

CASE 3950: Application of AGUA,
INC. for salt water disposal,
Roosevelt County, New Mexico.

Case Number

3950

Application

Transcripts.

Small Exhibits

ETC.



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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMAS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 20, 1968

IN THE MATTER OF:

Application of Agua, Inc.,
for salt water disposal,
Roosevelt County, New Mexico

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) +

Case No. 3950

BEFORE: Elvis A. Utz

TRANSCRIPT OF HEARING

MR. UTZ: Case 3950.

MR. HATCH: Application of Agua, Inc., for salt water disposal, Roosevelt County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, appearing for the Applicant. We have one witness I would like to have sworn.

(Witness sworn.)

(Applicant's Exhibits A and B marked for identification.)

* * * * *

W. G. A B B O T T , called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A My name is W. G. Abbott.

Q By whom are you employed, Mr. Abbott?

A Agua, Incorporated.

Q What is your position with Agua, Incorporated?

A Manager.

MR. UTZ: Excuse me, let me ask for appearances in this case. Are there any? You may proceed.

Q (By Mr. Kellahin) Mr. Abbott, have you testified before the Oil Conservation Commission and made your

qualifications a matter of record?

A Yes, sir.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. UTZ: Yes, sir, they are.

Q (By Mr. Kellahin) Are you familiar with the application of Agua, Incorporated in Case 3950?

A Yes, sir.

Q What is proposed by the applicant in this case?

A We propose to go back into, well, it's just a temporarily abandoned well drilled by Humble as their Federal Andrews No. 1 in the Chaveroo-San Andres Pool. This well is located in the northeast quarter of the northwest quarter of Section 30, Township 7 South, Range 33 East, Roosevelt County, New Mexico.

This well was originally drilled to 4404 feet in the San Andres and 4 and 1/2-inch casing was set at 4400 feet. This well has perforations, one shot per foot, at these spots: 4148; 4152; 4159; 4162; 4164; 4171; 4214; 4219; 4227; 4233; 4237; 4240; 4250; 4252; 4264; 4267; 4269; and 4272.

Q Has this well produced from the San Andres formation?

A Yes, it has produced approximately 7500 barrels of oil.

Q Referring to what has been marked as Exhibit A, will you identify that exhibit?

A Exhibit A shows all the wells in a two-mile radius of this proposed disposal well.

Q And referring to what has been marked as Exhibit B, will you discuss the present status of this well and the proposed completion?

A Yes. This well is temporarily abandoned or shut in, and I wanted to clarify one point on our application, Agua hasn't purchased this well from Humble as yet. Humble is agreeable for Agua to purchase the well, but we pointed out in a letter to Humble that at the present time, the system, proposed disposal system, has not been finalized and also Agua has to get the permission from the Commission for disposal and in addition, it will be necessary to secure a lease from the surface owner, and also secure a S L U P, that's a Special Land Use Permit, from the Bureau of Land Management.

MR. UTZ: What did you call that?

THE WITNESS: Slup.

MR. UTZ: S-l-u-p?

THE WITNESS: Yes, and also secure approval from the United States Geological Survey, so if we can get through all these obstacles, we may buy the well from Humble.

This Exhibit B shows the well, this well was drilled and 8 and 5/8ths-inch casing was set at 211 feet and cemented with 500 sacks of cement and the cement circulated; and the 4 and 1/2-inch was set at 4400 feet with 500 sacks of cement, and I forget where the top of the cement, I thought I had it there. The top of the cement on the 4 and 1/2-inch is at 3,010 feet by temperature survey. Those perforations that I previously read are those top perforations marked, and those were the perforations of the producing interval. We propose to drill this well out, drill the cement out of the 4 and 1/2-inch casing to 4395 and then perforate the casing from 4361 to 64 and 4366 to 69, and from 4374 to 88. Now, this is by the electrical log that has been run on the well, a very porous zone in the San Andres formation. We would then acidize the complete perforated interval with about 5,000 gallons of 15% acid.

Q By complete perforated interval, you mean the perforations, 4148 to the bottom of the new perforations you propose to make at 4388?

A Yes, sir.

Q In other words, you would have perforations through that entire interval including the present perforations?

A Right.

Q That's the zone you propose to dispose of water in?

