Ramey continuing.) But as far as you have  
16 been able to determine, Mr. Kinney, there is no fresh water  
17 in the area of these leases with the exception of what has  
18 been marked on Exhibit Four?

19 A That's right.

20 Q And you have no record of any to the south?

21 A No, sir.

22 Q Where the drainage is from these pits?

23 A No, sir. I went through the cable tool records  
24 and found no evidence.

25 Q Were most of these wells drilled with cable tools?

1 A. About half and half I would say.

2 Q. But some of these on the applicants' leases were  
3 drilled with cable tools?

4 A. Oh, yes, and around them.

5 MR. RAMEY: Any other questions? Mr. Arnold?

6

7

CROSS EXAMINATION

8 BY MR. ARNOLD:

9 Q. Mr. Kinney, Exhibit Three shows the direction of  
10 groundwater flow over the area, I wonder if you knew the  
11 procedure whereby they determined this?

12 A. The procedure?

13 Q. Yes, how they determined this.

14 A. The procedure is determined by the elevation at which  
15 water is in the various wells or areas. Water always flows  
16 at right angles down the steepest portion of the contour, so  
17 you draw your contours or take your elevations of water where  
18 it is found.

19 Q. They contoured the water sand first?

20 A. Well, they would have to contour not only -- all  
21 this map shows is the elevation of water in everyone of these  
22 wells. For instance, up there in 17 South, 29 East, it's at  
23 thirty-four seventy. Down in 18, 29, its at thirty-two  
24 seventy and over in 13, 29 it's thirty-four twenty-five and  
25 from that they have worked out -- somebody had to draw some

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 contours and determined the general direction of the contours  
2 and water always flows down the steepest dip.

3 Then on the surface, on the surface part, they had to  
4 use geography as shown on the topographic maps.

5 MR. ARNOLD: Thank you.

6 MR. RAMEY: Are there any other questions? The witness  
7 may be excused.

8 (THEREUPON, the witness was excused.)

9 MR. RAMEY: Do you have anything further, Mr. Losee?

10 MR. LOSEE: No, Mr. Ramey.

11 MR. RAMEY: Okay, the Commission will take the cases  
12 under advisement and the hearing is adjourned.

13 (THEREUPON, the hearing was adjourned.)  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand 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.

  
Sidney F. Morrish, C.S.R.

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212



BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 5719 DE NOVO  
Order No. R-5245-A

APPLICATION OF LA RUE AND MUNCY FOR  
AN EXCEPTION TO ORDER NO. R-3221,  
AS AMENDED, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 17, 1977, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 25th day of January, 1977, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, La Rue and Muncy, is the owner and operator of the McClay Federal Wells Nos. 9 and 10, located in Units G and F, respectively, of Section 33, Township 18 South, Range 30 East, NMPM, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.
- (3) That Order (3) of Commission Order No. R-3221, as amended, prohibits in that area encompassed by Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, the disposal, subject to minor exceptions, of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground, or in any pit, pond, lake, depression, draw, streambed, or arroyo, or in any watercourse, or in any other place or in any manner which would constitute a hazard to any fresh water supplies and said disposal has not been previously prohibited.
- (4) That the aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water

Case No. 5719 De Novo  
Order No. R-5245-A

supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.

(5) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(6) That the applicant seeks as an exception to the provisions of the aforesaid Order (3) permission to dispose of salt water produced by applicant's above-described wells into unlined surface pits located in Units F and G of said Section 33.

(7) That said McClay Federal Wells Nos. 9 and 10 produce approximately 6 barrels of water per day.

(8) That there is fresh water in the vicinity of the above-described unlined pits for which a present or reasonably foreseeable beneficial use is or will be made.

(9) That this matter came on for hearing before Examiner Richard L. Stamets on July 21, 1976, and pursuant to this hearing, Order No. R-5245 was issued in Case No. 5719 on August 24, 1976, which order denied the application of La Rue and Muncy for an exception to Order (3) of Commission Order No. R-3221.

(10) That such denial was predicated on said existence of fresh water in the vicinity of said pits, the lack of evidence as to the direction of subsurface drainage or percolation of water from the proposed unlined pits, and the potential threat to said fresh water posed by such drainage or percolation.

(11) That on September 13, 1976, the applicant, La Rue and Muncy, filed application for hearing De Novo of Case No. 5719 and the matter was set for hearing before a quorum of the Commission.

(12) That this matter came on for hearing De Novo on January 17, 1977.

(13) That the evidence presented demonstrates that surface drainage from the area of the proposed unlined pits would not be toward nor affect fresh water.

(14) That the evidence presented demonstrates that subsurface drainage from the area of the proposed unlined pits would not be toward nor affect fresh water.



Case No. 5719 De Novo  
Order No. R-5245-A

(15) That there appears to be no shallow fresh water in the vicinity of the subject pits for which a present or reasonably foreseeable beneficial use is or will be made that would be impaired by contamination from the subject pits.

(16) That the applicant should be permitted to dispose of water produced by wells on the above-described lease in unlined surface pits located on said lease.

IT IS THEREFORE ORDERED:

(1) That the applicant, La Rue and Muncy, is hereby granted an exception to Order (3) of Commission Order No. R-3221, as amended, to dispose of water produced in conjunction with the production of oil or gas, or both, from its McClay Federal Wells Nos. 9 and 10, located in Units G and F, respectively, of Section 33, Township 18 South, Range 30 East, NMPM, North Benson Queen-Grayburg Pool, Eddy County, New Mexico, in unlined surface pits located in Units F and G of said Section 33.

(2) That the Secretary-Director of the Commission may by administrative order rescind such authority whenever it reasonably appears to the Secretary-Director that such rescission would serve to protect fresh water supplies from contamination.

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

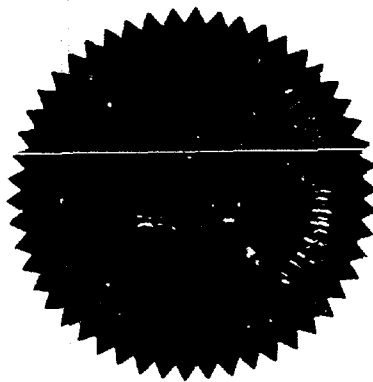
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARKOLD, Member

JOE D. RAMEY, Member & Secretary



S E A L

ES/

CASES 5719, 5720, 5721, 5722 and 5723  
were consolidated. All exhibits and the  
transcripts may be found in Case File  
5719

---

Cum 01/1 to  
5-31-76

2712

7120

1851

563

New

614

4117

131

331

5604

4818

854

Applicant	Oil Produced Per Day	Water Produced Per Day
HARVEY E. YATES COMPANY -	Section 32: NE/4, N/2 SE/4	T-18-S, R-30-E
Yates State No. 1 G		
Yates State No. 2 B		
Yates State No. 3 A		
Yates State No. 4 J		
Yates State No. 6 H	50	18
GENE SNOW -	Section 32: NW/4 SW/4	T-18-S, R-30-E
Elk No. 1 L	1-1/2 Barrels	Less than 1
MARBOB OIL COMPANY -	Section 28: SW/4 NW/4 Section 29: S/2 NE/4	T-18-S, R-30-E T-18-S, R-30-E
Elliott No. 1	12	5
Elliott No. 2 H	2	6
Elliott No. 3 G	5	Less than 1
SIMMS & REESE - HES	Section 33: NE/4 NW/4	T-18-S, R-30-E
McClay No. 7	5	15
LARUE & MUNCY - (No. 9) G - (No. 10) F	Section 33: SW/4 NE/4 Section 33: SE/4 NW/4	T-18-S, R-30-E T-18-S, R-30-E
McClay No. 9	50 Barrels	3
McClay No. 10	15 Barrels	3

BEFORE EXAMINER STAMETS  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 2  
CASE NO. 5719  
Submitted by \_\_\_\_\_  
Hearing Date \_\_\_\_\_

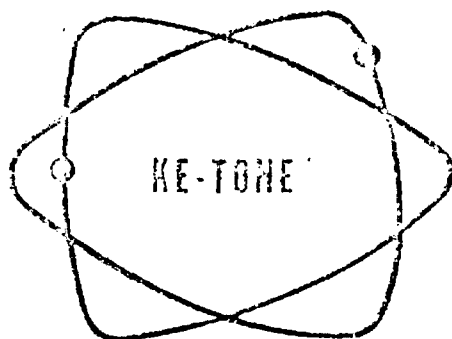
5719 PD

# WATER ANALYSIS CHART

	Dissolved Solids	pH	Chlorides mg/l	Sulfates mg/l
AXAX	319,927	7.5	194,500	2,249
H & S Oil Company	97,808	8.45	56,000	4,375
LaRue and Mancy	117,398	9.3	67,400	5,000
Gene Snow	80,600	7.75	45,600	4,300
HEYCO	121,645	7.5	70,600	4,063
Marbob	77,935	8.8	45,000	3,208

mg/l = milligrams per Liter

BEFORE EXAMINER STAMETS	
OIL CONSERVATION COMMISSION	
DATE	3
CASE NO.	5719
Submitted by	
Hearing Date	



UNITED CHEMICAL CORPORATION  
OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HO335, NEW MEXICO 88240

July 15, 1976

H & S Oil Company  
216 American Home Bldg.  
Artesia, New Mexico 88210

Attention: Mr. Herb Spencer

Dear Mr. Spencer,

Enclosed please find our water analyses reports on the six samples from the North Benson field submitted July 15, 1976.

If you have any questions or need additional information, please call us.

Yours truly,

UNITED CHEMICAL CORP. of N.M.

