

CASE NO.

7680

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,
ETC.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
29 September 1982

EXAMINER HEARING

IN THE MATTER OF:

Application of Unichem International,
Inc., for an exception to Order No.
R-3221, Eddy County, New Mexico.

CASE
7680

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

R. E. Richards, Esq.
P. O. Box 761
Hobbs, New Mexico 88240

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I N D E X

T. E. KELLY

Direct Examination by Mr. Richards

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R. J. BRAKEY

Direct Examination by Mr. Richards

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Cross Examination by Mr. Stamets

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Cross Examination by Mr. Pearce

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E X H I B I T S

Kelly Exhibit One, Topo Map

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Kelly Exhibit Two, Report

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Brakey Exhibit One, Diagram

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2 MR. STAMETS: We'll call next Case 7680.

3 MR. PEARCE: That is on the application
4 of Unichem International, Inc., for an exception to Order
5 Number R-3221, Eddy County, New Mexico.

6 MR. RICHARDS: May it please the Hearing
7 Officer, my name is R. E. Richards. I represent the applicant,
8 Unichem. I'll have two witnesses, MR. R. L. Brakey and Mr.
9 Tim Kelly.

10
11 (Witnesses sworn.)

12
13 T. E. KELLY
14 being called as a witness and being duly sworn upon his oath,
15 testified as follows, to-wit:

16
17 DIRECT EXAMINATION

18 BY MR. RICHARDS:

19 Q May it please the Hearing Officer?

20 Please state your name, sir.

21 A T. E. Kelly.

22 Q Mr. Kelly, by whom are you employed?

23 A I am with Geohydrology Associates in
24 Albuquerque.

25 Q What is your principal occupation and

1
2 training, sir?

3 A. I am a hydrologist with a Master's degree
4 in geology from the University of Kansas.

5 Q. Have you testified previously hereto be-
6 fore this Division and had your qualifications accepted as
7 an expert in the field of hydrology and geohydrology and
8 water management?

9 A. Yes, I have.

10 Q. Mr. Kelly, you have before you a document
11 that has been identified as Kelly Number One, and I'd ask
12 if you could describe that to the Hearing Officer?

13 A. Yes, sir. This is a topographic map of
14 a portion of Section 2, Township 23 South, Range 29 East, in
15 Lea County, prepared by John West Engineering.

16 Q. Without going into detail, may I direct
17 your attention to Figure 1, page six, of the document marked
18 Kelly's Number Two, and ask if you could orient the Hearing
19 Officer as to the placement of Kelly Number One in relation
20 to any items on Figure No. 1 of Kelly Two?

21 A. Yes, sir, the large plate identified as
22 Exhibit Number One is the same area as indicated on page six,
23 Figure 1, where Unichem is shown as a solid square at the
24 west end of Tres Lagunas and near an unnamed lake on the
25 west.

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Q Can you locate on Kelly Number One generally the area which is the unnamed lake, as you called it?

A Yes, sir, that would be the closed depression near the center of the topographic map.

MR. STAMETS: Just for clarification, now you have a big square marked Unichem on page six. Then you have a lake shown to the left and the lake is the depression, right, the one -- the 2970 foot --

A Yes, sir.

MR. STAMETS: -- depression.

A That's correct.

MR. RICHARDS: The placement, as I understand it, Mr. Hearing Officer, would be generally in this position on Kelly Number One.

MR. STAMETS: Okay.

Q Mr. Kelly, did you, at the request of Unichem International, perform a study of the general area depicted in Kelly Number Two, Figure 1, and Kelly Number One for the purpose of determining the feasibility of disposing of oilfield produced brines in unlined surface pits?

A Yes, we did.

Q Would you please report to the Division what you did in that regard?

A Well, we evaluated the literature that

1
2 was available, which included several studies which our firm
3 prepared in the past, and several which have been presented
4 to the Division.

5 On the basis of this information our water
6 analyses which were supplied by Unichem International, and
7 an assessment of the region shown by these two exhibits, we
8 prepared a report which shows the suitability of the proposed
9 site for the discharge of oilfield brine.

10 Q Did you in the instance of this study make
11 a field evaluation or reconnaissance?

12 A No, we did not.

13 Q Have you ever in the recent past made a
14 specific field reconnaissance and investigation of the area
15 involved in regard to another application for another entity
16 or two?

17 A Yes, we did for two different entities
18 in addition to previous work we had done for the Bureau of
19 Land Management in the region.

20 Q All right, and who were those two enti-
21 ties for whom you had made a specific field analysis?

22 A One was Riqueza, Incorporated, and the
23 other was B & E, Incorporated.

24 Q When were those investigations made?

25 A Those were both made in May of 1982.

Q Because of the recent nature of those investigations did you feel it was necessary to make a field investigation in the instance of the Unichem application?

A No, sir, because we inspected the -- the site previously and didn't feel there was any point in duplicating the field work.

Q Please advise the Division as to the general geological description of the area.

A Well, it's an area in Nash Draw, which is well known for its potash production and highly mineralized water, both in the ground and surface water system.

The general movement of the water, both in the ground and on the surface, is shown by the arrows on Figure 1, with the ultimate discharge point being Salt Lake to the southwest of Unichem's proposed site.

Q Is -- do you, based upon your research and your studies, have an opinion as to whether or not the water to -- proposed to be discharged by Unichem and others who are presently discharging into the area will be contained within the Nash Draw region and not contaminate any fresh water supply?

A Yes, sir. We have been unable to locate any water which we would consider a fresh water source and the evaporation rates from the various surface areas of the

1
2 lakes, excluding Salt Lake, would be adequate to evaporate
3 all of the water that would be discharged by the -- by Uni-
4 chem International, as well as the two previous applicants.

5 Q Are you able to advise the Division as to
6 the average evaporation rate on an annualized basis, stated
7 either in gallons or barrels per minute, of the area into
8 which Unichem would be discharging?

9 A Yes, sir, we -- we made a determination
10 that the surface area of these lakes, excluding Salt Lake,
11 would evaporate slightly in excess of 8000 gpm, maximum, and
12 a minimum of 443 gallons a minute during the winter. The
13 average throughout the year would be approximately 4000 gpm
14 evaporated from the lake.

15 Q You just made reference to an acreage of
16 some 1200 acres. What does that describe?

17 A That's the amount of surface acres of
18 free water surface in the lakes that are shown on Figure 1.

19 Q Are these lakes in fact interconnected
20 either at the surface or subsurface because of the nature of
21 the deposition of material in the lake development of Nash
22 Draw?

23 A Yes, they are. In some instances they're
24 connected by surface excavation or by natural drainage systems.
25 In other cases there is no surface connection but there is

1 quite obviously a ground water connection between the lakes.

2 Q How can you be sure that there is a sub-
3 surface ground water connection?
4

5 A Well, in the instance of Laguna Cuatro,
6 for example, we know that there is a discharge, approximately
7 500 gallons a minute, in the lake, and yet there is no surface
8 inflow; consequently, there has to be a ground water inflow
9 in excess of 500 gallons a minute to Laguna Cuatro.

10 Q Do you attribute that, for instance, to
11 Laguna Uno and Laguna Dos, located to the north and up gradient
12 from your suggested general movement of water?

13 A Yes, sir.

14 Q What are, for instance, what are the in-
15 puts into Laguna Uno and Laguna Dos that result in a 500
16 gallon discharge into Laguna Cuatro?

17 A Well, on a regional basis the ground water
18 flow is roughly from north to south through Nash Draw, so
19 that there is some ground water flow coming down from the
20 north; however, International Mineral and Chemical Corporation
21 discharges approximately 3400 gallons a minute of potash re-
22 finery waste into Laguna Uno, which we believe is one of the
23 primary sources of the water into -- that ultimately reaches
24 Laguna Cuatro.

25 Q Is there discharge, to your knowledge, for

1
2 instance, from Laguna Tres, where the excess from Cuatro is
3 deposited?

4 A. Yes, there's a discharge from Laguna Tres
5 into the area shown on the large Exhibit Number One, and ul-
6 timately into Salt Lake.

7 Q. Is that by surface or subsurface trans-
8 missivity?

9 A. Well, it's by both. There are surface
10 connections and there is undoubtedly ground water movement,
11 also.

12 Q. You made reference a few minutes ago, Mr.
13 Kelly, to tests which had been performed by Unichem at your
14 request of water in the area. Generally describe to the
15 Hearing Officer the quality of the water as you found it, both
16 in this study and previously in the area?

17 A. Unichem submitted to us analyses of
18 brines which are examples of the material which they would
19 be dumping, and these are included in Appendix A at the end
20 of the report and show that the total dissolved solids in
21 these samples generally are in excess of 200,000 parts per
22 million dissolved solids. That's in accordance with the
23 amount of water -- or with the chemical quality of water that
24 is also being discharged both by IMC and what is presently
25 available in the lake.

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Q In any of your -- this study or any of your previous studies, can you advise the Division as to the general make-up of the water that is presently in the lakes?

A The water is primarily a sodium chloride type water, as is the -- I believe, I'd have to go back and check the tables, but I believe that's also the case with the water being discharged by Unichem.

Q Do you, based upon your studies, have an opinion as to whether the granting of authority to Unichem would result in the injection or deposition onto the lakes which you say are interconnected of an amount of water that would be in excess of, taking into account other known inputs, the capacity of those lakes?

A No, it would not exceed that.
I would like to refer you to page ten, Figure 2, in which we have shown the maximum discharge of the three operators, or Case B and C and Unichem, as well as the percent of evaporation potential from the lakes, and as you can see, the maximum amount of evaporation potential by all three of these operators would be approximately 71 percent of the potential, so that this would still leave approximately 30 percent cushion or safety factor.

Also, I'd like to point out that these -- that this chart is based upon the maximum requested discharge

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2 by the three operators and the evaporation potential is based
3 on the minimum evaporation potential, so that we have tried
4 to look at a worst case condition and we still have a 30 per-
5 cent safety factor.

6 Q Based upon your investigation and your
7 testimony here, are you able to advise the Commission -- Div-
8 ision as to whether you have -- as to whether or not you have
9 an opinion that the -- one, the area is sufficient to contain
10 the additional water; and two, that a discharge of oilfield
11 produced brines would be compatible with the best usage of
12 the area and the fluids presently located there?

13 A Yes, I do.

14 Q What is that opinion?

15 A We believe that the area is capable of
16 handling the request being made by Unichem and also that there
17 would not be any adverse effects resulting from the granting
18 of this request.

19 MR. RICHARDS: Mr. Stamets, we would
20 tender for admission Kelly Exhibits One and Two; we tender
21 the testimony of Mr. Kelly as an expert in this matter, and
22 pass Mr. Kelly for your examination.

23 MR. STAMETS: The witness is qualified.
24 The exhibits are accepted.

25 Any questions of the witness? He may be

excused.

MR. RICHARDS: Mr. Brakey.

R. J. BRAKEY

being called as a witness and being duly sworn upon his oath,
testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. RICHARDS:

Q. Please state your name, sir.

A. R. J. Brakey.

Q. Mr. Brakey, by whom are you employed?

A. Unichem International, Hobbs, New Mexico.

Q. For how long have you been an employee of
Unichem International --

A. Eleven --

Q. -- or any subsidiaries?

A. Eleven years.

Q. Prior to that time by whom were you em-
ployed?

A. Amerada Hess Corporation.

Q. And in what was your latest capacity of
employment with Amerada Hess?

A. Regional Manager.

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Q. For what region?

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A. Of the Southwest Region.

4

Q. Have you testified before the Oil Conser-

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vation Division in prior occasions?

6

A. Many years ago.

7

Q. And what is your educational background?

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A. I'm a graduate engineer of Oklahoma State

9

University.

10

Q. In what field or area specialty?

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A. Mechanical engineering and petroleum en-

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gineering option.