A Yes. I feel that these original perforations in the oil zone in this well are very tight. The well was fractured twice with large fracture treatments and still very little oil was recovered from the well. For disposal there probably will not be much water goes in those present perforations, and water will go in the new perforations at the bottom.

Q Now, this is a zone that is producing within the two-mile radius of this well, is it not?

A Yes, sir.

Q Would the injection of water, in your opinion, have any adverse effect on production of other wells in the area?

A No, sir, I don't believe that it would hurt the other wells, and may help them from a repressuring standpoint.

Q What volumes of water would be injected into this well?

A Approximately a thousand barrels a day.

Q What is the source of this water?

A It's produced water in the Chaveroo Pool.

Q Is it a corrosive water?

A Yes, sir.

Q Will you use a plastic-lined tubing in this completion?

A Yes, we would run a plastic-lined tubing string of 2 and 7/8ths-inch tubing to 4148.

Q Will the casing tubing annulus be filled with an inert fluid?

A Yes, sir, we would fill the annulus with oil.

Q You will not utilize a packer on this tubing, is that correct?

A No, sir.

Q In your opinion, would the approval of this application result in the prevention of waste and will correlative rights of the operators in the vicinity of this well be protected?

A Yes, sir.

Q Were Exhibits A and B prepared by you or under your supervision?

A Yes, sir.

MR. KELLAHIN: At this time we will offer Exhibits A and B.

MR. UTZ: Without objection, Exhibits A and B will be entered into the record of this case.

(Whereupon, Exhibits A and B offered and admitted in evidence.)

MR. KELLAHIN: That's all I have on direct examination.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Abbott, how much water did you say you will put into this well?

A Approximately a thousand barrels a day. This is an estimate, actually. The state of the proposed disposal system is sort of a flexible one, but we think there are enough operators to join this proposed system and they will be producing approximately a thousand barrels a day.

Q And you will inject water for anyone in this area who cares to join your system?

A Yes, sir.

Q Now, on your 8 and 5/8ths, the cement was circulated, right?

A Yes.

Q What was the top of the cement on your 4 and 1/2?

A 3,010 feet.

Q You don't intend to use a packer in this well?

A No.

Q So you will fill the annulus, 2 and 7/8ths by 4 and 1/2 annulus with sweet oil?

A Yes, that oil will flow down the water and we will put the correct volume in to depress the static fluid level to the bottom of the tubing.

Q All these perforations mentioned, will all be in the San Andres, will they not?

A Yes, sir.

Q What kind of pressures do you think you might have to use?

A After analyzing the log, we think that the thousand barrels a day will gravity into this zone.

Q You mean into that 27 foot zone?

A Yes, sir, it looks very porous on a log.

MR. UTZ: Are there any other questions of the witness? He may be excused.

(Witness excused.)

MR. KELLAHIN: That's all.

MR. UTZ: The case will be taken under advisement.

I N D E X

WITNESS		PAGE
W. G. ABBOTT		
Direct Examination by Mr. Kellahin		2
Cross Examination by Mr. Utz		8
<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's A & B	2	7

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my hand this 26th day of November, 1968.

Ada Dearnley
 Ada Dearnley

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the Examiner hearing of Case No. 3850.
 heard by me on 11-23-68, 19.....
Thos. A. [Signature], Examiner
 New Mexico Oil Conservation Commission

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

P. O. BOX 2088
SANTA FE

November 26, 1968


Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 3950
Order No. R-3589
Applicant:
Agua, Inc.

Dear Sir:

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

Very truly yours,


A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other State Engineer Office

Bureau of Land Management

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 3950
Order No. R-3589

APPLICATION OF AGUA, INC.,
FOR SALT WATER DISPOSAL,
ROOSEVELT COUNTY, NEW
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 8:30 a.m. on November 20, 1968, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 26th day of November, 1968, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Agua, Inc., is in the process of acquiring the Humble Oil & Refining Company Federal Andrews Well No. 1 (to become the Agua, Inc., Chaveroo S/W Well No. C-30), located in the NE/4 NW/4 of Section 30, Township 7 South, Range 33 East, NMPM, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the San Andres formation, with injection into the perforated interval from approximately 4148 feet to 4388 feet.