*Lucille Little*

Lucille Little  
Analyst

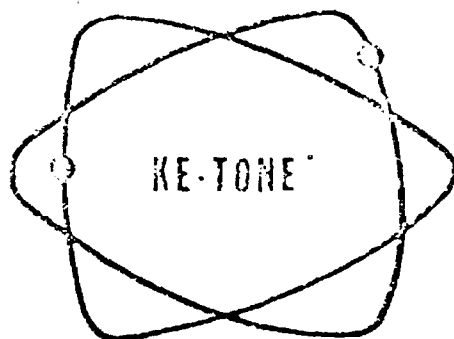
LL/mb

cc: Charlie Kyle  
Jim Sealy  
Pacho Jara  
Cy Foster

~~~~~ *Makes Water Work* ~~~~~

# WATER ANALYSIS — IONIC

TELEPHONE: HOBBS 393-7751  
AREA CODE - 505



## UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company H & S Oil Company

Field North Benson

Lease McClay #7

Sampling Date 7-14-76

Type of Sample

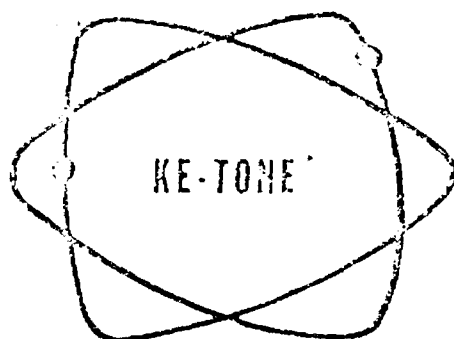
### WATER ANALYSIS

| IONIC FORM                                              | WATER ANALYSIS |        |
|---------------------------------------------------------|----------------|--------|
|                                                         | me/l *         | mg/l * |
| Calcium (Ca++)                                          | 116.00         | 2,320  |
| Magnesium (Mg++)                                        | 96.10          | 1,153  |
| Sodium (Na+)                                            | 1,464.49       | 33,669 |
| Iron (Total)                                            |                | 4.55   |
|                                                         | (CALCULATED)   |        |
| Bicarbonate (HCO <sub>3</sub> -)                        | 3.30           | 201    |
| Carbonate (CO <sub>3</sub> -)                           | 3.00           | 90     |
| Hydroxide (OH-)                                         | Not            | Found  |
| Sulphate (SO <sub>4</sub> -)                            | 91.09          | 4,375  |
| Chloride (Cl-)                                          | 1,579.20       | 56,000 |
| Total Dissolved Solids                                  |                | 97,808 |
| 8.45 pH at 68 °F                                        |                |        |
| Dissolved Solids on Evap. at 103° - 105° C              |                |        |
| Hardness as CaCO <sub>3</sub>                           | 212.10         | 10,605 |
| Carbonate Hardness as CaCO <sub>3</sub> (temporary)     | 6.30           | 315    |
| Non-Carbonate Hardness as CaCO <sub>3</sub> (permanent) | 205.80         | 10,290 |
| Alkalinity as CaCO <sub>3</sub>                         | 6.30           | 315    |
| Specific Gravity at 68° F                               | 1.068          |        |

\* mg/l = milligrams per liter

\* me/l = milliequivalents per liter

Make Water Work

UNITED CHEMICAL CORPORATION  
OF NEW MEXICO

591 NORTH LEECH

P. O. BOX 1499

HO885, NEW MEXICO 88240

Company

H &amp; S Oil Company

Field

North Benson

Lease

McClay #10

Sampling Date

7-14-76

Type of Sample

## WATER ANALYSIS

## IONIC FORM

Calcium (Ca++)  
Magnesium (Mg++)  
Sodium (Na+)  
Iron (Total)

(CALCULATED)

me/l \*

120.00  
94.76  
1,795.02

mg/l \*

2,400  
1,137  
41,268  
425

Bicarbonate (HCO<sub>3</sub>-)  
Carbonate (CO<sub>3</sub>-)  
Hydroxide (OH-)  
Sulphate (SO<sub>4</sub>-)  
Chloride (Cl-)

1.40  
3.60  
Not  
104.10  
1,900.68

85  
108  
Found  
5,000  
67,400

Total Dissolved Solids

117,398

9.3 pH c 68 °F  
Dissolved Solids on Evap. at 103° - 105° C  
Hardness as CaCO<sub>3</sub>  
Carbonate Hardness as CaCO<sub>3</sub> (temporary)  
Non-Carbonate Hardness as CaCO<sub>3</sub> (permanent)  
Alkalinity as CaCO<sub>3</sub>  
Specific Gravity c 68° F 1.082

214.76  
5.00  
209.76  
5.00

10,738  
250  
10,488  
250

\* mg/l = milligrams per liter

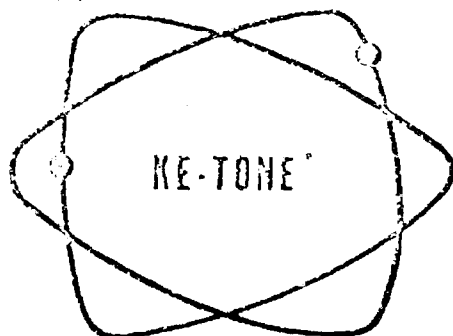
\* me/l = milliequivalents per liter

041731-01  
041731-01

Water Works

# WATER ANALYSIS — IONIC

TELEPHONE: HO885 393-7751  
AREA CODE - 505



## UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HO885, NEW MEXICO 88240

Company H & S Oil Company  
Field North Benson  
Lease Gene Snow  
Type of Sample  
Sampling Date 7-14-76

### WATER ANALYSIS

| IONIC FORM                                              | me/l *   | mg/l * |
|---------------------------------------------------------|----------|--------|
| Calcium (Ca++)                                          | 125.88   | 2,518  |
| Magnesium (Mg++)                                        | 108.12   | 1,297  |
| Sodium (Na+)                                            | 1,149.35 | 26,424 |
| Iron (Total)                                            |          | 1.26   |
| (CALCULATED)                                            |          |        |
| Bicarbonate (HCO <sub>3</sub> -)                        | 7.90     | 481    |
| Carbonate (CO <sub>3</sub> -)                           | Not      | Found  |
| Hydroxide (OH-)                                         | Not      | Found  |
| Sulphate (SO <sub>4</sub> -)                            | 89.53    | 4,300  |
| Chloride (Cl-)                                          | 1,285.92 | 45,600 |
| Total Dissolved Solids                                  |          | 80,620 |
| 7.75 ph c 68 °F                                         |          |        |
| Dissolved Solids on Evap. at 103° - 105° C              |          |        |
| Hardness as Ca CO <sub>3</sub>                          | 234.00   | 11,700 |
| Carbonate Hardness as CaCO <sub>3</sub> (temporary)     | 7.90     | 395    |
| Non-Carbonate Hardness as CaCO <sub>3</sub> (permanent) | 226.10   | 11,305 |
| Alkalinity as CaCO <sub>3</sub>                         | 7.90     | 395    |
| Specific Gravity c 68° F 1.055                          |          |        |

\* mg/l = milligrams per Liter

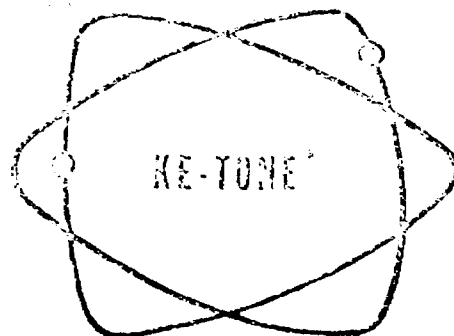
\* me/l = milliequivalents per Liter

Make Water Work



# WATER ANALYSIS — IONIC

TELEPHONE: HOBBS 393-7751  
AREA CODE - 505



## UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company H & S Oil Company

Field North Benson

Lease Amax Mine

Sampling Date 7-15-76

Type of Sample

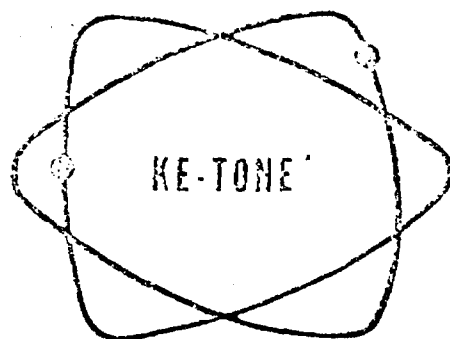
### WATER ANALYSIS

| IONIC FORM                                              | mg/l *       |         |
|---------------------------------------------------------|--------------|---------|
|                                                         | (CALCULATED) |         |
| Calcium (Ca++)                                          | 45.00        | 900     |
| Magnesium (Mg++)                                        | 371.20       | 4,454   |
| Sodium (Na+)                                            | 5 118.12     | 117,666 |
| Iron (Total)                                            |              | 7.3     |
| Bicarbonate (HCO <sub>3</sub> -)                        | 2.60         | 158     |
| Carbonate (CO <sub>3</sub> -)                           | Not          | Found   |
| Hydroxide (OH-)                                         | Not          | Found   |
| Sulphate (SO <sub>4</sub> -)                            | 46.82        | 2,249   |
| Chloride (Cl-)                                          | 5,484.90     | 194,500 |
| Total Dissolved Solids                                  |              | 319,927 |
| 7.5 pH c 68 °F                                          |              |         |
| Dissolved Solids on Evap. at 103° - 105° C              |              |         |
| Hardness as CaCO <sub>3</sub>                           | 416.20       | 20,810  |
| Carbonate Hardness as CaCO <sub>3</sub> (temporary)     | 2.60         | 130     |
| Non-Carbonate Hardness as CaCO <sub>3</sub> (permanent) | 413.60       | 20,680  |
| Alkalinity as CaCO <sub>3</sub>                         | 2.60         | 130     |
| Specific Gravity c 68° F 1.210                          |              |         |

\* mg/l = milligrams per liter

\* me/l = milliequivalents per liter

Make Water Work



## UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HO385, NEW MEXICO 88240

Company H &amp; S Oil Company

Field North Benson

Lease Heyco State

Sampling Date 7-15-76

Type of Sample

## WATER ANALYSIS

## IONIC FORM

Calcium (Ca++)  
Magnesium (Mg++)  
Sodium (Na+)  
Iron (Total)

(CALCULATED)

me/l \*

mg/l \*

151.20  
114.26  
1,821.65

3,024  
1,371  
41,880  
4.7

Bicarbonate (HCO<sub>3</sub>-)  
Carbonate (CO<sub>3</sub>-)  
Hydroxide (OH-)  
Sulphate (SO<sub>4</sub>-)  
Chloride (Cl-)

11.60  
Not  
Not  
84.59  
1,990.92

707  
Found  
Found  
4,063  
70,600

Total Dissolved Solids

112,165

121,645

7.7 pH c 68 °F  
Dissolved Solids on Evap. at 103°-105° C  
Hardness as CaCO<sub>3</sub>  
Carbonate Hardness as CaCO<sub>3</sub> (temporary)  
Non-Carbonate Hardness as CaCO<sub>3</sub> (permanent)  
Alkalinity as CaCO<sub>3</sub>  
Specific Gravity c 68° F 1.085

265.46  
11.60  
253.86  
11.60

13,273  
580  
12,693  
580

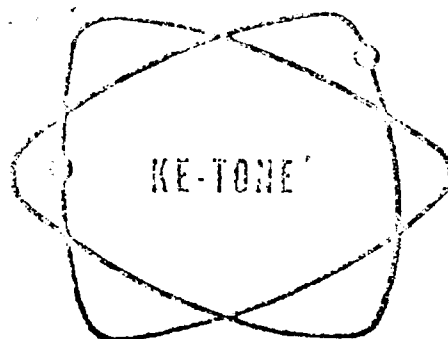
\* mg/l = milligrams per liter

\* me/l = milliequivalents per liter

Water Water Work

# WATER ANALYSIS -- IONIC

TELEPHONE: HO2BS 393-7751  
AREA CODE - 505



## UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HO2BS, NEW MEXICO 88240

Company H & S Oil Company

Field North Benson

Lease Marabob #1

Sampling Date 7-14-76

Type of Sample

### WATER ANALYSIS

| IONIC FORM                                              |              |        |
|---------------------------------------------------------|--------------|--------|
|                                                         | me/l *       | mg/l * |
| Calcium (Ca++)                                          | 117.22       | 2,344  |
| Magnesium (Mg++)                                        | 97.78        | 1,173  |
| Sodium (Na+)                                            | (CALCULATED) | 25,945 |
| Iron (Total)                                            |              | 445    |
| Bicarbonate (HCO <sub>3</sub> -)                        | 0.90         | 55     |
| Carbonate (CO <sub>3</sub> -)                           | 7.00         | 210    |
| Hydroxide (OH-)                                         | Not          | Found  |
| Sulphate (SO <sub>4</sub> -)                            | 66.79        | 3,208  |
| Chloride (Cl-)                                          | 1,269.00     | 45,000 |
| Total Dissolved Solids                                  |              | 77,935 |
| 8.8 pH c 68 °F                                          |              |        |
| Dissolved Solids on Evap. at 103° - 105° C              |              |        |
| Hardness as Ca CO <sub>3</sub>                          | 215.00       | 10,750 |
| Carbonate Hardness as CaCO <sub>3</sub> (temporary)     | 7.90         | 395    |
| Non-Carbonate Hardness as CaCO <sub>3</sub> (permanent) | 207.10       | 10,355 |
| Alkalinity as CaCO <sub>3</sub>                         | 7.90         | 395    |
| Specific Gravity c 68° F 1.052                          |              |        |

\* mg/l = milligrams per liter

\* me/l = milliequivalents per liter

*Robert Walter Wolfe*

Occ. Order No.  
R-3820

FRANKLIN-ASTON  
& PAIR

Marble

Snow

HEYGO

HASO

Big Rue & Muncy

Marble Ranch  
3436

Villars Lake

13 Duval

AMAX

Hackberry  
Lake

Occ. Order No.  
R-401

DAVID C. COLLIER

C L A Y T O N

Canyon

Gatuna

BEFORE EXAMINER STAMETS  
OIL CONSERVATION COMMISSION

EXHIBIT NO. 4

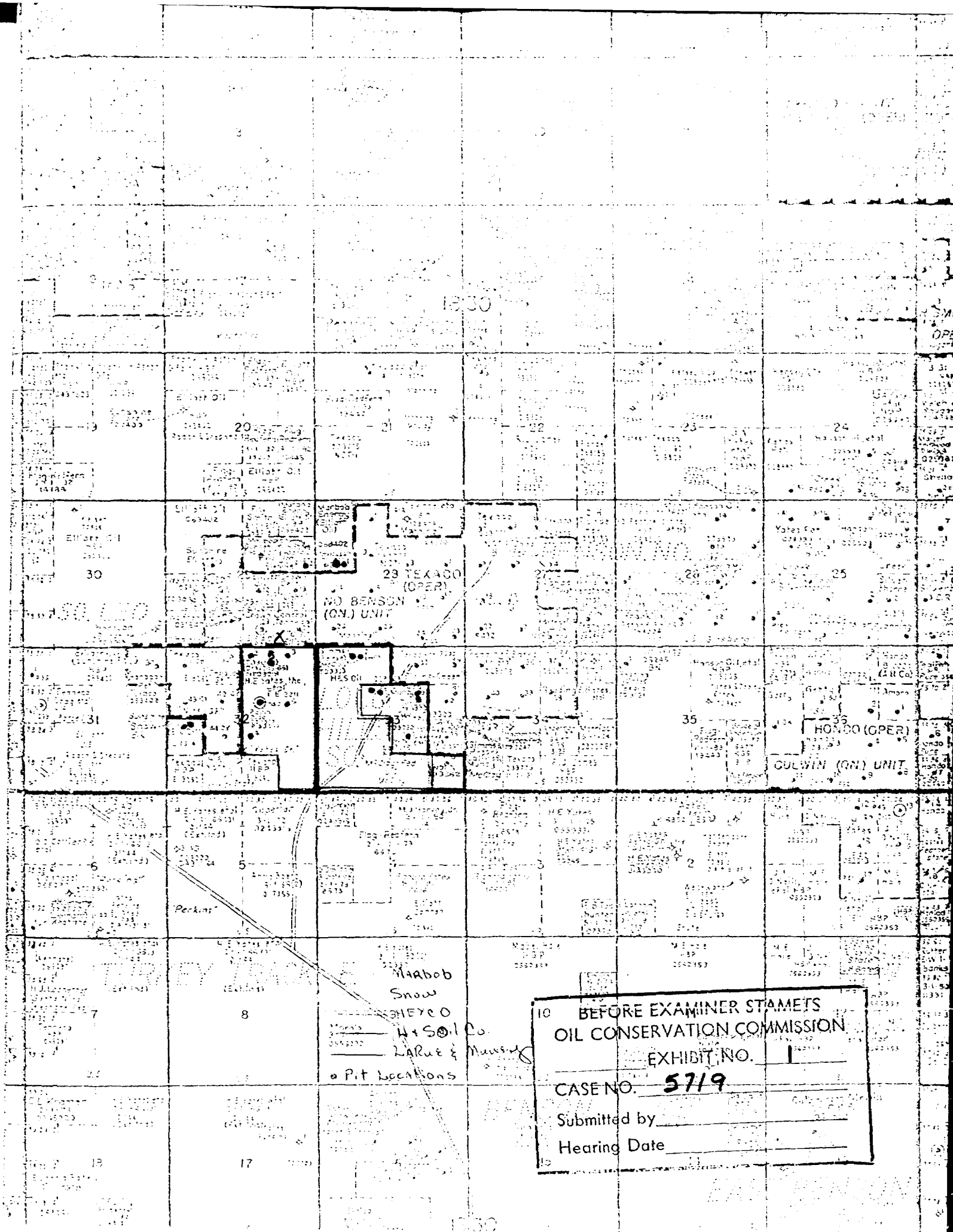
CASE NO. 2719

Submitted by

Hearing Date

ASTON

B A S I N



|                             |      |
|-----------------------------|------|
| 10 BEFORE EXAMINER STAMETS  |      |
| OIL CONSERVATION COMMISSION |      |
| EXHIBIT NO.                 | 1    |
| CASE NO.                    | 5719 |
| Submitted by                |      |
| Hearing Date                |      |

RECEIVED  
JAN 21 1941  
OFFICE OF THE SECRETARY OF THE OIL CONSERVATION COMMISSION  
WASHINGTON, D. C.

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF :  
HARVEY E. YATES COMPANY, GENE SNOW, :  
MARBOB OIL COMPANY, SIMMS & REESE, :  
AND LARUE & MUNCY, FOR AN EXCEPTION :  
TO ORDER NO. R-3221 AS AMENDED, EDDY :  
COUNTY, NEW MEXICO. :

CASE NO. \_\_\_\_\_

APPLICATION

COME NOW HARVEY E. YATES COMPANY, GENE SNOW, MARBOB  
OIL COMPANY, SIMMS & REESE, and LARUE & MUNCY, by and through  
their attorneys, and in support hereof respectfully state:

1. That applicants are the owners and operators of  
the following leases located in Eddy County, New Mexico:

A. Harvey E. Yates Company -

Yates State Nos. 1, 2, 3, 4, and 6,  
located in the NE/4, N/2 SE/4,  
Section 32, Township 18 South,  
Range 30 East, N.M.P.M.

B. Gene Snow -

Elk No. 1, located in the NW/4 SW/4,  
Section 32, Township 18 South, Range  
30 East, N.M.P.M.

C. Marbob Oil Company -

Elliot Nos. 1, 2, and 3, located  
in the SW/4 NW/4, Section 28,  
Township 18 South, Range 30 East,  
N.M.P.M., and the S/2 NE/4, Section  
29, Township 18 South, Range 30 East,  
N.M.P.M.

D. Simms & Reese -

McClay No. 7, located in the NE/4 NW/4,  
Section 33, Township 18 South, Range 30  
East, N.M.P.M.

E. LaRue & Muncy -

McClay No. 9, located in the SW/4 NE/4,  
Section 33, Township 18 South, Range 30  
East, N.M.P.M., and

McClay No. 10, located in the SE/4 NW/4,  
Section 33, Township 18 South, Range 30  
East, N.M.P.M.

2. Applicants seek an exception to the provisions of Oil Conservation Commission Order No. R-3221 as amended to permit the disposal of saltwater produced by the above mentioned wells in unlined surface pits of said lessees.

3. That there is no shallow fresh water in the vicinity of the above described wells for which a present or reasonably foreseeable beneficial use is or will be impaired by contamination from unlined surface pits located in the vicinity of said wells.

4. That the approval of this Application will prevent waste.

WHEREFORE, applicants pray:

A. That this Application be set for hearing before an examiner and that notice of said hearing be given as required by law;

B. That upon hearing the Commission enter its order granting applicants an exception to Oil Conservation Commission Order No. R-3221 as amended to permit utilization of unlined surface pits for the disposal of saltwater produced by the above described wells; and

C. For such other and further relief as may be just  
in the premises.

HARVEY E. YATES COMPANY,  
GENE SNOW, MARBOB OIL COMPANY,  
SIMMS & REESE, LARUE & MUNCY

By: 

LOSEE & CARSON, P.A.

P. O. Drawer 239

Artesia, New Mexico 88210

Attorneys for Applicants



BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 5719  
Order No. R-5245

APPLICATION OF LA RUE AND MUNCY FOR  
AN EXCEPTION TO ORDER NO. R-3221,  
AS AMENDED, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 21, 1976,  
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 24th day of August, 1976, the Commission, a  
quorum being present, having considered the testimony, the record,  
and the recommendations of the Examiner, and being fully advised  
in the premises,