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Q. In the course of your employment both with

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Amerada and with Unichem Incernational have you been involved

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in operations dealing with the treatment and disposal of

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produced oilfield brine?

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A. Yes, sir, with both companies.

18

Q. You have before you a document marked

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Exhibit One Brakey. Can you identify that for the Hearing

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Officer?

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A. Yes, sir, this is a schematic diagram of

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the surface facility that would be used at the disposal site,

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consisting of an inlet into which transport trucking would

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unload.

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The fluids would be discharged initially

1
2 into a 750-barrel skim tank, very similar to a power oil tank.

3 Q. What is the proposed rate of discharge
4 into the initial 750-barrel skim tank?

5 A. Maximum of 10 barrels per minute.

6 Q. How is that maximum of 10 barrels per
7 minute to be determined?

8 A. The capacity of the -- the unloading
9 equipment on the transports.

10 Q. As part of your job with Unichem, you
11 have operated, I believe, a facility known as Rollin Trucking
12 Company, have you not?

13 A. That is correct.

14 Q. Is Rollin Trucking Company a transporter
15 of fresh water and produced brines in the oilfields for the
16 disposal at the present time?

17 A. Yes, sir, they are.

18 Q. And do I understand that the discharge
19 pumps on those transports will discharge a maximum of 10 bar-
20 rels per minute?

21 A. That is correct.

22 Q. Do you propose to have more than one in-
23 let point in terms of ability to handle more than one vehicle
24 at a time?

25 A. No, sir.

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Q All right, please continue in your narrative, sir.

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A The 750-barrel skim tank, the solids would be taken from the bottom into a solid storage facility. The free water would be taken from the bottom of the tank and passed to an additional surge and skimming facility.

8

9

Q What is the means of transporting from the skim tank to the surge tank?

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A To be done by siphon method. The -- the water would siphon -- well, to back up just slightly. The emulsion that is coming into the tank would go through a spreader system at the base of the tank or near the base of the tank, and it would be spread out entirely through the fluid of the tank.

16

17

18

Q You've indicated a long, narrow tank between the skim tank and the surge tank. Is that designed to represent a siphon leg?

19

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21

22

A Yes, sir, that would be a water siphon.

Q And once the water has been dispersed through the surge tank, is it again run through or over a spreader device?

23

24

25

A Yes, sir, again, a very similar operation.

Q And what is contemplated by the surge tank in terms of residence time for the fluid?

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2 A. Approximately an hour and a half of resi-
3 dence time from the -- for both the skim tank and the surge
4 tank.

5 Q. Is skimmed oil, or salable oil, again re-
6 moved at the surge tank stage?

7 A. Yes, sir, it is removed as -- as skimmed
8 oil and placed into a storage facility for further treatment
9 for sale.

10 Q. How is the water removed from the surge
11 tank, sir?

12 A. Again the water would be removed from the
13 surge tank through a siphon leg on that tank and would go into
14 a low 1000-barrel clarifying tank, or aeration tank.

15 Q. At the point of the movement of the fluid
16 from the surge tank to the aeration tank do you propose a
17 testing device that would be in fact an emergency shutdown
18 in the event of certain conditions?

19 A. Yes, sir, we would have a water quality
20 probe installed in the line, in the siphon line from the
21 surge tank, such that should the water quality not be accept-
22 able for clarifying and still contain hydrocarbons, then it
23 would be returned to the skim tank for recycling.

24 Q. After the fluid has resided in the aera-
25 tion tank, how do you propose to handle it at that time?

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A. Would you restate that, please?

3

Q. Yes, sir. After the fluid has been placed

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into the 1000-barrel aeration tank, what do you do with it

5

then?

6

A. We would circulate it through aeration nozzles for clarifying the water to remove, further remove, additional solids.

9

Then it would go through an appropriate siphon into the disposal lake.

11

Q. All right.

12

A. The brine.

13

Q. I notice that you have indicated a drain at the bottom of the aeration tank. What would be the purpose of that drain?

16

A. Again that's -- for those solids that are deposited from aeration, why, the drain, they would be returned to the solids facility and accumulated.

19

Q. What do you intend to do with the solids accumulated in the solids tank in terms of discharging them on the surface or not doing so?

22

A. They would be discharged in plastic lined vessels and accumulated in truckload quantities and then hauled off.

24

25

Q. There would be no discharge to any un-

lined or actual terrain facility of the solids, is that correct?

A. That is correct.

Q. Do you contemplate any mechanical or chemical treatment in this plant?

A. We don't contemplate any. We have provisions such that our parent company can treat at the inlet of the skim tanks with standard de-emulsifying chemicals such that it will enhance the separation or improve the separation of the water and the oil should residence time not be sufficient for them to separate.

Q. What do you contemplate as the total input into this facility on a daily basis?

A. Maximum of, I believe we've shown in the report, 15,000 barrels a day.

Q. Can you advise the Division as to the ownership status of the surface area on which you propose --

A. Let me correct that volume. And I don't have the figure right quickly, that is more than what we have contemplated, and I believe we contemplated 1500 barrels a day.

Q. That is to be primarily from your own transports --

A. Yes, sir, this --

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Q -- will it not?

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A -- will be a private facility and not for

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public use.

5

Q And at the present time you -- 1500 bar-

6

rels would be roughly 10 loads a day from --

7

A That is correct, yes, sir.

8

Q -- your transports?

9

If I understand your schematic, your test-

10

imony and the testimony of Mr. Kelly, at 750-barrel initial

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capacity, and 10 barrels a minute, you basically can blow

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600 barrels an hour through this thing?

13

A Yes, sir.

14

Q Now, without exceeding your calculated

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maximum input, is that correct?

16

A That's correct.

17

Q Can you advise the Division as to the

18

status of the surface ownership in the area in which you pro-

19

pose to install your facility?

20

A The State of New Mexico is the surface

21

owner.

22

Q Is that presently on a State grazing

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lease?

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A Yes, sir, it is.

25

Q Have you made arrangements with -- can

1
2 you advise -- or could you advise the Commission as to the
3 relationship between Unichem and the present surface lessee
4 regarding a relinquishment or to permit you to acquire a busi-
5 ness lease at the location?

6 A. Yes, sir, we have. We've contacted the
7 present leaseholder and -- and he has agreed that should our
8 application be approved, that he would grant a relinquishment
9 of the area that we need for surface facilities.

10 MR. RICHARDS: Mr. Hearing Officer, I
11 tender the testimony of Mr. Brakey as an expert in petroleum
12 engineering and move the admission of Brakey Exhibit Number
13 One, and pass him for examination by the Hearing Officer or
14 counsel for the Division.

15 MR. STAMETS: The witness is considered
16 qualified.

17
18 CROSS EXAMINATION

19 BY MR. STAMETS:

20 Q Mr. Brakey, I don't see any provisions
21 here for a downstream pit which might hold any -- any oil
22 which could escape from this system or any -- any solids which
23 would settle out.

24 Would Unichem have any difficulty or prob-
25 lem with constructing a pit downstream which would conceivably

1
2 hold a day's volume of water?

3 A. None whatsoever. Again, it would be
4 plastic lined.

5 Q Okay, good. Will you have an attendant
6 at this location or will unloading be automatic?

7 A. Unloading will be automatic. It will be --
8 the facility will be fenced and locked and only Unichem em-
9 ployees will utilize it.

10 Q Are you aware of the memorandum issued
11 by Mr. Sexton and Mr. Gresset of the Oil Conservation Division
12 on March 1, 1982, which concerns the allowable volume of oil
13 in salt water to be disposed of?

14 A. Yes, sir.

15 Q And you don't foresee any problem with
16 complying with that memorandum?

17 A. No, sir, we currently hold a permit C-133
18 I believe it's numbered, and we are authorized haulers of
19 produced water and disposers of produced water that contain
20 oil at two of our other disposal facilities.

21 Q Okay, you don't have any trouble meeting
22 the two-tenths of one percent --

23 A. No, sir.

24 Q -- oil to water?

25 A. None whatsoever. No, sir.

Q Okay.

MR. STAMETS: Any other questions of the witness?

MR. PEARCE: Excuse me.

CROSS EXAMINATION

BY MR. PEARCE:

Q Briefly, sir, just for my clarification, do I understand that all of the input into this system will be hauled by Rollin Trucking?

A That is correct.

Q Thank you.

MR. RICHARDS: For the record Rollin is a tradename only. Rollin is a wholly owned operation of Unichem. It's a tradename only for many years in the area.

MR. STAMETS: If there is nothing further this witness may be excused and the case will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

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

Sally W. Boyd CSR

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 7680
heard by me on 9/28/82 1982.
Richard V. Stann, Examiner
Oil Conservation Division

SALL. BOYD, C.S.R.
Box 191-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
15 September 1982

EXAMINER HEARING

IN THE MATTER OF:

Application of Unichem International,
Inc., for an exception to Order No.
R-3221, Eddy County, New Mexico.

CASE
7680

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

1
2 MR. NUTTER: We'll call next Case Number
3 7680.

4 MR. PEARCE: That is on the application
5 of Unichem International, Inc., for an exception to Order
6 No. R-3221, Eddy County, New Mexico.

7 MR. NUTTER: Applicant has requested that
8 this case be continued and that the location of the proposed
9 pit be in Section 2 of Township 22 South, Range 29 East.

10 The case has been advertised and will be
11 continued to the Examiner Hearing scheduled to be held at
12 this same place at 9:00 o'clock a. m. September 29, 1982.

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

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

Sally W. Boyd CSR

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 7680
heard by me on 9/15 1982.

[Signature], Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.

Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409



LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

October 26, 1982

Mr. R. E. Richards
Attorney at Law
P. O. Box 761
Hopbs, New Mexico 88240

Re: CASE NO. 7689
ORDER NO. R-7113

Applicant:

Unichem International, Inc.

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD	<u> x </u>
Artesia OCD	<u> x </u>
Aztec OCD	

Other _____

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7680
Order No. R-7113

APPLICATION OF UNICHEM INTERNATIONAL,
INC. FOR AN EXCEPTION TO ORDER NO.
R-3221, AS AMENDED, EDDY COUNTY, NEW
MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on September 29, 1982, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 19th day of October, 1982, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That Order (3) of Division 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.

(3) 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.

-2-

Case No. 7680
Order No. R-7113

(4) 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.

(5) That the applicant, Unichem International, Inc., seeks as an exception to the provisions to the aforesaid Order (3) to permit the commercial disposal of produced brine into several unlined surface pits (natural salt lakes) located in Section 2, Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico.

(6) That the applicant proposes to dispose of up to 2000 barrels of salt water daily at company facilities located in the NW/4 of said Section 2, such salt water being hauled by Unichem or Unichem subsidiary trucks only.

(7) 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.

(8) That the area of the salt lakes is sufficient to provide for evaporation in excess of the volume of salt water proposed for disposal (up to 2000 barrels of water per day).

(9) That the disposal facility should consist of skim tanks, surge tanks, aeration tanks, skim oil storage tanks and a header pit all being of sufficient size and capacity to prevent the movement of any oil or solids onto or into any of the salt lakes affected by such disposal.

(10) That if the applicant fails to prevent the movement of such oils or solids onto or into any of said salt lakes, the Director of the Division should be empowered to administratively suspend or rescind the authority for use of such lake for salt water disposal.

(11) That this application should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, Unichem International, Inc., is hereby granted an exception to Order (3) of Division Order No. R-3221, as amended, to dispose of up to 2000 barrels of salt water per day collected by its or its subsidiaries' trucks

-3-

Case No. 7680
Order No. R-7113

in a commercial salt water disposal facility located in the NW/4 of Section 2, Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico.