(4) That the injection should be accomplished through 2 7/8-inch plastic-lined tubing set at approximately 4148 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the

-2-

CASE No. 3950
Order No. R-3589

to the annulus at the surface in order to determine leakage in the casing or tubing.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

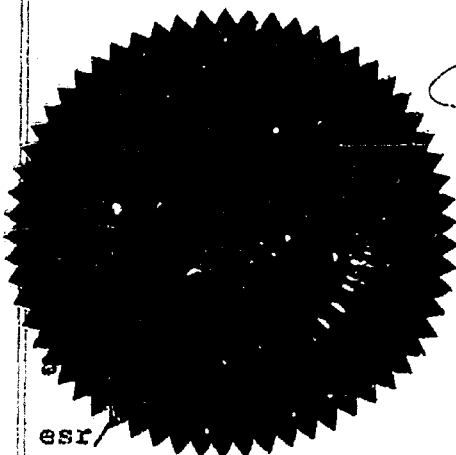
(1) That the applicant, Agua, Inc., is hereby authorized to utilize the Humble Oil & Refining Company Federal Andrews Well No. 1, (to become the Agua, Inc., Chaveroo SWD Well No. C-30), located in the NE/4 NW/4 of Section 30, Township 7 South, Range 33 East, NMPM, Chaveroo-San Andres Pool, Roosevelt County, New Mexico, to dispose of produced salt water into the San Andres formation through 2 7/8-inch tubing set at approximately 4148 feet, with injection into the perforated interval from approximately 4148 feet to 4388 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus at the surface in order to determine leakage in the casing or tubing.

(2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

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



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

David F. Cargg
DAVID F. CARGG, Chairman

Guston B. Hays
GUSTON B. HAYS, Member

A. L. Porter, Jr.
A. L. PORTER, Jr., Member & Secretary

esr/

Case 3950

Heard 11-20-68

Rec. 11-21-68

Grant Ogden, Inc. to convert
their Chasero SWD # C-30 - C-30-SS
33E. to a SWD well. Injection
shall be thru 2" internally Plastic
lined tubing into the SA. from.
Shut pipe from 4145 - 4388.
4 1/2 x 2 7/8 Annulus shall be
loaded w/ sweet oil w/ press.
gauge at surface.

Thos. G. Rye

Lease 6015 ARC Federal Well No. 1 located in Unit O of Section 9, Township 20 South, Range 33 East, West Teas Pool, Lea County, New Mexico.

CASE 3949: Application of Phillips Petroleum 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 Lower Wolfcamp and Upper Pennsylvanian formations in the open-hole interval from approximately 9580 feet to 10,400 feet in its Pello "A" Well No. 1, located in Unit L of Section 2, Township 15 South, Range 32 East, Tulk-Wolfcamp Pool, Lea County, New Mexico.

