BW - 12

GENERAL CORRESPONDENCE

YEAR(S):

1998 → 1985

SCURLOCK PERMIAN CORPORATION

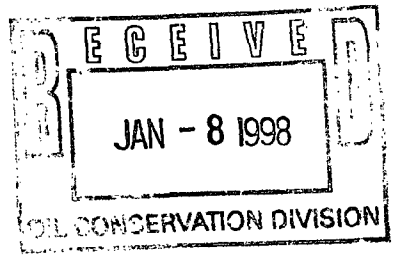
333 Clay
P.O. Box 4648
Houston, Texas 77210-4648

(713) 646-4100

January 5, 1998

VIA FAX 505/827-8177
ORIGINAL TO FOLLOW

New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505



Attn: Mr. Mark Ashley

Re: Hobbs Brine Production Facility BW-12
Lea County, New Mexico

Dear Mr. Ashley:

In reference to your letter of October 31, 1997, Scurlock Permian LLC (SPLLC) submits the following response.

Records of the New Mexico Oil Conservation Division indicate elevated levels of chlorides in the ground water in the area just east of SPLLC's brine production facilities. These are referenced in the records as early as April of 1982. SPLLC has operated the brine facility since purchasing it from Republic Mud, Inc. as it was originally completed for brine production in 1963. From about 1986 to 1994 the facility was inactive for brine production due to very low demand for brine sales. In March of 1985 the Mechanical Integrity Tests conducted on the brine production facility well and formation showed no loss of pressure over a 12 hour test as witnessed by the New Mexico E.I.D, as the then regulatory agency. This test was done in preparation for the approval of the Discharge Plan. Additional integrity tests conducted since then have not indicated problems with the system. In 1994 SPLLC initiated procedures to reactivate the brine production facility and renew the discharge plan. Then in July of 1994 to improve quality of brine production and insure continued integrity of the system, new 2-7/8" production tubbing was installed in the well along with a 5-1/2" casing liner string inside the original 8-5/8" 24# casing in an upgrade project. Included in the upgrade project was the installation of a poly liner secondary containment system under the tankage and truck loading area. Mechanical integrity tests conducted in September of 1996 and 1997 show the well system and salt formation to be operating properly with no loss of pressure. Samples of the water taken from the supply well located about 800 feet northeast of the brine well has consistently tested low in chlorides.

In reference to the above sited information, SPLLC believes it has acted responsibly and that all brine well operations have been performed in compliance with regulations and regulatory agencies and therefore has not contributed to or directly caused the chloride contamination of the ground water.

SCURLOCK PERMIAN CORPORATION
333 Clay
P.O. Box 4648
Houston, Texas 77210-4648
(713) 646-4100

January 5, 1998

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ORIGINAL TO FOLLOW

New Mexico Oil Conservation Division
2040 South Pacheco Street
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In reference to the above sited information, SPLLC believes it has acted responsibly and that all brine well operations have been performed in compliance with regulations and regulatory agencies and therefore has not contributed to or directly caused the chloride contamination of the ground water.

SPLLC has engaged the services of Mr. Bob Allen, Safety & Environmental Solutions, Inc., 703 E. Clinton, Suite 103, Hobbs, New Mexico 88240 to review all available information and advise on appropriate course of action.

OCD records indicate that ground water monitor wells were scheduled to be drilled in late 1997 on the B.J. Services Co. (formerly NOWSCO and Acid Engineering) property. SPLLC requests information and reports resulting from past and future investigations be available to SPLLC and Safety & Environmental Solutions, Inc. as soon as they are received by the New Mexico Oil Conservation Division.

Since your letter of October 31, 1997 was the first notice to SPLLC of a potential ground water chloride contamination problem, SPLLC will conduct a Phase I investigation of records and site history to be completed by April 1, 1998. Based on the investigation results, if any additional actions are warranted, SPLLC will plan to begin prior to July 1, 1998. In the mean time, SPLLC will conduct additional integrity testing of the brine storage tankage and piping.

If you have any questions, you may contact me at 713/646-4386.

Yours truly,

James C. Ephraim II P.E.

James C. Ephraim II P.E.
Senior Project Engineer

c: State of New Mexico
Oil Conservation Division, Hobbs District Office
P.O. Box 1980
Hobbs, NM 88240
Attention: Wayne Price

c: Mr. Bob Allen
Safety & Environmental Solutions, Inc.
703 E. Clinton, Suite 103
Hobbs, New Mexico 88240

c: Gerald Wassum

c: J. A. Nichols
S. G. Falgoust
W. F. Turman
R. A. Lentz
Hobbs Brine Well f/l
m:\lara\NMOCD_Hobbs Brine Well

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

October 31, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-992

Mr. James C. Ephraim II
Scurlock Permian Corporation
P.O. Box 4648
Houston, Texas 77210-4648

RE: Ground Water Remediation
Hobbs Brine Production Facility BW-12
Lea County, New Mexico

Dear Mr. Ephraim:

The New Mexico Oil Conservation Division (OCD) has conducted a preliminary ground water investigation within the area of the Scurlock Permian Corporation (Scurlock) Hobbs brine facility. Based on information gathered to date, it appears that the ground water may have been impacted by activities associated with the brine facility.

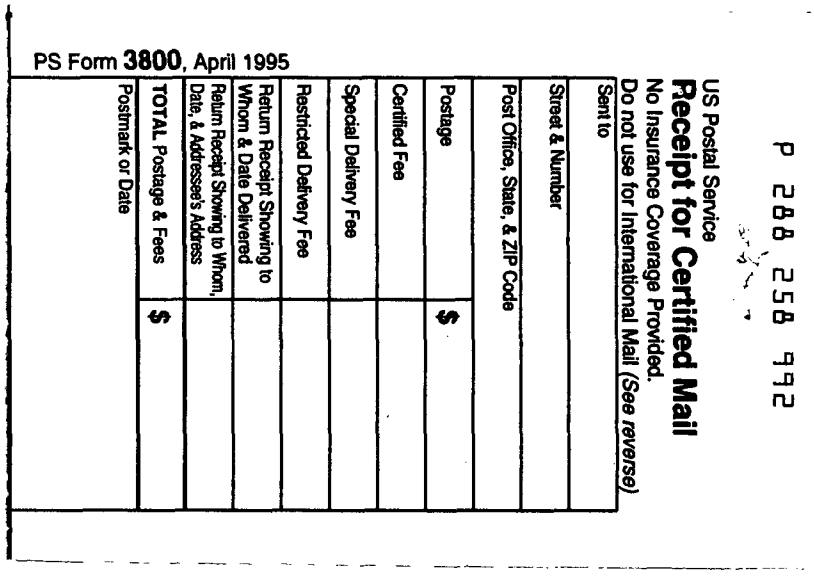
The OCD is requiring Scurlock to submit a ground water investigation workplan to determine the extent of ground water contamination. The plan will also include a time schedule for all investigation activities. Please submit the required plan to the OCD Santa Fe Division Office by January 5, 1998 with a copy to the OCD Hobbs District Office.

If Scurlock has any further questions or comments please contact me at (505)-827-7155.

Sincerely,

Mark Ashley
Geologist

xc: OCD Hobbs Office



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

October 31, 1997

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RETURN RECEIPT NO. P-288-258-992

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Scurlock Permian Corporation
P.O. Box 4648
Houston, Texas 77210-4648

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Lea County, New Mexico

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Sincerely,

Mark Ashley
Geologist

xc: OCD Hobbs Office

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

August 12, 1997

Certified Mail
Return Receipt No. P-288-258-948

Mr. James C. Ephraim II
Scurlock Permian Corporation
P.O. Box 4648
Houston, Texas 77210-4648

RE: Mechanical Integrity Testing of Brine Supply Wells

Annual Test
Hobbs Brine Station BW-012
Lea County, New Mexico

Annual Test
Carlsbad Brine Station BW-027
Eddy County, New Mexico

Dear Mr. Ephraim:

The Underground Injection Control Program of the Federal Safe Drinking Water Act requires that operators demonstrate mechanical integrity of all injection wells by ensuring that there are no leaks in the tubing, casing, or packer, and that the injected fluid is confined within the injection zone through proper cementing.

All brine wells that operate without a packer will be required to have an annual open hole pressure test equal to 1.5 times the normal operating pressure or 300 psi, whichever is greater, for four hours with a maximum of 10 percent bleed-off allowed. Every five years or at the time of discharge plan renewals they will be required to have an open hole pressure test equal to 1.5 times the normal operating pressure or 300 psi, whichever is greater, for four hours with zero bleed-off.

All brine wells that operate with a packer will be required to have an annual casing/tubing annulus pressure test equal to 300 psi for 30 minutes.

Operators will be responsible for providing equipment and shall bear all costs incurred. The date and time of all tests will be scheduled and witnessed by the New Mexico Oil Conservation Division.

Please have the Hobbs Brine Station ready for testing on September 16, 1997 at 11:00 AM, and the Carlsbad Brine Station ready for testing on September 18, 1997 at 10:00 AM as outlined below.

For brine wells operating without a packer:

1) The cavern must be pressured up and stabilized for a period of at least 24 hours prior to testing.

2) The system shall be tested to 1.5 times the normal operating pressure or 300 psi, whichever is greater, for a period of four hours. A maximum of 10 percent bleed-off will be allowed for annual tests. Testing conducted every five years or at the time of discharge plan renewal will have zero bleed-off.

3) A continuous recording pressure chart with an 8 hour clock shall be installed on the casing/tubing annulus. The pressure range shall not be greater than 1,000 psi.

4) Have well head prepared for test. All valves should be in good working order.

5) All gauges shall be in good working order.

6) Have manpower and equipment available for pressure test.

For brine wells operating with a packer:

1) Have the casing/tubing annulus and tubing loaded with inert fluid prior to testing.

2) The casing/tubing annulus shall be tested to 300 psi for 30 minutes.

3) A continuous recording pressure chart with an 8 hour clock shall be installed on the casing/tubing annulus. The pressure range shall not be greater than 1,000 psi.

4) Have well head prepared for test. All valves should be in good working order.

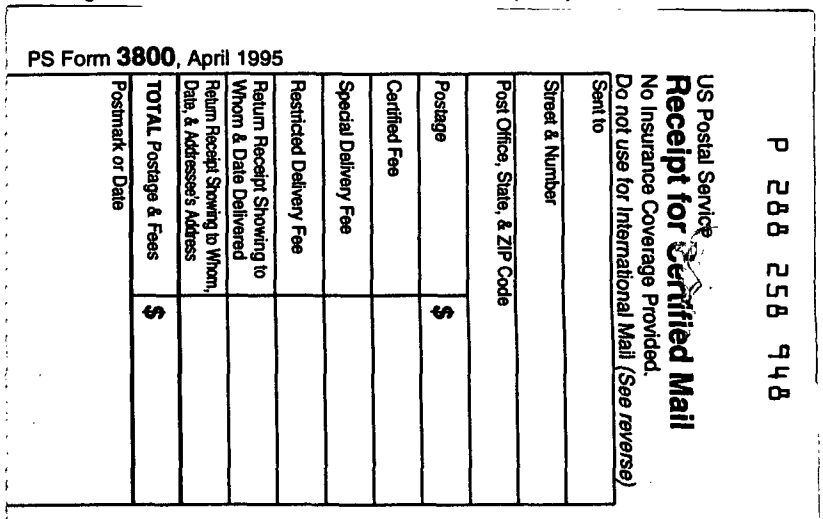
5) All gauges shall be in good working order.

6) Have manpower and equipment available for pressure test.

If you have any questions regarding this matter, please feel free to contact me at (505) 827-7155.

Sincerely,

Mark Ashley
Geologist



TO: MARK ASHLEY BW-12 HOBBS - SITE

DISTRICT I
P.O.Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, New Mexico 87505

SUBMIT 2 COPIES TO APPROPRIATE DISTRICT OFFICE IN ACCORDANCE WITH RULE 116 PRINTED ON BACK SIDE OF FORM

NOTIFICATION OF FIRE, BREAKS, SPILLS, LEAKS, AND BLOWOUTS

OPERATOR: Scurlock Permian Corp.						ADDRESS: 3514 Lovington Hy. 505	TELEPHONE #
REPORT OF	FIRE	BREAK	SPILL X	LEAK		BLOWOUT	OTHER*
TYPE OF FACILITY	DRLG WELL	PROD WELL	TANK BTRY	PIPE LINE	GASO PLNT	OIL RFY	OTHER* Com. Brine Well

FACILITY NAME: Saline Brine

LOCATION OF FACILITY Qtr/Qtr Sec. or Footage	SEC.	TWP.	RGE.	COUNTY
	36	18	37	Lea

DISTANCE AND DIRECTION FROM NEAREST TOWN OR PROMINENT LANDMARK: On Hy 62+180 Across Road From Hobbs Airport

DATE AND HOUR OF OCCURRENCE	DATE AND HOUR OF DISCOVERY
Unknown	10:30 AM 2-18-97

WAS IMMEDIATE NOTICE GIVEN?	YES	NO	NOT REQUIRED	IF YES, TO WHOM
	X			Steve Butler S.A.C. Dispatcher

BY WHOM	DATE AND HOUR
Wayne Price OCD	ADD. 10:30 AM 2-18-97

TYPE OF FLUID LOST	QUANTITY OF LOSS	VOLUME RECOVERED
Brine Water + Rain Water Mix	Unknown	

DID ANY FLUIDS REACH A WATERCOURSE?	YES	NO	QUANTITY
		X	

IF YES, DESCRIBE FULLY**

OCD HOBBS OFFICE
FEB 20 1997
RECEIVED

DESCRIBE CAUSE OF PROBLEM AND REMEDIAL ACTION TAKEN**
Trucking Co. was loading Brine Water and over filled transport causing a few bbl to run into fire wall, due to the rain + snow already in fire wall ran a few bbl of mixed fresh + Brine over Burm, picked up water with vacum truck + disposed of.

DESCRIBE AREA AFFECTED AND CLEANUP ACTION TAKEN**
A very small area out side the Burm. Picked up all water inside Burm + hauled to disposal

DESCRIPTION OF AREA	FARMING	GRAZING	URBAN	OTHER*
				Com. Brine Well

SURFACE CONDITIONS	SANDY	SANDY LOAM	CLAY	ROCKY	WET	DRY	SNOW
		X			X		X

DESCRIBE GENERAL CONDITIONS PREVAILING (TEMPERATURE, PRECIPITATION, ETC.)**
Cloudy + 50

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

SIGNED Richard Lentz PRINTED NAME AND TITLE Sr Area Sup. Richard Lentz DATE 2/19/97

*SPECIFY **ATTACH ADDITIONAL SHEETS IF NECESSARY

SCURLOCK PERMIAN CORPORATION

333 Clay
P.O. Box 4648
Houston, Texas 77210-4648

(713) 646-4100

June 14, 1994

Mr. Robert L. Myers II
Oil Conservation Division
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

Re: Discharge Plan for Saline No. 1 Brine

Dear Mr. Myers:

As per your letter of June 2, 1994 and our subsequent telephone conversation concerning the discharge plan for the Saline No. 1, we offer the following to clarify and amend our plan.

1. The secondary liner will be installed under and in addition to the berm system. The existing berm will require extensive re-work due to deterioration during the seven years the facility was inoperative. Modification to accommodate the volume of the above ground storage tanks will also be necessary. Prior to construction, plans detailing firewall volume and technical criteria pertaining to the polyethylene liner will be submitted to the OCD for approval.

2. Dimensions and data concerning the containment in the loading area will be submitted to the OCD for approval prior to implementation.

3. The completion procedure (enclosed) has been modified to include the running of a cement bond from approximately 1,300 feet (top of DV tool) to surface. This bond will cover the critical area between our DV tool and the Ogallala Aquifer through the thick redbed shale section. Copies of the CBL will be submitted to the OCD.

4. Section VII, C. 6 referencing the size of the solution cavern is discussed and references made to indicate that less than 2.7 million barrels of brine have been produced from the facility. Basic information concerning the volume of brine removed from the facility was based on data contained in the original discharge plan submitted

in 1984. This information (enclosed) references 2,526,751 barrels having been produced.

Quarterly reports submitted to the OCD during 1986 indicate a total of 36,888 barrels produced during the year until the facility was closed in December of 1986.

The 2.7 million barrels submitted in our plan was interpolated from the above information and rounded upward by approximately 5% so that any error in volumes would be compensated for on the side of safety.

5. We request that the requirement for a Sonar log be waived due to the recommendation from service companies that the logging tool would in all probability be lost in the hole. This recommendation was based on the following downhole conditions.

   In the process of recovering the 4½" drill pipe, it was necessary to perform a wireline assisted freepoint and backoff procedure. The top of free pipe was indicated to be just below 1,800 feet. The 4½" was subsequently backed off and at the lowest free tool joint at 1,794 feet, leaving 900 feet of stuck pipe in the hole. Approximately 34' of open hole is between the 8$^{5/8"}$ surface casing set at 1,760 feet and the top of fish at 1,794 feet.

   Conditions of the hole are such that in step #4 of the completion procedure it was recommended that an attempt to run 2$^{7/8"}$ tubing past the top of fish and down to 2,690 feet be made prior to investing time and money in casing and cement.

   Upon explaining the downhole condition to the wireline company service representative, I was advised that the $100,000 logging tool could not be insured under the existing circumstances, and that attempts to run the log into the cavern would be ill advised.

As per your request, a schematic of current well conditions is enclosed, as is a schematic of our anticipated completed well bore.

If further information is required, please let me know.

Sincerely,

Steward E. Rogers

Steward E. Rogers
Operations Coordinator

SER/jtw
encl.

cc: Owen Mobley
Bob Hookstra
Joe Colvin

MEMORANDUM

DATE: June 14, 1994

TO: Owen Mobley

cc: Joe Colvin
Bob Hookstra

FROM: Steward E. Rogers

SUBJECT: **SALINE NO. 1 - MODIFIED**

MODIFIED COMPLETION PROCEDURE - SALINE NO. 1

1. Test formation to 250 psi for 4 hours. State requires chart recorder.
2. Move in rig-up service unit.
3. Pick up $2^{7/8"}$ tubing.
4. Trip in hole to 2,690 feet.
   Estimated top of fish 1,794'.
5. Pull out of hole.
6. Rig up casing crew.
7. Run - 1,700 feet 5½ casing with packer float shoe and two stage cementing collar ± 1,300 feet.
8. Inflate packer float, test and cement with 300 sacks Premium Plus cement in two stages.
9. Wait on cement 18 hours. Run cement bond log 14 hours after cementing from interval of 1,300 feet to surface.
10. Rig up pump and test 5½" casing to 750 psi as per OCD requirements.
11. Pick up $4^{3/4"}$ drill bit, 3 - $2^{7/8"}$ drill collars, and trip in hole to drill cement and staging tool.
12. Drill to 1,750 feet.
13. Trip out of hole, lay down collars.
14. Trip in hole with ± 2,690' $2^{7/8"}$ tubing.
15. Land tubing, release rig.

FROM ORIGINAL DISCHARGE PLAN SUBMITTED TO PAIGE GRANT OF THE ENVIRONMENTAL IMPROVEMENT DIVISION IN LATE 1984.

I.C. Noted

I.D. There is no log available for the Saline No. 1 Brine Well. However, attached is a log from the Amerada-St. C No.3 approximately 4,000' NE of the brine well. As indicated, the Rustler is identified at 1630' to 1750'. The Salado salt lies directly under the Rustler anhydrite and is well below the limits of the log, possibly 2500' thick. This thickness is typical of the Salado in this area. Since the ground elevation of this well and the Saline No. 1 are almost the same, 3652 and 3650, the 8" (8-5/8" O.D.) casing has been set at 1760' at the bottom of the Rustler anhydrite and the 4½" O.D. casing is bottomed at 2400' in the salt section. The tubing bottomed at 2560' provides 160' of salt section for solution mining.

The records indicate 2,526,751 bbl have been produced from this site. Assuming a parabolic shaped cavern due to the practice of washing from the bottom through the tubing and returning the brine through the annulus, the maximum diameter is calculated below. To obtain the volume of the paraboloid:

$V = 2{,}526{,}751 \text{ bbl} \times 5.61 \text{ cu. ft/bbl} = 14{,}175.073 \text{ cu.ft.}$

$V = \pi h l^2/8$

l is diameter at the base
h is the exposed thickness of salt

$l = [v \times 8/\pi h]^{\frac{1}{2}}$

$= [14{,}175{,}073 \times 8/\pi \times 160]^{\frac{1}{2}}$

$= 475'$

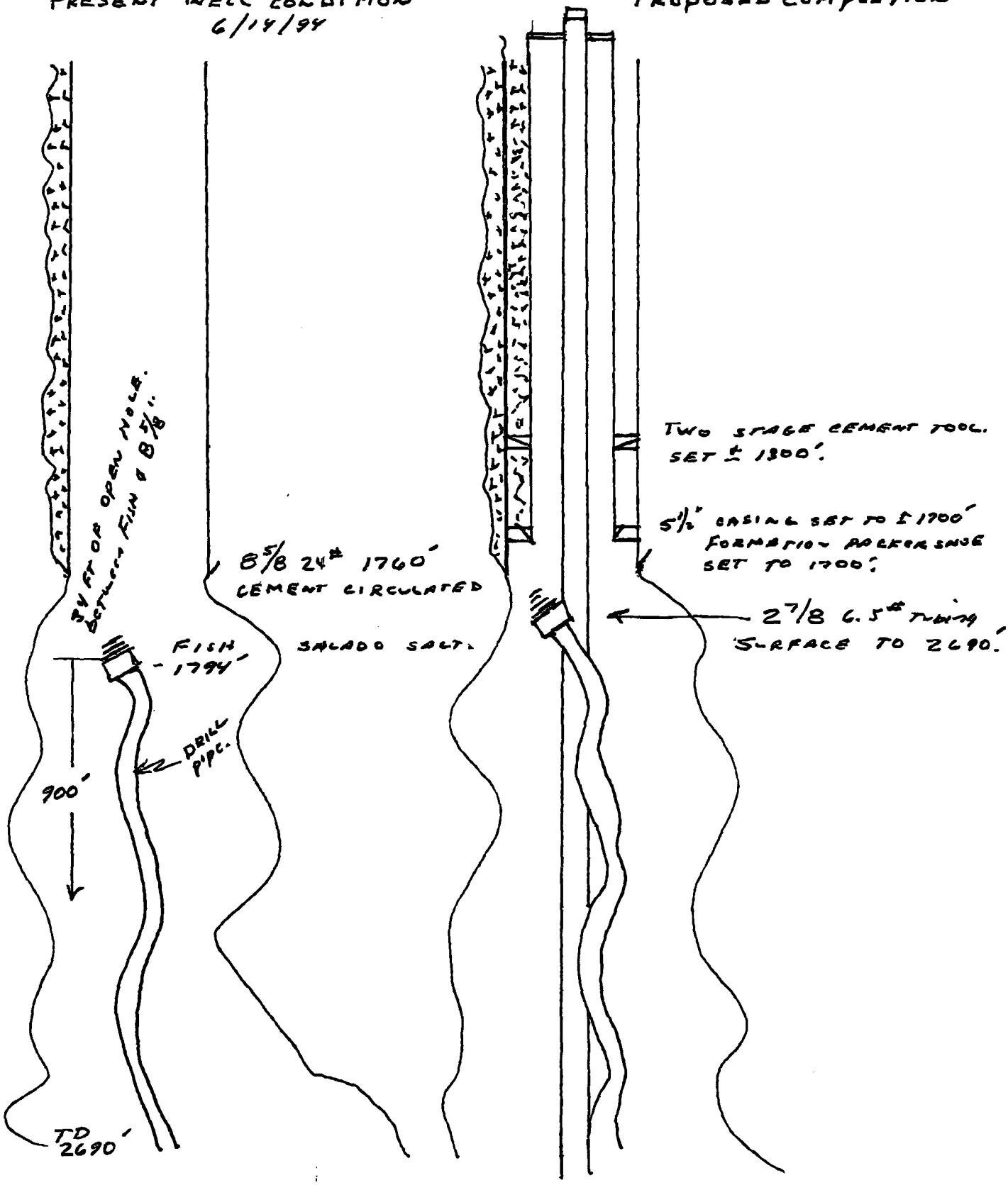
The washing of caverns in the salt section of West Texas and New Mexico began in the early 1950's to provide storage for high vapor pressure hydrocarbons. Since then, numerous brine supply sites have been developed. Consequently, well over one hundred

ASHLAND PIPE LINE COMPANY ENGINEERING DEPARTMENT			SHEET
SUBJECT PRESENT AND COMPLETED WELL BORE			AFE
SALIAC No. 1			DISTRICT
BY J. Rogers.	CHECKED BY	APPROVED BY	DRAWING
			DATE 6/14/94

0427-6 (02/91)

PRESENT WELL CONDITION
6/14/94

PROPOSED COMPLETION



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Ecological Services
Suite D, 3530 Pan American Highway, NE
Albuquerque, New Mexico 87107

July 5, 1994

William J. Lemay, Director
New Mexico Water Quality Control Commission
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Lemay:

This responds to your agency's public notice dated June 7, 1994, regarding the State of New Mexico's proposal to renew the discharge plan for the applicant listed below.

> **(RW-012) Scurlock Permian Corporation, Owen Mobley, Vice President, P.O. Box 4648, Houston, Texas, 77210-4648** The applicant requests renewal of a discharge plan for the Saline No. 1 Brine Station, located in the SW¼SW¼ of Section 36, Township 18 South, Range 37 East, NMPM, Lea County, New Mexico. Approximately 400 barrels per day of brine water with a solution of 1.2 gravity is produced for use in the oil industry.

It is our understanding that all brine water produced by the applicant will be contained within a pipe, closed storage tank, transport vehicle, etc. No produced water will be discharged into a surface impoundment or open-topped tank where it could become available to wildlife, except in the event of an accidental breach of a pipe or storage tank. Therefore, the U.S. Fish and Wildlife Service has no objection to the Oil Conservation Division granting approval for the discharge plan application outlined above.

Thank you for the opportunity to review and comment on this discharge plan application. If you have any questions, please contact Mark Wilson at (505) 883-7877.

Sincerely,

R. Mark Wilson

For/Jennifer Fowler-Propst
State Supervisor

cc: Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico

SCURLOCK PERMIAN CORPORATION

333 Clay
P.O. Box 4648
Houston, Texas 77210-4648

(713) 646-4100

May 5, 1994

RECEIVED

MAY 06 1994

OIL CONSERVATION DIV.
SANTA FE

Mr. William J. Lemay
Director of Oil Conservation Division
Oil Conservation Division
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

Re: Discharge Plan, Saline No. 1 Brine

Dear Mr. Lemay:

Scurlock Permian Corporation is requesting a re-permitting of the Saline No. 1 located in Section 36, T-18S, R37E, in Lea County, New Mexico.

Saline No. 1 was originally placed in service as a brine extraction well prior to 1968 by Republic Factors, Inc., of Midland, Texas. The Permian Corporation acquired title in November 1968 and maintained continuous operation until December 1986, when the well was shut in due to a hole in the $2^{1/16}$" tubing.

A Discharge Plan, #354 was submitted and approved in 1985. This permit expired in 1990.

Pending approval from the State Land Office for lease renewal, Scurlock Permian Corporation would like to proceed with the permitting process. Much of the required information was originally submitted in 1985 with the first Discharge Plan and remains pertinent today.

Upon receiving permission from the land office to open the well and contacting the OCD office in Hobbs, we plan the following procedure.

1. Pull the existing string of $2^{1/16}$" tubing.

2. Set a retrievable bridge plug in the 4½" casing at ± 2,400 feet and perform a casing integrity test.

3. Upon a satisfactory test, the bridge plug will be retrieved, and the formation tested to 200 psi to insure there is no fluid excursion.

4. After satisfactory completion of this test, a tested string of $2^{1/16}$" tubing will be installed to ± 2,560 feet.

Sixteen years of un-interrupted operations attest to the thoroughness of the original well completion program which consisted of two strings of casing cemented to surface.

Water analysis from the two fresh water wells are of good quality and are indicative of the effectiveness of the rigid design of this facility.

We appreciate your review of the enclosed Discharge Plan and supporting documents and look forward to an expeditious approval. Please notify us if additional compliance information is required.

Sincerely,

Owen H. Mobley
Vice President, Operations

OHM/jtw
encl.

cc: Mr. Jerry Saxon
Oil Conservation Division
1000 W. Broadway
P.O. Box 1980
Hobbs, New Mexico 88240

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY, MINERALS
AND NATURAL
RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan renewal application has been submitted to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

(BW-012) - Scurlock Permian Corporation, Owen Mobley, Vice President, P.O. Box 4648, Houston, Texas 77210-4648, has submitted an application for the renewal of a discharge plan for the SPC Saline No. 1 Brine Station, located in the SW/4 SW/4 of Section 36, Township 18 South, Range 37 East, NMPM, Lea County, New Mexico. Up to 400 barrels per day of 1.2 specific gravity brine water is produced for use in the oil industry. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 40 feet with a total dissolved solids concentration of approximately 400 mg/l. The discharge plan addresses how spills, leaks, and other accidental to the surface will be managed.