(2) That prior to disposal of any water at said facility, the applicant shall install skim tanks, surge tanks, aeration tanks, and skim oil storage tanks and shall construct a header pit all of combined size and capacity sufficient to prevent the movement of any oil or solids from the facility onto or into any natural salt lake or ground surface which may be affected by the disposal operation.

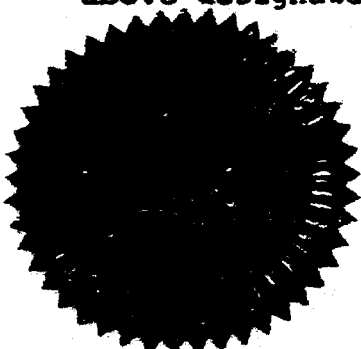
(3) That upon completion of such installation and construction the applicant shall notify the supervisor of the Division's district office at Artesia in order that the Division may inspect said facility.

(4) That the Director of the Division may by administrative order suspend or rescind such authority whenever it reasonably appears to the Director that such suspension or rescission would serve to protect fresh water supplies from contamination or if the applicant should permit the movement of oil or solids onto the ground surface or any natural salt lake as prohibited by Order No. (2) above.

(5) The applicant shall file a monthly report of disposal volumes on Form C-120-A in accordance with Division Rule 1120.

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

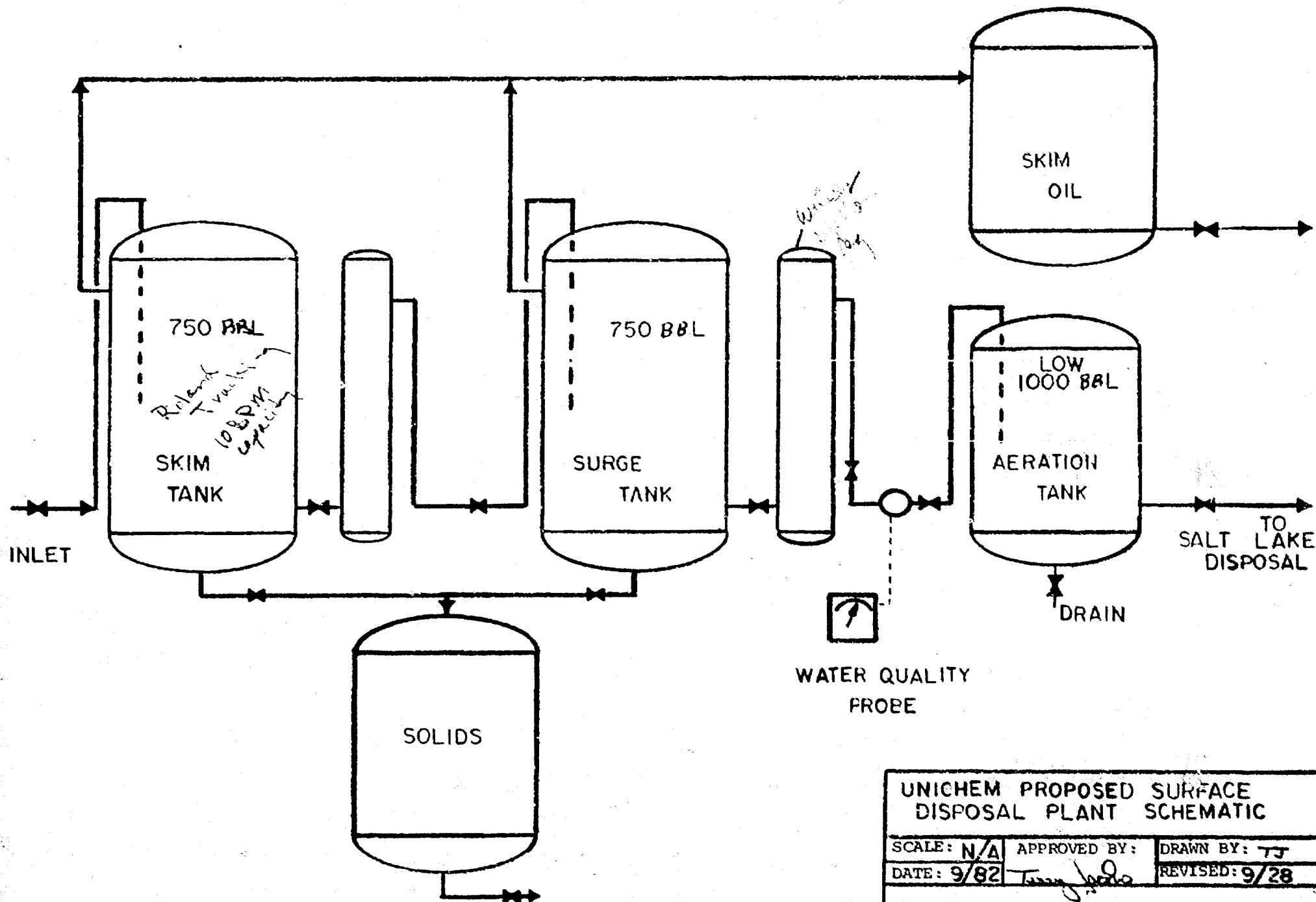
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



SEAL
fd/

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director



UNICHEM PROPOSED SURFACE DISPOSAL PLANT SCHEMATIC

SCALE: N/A	APPROVED BY:	DRAWN BY: TJ
DATE: 9/82	Tony J. [Signature]	REVISED: 9/28

EXHIBIT 1-B [Signature]

DRAWING NO.: 1-PT-9-15

Geohydrology Associates, Inc.

September 28, 1982

Mr. Robert Brakey
Unichem International
P. O. Box 1499
Hobbs, New Mexico 88240

Dear Mr. Brakey:

The attached report contains our hydrologic evaluation of Unichem International's proposal to dispose oil-field brine into existing lakes in the Laguna Tres area, Eddy County, New Mexico. This investigation was requested by Unichem International in your letter dated August 27, 1982.

It has been a pleasure working with you, and we hope that we can be of additional service to you in the future.

Sincerely,

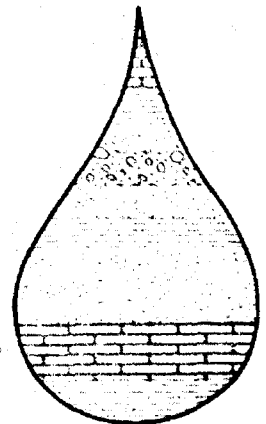
GEOHYDROLOGY ASSOCIATES, INC.

TEK/kc

T. E. Kelly
President

TEK/kc

attachment



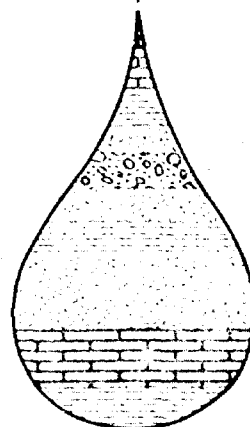
POTENTIAL IMPACTS OF OIL-FIELD BRINE DISCHARGE
LAGUNA TRES AREA, EDDY COUNTY, NEW MEXICO

by
**Geohydrology
Associates, Inc.**

prepared for
Unichem International
Hobbs, New Mexico

4015 Carlisle, N.E. • Suite A • (505) 884-0580
Albuquerque, New Mexico 87107

September 1982



KELLY-2

POTENTIAL IMPACTS OF OIL-FIELD BRINE DISCHARGE
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POTENTIAL IMPACTS OF OIL-FIELD BRINE DISCHARGE,
LAGUNA TRES AREA, EDDY COUNTY, NEW MEXICO

by

Geohydrology Associates, Inc.

INTRODUCTION

Unichem International, Inc., of Hobbs, New Mexico, has proposed to build and operate a facility for the disposal of oil-field brine at Laguna Tres in Eddy County, New Mexico. This facility would be located approximately eight miles east of Loving in Township 23 South, Range 29 East.

In August 1982, Geohydrology Associates, Inc., of Albuquerque was requested to conduct a hydrologic investigation of the area. The purpose of this investigation was to determine the impacts that might result from operation of the proposed facility. Unichem proposes to dispose oil-field brine into existing brine lakes in the area.

The investigation requested by Unichem was conducted by the staff of Geohydrology Associates, Inc., under the supervision of T. E. Kelly. A thorough literature and file search of existing data was conducted. This drew heavily from earlier reports of the area that have been prepared by Geohydrology Associates, Inc. Water-quality samples were collected by Unichem and the results submitted for evaluation. A field reconnaissance was not conducted. An analysis of the data and the resulting conclusions are presented in this report.

PREVIOUS STUDIES

Owing to the proximity of the Laguna de la Sala Grande, commonly called Salt Lake, to the Pecos River, a number of ground-water investigations have been conducted in the region. One of the earliest studies was made by Robinson and Lang (1938). They concluded that brine from the Salt Lake was not discharging into the Pecos River. Hendrickson and Jones (1952) evaluated the water-bearing deposits in the vicinity of Salt Lake and the Pecos; however the hydrologic relationship between the two water bodies

was not discussed. Thomas (1963) and Mower and others (1964) studied the relationship of the Pecos River discharge to ground-water conditions in the area. Most of this work was completed before the major impacts of the potash refineries were exerted on the project area.

One of the earliest detailed water-supply studies of the Nash Draw and Laguna Tres area was made by Gilkey and Stotemyer (1965). They concluded that the potash refineries contribute to the hydrologic system by leakage from brine-disposal ponds. A detailed study by Geohydrology Associates, Inc. (1979) was made for the Bureau of Land Management. This study identified and quantified significant amounts of brine entering the ground-water and surface-water systems in the Nash draw and Clayton basin areas.

In 1982 Geohydrology Associates, Inc., conducted two studies in the Laguna Tres area at the request of Riqueza, Inc., and B & E, Inc. Both of these studies were directed to the suitability of Laguna Tres, Lindsey Lake, and surrounding areas for disposal of oil-field brines. Both of these applications have been considered and approved by the Oil Conservation Division of New Mexico.

DESCRIPTION OF THE PROJECT AREA

Geology

A number of studies have been made of the geology of the study area. Most noteworthy is the work by King (1942), Vine (1953), and Brokaw and others (1972). These comprehensive studies were used as a guide to the geologic deposits that will be impacted by the proposed disposal site.

There are two formations in the project area which exert considerable control on the hydrologic system in the Laguna Tres area (table 1). The Salado Formation is present only in the subsurface of the project area. The overlying Rustler Formation is present at the surface. The Rustler generally is subdivided into a Lower Member, the Culebra Dolomite, the Tamarisk Member, the Magenta Member, and the uppermost Forty-nine Member.

Salado Formation

The Salado Formation is widespread throughout southeastern New Mexico and generally east of the Pecos River. The formation consists of more than 75 percent salt deposits with minor amounts of interbedded clay and siltstone, anhydrite, and dolomite. The Salado is the source of the potash which is extensively mined in the area.

Because the Salado is soluble to ground water, the formation exerts major control over the shallow and surficial structures in the Tres Lagunas-Salt Lake area. The upper surface of the formation has been dissolved by

Table 1.--Summary of Permian deposits, Laguna Tres area, New Mexico.

Age	Formation	Member or Zone	Description	Remarks
Late Permian	Rustler	Forty-niner	Gypsum, white, massive, and siltstone; 40 to 65 ft thick.	Principal aquifer for stock wells near Nash Draw. Quality improves away from area.
		Magenta	Dolomite, pink, interlaminated with pale-green anhydrite; 20 ft thick.	Locally produces small quantities of mineralized water.
		Tamarisk	Gypsum, white, massive, and siltstone; 115 ft thick.	Not known to produce water to wells
		Culebra dolomite	Dolomite, light-gray, silty, thin-bedded to massive; contains spherical vugs 1 to 10 mm in diameter; 30 ft thick.	Produces up to 300 gpm of highly mineralized water to wells.
		Unnamed or Lower Member	Siltstone, gypsum, and very fine grained gray sandstone; 120 ft thick.	Not known to produce water to wells.
	Salado	Upper leached zone.	Gypsum, siltstone, and anhydrite, brecciated; 50 to 200 ft thick.	So-called "brine aquifer". May produce large quantities of water to wells.
		Zone of massive salt.	Halite, anhydrite, siltstone, and polyhalite; soluble potash minerals locally; as much as 2,000 ft thick.	Non-water bearing.

ground-water movement, and this has resulted in the collapse of the overlying Rustler deposits. Salt Lake and the brine lake chain which includes Laguna Tres all occupy topographic depressions in the Rustler Formation which formed as a result of collapse following the solution of the underlying Salado deposits.