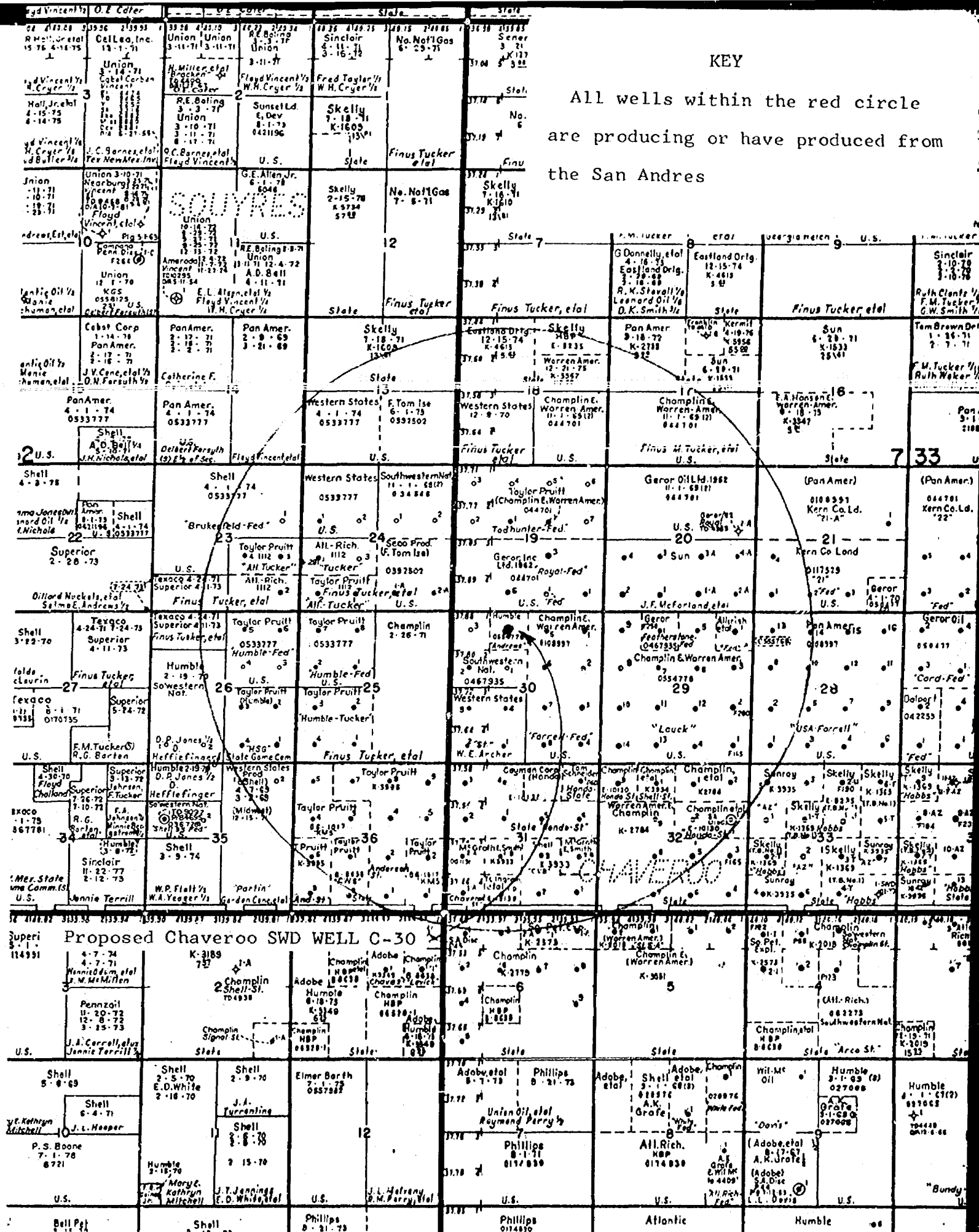
CASE 3950: Application of Agua, Inc., for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres and such other formations as may be present in the perforated interval from approximately 4148 feet to 4388 feet in its Chaveroo SWD Well No. C-30 (formerly the Humble Oil & Refining Company Federal Andrews Well No. 1) located in the NE/4 NW/4 of Section 30, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 3951: Application of Marathon Oil Company for salt water disposal, Roosevelt County, New Mexico. Applicant in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4163 feet to 4460 feet in its Marathon State Well No. 1 located in Unit G of Section 36, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