FINDS:

(1) That due public notice having been given as required by  
law, the Commission has jurisdiction of this cause and the  
subject matter thereof.

(2) That the applicant, La Rue and Muncy, is the owner and  
operator of the McClay Federal Wells Nos. 9 and 10, located in  
Units G and F, respectively, of Section 33, Township 18 South,  
Range 30 East, NMPM, North Benson Queen-Grayburg Pool, Eddy  
County, New Mexico.

(3) That Order (3) of Commission Order No. R-3221, as  
amended, prohibits in that area encompassed by Lea, Eddy, Chaves,  
and Roosevelt Counties, New Mexico, the disposal, subject to  
minor exceptions, of water produced in conjunction with the  
production of oil or gas, or both, on the surface of the ground,  
or in any pit, pond, lake, depression, draw, streambed, or arroyo,  
or in any watercourse, or in any other place or in any manner  
which would constitute a hazard to any fresh water supplies and  
said disposal has not been previously prohibited.

(4) That the aforesaid Order No. R-3221 was issued in order  
to afford reasonable protection against contamination of fresh  
water supplies designated by the State Engineer through disposal  
of water produced in conjunction with the production of oil or  
gas, or both, in unlined surface pits.

Case No. 5719  
Order No. R-5245

(5) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(6) That the applicant seeks as an exception to the provisions of the aforesaid Order (3) to permit the disposal of salt water produced by applicant's above-described wells into unlined surface pits located in Units F and G of said Section 33.

(7) That said McClay Federal Wells Nos. 9 and 10 produce approximately 6 barrels of water per day.

(8) That there is fresh water in the vicinity of the above-described unlined pits for which a present or reasonably foreseeable beneficial use is or will be made.

(9) That the evidence presented at the hearing demonstrates that surface drainage from the area of the proposed pits is away from the area wherein said fresh water is located.

(10) That no evidence was presented to demonstrate that subsurface drainage or percolation of water from the proposed unlined pits would not be toward nor affect said fresh water.

(11) That to protect said fresh water from the potential harmful affects of the surface disposal of produced salt water in said pits the subject application should be denied.

IT IS THEREFORE ORDERED:

(1) That the application of La Rue and Muncy for an exception to Order (3) of Commission Order No. R-3221, as amended, to dispose of water produced in conjunction with the production of oil or gas, or both, by their McClay Federal Wells Nos. 9 and 10, located in Units G and F, respectively, of Section 33, Township 18 South, Range 30 East, NMPM, North Benson Queen-Grayburg Pool, Eddy County, New Mexico, in unlined surface pits located in the vicinity of said wells is hereby denied.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

-3-  
Case No. 5719  
Order No. R-5245

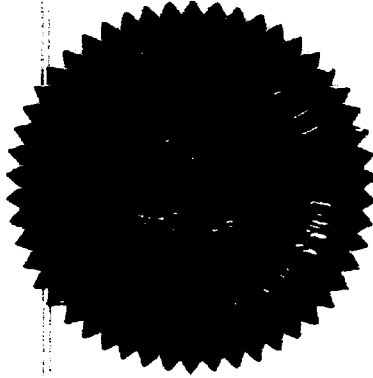
DONE at Santa Fe, New Mexico, on the day and year herein-  
above designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

*Emery C. Arnold*  
EMERY C. ARNOLD, Member

*Joe D. Ramey*  
JOE D. RAMEY, Member & Secretary



S E A L

jr/

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
July 21, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of La Rue and Muncy,  
Harvey E. Yates, H & S Oil Company,  
Gene Snow and Marbob Energy Corpora-  
tion for an exception to Order  
No. R-3221, Eddy County, New Mexico.

CASES  
5719, 5720,  
5721, 5722,  
5723

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: William F. Carr, Esq.  
Legal Counsel for the Commission  
State Land Office Building  
Santa Fe, New Mexico

For the Applicants: A. J. Losee, Esq.  
LOSEE & CARSON, P.A.  
Attorneys at Law  
300 American Home Building  
Artesia, New Mexico

sid morrish reporting service  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

I N D E X

|   |                                  |             |
|---|----------------------------------|-------------|
| 2 |                                  | <u>Page</u> |
| 3 | <u>HERBERT R. SPENCER</u>        |             |
| 4 | Direct Examination by Mr. Losee  | 4           |
| 5 | Cross Examination by Mr. Stamets | 24          |

EXHIBIT INDEX

|    |                                           |             |
|----|-------------------------------------------|-------------|
| 10 |                                           | <u>Page</u> |
| 11 | Applicants' Exhibit One, Plat             | 24          |
| 12 | Applicants' Exhibit Two, Summary          | 24          |
| 13 | Applicants' Exhibit Three, Water Analyses | 24          |
| 14 | Applicants' Exhibit Four, Map             | 24          |
| 15 | Applicants' Exhibit Five, Calculations    | 24          |
| 16 | Applicants' Exhibit Six, Photographs      | 24          |

sid morrish reporting service  
 General Court Reporting Service  
 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
 Phone (505) 982-9212

1 MR. STAMETS: We will call Case 5719.

2 MR. CARR: Case 5719, application of La Rue and  
3 Muncy for an exception to Order No. R-3221, Eddy County,  
4 New Mexico.

5 MR. LOSEE: Mr. Examiner, A. J. Losee, Losee and  
6 Carson, Artesia appearing on behalf of the applicant in this  
7 case and 5720, 5721, 5722 and 5723 and I really would like to  
8 move at this time 5719, 20, 21, 22 and 23 that inasmuch as  
9 they are all for exceptions to the salt water disposal order  
10 in the same identical area, move that they be consolidated  
11 for hearing purposes.

12 MR. STAMETS: I would like to call these cases and  
13 then they will be consolidated.

14 MR. CARR: Case 5720, application of Harvey E. Yates  
15 for an exception to Order No. R-3221, Eddy County, New Mexico.

16 Case 5721, application of H & S Oil Company for an  
17 exception to Order No. R-3221, Eddy County, New Mexico.

18 Case 5722, application of Gene Snow for an exception  
19 to Order No. R-3221, Eddy County, New Mexico.

20 Case 5723, application of Marbob Energy Corporation  
21 for an exception to Order No. R-3221, Eddy County, New Mexico.

22 MR. STAMETS: These cases are all consolidated at  
23 this time for purposes of testimony. You may proceed.

24 MR. LOSEE: If the Examiner will give me a moment  
25 I will try to get them marked appropriately by number.

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 MR. STAMETS: Okay.

2 MR. LOSEE: For your purposes if I say 5719, et al  
3 or dash twenty-three, which would you prefer?

4 MR. STAMETS: For the case, whatever seems appropriate  
5 and reference to one of these cases shall be reference to  
6 all for my purposes.

7 MR. LOSEE: Okay, thank you.

8 Mr. Examiner. I have one witness, Mr. Herb Spencer.  
9 If you will stand and be sworn.

10 (THEREUPON, the witness was duly sworn.)  
11

12 HERBERT R. SPENCER

13 called as a witness, having been first duly sworn, was  
14 examined and testified as follows:  
15

16 DIRECT EXAMINATION

17 BY MR. LOSEE:

18 Q State your name, please?

19 A Herbert R. Spencer.

20 Q Do you live in Artesia, New Mexico?

21 A Yes.

22 Q What is your occupation?

23 A Partner in H & S Oil Company.

24 Q You have not previously testified before the  
25 Commission?

sid morrish reporting service  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

**sid morrish reporting service**  
*General Court Reporting Service*  
 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
 Phone (505) 982-9212

- 1 A. No, I have not.
- 2 Q. Have you had any formal education in geology or
- 3 petroleum engineering?
- 4 A. No, I have not.
- 5 Q. Have you been engaged in the oil field work and if so,
- 6 for how long?
- 7 A. Since 1951.
- 8 Q. For whom were you working at that time?
- 9 A. For Sims and Reece Oil Company and myself.
- 10 Q. You were a partner in Sims and Reece Oil Company?
- 11 A. Yes.
- 12 Q. And you remained with that company until it was
- 13 acquired by H & S Oil Company?
- 14 A. That's right.
- 15 Q. And you are a partner in that company?
- 16 A. That's right.
- 17 Q. During that period of time, Mr. Spencer, what were
- 18 your responsibilities?
- 19 A. Oil maintenance, production and development for this
- 20 company.
- 21 Q. And was that work all done in Southeastern
- 22 New Mexico?
- 23 A. Yes.
- 24 MR. LOSEE: Mr. Examiner, are Mr. Spencer's
- 25 qualifications acceptable?



**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 MR. STAMETS: Mr. Losee, I understand that you are  
2 qualifying Mr. Spencer as a practical oil man with experience  
3 in operations and production.

4 MR. LOSEE: Yes, sir.

5 MR. STAMETS: And he is testifying for all of the  
6 applicants in this case?

7 MR. LOSEE: Yes, sir.

8 MR. STAMETS: The witness is considered qualified.

9 Q (Mr. Losee continuing.) Mr. Spencer, will you  
10 explain to the Examiner the purpose of this hearing in these  
11 cases?

12 A It is to permit disposal into six earthen pits on  
13 leases on which each of the applicants that applied that are  
14 producing salt water from the twelve wells of the applicants.

15 Q I will hand you what has been marked as Exhibit One  
16 and ask you to explain what is shown by this exhibit?

17 A Well, I tried to show on this the applicants at this  
18 time. At the north here the coloring, I guess that's orange,  
19 is Marbob and to the left here in Section 32 in the blue is  
20 Elk Oil Company or Gene Snow and Hayco or Harvey Yates Company  
21 in green, H and S Oil Company in the red and La Rue and  
22 Muncy colored in the blue and the pit locations.

23 Q Does it also show the twelve wells?

24 A Yes, it does.

25 Q And the pit location on each lease?

**sid morrison reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 A. Yes.

2 Q. Do these leases offset any water flood?

3 A. Yes, they do, they offset this Texaco North Benson-  
4 Queen Unit Waterflood.

5 Q. I will hand you what has been marked as Exhibit Two,  
6 being a summary of fluids produced from these wells and ask if  
7 you will explain the data shown on this exhibit.

8 A. Well, this is the oil produced per day and the water  
9 produced per day. The Hayco leases are contained in a central  
10 battery. I think all of the rest of it is self-explanatory  
11 except for this Marbob, they are individual at this time.

12 Q. They are producing into separate batteries?

13 A. Yes.

14 Q. And is that data current?

15 A. Yes, it is.

16 Q. Based upon your actual knowledge or the best  
17 information received from the operators?

18 A. That is correct.

19 Q. Okay, let me ask you, it's not shown on this sheet,  
20 if you will relate the cumulative production to May 31, 1976  
21 of each of these wells if you can?

22 A. Okay, this Yates State No. 1 the cumulative at that  
23 time was twenty-two hundred and twelve barrels. The No. 2  
24 was --

25 Q. Wait a second.

1 MR. STAMETS: And you are giving us cumulative oil  
2 production through what date now?

3 MR. LOSEE: May 31, '76.

4 MR. STAMETS: I would like to note this as you go  
5 through here. Okay, you may proceed.

6 A The Yates State 1 is twenty-two hundred and twelve  
7 barrels. The No. 2 is seventy-one hundred and twenty. The  
8 No. 3 is eighteen hundred and fifty-one and the No. 4 is  
9 five hundred and sixty-three and the No. 6 is relatively new,  
10 it was just completed.

11 Gene Snow, Elk Oil Company, six hundred and fourteen  
12 barrels; Marbob Oil Company Elliot No. 1, forty-one hundred  
13 and seventeen barrels. The No. 2, one hundred and thirty-one  
14 barrels, his No. 3, three hundred and thirty-one barrels.

15 H & S Oil Company McClay No. 7, fifty-six hundred and  
16 four barrels.

17 The La Rue and Muncy No. 9, forty-eight hundred and  
18 eighteen, the No. 10 is eight hundred fifty-four.

19 Q (Mr. Losee continuing.) Okay, with respect to this  
20 exhibit, some of these wells have recently been drilled and  
21 completed, what about the Yates State Wells?

22 A To the best of my knowledge the Yates State 4 and  
23 6 are relatively new, they were both completed this spring.  
24 I believe this Elk Oil Company has too.

25 Q Completed this spring, spring of '76?

sid morrish reporting service

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

**sid morrish reporting service**  
*General Court Reporting Service*  
 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
 Phone (505) 982-9212

- 1 A. Yes.
- 2 Q. What about the Marbob?
- 3 A. I think the Marbob Elliott 2 and 3 are both relatively
- 4 new and this La Rue and Muncy, both of those were completed
- 5 this spring.
- 6 Q. So what you are saying is the only wells that have
- 7 been completed prior to this spring are the La Rue and Muncy
- 8 No. 9, your McClay No. 7, the Elliott No. 1, let me ask you if
- 9 that wasn't completed last fall in November?
- 10 A. In November.
- 11 Q. And the first three Yates State Wells?
- 12 A. That's right.
- 13 Q. To your knowledge has the water production as shown
- 14 on this chart increased recently. I mean, has it increased to
- 15 the point recently at which it is shown on this chart?
- 16 A. Yes, it has.
- 17 Q. Do you yourself pump any of these wells?
- 18 A. Yes, I do. I take care of the Yates State and this
- 19 H & S Oil Company.
- 20 Q. Okay, did the Yates State No. 6 when it was completed
- 21 have any water?
- 22 A. Yes, it showed water.
- 23 Q. How much, do you know?
- 24 A. No, I do not.
- 25 Q. Because it has gone into the central battery?

1 A Yes.

2 Q Please turn to what has been marked as Exhibit  
3 Three, which on the cover of it is a summary of the separate  
4 water analysis made on each lease by United Chemical. Did you  
5 take the samples from which this analysis was made?

6 A Yes, sir, I did.

7 Q Where did you take them?

8 A I took it at Amax Corporation at their tailings  
9 dump; H & S Oil Company at their separator; La Rue and Muncy  
10 at their separator; Gene Snow's and Hayco and Marbob at their  
11 separators.

12 Q And was that on or about July 15th?

13 A Yes, it was.

14 Q Now, as far as the water in those separators, why,  
15 if you know, is there any such great distinction in the  
16 dissolved solids?

17 A Well, the only explanation I can give there is that  
18 I think it comes from the very bottom of these separators so  
19 it is more than likely just settled solids.

20 Q Do you think the actual produced water would have  
21 that much solids in it?

22 A I don't see how it could really. I'm sure this  