The depth to the top of the Salado Formation in the vicinity of Laguna Tres is approximately 275 feet, according to Vine (1963, p. 7).

Rustler Formation

The primary components in the Rustler Formation are gypsum and/or anhydrite with some dolomitic limestone, siltstone, and halite. Due to solution of the soluble minerals, the halite does not crop out. The Rustler and Salado Formations are separated by a leached zone approximately 60 feet thick. This insoluble residue is regarded as basal Rustler Formation by some authors (Cooper and Glanzman, 1971) and as uppermost Salado Formation by others (Vine, 1963, p. 7).

The zone which separates the Salado and the Rustler consists of an insoluble rubble of brecciated clastics and limestone which collapsed following the solution of the underlying evaporite deposits. The rubble represents material from the Lower Member, the Culebra Dolomite, and insoluble deposits from the Tamarisk Member. Material from the Magenta and uppermost Forty-nine members has also collapsed to form the floor of Nash Draw; however this material probably is not incorporated into the rubble zone itself.

Because of the brecciated and unconsolidated nature of the rubble zone, this is a major zone of ground-water movement. It has been called the "brine aquifer" by Robinson and Lang (1938).

The Lower Member of the Rustler Formation is predominately siltstone and fine-grained sandstone that locally contains gypsum, anhydrite, and halite (Brokaw and others, 1972, p. 50). The thickness ranges from about 60 to 120 feet (table 1).

The Culebra Dolomite is a distinctive and persistent marker bed in the Rustler which is usually about 30 feet thick.

The Tamarisk Member was named for its exposures near Lindsey Lake about two miles northwest of the proposed disposal site. According to Vine (1963, p. 14), the Tamarisk Member consists of about 115 feet of massive, coarsely crystalline gypsum in the outcrop, but it is chiefly anhydrite in the subsurface. In the vicinity of Laguna Tres, there are massive exposures of deformed gypsum beds and large selenite crystals indicating recrystallization by movement of ground water. Locally the Tamarisk deposits are banked by silt and clay that has washed into Nash Draw; there are some areas of dune development also. Most of the disposal ponds used by the potash refineries have been excavated in the Tamarisk Member.

Inasmuch as the Tamarisk Member forms the bottom of most of Nash Draw, the Magenta and Forty-nine Members probably were removed by erosion

before and following the formation of Nash Draw. Consequently these two members have little bearing on the suitability of the Laguna Tres area for disposal of brine.

Topographic Setting

Nash Draw and Clayton Basin are two of the most prominent surface features east of the Pecos River in Eddy County. According to Vine (1963, p. B38), these features represent undrained depressions which resulted from regional differential solution of evaporite deposits in the upper Salado and the lower Rustler Formations. The solution of these deposits produced large-scale collapse of the three lower members of the Rustler Formation. Evidence for this solution can be found throughout the exposures of the various members, and especially the Tamarisk Member which forms the floor of Nash Draw.

Collapse was not everywhere uniform. Although the regional dip of the beds is eastward, the strata exposed along the margins of Nash Draw and Clayton Basin dip toward the depressions. Hydration of anhydrite to gypsum has caused local doming, and there is extreme deformation within the Tamarisk deposits. Sinkholes and domes also influence the local topography. Work by Geohydrology Associates, Inc., (1979) has shown that collapse was greatest in Nash Draw, and as a result of differential collapse, there is a topographic divide between Clayton Basin on the north and Nash Draw on the south.

The Salt Lake occupies the lowest topographic depression in Nash Draw. Likewise there is a large closed depression northeast of the lake which is ringed by a series of surface lakes, including Laguna Tres which is the proposed disposal site (fig. 1).

Hydrology

Ground Water

There have been several comprehensive studies of the hydrology of the potash area; these include the work by Brokow and others (1972) and Geohydrology Associates, Inc. (1979). In addition, Geohydrology Associates (1982a,b) also has prepared two site studies in the vicinity of Salt Lake and Laguna Tres. All of these studies have verified that the normal hydrologic system has been modified by collapse of Nash Draw. The system is further complicated by discharge from the various potash refineries in the area.

A study conducted by Hendrickson and Jones (1952) defined the regional water table in eastern Eddy County before major influence of the potash refineries was apparent. East of the Pecos River the ground-water movement is predominately from north to south with local deviations created by the topography. Livingston Ridge on the east and Quahada Ridge on the west tend to divert the regional flow of ground water into Nash Draw. The shallow water table intersects the land surface along the flanks of the Draw, and a series of springs and seeps discharge at these points.

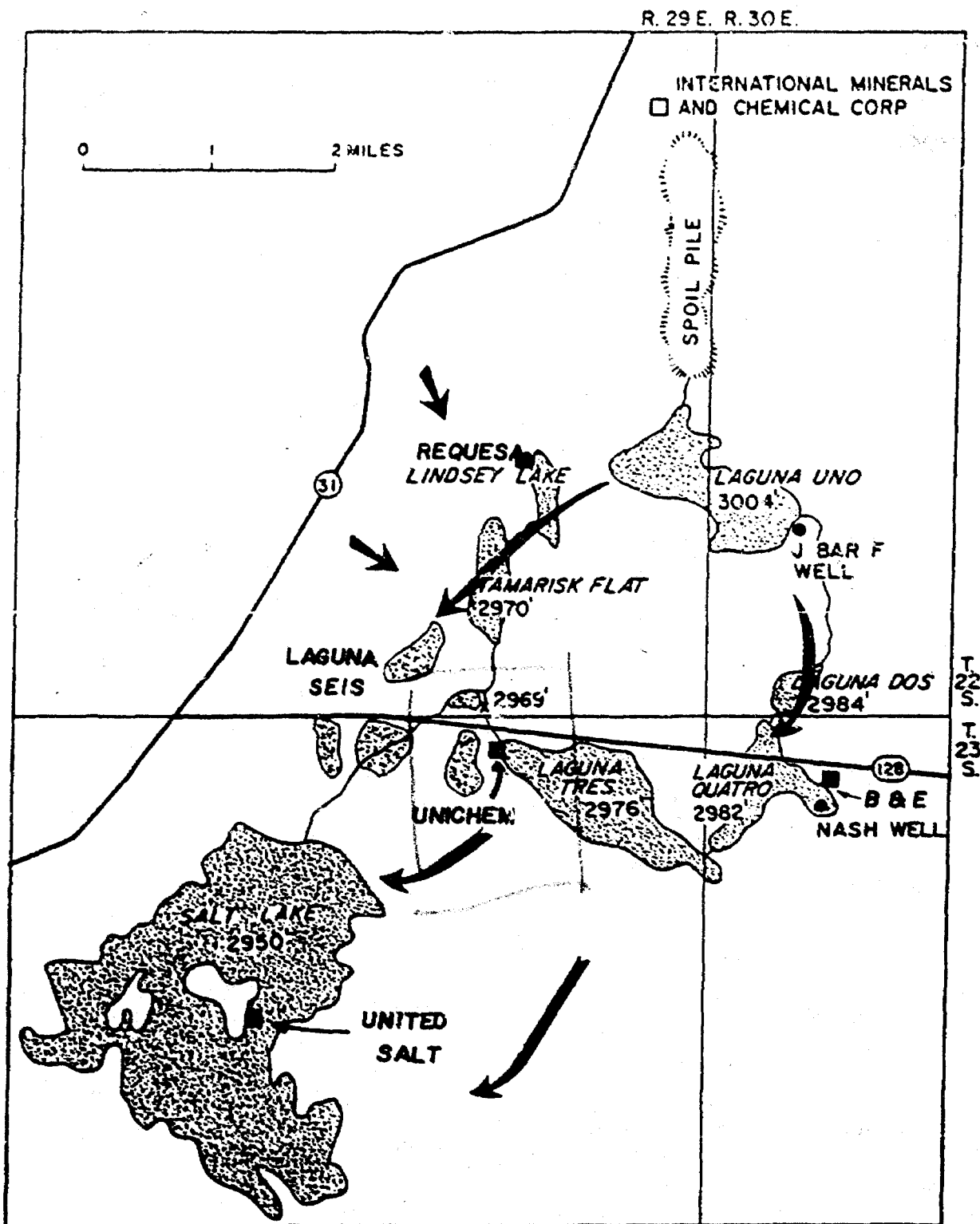


Figure 1.--Distribution of lakes in the vicinity of IMC refinery and Salt Lake, with selected altitudes. Arrows show generalized direction of ground-water flow.

There is no known potable water within Nash Draw at the present time (1982). The rubble zone, which represents the collapsed Rustler Formation in the bottom of Nash Draw, has produced potable water to wells in the past. Nash well, which is located in T. 23 S., R. 30 W., section 6, was completed for stock use prior to 1935 (fig. 1). Subsequently the level of Laguna Quatro has risen to the point that this well was completely inundated by 1977. Likewise, the J Bar F well in T. 22 S., R. 30 E., section 20 produced water for stock at Laguna Uno. The water level in this well was 134.0 feet below land surface on March 17, 1948 (Hendrickson and Jones, 1952, p. 134). The water was at land surface in 1979 which shows a rise of 134 feet in 31 years. Most of the rise in the water table of Nash Draw can be attributed to the discharge of water by the potash refineries.

Surface Water

There are no perennial streams in Nash Draw. The mean annual precipitation at Carlsbad is about 12 inches per year, and most of this is lost to evaporation and plant transpiration shortly after falling. Small amounts of runoff enter Nash Draw through normally dry arroyos. This runoff typically pounds in topographic lows such as Lindsey Lake, Tamarisk Flats, and numerous undrained depression on the floor of the Draw.

In addition to small amounts of runoff, there is a considerable amount of refinery waste released annually. Approximately 9,248 acre-feet per year is discharged as a brine by refineries located in the area (Geohydrology Assoc., Inc., 1979, p. 60). As a consequence of the potash refining process, this discharge is a saturated brine containing as much as 30 percent solids in the form of suspended clay.

The refinery discharge from International Minerals and Chemical Corporation (IMC) enters the headwaters of Laguna Uno in section 24, T. 22 S., R. 29 E. The lake itself extends into adjoining sections and has a total area of about 710 surface acres. Discharge records of brine from the IMC refinery are not available. However, according to the New Mexico State Engineer Office in Roswell, the amount of water imported by IMC during 1977 was 5,233 acre-feet, or the equivalent of 3,244 gpm (gallons per minute). The measured discharge into the Laguna Uno is nearly equal to the quantity of imported water which indicates that the refining process and evaporation losses are small.

Evapoartion-rate losses were calculated for Laguna Uno during a study for the Bureau of Land Management by Geohydrology Assoc., Inc. (1979, p. 71). It was determined that the summer evaporation rate at the lake was 6.69 gpm per acre of surface area; the winter evaporation rate was 0.369 gpm per acre. On the basis of these evaporation rates and the surface area of Laguna Uno, it was determined that virtually all of the refinery inflow is lost during the summer, but only about 10 percent of the winter inflow is lost.