Any interested person may obtain further information from the Oil Conservaiton Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 7th day of June,1994.

STATE OF NEW MEXIVO
OIL CONSERVATION DIVISION
WILLIAM J. LEMAY, Director

Journal: June 15, 1994.

STATE OF NEW MEXICO
County of Bernalillo ss

Bill Tafoya being duly sworn declares and says that he is Classified Advertising manager of **The Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made or assessed as court costs; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for 1 times, the first publication being on the 15 day of June, 1994, and the subsequent consecutive publications on _____, 1994

Bill Tafoya

OFFICIAL SEAL
Megan Millage
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 5-20-98

Sworn and subscribed to before me, a notary Public in and for the County of Bernalillo and State of New Mexico, this 15 day of June 1994.

PRICE $29.71

Statement to come at end of month.

CLA-22-A (R-1/93) ACCOUNT NUMBER C80932

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NMOCD Inter-Correspondence

To: Roger Anderson-Environmental Bureau Chief

From: Wayne Price-Environmental Engineer District I

Date: October 26, 1994

Reference: Scurlock Permian Corporation
Brine well DP# BW-012
One mile west of Hobbs, NM

Subject: Request to Drill another well and complete as horizontal communication well.

Comments:

Dear Roger,

Jerry Sexton requested that I send this C-101 form (see attachments) to you in order that we may receive your comments concerning this project. We have reviewed the area where the new well is to be drilled and there are no other producing wells or injection wells within 300 feet of the site. Actually there are no other wells located within the quarter section. The exception to this is local water wells.

Since this is a permitted brine facility under WQCC reg's we are informing you of their request.

Please advise us on the proper procedure for allowing Scurlock to complete this well.

If you have any questions please don't hesitate to call or write.

Thanks!

cc: Jerry Sexton- District I Supervisor
Donna Pitzer-Staff Specialist
attachments-1

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-101
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1 Operator Name and Address	2 OGRID Number
Scurlock Permian Corporation P.O. Box 4648 Houston, Texas 77210-4648	3 API Number 30-0

4 Property Code	5 Property Name	6 Well No.
	Saline	No. 1

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	36	18s	37E		277.5	FSL	1007.5	FWL	Lea

8 Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

9 Proposed Pool 1	10 Proposed Pool 2

11 Work Type Code	12 Well Type Code	13 Cable/Rotary	14 Lease Type Code	15 Ground Level Elevation
N	Brine Well	R	State	3650.4
16 Multiple	**17 Proposed Depth**	**18 Formation**	**19 Contractor**	**20 Spud Date**
No	2700	Salado Salt	Not Selected	Pending

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 3/4	9 5/8	43 #/ft.	200	125	Surface
8 3/4	7"	23#/ft	1700	600	Surface
6 1/8	2 7/8"	6.5#	2700'	0	

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

This is well No. 2 of a two well plan designed to leach salt from the Salado Salt Formation. This well will serve as the recovery well during normal operation. Fresh water will be pumped down well No. 1, transverse the 316 ft. between well No.1 and well No. 2 via a horizontal hydraulic fracture initiated between the well bores in the salt section. The fresh water will leach salt and be recovered as saturated brine via the 2 7/8" tubing in well No. 2.

23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief.	OIL CONSERVATION DIVISION
Signature: Steven E. Rogers	Approved by:
Printed name: Steven E. Rogers	Title: Coordinator
Title:	Approval Date: / Expiration Date:
Date: / Phone:	Conditions of Approval: Attached ☐

SCURLOCK PERMIAN CORPORATION

333 Clay
P.O. Box 4648
Houston, Texas 77210-4648

(713) 646-4100

July 29, 1994

State of New Mexico
Oil Conservation Division
310 Old Santa Fe Trail
P. O. Box 2088
State Land Office Building
Santa Fe, N.M. 87501

Attention: William J. LeMay

Reference: Discharge Plan BW-012
Saline #1 Brine Station

Dear Mr. LeMay:

Your 6/2/94 letter to our Mr. Owen Mobley requested additional information concerning the subject facility. Specifically, you requested additional information concerning the secondary liner system under the brine storage area and a containment system for the loading area. I have attached duplicate copies of:

- Brine Storage Containment Area
- Truck Loading and Containment Area
- Truck Loading and Containment Area Plan View
- Containment Liner Specification (4 pages)

Please review and advise should you have any questions.

Very truly yours,

I. J. Fleetwood / jab

I. J. Fleetwood
Project Engineer

:jag

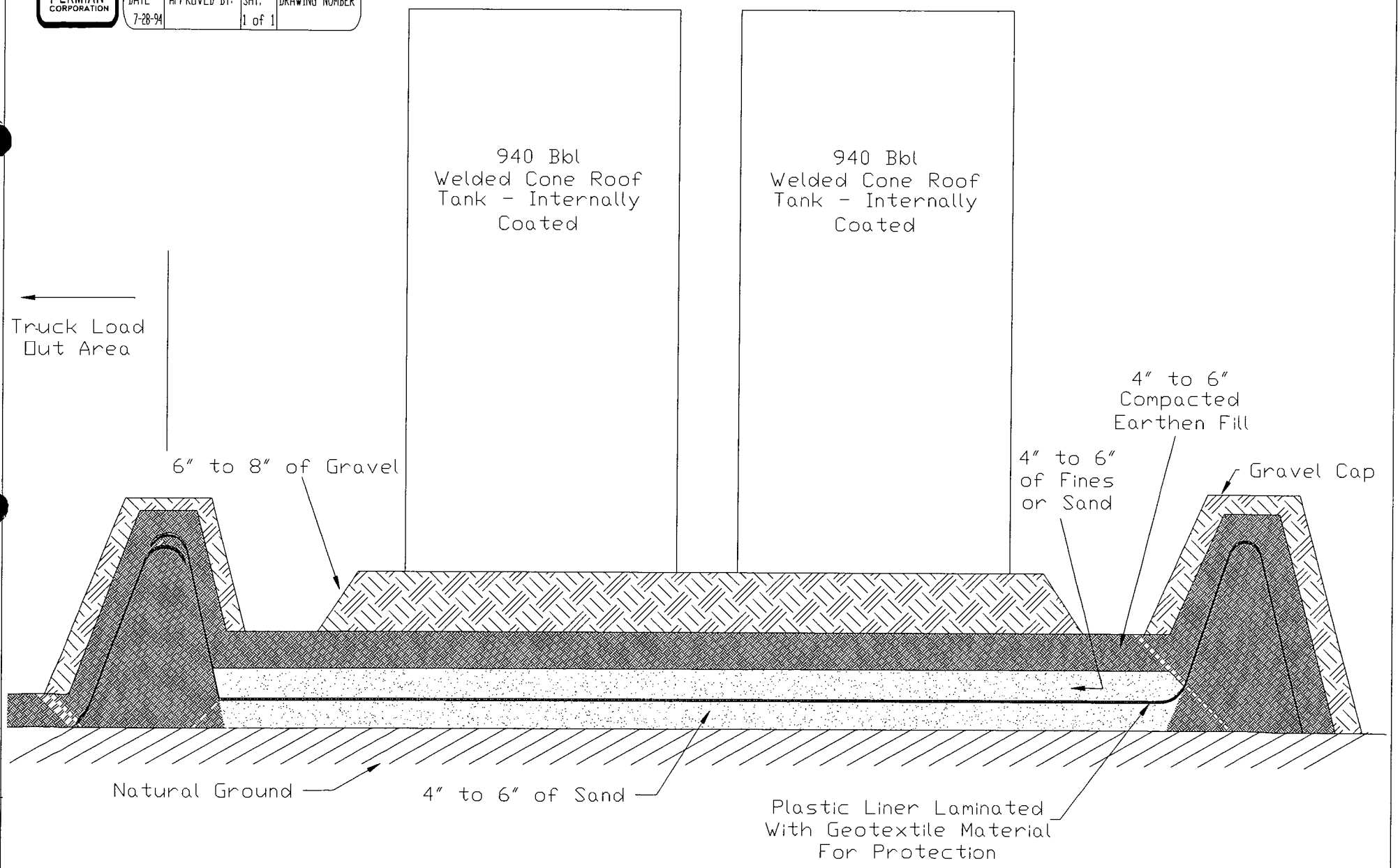
c: State of New Mexico
Oil Conservation Division
District 1
P. O. Box 1980
Hobbs, N. M. 88240
Attn: Jerry Saxon

SE Rogers
FM Mitchell
J Willingham

SCURLOCK PERMIAN CORPORATION

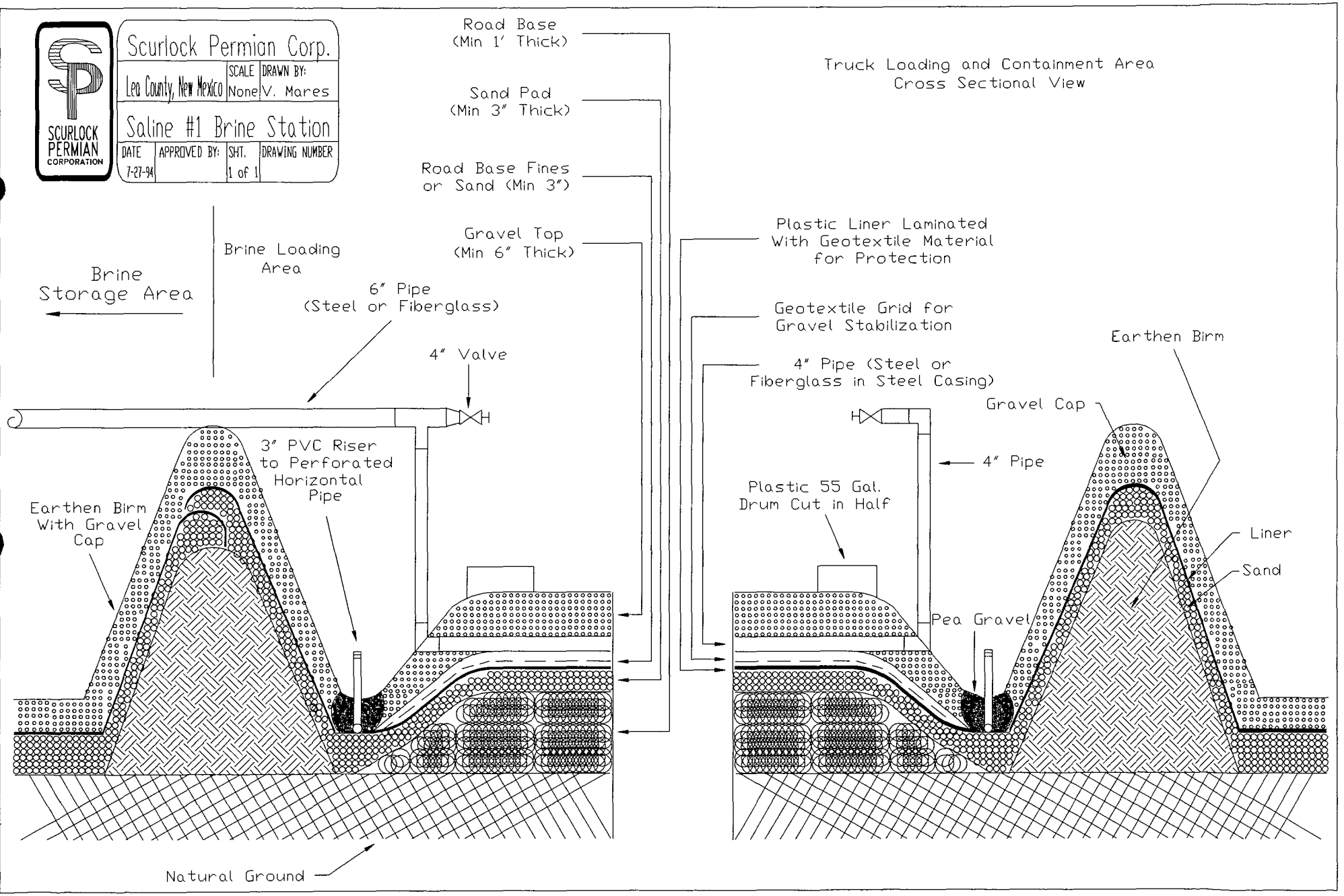
Scurlock Permian Corp.			
Lea County, New Mexico	SCALE None	DRAWN BY: V. Mares	
Saline #1 Brine Station			
DATE 7-28-94	APPROVED BY:	SHT. 1 of 1	DRAWING NUMBER

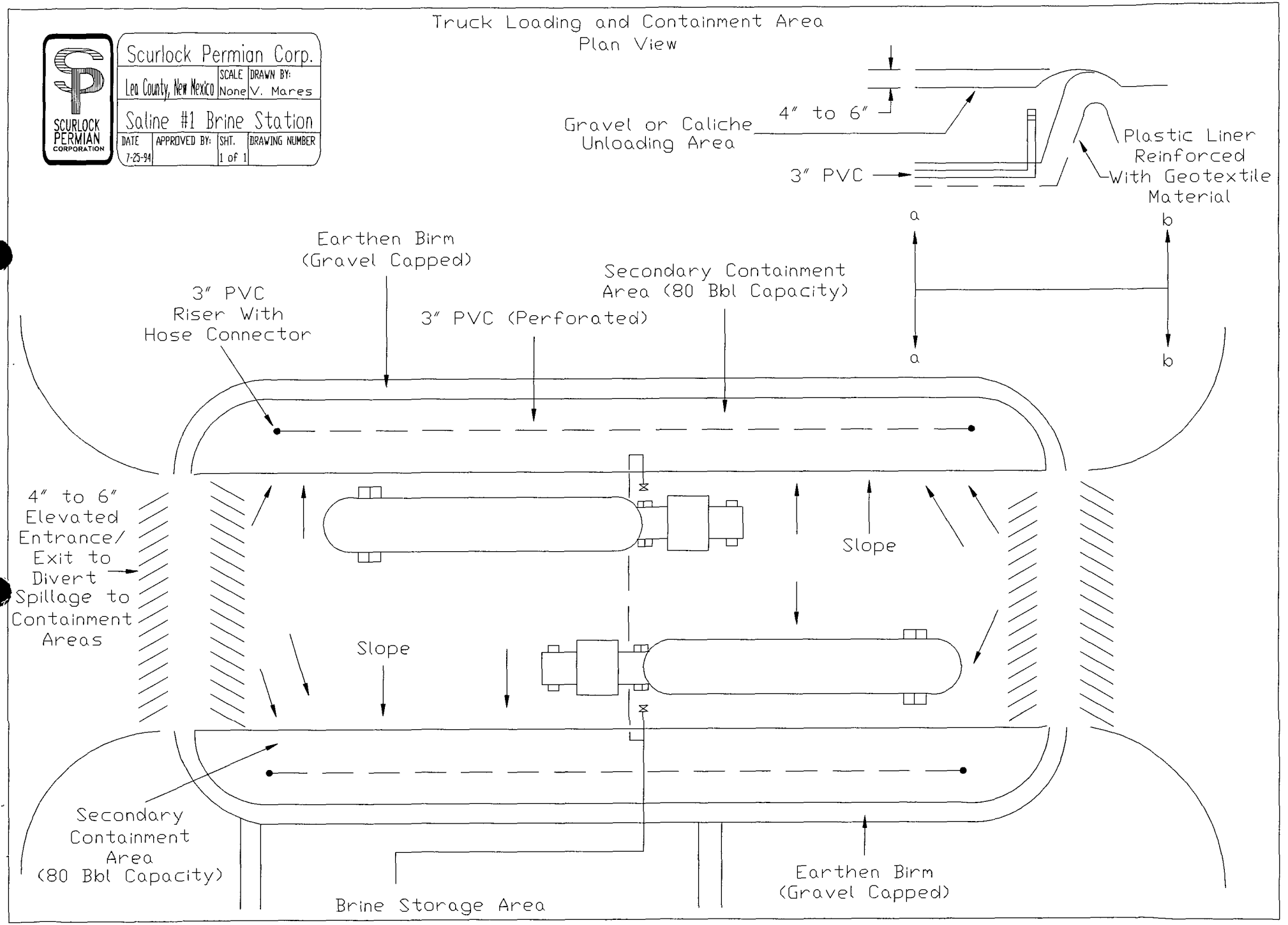
Brine Storage Containment Area Specification Drawing
(Containment Area Sized For 133% Of Tank Storage Capacity)



SCURLOCK PERMIAN CORPORATION

Scurlock Permian Corp.		
Lea County, New Mexico	SCALE: None	DRAWN BY: V. Mares
Saline #1 Brine Station		
DATE: 7-27-94	APPROVED BY:	SHT. 1 of 1
DRAWING NUMBER		




Scurlock Permian Corp.
Lea County, New Mexico
SCALE None
DRAWN BY: V. Mares
Saline #1 Brine Station
DATE 7-25-94
APPROVED BY:
SHT. 1 of 1
DRAWING NUMBER
SCURLOCK PERMIAN CORPORATION
Truck Loading and Containment Area
Plan View
4" to 6"
Gravel or Caliche Unloading Area
3" PVC
Plastic Liner Reinforced With Geotextile Material
a
b
a
b
Earthen Birm (Gravel Capped)
3" PVC Riser With Hose Connector
3" PVC (Perforated)
Secondary Containment Area (80 Bbl Capacity)
4" to 6" Elevated Entrance/ Exit to Divert Spillage to Containment Areas
Slope
Slope
Secondary Containment Area (80 Bbl Capacity)
Brine Storage Area
Earthen Birm (Gravel Capped)

CONTAINMENT LINER

SPECIFICATIONS DATA

PERMALON®

Reef Industries, Inc.
P.O. Box 750245
Houston, TX 77275-0245
Tel: (713) 484-6892
Toll Free: 1-800-231-2417
Fax: (713) 947-2053

I wanted to provide you with some weatherability information on our Permalon Ply X-210. This high density, cross-laminated poly is designed to be UV resistant by a state of the art stabilization system. When exposed to harsh weather conditions, including intense sun, X-210 should last in excess of five years. When buried, this material should last indefinitely. X-210 is chemically inert, non-leachable, and is resistant to root penetration, rodents and microbials(it is not a food source). Additionally, it meets ASTM D-3083 (Soil Burial). Ply X-210 is not prone to stress-cracking (ESC), thus, making a very good moisture and Radon barrier.

I hope this information will serve useful to you and please do not hesitate to call if you should have any questions.

Respectfully,

David Dewsnap
Chemist
Reef Industries, Inc.

394

Reef Industries, Inc.
"Since 1957"

Product Development Group
11/18/1993

Physical Properties of Geomembrane / Geotextile Composite

Material/Property	X1GPET45	X2GPET45
Basis Weight oz/yd^2 ASTM D-3776	9.83	15.1
Thickness (mils/mm) ASTM D-2103	31/0.88	39/0.99
Tensile Strength (lb_f) ASTM D - 882 - 3 in. (MD/TD)	190/159	263/222
Tensile Elongation (%) ASTM D - 882 - 3 in. (MD/TD)	63/83	46/54
Grab Tensile Strength (lb_f) ASTM D - 4632 (MD/TD)	194/168	303/250
Grab Elongation (%) ASTM D - 4632 (MD/TD)	70/110	-
Trapezoid Tear Strength (lb_f) ASTM D - 4533 (MD/TD)	91/80	132/135
Puncture Resistance (lb_f) ASTM D - 4833	85	100
Puncture Elongation (in) ASTM D - 4833	0.66	0.63
Mullen Burst (lb_f) ASTM D - 3786	237	333
Puncture Prop. & Tear (lb_f) ASTM D - 2582 (MD/TD)	-	55/57
Dart Impact Strength (lb_m) ASTM D-1709	6.5	9.9

ASTM D - 882 : Tensile strength of thin plastic sheeting (less than 40 mils)
ASTM D - 4632: Breaking Load and Elongation of Geotextiles.

N.B. These are typical values and not be interpreted as specifications. (Average Roll Values will be presented on availability of sufficient data)

P.O. Box 750250 • Houston, Texas 77275-0250
Tel: (713) 943-0070 • U.S.A. Toll Free: 1-800-231-6074 • Canada Toll Free: 1-800-847-5616
Fax: (713) 943-8085

PERMALON®

Reef Industries, Inc.
P.O. Box 750245
Houston, TX 77275-0245
Tel: (713) 484-6892
Toll Free: 1-800-231-2417
Fax: (713) 947-2053

RADON PERMEATION TRANSMISSION RATES - PERMALON®

Radon transmission rates have been established for the following Permalon products. Testing was conducted by an independent research company following ASTM D-1434.

MATERIAL	VAPOR TRANSMISSION (grains/sqft - hour)	PERMEANCE (grains/hr - sqft - in. hg)
X-150	.070	.069
X-210	.079	.078

Results of these tests are available for review in the technical department.

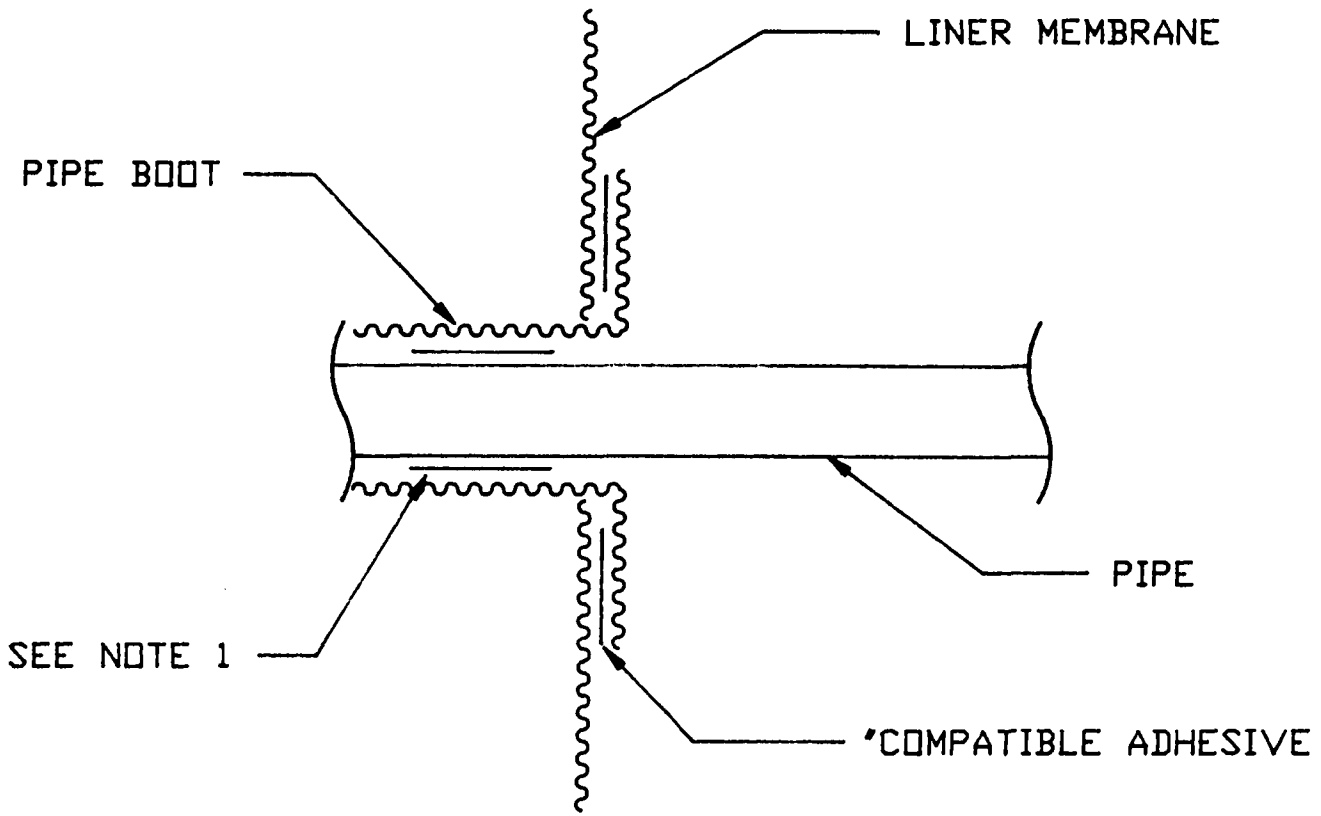
Dennis Olheiser
Manufacturing Engineeer

12 October 1988

4 of 8

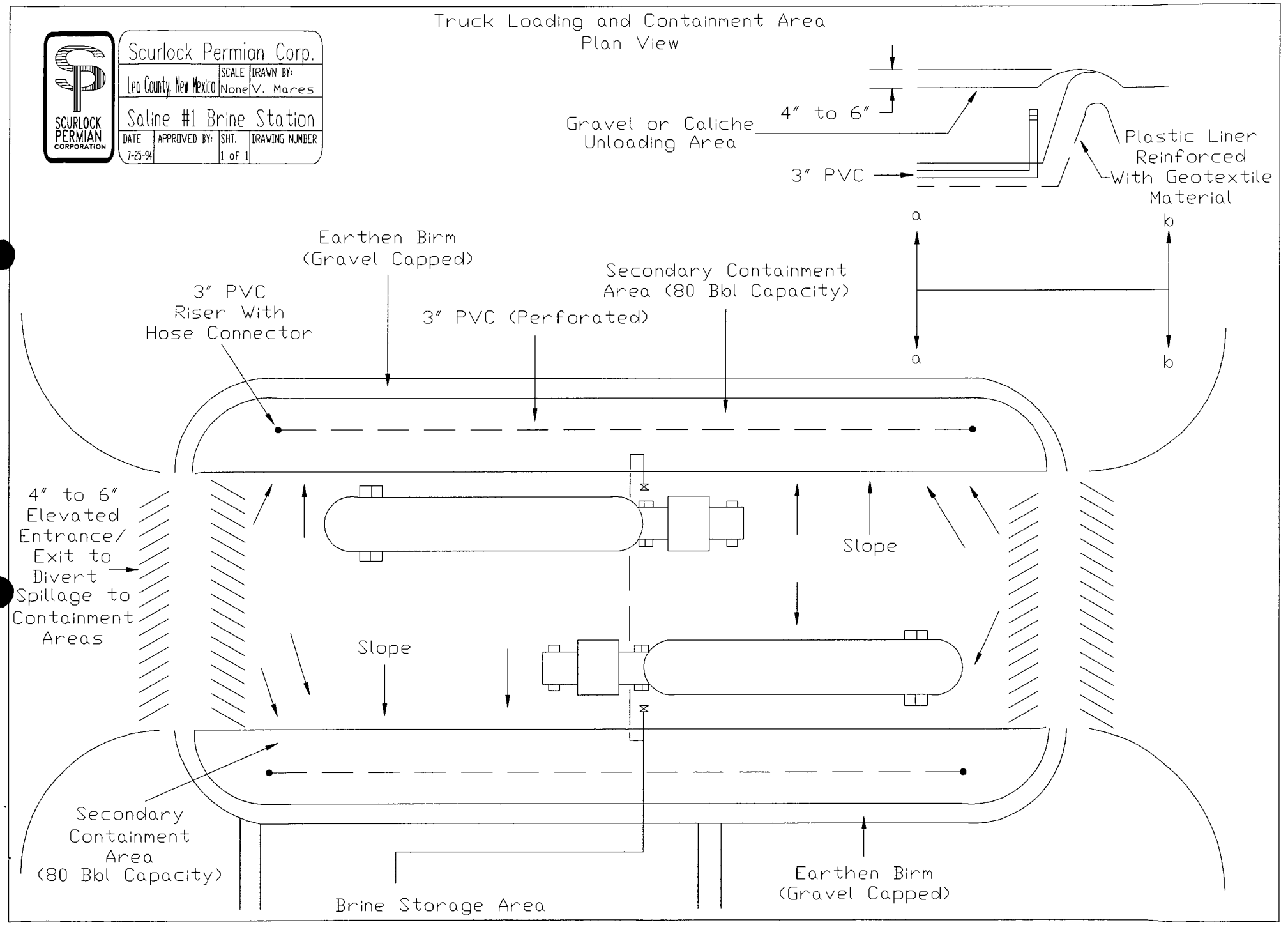
REEF
INDUSTRIES INC

PIPE INTRUSION THROUGH PERMALON LINER MEMBRANE



SPECIAL INSTRUCTIONS:

1) AFFIX PIPE BOOT TO PIPE USING ADHESIVE OR CLAMPS.
2) PLACE PIPE AND BOOT THROUGH LINER MEMBRANE.
3) AFFIX LINER MEMBRANE TO PIPE BOOT WITH ADHESIVE.
4) NOTE: PIPE BOOTS WILL BE FURNISHED BY MANUFACTURE WHEN EXACT PIPE DIAMETER IS DETERMINED BY CONTRACTOR.