23 merely has to be an accumulation that would be in the bottom  
24 of these separators.

25 Q Why did you take the water analysis out of Amax's

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 Southwest Potash plant?

2 A Well, actually because they are putting it on the  
3 ground and they have covered some eight hundred acres as best  
4 I can figure it and it is very, very high in dissolved solids  
5 and chlorides.

6 Q Okay, will your Exhibit Four show the location of  
7 Amax's Potash mine and refinery with respect to these leases?

8 A Yes, it does. It starts here in Section 10, in the  
9 middle of this exhibit.

10 Q Now, before you start talking about Amax, can you  
11 briefly explain what is shown by this exhibit?

12 A Well, it basically still carries the leases that we  
13 have up above and down here it shows the Amax plant proper and  
14 I've tried to outline the total pit area and water runoff as  
15 it is contained at this time.

16 Q Does it look like about eight hundred acres,  
17 approximately?

18 A Well, that's a guesstimation on my part. That's as  
19 close as I could get it by stepping it off and by mileage.

20 Q How far is it from the leases?

21 A It is about a mile-and-a-quarter.

22 Q To the closest lease?

23 A Yes.

24 Q Okay, please proceed with the other mines or --

25 A I have another location up here on this Duvall North

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 Shaft marked in here and I also have a rancher's house here  
2 in 26.

3 Q Let me ask you about that Duvall Shaft. Do they  
4 refine up there?

5 A No, they do not. To my knowledge they have just  
6 pulled over there but they do have quite a substantial dump up  
7 there. I don't understand why but it's there and you can  
8 certainly see it.

9 Q Will one of your aerial photographs which is a  
10 subsequent exhibit show this?

11 A Yes, it does, very much.

12 Q What effect is rain water on that?

13 A Well, at this time you can see it in the aerial  
14 photograph that it has run to the east and north.

15 Q To the north?

16 A To the east and to the north, yes, and, of course,  
17 I have an aerial photograph of this Amax plant also.

18 Q Does PCA also have a mine on the map?

19 A Yes, they do and this covers considerably more  
20 area than this but I do not have it all.

21 Q How many acres is that pit? I guess that's not the  
22 proper term, the proper term is where they put their tailings.

23 A Well, it looks like about a section and a half to me  
24 a section and three-quarters.

25 Q Now, you have some red markings on this map, what

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santo Fe, New Mexico 87501  
Phone (505) 982-9212

1 do they reflect?

2 A Yes, I do. These are water tubs that I have been  
3 able to find that belong to the rancher and one principally  
4 in Section 23, 18, 30.

5 Q That is a water tub, explain what you mean by that?

6 A Well, it is just a vessel sitting on the ground that  
7 the water is piped to and I don't know where from. I think it  
8 comes from the north to the northeast up here someplace.

9 Part of this line is in the road and that's how I found it.

10 Q In other words, a water line feeds that tub?

11 A Yes, sir.

12 MR. STAMETS: Did you say Section 23?

13 A I'm sorry, 28. Also I have one listed down here in  
14 Section 17 of 19.

15 Q (Mr. Losee continuing.) Of 30. Now, is that a  
16 tub or a windmill?

17 A It's a tub. This used to be a mill years ago but  
18 it's a tub now, I looked at it the other day, it's just a  
19 water vessel with a pipe to it.

20 Q With a pipe to it?

21 A Yes, sir.

22 Q Is that the same water line that feeds the earlier  
23 mentioned tub?

24 A Well, I can't answer that because I can't see just  
25 where it is, the right-of-way or what direction. I do have

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212



**sid morrison reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 another tub and I know there are more right east of the Amax  
2 plant itself in Section 11 and there are more on up in 12 and  
3 7 going on east. They take off of Amax's water line off of  
4 the caprock. I don't know just how many there are up there.

5 Q Okay, now, these tubs that you are talking about,  
6 would any water falling on the surface bother those?

7 A No, it would not.

8 Q Contaminate them or otherwise?

9 A No, sir, they are controlled strictly by float and  
10 they are up off the ground.

11 Q Please proceed with your discussion of the fresh  
12 water in the area.

13 A I do have a windmill that is inoperative at this  
14 time and has been to my knowledge for the past four or five  
15 years here in Section 32.

16 Q Of 19, 30?

17 A Of 19, 30.

18 Q Okay and that's just offsetting?

19 A Excuse me, 18, 30.

20 Q In 18, 30?

21 A Yes.

22 Q Whose lease does that offset?

23 A It offsets Hayco. Even when Hayco drilled this  
24 No. 4 Well which is right there by it, right beside it, we  
25 didn't have any water.

**sid morrison reporting service**  
*General Court Reporting Service*  
 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
 Phone (505) 982-9212

1 Q At all?

2 A No, not all.

3 Q Did you drill it with cable tool?

4 A Yes, we did. We had the first water show at  
 5 twenty-one hundred feet.

6 Q In that well?

7 A In that well and the two wells to the north of it,  
 8 the No. 2 and the No. 3 on the north end of this Section 32,  
 9 there was no water show at all on those two and we went way  
 10 below the salt which was in the oil zone.

11 Q How many feet below the surface, approximately?

12 A Twenty-six or twenty-seven hundred feet.

13 Q Below the salt though, were they?

14 A Yes, they were.

15 Q Okay, now, what do you mean the well is inoperative,  
 16 are the rods still in it?

17 A No, they are not.

18 Q They've been pulled?

19 A Yes. It has been broken and there is nothing  
 20 there, everything is gone and the mill has just been standing  
 21 there.

22 Q Okay, now, you have another red marking over to  
 23 the northeast of your leases, would you explain what that  
 24 marking indicates?

25 A I assume this is his line camp or ranch house for

1 the Snider ranches in Section 26 and it sets in a hole over  
2 here and there is one well there. It's not a mill though,  
3 it's a subsurface pump and it produces water.

4 Q Does he pump that to a line to some of these tubs  
5 on the ranch?

6 A Yes, he does. He produces it to a tank that is up  
7 on the hill here and then from that point produces it back  
8 over to a high spot that's on the hill. I believe it's in  
9 Section 22 of 18, 30 and from that point he branches off and  
10 supplies these tubs, at least two that I do know about that  
11 run down through this area.

12 Q Through the area of your leases?

13 A Yes, in Section 28 and 32 and I think there is one  
14 in 5 but I never did find it. Now, this down in 17 I do not  
15 know where that comes from.

16 Q Okay, now, Mr. Spencer, would you -- this is a  
17 topography map from the Department of Interior?

18 A Yes, it is.

19 Q Would you explain what would happen to any water  
20 that flowed on the surface from any of those leases as to  
21 which direction it would go?

22 A Well, primarily it would go southwest. You can  
23 see this is the Loco Hills and this is on the west break off  
24 of this and as you can see the contours come down approximately  
25 to Section 9 into a point and at this time I think most of this

1 runs right in with the Amax potash.

2 MR. STAMETS: For the purposes of the record, you  
3 are referring to this ridge then that runs from the purple  
4 square marked Duvall in Section 27 of 18, 30 down through the  
5 lease that is colored in red in Section 33 and then it drops to  
6 the south and starts back towards the Amax mine in Section 10  
7 and 15 of 19, 30?

8 A That's right. Also on the east side of this same  
9 hill we list in the blue area the La Rue Muncy, it runs right  
10 straight down as you can see a dim road cuts through this  
11 Section 3. There is an old railroad track cuts through this  
12 area. It also follows part of a drainage area or lake bed.  
13 I'm going to call it a lake bed, it's a dry wash and it runs  
14 right into the north end of this Amax tailings dump.

15 Q (Mr. Losee continuing.) So, for the record, Mr.  
16 Spencer, what you are stating is the portion of the leases  
17 that lie to the south and east of this ridge that cuts  
18 through all of them, surface drainage off of that would run  
19 to the south and east into the Amax pit?

20 A Yes, it would. I've been caught down here a time  
21 or two, you know, in a flash flood or water and had to walk  
22 out. This area is very susceptible to the run off. It just  
23 disappears pretty quick when it comes in this area.

24 Q Have you actually seen it go from that area into the  
25 Amax pit?

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

**sid morrish reporting service**  
*General Court Reporting Service*  
 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
 Phone (505) 982-9212

1 A Yes, I have.

2 Q What kind of soil is on the eastern portion of  
 3 that ridge?

4 A This east and west is a solid sand, deep sand and  
 5 I mean deep because we have problems even finding the caliche  
 6 some places.

7 Q Is there any fresh water in the vicinity of your  
 8 pits or the five proposed pits for which there is a present  
 9 or reasonably foreseeable use that you know of?

10 A No.

11 Q The only water well that you have discussed is the  
 12 water well over at the Snider camp which is to the north?

13 A Yes, in Section 26.

14 Q That is approximately how far from the nearest lease  
 15 line?

16 A It's a mile-and-a-half.

17 Q Is it downdip or updip?

18 A Yes, it is.

19 Q Is it downdip or updip?

20 A It's updip from these leases, downdip from Duvall's  
 21 North Shaft.

22 Q And that is reflected by the surface topography?

23 A Yes, it is, very definitely. From Walter's lake  
 24 here you can see that the contour runs down the east side of  
 25 Section 26 and then comes right on around.

1 MR. STANDER: When you are referring to dip there,  
2 you are talking about surface and not subsurface?

3 A. Yes, sir. And I understand that there was one more  
4 well that they had up here in Section 24 that they abandoned.  
5 I don't know anything about it. They said it was too salty.

6 Q (Mr. Losee continuing.) Okay, now, you have in the  
7 area portrayed on this map, has the Commission heretofore  
8 approved exceptions to this no-pit order?

9 A. Yes, they have.

10 Q. Would you point out those areas?

11 A. In Section 17 in the north part of this map.

12 Q. Township 18?

13 A. 18, 30.

14 Q. Okay.

15 A. Order R-3820, Franklin, Aston and Fair. I also  
16 have one more down here in Section 30 of 19,30, David Collier,  
17 Order No. R-4016.

18 Q. And with respect to those two areas, do your leases  
19 generally lie in between them?

20 A. Yes, they do.

21 Q. And in between them also as far as the surface  
22 topography is concerned?

23 A. Yes, it does.

24 Q. Okay, now, is there an area to the east of your  
25 leases in which Hanson Oil Corporation applied for an exception

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 and was denied by the Commission?

2 A Yes, they did. It was in Sections 26, 25 and 30  
3 of the next Township. This is the only ones I can recall  
4 right now.

5 Q Please turn to what has been marked as Exhibit  
6 Number Five, Mr. Spencer, which are some calculations and  
7 explain what is shown by those calculations?

8 A Well, this is a calculation that I did when I took  
9 this sample from the Amax plant to run a water analysis. This  
10 is just the best I could do with the calculations that I had.  
11 It shows a gallon per minute equal of two point fifty-six X,  
12 D squared over the square root of Y. All right, what I did  
13 here was take the diameter of the pipe in inches. All right,  
14 and X is the inches from the end of the pipe out to where  
15 the waterflow hits the ground. Y is the flow from the top of  
16 this same pipe to where the water hit the ground. All right,  
17 this calculation comes up in gallons per minute or at least  
18 the best I could do. I did not have any way of accurately  
19 measuring it and I had to guess at it and I came up with  
20 four hundred and forty-three gallons per minute or ten point  
21 five barrels a minute and calculated this out to fifteen  
22 thousand, a hundred and ninety-two barrels a day.

23 Q And that is being discharged a mile-and-a-quarter  
24 to the south and east of your leases?

25 A Yes, it is.

1 Q And that fluid contains something around four  
2 hundred parts per million of solids?

3 A Yes, it does. This sample was taken from the top of  
4 the pipe and that was as close to it as I could get and out of  
5 a ten-inch pipe with as much solids as this thing runs the best  
6 I could tell after I got the sample back and just measured it,  
7 it looks like the solids were twenty-eight to twenty-nine  
8 percent of my sample that I took and this was in the top of the  
9 ten-inch pipe so in the lower end of this and standing back  
10 from the pipe you could hear gravel and tailings running down  
11 in the bottom of it. So this is certainly conservative as far  
12 as the solids.

13 Q And the total amount of water output on the leases  
14 is, I believe, shown by your Exhibit Two as fifty-one barrels  
15 per day?

16 A Yes, that's right.

17 Q And that's in comparison to the over fifteen thousand  
18 by Southwest Potash?

19 A Yes.

20 Q Now, we only have one set of the aerial photos so  
21 let me ask you to go up, you and the Examiner, if you will, and  
22 maybe I can get you to number each of them A, B or something  
23 like that as he goes through them.

24 AA. STARTERS: As we go through these I will mark  
25 each one of these A, then B and so on.

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212



1 A Just looking at this top one for the first pass by  
2 the plant and you can see this is the tailings dump proper.

3 MR. STAMETS: This is at the Amax plant?

4 A Yes, it is. This dump at this time is considerably  
5 higher than even their warehouses.

6 MR. STAMETS: And it is on the right-hand side of  
7 the photograph?

8 A Yes, and this is the water tailings part of it.

9 MR. STAMETS: To the left?

10 A Yes.

11 MR. STAMETS: That's Photograph A. Now, I'm  
12 marking Photo B.

13 A Okay, this is just another sequence that is run on  