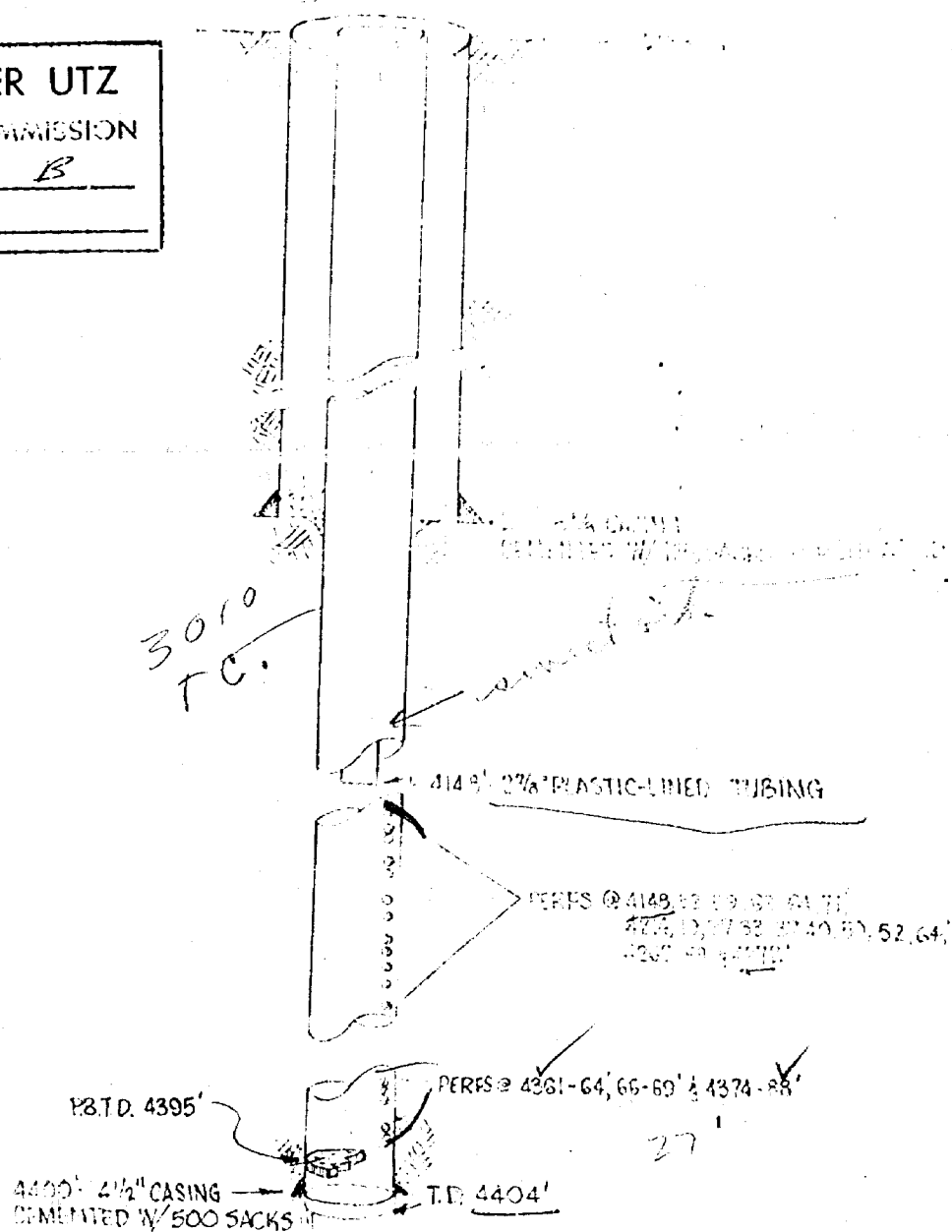
CASE 3952: Application of Sam D. Ares for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation in the open-hole interval from approximately 3415 feet to 3492 feet in his Everett Well No. 2 located 660 feet from the South line and 1980 feet from the West line of Section 35, Township 24 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.

CASE 3953: Application of B. J. Graham for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation in the open-hole interval from approximately

All wells within the red circle
are producing or have produced from
the San Andres



BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
APP EXHIBIT NO. B
CASE NO. 3950



CHAVESOS SALT WATER DISPOSAL SYSTEM

AGUA WELL C-30

660' EML & 1080' EML SECTION 30, T.15S, R.35E

ROOSEVELT COUNTY,

NEW MEXICO

OWN	F.B.	10-68

AGUA, INC.

Hobbs, New Mexico

SCALE
NONE

DWG. NO.
A 72

AGUA, INC.

POST OFFICE BOX 1978
HOBBS, NEW MEXICO
88240

TELEPHONE: AC 505 393-2417

October 28, 1968

Cover 3450

New Mexico Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Chaveroo SWD Well

Gentlemen:

Attached is our application for hearing on a disposal well, Chaveroo Salt Water Disposal Well C-30.

Please place this application for hearing on your earliest docket which, I understand, will be held November 20, 1968.

Three copies of the area plat, diagram of well, and electrical logs will be forwarded to you later on this week to be included with this application.

Respectfully submitted,

AGUA, INC.

W. G. Abbott

W. G. Abbott
Manager

WGA/j
Encl.
CC Mr. Jason Kellahin

DOCKET MAILED

Date 11-7-68

TELEPHONE: AC 505 393-2417

AGUA, INC.