Scurlock Permian Corp.
Lea County, New Mexico
SCALE None
DRAWN BY: V. Mares
Saline #1 Brine Station
DATE 7-25-94
APPROVED BY:
SHT. 1 of 1
DRAWING NUMBER
SCURLOCK PERMIAN CORPORATION
Truck Loading and Containment Area
Plan View
4" to 6"
Gravel or Caliche Unloading Area
3" PVC
Plastic Liner Reinforced With Geotextile Material
a
b
a
b
Earthen Birm (Gravel Capped)
3" PVC Riser With Hose Connector
3" PVC (Perforated)
Secondary Containment Area (80 Bbl Capacity)
4" to 6" Elevated Entrance/ Exit to Divert Spillage to Containment Areas
Slope
Slope
Secondary Containment Area (80 Bbl Capacity)
Brine Storage Area
Earthen Birm (Gravel Capped)

SCURLOCK PERMIAN CORPORATION

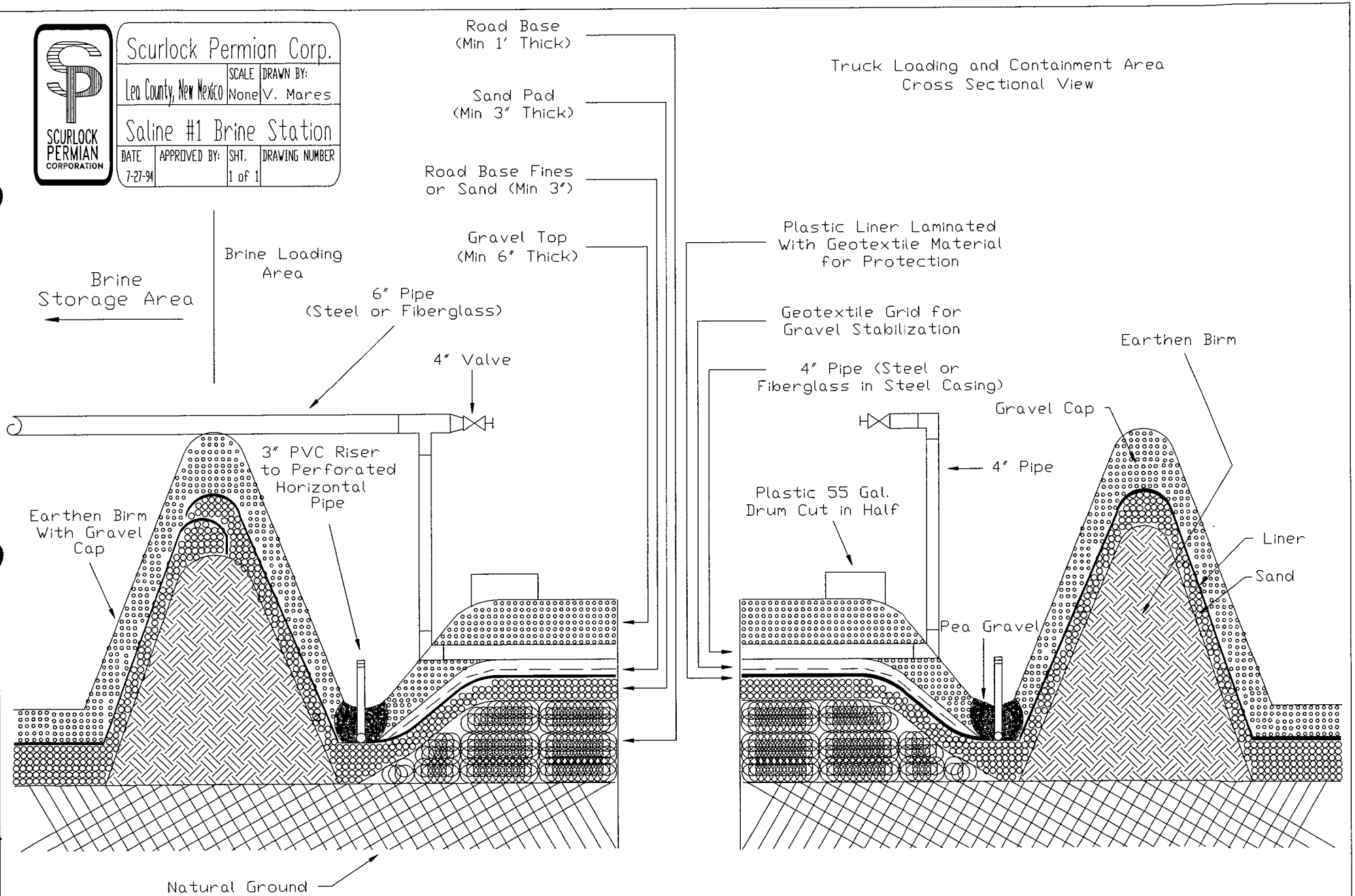
Scurlock Permian Corp.

Lea County, New Mexico	SCALE: None	DRAWN BY: V. Mares

Saline #1 Brine Station

DATE: 7-27-94	APPROVED BY:	SHT.: 1 of 1	DRAWING NUMBER

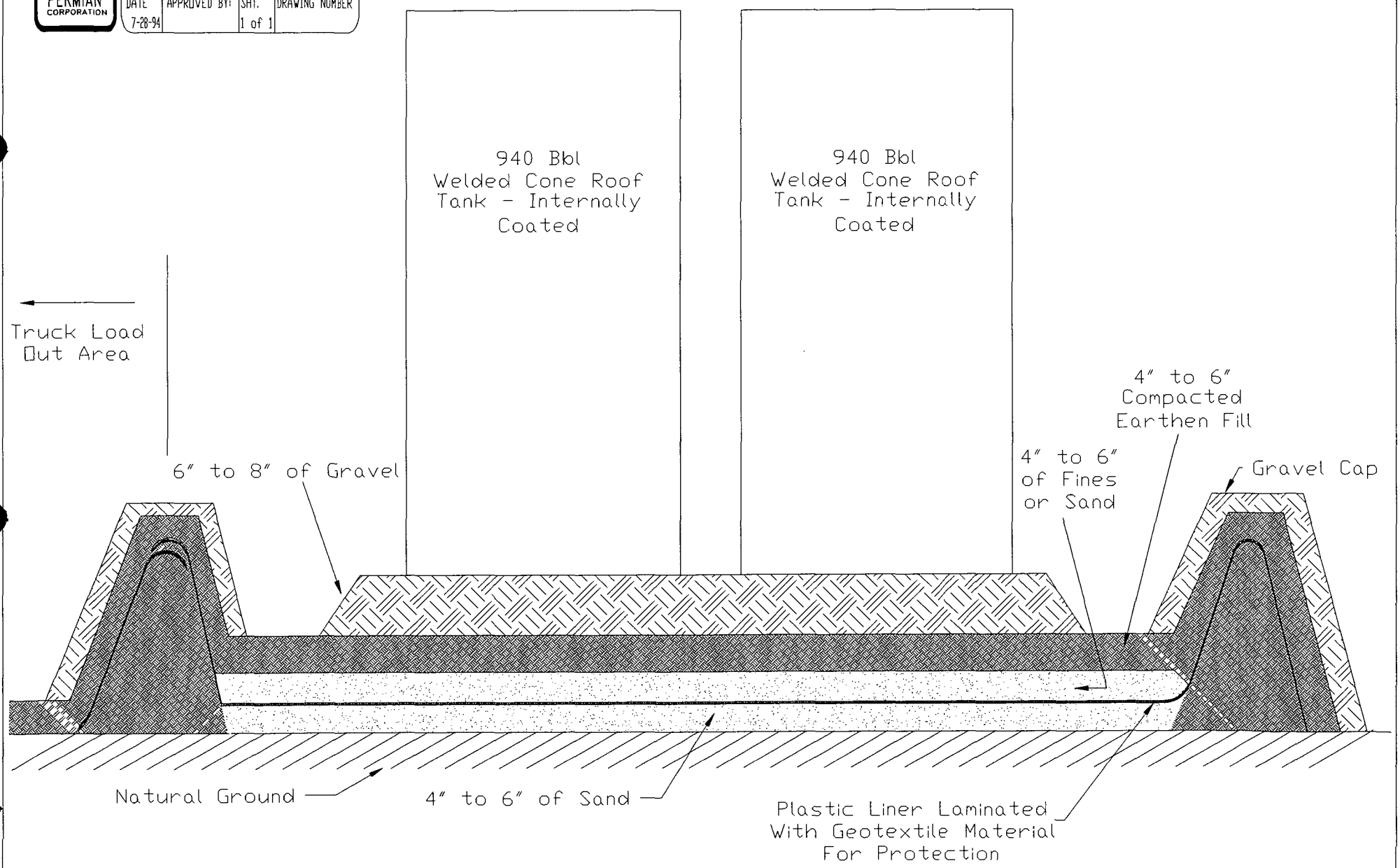
Truck Loading and Containment Area
Cross Sectional View



SCURLOCK PERMIAN CORPORATION

Scurlock Permian Corp.			
Lea County, New Mexico		SCALE None	DRAWN BY: V. Mares
Saline #1 Brine Station			
DATE 7-28-94	APPROVED BY:	SHT. 1 of 1	DRAWING NUMBER

Brine Storage Containment Area Specification Drawing
(Containment Area Sized For 133% Of Tank Storage Capacity)



SCURLOCK PERMIAN CORPORATION

333 Clay
P.O. Box 4648
Houston, Texas 77210-4648

(713) 646-4100

July 27, 1994

Mr. William J. LeMay
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504

Re: Discharge Plan BW-012
Saline No. 1 Brine Station
Lea County, New Mexico

Dear Mr. LeMay:

Upon receipt of your July 18th letter addressed to Mr. Owen Mobley regarding the Saline No. 1 Brine Station Discharge Plan, I contacted your office and talked to Mr. Roger Anderson (you were out at the time). Mr. Rogers informed me that the amount to be submitted should be $740.00 ($50.00 filing fee and $690.00 brine station discharge plan renewal) instead of $840.00 which is stated in your memo. He faxed me the second page of your memo correcting and initialling the amount due.

Enclosed is our check in the amount of $740.00 to cover the filing fee and discharge plan renewal. If you have any questions, please contact me at (713) 646-4392.

Sincerely,

Jeanice T. Willingham

Jeanice T. Willingham

cc: Roger Anderson
Owen Mobley
Steward Rogers
Bob Hookstra

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 7-27-94,

~~or cash~~ received on 8/8/94 in the amount of $ 740.00

from Scurlock Permian Corporation

for SALINE #1 STATION CARLSBAD BRINE STATION (BW-012) (DP No.)
(Facility Name)

CSE 8-23-94

Submitted by: _____ Date: _____

Submitted to ASD by: CHRIS EUSTICE Date: 8-8-94

Received in ASD by: Carlos F. Gabaldon Date: 8/8/94

Filing Fee ___ New Facility ___ Renewal ✓

Modification ___ Other _____
(specify)

Organization Code 521.07 Applicable FY 95

To be deposited in the Water Quality Management Fund.

Full Payment ✓ or Annual Increment ___

SCURLOCK PERMIAN CORPORATION
A Subsidiary of Ashland Oil, Inc.
P.O. BOX 4648
HOUSTON, TX 77210

88-68/1113

DATE 07/27/94

CHECK NO. [redacted]

PAY EXACTLY ** SEVEN HUNDRED FORTY DOLLARS AND 00 CENTS **

AMOUNT
*********740.00
VOID AFTER 180 DAYS

TO THE ORDER OF NMED-WATER QUALITY MANAGEMENT
% OIL CONSERVATION DIVISION
P O BOX 2088
SANTA FE NM 87504

SCURLOCK PERMIAN CORPORATION

BY Roger A Kagy

AUTHORIZED AGENT(S)

TEXAS COMMERCE BANK — SAN ANGELO, N.A., SAN ANGELO, TEXAS

[redacted]

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan renewal application has been submitted to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

(BW-012) - Scurlock Permian Corporation, Owen Mobley, Vice President, P.O. Box 4648, Houston, Texas 77210-4648, has submitted an application for the renewal of a discharge plan for the SPC Saline No. 1 Brine Station, located in the SW/4 SW/4 of Section 36, Township 18 South, Range 37 East, NMPM, Lea County, New Mexico. Up to 400 barrels per day of 1.2 specific gravity brine water is produced for use in the oil industry. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 40 feet with a total dissolved solids concentration of approximately 400 mg/L. The discharge plan addresses how spills, leaks, and other accidental to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 7th day of June, 1994.

STATE OF NEW MEXIVO
OIL CONSERVATION DIVISION
WILLIAM J. LEMAY, Director

Journal: June 15, 1994.

STATE OF NEW MEXICO
County of Bernalillo ss

Bill Tafoya being duly sworn declares and says that he is Classified Advertising manager of **The Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made or assessed as court costs; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for 1 times, the first publication being on the 15 day of June, 1994, and the subsequent consecutive publications on _____, 1994

Bill Tafoya

OFFICIAL SEAL
Megan Miliage
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 5-20-98

Sworn and subscribed to before me, a notary Public in and for the County of Bernalillo and State of New Mexico, this 15 day of June 1994.

PRICE $29.71

Statement to come at end of month.

CLA-22-A (R-1/93) ACCOUNT NUMBER C80932

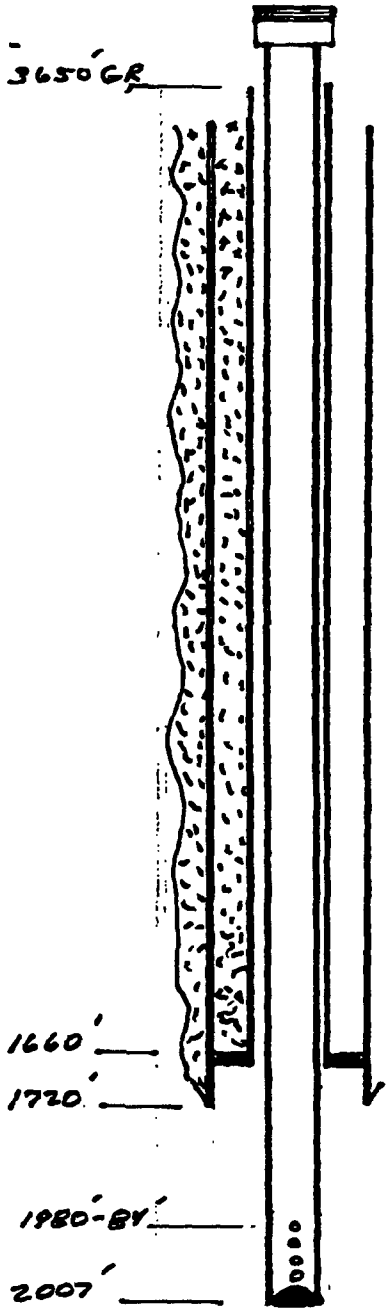
ASHLAND PIPE LINE COMPANY
ENGINEERING DEPARTMENT

SUBJECT: SALINE NO.1 BRINE WELL			SHEET / FE / DISTRICT
SECTION 36, 18S, 37E., LEA CO. NMPM			DRAWING
BY: S. ROGERS.	CHECKED BY	APPROVED BY	DATE: 7/29/94

0427-6 (02/91)

API # 30-025-12803

SALINE NO.1 BRINE WELL
AS COMPLETED 7/22/94



1660' - FORMATION PACKER SHOE, FLOAT COLLAR, 5½" 15.5# J-55 CASING CEMENT W/200 SX NEAT AND 65 SX W/ 2% CACL2 - TOC 5 FT FROM SURFACE BY CBL.

1720' - 8⅝ 24# CASING. CEMENTED WITH 334 SX 50-50 POZ W/ 18% GEL AND 3% SALT, AND 100 SX 50-50 POZ W/ 2% CACL2 - CIRC. 26 BLS CEMENT. (FROM C-103 SUBMITTED 5-26-63).

64 JTS 2⅞ J-55 TUBING - 2007 FT.
OPEN ENDED W/ 4 PERFORATIONS AT 1980-1984

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87501

DISCHARGE PLAN APPLICATION FOR BRINE EXTRACTION FACILITIES

(Refer to OCD Guidelines for assistance in completing the application.)

☐ NEW ☒ RENEWAL

I. FACILITY NAME: SPC SALINE BRINE NO. 1

II. OPERATOR: SCURLOCK PERMIAN CORPORATION

ADDRESS: 333 Clay Street, P.O. Box 4648 Houston, Texas 77210-4648

CONTACT PERSON: Owen H. Mobley PHONE: 713/646-4393

III. LOCATION: SW/4 SW/4 Section 36 Township 18S Range 37E

Submit large scale topographic map showing exact location.

IV. Attach the name and address of the landowner of the facility site.

V. Attach a description of the types and quantities of fluids at the facility.

VI. Attach a description of all fluid transfer and storage and fluid and solid disposal facilities.

VII. Attach a description of underground facilities (i.e. brine extraction well).

VIII. Attach a contingency plan for reporting and clean-up of spills or releases.

IX. Attach geological/hydrological evidence demonstrating that brine extraction operations will not adversely impact fresh water.

X. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

XI. CERTIFICATION

I hereby certify under penalty of law that I have personnaly examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name: Owen H. Mobley Title: Vice President, Operations

Signature: Owen H Mobley Date: 5-3-94

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office.

A DISCHARGE PLAN

FOR

BRINE EXTRACTION FACILITIES

OF

SCURLOCK PERMIAN CORPORATION

at the Well site known as

SALINE NO. 1

located in

SW/4 Sec 36 T-18S, R-37E

Lea County, N.M

Prepared for compliance with

New Mexico Water Quality Control Regulations

I. NAME OF FACILITY

SPC Saline Brine No. 1

This is a Renewal Application for Discharge Plan #354 which expired 9/15/90.

II. OPERATOR

Scurlock Permian Corporation

ADDRESS: 333 Clay
P.O. Box 4648
Houston, Texas 77210-4648

CONTACT PERSON: Owen Mobley (713) 646-4393

III. LOCATION

SW/4 SW/4 SEC 36, T-18S, R-37E
Lea County, New Mexico
Exhibit "A"
Exhibit "A1"
Exhibit "A2"
Exhibit "B"

IV. LANDOWNERS

Scurlock Permian Corporation
333 Clay
P.O. Box 4648
Houston, Texas 77210-4648

V. TYPE AND QUANTITIES OF FLUIDS STORED OR USED AT THE FACILITY

SOURCE WATER - Fresh water from a well located approximately 800 feet NE of brine well. Exhibits "D" & "E".

BRINE WATER - Fresh water is circulated through the underground rock salt formation section (Salado), salt is leached and returned to surface.

Produced brine and source water will be stored in tanks located in close proximity to the brine well on seven (7) patented acres owned by Scurlock Permian Corporation. Total volume will not exceed 5,000 bbls - 2,000 fresh, 3,000 brine.

Storage containers will be above ground approved fiberglass or welded steel. Individual tank size will not exceed 1,000 barrels each. Brine storage tanks will be inter-connected and enclosed in an earthen ditch (firewall berm) designed to contain a volume one-third more than total brine tank volume.

The average volume of brine produced daily is dependent upon drilling and work-over activity. Given the present level of activity and demand, produced volume is projected to be 400 barrels per day.

VI. TRANSFER, STORAGE AND DISPOSAL OF FLUIDS AND SOLIDS

A. All piping and storage for storage and transfer of fluid will be above ground and of minimal pressures, save the actual salt extraction process. Underground facilities are limited to casing and tubing and is shown schematically on attached Exhibit "C".

1,760 ft. $8^{5/8}$" casing set in cement
2,400 ft. $4\frac{1}{2}$" drill pipe set as casing and cemented
2,560 ft. $2^{1/16}$" production tubing

Fresh water will be pumped under pressure down the annulus between the $4\frac{1}{2}$" and the $2^{1/16}$" tubing into the bedded Salado salt formation. Leaching action saturates the water with salt, enabling brine to be produced up through the $2^{1/16}$" tubing. Average pump pressure for the fresh water line will be approximately 180 psi Average injection rate will be approximately 100 bph.

Water flow will be reversed monthly for up to 24 hours as allowed by current rules to dissolve any particulate buildup in the tubing.

1. Tankage and Chemical Storage Areas - Stored volumes of extracted brine will not exceed 3,000 barrels. The above ground tanks will be either welded steel or fiberglass. The tanks will be interconnected requiring a firewall on berm equal in capacity to one-third more than total volume.

2. Surface Impoundments - There will be no surface impoundments, all fluid will be stored in above ground tanks.

3. Leach Fields - This operation will leach salt from the Salado bedded formation from a depth of 2,400 - 2,560 feet.

4. Solids Disposal - There will be no solids disposal from this operation. All solids will be salt dissolved to form brine. The fluid will be trucked from facility site to various drilling or work-over operation.

B. For each of the transfer/storage/disposal methods listed above:

1. Ground water will be adequately protected by the design of the well, having two strings of pipe set and cemented through the water sands. All other facilities will be above ground allowing actual observation in the unlikely event of a leak.

2. Fresh water samples are obtained from any faucet outlet on the fresh water piping. Brine samples will be collected from a sample cock on the discharge line going into the brine storage tanks. Two types of samples will be taken.

   a. One is for local on site determination of the specific gravity of the produced brine,

   b. The other is for laboratory analysis of the chemical content of the brine. Care must be exercised to assure that no contamination is introduced into the sample container.

C. Off-Site Disposal

There should be no off-site disposal under normal operating conditions.

D. Proposed Modification

1. n/a
2. n/a

E. Underground piping will consist of the actual well bore described in section VI A, and fresh water lines buried to prevent freezing. Should any brine lines require underground installation to accommodate traffic patterns, the lines will be valved so that each section can be tested for mechanical integrity. Those sections which would be subjected to vehicle weight will be cased in steel to prevent damage.

The brine recovery system is designed such that the piping for the brine side of the facility will be operated at very moderate pressure, on the order of less than 50 psi. All brine piping, save the well bore will consist of new or tested material capable of pressures 100% greater than actual working conditions.

The well bore will be tested prior to operating by setting a retrievable bridge plug at 2,400 feet in the 4½" casing and pressure testing to 750 psi to insure structural integrity. This test will be conducted during any workover operation, or at an interval not exceeding five years.

The well will also be tested periodically, at intervals not exceeding one year for operating and formation integrity. Testing procedure will be as follows:

a. During normal operating conditions the brine outlet valve will be closed.

b. Additional pressure will be added until the static pressure reaches 130% of normal operating pressure (approximately 235 psi).

c. The system is then closed in, and utilizing a clock chart, the elevated pressure will be monitored for a period of twenty-four hours or longer and observed for any loss of pressure.

F. Inspection, Maintenance, and Reporting

1. There will be no surface impoundments. Brine storage will consist of welded steel or fiberglass tanks with an earthen firewall (dam) encircling them to serve as a retainer wall should a leak or spill occur. Any leak in the tankage or piping will be detected by the system operator during his inspection.

In the event of a problem, the system will be shut down until repairs have been accomplished.

The Director will be notified within 48 hours of the detection or suspected detection of a leachate excursion. Subsequent reports will be provided as requested by the Director.

Required monitoring reports will be filed quarterly or more frequently as required.

2. Ground Water Monitoring

Ground water would not be the primary method used to detect leakage. When this project was originally put into operation in 1968 by Republic Factors, the source well, located approximately 800 feet northeast was the nearest fresh water. Periodic laboratory tests during the operation of this well indicates that water quality from this well remains unchanged. A 1984 analysis along with the recent analysis is enclosed. See Exhibits "D" & "E".

Since inception of this project, two water wells substantially closer to the brine well have been drilled. An analysis for the closest well is enclosed, as is the log for both wells. Exhibits "F", "F1", and "F2".

Upon beginning brine recover operations, water analysis will continue on a regular basis as recommended by the Director.

3. General Procedures for Containment of Precipitation and Runoff.

Brine surface facilities are provided with an earth firewall encircling them to serve as a retainer wall. As no surface impoundments are to be used or proposed, precipitation and runoff through the area will have no detrimental effect on the surroundings.

Sump barrels will be provided to collect the limited amount of dribble during truck loading procedures. During loading procedures at this facility, potential leakage/spillage will be minimal by use of gasketed transfer connections between tank headers and the truck suction hose. At the end of each loading cycle, a truck mounted pump applies a suction to the header valve, causing brine to be pulled into the truck tank leaving no fluid in the hose.

4. Describe methods used to detect leaks and ensure integrity of above and below ground tanks and piping. Discuss frequency of inspection and procedures to be undertaken if significant leaks are detected.

In-flow volumes into the brine storage tanks will be confirmed by use of either of the following procedures.

a. Beginning and ending gages of the volumes of brine in each tank before and after operation of the injection pump, and adjusted for any volumes taken from the tanks for loading out trucks.

b. Taking the elapsed time of operation of the injection pump and multiplying by the pump rate in volume per hour, again making adjustments for any volumes taken from the tanks for loading onto trucks.

c. Outflow from the brine storage tanks is determined by taking the sum of the volumes loaded onto truck during the accounting period.

Well and formation integrity will be monitored by a comparison of injected volumes of fresh water to the volume of saline extracted (to determine underground losses-if any) accomplished by integration of the data on the pressure recording chart for injection pump operation.

The known pumping rate multiplied by the hours of operation, yields total injected volumes. An arithmetic comparison of these volumes on a bi-weekly basis determines whether or not there is any underground losses.

In the event of a significant leak the OCD will be notified within 24 hours and injection pressures limited to avoid moving contaminants into protected ground water.

5. General Closure Plan

Should it become necessary to abandon this brine production facility, the well will be filled with brine water. The well will be plugged and capped according to plans and specifications recommended by the OCD that fully meet all requirements for protection of groundwater.

All fluid will be removed from the site and transported to an approved disposal well, or tested for contaminants and hauled to an approved disposal site.

Upon removal of all surface equipment, remediation and grading of the facility will be done in a manner reflecting its original condition.

VII. BRINE EXTRACTION WELL(S)

A. Drilling Deepening, or Plug Back Operations

This application is for a well placed into service as a brine extraction well prior to 1968 by Republic Factors, Inc., of Midland, Texas (exact date unknown). The Permian Corporation acquired title in November of 1968 and maintained operation until December 1986 when the well was shut in due to a suspected hole in the $2^{1/16"}$ tubing.

A discharge plan was submitted and approved in 1985 in accordance with rules and regulations in effect at that time. The permit expired in 1990.

B. Workover Operations

We anticipate pulling the $2^{1/16"}$ tubing, pressure testing the $4\frac{1}{2}"$ casing for mechanical integrity, and replacing the $2^{1/16"}$ tubing with newer tubing. No mechanical changes are planned or anticipated.

C. Additional Information Required with Discharge Plan

1. This well was completed as a brine recovery well prior to 1968 by Republic Factors of Midland, Texas. After being permitted by the Permian Corporation in 1985, the facility was operated until 1986 when it was discontinued due to a suspected hole in the tubing.

   The last pressure test was conducted during the third quarter of 1987 when the well held 220 psi for 5 hours (enclosed). Exhibit "H".

2. Based on the last operation of this well, average injection pressure was 175 psi, maximum injection pressure was 175 psi. This well was previously operated in the conventional manner of pumping fresh water down the tubing, and brine water up the annulus.

   We propose to use the reverse method of operation. Fresh water will be pumped down the annulus and bring recovered from the tubing. Our anticipated average pressure is anticipated to be 180 psi with maximum pressure of 200 psi.

3. Mechanical Integrity Testing Program

   Prior to start-up of present operation, we propose to pull the $2^{1/16}$" tubing. Using a work-string, a retrievable brine plug will be set at the bottom of the 4" casing string (2,400 ft). The casing will be tested to 750 psi for structural integrity. This test will be repeated every five years or during any workover operation that requires tubing removal. The open hole pressure test of 250 psi for four hours will be conducted on an annual basis.

4. Analysis of Injected Fluid and Brine

   Enclosed, please find the most recent sample of injection fluid and brine. Upon operation of well, current samples will be provided. Exhibit "G".

   Location and design of site and method of sampling, see Exhibit "I" for schematic.

   Fresh water sampling is from a faucet outlet on the fresh water piping. Brine samples will be collected from a sample cock on the discharge line going into the brine storage tanks.

5. Detecting Underground Losses by Volume Comparison of Fresh to Brine.

Well and formation integrity will be monitored by a comparison of injected volumes of fresh water to the volume of saline extracted by integration of the data on the pressure recording chart for injection pump operation. The known pumping rate multiplied by the hours of operation yields total injected volume.

6. Size of Solution Cavern

There is no log available for the Saline No. 1 brine well. Attached is a log from the Amerada - St. C No. 3 located approximately 4,000′ NE of the brine well in the same section. As indicated, the rustler is identified at 1,630′ to 1,750′. The Salado salt lies directly under the rustler anhydrite and ends well below the limits of the log. This thickness is typical of the Salado in this area. Since ground elevations are almost identical, the $8^{5/8"}$ casing has been set at 1,760′ at the bottom of the rustler anhydrite. The $4\frac{1}{2}$" casing is set to 2,400′ in the salt section. The tubing is set at 2,560′, providing 160′ of salt section for solution mining. Exhibit "J".

Records indicate that less than 2.7 million barrels have been produced from this site. Due to the practice of washing brine from the bottom through the tubing and returning the brine through the annulus, a parabolic shaped cavern is formed. The maximum diameter is calculated below.