There is no surface outlet from Laguna Uno, therefore the amount of refinery waste which is not evaporated must enter the ground-water flow system by seepage along the fringes of the lake. Much of this ground-water

flow surfaces in the chain of lakes which include Laguna Dos, Laguna Tres, Laguna Quatro, and the Salt Lake. In addition, Lindsey Lake, Tamarisk Lake, and Laguna Seis are topographically lower than Laguna Uno, and it is unlikely that a subsurface connection exists between these surface-water bodies (fig. 1).

A field reconnaissance was made in May 1982 in the area between the IMC discharge point and Salt Lake. This included the areas of Laguna Quatro and Laguna Tres, in addition to the Lindsey Lake region. It was determined that there is no surface connection between Laguna Quatro and the lakes farther north and west. However there is a surface connection between Laguna Quatro and Laguna Tres through a culvert and ditch that was recently completed by the State Highway Department. In May 1982 it was estimated that the discharge through this culvert was about 500 gpm. Inasmuch as there is no surface inflow source to Laguna Quatro, the entire 500 gpm outflow must represent ground-water inflow to the lake.

Recent work (1982) by the Highway Department has connected all of the lakes and ponds south of Highway 128 with the Salt Lake. Therefore it is now possible for water entering Laguna Tres to move directly to Salt Lake.

The total surface area of these lakes, excluding Salt Lake, exceeds 1,200 acres. On the basis of the evaporation rates calculated for Laguna Uno, the surface area of these lakes would have the capacity to evaporate 8,028 gpm during the summer months and 443 gpm during the winter.

DISCHARGE PROPOSAL

Unichem International, Inc., has proposed to construct an oil-field brine disposal facility which will have a capacity to process approximately 2,000 barrels of brine per day. Assuming that the maximum discharge is maintained throughout the year, the daily rate would be about 84,000 gallons, or a continuous discharge of about 58.3 gpm. The average daily disposal rate is estimated to be approximately 500 to 700 barrels.

The location of the facility proposed by Unichem International, Inc., is in the northwest quarter of section 2, T. 23 S., R. 29 E. This would be near the outlet of Laguna Tres at the extreme northwest end of the lake (fig. 1).

Work recently performed by the Highway Department has provided a surface connection between Laguna Quatro, Laguna Tres and several unnamed ponds south of Highway 128. Trenching has connected these lakes and ponds with Salt Lake. The total surface area of these lakes exceeds 1,200 acres.

Two earlier studies by Geohydrology Associates, Inc., (1982a,b) have evaluated proposed oil-field brine disposal sites in the same general area.

The first proposal was submitted by Requesa, Inc., to discharge a maximum of about 88 gpm into Lindsey Lake (fig. 2). B & E, Inc., has proposed a facility to be located near the east end of Laguna Quatro which would have a maximum capacity of about 218 gpm.

The applications made by Requesa, Inc., and B & E., Inc., have been granted by the Oil Conservation Division. If it is assumed that both facilities are put into operation, and that both operate at a maximum capacity during the winter months, there would be a discharge of 306 gpm from the two facilities, or approximately 60 percent of the total evaporation potential of 509 gpm for the lakes receiving the discharge. When the maximum Unichem discharge of 58 gpm is added to the hydrologic system, the total oil-field brine inflow would be 364 gpm (maximum) or 71 percent of the evaporation potential of the lakes in the area (fig. 2).

Assuming that a worst-case condition as cited above prevailed for extensive lengths of time, we believe that the 29 percent margin of error would be sufficient to protect the hydrologic system of the Laguna Tres area. Furthermore we believe that this may be approaching the maximum safe carrying capacity of the hydrologic system in the Laguna Tres area.

CHEMICAL QUALITY OF PROPOSED DISCHARGE

Unichem International, Inc., will operate a private disposal facility to discharge oil-field brines presently hauled by Unichem. Most of these brines are produced from wells completed in the Bone Springs and the Morrow Formations. Water analyses from representative wells are included in the Appendix of this report.

Most of these samples exceed 100,000 mg/l (milligrams per liter) dissolved solids; they are classified as sodium chloride type water. The chemical quality of water within the Bone Springs and the Morrow Formations does not vary significantly, and it is believed that the analyses given in the Appendix are representative of these two zones.

The surface water in Laguna Tres and adjoining ponds is similar to the samples presented in the Appendix. Mixing of the brines with the existing lake water would not produce a noticeable effect on the water quality.

CONCLUSIONS

1. The proposed discharge system by Unichem International, Inc., will contribute a maximum of 58 gpm to the hydrologic system in the vicinity of Laguna Tres.

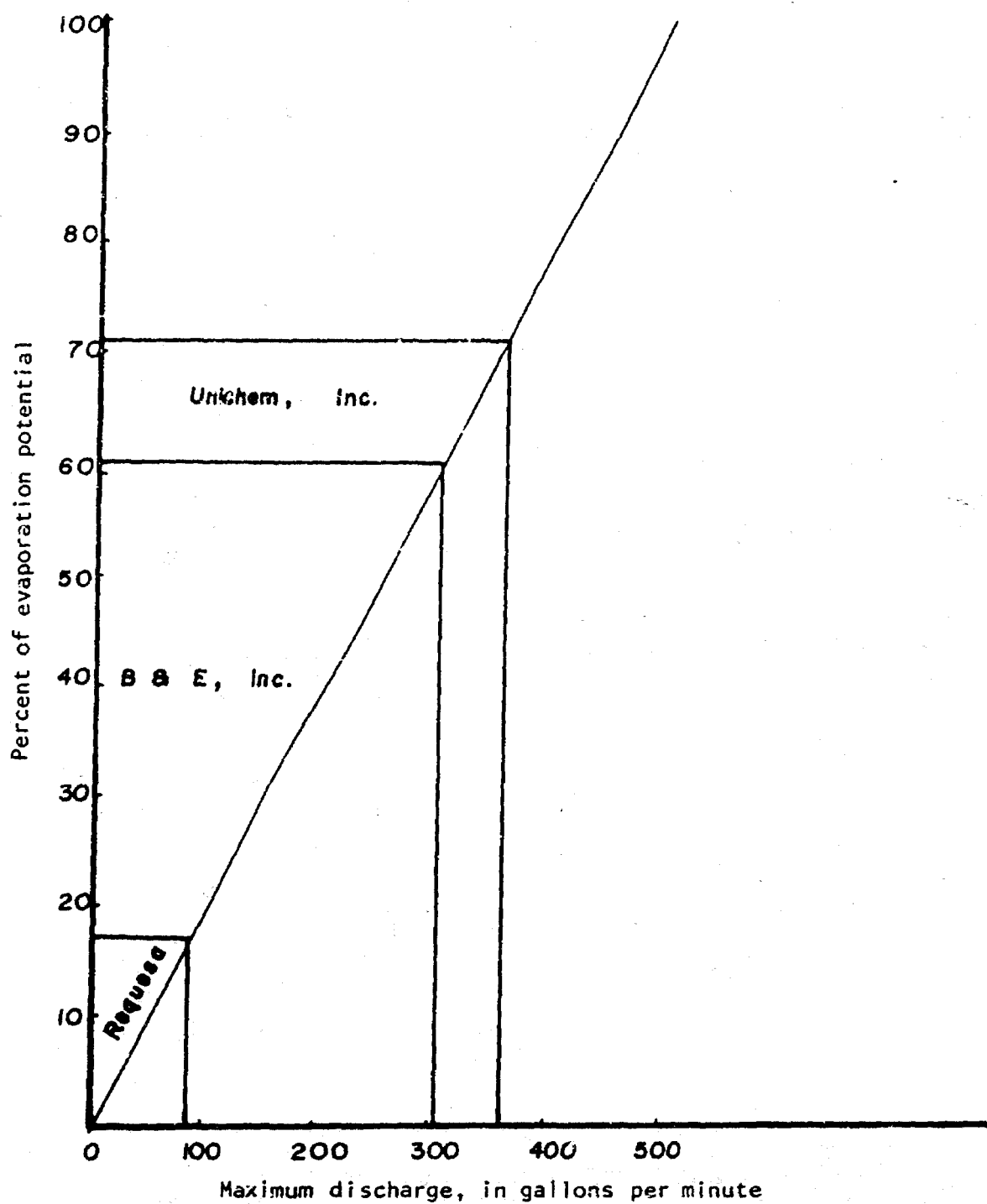


Figure 2.--Relationship of proposed discharge to evaporation potential in Laguna Tres area.

2. The existing hydrologic system has the capacity to evaporate 509 gpm during the winter months when evaporation losses are at the annual low. Unichem and two other disposal operations are all operating at maximum capacity; the total discharge would be about 364 gpm. This is approximately 29 percent less than the minimum evaporation potential.

3. The chemical quality of the brine to be disposed by Unichem will not appreciably change the existing water quality in Laguna Tres and adjoining ponds.

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A P P E N D I X

UNICHEM INTERNATIONAL

601 NORTH LEECH

P O BOX 1499

HOBBS, NEW MEXICO 88210

COMPANY MWJ PRODUCTION COMPANY

DATE 8-27-82

FIELD LEASESWELL STGWA #1 UNIT 1 SEC 36 T30S R27E

SAMPLING POINT

DATE SAMPLED 8-25-82

SPECIFIC GRAVITY = 1.136

TOTAL DISSOLVED SOLIDS = 200691

PH = 5.76

MG/L

MG/L

CATIONS

CALCIUM	(CA)+2	1028	20440
MAGNESIUM	(MG)+2	340	1133
SODIUM	(NA).CALC	3184	30215

ANIONS

BICARBONATE	(HCO3)-1	3	30.3
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	18.7	900
CHLORIDES	(CL)-1	3525	124971

DISSOLVED GASES

CARBON DIOXIDE	(CO2)	NOT RUN
HYDROGEN SULFIDE	(H2S)	NOT RUN
OXYGEN	(O2)	NOT RUN

IRON(TOTAL)	(FE)	10.5
BARIUM	(BA)+2	0
MANGANESE	(MN)	NOT RUN

SCALING INDEX

TEMP

CARBONATE INDEX	30C
CALCIUM CARBONATE SCALING	86F
	1.61
	LIKELY
SULFATE INDEX	414
CALCIUM SULFATE SCALING	LIKELY

LEAD	0.28 MG/L
SILVER	0.22 MG/L
NITRATE	326.30 MG/L
RESISTIVITY	.050 @ 74°F

UNICHEM INTERNATIONAL

601 NORTH LEECH

P.O. BOX 1499

HOBBES, NEW MEXICO 88240

COMPANY MADDOX ENERGY CORPORATION

DATE 8-27-82

FIELD LEASE & WELL PARDUE FARMS 27-5 BONE SPRINGS SEC 27 T23S R28E

SAMPLING POINT

DATE SAMPLED 8-25-82

SPECIFIC GRAVITY = 1.199

TOTAL DISSOLVED SOLIDS = 294775

PH = 5.62

ME/L

MG/L

CATIONS

CALCIUM	(CA)+2	1433	26724
MAGNESIUM	(MG)+2	306	3727
SODIUM	(NA).CALC	3436	78857

ANIONS

BICARBONATE	(HCO3)-1	3.8	231
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	5.7	275
CHLORIDES	(CL)-1	3160	182958

DISSOLVED GASES

CARBON DIOXIDE	(CO2)	NOT RUN
HYDROGEN SULFIDE	(H2S)	NOT RUN
OXYGEN	(O2)	NOT RUN

IRON(TOTAL)	(FE)	121
BARIUM	(BA)+2	
MANGANESE	(MN)	56
		NOT RUN

SCALING INDEX

TEMP

30C

86F

-4.4

UNLIKELY

CARBONATE INDEX
CALCIUM CARBONATE SCALING

SULFATE INDEX
CALCIUM SULFATE SCALING

122
LIKELY

LEAD	0.30 MG/L
SILVER	0.12 MG/L
NITRATE	132.00 MG/L
RESISTIVITY	.043 @ 74°F

UNICHEM INTERNATIONAL

301 NORTH LEECH

P.O. BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY MADDOX ENERGY CORPORATION