POST OFFICE BOX 1978
HOBBS, NEW MEXICO
88240

October 31, 1968

RECEIVED
NOV 1 AM 10 38

New Mexico Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Chaveroo SWD Well C-30

Gentlemen:

Enclosed are three copies of the area plat, diagram of well, and electrical logs for our Chaveroo SWD C-30 application submitted October 28, 1968.

I understand that the hearing is scheduled for November 20, 1968.

Yours very truly,

AGUA, INC.

W. G. Abbott
Manager

WGA/j
Encl.

CC Mr. Jason Kellahin

BEFORE THE
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
AGUA, INC. FOR APPROVAL OF A SALT
WATER DISPOSAL WELL, ROOSEVELT
COUNTY, NEW MEXICO

Case 3950

A P P L I C A T I O N

Comes now AGUA, INC. and applies to the Oil Conservation Commission of New Mexico for an order approving the disposal of salt water in applicant's Chaveroo salt Water Disposal Well C-30, located in the NE/4 NW/4 of Section 30, Township 7 South, Range 33 East, Roosevelt County, New Mexico, and in support thereof would show the Commission:

1. Applicant is the operator of the Chaveroo Salt Water Disposal System and as agent for the System has purchased the Humble Oil & Refining Company Federal Andrews No. 1 to be known as Chaveroo Salt Water Disposal Well C-30.

2. Said well was drilled to a total depth of 4,404 feet to the San Andres formation. The plugged back depth is 4,364 feet.

3. Said well has 8-5/8 inch surface casing set at 211, cemented with 125 sacks of cement, the cement was circulated; the 4-1/2 inch casing was set at 4,400 feet and cemented with 500 sacks of cement. Top of cement at 3,010 feet.

4. The 4-1/2 inch casing in said well was perforated at 4,148, 4,152, 4,159, 4,162, 4,164, 4,171, 4,214, 4,219, 4,227, 4,233, 4,237, 4,240, 4,250, 4,252, 4,264, 4,267,

4,269 and 4,272 feet. The well has been closed in after producing about 7,500 barrels of oil from the San Andres zone.

5. Applicant proposes to drill out cement in 4-1/2 inch casing to 4,395 feet. The casing will be perforated from 4,361 - 64, 4,366 - 69 and from 4,374 - 88 feet. The disposal zone from 4,148 to 4,388 would then be acidized with 5,000 gallons of 15% acid.

6. For purposes of salt water disposal, applicant proposes to run 4,148 feet of 2-7/8 inch plastic lined tubing.

7. It is proposed to utilize the well to dispose of produced water from the Chaveroo Pool. Initial injection volumes are expected to be approximately 1,000 barrels per day.

8. Approval of this application will result in the prevention of waste and the protection of correlative rights.

WHEREFORE, applicant prays that this application be set for hearing before the Commission's duly appointed examiner, and that after notice and hearing as required by law, the Commission enter its order approving the salt water disposal well as applied for.