The formula for volume of a paraboloid:

$$v = 2{,}700{,}000 \text{ bbls} \times 5.61 \text{ ft}^3/\text{bbl} = 15{,}147{,}000 \text{ }^3/\text{bbl}$$

$$v = \pi \times h \times l^2 \div 8$$

l is diameter at the base

h is exposed thickness of salt (160 ft)

$$l = [v \times 8 \div (\pi \times h)]^{\frac{1}{2}}$$

$$= [15{,}147{,}000 \times 8 \div (\pi \times 160)]^{\frac{1}{2}}$$

$$= 491 \text{ ft.}$$

Since the early 1950's, storage for high vapor pressure hydrocarbons has been created in West Texas and New Mexico by washing caverns in salt sections. Since then, numerous brine supply sites have been developed. Consequently, well over one hundred caverns currently exist, varying in size from 30,000 to several million barrels capacity. To date, no subsidence has occurred from a cavern as limited and as deep as our project.

VIII. CONTINGENCY PLAN

A. Prevention

During truck loading operations at this facility, potential leakage/spillage is minimized by use of on-truck loading pumps and gasketed transfer connections between tank headers and the truck suction hose. At the end of each loading cycle, the truck mounted pump applies a suction to the header valves, causing brine to be pulled into the truck tank, leaving very little moisture to collect in the sump barrels placed beneath the loading header valves.

Any leak in the tankage or piping will be detected by our system operator who will shut down the system until repairs have been made.

Loss of mechanical integrity of system will result in the system being shut down until repairs or corrective action has been completed.

Operating the system at minimum pressures will reduce the severity of any possible damage that could result from system failure. Ground water will be routinely analyzed to determine water gravity and insure that the water is protected from contamination by the brine production process.

B. Containment and Cleanup

Brine storage tanks will be encircled with an earthen firewall to serve as a retainer should a spill or leak occur. The firewall will be of a capacity equal to 1/3 more volume than total brine tankage.

Should a spill occur, surface material that is contaminated will be disposed of by remediation or tested for contaminates and hauled to an approved disposal site.

Sumps will be installed under the loading headers to collect any fluid that might collect during truck loading operations.

C. Notification

In the event of a major spill, the district OCD in Hobbs will be notified immediately by the systems operator stationed in Hobbs. Minor spills will be reported to the OCD in writing within 10 days.

IX. SITE CHARACTERISTICS

1. The Saline No. 1 brine facility is located in an area with very little elevation definition. Drainage patterns are shallow and not of the deep arroyo type.

The nearest surface water is located approximately 3,000 feet southeast of the Saline No. 1, on property owned by the Hobbs Country Club. Several intermittent watercourses as part of the golf course. Brine volumes available at the Saline No. 1 are insufficient to reach the watercourse given the rainfall pattern and topography of this area.

2. Ground Water

The water well furnishing water for this operation is approximately 800 feet northeast of the Saline No. 1 brine well. Both are located on the USGS sketch. The water well elevation is shown to be 3,651 feet while the brine well lies on the 3,650 contour. The water well was drilled to a depth of 127 feet in 1951. No log is available.

Static water level, last measured in 1951 was 65 feet from surface. A 5 hp submersible pump serves the well from 90 feet. Samples of water analysis Exhibits "D" & "E" are attached.

Two wells in close proximity to our project have been drilled in recent years. General information and logs are attached. A water analysis from Pool's well is also included. Exhibits "F", "F1" & "F2".

Logs and other general information was obtained from the State Engineers office in Roswell, New Mexico.

3. Hydrology

Underground aquifers in this area are the ogallala and quaternary alluvium deposits. The ground water in these formations is unconfined where the underlying red beds are relatively impermeable. They form a lower confining layer, which prevents further downward movement.

From piezometric maps, and the reported water levels in this area, 40 to 60 feet below ground surfaces, all water wells are producing from the ogallala or quaternary.

4. Topography - Flood Potential

   a. Due to relatively small amount of precipitation in this area and the very shallow drainage patterns, this area is not subject to flooding or dramatic run-off events. See Exhibit "A".

5. Geology

   The Saline No. 1 brine well is located on the Central Basin Platform of the Permian Basin area of West Texas and Eastern New Mexico. See Exhibit "K".

   The sub-surface formations are in a transitional area between the Delaware Basin's back reef or shelf area and the Platform.

   The brine production is from the Salado formation of the Ochoa series. This series is of upper Permian Age, and extends across the Delaware Basin, Central Basin Platform, thins and pinches out on the Eastern shelf. This series is predominately evaporates; successive layers of anhydrite, halite, polyhalite, and to the west, in the Carlsbad area, varying thicknesses of the potash rich sylvanite and langbeinite. The evaporates contain stringers of dolomite, shale, siltstone, and sandstone.

   These evaporates were formed during recurrent retreats of shallow seas. The lowermost formation is the Castile and is chiefly anhydrite but contains some halite beds. It rests unconformably on the Delaware mountain group in the Delaware Basin, but does not extend beyond the basin margin. Overlying the Castile is the Salado, which ranges in thickness from 0 to 2,000 feet. In the back-reef and platform areas it rests unconformably on the Whitehorse group. This formation is mainly halite containing some anhydrite. The Rustler formation overlies the Salado, and varies in thickness from 90 to 360 feet, and consists chiefly of anhydrite, but includes red beds (shale) and salt.

   The Triassic rocks, overlying the Permian formation is the Dockem group, and is divisible into the Santa Rosa sandstone and the Chinle formation. The Santa Rosa is a fine to coarse grained sandstone and ranges in thickness from 140 to 300 feet. The Chinle is dominantly red and green claystone and contains minor stringers of fine-grained sandstone and siltstone.

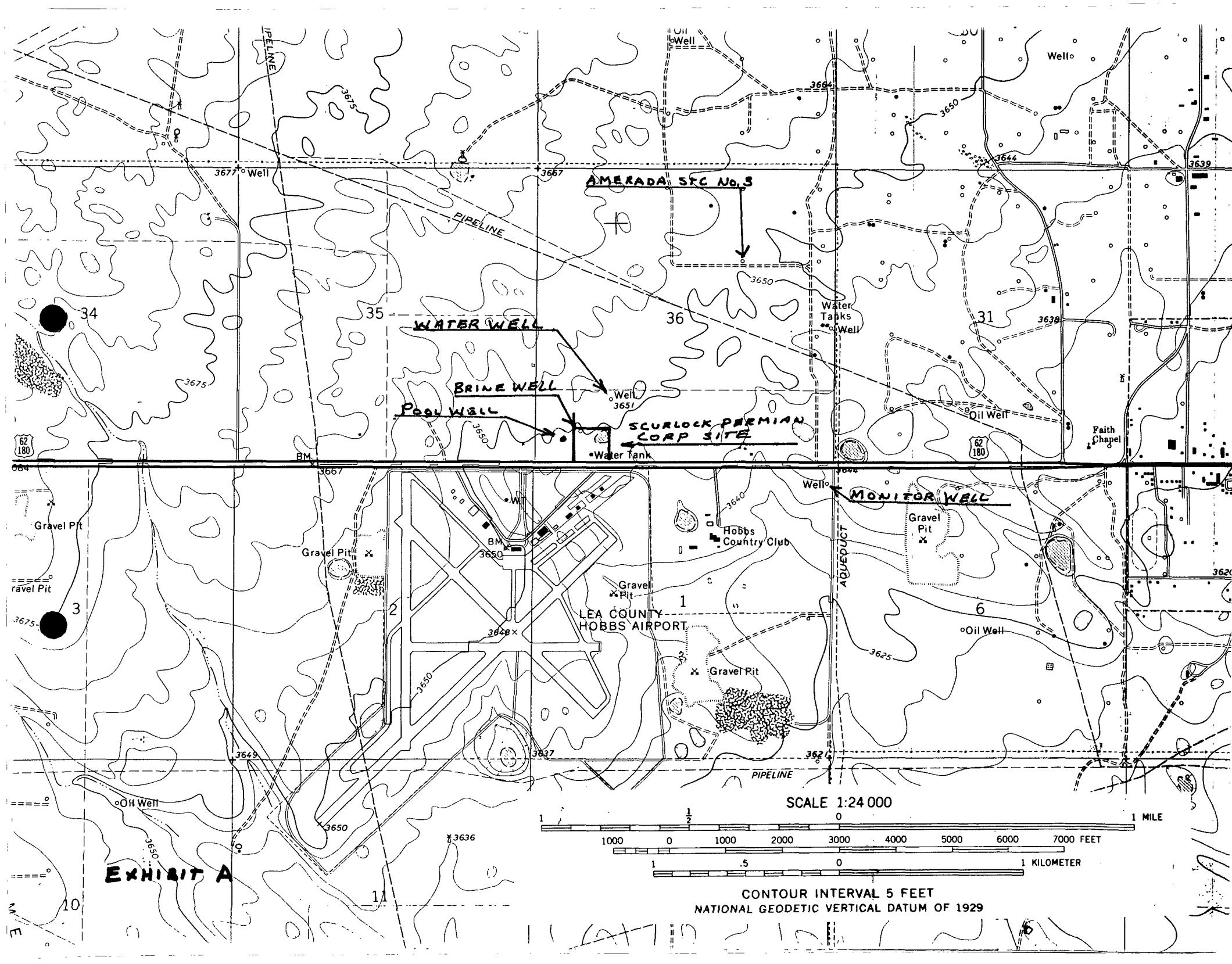
   The Triassic and Cretaceous rocks are absent in this area. Although the Cretaceous was present initially, it has extensively eroded and only exposed as blocks of limestone in widely isolated areas.

The Tertiary rocks are represented by the Ogallala formation. This formation ranges in thickness from 0 to 300 feet. It is chiefly a calcareous, unconsolidated sand, but contains clay, silt, and gravel. This formation covers the surface of this area of Central Lea County, trending northwest from the Hobbs area, forming the locally named "Caprock" and identified on geological maps a Mescalero Ridge. This ridge forms a vertical dip of 100′ to 150′ from the Llano Estacado to the northeast, to the Querecho Plans to the southwest.

The Quaternary sediments in this area are in the form of alluvial deposits and dune sands. The alluvium was deposited in topographically low areas where the Ogallala formation had been stripped away. The dune sands mantle the older alluvium and Ogallala in this area.

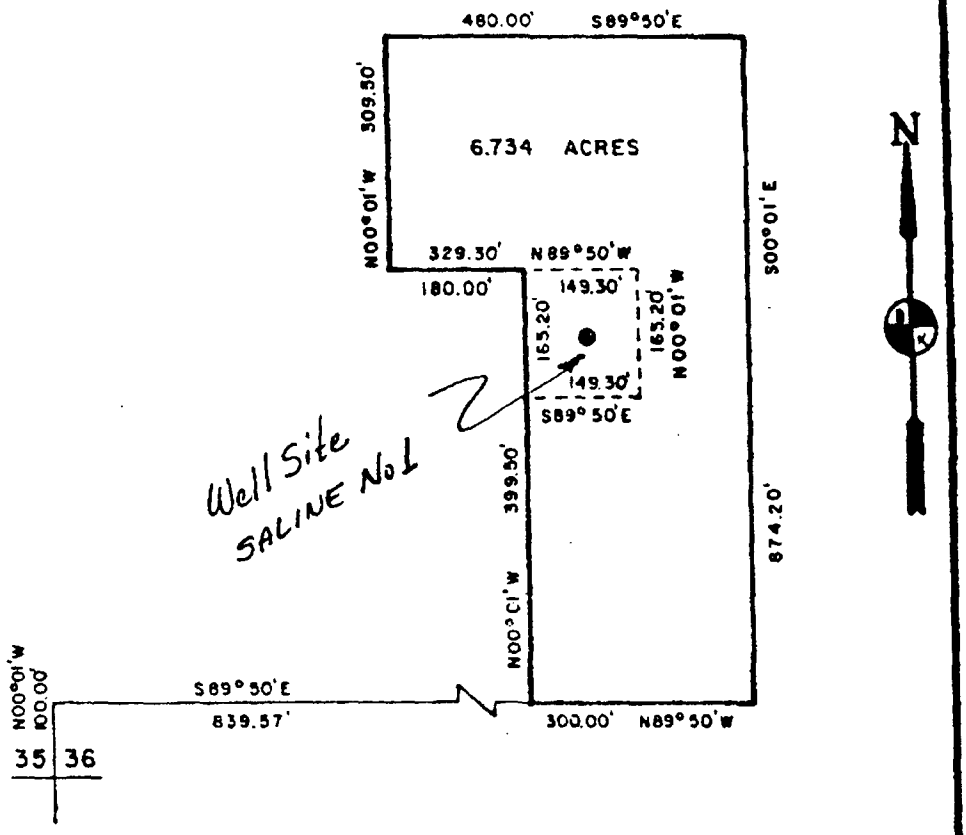
EXHIBIT INDEX

A	Topographic Map
A1	Plat of Survey
A2	Abstract
B	Ownership Map
C	Wellbore Schematic
D	Analysis from Source Water 1984
E	Analysis from Source Water 1994
F	Well Record and Log - Pool Well Services
F1	Analysis of Pool Well Servicing Water
F2	Well Record and Log, Acid Engineering
G	Water Analysis, Saline No. 1 - 1984
H	Monitoring and Reporting Form
H1	Chart of 3rd Quarter Test 1987
I	Schematic of Facility
J	Adjacent Oil Well Log, State "C" No. 3
K	Structural Features Map


AMERADA SEC No. 3
WATER WELL
BRINE WELL
POOL WELL
SCURLOCK PERMIAN CORP SITE
MONITOR WELL
LEA COUNTY HOBBS AIRPORT
Hobbs Country Club
Water Tanks
Water Tank
Faith Chapel
Gravel Pit
Oil Well
Well
PIPELINE
AQUEDUCT
BM
34
35
36
31
3
2
1
6
10
11
SCALE 1:24 000
1 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER
CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
EXHIBIT A

BOOK 350 PAGE

PLAT OF SURVEY



DESCRIPTION

A tract of land situated in the Southwest Quarter of the Southwest Quarter ($SW\frac{1}{4}$ $SW\frac{1}{4}$) of Section 36, Township 18 South, Range 37 East, N.M.P.M., Lea County, New Mexico, being further described as follows:
Beginning at a point which lies N00° 01'W 100.00 feet and S89° 50'E 839.57 feet from the Southwest Section Corner of said Section 36; thence, N00° 01'W 399.50 feet; thence, S89° 50'E 149.30 feet; thence, N00° 01'W 165.20 feet; thence, N89° 50'W 329.30 feet; thence, N00° 01'W 309.50 feet; thence, S89° 50'E 480.00 feet; thence, S00° 01'E 874.20 feet; thence, N89° 50'W 300.00 feet to the point of beginning, containing 6.734 acres, more or less.

EXHIBIT "A-1"

I HEREBY CERTIFY THAT I AM THE REGISTERED LAND SURVEYOR WHO PREPARED THE ABOVE PLAT FROM FIELD NOTES OF ACTUAL SURVEYS MADE UNDER MY DIRECTION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

KEN MARSH

A tract of land situated in the $SW\frac{1}{4}$ $SW\frac{1}{4}$ of Section 36, Township 18 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

New Mexico R.L.S. No 6541
Texas R.P.S. No 02388

NEAL D. KING
NEW MEXICO
6541
REGISTERED LAND SURVEYOR

BROWN & KING
ENGINEERING & SURVEYING, INC.
3515 INDUSTRIAL DRIVE — LOVINGTON HIGHWAY HOBBS, N. M. 88240

SCALE 1 " = 200 '	DRAWN BY: Maudie W.
DATE NOV. 11, 1981	SHEET 1 OF 1

Compliments of

BOOK 396 PAGE 560

ELLIOTT & WALDRON ABSTRACT

PHONE 393-7706
P. O. BOX 295
HOBBS, NEW MEXICO 88240

PHONE 396-3481
P. O. BOX 817
LOVINGTON, NEW MEXICO 88260

1 vara—33⅓ inches.
1900 8/10 varas 1 mile.
5645 square varas—1 acre.
4840 square yards or 43,560 square feet—1 acre.
1,000,000 square varas—1 labor or 177 1/10 acres.
25,000,000 square varas—1 league or 4428 acres.
7.92 inches—1 link.
1 rod—5½ yards, or 16½ feet, or 5.94 varas.
320 rods—1 mile.
100 links—1 chain, or 66 feet, or 23.76 varas.

80 chains, 5280 feet, 1760 yards—1 mile.
To reduce yards to varas multiply by 1.08.
To reduce varas to yards, divide by 1.08.
To reduce feet to varas, multiply by 36 and point off two decimals.
To reduce varas to feet, multiply by 100 and divide by 36.

1 Square Rod—272¼ Square Feet
1 Acre—43,560 Square Feet
1 Acre—160 Square Rods
1 Acre is about 208¾ Feet Square
1 Acre is 8 Rods x 20 Rods (or any two numbers of rods whose product is 160.)

SCALE FOR SECTION, 660 Ft. = 1 Inch. { Each side large squares 20 chains, 80 rods, 1320 feet; area of square 40 acres
Each side small squares 5 chains, 20 rods, 330 feet, area of square 2½ acres

N

STATE OF NEW MEXICO
COUNTY OF LEA
FILED

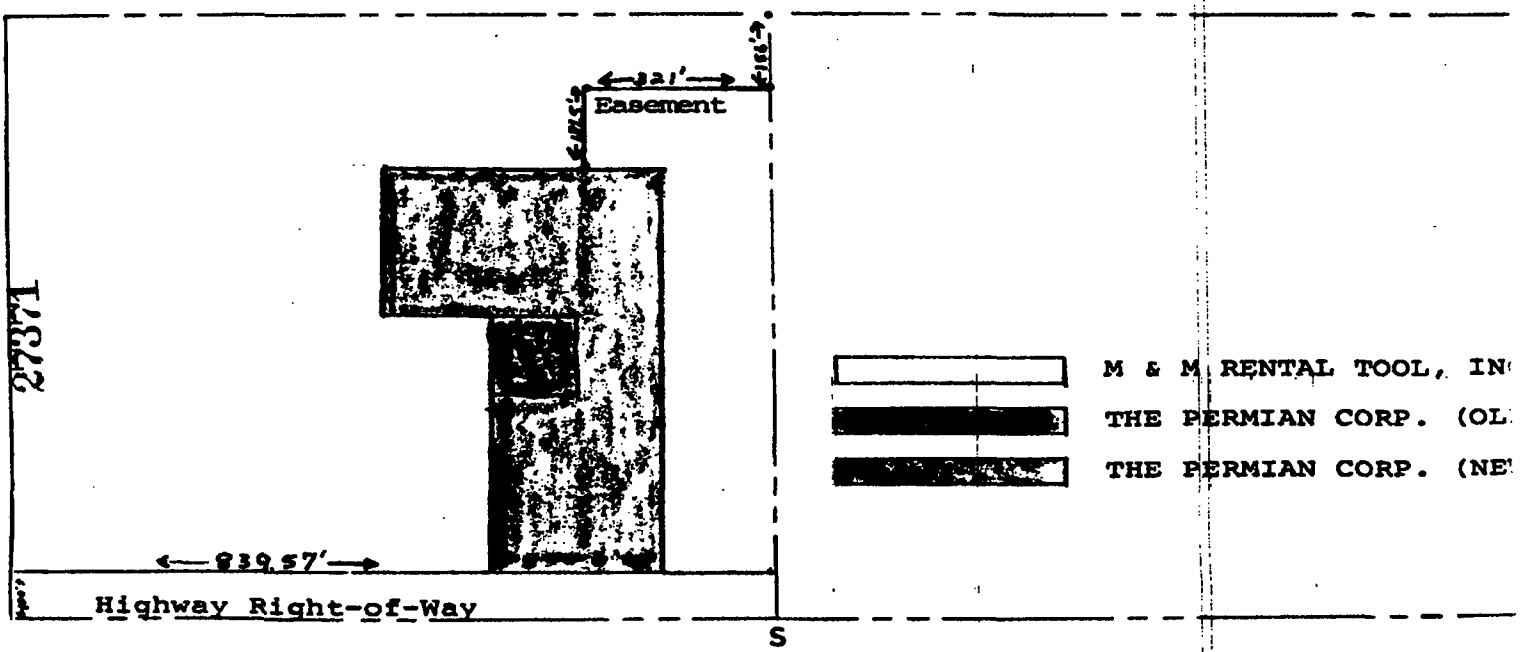
MAY 7 1982

at 10:50 o'clock A M
and recorded in Book 396
Page 564
Pat Snipes, County Clerk
By MH Deputy

EXHIBIT "A 2"

THE SOUTHWEST QUARTER (SW/4) OF SECTION 36, Township 18 South, Range 37 East, N.M.P.M., Lea County, New Mexico

W



S

SCALE FOR QUARTER SECTION, 330 Ft. = 1 Inch. { Each side large squares = 10 chains, 40 rods, 660 feet; area of square 10 acres.
Each side small squares = 2½ chains, 10 rods, 165 feet; area of square .625 of 1 acre.

PRONTO LAND MEASURE 660-330 MAP SHEET

PRONTO LAND MEASURE

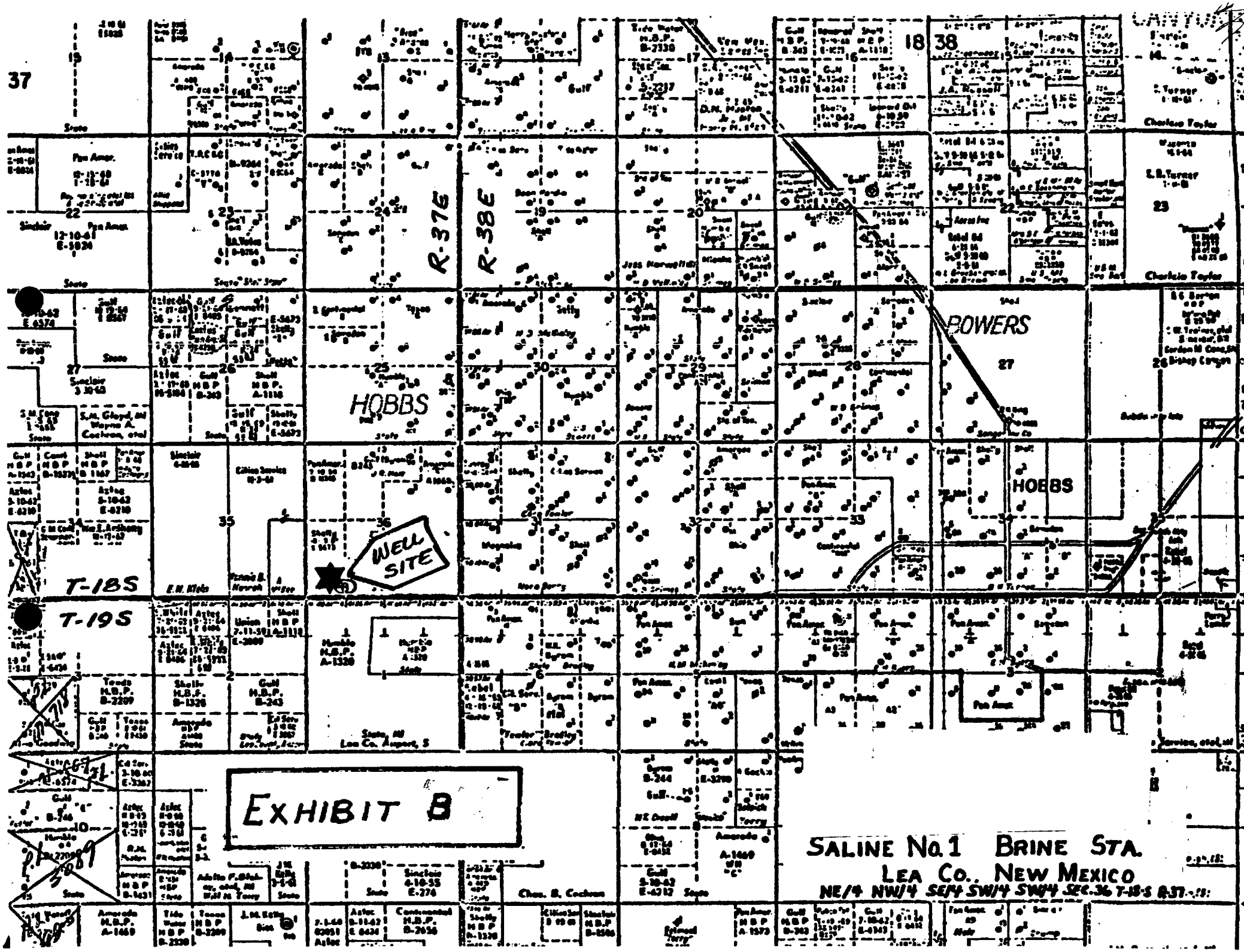


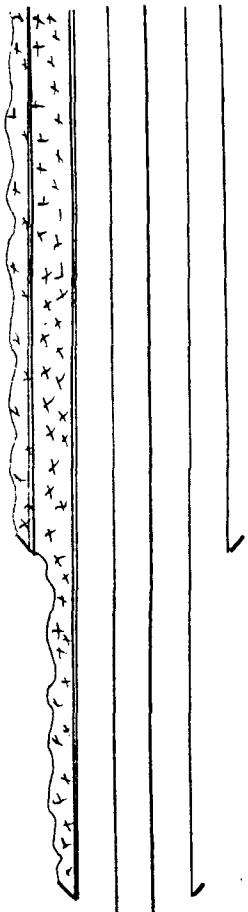
EXHIBIT B
SALINE No. 1 BRINE STA.
LEA CO., NEW MEXICO
NE/4 NW/4 SE/4 SW/4 SW/4 SEC. 36 T-18-S R-37-E
WELL SITE
HOBBS
POWERS
T-18S
T-19S
R-37E
R-38E

ASHLAND PIPE LINE COMPANY
ENGINEERING DEPARTMENT

SUBJECT SCURLOCK PERMIAN CORP SALINE No 1	SHEET
SW/4 SW/4 SEC 36 T, 18S R, 37E	AFE
	DISTRICT
	DRAWING
BY S. ROGERS	CHECKED BY
	APPROVED BY
	DATE 29 APRIL 94

0427-6 (02/91)

GROUND ELEVATION 3650 Ft.



1760 ft. 8 5/8" - CEMENT TO SURFACE

2400 ft. 4 1/2" DRILL PIPE SET AS CASING.
CEMENT TO SURFACE

2 1/16" TUBING

2560 Ft.

NO SCALE

EXHIBIT C.

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 68476
SAMPLE RECEIVED 6-8-84
RESULTS REPORTED 6-12-84

TO: Mr. Owen Mobley
P.O. Box 3119, Midland, Texas

COMPANY The Permian Corporation LEASE Saline #1
FIELD OR POOL
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Raw water - taken from water well. 6-7-84
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0015			
pH When Sampled				
pH When Received	7.34			
Bicarbonate as HCO_3	215			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	204			
Calcium as Ca	66			
Magnesium as Mg	9			
Sodium and/or Potassium	41			
Sulfate as SO_4	64			
Chloride as Cl	36			
Iron as Fe	0.86			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	430			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	19.50			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

REC'D ENG
JUN 1 3 ...
TPC-HOUSTON

EXHIBIT "O"

Form No. 3

By Waylan C. Martin, M.A.

Laboratory Services, Inc.
1321 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

WATER ANALYSIS

COMPANY Scurlock Permian Corp.

SAMPLE: Selean - Source WATER.
SAMPLED BY Dennis Shearer-Scurlock Permian Corp.

DATE TAKEN 05-02-94
REMARKS

Barium as Ba	25.00
Carbonate alkalinity PPM	0.00
Bicarbonate alkalinity PPM	204.00
pH at Lab	7.01
Specific Gravity @ 60° F	1.010
Magnesium as Mg	145
Total Hardness as CaCO3	250
Chlorides as Cl	64
Sulfate as SO4	35.00
Iron as Fe	0.00
Potassium	0.02
Hydrogen Sulfide	0.00
Resistivity Ohms	0.6000 MMHOS 22.00
Total Dissolved Solids	310
Carbonate as CO3 gm/L	7.59
Calcium as Ca	105
Nitrate	2.00

Results reported as Parts per Million unless stated

Langelier Saturation Index -0.69

Analysis by Rolland Perry
Date: 05-03-94

EXHIBIT E.

FAX 210 620 1592

Revised June 1972

EXHIBIT F

STATE ENGINEER OFFICE
WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well Pool Well Servicing Owner's Well No. _____

Street or Post Office Address Carlsbad Hwy.