DATE 8-27-82

FIELD LEASE & WELL FLOWER DRAW #1 BONE SPRINGS SEC 2 T26S R28E

SAMPLING POINT

DATE SAMPLED 8-25-82

SPECIFIC GRAVITY = 1.176

TOTAL DISSOLVED SOLIDS = 259639

PH = 5.6

ME/L

MG/L

CATIONS

CALCIUM	(CA)+2	580	11623
MAGNESIUM	(MG)+2	240	2917
SODIUM	(NA).CALC	3695	84948

ANIONS

BICARBONATE	(HCO3)-1	3	183
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	.06	3
CHLORIDES	(CL)-1	4512	159963

DISSOLVED GASES

CARBON DIOXIDE	(CO2)	NOT RUN
HYDROGEN SULFIDE	(H2S)	NOT RUN
OXYGEN	(O2)	NOT RUN

IRON(TOTAL)	(FE)		64.5
BARIUM	(BA)+2		54.2
MANGANESE	(MN)	NOT RUN	

SCALING INDEX

TEMP

30C

86F

125

LIKELY

CARBONATE INDEX
CALCIUM CARBONATE SCALING

SULFATE INDEX
CALCIUM SULFATE SCALING

-260
UNLIKELY

LEAD	0.26 MG/L
SILVER	0.10 MG/L
NITRATE	3.50 MG/L
RESISTIVITY	.042 @ 74°F

UNICHEM INTERNATIONAL

601 NORTH LEECH

P.O. BOX 1499

ROBBS, NEW MEXICO 88240

COMPANY : SAMEDAN OIL CORPORATION

DATE : 8-27-82

FIELD : LEASESWELL : CARLSBAD STATE #1 MORROW SEC 34 T235 R26E

SAMPLING POINT

DATE SAMPLED : 8-25-82

SPECIFIC GRAVITY = 1.056

TOTAL DISSOLVED SOLIDS = 83447

PH = 6.37

ME/L

MG/L

CATIONS

CALCIUM	(CA)+2	213	4275
MAGNESIUM	(MG)+2	36.6	415
SODIUM	(NA).CALC.	1192	27433

ANIONS

BICARBONATE	(HCO3)-1	4.6	280
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	.48	23.5
CHLORIDES	(CL)-1	1438	50988

DISSOLVED GASES

CARBON DIOXIDE	(CO2)	NOT RUN
HYDROGEN SULFIDE	(H2S)	NOT RUN
OXYGEN	(O2)	NOT RUN

IRON(TOTAL)	(FE)	28.8
BARIUM	(BA)+2	42.8
MANGANESE	(MN)	NOT RUN

SCALING INDEX

TEMP

30C

86F

1.10

LIKELY

CARBONATE INDEX
CALCIUM CARBONATE SCALING

SULFATE INDEX
CALCIUM SULFATE SCALING

-78
UNLIKELY

LEAD	0.12 MG/L
SILVER	0.03 MG/L
NITRATE	87.10 MG/L
RESISTIVITY	.090 @ 74°F

Dockets Nos. 31-82 and 32-82 are tentatively set for October 13 and October 27, 1982. Applications for hearing must be filed at least 10 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 29, 1981

9 A.M. - MORGAN HALL, 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:

- CASE 7686: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Energetics Corporation, United States Fidelity and Guaranty Company, and all other interested parties to appear and show cause why the Manes Corporation Well No. 1, located in Unit F of Section 9, Township 24 South, Range 2 East, Don Ana County, should not be plugged and abandoned in accordance with a Division-approved plugging program.
- CASE 7687: Application of Amoco Production Company for salt water disposal, Union County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Glorieta formation in the perforated interval from 1718 feet to 1780 feet in its former State F1 Well No. 2 (2034 362P) located 660 feet from the South line and 1320 feet from the East line of Section 36, Township 20 North, Range 34 East.
- CASE 7688: Application of Mountain States Petroleum Corporation for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 990 feet from the North and East lines of Section 19, Township 15 South, Range 28 East, Buffalo Valley-Penn Gas Pool, the N/2 of said Section 19 to be dedicated to the well.
- CASE 7689: Application of Tesoro Petroleum Corporation for a tertiary oil recovery project, McKirley County, New Mexico. Applicant, in the above-styled cause, seeks authority to convert its Hespah Sand Unit Waterflood Project to a polymer-augmented waterflood and, pursuant to Section 212.78 of the U. S. Department of Energy Regulations and Section 4993 of the Internal Revenue Code, seeks certification of said project as a qualified tertiary oil recovery project.
- CASE 7690: Application of C & K Petroleum, Inc. for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formations underlying the E/2 SW/4 of Section 27, Township 16 South, Range 37 East, Casey-Strawn Pool, to be dedicated to a well to be drilled at a standard location thereon. 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 7679: (Continued from September 15, 1982, Examiner Hearing)
- Application of C & K Petroleum, Inc. for the amendment of Order No. R-4857-A and for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Division Order No. R-4857-A to provide that the lands pooled by said order shall be the W/2 SE/4 of Section 27, Township 16 South, Range 37 East, dedicated to its Shipp 27 Well No. 2 located in Unit O in said Section 27. Applicant, further seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the E/2 SE/4 of the aforesaid Section 27, to be dedicated to a well to be drilled in Unit P of said Section 27. 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 7680: (Continued and Readvertised)
- Application of Unichem International, Inc. for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221 to permit the commercial disposal of produced brine into several unlined surface pits located in Section 2, Township 23 South, Range 29 East.
- CASE 7691: Application of Dugan Production Corporation for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Basin-Dakota Pool underlying the W/2 of Section 5, Township 24 North, Range 9 West, to be dedicated to a well to be drilled at a standard location thereon. 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 7692: Application of Forister & Sweatt for an unorthodox well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox location 990 feet from the North line and 1650 feet from the East line of Section 5, Township 13 South, Range 31 East, Southeast Chaves Queen Gas Area, the E/2 of said Section 5 to be dedicated to the well.

CASE 7693: Application of Forister & Sweatt for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Southeast Chaves Queen Gas Area underlying the E/2 of Section 5, Township 13 South, Range 31 East, to be dedicated to a well to be drilled at an unorthodox location thereon. 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, designation of applicant, as operator of the well and a charge for risk involved in drilling said well.

CASE 7681: (Continued from September 15, 1982, Examiner Hearing)

Application of Cibola Energy Corporation for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of an Ordovician gas well to be drilled 330 feet from the North line and 990 feet from the East line of Section 13, Township 9 South, Range 27 East, the E/2 of said Section 13 to be dedicated to the well.

CASE 7682: (Continued from September 15, 1982, Examiner Hearing)

Application of Cibola Energy Corporation for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Mississippian gas well drilled 330 feet from the North line and 330 feet from the West line of Section 34, Township 11 South, Range 28 East, the W/2 of said Section 34 to be dedicated to the well.

CASES 7694 and 7695: Application of Depco, Inc. for compulsory pooling, Chaves County, New Mexico.

Applicant, in each of the following two cases, seeks an order pooling all mineral interests from the surface down through the Abo formation underlying the lands specified in each case, each to form a standard 160-acre gas spacing and proration unit to be dedicated to a well to be drilled at a standard location thereon. Also to be considered in each case will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells and a charge for risk involved in drilling said wells:

CASE 7694: NW/4 Section 21; and

CASE 7695: NE/4 Section 21

Both in Township 5 South, Range 25 East.

CASE 7696: Application of Arco Oil and Gas Company for compulsory pooling, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Mississippian through Ellenburger formations underlying the E/2 of Section 31, Township 20 South, Range 36 East, to be dedicated to a well to be drilled at a standard location thereon. 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASES 7528 and 7529: (Continued and Advertised)

Application of JJ-CC, Limited for compulsory pooling, Chaves County, New Mexico. Applicant, in each of the following two cases, seeks an order pooling all mineral interests down through the Abo formation underlying the lands specified in each case, each to form a standard 160-acre gas spacing and proration unit to be dedicated to a well to be drilled at a standard location thereon. Also to be considered in each case will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells and a charge for risk involved in drilling said wells:

CASE 7528: NW/4 Section 4, Township 5 South, Range 24 East

CASE 7529: NE/4 Section 4, Township 5 South, Range 24 East

CASE 7697: Application of Oxoco Production Corp. for designation of a tight formation, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the designation of the Mesavide formation underlying Sections 7, 8, 17, 18, 19 and 20, Township 32 North, Range 8 West, containing 3160 acres, more or less, as a tight formation pursuant to Section 107 of the Natural Gas Policy Act and 18 CFR Section 271.701-705.

Dockets Nos. 31-82 and 32-82 are tentatively set for September 29 and October 13, 1982. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING WEDNESDAY-SEPTEMBER 15, 1982

9 A.M. - MORGAN HALL, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

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

- ALLOWABLE: (1) Consideration of the allowable production of gas for October, 1982, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.
- (2) Consideration of the allowable production of gas for October, 1982, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 7638: (Continued and Readvertised)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Cibola Energy Corporation, American Employers Insurance Company and all other interested parties to appear and show cause why the Simms Ranch Well No. 1, located in Unit N, Section 9, the Clyde Berlier Well No. 1, located in Unit K and the Clyde Berlier Well No. 2, located in Unit F, both in Section 21, the Mora Ranch Well No. 3 located in Unit M and the Mora Ranch Well No. 4, located in Unit M, both in Section 5, all in Township 21 North, Range 21 East, Mora County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7637: (Continued from August 18, 1982, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit R.A.F. Enterprises, Fireman's Fund Insurance Company and all other interested parties to appear and show cause why the Shaw Well No. 1, located in Unit M, Section 18, Township 4 North, Range 8 East, Torrance County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7635: (Continued from September 1, 1982, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit CO₂-In-Action, Travelers Indemnity and all other interested parties to appear and show cause why the Trigg Well No. 3 located in Unit J, Section 25, Township 15 North, Range 28 East, San Miguel County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7636: (Continued from September 1, 1982, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit CO₂-In-Action, Travelers Indemnity and all other interested parties to appear and show cause why the Amistad No. 1 located in Unit E of Section 18, and the Amistad No. 2 located in Unit D of Section 7, both in Township 19 North, Range 36 East, Union County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7673: Application of Yates Petroleum Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Almost Texas Unit Area, comprising 3,840 acres, more or less, of State and Federal lands in Township 26 South, Range 31 East.

CASE 7664: (Continued from September 1, 1982, Examiner Hearing)

Application of Yates Petroleum Corporation for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Little Cuevo Unit Area, comprising 13,407 acres, more or less, of State and Fee lands in Township 17 South, Range 18 East.

CASE 7674: Application of Trican Energy, Inc. for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Javalina Basin Unit Area, comprising 3,840 acres, more or less, of State and Federal lands in Township 25 South, Range 34 East.

CASE 7675: Application of Texaco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Justis Blinbry, Justis Tubb-Drinkard, and Justis Devonian production in the wellbore of its G. L. Erwin "A" Federal Well No. 2 located in Unit K, Section 35, Township 24 South, Range 37 East.