14 down the same trend, it is still to the south. It just takes  
15 in that much more of the same area.

16 This is Amax again. See, it is just another shot of  
17 it. It covers a little bit better the water tailings end of  
18 it and then D covers it completely, I think. This is the old  
19 railroad line that has now been taken up.

20 MR. STAMETS: Kind of a brown line running from  
21 left to right on the photograph?

22 A You can get a perspective of the whole pit at that  
23 time.

24 These are samples of Duvall's North Shaft.

25 Q (Mr. Losee continuing.) They are pictures, aren't

sid morrish reporting service  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

**sid morrish reporting service**  
*General Court Reporting Service*  
 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
 Phone (505) 982-9212

1 they?

2 A. Yes.

3 Q. Okay.

4 A. This is the first one that I took. You can see  
 5 the rainfall and what it has done around it. This is very  
 6 high, it's on top of this hill. This is your Walter's lake  
 7 as shown on the other exhibit.

8 MR. STAMETS: That's to the left-hand side of the  
 9 photograph?

10 A. Yes, over to the east.

11 All right, looking back down this same picture you  
 12 can see the leases of Texaco, Marbob and the Amax plant right  
 13 here.

14 MR. STAMETS: And those are on the upper right-hand  
 15 side of the photograph?

16 A. So, you can readily see that the leases are in between  
 17 these two.

18 MR. STAMETS: And the photograph does show a large  
 19 pile of whitish looking material in the center of the photo-  
 20 graph to the left-hand side of the hoist?

21 A. Yes, and the railroad track.

22 MR. STAMETS: And that is Part E of Exhibit Number  
 23 Six.

24 A. This is the same, it is just another picture back  
 25 down towards Walter's lake and you can see the area it

1 encompassed. This is the picture of the lease as I was directly  
2 over Duval, still looking back toward Southwest Potash to  
3 depict the area between the two.

4 MR. STAMETS: The last one is Part G.

5 Q (Mr. Losee continuing.) Did you take those pictures,  
6 Mr. Spencer?

7 A Yes, I did, yesterday afternoon.

8 Q Were Exhibits One through Five prepared by you or  
9 under your direction?

10 A Yes, sir.

11 MR. LOSEE: We move the introduction of Exhibits One  
12 through Six.

13 MR. STAMETS: These exhibits will be admitted.

14 (THEREUPON, Exhibits One through Six  
15 were admitted into evidence.)

16 MR. LOSEE: That's all at this time, Mr. Examiner.

17  
18 CROSS EXAMINATION

19 BY MR. STAMETS:

20 Q Mr. Spencer, has any research or any investigation  
21 been done on perhaps putting this water back in the reservoir  
22 through an injection well?

23 A Not to my knowledge it hasn't. La Rue and Muncy  
24 down there in No. 3 was a hole that we are still going to play  
25 with, I think. They were talking about making it into an

sid morrish reporting service

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 injection well but I'm afraid it is going to be too tight.  
2 This is the only thing I do know about him to talk of.

3 Q On Exhibit Number Two you show no current production  
4 from the Yates State No. 1, 2, 3 and 4, is that correct?

5 A This is a consolidated battery and these are all  
6 total pictures.

7 A A total of fifty barrels of oil and eighteen barrels  
8 of water is the combined production from all five of those  
9 wells?

10 A That's right. I'm sorry, I thought I made that  
11 statement.

12 Q So, the one well that you're referring to is the only  
13 shut-in well on any of these leases that could be used for  
14 salt water disposal?

15 A It's really not even here, no. The La Rue and  
16 Muncy No. 8 and it's on the south end of his lease here in  
17 Section 33. It would be the southeast corner.

18 Q That one little forty that sits down there all by  
19 itself?

20 A Yes. They have tried to complete it and they are  
21 working on it and they've been kicking this around but that is  
22 as far as it has been. It took a lot of pressure to frac the  
23 well so I don't know whether it would justify it. There is  
24 still some more study needs to be done on this.

25 Q Mr. Spencer, the leases shown here appear to offset

sid morrish reporting service  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 that north Benson Queen waterflood project of Texaco?

2 A Yes, they do.

3 Q Are these wells completed in that same formation?

4 A Yes, sir. Some of them are completed places where  
5 Texaco isn't.

6 Q Would you expect the water production to increase  
7 in these wells?

8 A Well, yes, I do.

9 Q Do you have any idea what Texaco is producing out  
10 of there as far as water cuts on some of their wells?

11 A I'm sorry, I do not. Their oil production on those  
12 run five to six hundred a day at this time but their water cuts,  
13 no, I do not.

14 Q That would be reflected on the Form C-120's filed  
15 by Texaco, I would presume?

16 A Yes.

17 Q Perhaps those should be available to the Examiner in  
18 making a decision in this case.

19 A Okay.

20 MR. LOSEE: I have no objection.

21 Q (Mr. Stamets continuing.) In the mining operations  
22 for potash, to your knowledge does secondary mining ever  
23 result in fracturing of the surface formations in this  
24 particular area?

25 A Oh, it certainly has.

1 Q What about right in the area of these leases, have  
2 you ever seen any evidence of that fracturing?

3 A Well, I'll just have to guess, this was about a  
4 year-and-a-half to two years ago, I followed one of these  
5 features on top of the ground in Section 4 of 19, 30 and  
6 paced it off and it was a hundred and fifty yards long across  
7 the highway and down off of this hill and at one point it was  
8 about three-and-a-half feet wide and I can't say how deep. And  
9 this whole highway between in Section 5 of 19, 30 and on all the  
10 way into the plant and then our highway or the paved road that  
11 goes down the top of this Loco Hills has cracked and has  
12 features in it. The Highway Department has a little problem  
13 trying to keep these patched up so at least we don't have  
14 any big problem.

15 Q Which direction do these surface fractures run,  
16 north and south or east and west?

17 A No, they are east and west, the ones that I have  
18 seen on this hill anyway and I understand back to the south  
19 you can see across the highway south of the Amax plant that  
20 there is quite a few that run east and west across that  
21 highway but I did not stop and get out and walk across the  
22 prairie on those.

23 Q Mr. Spencer, is it possible that these fractures  
24 which run east and west could provide avenues for water  
25 movement below the surface of the ground, east and west

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

**sid morrison reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 from the area that we are discussing here today, from the  
2 pits?

3 A. Yes, it's very possible inasmuch as it is on top  
4 of the hill and any rain water from this would certainly  
5 wash it out.

6 Q. And I believe you testified there is a water well  
7 in Section 26 of 18 South, 30 East and it looks like the  
8 northwest quarter of the southeast quarter?

9 A. Right.

10 Q. To your knowledge is there anything that would  
11 prevent this water from migrating through some of these  
12 fractures over to this producing water well?

13 A. Well, I have not seen any of these features or  
14 these cracks this far up, up here close to where this water  
15 well and this house is. Now, as I say, it was just up this  
16 pavement along the top of this road, just as it comes onto  
17 our lease and if there is one back to the north then I  
18 haven't seen it.

19 Q. So, what you are saying is that at least the surface  
20 cracks are fairly well localized around the road and the  
21 Duvall mine?

22 A. Yes.

23 Q. Have you been over to this house?

24 ME. JOSE: Let me stop you. You said the Duvall  
25 mine, I think he meant the Amax mine.

1           L     It's the Amax, it's not the Duvall that's doing  
2 this. It's down toward -- did I give you the wrong section?

3           MR. STAMETS: Let's go off the record and see.

4           (THEREUPON, a discussion was held  
5 off the record.)

6           A     I would like to reiterate that the only features  
7 that I have seen close to this lease are in Section 5, they  
8 run right up the east side of it and go into the corner of  
9 this Section 33. That is about the extent of it. Most of the  
10 rest of them that I have found are to the west of the Amax  
11 plant and south. Now, it may extend quite away out, I don't  
12 know about that.

13          Q     (Mr. Stamets continuing.) In making this application  
14 did you or did anybody else contact the Snider Ranch and  
15 advise them of this application?

16          A     No, I did not.

17          Q     Somewhat earlier the Hanson application in the area  
18 of Section 26, 18, 30 was mentioned and I believe the record  
19 will show that was Case Number 4710. Mr. Spencer, were you  
20 aware that in that case the foreman of the Snider Ranch  
21 indicated he would object to any application to dispose of  
22 salt water on the surface of the ground within three miles  
23 of that water well in Section 26?

24          A     Well, inasmuch and you can see here on the topography  
25 of the land, he is primarily interested and he says so, I

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212



**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 believe, that his surface water is right here in this hole  
2 and it would be in the southeast corner of Section 26 and the  
3 northeast corner of 35, the one below it, and there is quite  
4 a large hill to the east of it. It's contained at that  
5 point, so the surface drainage at that time would be to the  
6 southwest. All right, then immediately behind the house there  
7 in Section 26, there is quite a large hill that runs through  
8 the parts of 26 and 27 and then turns south in 34. Now,  
9 we are downdip topography-wise from this house and from this  
10 water or from this surface water.

11 As I pointed out before that our drainage, that  
12 I have seen anyway from this Section 33, runs southeast  
13 through Section 3 of 19, 30.

14 Q Getting back to my question, though, I believe that  
15 your answer is probably going to be, "No, that you were not  
16 aware in this earlier case that the ranch foreman had  
17 indicated he would object to any surface disposal within  
18 three miles of this particular well"?

19 A Well, no.

20 Q I believe the record in this earlier case also  
21 indicates that he testified that this was the only good  
22 water well in the general vicinity and that a number of these  
23 other wells had gone bad over the years for one reason or  
24 another?

25 Mr. Losee, I believe that the record in this

1 Case 4710 should be incorporated in the record of this  
2 particular case.

3 MR. LOSEE: Mr. Examiner, recognizing that my  
4 objection thereto would be wasted, I will not so do, except  
5 I would, one, point out that to the extent that it bears  
6 upon this application but not to show that there is an  
7 objection or protest to it. We were not aware of their  
8 protesting the Hanson application until just prior to this  
9 hearing when you furnished us with the application and I  
10 would urge that if they intended to, this is the hearing  
11 that they should be present so that we can cross examine them  
12 with respect to the matters that Mr. Spencer has testified to  
13 and I guess having qualified my lack of objection, I have  
14 none.

15 MR. STAMETS: The record in Case 4710 will be  
16 admitted in this particular case.

17 Q (Mr. Stamets continuing.) Mr. Spencer, you have  
18 indicated that you are not a geologist, is that correct?

19 A. Yes, sir.

20 Q And you are not a hydrologist?

21 A. No, I'm not.

22 Q And you don't have any testimony to indicate to  
23 the Examiner what might happen to this water once it  
24 disappears into the sand or once it flows down to the south  
25 away from this area if it happens to flow on the surface?

sid morrish reporting service

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 A It disappears very readily. In fact, in this  
2 Walter's lake I have seen it rain awfully hard and it doesn't  
3 stay there very long.

4 Q You can't tell me if it runs directly toward  
5 Section 26 or directly away or any other particular direction?

6 A No.

7 MR. STAMETS: Any other questions of this witness?

8 He may be excused.

9 (THEREUPON, the witness was excused.)


10 MR. STAMETS: Anything further in this case?

11 The case will be taken under advisement.  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

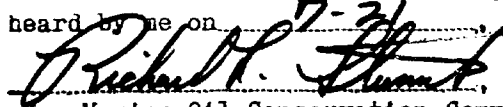
**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand 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.

  
Sidney F. Morrish, C.S.R.

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 5719 *Am* 5723  
heard by me on 7-31, 1976.  
, Examiner  
New Mexico Oil Conservation Commission

Dockets Nos. 5-77 and 6-77 are tentatively set for hearing on February 2 and February 16, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - MONDAY - JANUARY 17, 1977

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205,  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases are continued from the December 1, 1976, Commission Hearing.

CASE 5719: Application of La Rue and Muncy for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its McClay Federal Wells Nos. 9 and 10, located in Units G and F, respectively, of Section 33, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of La Rue and Muncy, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5720: Application of Harvey E. Yates for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from his State Wells Nos. 1, 2, 3, 4, and 6 located in Units C, B, A, J, and H, respectively, of Section 32, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of Harvey E. Yates, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5721: Application of H & S Oil Company for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its McClay Well No. 7, located in Unit C of Section 33, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of H & S Oil Company, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5722: Application of Gene Snow for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from his Elk Well No. 1, located in Unit L of Section 32, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of Gene Snow, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5723: Application of Marbob Energy Corporation for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its Elliott Well No. 1 located in Unit E of Section 28, and its Elliott Wells Nos. 2 and 3 located in Units H and G, respectively, of Section 29, all in Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of Marbob Energy Corporation, this case will be heard De Novo pursuant to the provisions of Rule 1220.