City and State Hobbs, NM 88240

Well was drilled under Permit No. L-9635 and is located in the:

a. ____ ¼ ____ ¼ SW ¼ SW ¼ of Section 36 Township 18S Range 37E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____

Subdivision, recorded in _____ Lea _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Larry's Drilling License No. WD882

Address 2601 W. Bender, Hobbs, NM 88240

Drilling Began 3-5-85 Completed 3-5-85 Type tools tricone Size of hole 83/4 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 130 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 40 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
50	130	80	sand & sandstone	30

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5 1/2	160PVC		-1	130	131		110	130

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by: _____

State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received March 15, 1985 Quad _____ FWL _____ FSL _____

File No. L-9635 Use D & S Location No. 18.37.36.33433

P.2

18.37.36.33433

APR 28 '94 07:20AM SPC HOBBS NM

505 392 6988

POOL WELL SERVICE Section 6. LOG OF HOLE

EXHIBIT F

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	2	2	fill
2	4	2	topsoil
4	16	12	soft caliche
16	21	5	hard caliche
21	26	5	sand
26	34	8	caliche
34	40	6	sand, layers of white rock
40	65	25	sand
65	70	5	sandstone
70	130	60	sand, thin layers of sandstone

Section 7. REMARKS AND ADDITIONAL INFORMATION

MAR 15 8 24 AM '85

STATE ENGINEER
ROSWELL, NM

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Larry Larkins
Driller

INSTRUCTIONS: This fo uld be executed in triplicate, preferably typewritten, and submitt e appropriate district office of the State Engineer. All ns, except Section 5, shall be answered as completely and accu as possible when any well is drilled, repaired or deepened: nen this form is used as a plugging record, only Section 1(a) and Sectic 5 need be completed.

Laboratory Services, Inc.
1331 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

WATER ANALYSIS

COMPANY Sonxlock Permian Corp.

SAMPLE Pool
SAMPLED BY Dennis Shearer- Sonxlock Permian

DATE TAKEN 05-02-94
REMARKS

Barium as Ba	15.00		
Carbonate alkalinity PPM	0.00		
Bicarbonate alkalinity PPM	198.00		
pH at Lab	6.88		
Specific Gravity @ 60° F	1.020		
Magnesium as Mg	48		
Total Hardness as CaCO3	82		
Chlorides as Cl	44		
Sulfate as SO4	60.00		
Iron as Fe	0.15		
Potassium	0.02		
Hydrogen Sulfide	0.00		
Resistivity Ohms	0.4900	MMHOS	22.50
Total Dissolved Solids	240		
Carbonate as CO3: Gm/L	0.00		
Calcium as Ca	34		
Nitrate	0.00		

Results reported as Parts per Million unless stated

Langelier Saturation Index -1.32

Analysis by Rolland Perry
Date: 05-03-94

EXHIBIT F1

FIELD ENGR. LOG
505-393-1377

EXHIBIT 4 F2 VI

STATE ENGINEER OFFICE
WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well ACID ENGINEERING INC Owner's Well No. _____
Street or Post Office Address BOX 370 STAR RT A
City and State Hobbs, N. Mex 88240

Well was drilled under Permit No. L-8476 and is located in the:

a. ¼ SW ¼ SE ¼ SW ¼ of Section 36 Township 18-S Range 37-E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor C. M. GRIFFIN License No. WD 603
Address 201 W AITO Hobbs, N M 88240

Drilling Began 7-17-81 Completed 7-20-81 Type tools Spudder Size of hole 10 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 120 ft.

Completed well is ☑ shallow ☐ artesian. Depth to water upon completion of well 46 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
46	120	74	Red Sand	100

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
6 5/8			0	120	120	None	100	120

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
46	120	10	3		Gel w/water

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by: _____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received July 24, 1981
Quad _____ FWL _____ FSL _____
File No. L-8476 Use DTC Location No. 18.37.36.34324

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

[X] Telephone [ ] Personal	Time 2:30	Date 6/13/94

Originating Party	Other Parties
Steward Rogers - Scurlock Permian (SPC)	Bobby Myers - OCD Santa Fe

Subject Saline #1 Brine Station

Discussion OCD's 6/?/94 letter, item 5 - requires sonar log
SPC has pulled out existing prod. casing - had to part casing @ 1794', leave remaining casing in hole. They propose to now run 5½" casing to 1700', (same depth as 8⅝" casing) and cement to surface. Then try to run prod tubing past fish to 2690'. However, Halliburton says that a wireline tool into the hole with fish is major risk & they won't run it. SPC would like to skip this requirement (sonar log)

Conclusions or Agreements Rogers will send letter w/request, plus diagram of wellbore w/fish, and as proposed

Distribution File

Signed Robert Myers

NOTICE OF PUBLICATION

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan renewal application has been submitted to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

(BW-012) - Scurlock Permian Corporation, Owen Mobley, Vice President, P.O. Box 4648, Houston, Texas, 77210-4648, has submitted an application for the renewal of a discharge plan for the SPC Saline No. 1 Brine Station, located in the SW/4 SW/4 of Section 36, Township 18 South, Range 37 East, NMPM, Lea County, New Mexico. Up to 400 barrels per day of 1.2 specific gravity brine water is produced for use in the oil industry. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 40 feet with a total dissolved solids concentration of approximately 400 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 7th day of June, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

WILLIAM J. LEMAY, Director

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

June 2, 1994

CERTIFIED MAIL
RETURN RECEIPT NO. P 111 334 322

Mr. Owen H. Mobley
Vice President, Operations
Scurlock Permian Corporation
P.O. Box 4648
Houston, TX 77210-4648

RE: Discharge Plan BW-012 Saline #1 Brine Station

Dear Mr. Mobley,

A discharge plan application for the renewal of the Saline #1 Brine Station, dated May 5, 1994, was received by the Oil Conservation Division (OCD) on May 6, 1994. Also, additional information, dated May 24, 1994, was received by the OCD on May 27, 1994. The following comments and requests for additional information are based on the review of this application. Additional comments and requests may be forthcoming, pending an OCD inspection of the facility.

1. The May 24 letter includes a proposal to install a secondary liner underneath the entire brine storage area. Is this secondary to the existing berm system? Plans for this proposal shall be submitted to the OCD for approval prior to construction.

2. The May 24 letter also includes a proposal to install containment in the loading area. Again, plans for this proposal shall be submitted to the OCD for approval prior to construction.

3. The May 24 letter outlines procedures for the workover of the wellbore, including running and cementing a string of 5½" casing. The OCD requires that a Cement Bond Log (or equivalent, with OCD approval) be run on all cemented casing strings prior to operation of that well.

4. Section VII.C.6. of the May 5 application discusses the size of the solution cavern, and references records which indicate

SCURLOCK PERMIAN CORPORATION

333 Clay
P.O. Box 4648
Houston, Texas 77210-4648

(713) 646-4100

May 24, 1994

RECEIVED
27
MAY 1994
OIL CONSERVATION DIV.
SANTA FE

Mr. William J. Lemay
Director of Oil Conservation Division
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

Re: Revision of Discharge Plan
Saline No. 1 Brine

Dear Mr. Lemay:

As reported, down-hole work was performed on the Saline No. 1 Brine Recovery Well, Sec 36, T-18S, R37E, Lea County, New Mexico.

Upon discovery, the well structure was not as reported to the Permian Corporation in 1968 when the facility was purchased.

This discovery requires that we modify our Discharge Plan as submitted to the OCD on May 5, 1994 as it pertains to the well profile. We would also like to take this opportunity to modify the formation testing procedure, and to improve the surface facility plan.

Planned modifications are as follows:

A. Well bore profile.

B. Formation pressure test changed from 24 hours to 4 hours.

C. Addition of secondary liner under brine storage and unloading area.

Detailed information concerning proposed modifications.

A. Well Bore

1. $5\frac{1}{2}$" casing will be set to ± 1,700 feet inside the existing $8^{5/8}$" casing and cemented to surface with 300 sacks of premium cement. A packer float shoe and two stage cement tool will be used to insure cement lift. Five centralizers will be used for 360° cementing.

2. After drilling out the cement staging tool, and prior to entering open hole, a 750 psi casing test will be conducted.

3. $2^{7/8"}$ 6.5#/ft. tubing will be suspended in the well from surface to ± 2,690 feet.

4. Upon activation, fresh water will be pumped down the $2^{7/8"}$ x 5½" annulus, and brine recovered via the $2^{7/8"}$ tubing.

B. Formation Testing Procedure

The May 5th Discharge Plan, Section VI, Part E, Subpart C, Page 4 states that formation will be pressure tested to 235 psi for 24 hours or longer. We request that this be changed to read, 235 psi for 4 hours or longer.

C. Addition of Secondary Liner

A secondary liner of impermeable polyethylene material will be installed under the entire brine storage area to aid in readily detecting tank seepage and preventing ground saturation in the event of a leak. This material will be covered with sand or gravel to prevent exposure or abrasion.

A secondary line if impermeable polyethylene will also be installed under all loading areas. Sump barrels will also be provided to collect the limited dribble during truck loading procedures, as provided for in Part VI, Paragraph F, Subpart 3, Page 5 of the Plan.

Your assistance in adding these modifications to our original Discharge Plan is appreciated. If you need further information, you can contact me at (210) 620-1087.

Sincerely,

Steward E. Rogers

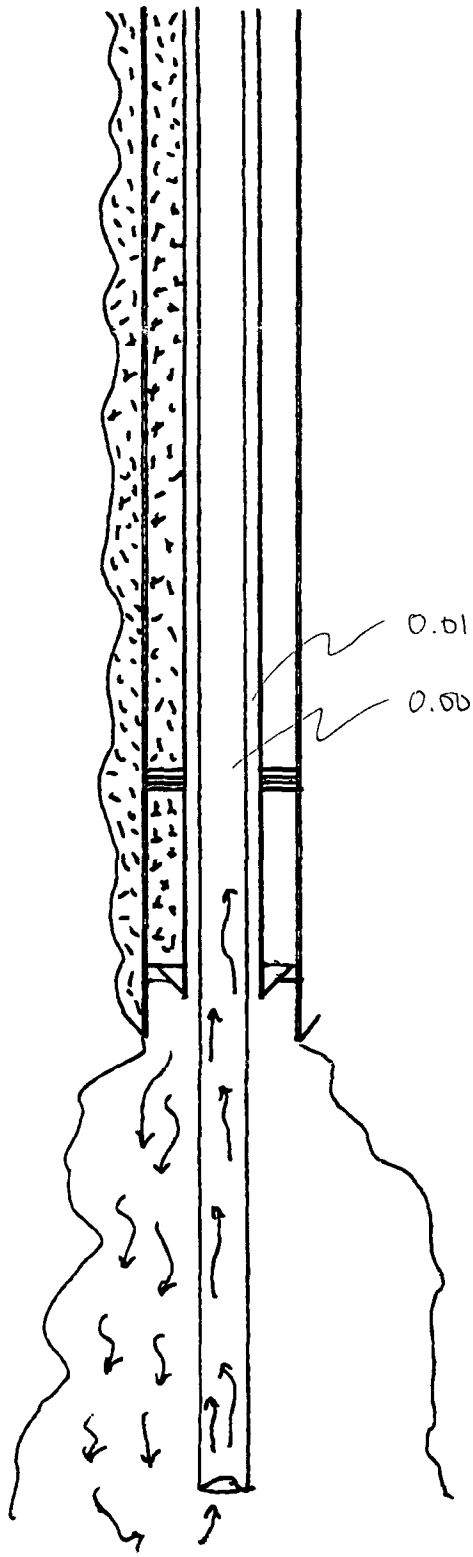
Steward E. Rogers
Operations Coordinator

SER/jtw

cc: Owen H. Mobley
Jerry Saxon - Hobbs

REVISED WELL SCHEMATIC 5/24/94

Replacing Exhibit "C"



5½" casing will be cemented in two stages with 300 sacks premium plus. Cement will circulate to surface.

Two stage cement tool ± 1,300 feet

5½" casing set to ± 1,700 feet
Packer shoe set to ± 1,700 feet

$8^{5/8"}$ 24# casing set to 1,720 feet cemented with 434 sacks-cement circulated to surface

Salado Salt Formation

$2^{7/8"}$ tubing suspended to ± 2,690 feet

Fresh water down $2^{7/8"}$ x 5½" annulus, saturated brine up $2^{7/8"}$ tubing

SCURLOCK PERMIAN CORPORATION

333 Clay
P.O. Box 4648
Houston, Texas 77210-4648

(713) 646-4100

May 5, 1994

Mr. William J. Lemay
Director of Oil Conservation Division
Oil Conservation Division
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

Re: Discharge Plan, Saline No. 1 Brine

Dear Mr. Lemay:

Scurlock Permian Corporation is requesting a re-permitting of the Saline No. 1 located in Section 36, T-18S, R37E, in Lea County, New Mexico.

Saline No. 1 was originally placed in service as a brine extraction well prior to 1968 by Republic Factors, Inc., of Midland, Texas. The Permian Corporation acquired title in November 1968 and maintained continuous operation until December 1986, when the well was shut in due to a hole in the $2^{1/16}$" tubing.

A Discharge Plan, #354 was submitted and approved in 1985. This permit expired in 1990.

Pending approval from the State Land Office for lease renewal, Scurlock Permian Corporation would like to proceed with the permitting process. Much of the required information was originally submitted in 1985 with the first Discharge Plan and remains pertinent today.

Upon receiving permission from the land office to open the well and contacting the OCD office in Hobbs, we plan the following procedure.

1. Pull the existing string of $2^{1/16}$" tubing.

2. Set a retrievable bridge plug in the 4½" casing at ± 2,400 feet and perform a casing integrity test.

3. Upon a satisfactory test, the bridge plug will be retrieved, and the formation tested to 200 psi to insure there is no fluid excursion.

4. After satisfactory completion of this test, a tested string of $2^{1/16}$" tubing will be installed to ± 2,560 feet.

Sixteen years of un-interrupted operations attest to the thoroughness of the original well completion program which consisted of two strings of casing cemented to surface.

Water analysis from the two fresh water wells are of good quality and are indicative of the effectiveness of the rigid design of this facility.

We appreciate your review of the enclosed Discharge Plan and supporting documents and look forward to an expeditious approval. Please notify us if additional compliance information is required.

Sincerely,

Owen H. Mobley

Owen H. Mobley
Vice President, Operations

OHM/jtw
encl.

cc: Mr. Jerry Saxon
Oil Conservation Division
1000 W. Broadway
P.O. Box 1980
Hobbs, New Mexico 88240

5 91

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87501

DISCHARGE PLAN APPLICATION FOR BRINE EXTRACTION FACILITIES

(Refer to OCD Guidelines for assistance in completing the application.)

☐ NEW ☒ RENEWAL

I. **FACILITY NAME:** SPC SALINE BRINE NO. 1

II. **OPERATOR:** SCURLOCK PERMIAN CORPORATION

ADDRESS: 333 Clay Street, P.O. Box 4648 Houston, Texas 77210-4648

CONTACT PERSON: Owen H. Mobley **PHONE:** 713/646-4393

III. **LOCATION:** SW/4 SW/4 Section 36 Township 18S Range 37E

Submit large scale topographic map showing exact location.

IV. Attach the name and address of the landowner of the facility site.

V. Attach a description of the types and quantities of fluids at the facility.

VI. Attach a description of all fluid transfer and storage and fluid and solid disposal facilities.

VII. Attach a description of underground facilities (i.e. brine extraction well).

VIII. Attach a contingency plan for reporting and clean-up of spills or releases.

IX. Attach geological/hydrological evidence demonstrating that brine extraction operations will not adversely impact fresh water.

X. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

XI. CERTIFICATION

I hereby certify under penalty of law that I have personnaly examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name: Owen H. Mobley Title: Vice President, Operations

Signature: Owen H Mobley Date: 5-3-94

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office.

A DISCHARGE PLAN

FOR

BRINE EXTRACTION FACILITIES

OF

SCURLOCK PERMIAN CORPORATION

at the Well site known as

SALINE NO. 1

located in

SW/4 Sec 36 T-18S, R-37E

Lea County, N.M

Prepared for compliance with

New Mexico Water Quality Control Regulations

I. NAME OF FACILITY

SPC Saline Brine No. 1

This is a Renewal Application for Discharge Plan #354 which expired 9/15/90.

II. OPERATOR

Scurlock Permian Corporation

ADDRESS: 333 Clay
P.O. Box 4648
Houston, Texas 77210-4648

CONTACT PERSON: Owen Mobley (713) 646-4393

III. LOCATION

SW/4 SW/4 SEC 36, T-18S, R-37E
Lea County, New Mexico
Exhibit "A"
Exhibit "A1"
Exhibit "A2"
Exhibit "B"

IV. LANDOWNERS

Scurlock Permian Corporation
333 Clay
P.O. Box 4648
Houston, Texas 77210-4648

V. TYPE AND QUANTITIES OF FLUIDS STORED OR USED AT THE FACILITY

SOURCE WATER - Fresh water from a well located approximately 800 feet NE of brine well. Exhibits "D" & "E".

BRINE WATER - Fresh water is circulated through the underground rock salt formation section (Salado), salt is leached and returned to surface.

Produced brine and source water will be stored in tanks located in close proximity to the brine well on seven (7) patented acres owned by Scurlock Permian Corporation. Total volume will not exceed 5,000 bbls - 2,000 fresh, 3,000 brine.

Storage containers will be above ground approved fiberglass or welded steel. Individual tank size will not exceed 1,000 barrels each. Brine storage tanks will be inter-connected and enclosed in an earthen ditch (firewall berm) designed to contain a volume one-third more than total brine tank volume.

The average volume of brine produced daily is dependent upon drilling and work-over activity. Given the present level of activity and demand, produced volume is projected to be 400 barrels per day.

VI. TRANSFER, STORAGE AND DISPOSAL OF FLUIDS AND SOLIDS

A. All piping and storage for storage and transfer of fluid will be above ground and of minimal pressures, save the actual salt extraction process. Underground facilities are limited to casing and tubing and is shown schematically on attached Exhibit "C".

1,760 ft. $8^{5/8}$" casing set in cement
2,400 ft. $4\frac{1}{2}$" drill pipe set as casing and cemented
2,560 ft. $2^{1/16}$" production tubing

Fresh water will be pumped under pressure down the annulus between the $4\frac{1}{2}$" and the $2^{1/16}$" tubing into the bedded Salado salt formation. Leaching action saturates the water with salt, enabling brine to be produced up through the $2^{1/16}$" tubing. Average pump pressure for the fresh water line will be approximately 180 psi Average injection rate will be approximately 100 bph.

Water flow will be reversed monthly for up to 24 hours as allowed by current rules to dissolve any particulate buildup in the tubing.

1. Tankage and Chemical Storage Areas - Stored volumes of extracted brine will not exceed 3,000 barrels. The above ground tanks will be either welded steel or fiberglass. The tanks will be interconnected requiring a firewall on berm equal in capacity to one-third more than total volume.

2. Surface Impoundments - There will be no surface impoundments, all fluid will be stored in above ground tanks.

3. Leach Fields - This operation will leach salt from the Salado bedded formation from a depth of 2,400 - 2,560 feet.

4. Solids Disposal - There will be no solids disposal from this operation. All solids will be salt dissolved to form brine. The fluid will be trucked from facility site to various drilling or work-over operation.

B. For each of the transfer/storage/disposal methods listed above:

1. Ground water will be adequately protected by the design of the well, having two strings of pipe set and cemented through the water sands. All other facilities will be above ground allowing actual observation in the unlikely event of a leak.

2. Fresh water samples are obtained from any faucet outlet on the fresh water piping. Brine samples will be collected from a sample cock on the discharge line going into the brine storage tanks. Two types of samples will be taken.

   a. One is for local on site determination of the specific gravity of the produced brine,

   b. The other is for laboratory analysis of the chemical content of the brine. Care must be exercised to assure that no contamination is introduced into the sample container.

C. Off-Site Disposal

There should be no off-site disposal under normal operating conditions.

D. Proposed Modification

1. n/a
2. n/a

E. Underground piping will consist of the actual well bore described in section VI A, and fresh water lines buried to prevent freezing. Should any brine lines require underground installation to accommodate traffic patterns, the lines will be valved so that each section can be tested for mechanical integrity. Those sections which would be subjected to vehicle weight will be cased in steel to prevent damage.

The brine recovery system is designed such that the piping for the brine side of the facility will be operated at very moderate pressure, on the order of less than 50 psi. All brine piping, save the well bore will consist of new or tested material capable of pressures 100% greater than actual working conditions.

The well bore will be tested prior to operating by setting a retrievable bridge plug at 2,400 feet in the 4½" casing and pressure testing to 750 psi to insure structural integrity. This test will be conducted during any workover operation, or at an interval not exceeding five years.

The well will also be tested periodically, at intervals not exceeding one year for operating and formation integrity. Testing procedure will be as follows:

a. During normal operating conditions the brine outlet valve will be closed.

b. Additional pressure will be added until the static pressure reaches 130% of normal operating pressure (approximately 235 psi).

c. The system is then closed in, and utilizing a clock chart, the elevated pressure will be monitored for a period of twenty-four hours or longer and observed for any loss of pressure.

F. Inspection, Maintenance, and Reporting

1. There will be no surface impoundments. Brine storage will consist of welded steel or fiberglass tanks with an earthen firewall (dam) encircling them to serve as a retainer wall should a leak or spill occur. Any leak in the tankage or piping will be detected by the system operator during his inspection.

In the event of a problem, the system will be shut down until repairs have been accomplished.

The Director will be notified within 48 hours of the detection or suspected detection of a leachate excursion. Subsequent reports will be provided as requested by the Director.

Required monitoring reports will be filed quarterly or more frequently as required.

2. Ground Water Monitoring

Ground water would not be the primary method used to detect leakage. When this project was originally put into operation in 1968 by Republic Factors, the source well, located approximately 800 feet northeast was the nearest fresh water. Periodic laboratory tests during the operation of this well indicates that water quality from this well remains unchanged. A 1984 analysis along with the recent analysis is enclosed. See Exhibits "D" & "E".

Since inception of this project, two water wells substantially closer to the brine well have been drilled. An analysis for the closest well is enclosed, as is the log for both wells. Exhibits "F", "F1", and "F2".

Upon beginning brine recover operations, water analysis will continue on a regular basis as recommended by the Director.

3. General Procedures for Containment of Precipitation and Runoff.

Brine surface facilities are provided with an earth firewall encircling them to serve as a retainer wall. As no surface impoundments are to be used or proposed, precipitation and runoff through the area will have no detrimental effect on the surroundings.

Sump barrels will be provided to collect the limited amount of dribble during truck loading procedures. During loading procedures at this facility, potential leakage/spillage will be minimal by use of gasketed transfer connections between tank headers and the truck suction hose. At the end of each loading cycle, a truck mounted pump applies a suction to the header valve, causing brine to be pulled into the truck tank leaving no fluid in the hose.

4. Describe methods used to detect leaks and ensure integrity of above and below ground tanks and piping. Discuss frequency of inspection and procedures to be undertaken if significant leaks are detected.

In-flow volumes into the brine storage tanks will be confirmed by use of either of the following procedures.

a. Beginning and ending gages of the volumes of brine in each tank before and after operation of the injection pump, and adjusted for any volumes taken from the tanks for loading out trucks.

b. Taking the elapsed time of operation of the injection pump and multiplying by the pump rate in volume per hour, again making adjustments for any volumes taken from the tanks for loading onto trucks.

c. Outflow from the brine storage tanks is determined by taking the sum of the volumes loaded onto truck during the accounting period.

Well and formation integrity will be monitored by a comparison of injected volumes of fresh water to the volume of saline extracted (to determine underground losses-if any) accomplished by integration of the data on the pressure recording chart for injection pump operation.

The known pumping rate multiplied by the hours of operation, yields total injected volumes. An arithmetic comparison of these volumes on a bi-weekly basis determines whether or not there is any underground losses.

In the event of a significant leak the OCD will be notified within 24 hours and injection pressures limited to avoid moving contaminants into protected ground water.

5. General Closure Plan

Should it become necessary to abandon this brine production facility, the well will be filled with brine water. The well will be plugged and capped according to plans and specifications recommended by the OCD that fully meet all requirements for protection of groundwater.

All fluid will be removed from the site and transported to an approved disposal well, or tested for contaminants and hauled to an approved disposal site.

Upon removal of all surface equipment, remediation and grading of the facility will be done in a manner reflecting its original condition.

VII. BRINE EXTRACTION WELL(S)

A. Drilling Deepening, or Plug Back Operations

This application is for a well placed into service as a brine extraction well prior to 1968 by Republic Factors, Inc., of Midland, Texas (exact date unknown). The Permian Corporation acquired title in November of 1968 and maintained operation until December 1986 when the well was shut in due to a suspected hole in the $2^{1/16"}$ tubing.

A discharge plan was submitted and approved in 1985 in accordance with rules and regulations in effect at that time. The permit expired in 1990.

B. Workover Operations

We anticipate pulling the $2^{1/16"}$ tubing, pressure testing the $4\frac{1}{2}"$ casing for mechanical integrity, and replacing the $2^{1/16"}$ tubing with newer tubing. No mechanical changes are planned or anticipated.

C. Additional Information Required with Discharge Plan

1. This well was completed as a brine recovery well prior to 1968 by Republic Factors of Midland, Texas. After being permitted by the Permian Corporation in 1985, the facility was operated until 1986 when it was discontinued due to a suspected hole in the tubing.

   The last pressure test was conducted during the third quarter of 1987 when the well held 220 psi for 5 hours (enclosed). Exhibit "H".

2. Based on the last operation of this well, average injection pressure was 175 psi, maximum injection pressure was 175 psi. This well was previously operated in the conventional manner of pumping fresh water down the tubing, and brine water up the annulus.

   We propose to use the reverse method of operation. Fresh water will be pumped down the annulus and bring recovered from the tubing. Our anticipated average pressure is anticipated to be 180 psi with maximum pressure of 200 psi.

3. Mechanical Integrity Testing Program

   Prior to start-up of present operation, we propose to pull the $2^{1/16}$" tubing. Using a work-string, a retrievable brine plug will be set at the bottom of the 4" casing string (2,400 ft). The casing will be tested to 750 psi for structural integrity. This test will be repeated every five years or during any workover operation that requires tubing removal. The open hole pressure test of 250 psi for four hours will be conducted on an annual basis.

4. Analysis of Injected Fluid and Brine

   Enclosed, please find the most recent sample of injection fluid and brine. Upon operation of well, current samples will be provided. Exhibit "G".

   Location and design of site and method of sampling, see Exhibit "I" for schematic.

   Fresh water sampling is from a faucet outlet on the fresh water piping. Brine samples will be collected from a sample cock on the discharge line going into the brine storage tanks.

5. Detecting Underground Losses by Volume Comparison of Fresh to Brine.

Well and formation integrity will be monitored by a comparison of injected volumes of fresh water to the volume of saline extracted by integration of the data on the pressure recording chart for injection pump operation. The known pumping rate multiplied by the hours of operation yields total injected volume.

6. Size of Solution Cavern

There is no log available for the Saline No. 1 brine well. Attached is a log from the Amerada - St. C No. 3 located approximately 4,000′ NE of the brine well in the same section. As indicated, the rustler is identified at 1,630′ to 1,750′. The Salado salt lies directly under the rustler anhydrite and ends well below the limits of the log. This thickness is typical of the Salado in this area. Since ground elevations are almost identical, the $8^{5/8}$" casing has been set at 1,760′ at the bottom of the rustler anhydrite. The 4½" casing is set to 2,400′ in the salt section. The tubing is set at 2,560′, providing 160′ of salt section for solution mining. Exhibit "J".

Records indicate that less than 2.7 million barrels have been produced from this site. Due to the practice of washing brine from the bottom through the tubing and returning the brine through the annulus, a parabolic shaped cavern is formed. The maximum diameter is calculated below.

The formula for volume of a paraboloid:

$v = 2{,}700{,}000 \text{ bbls} \times 5.61 \text{ ft}^3/\text{bbl} = 15{,}147{,}000 \text{ }^3/\text{bbl}$

$v = \pi \times h \times l^2 \div 8$

l is diameter at the base

h is exposed thickness of salt (160 ft)

$$l = [v \times 8 \div (\pi \times h)]^{\frac{1}{2}}$$

$$= [15{,}147{,}000 \times 8 \div (\pi \times 160)]^{\frac{1}{2}}$$

$$= 491 \text{ ft.}$$

Since the early 1950's, storage for high vapor pressure hydrocarbons has been created in West Texas and New Mexico by washing caverns in salt sections. Since then, numerous brine supply sites have been developed. Consequently, well over one hundred caverns currently exist, varying in size from 30,000 to several million barrels capacity. To date, no subsidence has occurred from a cavern as limited and as deep as our project.

VIII. CONTINGENCY PLAN

A. Prevention

During truck loading operations at this facility, potential leakage/spillage is minimized by use of on-truck loading pumps and gasketed transfer connections between tank headers and the truck suction hose. At the end of each loading cycle, the truck mounted pump applies a suction to the header valves, causing brine to be pulled into the truck tank, leaving very little moisture to collect in the sump barrels placed beneath the loading header valves.

Any leak in the tankage or piping will be detected by our system operator who will shut down the system until repairs have been made.

Loss of mechanical integrity of system will result in the system being shut down until repairs or corrective action has been completed.

Operating the system at minimum pressures will reduce the severity of any possible damage that could result from system failure. Ground water will be routinely analyzed to determine water gravity and insure that the water is protected from contamination by the brine production process.