- CASE 7676: Application of Tenneco Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation in the perforated interval from 4970 feet to 4982 feet in its Jennings Fed. Well No. 3 located in Unit B of Section 14, Township 24 South, Range 32 East.
- CASE 7677: Application of Anadarko Production Company for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Tean Yates Waterflood Project by converting two wells located in Unit F of Sections 13 and 14, Township 27 South, Range 33 East and drilling three new injection wells at unorthodox locations in Units M of Section 11 and Unit L of Section 13, Township 20 South, Range 33 East, and Unit R of Section 18, Township 20 South, Range 34 East.
- CASE 7678: Application of Phillips Petroleum Company for a pressure maintenance project, Lea County, New Mexico. Applicant in the above-styled cause, seeks authority to institute a pressure maintenance project in the Vacuum Grayburg-San Andres Pool by the injection of water into the Grayburg San Andres formation through eight injection wells to be drilled at unorthodox locations in Section 35, Township 17 South, Range 34 East, as follows: 2630 feet from the South line and 1330 feet from the West line; 2630 feet from the South and West lines; 2630 feet from the South line and 1330 feet from the East line; 1310 feet from the South line and 1330 feet from the West line; 1310 feet from the South line and 10 feet from the East line; 10 feet from the South line and 1310 feet from the East line; 1330 feet from the North line and 1310 feet from the West line; and 1330 feet from the North line and 10 feet from the West line. Applicant also proposes two production wells at unorthodox locations in said Section 35 as follows: 1310 feet from the South line and 2630 feet from the East line and 1310 feet from the South and East lines.
- CASE 7630: (Continued from September 1, 1982, Examiner Hearing - This Case will be Dismissed)
- Application of Ralph Nix for an oil treating plant permit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority for the construction and operation of an oil treating plant for the purpose of treating and reclaiming sediment oil at a site in the SW/4 NE/4 of Section 18, Township 19 South, Range 26 East.
- CASE 7671: (Continued from September 1, 1982, Examiner Hearing)
- Application of Texas Eastern Developments, Inc. for an exception to Rule 307, San Juan County, New Mexico. Applicant in the above-styled cause, seeks an exception to Rule 307 of the Division Rules and Regulations to permit it to draw a vacuum on the Shiprock Gallup Oil Pool reservoir through 16 wells in Sections 16 and 17, Township 29 North, Range 18 West. Applicant further seeks an administrative procedure whereby it could extend the proposed vacuum system to include additional wells in the same reservoir.
- CASE 7679: Application of C & K Petroleum, Inc. for the amendment of Order No. R-4857-A and for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Division Order No. R-4857-A to provide that the lands pooled by said order shall be the W/2 SE/4 of Section 27, Township 16 South, Range 37 East, dedicated to its Ship 27 Well No. 2 located in Unit O in said Section 27. Applicant further seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the E/2 SE/4 of the aforesaid Section 27, to be dedicated to a well to be drilled in Unit P of said Section 27. 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 7680: Application of Unichem International, Inc. for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221 to permit the commercial disposal of produced brine into several unlined surface pits located in Section 11, Township 23 South, Range 29 East.
- CASE 7681: Application of Cibola Energy Corporation for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of an Ordovician gas well to be drilled 330 feet from the North line and 990 feet from the East line of Section 13, Township 9 South, Range 27 East, the E/2 of said Section 13 to be dedicated to the well.

CASE 7682: Application of Cibola Energy Corporation for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Mississippian gas well drilled 330 feet from the North line and 330 feet from the West line of Section 34, Township 11 South, Range 28 East, the W/2 of said Section 34 to be dedicated to the well.

CASE 7683: Application of S & I Oil Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Gallup formation underlying the E/2 SE/4 of Section 12, Township 29 North, Range 15 West, to be dedicated to a well drilled at a standard location thereon. 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 7684: Application of R. E. Lauritsen for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Gallup and Dakota formations underlying the W/2 of Section 11, Township 29 North, Range 15 West, to be dedicated to a well to be drilled at a standard location thereon. 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 7685: Application of Cimarron Energy Corporation for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Pennsylvanian test to be drilled 1980 feet from the South line and 660 feet from the West line of Section 34, Township 22 South, Range 28 East, the S/2 of said Section 34 to be dedicated to the well.

CASES 7528 and 7529: (Continued and Readvertised)

Application of Jack J. Grynberg for compulsory pooling, Chaves County, New Mexico. Applicant, in each of the following two cases, seeks an order pooling all mineral interests down through the Abo formation underlying the lands specified in each case, each to form a standard 160-acre gas spacing and proration unit to be dedicated to a well to be drilled at a standard location thereon. Also to be considered in each case will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells and a charge for risk involved in drilling said wells:

CASE 7528: NW/4 Section 4, Township 5 South, Range 24 East

CASE 7529: NE/4 Section 4, Township 5 South, Range 24 East

(Continued from September 1, 1982, Examiner Hearing)

CASES 7666, 7667, 7668, and 7669: Application of Yates Petroleum Corporation for compulsory pooling, Chaves County, New Mexico. Applicant, in each of the four following cases, seeks an order pooling all mineral interests down through the Abo formation underlying the lands specified in each case, each to form a standard 160-acre gas spacing and proration unit to be dedicated to a well to be drilled at a standard location thereon. Also to be considered in each case will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells and a charge for risk involved in drilling said wells:

CASE 7666: SW/4 Section 3;

CASE 7667: NW/4 Section 4;

CASE 7668: NW/4 Section 14;

All of the above being in Township 5 South, Range 24 East and

CASE 7669: NW/4 Section 2, Township 9 South, Range 25 East.

CASE 7670: (Continued from September 1, 1982, Examiner Hearing)

Application of Yates Petroleum Corporation for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the N/2 of Section 26, Township 14 South, Range 27 East, to be dedicated to a well to be drilled at a standard location thereon. 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.

Examiner Hearing - WEDNESDAY - SEPTEMBER 15, 1982

CASE 7652: (Continued from August 18, 1982, Examiner Hearing)

Application of Conoco Inc. for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Cisco formation underlying all of partial Sections 34 and 35, Township 20 1/2 South, Range 23 East, underlying a previously approved 688-acre non-standard proration unit, to be dedicated to a well at a previously approved unorthodox location which is to be re-entered. Also to be considered will be the cost of re-entering said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in re-entering said well.

CASE 7672: (Continued from September 1, 1982, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating, assigning discovery allowable, contracting, and extending certain pools in Chaves, Eddy, Lea and Roosevelt Counties, New Mexico:

- (a) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Brushy Canyon production and designated as the Brushy Draw-Brushy Canyon Pool. Further, to assign approximately 25,410 barrels of discovery allowable to the discovery well, the J. C. Williamson UCBHW Federal Well No. 1 located in Unit M of Section 25, Township 26 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 26 SOUTH, RANGE 29 EAST, NMPM
Section 25: SW/4

- (b) CREATE a new pool in Lea County, New Mexico classified as an oil pool for San Andres production and designated as the Hobbs Channel-San Andres Pool. The discovery well is the Bass Enterprises Production Company Humble City Unit Well No. 1 located in Unit D of Section 36, Township 17 South, Range 37 East, NMPM. Said pool would comprise:

TOWNSHIP 17 SOUTH, RANGE 37 EAST, NMPM
Section 36: NW/4

- (c) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Morrow production and designated as the Humphreys Mill-Morrow Gas Pool. The discovery well is the Florida Exploration Company Reno Com Well No. 1 located in Unit D of Section 11, Township 25 South, Range 35 East, NMPM. Said pool would comprise:

TOWNSHIP 25 SOUTH, RANGE 35 EAST, NMPM
Section 11: N/2

- (d) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Abo production and designated as the Justis-Abo Pool. The discovery well is the Santa Fe Energy Company Carlson B-25 Federal Well No. 3 located in Unit O of Section 25, Township 25 South, Range 37 East, NMPM. Said pool would comprise:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM
Section 25: SE/4

- (e) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Upper Pennsylvanian production and designated as the McMillan-Upper Pennsylvanian Gas Pool. The discovery well is the Southland Royalty Company Pecos River Federal 20 Com Well No. 1 located in Unit J of Section 20, Township 19 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 27 EAST, NMPM
Section 20: E/2

- (f) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Strawn production and designated as the Mosley Canyon-Strawn Gas Pool. The discovery well is W. A. Moncrief, Jr., Jurnegan State Well No. 1 located in Unit C of Section 8, Township 24 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 25 EAST, NMPM
Section 8: N/2

- (g) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Tubb production and designated as the West Nadine-Tubb Pool. The discovery well is the Tamarack Petroleum Company, Inc. Kornegay A Well No. 1 located in Unit F of Section 9, Township 20 South, Range 38 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM
Section 9: NW/4

- (h) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Morrow production and designated as the Pitchfork Ranch-Morrow Gas Pool. The discovery well is the HNG Oil Company Madera 32 State Com Well No. 1 located in Unit C of Section 32, Township 24 South, Range 34 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 34 EAST, NMPM
Section 32: N/2

- (i) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Yeso production and designated as the Seven Rivers-Yeso Pool. The discovery well is Chama Petroleum Corporation Irami Federal Well No. 1 located in Unit N of Section 34, Township 19 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 25 EAST, NMPM
Section 34: SW/4

- (j) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Abo production and designated as the East Skaggs-Abo Pool. The discovery well is the Texaco Inc. Ch. H. Weir A Well No. 12 located in Unit G of Section 12, Township 20 South, Range 37 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 37 EAST, NMPM
Section 12: NE/4

- (k) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Tubb production and designated as the Teague-Tubb Pool. The discovery well is the Alpha Twenty-One Production Company Lea Well No. 2 located in Unit A of Section 17, Township 23 South, Range 37 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM
Section 17: NE/4

- (l) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Devonian production and designated as the Townsend-Devonian Pool. The discovery well is the Kimbark Oil and Gas Company New Mexico 1-4 State Com Well No. 1 located in Unit N of Section 4, Township 16 South, Range 35 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM
Section 4: Lots 11, 12, 13, and 14

- (m) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Bone Spring production and designated as the Welch-Bone Spring Pool. The discovery well is the Quanah Petroleum, Inc. Hay B Federal Com Well No. 1 located in Unit K of Section 9, Township 26 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 26 SOUTH, RANGE 27 EAST, NMPM
Section 9: SW/4

- (n) CONTRACT the horizontal limits of the Buckeye-Abo Pool in Lea County, New Mexico, by the deletion of the following described area:

TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM
Section 3: W/2 NW/4

Examiner Hearing - WEDNESDAY - SEPTEMBER 15, 1982

- (o) CONTRACT the horizontal limits of the Vacuum-Abo Reef Pool in Lea County, New Mexico, by the deletion of the following described area:

TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM
Section 3: E/2 NW/4

- (p) EXTEND the Antelope Sink-Upper Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 23 EAST, NMPM
Section 13: R/2
Section 14: N/2

- (q) EXTEND the West Arkansas Junction-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 36 EAST, NMPM
Section 20: NW/4

- (r) EXTEND the Atoka-Yeso Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 26 EAST, NMPM
Section 26: E/2

- (s) EXTEND the Bilbrey-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 32 EAST, NMPM
Section 5: NW/4
Section 6: E/2

- (t) EXTEND the Bunker Hill-Penrose Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 31 EAST, NMPM
Section 14: N/2 S/2 and NE/4

- (u) EXTEND the Cemetery-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 25 EAST, NMPM
Section 3: S/2
Section 4: All

- (v) EXTEND the Comanche Stateline Tansill-Yates-Seven Rivers-Queen Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 36 EAST, NMPM
Section 26: NW/4
Section 27: NE/4 and E/2 NW/4

- (w) EXTEND the South Empire-Morrow Gas Pool in Eddy County, New Mexico to include therein:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM
Section 35: S/2
Section 36: W/2

- (x) EXTEND the South Empire-Wolfcamp Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM
Section 36: E/2 NE/4

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM
Section 31: NW/4 and S/2 NE/4

- (y) EXTEND the Forty Niner Ridge-Bone Spring Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM
Section 16: SE/4

- (2) EXTEND the Hardy-Tubb Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM
Section 2: Lots 11, 12, 13, 14, and S/2
Section 11: NW/4

- (aa) EXTEND the Northeast Lovington-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 37 EAST, NMPM
Section 20: NW/4

- (bb) EXTEND the West Milnesand-Pennsylvanian Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 34 EAST, NMPM
Section 19: W/2

- (cc) EXTEND the South Peterson-Pennsylvanian Associated Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 5 SOUTH, RANGE 33 EAST, NMPM
Section 30: SE/4
Section 31: N/2 NE/4

TOWNSHIP 6 SOUTH, RANGE 33 EAST, NMPM
Section 15: S/2

- (dd) EXTEND the Race Track-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 10 SOUTH, RANGE 28 EAST, NMPM
Section 18: NE/4 and S/2 SE/4

- (ee) EXTEND the Ross Draw-Wolfcamp Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 30 EAST, NMPM
Section 23: S/2
Section 26: N/2

- (ff) EXTEND the West Sand Dunes-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM
Section 17: S/2
Section 20: All

- (gg) EXTEND the Saunders Parno-Upper Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 33 EAST, NMPM
Section 21: NE/4

DOCKET: COMMISSION HEARING - WEDNESDAY - SEPTEMBER 22, 1982

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

The following cases were continued from the August 26, 1982, Commission Hearing:

CASE 7656: Application of Cities Service Company for determination of reasonable well costs, Lea County, New Mexico. Applicant, in the above-styled cause, pursuant to the provisions of Section 70-2-17 C, NMSA, 1978 Comp., and Paragraph (5) of Division Order No. R-6781, seeks a determination of reasonable well costs for two wells drilled under the provisions of said Order No. R-6781 by Doyle Hartman on lands pooled by said order.