Docket No. 4-77

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 19, 1977

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for February, 1977, from seventeen prorated pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico.
- (2) Consideration of the allowable production of gas for February, 1977, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
October 20, 1976

**COMMISSION HEARING**

**IN THE MATTER OF:**

Application of La Rue and Muncy for an  
exception to Order No. R-3221, Eddy  
County, New Mexico.

**CASE 5719**

Application of Harvey) E. Yates for an  
exception to Order No. R-3221, Eddy  
County, New Mexico.

**CASE 5720**

Application of H & S Oil Company for  
an exception to Order No. R-3221, Eddy  
County, New Mexico.

**CASE 5721**

Application of Gene Snow for an exception to Order No. R-3221, Eddy County, New Mexico.

**CASE 5722**

Application of Marbob Energy Corporation  
for an exception to Order No. R-3221,  
Eddy County, New Mexico.

**CASE 5723**

**BEFORE: Joe D. Ramey, Director**

TRANSCRIPT OF HEARING

## A P P E A R A N C E S

For the New Mexico Oil  
Conservation Commission:

Lynn Teschendorf  
Legal Counsel for the Commission  
State Land Office Building  
Santa Fe, New Mexico

Dockets Nos. 34-76 and 1-77 are tentatively set for hearing on December 15, 1976 and January 5, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - WEDNESDAY - DECEMBER 1, 1976

9 A.M. OIL CONSERVATION COMMISSION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 5719: Application of La Rue and Muncy for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its McClay Federal Wells Nos. 9 and 10, located in Units G and F, respectively, of Section 33, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of La Rue and Muncy, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5720: Application of Harvey E. Yates for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from his State Wells Nos. 1, 2, 3, 4, and 6 located in Units G, B, A, J, and H, respectively, of Section 32, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of Harvey E. Yates, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5721: Application of H&S Oil Company for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its McClay Well No. 7, located in Unit C of Section 33, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of H&S Oil Company, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5722: Application of Gene Snow for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from his Elk Well No. 1, located in Unit L of Section 32, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of Gene Snow, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5723: Application of Marbob Energy Corporation for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its Elliott Well No. 1 located in Unit E of Section 28, and its Elliott Wells Nos. 2 and 3 located in Units H and G, respectively, of Section 29, all in Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of Marbob Energy Corporation, this case will be heard De Novo pursuant to the provisions of Rule 1220.

**I. GENERAL RULES AND REGULATIONS FOR THE ASSOCIATED POOLS OF SOUTHEASTERN AND NORTHWESTERN NEW MEXICO**

(See Special Pool Rules in each pool for orders applicable to those pools only. Special Pool Rules will be found in the same classification order as in the General Section, and, unless the special rules conflict with the general rule, the general rule is also applicable.)

**A. WELL LOCATION AND ACREAGE REQUIREMENTS**

**RULE 1:** Any well drilled to the producing formation of an associated pool regulated by this order and within said pool or within one mile outside the boundary of that pool, and not nearer to nor within the boundaries of another designated pool producing the same formation, shall be spaced, drilled, operated, and prorated in accordance with the regulations in effect in that pool.

**RULE 2:** After the effective date of this order each well drilled or recompleted on a standard proration unit within an associated pool regulated by this order shall be located as provided below:

**OIL WELLS - SOUTHEAST NEW MEXICO**

| Standard Proration Unit | Location Requirements                                                                        |
|-------------------------|----------------------------------------------------------------------------------------------|
| 40 Acres                | Not closer than 330 feet to the boundary of the tract                                        |
| 80 and 160 acres        | Must be located within 150 feet of the center of the quarter-quarter section wherein located |

**GAS WELLS - SOUTHEAST NEW MEXICO**

| Standard Proration Unit | Location Requirements                                                                                                            |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 160 acres               | Must be located within 150 feet of the center of the quarter-quarter section wherein located.                                    |
| 320 acres               | Not closer than 660 feet to the nearest side boundary nor closer than 1980 feet to the nearest end boundary of the spacing unit. |

**ALL WELLS - NORTHWEST NEW MEXICO**

| Standard Proration Unit | Location Requirements                                                                                              |
|-------------------------|--------------------------------------------------------------------------------------------------------------------|
| 40 Acres                | Not closer than 330 feet to the boundary of the tract                                                              |
| 80, 160 and 320 acres   | Not closer than 790 feet to any quarter section line nor closer than 330 feet to any quarter-quarter section line. |

**RULE 3:** (a) Each gas well shall be located on a standard unit containing 160 acres or 320 acres, more or less, as provided in the special pool rules therefor.

(b) Each oil well shall be located on a standard unit containing 40 acres, 80 acres or 160 acres, more or less, as provided in the special pool rules therefor.

**RULE 4:** (a) The District Supervisor of the appropriate district Office of the Commission shall have the authority to approve a non-standard unit as an exception to Rule 3(a) or 3(b) without notice and hearing when the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the U. S. Public Land Surveys and the non-standard unit is not less than

75% nor more than 125% of a standard unit.

The District Supervisor of the appropriate district office of the Commission may approve the non-standard unit by:

- (1) Accepting a plat showing the proposed non-standard unit and the acreage to be dedicated to the non-standard unit, and
- (2) Assigning an allowable to the non-standard unit.

(b) The Secretary-Director of the Commission may grant an exception to the requirements of Rule 3(a) or Rule 3(b), when the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the U. S. Public Land Surveys and the non-standard unit is less than 75% or more than 125% of a standard unit, or where the following facts exist and the following provisions are complied with:

- (1) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.
- (2) The non-standard unit lies wholly within a governmental subdivision or subdivisions which would be a standard unit for the well (half quarter section, quarter section, or half section) but contains less acreage than a standard unit.

(3) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the half quarter section, quarter section or half section (for 80-acre, 160-acre, and 320-acre standard dedications respectively.) in which the non-standard unit is situated and which acreage is not included in said non-standard unit.

(4) In lieu of paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the foregoing operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Secretary-Director has received the application.

**B. WELL CLASSIFICATION AND GAS-OIL RATIO LIMITATION**

**RULE 5:** A well shall be classified as a gas well if it has a gas-liquid ratio of 30,000 or more cubic feet of gas per barrel of liquid hydrocarbons. A well shall be classified as an oil well if it has a gas-liquid ratio of less than 30,000 cubic feet of gas per barrel of liquid hydrocarbons. The simultaneous dedication of any acreage to an oil well and a gas well is prohibited.

**RULE 6:** That the limiting gas-oil ratio shall be 2,000 cubic feet of gas for each barrel of oil produced.

**RULE 7:** An oil well shall be permitted to produce only that amount of gas determined by multiplying the top unit oil allowable for the pool by the limiting gas-liquid ratio for the pool. In the event there is more than one oil well on an oil proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

A gas well shall be permitted to produce that amount of gas obtained by multiplying the top unit oil allowable for the pool by the limiting gas-liquid ratio for the pool and by a fraction, the numerator of which is the number of acres dedicated to the particular gas well and the denominator of which is a number equal to the number of acres in a standard oil proration unit in such pool. In the event there is more than one gas well on a gas proration unit, the operator may produce the amount of gas assigned to the unit from the wells on the unit in any proportion.

**C. WELL TESTING**

**RULE 8:** The operator of each newly completed well shall cause a gas-liquid ratio test to be taken on the well upon recovery of all lead oil from the well, provided however, that in no event shall the test be commenced later than 30 days from the date of first production unless the well is connected to a gas-gathering facility and is producing under



a temporary gas allowance outlined in accordance with Rule 11. Any well which is shut-in shall be exempted from the gas-liquid ratio test requirement so long as it remains shut-in. The initial gas-liquid ratio test shall be taken in the manner prescribed by Rule 9. If the gas-liquid ratio is 20,000 cubic feet of gas per barrel of liquid hydrocarbons, or more, the operator shall not produce the well until beneficial use can be made of the gas.

**RULE 9:** Semi-annual gas-liquid ratio tests shall be taken on all wells during each year in accordance with a test schedule prepared by the District Office of the Commission. The initial gas-liquid ratio test shall suffice as the first semi-annual test. Tests shall be 24-hour tests, being the first 24 hours of a 72-hour period during which the well shall be produced at a constant normal rate of production. Results of such tests shall be filed on Commission Form C-116 on or before the 15th day of the following month. At least 72 hours prior to commencement of any such gas-liquid ratio tests, each operator shall file with the appropriate District Office of the Commission a test schedule for its wells specifying the time each of its wells is to be tested. Copies of the test schedule shall also be furnished to all offset operators. The supervisor of the appropriate District Office of the Commission may grant an exception to the above test requirements where it is demonstrated that the well produces no liquids.

Special tests shall also be taken at the request of the Secretary-Director and may also be taken at the option of the operator. Such special tests shall be taken in accordance with the procedures outlined hereinabove, including notification to the Commission and offset operators.

**RULE 10:** An initial shut-in pressure test shall be taken on each gas well and shall be reported to the Commission on Form C-125.

#### D. ASSIGNMENT OF ALLOWABLE

**RULE 11:** Any well completed after the effective date of these rules shall receive an allowable only upon receipt by the appropriate Commission District Office of Commission Forms C-102, C-104, C-116, and, in the case of a gas well, a transporter's notice of gas connection, properly executed. The District Supervisor of the Commission's District Office is hereby authorized to assign a temporary gas allowable to wells connected to a gas transportation facility during the recovery of load oil, which allowable shall not exceed the number of cubic feet of gas obtained by multiplying the daily top unit allowable for the pool by the limiting gas-liquid ratio for the pool.

#### E. GAS PRORATIONING

**RULE 12:** The associated gas proration period shall be the proration period which shall begin at 7 a.m. on the first day of the month and shall end at 7 a.m. on the first day of the next succeeding month.

**RULE 13:** No associated gas underproduction may be carried forward into any proration month. (See ALTERNATIVE PROPOSED RULE 13 following Rule 21)

**RULE 14:** Any associated gas well which has an overproduced status at the end of any associated gas proration period shall carry such overproduction into subsequent periods. If at any time a well is overproduced an amount equalling three times its current monthly allowable, it shall be shut in during that month and each succeeding month until the well is overproduced less than three times its current monthly allowable.

**RULE 15:** The allowable assigned to a well during any one month of an associated gas proration period in excess of the production for the same month shall be applied against the overproduction carried into such period in determining the amount of overproduction, if any, which has not been compensated for.

**RULE 16:** The Commission may allow overproduction to be compensated for at a lesser rate than would be the case if the well were completely shut in upon a showing after notice and hearing that complete shut in of the well would result in material damage to the well or reservoir.

#### F. REPORTING OF PRODUCTION

**RULE 17:** The monthly gas production from each gas well shall be metered separately and the gas production therefrom shall be reported to the Commission on Form C-115 so as to reach the Commission on or before the 25th day of the month next succeeding the month in which the gas was produced. The operator shall show on such report what disposition has been made of the produced gas.

**RULE 18:** Each purchaser or taker of gas shall submit a report to the Commission so as to reach the Commission on or before the 15th day of the month next succeeding the month in which the gas was purchased or taken. Such report shall be filed on Form C-111 with the wells being listed in the same order as they are listed on the appropriate proration schedule.

#### G. GENERAL PROVISIONS

**RULE 19:** Failure to comply with any provision of these rules shall result in the immediate cancellation of allowable assigned to the affected well. No further allowable shall be assigned until all rules and regulations have been complied with. The Secretary-Director shall notify the operator of the well and purchaser in writing of the date of allowable cancellation and the reason therefor.

**RULE 20:** All transporters or users of gas shall file gas well connection notices with the Commission as soon as possible after the date of connection.

**RULE 21:** Allowables to wells whose classification has changed from oil to gas or from gas to oil as the result of a gas-liquid ratio test shall commence on the first day of the month following the month in which such test was reported, provided that a plat (Form C-102) showing the acreage dedicated to the well and the location of all wells on the dedicated acreage has been filed.

#### Alternative Proposed Rule 13

**RULE 13:** (a) Any associated gas well which has an underproduced status at the end of any associated gas proration period, shall carry such underproduction into subsequent periods.

(b) Underproduction in excess of three times the current monthly allowable shall not be carried forward. For purposes of this Rule, the monthly allowable shall be the full monthly allowable which would be assigned an associated gas well with the same acreage dedication in the same pool.