B. Containment and Cleanup

Brine storage tanks will be encircled with an earthen firewall to serve as a retainer should a spill or leak occur. The firewall will be of a capacity equal to 1/3 more volume than total brine tankage.

Should a spill occur, surface material that is contaminated will be disposed of by remediation or tested for contaminates and hauled to an approved disposal site.

Sumps will be installed under the loading headers to collect any fluid that might collect during truck loading operations.

C. Notification

In the event of a major spill, the district OCD in Hobbs will be notified immediately by the systems operator stationed in Hobbs. Minor spills will be reported to the OCD in writing within 10 days.

IX. SITE CHARACTERISTICS

1. The Saline No. 1 brine facility is located in an area with very little elevation definition. Drainage patterns are shallow and not of the deep arroyo type.

The nearest surface water is located approximately 3,000 feet southeast of the Saline No. 1, on property owned by the Hobbs Country Club. Several intermittent watercourses as part of the golf course. Brine volumes available at the Saline No. 1 are insufficient to reach the watercourse given the rainfall pattern and topography of this area.

2. Ground Water

The water well furnishing water for this operation is approximately 800 feet northeast of the Saline No. 1 brine well. Both are located on the USGS sketch. The water well elevation is shown to be 3,651 feet while the brine well lies on the 3,650 contour. The water well was drilled to a depth of 127 feet in 1951. No log is available.

Static water level, last measured in 1951 was 65 feet from surface. A 5 hp submersible pump serves the well from 90 feet. Samples of water analysis Exhibits "D" & "E" are attached.

Two wells in close proximity to our project have been drilled in recent years. General information and logs are attached. A water analysis from Pool's well is also included. Exhibits "F", "F1" & "F2".

Logs and other general information was obtained from the State Engineers office in Roswell, New Mexico.

3. Hydrology

Underground aquifers in this area are the ogallala and quaternary alluvium deposits. The ground water in these formations is unconfined where the underlying red beds are relatively impermeable. They form a lower confining layer, which prevents further downward movement.

From piezometric maps, and the reported water levels in this area, 40 to 60 feet below ground surfaces, all water wells are producing from the ogallala or quaternary.

4. Topography - Flood Potential

   a. Due to relatively small amount of precipitation in this area and the very shallow drainage patterns, this area is not subject to flooding or dramatic run-off events. See Exhibit "A".

5. Geology

   The Saline No. 1 brine well is located on the Central Basin Platform of the Permian Basin area of West Texas and Eastern New Mexico. See Exhibit "K".

   The sub-surface formations are in a transitional area between the Delaware Basin's back reef or shelf area and the Platform.

   The brine production is from the Salado formation of the Ochoa series. This series is of upper Permian Age, and extends across the Delaware Basin, Central Basin Platform, thins and pinches out on the Eastern shelf. This series is predominately evaporates; successive layers of anhydrite, halite, polyhalite, and to the west, in the Carlsbad area, varying thicknesses of the potash rich sylvanite and langbeinite. The evaporates contain stringers of dolomite, shale, siltstone, and sandstone.

   These evaporates were formed during recurrent retreats of shallow seas. The lowermost formation is the Castile and is chiefly anhydrite but contains some halite beds. It rests unconformably on the Delaware mountain group in the Delaware Basin, but does not extend beyond the basin margin. Overlying the Castile is the Salado, which ranges in thickness from 0 to 2,000 feet. In the back-reef and platform areas it rests unconformably on the Whitehorse group. This formation is mainly halite containing some anhydrite. The Rustler formation overlies the Salado, and varies in thickness from 90 to 360 feet, and consists chiefly of anhydrite, but includes red beds (shale) and salt.

   The Triassic rocks, overlying the Permian formation is the Dockem group, and is divisible into the Santa Rosa sandstone and the Chinle formation. The Santa Rosa is a fine to coarse grained sandstone and ranges in thickness from 140 to 300 feet. The Chinle is dominantly red and green claystone and contains minor stringers of fine-grained sandstone and siltstone.

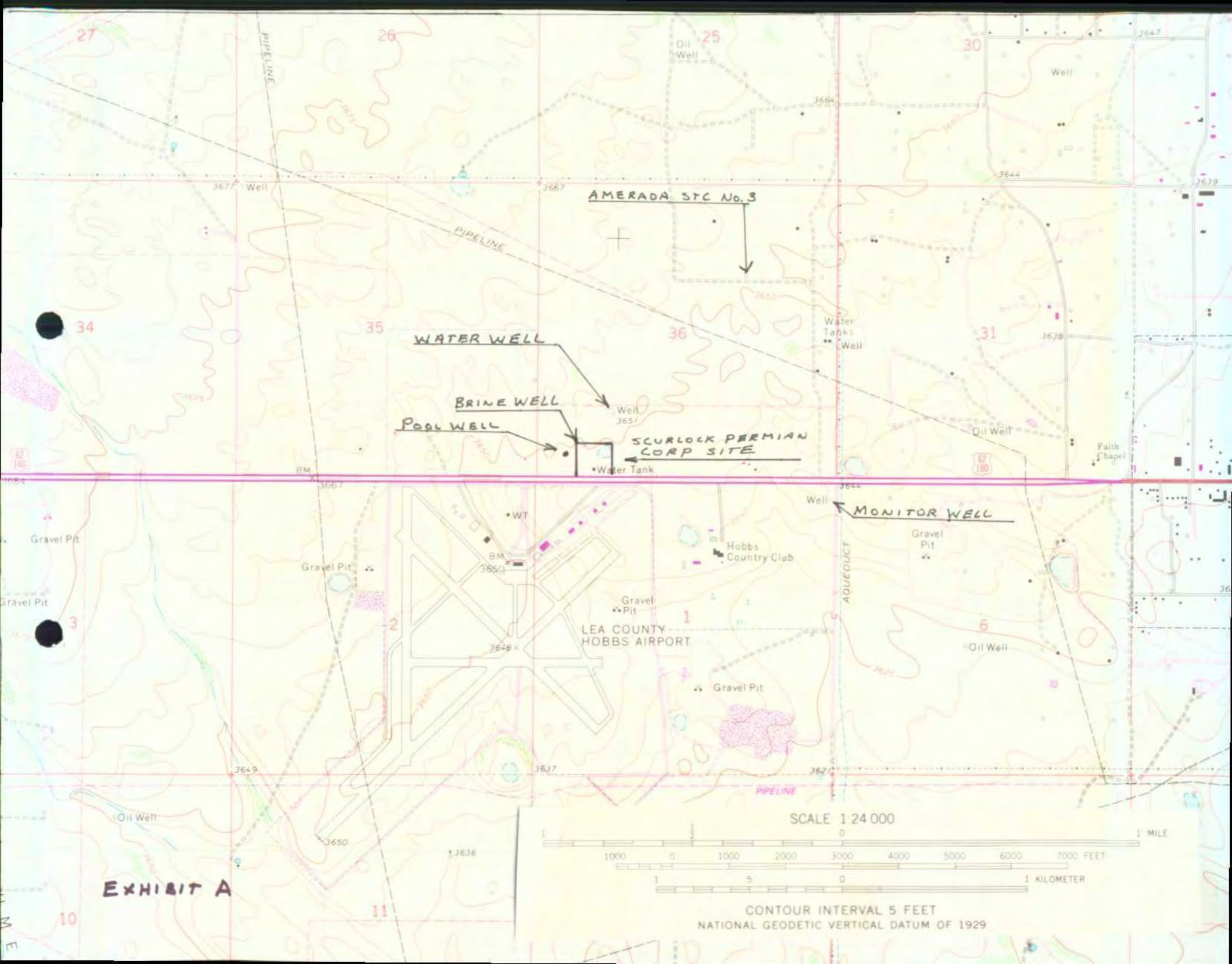
   The Triassic and Cretaceous rocks are absent in this area. Although the Cretaceous was present initially, it has extensively eroded and only exposed as blocks of limestone in widely isolated areas.

The Tertiary rocks are represented by the Ogallala formation. This formation ranges in thickness from 0 to 300 feet. It is chiefly a calcareous, unconsolidated sand, but contains clay, silt, and gravel. This formation covers the surface of this area of Central Lea County, trending northwest from the Hobbs area, forming the locally named "Caprock" and identified on geological maps a Mescalero Ridge. This ridge forms a vertical dip of 100' to 150' from the Llano Estacado to the northeast, to the Querecho Plans to the southwest.

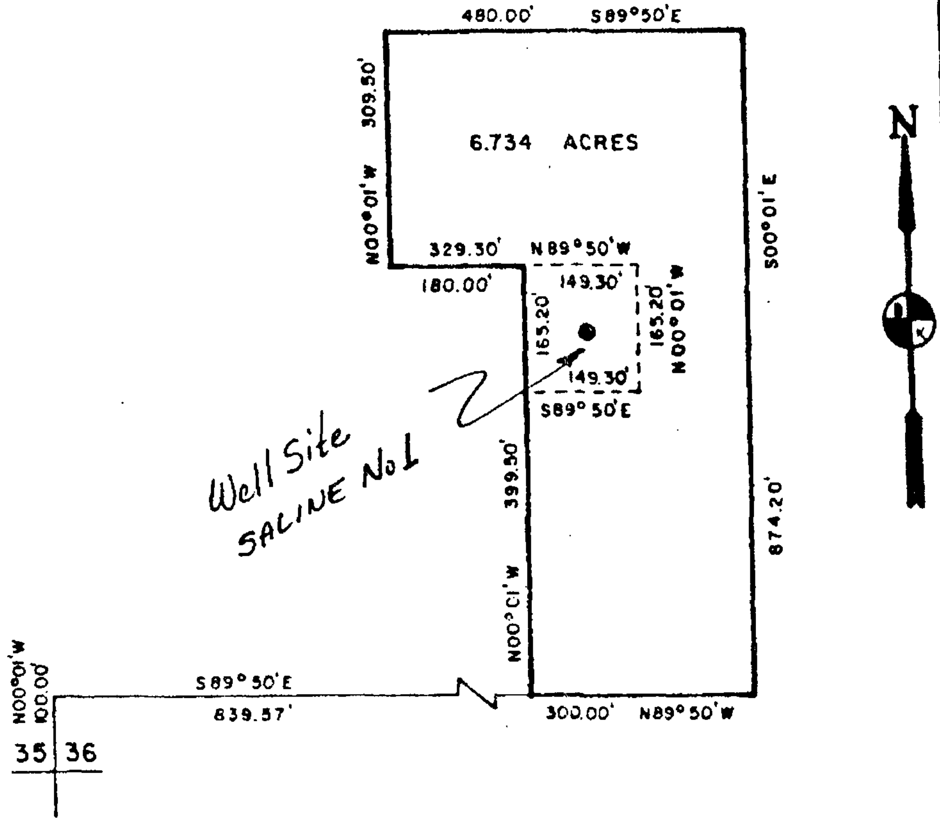
The Quaternary sediments in this area are in the form of alluvial deposits and dune sands. The alluvium was deposited in topographically low areas where the Ogallala formation had been stripped away. The dune sands mantle the older alluvium and Ogallala in this area.

EXHIBIT INDEX

A	Topographic Map
A1	Plat of Survey
A2	Abstract
B	Ownership Map
C	Wellbore Schematic
D	Analysis from Source Water 1984
E	Analysis from Source Water 1994
F	Well Record and Log - Pool Well Services
F1	Analysis of Pool Well Servicing Water
F2	Well Record and Log, Acid Engineering
G	Water Analysis, Saline No. 1 - 1984
H	Monitoring and Reporting Form
H1	Chart of 3rd Quarter Test 1987
I	Schematic of Facility
J	Adjacent Oil Well Log, State "C" No. 3
K	Structural Features Map


AMERADA STC No. 3
WATER WELL
BRINE WELL
POOL WELL
SCURLOCK PERMIAN CORP SITE
MONITOR WELL
LEA COUNTY HOBBS AIRPORT
Hobbs Country Club
Water Tanks
Water Tank
Oil Well
Gravel Pit
Well
PIPELINE
AQUEDUCT
Faith Chapel
BM
WT
SCALE 1:24 000
1 MILE
7000 FEET
1 KILOMETER
CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
EXHIBIT A

PLAT OF SURVEY



DESCRIPTION

A tract of land situated in the Southwest Quarter of the Southwest Quarter (SW¼ SW¼) of Section 36, Township 18 South, Range 37 East, N.M.P.M., Lea County, New Mexico, being further described as follows:
Beginning at a point which lies N00° 01'W 100.00 feet and S89° 50'E 839.57 feet from the Southwest Section Corner of said Section 36; thence, N00° 01'W 399.50 feet; thence, S89° 50'E 149.30 feet; thence, N00° 01'W 165.20 feet; thence, N89° 50'W 329.30 feet; thence, N00° 01'W 309.50 feet; thence, S89° 50'E 480.00 feet; thence, S00° 01'E 874.20 feet; thence, N89° 50'W 300.00 feet to the point of beginning, containing 6.734 acres, more or less.

EXHIBIT "A-1"

I HEREBY CERTIFY THAT I AM THE REGISTERED LAND SURVEYOR WHO PREPARED THE ABOVE PLAT FROM FIELD NOTES OF ACTUAL SURVEYS MADE UNDER MY DIRECTION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF

KEN MARSH
A tract of land situated in the SW¼ SW¼ of Section 36, Township 18 South, Range 37 East, N.M.P.M., Lea County, New Mexico.
BROWN & KING ENGINEERING & SURVEYING, INC. 3515 INDUSTRIAL DRIVE — LOVINGTON HIGHWAY HOBBS, N. M. 88240

SCALE 1" = 200'	DRAWN BY: Moudie W.
DATE NOV. 11, 1981	SHEET 1 OF 1

Neal D. King
New Mexico R.L.S. No 6541
Texas R.P.S. No 02500

NEAL D. KING
NEW MEXICO
6541
REGISTERED LAND SURVEYOR

Compliments of

BOOK 396 PAGE 569

ELLIOTT & WALDRON ABSTRACT

PHONE 393-7706
P. O. BOX 295
HOBBS, NEW MEXICO 88240

PHONE 396-3481
P. O. BOX 817
LOVINGTON, NEW MEXICO 88260

1 vara—33⅓ inches.
1900 8/10 varas 1 mile.
5645 square varas—1 acre.
4840 square yards or 43,560 square feet—1 acre.
1,000,000 square varas—1 labor or 177 1/10 acres.
25,000,000 square varas—1 league or 4428 acres.
7.92 inches—1 link.
1 rod—5½ yards, or 16½ feet, or 5.94 varas.
320 rods—1 mile.
100 links—1 chain, or 66 feet, or 23.76 varas.

80 chains, 5280 feet, 1760 yards—1 mile.
To reduce yards to varas multiply by 1.08.
To reduce varas to yards, divide by 1.08.
To reduce feet to varas, multiply by 36 and point off two decimals.
To reduce varas to feet, multiply by 100 and divide by 36.

1 Square Rod—272¼ Square Feet
1 Acre—43,560 Square Feet
1 Acre—160 Square Rods
1 Acre is about 208¾ Feet Square
1 Acre is 8 Rods x 20 Rods (or any two numbers of rods whose product is 160.)

SCALE FOR SECTION, 660 Ft. - 1 Inch. { Each side large squares 20 chains, 80 rods, 1320 feet; area of square 40 acres
Each side small squares 5 chains, 20 rods, 330 feet, area of square 2½ acres

N

STATE OF NEW MEXICO
COUNTY OF LEA
FILED

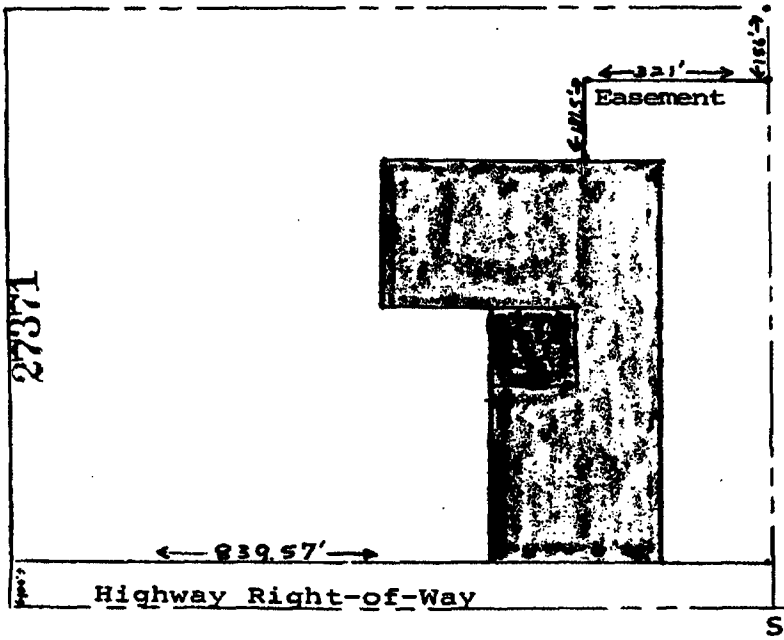
MAY 7 1982

at 10:50 o'clock A M
and recorded in Book 396
Page 564
Pat Snipes, County Clerk
By MH Deputy

EXHIBIT "A 2"

THE SOUTHWEST QUARTER (SW/4) OF SECTION 36, Township 18 South, Range 37 East, N.M.P.M., Lea County, New Mexico

W



M & M RENTAL TOOL, INC
THE PERMIAN CORP. (OLD
THE PERMIAN CORP. (NEW

S

SCALE FOR QUARTER SECTION, 330 Ft. - 1 Inch. { Each side large squares = 10 chains, 40 rods, 660 feet; area of square 10 acres.
Each side small squares = 2½ chains, 10 rods, 165 feet; area of square .625 of 1 acre.

PRONTO LAND MEASURE 660 - 330 MAP SHEET PRONTO LAND MEASURE

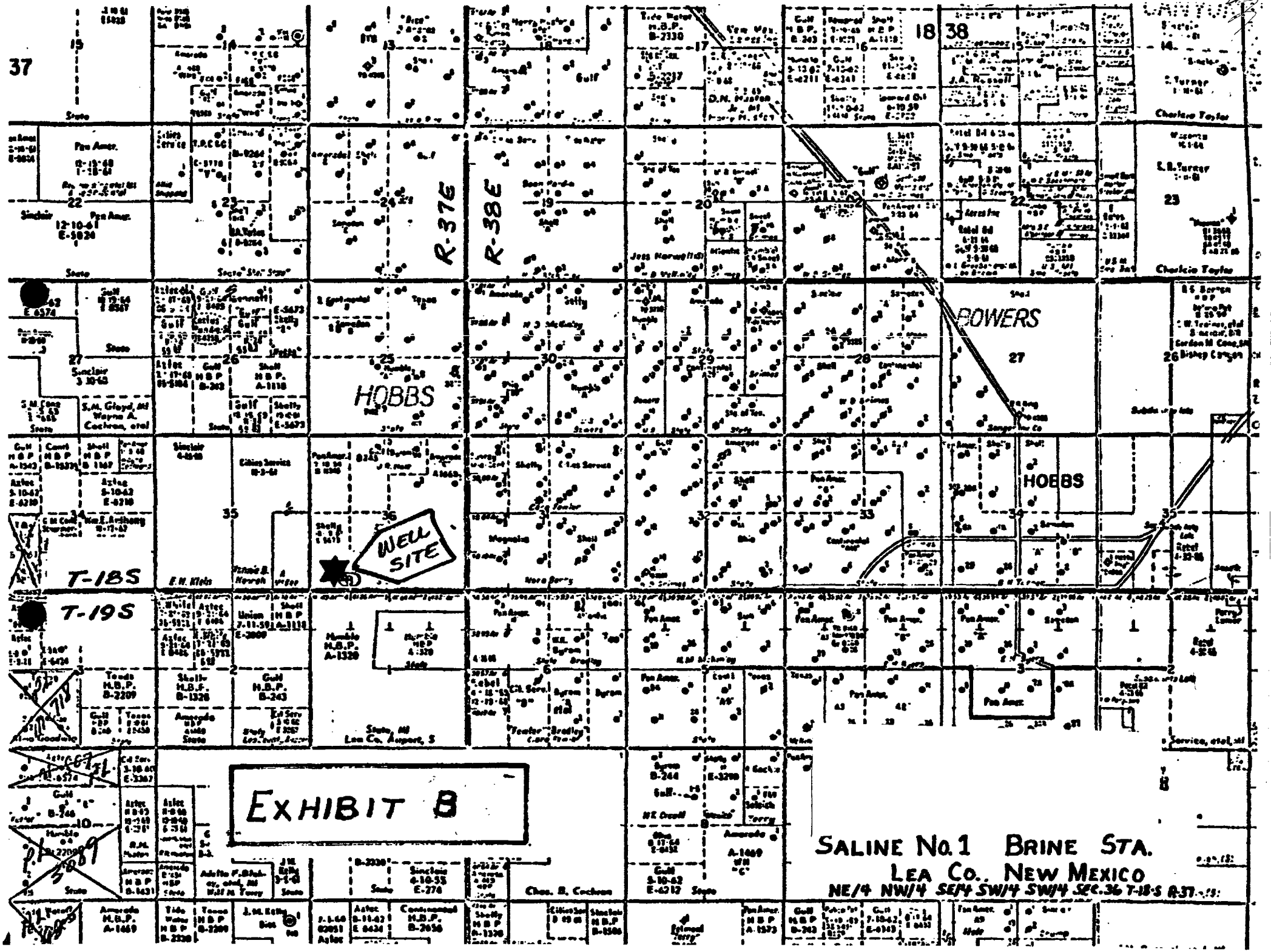
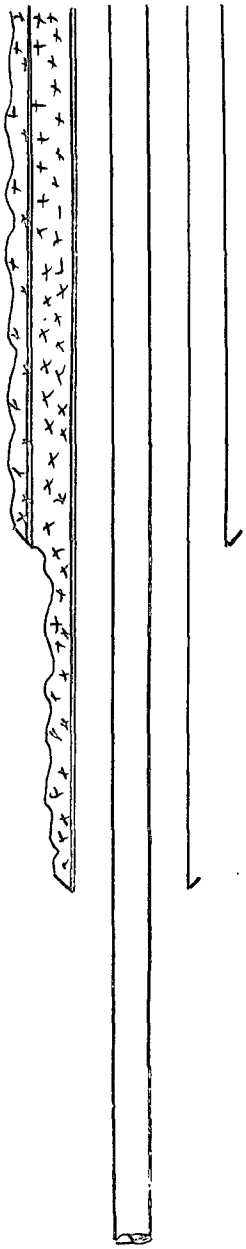


EXHIBIT B
WELL SITE
HOBBS
POWERS
R-37E
R-38E
T-18S
T-19S
SALINE No. 1 BRINE STA.
LEA CO., NEW MEXICO
NE/4 NW/4 SE/4 SW/4 SW/4 SEC. 36 T-18-S R-37-E

ASHLAND PIPE LINE COMPANY ENGINEERING DEPARTMENT			SHEET AFE
SUBJECT SCURLOCK PERMIAN CORP SALINE No 1 SW/4 SW/4 SEC 36 T, 18S R, 37E			DISTRICT DRAWING
BY S. ROGERS	CHECKED BY	APPROVED BY	DATE 29 APRIL 94

0427-6 (02/91)

GROUND ELEVATION 3650 Ft.



1760 ft. 8 5/8" - CEMENT TO SURFACE

2400 ft. 4 1/2" DRILL PIPE SET AS CASING. CEMENT TO SURFACE

2 1/16" TUBING

2560 Ft.

NO SCALE

EXHIBIT C.

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 68476
TO: Mr. Owen Mobley
P.O. Box 3119, Midland, Texas
SAMPLE RECEIVED 6-8-84
RESULTS REPORTED 6-12-84

COMPANY The Permian Corporation LEASE Saline #1
FIELD OR POOL
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Raw water - taken from water well. 6-7-84
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0015			
pH When Sampled				
pH When Received	7.34			
Bicarbonate as HCO_3	215			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	204			
Calcium as Ca	66			
Magnesium as Mg	9			
Sodium and/or Potassium	41			
Sulfate as SO_4	64			
Chloride as Cl	36			
Iron as Fe	0.86			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	430			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	19.50			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

RECD. ENG.
JUN 1 3 19..

Form No. 3

By Waylan C. Martin, M.A.

TPC-HOUSTON

EXHIBIT "O"

Laboratory Services, Inc.
1331 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

WATER ANALYSIS

COMPANY Scurlock Permian Corp.

SAMPLE: Selean - Source WATER.
SAMPLED BY Dennis Shearer-Scurlock Permian Corp.

DATE TAKEN 05-02-94
REMARKS

Barium as Ba	25.00	
Carbonate alkalinity PPM	8.00	
Bicarbonate alkalinity PPM	204.00	
pH at Lab	7.01	
Specific Gravity @ 60° F	1.010	
Magnesium as Mg	145	
Total Hardness as CaCO3	250	
Chlorides as Cl	64	
Sulfate as SO4	35.00	
Iron as Fe	0.00	
Potassium	0.02	
Hydrogen Sulfide	0.00	
Resistivity Ohms	0.6000 MMHOS	22.00
Total Dissolved Solids	310	
Calcium as CO3 Gm/L	7.59	
Calcium as Ca	105	
Nitrate	2.00	

Results reported as Parts per Million unless stated

Langelier Saturation Index -0.69

Analysis by Rolland Perry
Date: 05-03-94

EXHIBIT
E.

FAX 210 620 1592

Revised June 1972

EXHIBIT F

STATE ENGINEER OFFICE
WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well Pool Well Servicing Owner's Well No. _____

Street or Post Office Address Carlsbad Hwy.

City and State Hobbs, NM 88240

Well was drilled under Permit No. L-9635 and is located in the:

a. _____ ¼ _____ ¼ SW ¼ SW ¼ of Section 36 Township 18S Range 37E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ Lea County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Larry's Drilling License No. WD882

Address 2601 W. Bender, Hobbs, NM 88240

Drilling Began 3-5-85 Completed 3-5-85 Type tools tricone Size of hole 83/4 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 130 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 40 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
50	130	80	sand & sandstone	30

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5 1/2	160PVC		-1	130	131		110	130

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by: _____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received March 15, 1985

Quad _____ FWL _____ FSL _____

File No. L-9635 Use D & S Location No. 18.37.36.33433

18.37.36.33433

P.2

APR 28 '94 07:20AM SPC HOBBS NM

505 392 6988

EXHIBIT F

Pool Well Service

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	2	2	fill
2	4	2	topsoil
4	16	12	soft caliche
16	21	5	hard caliche
21	26	5	sand
26	34	8	caliche
34	40	6	sand, layers of white rock
40	65	25	sand
65	70	5	sandstone
70	130	60	sand, thin layers of sandstone

Section 7. REMARKS AND ADDITIONAL INFORMATION

MAR 15 8 24 AM '85

STATE ENGINEER
ROSWELL, NM

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Larry Larkins
Driller

INSTRUCTIONS: This fo[illegible]uld be executed in triplicate, preferably typewritten, and submitt[illegible]e appropriate district office of the State Engineer. All [illegible]ns, except Section 5, shall be answered as completely and accu[illegible] as possible when any well is drilled, repaired or deepened; [illegible]hen this form is used as a plugging record, only Section 1(a) and Sectic[illegible]5 need be completed.

P.3

APR 28 '94 07:20AM SPC HOBBS NM

505 392 6988

Laboratory Services, Inc.
1331 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

WATER ANALYSIS

COMPANY Sonrlock Permian Corp.

SAMPLE Pool
SAMPLED BY Dennis Shearer- Sonrlock Permian

DATE TAKEN 05-02-94
REMARKS

Barium as Ba	15.00		
Carbonate alkalinity PPM	0.00		
Bicarbonate alkalinity PPM	198.00		
pH at Lab	6.88		
Specific Gravity @ 60° F	1.020		
Magnesium as Mg	48		
Total Hardness as CaCO3	82		
Chlorides as Cl	44		
Sulfate as SO4	60.00		
Iron as Fe	0.15		
Potassium	0.02		
Hydrogen Sulfide	0.00		
Resistivity Ohms	0.4900	MMHOS	22.50
Total Dissolved Solids	240		
Carbonate as CO3 Gm/L	0.00		
Calcium as Ca	34		
Nitrate	0.00		

Results reported as Parts per Million unless stated

Larsonier Saturation Index -1.32

Analysis by Rolland Perry
Date: 05-03-94

EXHIBIT F1

FIELD ENGR. LOG
505-393-1377

EXHIBIT 4 F2 VI

STATE ENGINEER OFFICE
WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well ACID ENGINEERING INC Owner's Well No. _____
Street or Post Office Address BOX 370 STAR RTA
City and State Hobbs, N. Mex 88240

Well was drilled under Permit No. L-8476 and is located in the:

a. _____ ¼ SW ¼ SE ¼ SW ¼ of Section 36 Township 18-S Range 37-E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor C. M. GRIFFIN License No. WD 603
Address 201 W AITO Hobbs, N M 88240

Drilling Began 7-17-81 Completed 7-20-81 Type tools Spudder Size of hole 10 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 120 ft.