CASE 7657: Application of Harvey E. Yates Company for non-rescission of Order No. R-6873, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the non-rescission of Order No. R-6873, which order pooled certain lands to be dedicated to a proposed Ordovician test well to be drilled thereon, being the W/2 of Section 18, Township 9 South, Range 27 East. Said order provided that should the unit well not be drilled to completion, or abandonment, within 120 days after commencement thereof, operator shall appear and show cause why the pooling order should not be rescinded.

CASE 7658: (Readvertised)

Application of Harvey E. Yates Company for a dual completion and downhole commingling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Seymour State No. 1 located in Section 18, Township 9 South, Range 27 East, in such a manner that Abo perforations from 4912 feet to 4929 feet would be commingled with Upper Atoka perforations from 5926 feet to 5952 feet and the aforesaid intervals dually completed with Lower Atoka perforations from 6008 feet to 6048 feet and produced through parallel strings of tubing.

Law Offices of
R. E. RICHARDS

R. E. RICHARDS
LAWRENCE D. HANNA

(505) 393-7737
Broadway Plaza - Suite 12
215 West Broadway
P. O. Box 761
Hobbs, New Mexico 88240

September 9, 1982

Mr. Joe D. Ramey, Director
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: Florene Davidson

Unichem International, Inc.
Case No. 7620

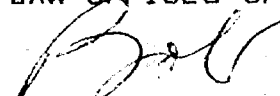
Dear Florene:

Pursuant to our telephone conversation of this date, I
enclose Amended Petition. I look forward to your setting of
the case on September 29, 1982, as discussed.

As always, your courtesy and assistance are greatly
appreciated.

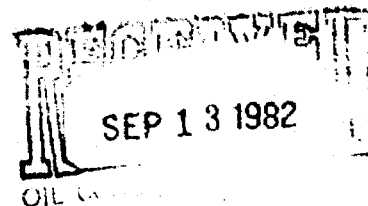
Very truly yours,

LAW OFFICES OF R. E. RICHARDS



R. E. RICHARDS

RER/af
enclosure
cc:
Mr. Robert J. Brakey (w/enc)



BEFORE THE OIL CONSERVATION DIVISION
OF THE ENERGY AND MINERAL DEPARTMENT
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
UNICHEM INTERNATIONAL, INC., FOR
PERMISSION TO CONSTRUCT AND OPERATE
SURFACE PITS FOR THE DISPOSAL OF
OILFIELD BRINE IN EDDY COUNTY,
NEW MEXICO AS AN EXCEPTION TO
COMMISSION ORDER R-3221

CASE NO. 7680

AMENDED PETITION

COMES NOW Unichem International Inc., by and
through its attorney, R. E. Richards amending its Petition
in the captioned case and moving the Division for an Order
authorizing an exception to Oil Conservation Commission
Order No. R-3221, and in support thereof, states:

1. That applicant proposes to acquire surface
rights to land located in Section 2, Township 23 South,
Range 29 East, N.M.P.M., Eddy County, New Mexico; and that
within said land is an area in which applicant proposes to
operate a surface disposal system for oilfield brine.


2. That there exists in the area to be served by
applicant a substantial need for a facility such as is
proposed for the disposal of oilfield brines.

3. That the application and operation proposed
hereby will not result in the contamination of any fresh-
water supply in the area proposed to be served.

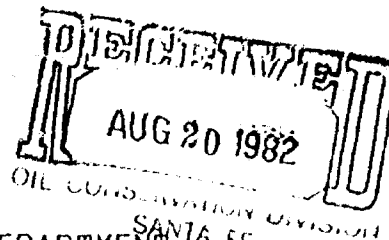
4. That the Division should authorize the

construction of surface pits for the disposal of oilfield brine as located in the area described in paragraph 1 hereof; that in conjunction therewith the Division should require a certification by qualified hydrologists prior to the beginning of operation that the facility has been properly constructed and upon receipt of such certification an operational order should be forthcoming.

WHEREFORE, premises considered, movant prays the Division authorize the construction operation of surface pits for the disposal of oilfield brines in Section 2, Township 23 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.



LAW OFFICES OF R. E. RICHARDS
Post Office Box 761
Hobbs, New Mexico 88240
Attorneys for Applicant.



BEFORE THE ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF UNICHEM INTERNATIONAL, INC.,
FOR PERMISSION TO CONSTRUCT AND
OPERATE SURFACE PITS FOR THE
DISPOSAL OF OILFIELD BRINE IN
EDDY COUNTY NEW MEXICO AS AN
EXCEPTION TO COMMISSION ORDER R-3221.

(Case
DOCKET 7680)

P E T I T I O N

COMES NOW Unichem International, Inc., hereinafter
called "Unichem", by and through their attorney, R. E.
Richards, and moves the Division for an Order authorizing an
exception to Oil Conservation Commission Order No. R-3221,
and in support thereof, states:

1. That applicant proposes to operate within
Section 11, Township 23 South, Range ^{2916W} ~~30~~ East, N.M.P.M., Eddy
County, New Mexico; a surface disposal system for oilfield
brine.

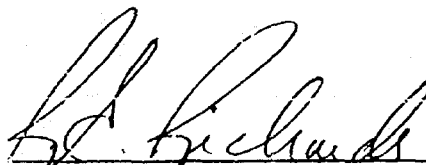
2. That there exists in the area to be served by
applicant a substantial need for a facility such as is
proposed for the disposal of oilfield brines.

3. That the application and operation proposed
hereby will not result in the contamination of any fresh-
water supply in the area proposed to be served.

4. That the Division should authorize the
construction of surface pits for the disposal of oilfield

brine as located in the area described in paragraph 1 hereof, that in conjunction therewith the Division should require a certification by qualified hydrologists prior to the beginning of operation that the facility has been properly constructed, and that upon receipt of such certification an operational order should be forthcoming.

WHEREFORE, premises considered, movant prays the Division authorize the construction operation of surface pits for the disposal of oilfield brines in the Section 11, Township 23 South, Range ^{24 N} ~~23~~ East N.M.P.M., Eddy County, New Mexico.



LAW OFFICES OF R. E. RICHARDS
Post Office Box 761
Hobbs, New Mexico 88240
Attorneys for Applicants.

ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7603 7680
Order No. R-7027 R-7113

JR
UNICHEM INTERNATIONAL
APPLICATION OF ~~RIQUEZA~~, INC. FOR AN
EXCEPTION TO ORDER NO. R-3221,
AS AMENDED, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

September 29.
This cause came on for hearing at 9 a.m. on ~~June 9~~, 1982,
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 16th day of JULY, 1982, the Division
Director, 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 Division has jurisdiction of this cause and the
subject matter thereof.

Unichem International
(2) That the applicant, ~~Riqueza~~, Inc., is the owner and
operator of a ~~sediment oil treatment plant~~, located in the NE 1/4
of Section 26, Township 22 South, Range 29 East, NMPM, Eddy
County, New Mexico.

(2) (3) That Order (3) of Division 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.

(3) (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.

(4) (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.

Bob Richards called
9/9/82.

Change Section from
11 to 2.

(5) That the applicant, Unichem International, Inc., seeks an exception to the provisions to the afore said Order (3) (natural salt lakes)

to permit the commercial disposal of produced brine into several lined surface pits located in Section 1, Township 23 South, Range 29 East. NMM, Eddy County, New Mexico.

(6) That the applicant proposes to dispose of up to 2000 barrels of salt water daily at company facilities located in the NW/4 of said Section 2, such salt water being hauled by Unichem or Unichem subsidiary trucks only.

(7) (8) 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.

(8) (9) That the area of the salt lakes is sufficient to provide for evaporation in excess of the volume of salt water proposed for disposal (up to 2000 barrels of water per day).

(9) That the disposal facility should consist of skim tanks, surge tanks, ~~and~~ aeration tanks, skim oil storage tanks and a header pit all of sufficient size and capacity to prevent the movement of any oil or solids onto or into any of the salt lakes affected by such disposal. Done

(10) That if the applicant fails to prevent the movement of such oils or solids onto or into any of said salt lakes,

the Director of the Division should be empowered to administratively suspend or rescind the authority for use of such lake for salt water disposal.

(11) (13) That this application should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, ^{Unichem International,} ~~Unichem~~ Inc., is hereby granted an exception to Order (3) of Division Order No. R-3221, as

amended, to dispose of up to 2000 barrels of salt water per day collected by its or its subsidiaries' trucks ~~in conjunction with the operations of~~ ~~a~~ ~~its~~ ~~commercial~~ salt water in a commercial salt water disposal facility located in the NW/4 of Section 2, Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico.

(2) That prior to disposal of any water at said facility, the applicant shall install skim tanks, surge tanks, aeration tanks, and skim oil storage tanks and shall construct a header pit all of combined ^{size and} capacity sufficient to prevent the movement of any oil or solids from the facility onto or into any natural salt lake or ground surface which may be affected by the disposal operation.

(3) That upon completion of such installation and construction the applicant shall notify the supervisor of the Division's district office at Artesia in order that the Division may inspect said facility.

(4) ~~That~~ That the Director of the Division may by administrative order suspend or rescind such authority whenever it reasonably appears to the Director that such suspension or rescission would serve to protect fresh water supplies from contamination or if the applicant should permit the movement of oil ^{or solids} onto the surface of ~~Lindsey Lake, ground or surface or any natural salt lake~~ as prohibited by Order No (2) above.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY,
Director

(2) That prior to disposal of any water at said facility, the applicant shall install skum tanks, surge tanks, aeration tanks, and skum oil storage tanks and shall construct a header pit all of combined ^{size and} capacity sufficient to prevent the movement of any oil or solids from the facility onto or into any natural salt lake or ground surface which may be affected by the disposal operation.

(3) That upon completion of such installation and construction the applicant shall notify the supervisor of the Division's district office at Artesia in order that the Division may inspect said facility.

(4) ~~That~~ That the Director of the Division may by administrative order suspend or rescind such authority whenever it reasonably appears to the Director that such suspension or rescission would serve to protect fresh water supplies from contamination or if the applicant should permit the movement of oil ^{or solids} onto the surface of Lindsey Lake, ground ~~ground~~ surface or any natural salt lake as prohibited by Order No (2) above.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY,
Director

S E A L

(5) The applicant shall file a monthly report of disposal volumes on Form C-120-A in accordance with ~~the~~ ~~the~~ Division Rule 1120.

cont do
9/29