(c) Overproduction during any month shall be applied to a well's cumulative underproduction, if any, calculated in accordance with paragraphs (a) and (b) above.

Please note, alternatives of 1, 2, and 3 times the current monthly allowable will be considered with Alternative Proposed Rule 13(b). Comments by interested operators or transporters are solicited.

It will be proposed to reclassify the Jennings-Delaware and the North Paduca-Delaware Pools from associated pools to oil pools.

It will further be proposed to reclassify the Northwest Todd-San Andres Pool from an associated pool to an oil pool; however, special pool rules providing for 20-acre oil well spacing will be retained.

MR. RAMEY: Call Cases 5719 through 5723.

MS. TESCHENDORF: Case 5719, application of La Rue and Muncy for an exception to Order No. R-3221, Eddy County, New Mexico.

Case 5720, application of Harvey E. Yates for an exception to Order No. R-3221, Eddy County, New Mexico.

Case 5721, application of H & S Oil Company for an exception to Order No. R-3221, Eddy County, New Mexico.

Case 5722, application of Gene Snow for an exception to Order No. R-3221, Eddy County, New Mexico.

Case 5723, application of Marbob Energy Corporation for an exception to Order No. R-3221, Eddy County, New Mexico.

MR. RAMEY: Mr. Nutter, do you have a statement to make?

MR. NUTTER: I have here a letter from Mr. A. J. Losee, the attorney for the applicants, in which he requests a continuance of subject cases. He did not specify any particular date but I suggest that this hearing be continued until December 1, 1976.

MR. RAMEY: This hearing is hereby continued until December 1, 1976, 9 o'clock a.m., Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico. The hearing is adjourned.

A. J. LOSEE  
JOEL M. CARSON  
CHAD DICKERSON

LAW OFFICES  
**LOSEE & CARSON, P.A.**  
300 AMERICAN HOME BUILDING  
P. O. DRAWER 239  
ARTESIA, NEW MEXICO 88210

AREA CODE 505  
746-3508

14 October 1976

Mr. Joe D. Ramey, Director  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Re: Case Nos. 5719 through 5723  
Applications for Exception to  
Order No. R-3221

Dear Mr. Ramey:

The above cases are set for de novo hearing before the Commission on October 20, 1976. The applicants have employed Mr. E. E. Kinney, Hydrologist, of this city, to testify in these cases, and it will not be possible for Mr. Kinney to be present for hearing before November 22.

Accordingly, and on behalf of the applicants, we hereby request that the de novo hearing of the above cases set for October 20 be continued until some date subsequent to November 22, 1976. If you have any problem in connection with this request for a continuance, please call me on the telephone.

Very truly yours,

LOSEE & CARSON, P.A.

  
A. J. Losee

AJL:jw

cc: Mr. E. E. Kinney  
LaRue and Muncy  
Harvey E. Yates Company  
H & S Oil Company  
Mr. Gene A. Snow  
Marbob Energy Corporation

Dockets Nos. 29-76 and 30-76 are tentatively set for hearing on October 27 and November 10, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - WEDNESDAY - OCTOBER 20, 1976

9 A.M. OIL CONSERVATION COMMISSION CONFERENCE ROOM,

STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 5719: Application of La Rue and Muncy for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its McClay Federal Wells Nos. 9 and 10, located in Units G and F, respectively, of Section 33, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of La Rue and Muncy, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5720: Application of Harvey E. Yates for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from his State Wells Nos. 1, 2, 3, 4, and 6 located in Units G, B, A, J, and H, respectively, of Section 32, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of Harvey E. Yates, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5721: Application of H&S Oil Company for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its McClay Well No. 7, located in Unit C of Section 33, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of H&S Oil Company, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5722: Application of Gene Snow for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from his Elk Well No. 1, located in Unit L of Section 32, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of Gene Snow, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5723: Application of Marbob Energy Corporation for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its Elliott Well No. 1 located in Unit E of Section 28, and its Elliott Wells Nos. 2 and 3 located in Units H and G, respectively, of Section 29, all in Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of Marbob Energy Corporation, this case will be heard De Novo pursuant to the provisions of Rule 1220.

A. J. LOSEE  
JOEL M. CARSON  
CHAD DICKERSON

LAW OFFICES  
LOSEE & CARSON, P.A.  
300 AMERICAN HOME BUILDING  
P. O. DRAWER 239  
ARTESIA, NEW MEXICO 88210

AREA CODE 505  
746-3508

10 September 1976

Mr. Joe D. Ramey, Director  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Re: Case Nos. 5719 through 5723  
Order Nos. R-5245 through R-5249

Dear Mr. Ramey:

Enclosed, please find original and two copies each of applications of LaRue and Muncy, Harvey E. Yates Company, H & S Oil Company, Gene A. Snow and Marbob Energy Corporation for a rehearing on the orders entered in each of the above numbered cases.

We ask that you grant the rehearing and give us notice of its setting.

Very truly yours,

LOSEE & CARSON, P.A.

  
A. J. Losee

AJL:jw  
Enclosures

cc w/enclosure: LaRue and Muncy  
Harvey E. Yates Company  
H & S Oil Company  
Mr. Gene A. Snow  
Marbob Energy Corporation

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION :  
OF LA RUE AND MUNCY FOR AN EXCEPTION :  
TO ORDER NO. R-3221, AS AMENDED, : CASE NO. 5719  
EDDY COUNTY, NEW MEXICO. :  
:

---

APPLICATION FOR REHEARING

Applicant, by its attorneys, and in support hereof respectfully states:

1. That on August 24, 1976, the Oil Conservation Commission of New Mexico ("Commission") entered its Order No. R-5245, to which reference is here made, denying the application for an exception to Order (3) of Commission Order No. R-3221, as amended.

2. That Order No. R-5245 is erroneous, as follows:

(a) Contrary to Finding (8), there is no fresh water in the vicinity of the unlined pit for which a present or reasonably foreseeable beneficial use is or will be made.

(b) Contrary to Finding (10), there was evidence that subsurface drainage or percolation of water from the proposed unlined pit would not be toward nor affect fresh water, if any is present in the vicinity of the unlined pit.

(c) Contrary to Finding (11) and Order (1), applicant should have been permitted to dispose of salt water produced from its wells in an unlined surface pit located in the vicinity of said wells.

WHEREFORE, applicant prays:

A. That the Commission grant a rehearing and that notice of said rehearing be given as required by law;

B. That upon rehearing the Commission enter an order granting applicant an exception to Commission Order No. R-3221, as amended, to permit applicant to dispose of water produced from its wells in an unlined surface pit located in the vicinity of said wells; and

C. For such other and further relief as may be just in the premises.

LA RUE AND MUNCY

By: 

A. J. Losee, for

LOSEE & CARSON, P.A.  
P. O. Drawer 239  
Artesia, New Mexico 88210

Attorneys for Applicant

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION :  
OF LA RUE AND MUNCY FOR AN EXCEPTION :  
TO ORDER NO. R-3221, AS AMENDED, : CASE NO. 5719  
EDDY COUNTY, NEW MEXICO. :

---

APPLICATION FOR REHEARING

Applicant, by its attorneys, and in support hereof respectfully states:

1. That on August 24, 1976, the Oil Conservation Commission of New Mexico ("Commission") entered its Order No. R-5245, to which reference is here made, denying the application for an exception to Order (3) of Commission Order No. R-3221, as amended.

2. That Order No. R-5245 is erroneous, as follows:

(a) Contrary to Finding (8), there is no fresh water in the vicinity of the unlined pit for which a present or reasonably foreseeable beneficial use is or will be made.

(b) Contrary to Finding (10), there was evidence that subsurface drainage or percolation of water from the proposed unlined pit would not be toward nor affect fresh water, if any is present in the vicinity of the unlined pit.

(c) Contrary to Finding (11) and Order (1), applicant should have been permitted to dispose of salt water produced from its wells in an unlined surface pit located in the vicinity of said wells.

WHEREFORE, applicant prays:



A. That the Commission grant a rehearing and that notice of said rehearing be given as required by law;

B. That upon rehearing the Commission enter an order granting applicant an exception to Commission Order No. R-3221, as amended, to permit applicant to dispose of water produced from its wells in an unlined surface pit located in the vicinity of said wells; and

C. For such other and further relief as may be just in the premises.

LA RUE AND MUNCY

By:   
A. J. Losee, for

LOSEE & CARSON, P.A.  
P. O. Drawer 239  
Artesia, New Mexico 88210

Attorneys for Applicant

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION :  
OF LA RUE AND MUNCY FOR AN EXCEPTION :  
TO ORDER NO. R-3221, AS AMENDED, : CASE NO. 5719  
EDDY COUNTY, NEW MEXICO. :  
\_\_\_\_\_ :

APPLICATION FOR REHEARING

Applicant, by its attorneys, and in support hereof  
respectfully states:

1. That on August 24, 1976, the Oil Conservation  
Commission of New Mexico ("Commission") entered its Order No.  
R-5245, to which reference is here made, denying the application  
for an exception to Order (3) of Commission Order No. R-3221, as  
amended.

2. That Order No. R-5245 is erroneous, as follows:

(a) Contrary to Finding (8), there is no fresh water  
in the vicinity of the unlined pit for which a present or reason-  
ably foreseeable beneficial use is or will be made.

(b) Contrary to Finding (10), there was evidence that  
subsurface drainage or percolation of water from the proposed  
unlined pit would not be toward nor affect fresh water, if any  
is present in the vicinity of the unlined pit.

(c) Contrary to Finding (11) and Order (1), appli-  
cant should have been permitted to dispose of salt water pro-  
duced from its wells in an unlined surface pit located in the  
vicinity of said wells.

WHEREFORE, applicant prays:

A. That the Commission grant a rehearing and that notice of said rehearing be given as required by law;

B. That upon rehearing the Commission enter an order granting applicant an exception to Commission Order No. R-3221, as amended, to permit applicant to dispose of water produced from its wells in an unlined surface pit located in the vicinity of said wells; and

C. For such other and further relief as may be just in the premises.

LA RUE AND MUNCY

By:   
A. J. Losee, for

LOSEE & CARSON, P.A.  
P. O. Drawer 239  
Artesia, New Mexico 88210

Attorneys for Applicant

Other \_\_\_\_\_

Dockets Nos. 22-76 and 23-76 are tentatively set for hearing on August 4 and August 18, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 21, 1976

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for August, 1976, from seventeen prorated pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico.
- (2) Consideration of the allowable production of gas for August, 1976, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.
- CASE 5715: Application of Marathon Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Northeast Anderson Ranch Unit Area comprising 2,720 acres, more or less, of State lands in Township 15 South, Range 32 East, Lea County, New Mexico.
- CASE 5716: Application of Atlantic Richfield Company for compulsory pooling and an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 33, Township 17 South, Range 28 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location 1315 feet from the South and West lines of said Section 33. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 5717: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Petroleum Development Corporation, Commercial Union Assurance Companies, and all other interested parties to appear and show cause why the Vaughn State Well No. 1, located in Unit E of Section 16, Township 6 North, Range 17 East, Guadalupe County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.