Completed well is ☑ shallow ☐ artesian. Depth to water upon completion of well 46 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
46	120	74	Red Sand	100

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
6 5/8			0	120	120	None	100	120

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
46	120	10	3		Gel w/water

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by: _____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received July 24, 1981
Quad _____ FWL _____ FSL _____
File No. L-8476 Use DTC Location No. 18.37.36.34324

P.4

APR 28 '94 07:21AM SPC HOBBS NM
505 392 6988

ACID ENG INC

EXHIBIT "F2"

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	1	1	Top Soil
1	44	43	White Rock
43	46	3	Hard Red Rock
46	120	74	Red Sand w/Rock Stringers

Section 7. REMARKS AND ADDITIONAL INFORMATION

STATE ENGINEER
ROSWELL, NM
JUL 24 8 42 AM '81

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

C M Griffin
Driller

INSTRUCTIONS: This f[orm] should be executed in triplicate, preferably typewritten, and submitted [to t]he appropriate district office of the State Engineer. [All se]ctions, except Section 5, shall be answered as completely and accura[tely] as possible when any well is drilled, repaired or deepene[d. W]hen this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

SwL SOUTHWESTERN LABORATORIES

Materials, environmental and geotechnical engineering, nondestructive, metallurgical and analytical services

1703 W. Industrial Avenue (915 - 683-3348) • P.O. Box 2150 • Midland, Texas 79701

Client No. 3320202
File No. C-1902-W

Report No. 35752

Report Date 8-21-84

Report of tests on: Water

Date Received 8-16-84

Client: The Permian Corporation

Identification: Hobbs, New Mexico, Brine Well, Saline No 1.

	mg/L
Calcium	124
Magnesium	65
Sodium & Potassium (Calc.)	5451
Carbonate	None
Bicarbonate	204
Sulfate	256
Chloride	8510
Total Dissolved Solids (Calc.)	14508
Hardness, as $CaCO_3$	576
pH	7.61

EXHIBIT G

Technician: KLH

Copies 3cc The Permian Corporation
Attn: George Wood

SOUTHWESTERN LABORATORIES
Jack H Barton

EXHIBIT H

MONITORING AND REPORTING FORM

ALL BLANKS MUST BE COMPLETED.

DISCHARGE PLAN NUMBER: 354

ORIGINAL DP: _____
RENEWAL: _____
MODIFICATION: _____
DATE RECEIVED: _____

SIC NUMBER: _____

NAME OF FACILITY: THE PERMIAN CORPORATION SALINE NO. 1 BRINE STATION

ADDRESS OF FACILITY: ON EAST-WEST HIGHWAY ACROSS FROM HOBBS AIRPORT

ALTERNATE OR PAST NAME OF FACILITY: _____

CITY OR CLOSEST TOWN: HOBBS USGS QUAD: HOBBS WEST T-39

COUNTY: LEA TWP: 18S RGE: 37E SEC: 36

CONTACT PERSON: MOBLEY (LAST NAME), OWEN (FIRST NAME) TITLE: DIV. MANAGER

ADDRESS OF CONTACT PERSON: P.O. BOX 3119
MIDLAND, TEXAS 79701

TELEPHONE: 915/683-4711

TYPE OF FACILITY: BRINE MANUFACTURE AND BRINE & FRESH WATER SALES

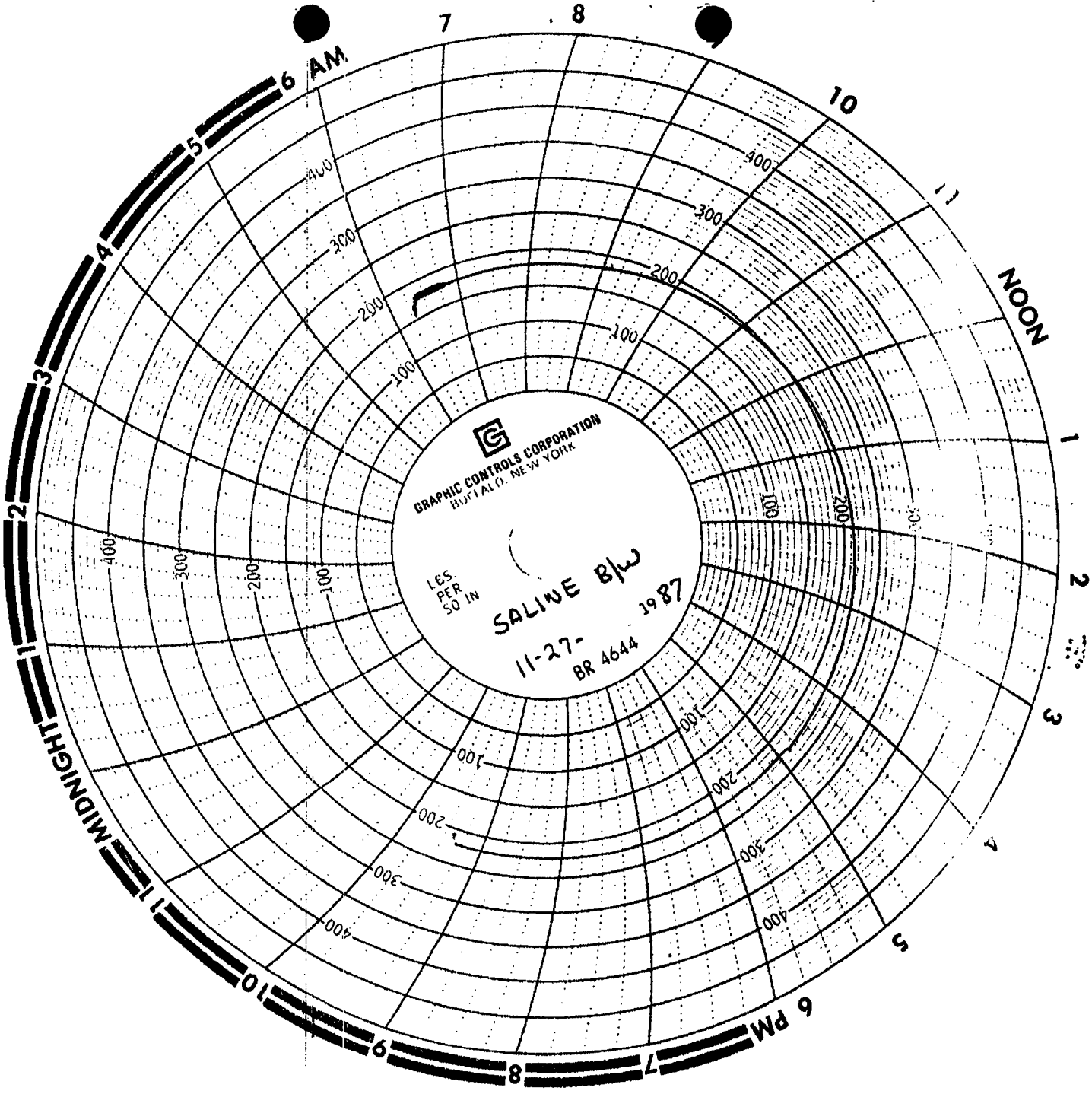
MEANS OF DISCHARGE (LAGOON, LEACH FIELD, OTHER -SPECIFY): injection well; above-ground storage in steel tanks.

REVIEWER: (CURRENT) MORGAN (LAST NAME), PAIGE (FIRST NAME)

DATE APPROVED: 9/15/85 DATE OF EXPIRATION: 9/15/90

MONITORING REQ: (COMMENT, IF NECESSARY, ON BACK)

SAMPLING SITE OR ID	VOLUME/PRESSURE	PARAMETER(S)	DATE DUE
brine well	6323 BBL'S	QUARTERLY VOLUME BRINE SALES	March 31, June 30, Sept. 30, Dec. 31
" "	NORMAL WORKING PRESSURE 175	PRESSURE TEST	11-22-87
	SHUT IN 5 hours AT. 220	3rd QUARTER REPORT.	JULY AUG, SEPT. 1987


6 AM
7
8
9
10
11
NOON
1
2
3
4
5
6 PM
7
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9
10
11
MIDNIGHT
1
2
3
4
5
6
100
200
300
400
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
LBS PER SQ IN
SALINE B/W
11-27-
1987
BR 4644

H1

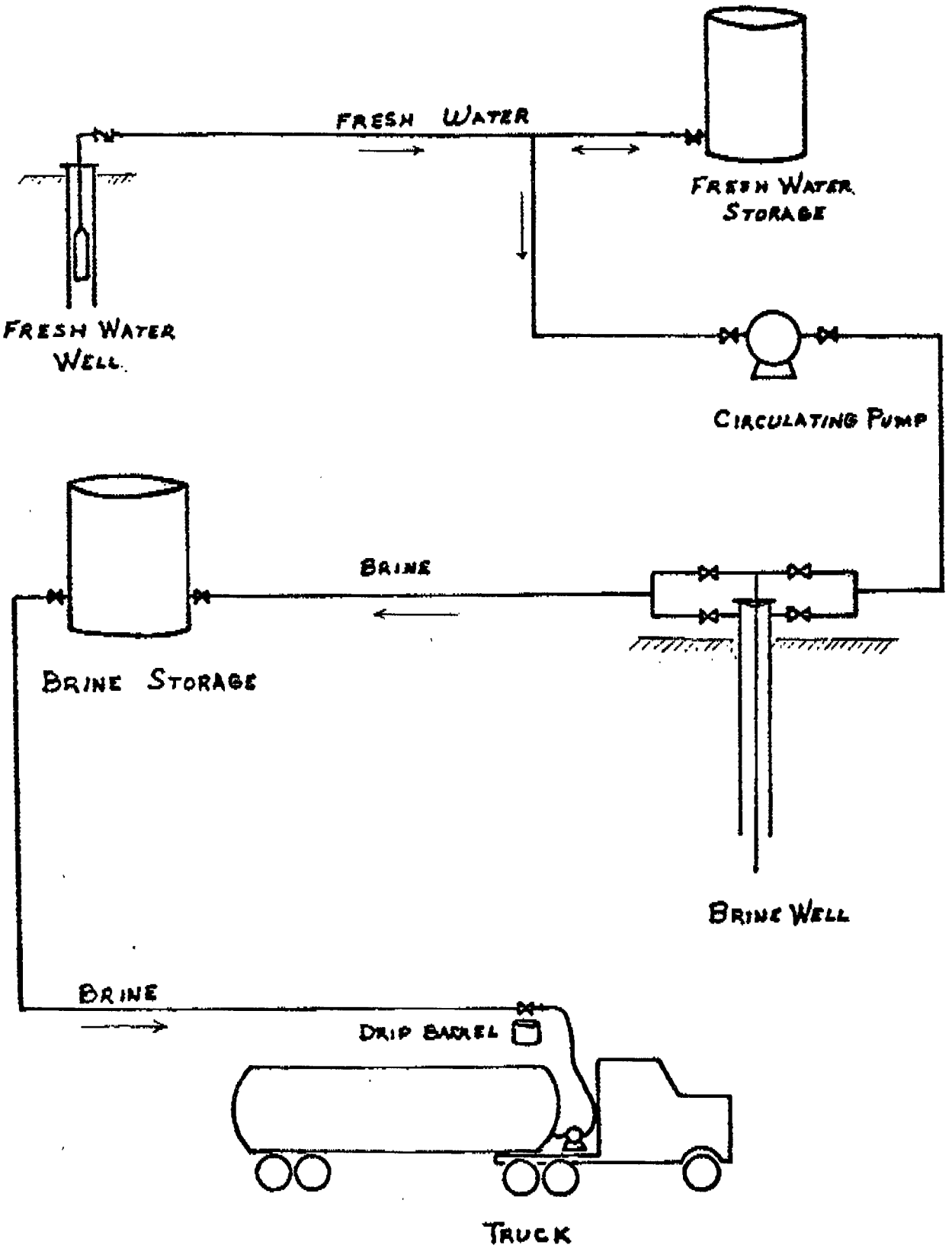


EXHIBIT I

SCURLOCK PERMIAN CORP.

SCHEMATIC BRINE EXTRACTION FACILI
SALINE No. 1

LEA COUNTY, NEW MEXICO

EXHIBIT J

LANE WELLS COMPANY

CALIPER LOG AND DENSILOG

COMPANY: AMERADA PETROLEUM CORP. | WELL: STATE "O" NO. 3 | FIELD: HOBBS | LOCATION: | COUNTY: LEA | STATE: NEW MEXICO

COMPANY:	AMERADA PETROLEUM CORP.
WELL:	STATE "O" NO. 3
FIELD:	HOBBS
LOCATION:	1650 FN & XL SEC. 36, T-18-S, R-37-E
COUNTY:	LEA
STATE:	N.M.

Well Location

LOG ZERO	ROTARY TABLE	ELEV.	3663
DRLG. ZERO	ROTARY TABLE	ELEV.	3663
PERM. DATUM	GROUND LEVEL	ELEV.	3652.[illegible]

TYPE OF LOG	DENSILOG	CALIPER		
RUN NO.	1-H.W.	1-H.W.		
DATE	10-20-56	10-21-56		
TOTAL DEPTH (DRILLER/STRAP)	4286	4286		
EFFECTIVE DEPTH (DRILLER)	4286	4286		
TOP OF LOGGED INTERVAL	SURF.	SURF.		
BOTTOM OF LOGGED INTERVAL	4285	4287		
TYPE OF FLUID IN HOLE	MUD	MUD		
FLUID LEVEL	FULL	FULL		
MAXIMUM RECORDED TEMP.				
SOURCE STRENGTH & TYPE	[illegible]			
SOURCE SPACING — IN.	7			
LENGTH OF MEAS. DEVICE — IN.	7	12		
O.D. OF INSTRUMENT — IN.	3 5/8	1 7/8		
TIME CONSTANT — SECONDS	3			
LOGGING SPEED FT./MIN.	25-30	60		
STATISTICAL VARIATION — IN.	[illegible]			
SENSITIVITY REFERENCE	275			
DETECTOR CLASS	G-COUNTER			
DETECTOR TYPE	PTO 3			
RECORDED BY	AMALONG	AMALONG		
WITNESSED BY	MAULDIN	MAULDIN		

WELL RECORD

RUN	BIT SIZE	CASING	WT.—LB.	FROM WELL RECORD		FROM LOG	
0	12	8 5/8		SURF.	TO 374	SURF.	TO 370
1	8 3/4	9.5		374	TO 4286	370	TO 4282
					TO		TO
					TO		TO
					TO		TO

REFERENCE W 6397F ELSI

9 COMPLETION RECORD

SPUD DATE

COMP DATE

DST RECORD

API NO.

CASING RECORD

PERFORATING RECORD

ACID, FRAC SHOT

I P

GOR GR

T P C P

REMARKS:

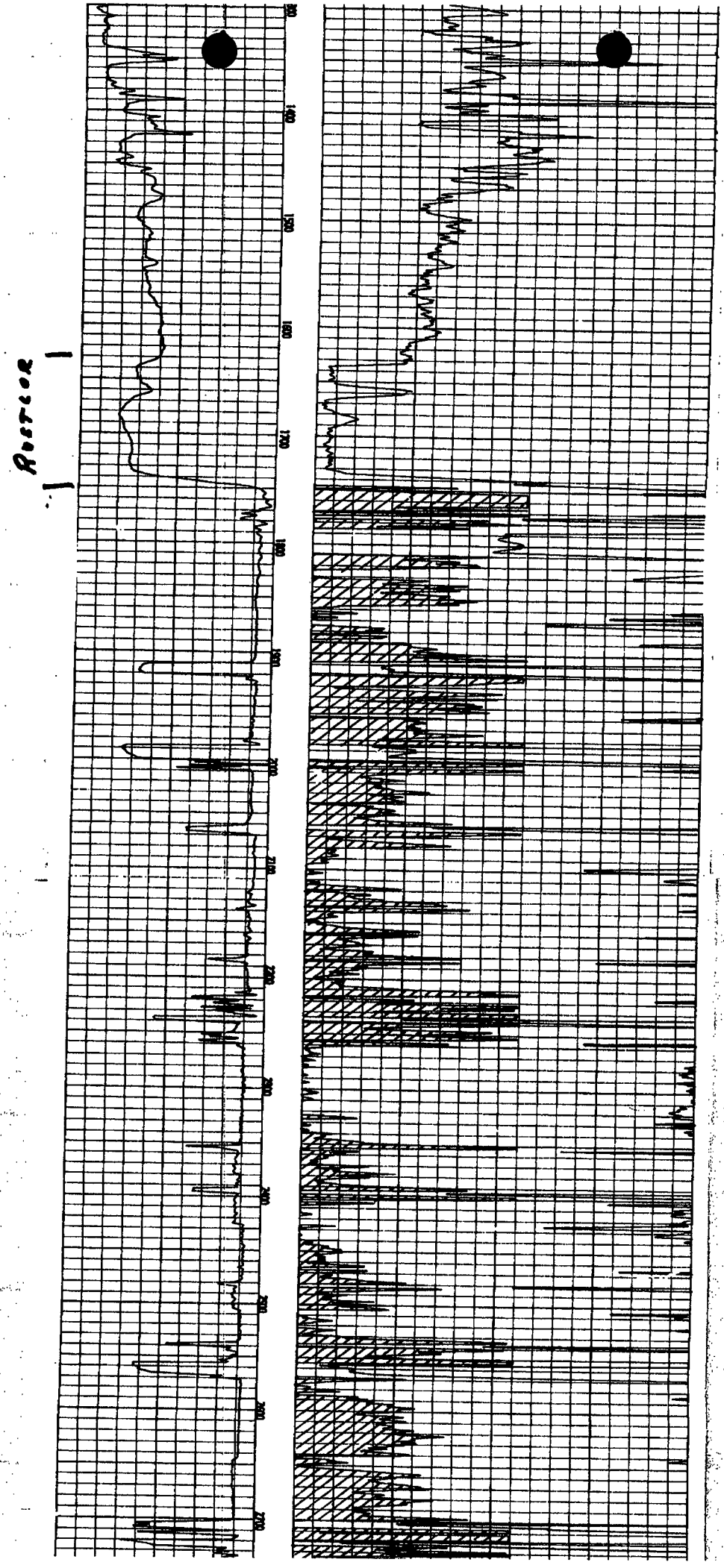
REMARKS OR OTHER DATA

CALIPER	DEPTH	DENSITY
DIAMETER INCREASES →		DECREASES → RADIATION INTENSITY INCREASES

6 7 8 9 10 11 12 13 14 15 16 300

35

EXHIBIT J



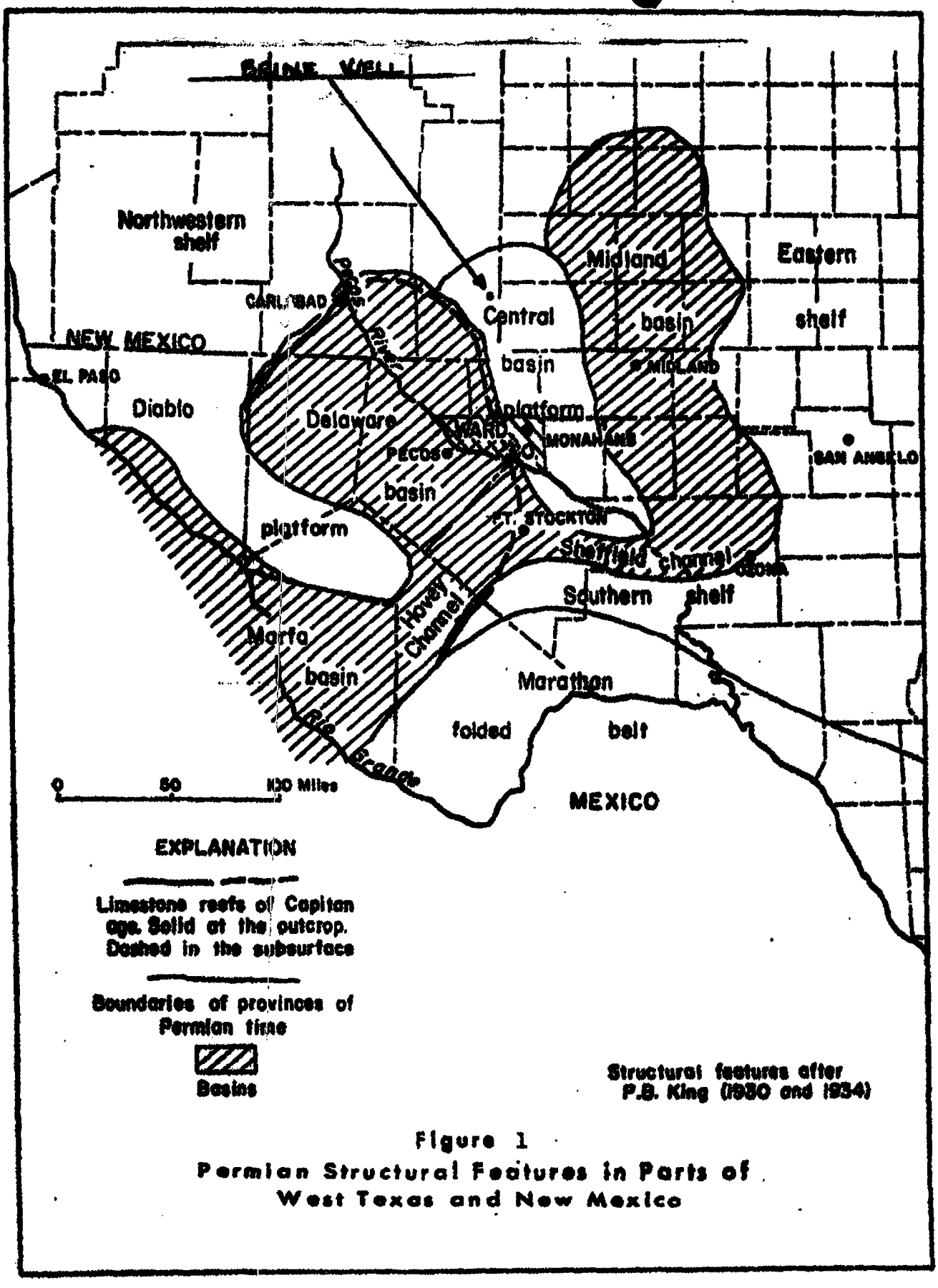


Figure 1

Permian Structural Features in Parts of West Texas and New Mexico

EXHIBIT K

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

[X] Telephone [ ] Personal	Time	Date
	12:00	3/19/92

Originating Party	Other Parties
K.M. Brown OCD	Keith Bracewell Sarluck/Permian Corp.

Subject: Status of T/A Brine Facility - Hobbs, NM
Saline #1 Brine Station

Discussion: Need an MIT chart from 1991 open-hole MIT. Keith said he'd check on it. Told him if they plan to keep the well T/A'd then they'll need an annual open-hole MIT and need to keep a non-corrosive fluid in the well bore. Also, if plan to P/A it need to get it done soon & send copy of the plugging records.

Conclusions or Agreements

Distribution

Signed Kathy Brown

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time ~ 9:00 AM.	Date 9-10-91

Originating Party	Other Parties
K. Brown - OCD	Larry Evans 1-915-686-1777

Subject: Status of Brine well location
Scurlock/Permian Hobbs No. 1
BW-12 (OP-354)

Discussion: Larry said that they plan to reactivate their brine well as soon as the AFE is approved. However, because of the change in ownership (The Permian Corp. → Scurlock/Permian) the AFE's are presently on hold. They did have the well open-hole MIT'ed within the last 6 months. Held about 500 psi for 24 hours. (Need to get copy of chart). Need to get surface facilities upgraded by replacing tanks, pouring a loading pad, and lining the firewall, ect... Waiting on AFE to do this. Also discussed Carlsbad wells recently drilled & P/A'd.

Conclusions or Agreements

T/A since 10-87. Need copy of MIT chart 10-9-90
~~Asked for~~ Wrote letter 10-15-90 stating DP had expired and would send renewal application prior to restartup.
Talked to Jerry Sexton & he said they'd send a

Distribution: copy ~~of~~ chart to Santa Fe.

Signed: Kathy Brown

STATE OF NEW MEXICO
ONE-WELL PLUGGING BOND

For Chaves, Eddy, Lea, McKinley, Rio Arriba, Roosevelt, Sandoval and San Juan Counties Only

BOND NUMBER 5192-63-35

AMOUNT OF BOND $5,000.00

COUNTY Lea

NOTE: For wells less than 5,000 feet deep, the minimum bond is $5,000.00.
For wells 5,000 feet to 10,000 feet deep, the minimum bond is $7,500.00.
For wells more than 10,000 feet deep, the minimum bond is $10,000.00.

*Under certain conditions, a well being drilled under a $5,000 or $7,500 bond may be permitted to be drilled as much as 500 feet deeper than the normal maximum depth; i.e., a well being drilled under a $5,000 bond may be permitted to go to 5,499 feet, and a well being drilled under a $7,500 bond may be permitted to go 10,500 feet deep. (See Rule 101).

FILE WITH ENVIRONMENTAL IMPROVEMENT DIVISION
P. O. BOX 968
Santa Fe, New Mexico 87504-0968

KNOW ALL MEN BY THESE PRESENTS:

That THE PERMIAN CORPORATION, a corporation organized in the State of Delaware, with its principal office in the city of Houston, State of Texas, and authorized to do business in the State of New Mexico), as PRINCIPAL, and TRANSAMERICA INSURANCE COMPANY, a corporation organized and existing under the laws of the State of California, and authorized to do business in the State of New Mexico, as SURETY, are held firmly bound unto the State of New Mexico, for the use and benefit of the Environmental Improvement Division of New Mexico pursuant to Water Quality Control Commission Regulations, as amended, in the sum of FIVE THOUSAND AND 00/100 ---------- ($ 5,000.00) Dollars lawful money of the United States, for the payment of which, well and truly to be made, said PRINCIPAL and SURETY hereby bind themselves, their successors and assigns, jointly and severally, firmly by these persons.

The conditions of this obligation are such that:

WHEREAS, the above principal, individually, or in association with one or more other parties, owns and operates one well not to exceed a depth of 2,600 feet, to produce Brine Water, or does own or may acquire, own or operate such well, or such well started by others on land embraced in said State Salt Mining Lease M-13984-3, and on land patented by the United States of America to private individuals, and on land otherwise owned by private individuals, the identification and location of said well being SW/4 of SW/4
(Here state exact legal subdivision by 40-acre tract or lot)
Section 36
Township T-18-S (North) (South), Range R-37-E (East) (West), N.M.P.M. Lea County, New Mexico.

NOW, THEREFORE, If the above bounden principal and surety or either of them or their successors or assigns, or any of them, shall plug said well when dry or when abandoned in accordance with the rules, regulations, and orders of the Environmental Improvements Division of New Mexico in such way as to confine the brine water in the strata in which they are found, and to prevent them from escaping into other strata;

THEN, THEREFORE, This obligation shall be null and void, otherwise and in default of complete compliance with any and all of said obligations, the same shall remain in full force and effect.

THE PERMIAN CORPORATI[illegible]

PRINCIPAL

P.O. Box 1183, Houston, TX 77251-1183

Address

By Barry Smithers

Signature

Vice President - Finance

Title

(Note: Principal, if corporation, affix corporate seal here.)

TRANSAM[illegible]ICA INSURANCE COMPANY

SURETY

Two Penn Center Plaza
Philadelphia, PA 19102

Address

By Pamela L. Nunez

Attorney-in Fact

Pamela L. Nunez

(Note: Corporate surety affix corporate seal here.)

ACKNOWLEDGEMENT FORM FOR NATURAL PERSONS

STATE OF _____)
COUNTY OF _____) ss.

On this _____ day of _____, 19____, before me personally appeared _____, to me known to be the person (persons) described in and who executed the foregoing instrument and acknowledged that he (they) executed the same as his (their) free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

_____
Notary Public

_____
My Commission expires

ACKNOWLEDGEMENT FORM FOR CORPORATION

STATE OF _____)
COUNTY OF _____) ss.

On this 16th day of May, 19 89, before me personally appeared _____, to me personally known who, being by me duly sworn, did say that he is _____ of _____ and that the foregoing instrument was signed and sealed on behalf of said corporation by authority of its board of directors, and acknowledged said instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

_____
Notary Public

_____
My Commission expires

ACKNOWLEDGEMENT FORM FOR CORPORATE SURETY

STATE OF Pennsylvania)
COUNTY OF Allegheny) ss.

On this 16th day of May, 19 89, before me appeared Pamela L. Nunez, to me personally known, who, being by me duly sworn, did say that he is Attorney-in-Fact of Transamerica Insurance Company and that the foregoing instrument was signed and sealed on behalf of said corporation by authority of its board of directors, and acknowledged said instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

Rosemarie Rodden
Notary Public

August 26, 1989
My Commission expires

NOTARIAL SEAL
ROSEMARIE RODDEN, NOTARY PUBLIC
PITTSBURGH, ALLEGHENY COUNTY
MY COMMISSION EXPIRES AUG. 26, 1989
Member, Pennsylvania Association of Notaries

(Note: Corporate surety attach power of attorney.)