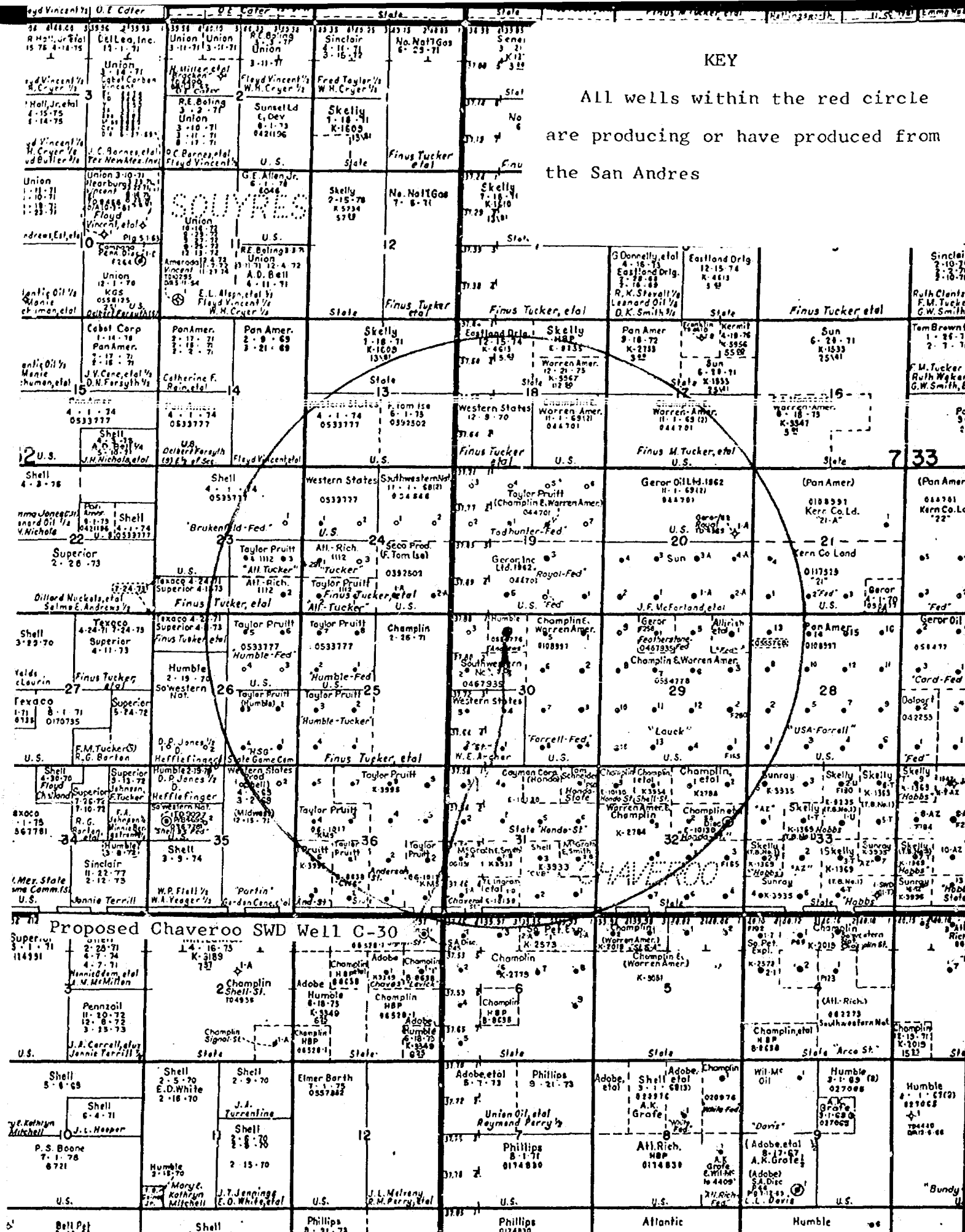
Respectfully submitted,

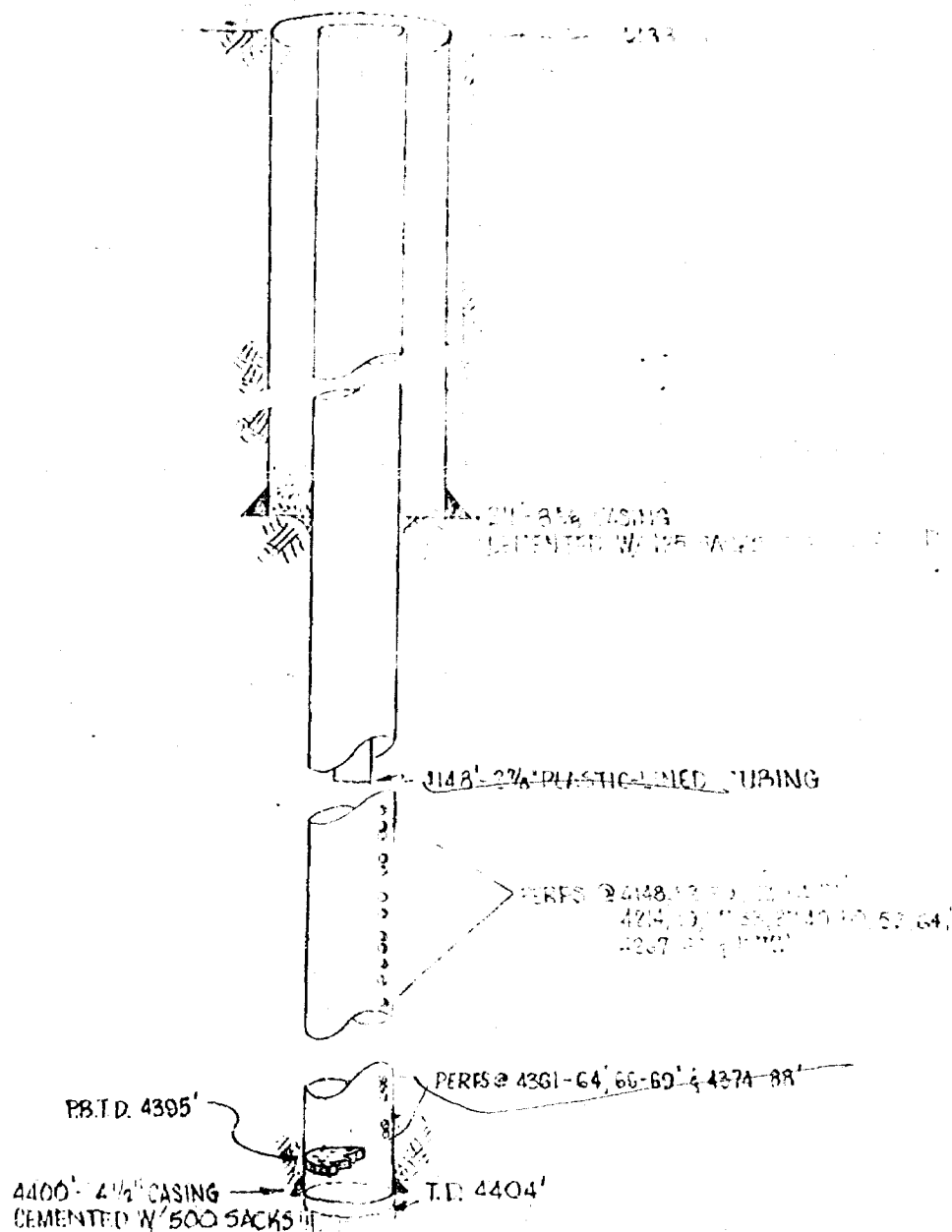
AGUA, INC.

By: W. G. Abbott
W. G. Abbott
AGUA, INC.
Post Office Box 1978
Hobbs, New Mexico 88240

KEY

All wells within the red circle
are producing or have produced from
the San Andres





CHAVEROO SALT WATER DISPOSAL SYSTEM

AGUA WELL C-30

660' FNL & 1980' FNL SECTION 30, T.7S., R.30E.

ROOSEVELT COUNTY,

NEW MEXICO

OWN E.B. 10-68

AGUA, INC.

SCALE

NONE

Hobbs, New Mexico

DWG. NO.

A 11

DRAFT
GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 3950

Order No. R- 3589

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FOR SALT WATER DISPOSAL,
ROOSEVELT COUNTY, NEW
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this _____ day of November, 1968, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

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

(2) that the applicant, Agua, Inc., is in the
process of acquiring the Humble Oil &
Refining Company Federal Andrews Well No. 1
(to become the Agua, Inc., Choneros SWD Well
No. C-30), located in the NE 1/4 NW 1/4 of Section
30, Township 7 South, Range 33 East, N.M.P.M., Choneros -
San Andres Pool, Roosevelt County, New Mexico.

under → formation, with injection into the _____ perforated _____ interval
from approximately 4148 feet to 4388 feet.

(4) That the injection should be accomplished through

2 1/8 -inch plastic-lined tubing ~~installed in a packer~~ set at

approximately 4148 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus ~~or the annulus left open~~ at the surface in order to determine leakage in the casing ^{or} tubing. ~~or packer.~~

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Agua, Inc., is hereby authorized ~~to~~ to utilize the Humble Oil & Refining Company Federal Andrew Well No. 1 (to become the Agua, Inc., Choneros SWD Well No. C-30) located in the NE 1/4 NW 1/4 of Section 30, Township 7 South, Range 33 East, NMPM, Choneros-San Andres Pool, Roosevelt County, New Mexico, to dispose of produced salt water into the San Andres formation through 2 7/8 tubing set at approximately 4148 feet, with injection into the perforated interval from approximately 4148 feet to 4388 feet;

that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus ~~or the annulus left open~~ at the surface in order to determine leakage in the casing ^{or} tubing. ~~or packer.~~

(2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

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