- CASE 5718: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Morad Oil & Mining Company, Western Surety Company, and all other interested parties to appear and show cause why the Campbell Well No. 1, located in Unit A of Section 25, Township 28 North, Range 35 East, Union County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.
- CASE 5719: Application of La Rue and Muncy for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its McClay Federal Wells Nos. 9 and 10, located in Units G and F, respectively, of Section 33, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.
- CASE 5720: Application of Harvey E. Yates for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its State Wells Nos. 1, 2, 3, 4, and 6 located in Units G, B, A, J, and H, respectively, of Section 32, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.
- CASE 5721: Application of H & S Oil Company for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its McClay Well No. 7, located in Unit C of Section 33, Township 18 South, Range 30 East, North Benson-Queen Grayburg Pool, Eddy County, New Mexico.
- CASE 5722: Application of Gene Snow for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from his Elk Well No. 1, located in Unit L of Section 32, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.
- CASE 5723: Application of Marbob Energy Corporation for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its Elliott Well No. 1 located in Unit E of Section 28, and its Elliott Wells Nos. 2 and 3 located in Units H and G, respectively, of Section 29, all in Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

ESTIMATED RATE OF LIQUID  
DISCHARGE FROM WELLS

Formula:  $Q = \frac{2.56 X d^2}{\sqrt{Y}}$

Q = Gallons per minute  
d = Diameter of pipe, inches  
X = inches  
Y = inches

$$Q = \frac{(2.56) (60) (10^2)}{\sqrt{18}}$$

$$= \frac{3072}{6.93}$$

$$= 443.29 \text{ gpm}$$

$$= 10.55 \text{ bbl. per min.}$$

$$= 633 \text{ bbls. per hour}$$

$$= 15,192 \text{ bbls. per day}$$

BEFORE EXAMINER STAMETS  
OIL CONSERVATION COMMISSION

EXHIBIT NO. 5

CASE NO. 5719

Submitted by \_\_\_\_\_

Hearing Date \_\_\_\_\_

A. J. LOSEE  
JOEL M. CARSON  
CHAD DICKERSON

LAW OFFICES  
**LOSEE & CARSON, P.A.**  
300 AMERICAN HOME BUILDING  
P. O. DRAWER 239  
ARTESIA, NEW MEXICO 88210

AREA CODE 505  
746-3508

July 6, 1976

Mr. Joe D. Ramey, Director  
Oil Conservation Commission  
State of New Mexico  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Enclosed, please find original and two copies of Application of Harvey E. Yates Company, Gene Snow, Marbob Oil Company, Simms & Reese, and LaRue & Muncy for an exception to Order No. R-3221 as amended in Eddy County, New Mexico.

We ask that you please set a date for hearing this case before an examiner and that you furnish us with a docket of the hearing.

Yours truly,

LOSEE & CARSON, P.A.

  
Joel M. Carson

JMC:bjm  
Enclosures

cc w/encl.: Harvey E. Yates Company  
Mr. Gene Snow  
Marbob Oil Company  
Simms & Reese  
LaRue & Muncy

ROUGH DRAFT

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

dr/

72

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

1/2

Roll

JSR

CASE NO. 5719

Order No. R-5245

APPLICATION OF LA RUE AND MUNCY

FOR AN EXCEPTION TO ORDER NO. R-3221,

AS AMENDED, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 21,  
1976, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this August day of July, 1976, the  
Commission, a quorum being present, having considered the testimony,  
the record, and the recommendations of the Examiner, and being  
fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by  
law, the Commission has jurisdiction of this cause and the subject  
matter thereof.

(2) That the applicant, La Rue and Muncy, is  
the owner and operator of the McClay Federal Wells Nos. 9 and 10,  
G and F, respectively,  
located in Units/ of Section 33, Township 18 South,  
Range 30 East, NMPM, North Benson Queen-Grayburg Pool,  
Eddy County, New Mexico.

(3) That Order (3) of Commission Order No. R-3221, as amended,  
prohibits in that area encompassed by Lea, Eddy, Chaves, and  
Roosevelt Counties, New Mexico, the disposal, subject to minor  
exceptions, of water produced in conjunction with the production  
of oil or gas, or both, on the surface of the ground, or in any  
pit, pond, lake, depression, draw, streambed, or arroyo, or in  
any watercourse, or in any other place or in any manner which  
would constitute a hazard to any fresh water supplies and said  
disposal has not previously been prohibited.



(4) That the aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.

(5) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(6) That the applicant seeks as an exception to the provisions of the aforesaid Order (3) to permit the disposal of salt water produced by applicant's above-described wells into ~~an~~ unlined surface pits located in Unit: Fand 6 of said Section 33.

(7) That ~~applicant's~~ said McClay Federal wells No 9 and 10 produce approximately 6 barrels of water per day.

~~(8) That there appears to be no shallow fresh water in the vicinity of the subject pit for which a present or reasonably foreseeable beneficial use is or will be made that would be impaired by contamination from the subject pit.~~

(9) That the nature of the reservoir of said North Benson Queen-Grayburg Pool is such that reinjection of produced water into said reservoir would result in greater ultimate recovery of oil and gas therefrom thereby preventing waste.

~~(10) That to prevent the waste of oil and gas in said North Benson Queen-Grayburg Pool, permanent authority to dispose of produced water from applicant's McClay Federal Wells Nos. 9 and 10 in an unlined surface pit on said lease should not be granted.~~

8 - 11 yellow sheet

(11) That the applicant should be permitted to dispose of water produced from said McClay Federal Wells No. 9 and 10 in an unlined surface pit on said lease until \_\_\_\_\_.

IT IS THEREFORE ORDERED:

(1) That the applicant, La Rue and Muncy, ~~xxx~~ are hereby granted an exception to Order (3) of Commission Order No. R-3221, as amended, to dispose of water produced in conjunction with the production of oil or gas, or both, from ~~xxx~~ their McClay G and F, respectively, Fe-eral Wells Nos. 9 and 10, located in Units/\_\_\_\_\_ of Section 33, Township 18 South, Range 30 East, NMPM, North Benson Queen-Grayburg Pool, Eddy County, New Mexico, in an unlined surface pit located in Unit \_\_\_\_\_ of said Section \_\_\_\_\_, until \_\_\_\_\_, 19\_\_\_\_.

(2) That the Secretary-Director of the Commission may by administrative order rescind such authority whenever it reasonably appears to the Secretary-Director that such recission would serve to protect fresh water supplies from contamination.

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

(8) That there is fresh water in the vicinity of the above-described unlined pits for which a present or reasonably foreseeable beneficial use is or will be made.

(9) That the evidence presented at the hearing demonstrates that surface drainage from the area of the proposed pit<sup>s</sup> is away from the area wherein said fresh water is located.

(10) That no evidence was presented to demonstrate that subsurface drainage or percolation of water from the proposed unlined pit<sup>s</sup> would not be toward nor affect said fresh water.

(11) That to protect said fresh water from the potential harmful affects of the surface disposal of produced salt water in said pit<sup>s</sup> the subject application should be denied.

IT IS THEREFORE ORDERED:

(1) That the application of La Rue and Muncy for an exception to Order (3) of Commission Order No. R-3221, as amended, to dispose of water produced in conjunction with the production of oil or gas, or their McClay Federal Wells Nos. 9 and 10, located in Units G and F, both, by / respectively, of located in Section 33, Township 18 South, Range 30 East, NMPM, North Benson Queen-Grayburg Pool, Eddy County, New Mexico, in unlined surface pits located in the vicinity of said well is hereby denied.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

DRAFT

dr/

*Dr*

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 5719 DE NOVO

*C. Su* Order No. R-5245-A

APPLICATION OF LA RUE AND MUNCY FOR  
AN EXCEPTION TO ORDER NO. R-3221,  
AS AMENDED, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 17, 1977,  
at Santa Fe, New Mexico, before the Oil Conservation Commission  
of New Mexico, hereinafter referred to as the "Commission."

NOW, on this \_\_\_\_\_ day of \_\_\_\_\_, 1977, the  
Commission, a quorum being present, having considered the testimony  
presented and the exhibits received at said hearing, and being  
fully advised in the premises,

FINDS:

(1) That due public notice having been given as required  
by law, the Commission has jurisdiction of this cause and the  
subject matter thereof.

(2) That the applicant<sup>is</sup> La Rue and Muncy, ~~are~~ the owners  
and operators of the McClay Federal Wells Nos. 9 and 10, located  
in Units G and F, respectively, of Section 33, Township 18 South,  
Range 30 East, NMPM, North Benson Queen-Grayburg Pool, Eddy  
County, New Mexico.

(3) That Order (3) of Commission Order No. R-3221, as  
amended, prohibits in that area encompassed by Lea, Eddy, Chaves,  
and Roosevelt Counties, New Mexico, the disposal, subject to  
minor exceptions, of water produced in conjunction with the  
production of oil or gas, or both, on the surface of the ground,  
or in any pit, pond, lake, depression, draw, streambed, or arroyo,  
or in any subsurface, or in any other place or in any manner  
which would constitute a hazard to any fresh water supplies and  
which disposal has not been previously prohibited.

(4) That the aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.

(5) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(6) That the applicant seeks as an exception to the provisions of the aforesaid Order (3) ~~to permit the disposal~~ <sup>permission to dispose</sup> of salt water produced by applicant's above-described wells into unlined surface pits located in Units F and G of said Section 33.

(7) That said McClay Federal Wells Nos. 9 and 10 produce approximately 6 barrels of water per day.

(8) That there is fresh water in the vicinity of the above-described unlined pits for which a present or reasonably foreseeable beneficial use is or will be made.

(9) That this matter came on for hearing before Examiner Richard L. Stamets on July 21, 1976, and pursuant to this hearing, Order No. R-5245 was issued in Case No. 5719 on August 24, 1976, which order denied the application of La Rue and Muncy for <sup>an</sup> ~~said~~ exception to Order (3) of Commission Order No. R-3221.

(10) That such denial was predicated on said existence of fresh water in the vicinity of said pits, the lack of evidence as to the direction of subsurface drainage or percolation of water from the proposed unlined pits, and the potential threat to said fresh water posed by such drainage or percolation.

(11) That on September 13, 1976, the applicants, La Rue and Muncy, filed application for hearing De Novo of Case No. 5719 and the matter was set for hearing before a quorum of the Commission.

(12) That this matter came on for hearing De Novo on January 17, 1977.

(13) That the evidence presented demonstrates that surface drainage from the area of the proposed unlined pits would not be toward nor affect fresh water.

(14) That the evidence presented demonstrates that subsurface drainage from the area of the proposed unlined pits would not be toward nor affect fresh water.

(15) That there appears to be no shallow fresh water in the vicinity of the subject pits for which a present or reasonably foreseeable beneficial use is or will be made that would be impaired by contamination from the subject pits.

(16) That the applicant should be permitted to dispose of water produced by wells on the above-described lease in an unlined surface pits located on said lease.

IT IS THEREFORE ORDERED:

(1) That the applicants, La Rue and Muncy, <sup>is</sup> ~~are~~ hereby granted an exception to Order (3) of Commission Order No. R-3221, as amended, to dispose of water produced in conjunction with the production of oil or gas, or both, from <sup>its</sup> ~~their~~ McElroy Federal Wells ~~located on their~~ Nos. 9 and 10, located in ~~lease in the~~ Section 33, Township 16 South, Range 30 East, NMPH, North Benson Queen-Grayburg Pool, Eddy County, New Mexico, in unlined surface pits located on said lease.

-4-

Case No. 5710 De Novo  
Order No. R-5245-A

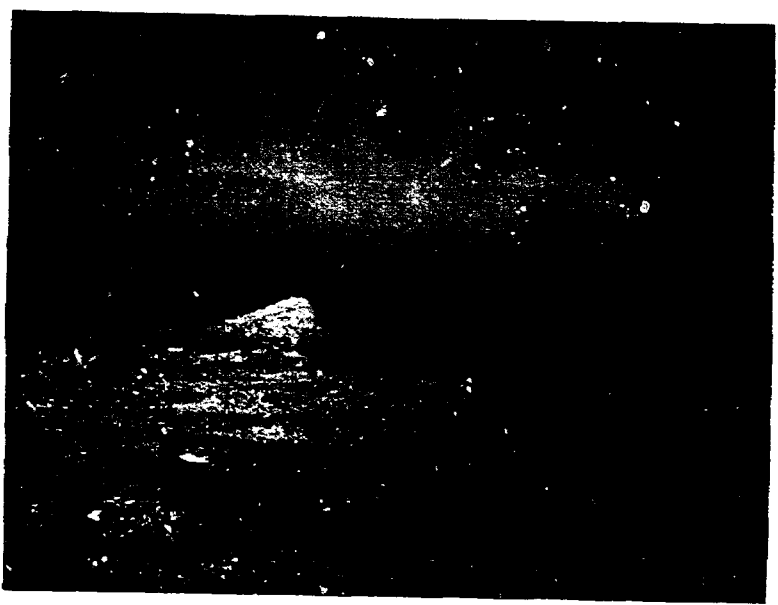
(2) That the Secretary-Director of the Commission may by administrative order rescind such authority whenever it reasonably appears to the Secretary-Director that such <sup>s</sup>recission would <sub>A</sub>serve to protect fresh water supplies from contamination.

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



NOV 76



NOV 76



NOV 76



Area in front of  
of La Rue & Mancy  
disposal pit in the  
Sec 23, T18S, R30E.  
Area in front of  
Black waters will not  
reach main valley.

---

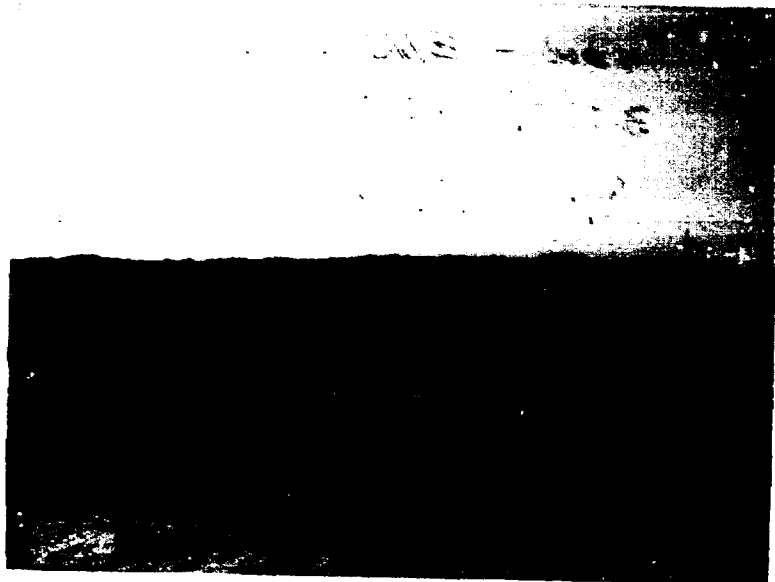
La Rue & Mancy disposal  
pit on top of Loco  
Hills "meza" 1650/N  
2310/W Sec 33, T18S,  
R30E.

Pit in caliche.

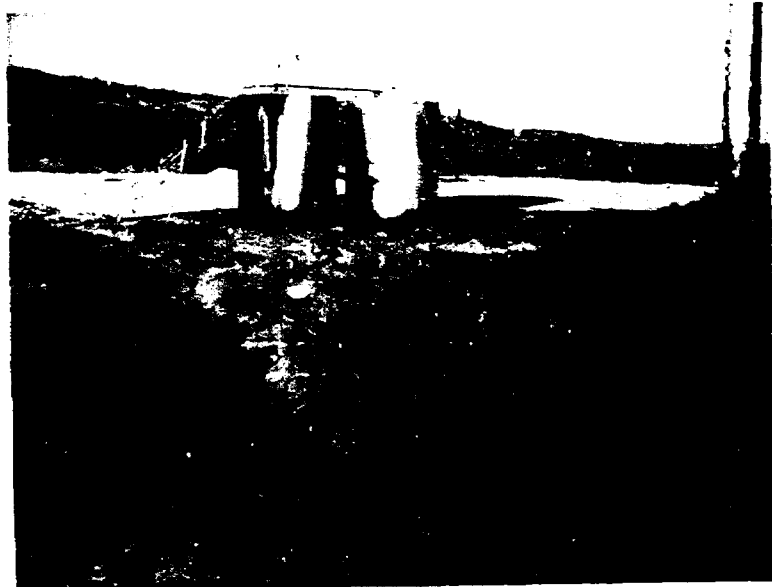
Area in front of

Area in front of

Marble disposal pit  
\* 2310/W 2310/W  
Pit in caliche.



8  
97  
AOM



11  
97  
AOM



8  
97  
AOM

Snow-Elk lease.

32-18-30

Pit in blue sand

---

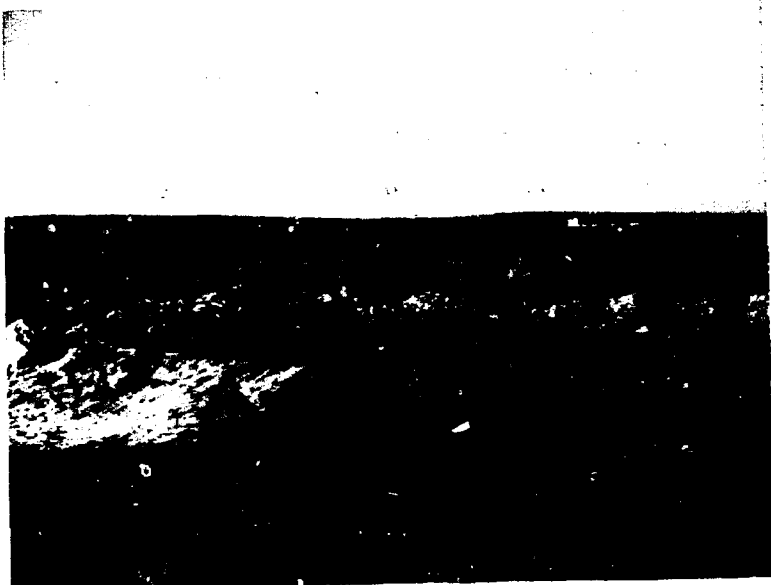
LaRue & Muncy  
disposal Pit about  
1650/N+E sec 33. T14  
R 30 E.

Pit in blue sand

---

Daniel's water ditch  
at North end of the  
road  
Salt Lake  
on bridge

Water hole in well  
to right



Marble disposal pit  
about 2310/14 220/14

Sec 28, T17S, R3  
in low spot in blow  
sand.

---

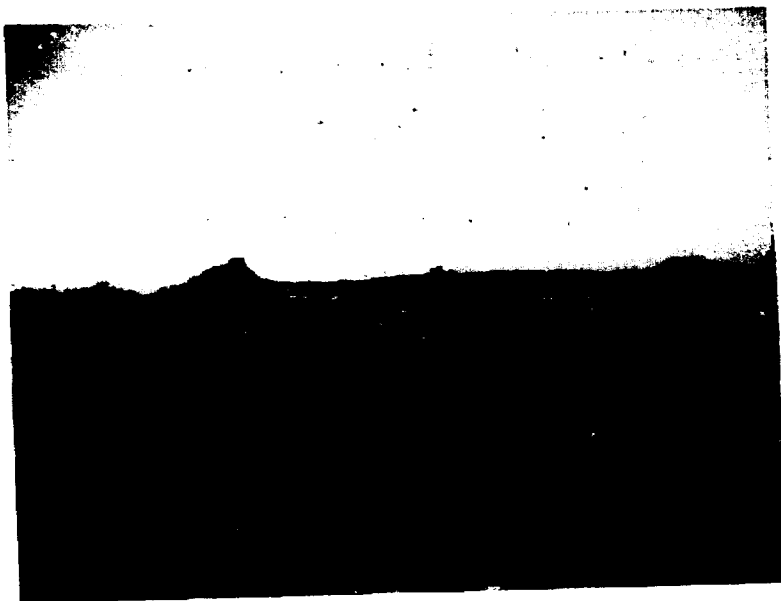
Heyco #1 -  
North east corner of  
disposal pit (in shadow)  
in blow sand swale

32-18-30

---

Marble disposal pit  
disposal pit about  
2310/14 220/14  
T17S, R3

in blow sand in  
area.



97  
AOM



97  
AOM



97  
AOM

Heyco Pit in  
blow sand hollow -  
about 1980/N+E  
32-185-30E

Heyco -  
Disposal Pit about  
660/N 1300/E 32-18-30  
Wells #2 & 3  
Pit in depression -  
cannot flood into main  
draw

Summit - 8/11/1977

32-18-30

Pit in blow sand

|                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------|
| BEFORE THE<br>OIL CONSERVATION COMMISSION<br>Case No. 1977<br>5719-<br>24-18-30-32<br>Produced by<br>Hearing Date 1-17-77 |
|---------------------------------------------------------------------------------------------------------------------------|