APPROVED BY:

ENVIRONMENTAL IMPROVEMENTS DIVISION

By _____

Date _____

Transamerica Insurance Services

Transamerica Insurance Company
A Stock Company / Home Office: Los Angeles, California

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS:

That **TRANSAMERICA INSURANCE COMPANY,** a corporation of the State of California, does hereby make, constitute and appoint CHARLES J. LANGE, R. GEORGE VOINCHET, MICHAEL C. BARBARITA, ROSEMARIE RODDEN, AND PAMELA L. NUNEZ "EACH" OF PITTSBURGH, PENNSYLVANIA

its true and lawful Attorney(s)-in-Fact, with full power and authority, for and on behalf on the Company as surety, to execute and deliver and affix the seal of the Company thereto, if a seal is required, bonds, undertakings, recognizances or other written obligations in the nature thereof, as follows: ANY AND ALL BONDS AND UNDERTAKINGS, UNLIMITED IN AMOUNT, IN ANY SINGLE INSTANCE, FOR OR ON BEHALF OF THIS COMPANY, IN ITS BUSINESS AND IN ACCORDANCE WITH ITS CHARTER,----------

and to bind **TRANSAMERICA INSURANCE COMPANY** thereby, and all of the acts of said Attorney(s)-in-Fact, pursuant to these presents, are hereby ratified and confirmed.

This appointment is made under and by authority of the following by-laws of the Company which by-laws are now in full force and effect.

ARTICLE VII

SECTION 30. All policies, bonds, undertakings, certificates of insurance, cover notes, recognizances, contracts of indemnity, endorsements, stipulations, waivers, consents of sureties, re-insurance acceptances or agreements, surety and co-surety obligations and agreements, underwriting undertakings, and all other instruments pertaining to the insurance business of the Corporation, shall be validly executed when signed on behalf of the Corporation by the President, any Vice President or by any other officer, employee, agent or Attorney-in-Fact authorized to so sign by (i) the Board of Directors, (ii) the President, (iii) and Vice President, or (iv) any other person empowered by the Board of Directors, the President or any Vice President to give such authorization; provided that all policies of insurance shall also bear the signature of a Secretary, which may be a facsimile, and unless manually signed by the President or a Vice President, a facsimile signature of the President. A facsimile signature of a former officer shall be of the same validity as that of an existing officer.

The affixing of the corporate seal shall not be necessary to the valid execution of any instrument, but any person authorized to execute or attest such instrument may affix the Corporation's seal thereto.

This Power of Attorney is signed and sealed by a facsimile under and by the authority of the following resolution adopted by the Board of Directors of the Company at a meeting duly called and held on the 17th day of October 1963.

"Resolved, That the signature of any officer authorized by the By-laws and the Company seal may be affixed by facsimile to any power of attorney or special power of attorney or certification of either given for the execution of any bond undertaking, recognizance or other written obligation in the nature thereof; such signature and seal, when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed."

IN WITNESS WHEREOF, **TRANSAMERICA INSURANCE COMPANY** has caused these presents to be signed by its proper officer and its corporate seal to hereunto affixed this 28TH day of MARCH ,19 89

By J.H. Tanner, Vice President

State of California)
County of) ss

On this 28TH day of MARCH , 19 89 , before me Doris D. Motherspaw, a Notary Public in and for the said County and State, residing therein, duly commissioned and sworn, personally appeared J.H. Tanner personally known to me (or proved to me on the basis of satisfactory evidence) to be a Vice President of **TRANSAMERICA INSURANCE COMPANY** the corporation whose name is affixed to the foregoing instrument; and duly acknowledged to me that he knows the seal of said Corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

OFFICIAL SEAL
DORIS D. MOTHERSPAW
Notary Public-California
LOS ANGELES COUNTY
My Comm. Exp. May 7, 1990

Doris D. Motherspaw, Notary Public
in and for the County of Los Angeles, California

(Continued)

I, W.G. Freeman, Assistant Vice President of Transamerica Insurance Company, do hereby certify that the Power of Attorney herein before set forth is a true and exact copy and is still in force, and further certify that Section 30 of Article VII of the By-Laws of the Company and the Resolution of the Board of Directors, set forth in said Power of Attorney are still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said Company this 16th day of May , 19 89

W G Freeman

W.G. Freeman, Assistant Vice President

CNA INSURANCE COMPANIES

Four Allegheny Center - P.O. Box 2872, Pittsburgh, PA 15230

CERTIFIED MAIL RETURN RECEIPT REQUESTED

April 18, 1989

State of New Mexico
Environmental Improvement Division
P.O. Box 968
Santa Fe, NM 87504-0968

Re: The Permian Corporation AS PRINCIPAL
American Casualty Company
of Reading, Pennsylvania AS SURETY
Bond No. 928-68-77
Effective: September 26, 1985
Amount: $5,000.00
Type: One-Well Plugging Bond

Gentlemen:

Please accept this letter as your notice of cancellation as we wish to be relieved of liability on this bond.

Would you please confirm by May 18, 1989 that our bond can be cancelled?

Very truly yours,

Barbara S. Heeter

Barbara S. Heeter
Surety Department

cc: Fred S. James, Inc. of PA - Pam Nunez
National Intergroup, Inc. - Rhonda Jamison

PERMIAN

OIL CONSERVATION DIVISION
RECEIVED
'90 OCT 18 AM 9 16

October 15,1990

Mr. David Boyer
State of New Mexico
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504

RE: Saline No.1 Brine Station
Discharge Plan DP-354; File No. 85-359

Dear Mr. Boyer:

On October 9, 1990, the subject approved Discharge Plan DP-354 expired. This brine well and site has been inactive since October 1987 and will remain inactive until such time as there is a commercial need for brine water in this area. Prior to beginning production of brine from this well, Permian will file an application for renewed approval of Discharge Plan DP-354.

Yours truly,

Keith Bracewell

KB/mm

Keith Bracewell

cc: Mike Harris
Larry Evans
Bill Talley
file - Saline Brine

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

December 6, 1989

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Owen Mobley
PERMIAN CORPORATION
P. O. Box 3119
Midland, Texas 79710

RE: Delegation of Responsibilities Brine Manufacturing Operations

Dear Mr. Mobley:

On June 13, 1989, the Water Quality Control Commission (WQCC) transferred the responsibility for the administration and enforcement of Commission regulations at brine manufacturing operations, including all brine production wells, holding ponds and tanks, from the Environmental Improvement Division (EID) to the Oil Conservation Division (OCD). The OCD has jurisdiction over all manufactured brine once it is transported, used or disposed of off brine plant premises for use in or directly related to oil and gas operations regulated by OCD. OCD regulates brine injection through its Class II Underground Injection Control (UIC) Program if the brine is used in the drilling for or production of oil and gas. EID shall regulate brine injection through its UIC Program if the brine is used for other purposes.

Brine production facilities that were transferred to OCD's jurisdiction must operate pursuant to an approved and current discharge plan. The discharge plan renewal process will be continued by OCD Environmental Bureau Staff. Approximately eight (8) months before the expiration date of an approved discharge plan, the discharger will be notified of the pending expiration of the plan. The discharge plan review process can, depending on circumstances, take several months. If the holder of an approved discharge plan submits a renewal application at least 180 days before discharge plan expiration, and the discharger is in compliance with his approved plan on the date of expiration, then the existing plan will not expire until the renewal application has been approved or disapproved.

Guidelines to aid you in determining what will be required for the renewal of your discharge plan are bring prepared. When the guidelines are finalized, they will be supplied to each operator of a brine production facility.

The OCD requires that any person, firm corporation or association that is in ownership of an oil, gas, or service well in the State of New Mexico shall furnish the Division with a surety bond in an amount prescribed in the OCD regulations. The current bond for well less than 5000 feet deep in Chaves, Eddy, Lea and Roosevelt Counties is $5000. I am enclosing the OCD bond forms for your use. All surety bonds previously submitted to the OCD did not include brine wells. Those surety bonds submitted to the EID must be changed to the OCD. Once the proper bond form are received and approved, all other sureties and bonds can be cancelled.

If you have any questions, please do not hesitate to contact me at (505) 827-5884.

Sincerely,

Roger C. Anderson
Environmental Engineer

RCA/sl

Enclosures

CC: Artesia District Office
Hobbs District Office

James

FRED. S. JAMES & CO., INC. OF PENNSYLVANIA, Suite 5300, USX Tower, 600 Grant Street, Pittsburgh, PA 15219-2801
Telephone: (412) 566-5750 Telex: 866226 (JAMES PGH) Facsimile: (412) 566-7359

April 10, 1989

State of New Mexico
Environmental Improvement Division
P. O. Box 968
Santa Fe, New Mexico 87504-0968

RE: THE PERMIAN CORPORATION
One-Well Plugging Bond
Bond No. 928-68-77
American Casualty Company of Reading, PA

To Whom It May Concern:

We are in the process of replacing the captioned bond with a new Surety.

Please send us a new bond form at your earliest convenience. A copy of the bond currently in force is attached for your reference.

Thank you for your cooperation. Should you have any questions, don't hesitate to call.

Sincerely,

Pamela L. Nunez

Pamela L. Nunez
Construction/Financial Products

/pln

Attachment

STATE OF NEW MEXICO
ONE-WELL PLUGGING BOND

For Chaves, Eddy, Lea, McKinley, Rio Arriba, Roosevelt, Sandoval and San Juan Counties Only

BOND NUMBER 9286877

AMOUNT OF BOND $5,000.00

COUNTY Lea

NOTE: For wells less than 5,000 feet deep, the minimum bond is $5,000.00.
For wells 5,000 feet to 10,000 feet deep, the minimum bond is $7,500.00.
For wells more than 10,000 feet deep, the minimum bond is $10,000.00.

*Under certain conditions, a well being drilled under a $5,000 or $7,500 bond may be permitted to be drilled as much as 500 feet deeper than the normal maximum depth; i.e., a well being drilled under a $5,000 bond may be permitted to go to 5,499 feet, and a well being drilled under a $7,500 bond may be permitted to go 10,500 feet deep. (See Rule 101).

FILE WITH ENVIRONMENTAL IMPROVEMENT DIVISION
P. O. BOX 968
Santa Fe, New Mexico 87504-0968

KNOW ALL MEN BY THESE PRESENTS:

That The Permian Corporation, a corporation organized in the State of Delaware, with its principal office in the city of Houston, State of Texas, and authorized to do business in the State of New Mexico), as PRINCIPAL, and AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA, a corporation organized and existing under the laws of the State of Pennsylvania, and authorized to do business in the State of New Mexico, as SURETY, are held firmly bound unto the State of New Mexico, for the use and benefit of the Environmental Improvement Division of New Mexico pursuant to Water Quality Control Commission Regulations, as amended, in the sum of Five Thousand and No/100---------- ($5,000.00) Dollars lawful money of the United States, for the payment of which, well and truly to be made, said PRINCIPAL and SURETY hereby bind themselves, their successors and assigns, jointly and severally, firmly by these persons.

The conditions of this obligation are such that:

WHEREAS, the above principal, individually, or in association with one or more other parties, owns and operates one well not to exceed a depth of 2,600 feet, to produce Brine Water, or does own or may acquire, own or operate such well, or such well started by others on land embraced in said State Salt Mining Lease M-13984-3, and on land patented by the United States of America to private individuals, and on land otherwise owned by private individuals, the identification and location of said well being SW/4 of SW/4
(Here state exact legal subdivision by 40-acre tract or lot)
Section 36
Township T-18-S (North) (South), Range R-37-E (East) (West),
N.M.P.M. Lea County, New Mexico.

NOW, THEREFORE, If the above bounden principal and surety or either of them or their successors or assigns, or any of them, shall plug said well when dry or when abandoned in accordance with the rules, regulations, and orders of the Environmental Improvements Division of New Mexico in such way as to confine the brine water in the strata in which they are found, and to prevent them from escaping into other strata;

THEN, THEREFORE, This obligation shall be null and void, otherwise and in default of complete compliance with any and all of said obligations, the same shall remain in full force and effect.

NEW MEXICO
HEALTH AND ENVIRONMENT
DEPARTMENT

ENVIRONMENTAL IMPROVEMENT DIVISION
Harold Runnels Bldg.-1190 St. Francis Drive
Santa Fe, New Mexico 87503

Richard Mitzelfelt
Director

GARREY CARRUTHERS
Governor
CARLA L. MUTH
Secretary
MICHAEL J. BURKHART
Deputy Secretary

December 14, 1988

Richard Lentz
District Manager
Permian Corporation
P.O. Box 838
Hobbs, New Mexico 88241-0838

Dear Mr. Lentz:

The Underground Injection Control staff of the New Mexico Environmental Improvement Division Ground Water Section would like to thank you for your cooperation during our recent inspection of Permian Corporation brine facility. A copy of the inspection form is attached for your reference.

Deficiencies noted during the inspection are as follows:

1. Leakage of brine at wellhead sump noted. Wellhead should be free of leakage, wellhead sump should be inspected frequently, and leakage in wellhead should be repaired and cleaned up.

Thank you for your continued cooperation. Should you have any questions feel free to contact me (827-2902) or John Parker (827-0027).

Sincerely,

Kevin A Lambert

Kevin Lambert
Hydrologist
Ground Water Section - UIC Program

KL/mw

Enclosure

BRINE STATION INSPECTION FORM

1450

DATE 12/6 1988 EID INSPECTOR Lambert
FACILITY Permian Corp LOCATION Hobbs Hwy across airport
FACILITY REP ON SITE - COUNTY LEA

Permian Corp Use Only

WELL OPERATION

valved for reversal

WELL IS INJECTING: __ THROUGH ANNULUS __ THROUGH TUBING
SOURCE OF FRESH WATER ~~Hobbs~~ City ?
TRACE INJECTION/PRODUCTION LINES Underground
WELL HEAD PRESSURE 85 PSIG PUMP PRESSURE ____ PSIG
LEAKS AROUND WELL OR PUMP yes brine leak right at wellhead
salt crust present wellhead sump

STORAGE AREA

FOR PONDS:
GENERAL LINER APPEARANCE ____
AMOUNT OF FREEBOARD ____
ANY SIGN OF OVERFLOW OR LEAKS ____
LEAK DETECTION SYSTEM __ FLUIDS __ DRY

FOR TANKS: 2 tanks Used to be 3 tanks
GENERAL APPEARANCE Look Good
LABLED PLAINLY tell by piping ✓ YES __ NO Removed East tank
BERMED TO PREVENT RUNOFF ✓ YES __ NO
CHECK CONTENTS TO ASSURE PROPER FLUID/LABLE MATCH ____
NUMBER OF TANKS FOR BRINE 1 FRESH WATER 1

LOADING AREA

PROPERLY GRADED AND BERMED TO CONTAIN SPILLAGE	✓ YES	__ NO
ANY EVIDENCE OF RECENT SPILLAGE	__ YES	✓ NO
DOES FACILITY HAVE A SPILL COLLECTION SYSTEM	✓ YES	__ NO
ANY EVIDENCE OF OIL SPILLING/DUMPING	__ YES	✓ NO

Looks good does not appear if been used Recently

MONITORING WELLS

DEPTH ____ FT STATIC WATER LEVEL ____ FT BELOW CASING
SAMPLED THIS VISIT __ YES __ NO TEMP ____ Ec ____

COMMENTS Overall looks good
Recommend clean up around wellhead sump

No. of Samples	Ion
/	Na
/	K
/	Ca
/	Mg
/	Cl
/	HCO3
/	CO3
/	SO4
/	TDS
////////	////////////
	NO3+ NO2
	NH3
	kjeld N
////////	////////////
	As
	Ba
	Cd
	CN
	Cr
	F
	Pb
	Hg
	Se
	Ag
	U
	V
	Ra 226
	Ra 228
////////	////////////
	Cu
	Fe
	Mn
	Phenols
	Zn
////////	////////////
	Al
	B
	Co
	Mo
	Ni
////////	////////////
	pH
	Conduct.

FIELD TRIP REPORT
GROUND WATER SECTION

SLD USER CODES

County Eddy/Lea

Ground Water: 59300

NO_3, HC, & Toxics: 59600

UIC: (59500)

FACILITY VISITED

Name of Facility: 20 Brine Facilities & Climax Chemical

Location: Carlsbad/Hobbs in Southeast NM

Discharge Plan Number: DP- See Below

Type of Operation: Brine Production / Chemical Manufacturing

ENVIRONMENTAL IMPROVEMENT DIVISION FIELD VISIT

EID Inspector(s): Lambert

Date of Inspection or Visit: 12/5-8/88

Discharger's Representative Present During EID Visit:

Name:

Title or Position:

Purpose of Visit:

(a.) Evaluation of Proposed Discharge Plan

(b.) Compliance Inspection of Discharge with Approved Plan

c. Other (specify)

Inspection Activities During Field Visit:

a. Inspection of Facilities or Construction (specify)

b. Sampling of Effluents (give sampling locations)

c. Sampling of Ground Water (give names or locations of wells)
Sampled M.W. at Marathon

d. Evaluation of geology, soils, water levels or other physical characteristics of the location (specify)

e. Other (specify)

Observations and Information Obtained during the Visit:
The 20 Brine Facilities & Climax are listed below by DP#. See Individual File for specifics

ACTION REQUIRED

#	#	#	#	#
	323	354	370	298
318	324	355	371	426
319	325	360	372	
320	326	361	394	
321	351	369	401	
322				

THE PERMIAN CORPORATION

October 3, 1988

RECEIVED
OCT 13 1988
GROUND WATER BUREAU

Mr. John Parker
Environmental Improvement Division
P. O. Box 968, Runnels Building
Santa Fe, New Mexico 87504-0968

Re: Status Letter
The Permian Corporation-Saline #1 Brine Station
Lea County, N.M., TWP 18-S, R 37-E, Sec. 36,
Lease #13894003

Dear Mr. Parker:

Economic conditions have not improved in our industry since Permian's Mr. Richard Lentz informed you in his letter of October 15, 1987 that the above well would be temporarily shut in. While we have not seen the anticipated upturn in our industry, Permian desires to keep this lease active in hope of a more favorable business climate. This letter will serve as a status report on the above captioned lease.

Please contact me at the address below or call at 713/787-2558 should you have any questions.

Sincerely,

Thomas M. Harris

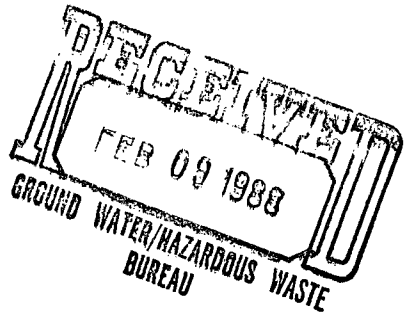
Thomas M. Harris

TMH:jg

cc: Owen Mobley

2500 CITYWEST BLVD. ▪ P. O. BOX 1183 ▪ HOUSTON, TEXAS 77251-1183 ▪ (713) 787-2500

PERMIAN



February 5, 1988

Mr. Lambert
Environmental Improvement Division
P. O. Box 968 Runnels Building
Santa Fe, NM 87504-0968

Dear Mr. Lambert,

This letter is a follow up of our phone conversation on 1-29-88. Our brine station is shut in due to high pressure pump being broke down. When we get it fixed and running again, I will notify you by phone and follow up with pressure test on brine well.

Your usual cooperation is appreciated.

Thanks again

Richard Lentz
District Manager

PERMIAN OPERATING LIMITED PARTNERSHIP
101 EAST MARLIN, ROOM 104 • P. O. BOX 838 • HOBBS, NEW MEXICO 88241-0838 • (505) 393-5424

NEW MEXICO
HEALTH AND ENVIRONMENT
DEPARTMENT

Post Office Box 968
Santa Fe, New Mexico 87504-0968

ENVIRONMENTAL IMPROVEMENT DIVISION

Michael J. Burkhart
Director

GARREY CARRUTHERS
Governor

LARRY GORDON
Secretary

CARLA L. MUTH
Deputy Secretary

December 31, 1987

Richard Lentz
District Manager
Permian Corporation
P.O. Box 838
Hobbs, NM 88241-0838

Dear Mr. Lentz:

The Underground Injection Control staff of the New Mexico Environmental Improvement Division Ground Water Section would like to thank you for your cooperation during our recent inspection of Permian Corporation brine facility. A copy of the inspection form is attached for your reference. No violations were noted during the inspection.

Thank you for your continued cooperation. Should you have any questions feel free to contact me (827-2902) or John Parker (827-0027).

Sincerely,

John W. Parker

for Kevin Lambert
Hydrologist
Ground Water Section

KL:JP:egr

Enclosure

BRINE STATION INSPECTION FORM

DATE 12/1 1987 EID INSPECTOR Lambert/Parker
FACILITY Pennian Corp LOCATION _____
FACILITY REP ON SITE _____ COUNTY _____

WELL OPERATION

Brine Well Shut down to repair valves

WELL IS INJECTING: __ THROUGH ANNULUS __ THROUGH TUBING
SOURCE OF FRESH WATER Well Water
TRACE INJECTION/PRODUCTION LINES Buried

WELL HEAD PRESSURE 170 PSIG PUMP PRESSURE _____ PSIG
LEAKS AROUND WELL OR PUMP None

STORAGE AREA

FOR PONDS:
GENERAL LINER APPEARANCE _____

AMOUNT OF FREEBOARD _____
ANY SIGN OF OVERFLOW OR LEAKS _____
LEAK DETECTION SYSTEM __ FLUIDS __ DRY

FOR TANKS:
GENERAL APPEARANCE Good
LABLED PLAINLY ✓ YES __ NO W fresh E Brine
BERMED TO PREVENT RUNOFF ✓ YES __ NO
CHECK CONTENTS TO ASSURE PROPER FLUID/LABLE MATCH _____

NUMBER OF TANKS FOR BRINE 1 FRESH WATER 1

LOADING AREA

PROPERLY GRADED AND BERMED TO CONTAIN SPILLAGE	✓ YES	__ NO
ANY EVIDENCE OF RECENT SPILLAGE	__ YES	✓ NO
DOES FACILITY HAVE A SPILL COLLECTION SYSTEM	__ YES	✓ NO
ANY EVIDENCE OF OIL SPILLING/DUMPING	__ YES	✓ NO

MONITORING WELLS

DEPTH _____ FT STATIC WATER LEVEL _____ FT BELOW CASING
SAMPLED THIS VISIT __ YES __ NO TEMP _____ Ec _____

COMMENTS Brine is strictly for Pennian Corps use, Only sold to public in emergency

MONITORING AND REPORTING FORM

ALL BLANKS MUST BE COMPLETED.

DISCHARGE PLAN NUMBER: 354

ORIGINAL DP: _____
RENEWAL: _____
MODIFICATION: _____
DATE RECEIVED:

SIC NUMBER: _____

NAME OF FACILITY: THE PERMIAN CORPORATION SALINE NO. 1 BRINE STATION

ADDRESS OF FACILITY: ON EAST-WEST HIGHWAY ACROSS FROM HOBBS AIRPORT

ALTERNATE OR PAST NAME OF FACILITY: _____

CITY OR CLOSEST TOWN: HOBBS USGS QUAD: HOBBS WEST I-39

COUNTY: LEA TWP: 18S RGE: 37E SEC: 36

CONTACT PERSON: MOBLEY (LAST NAME), OWEN (FIRST NAME) TITLE: DIV. MANAGER

ADDRESS OF CONTACT PERSON: P.O. BOX 3119
MIDLAND, TEXAS 79701

TELEPHONE: 915/683-4711

TYPE OF FACILITY: BRINE MANUFACTURE AND BRINE & FRESH WATER SALES

MEANS OF DISCHARGE (LAGOON, LEACH FIELD, OTHER -SPECIFY): injection well; above-ground storage in steel tanks.

REVIEWER: (CURRENT) MORGAN (LAST NAME), PAIGE (FIRST NAME)

DATE APPROVED: 9/15/85 DATE OF EXPIRATION: 9/15/90

MONITORING REQ: (COMMENT, IF NECESSARY, ON BACK)

SAMPLING SITE OR ID	VOLUME/PRESSURE	PARAMETER(S)	DATE DUE
brine well	6323 BBL'S	QUARTERLY VOLUME BRINE SALES	March 31, June 30, Sept. 30, Dec. 31
" "	NORMAL WORKING PRESURE 175	PRESSURE TEST	11-27-87
	SHUT IN 5 hours AT. 220	3rd QUARTER Report	JUNE JULY & AUGUST

SAMPLING SITE OR ID	STORET CODE (SAMP. SITE)	PARAMETER(S)	DATE DUE

COMMENTS: *pressure test may be conducted as part of EID inspection.

		YES	NO
OTHER APPLICABLE PERMITS:	RCRA	____	X
	RADIOACTIVE MAT.	____	X
	NPDES	____	X
	UST	____	X

FOR EID USE ONLY

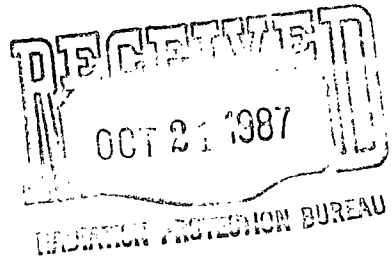
STATUS OF DP:

ACTIVE: ____
WITHDRAWN: ____
EXPIRED, NOT RENEWED: ____
INACTIVE: ____
NOT YET APPROVED: ____

SEND REPORTS TO:

GROUND WATER SECTION
EID: GROUND WATER/HAZARDOUS WASTE BUREAU
P.O. BOX 968
SANTA FE, NM 87504-0968

PERMIAN



October 15, 1987

Mr. John Parker
Environmental Improvement Division
P. O. Box 968 Runnels Building
Santa Fe, New Mexico 87504-0968

RE: The Permian Corporation - Saline #1 Brine Station
Lea County, NM TWP 18S, RGE 37E, SEC. 36

Dear John,

In reference to our conversation on the morning of October 13th, Saline will be shut in for the time being because our brine tanks are in bad shape. Both tanks have splits in them.

Due to our poor sales, we have elected to shut the brine well in for the time being. As soon as we set new tanks and start the brine well up, we will perform our pressure test and forward to you.

Thank you for your cooperation.

Sincerely,

Richard Lentz

Richard Lentz
Hobbs District Manager

PERMIAN OPERATING LIMITED PARTNERSHIP
101 EAST MARLIN, ROOM 104 ▪ P. O. BOX 838 ▪ HOBBS, NEW MEXICO 88241-0838 ▪ (505) 393-5424

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time	Date
	8:45 AM	10/13/87

Originating Party	Other Parties
Richard	
Permian Corp.	

Subject

Quarterly Reports

Discussion

Richard told me that the quarterly report due ~~Sept~~ Oct. 30 was not forthcoming due to there being a rupture in a tank, therefore the brine well has been shut-in temporarily thus making it difficult to perform a pressure test.

Conclusions or Agreements

I told Richard to send a letter detailing problems listed above and to send us the report once they go operational again

Distribution

File

Signed John W Parker

MONITORING AND REPORTING FORM

ALL BLANKS MUST BE COMPLETED.

DISCHARGE PLAN NUMBER: 354

SIC NUMBER: _____

ORIGINAL DP: _____
RENEWAL: _____
MODIFICATION: _____
DATE RECEIVED: _____

NAME OF FACILITY: THE PERMIAN CORPORATION SALINE NO. 1 BRINE STATION

ADDRESS OF FACILITY: ON EAST-WEST HIGHWAY ACROSS FROM HOBBS AIRPORT

ALTERNATE OR PAST NAME OF FACILITY: _____

CITY OR CLOSEST TOWN: HOBBS USGS QUAD: HOBBS WEST I-39

COUNTY: LEA TWP: 18S RGE: 37E SEC: 36

CONTACT PERSON: MOBLEY (LAST NAME), OWEN (FIRST NAME) TITLE: DIV. MANAGER

ADDRESS OF CONTACT PERSON: P.O. BOX 3119
MIDLAND, TEXAS 79701

TELEPHONE: 915/683-4711

TYPE OF FACILITY: BRINE MANUFACTURE AND BRINE & FRESH WATER SALES

MEANS OF DISCHARGE (LAGOON, LEACH FIELD, OTHER -SPECIFY): injection well; above-ground storage in steel tanks.

REVIEWER: (CURRENT) MORGAN (LAST NAME), PAIGE (FIRST NAME)

DATE APPROVED: 9/15/85 DATE OF EXPIRATION: 9/15/90

MONITORING REQ: (COMMENT, IF NECESSARY, ON BACK)

SAMPLING SITE OR ID	VOLUME/PRESSURE	PARAMETER(S)	DATE DUE
brine well	8310 BBL'S	QUARTERLY VOLUME BRINE SALES	March 31, June 30, Sept. 30, Dec. 31
" "	NORMAL WORKING PRESURE 175	PRESSURE TEST	JUNE 30, 1987
	SHUT IN 4.5 HOURS AT 250		

SAMPLING SITE OR ID	STORET CODE (SAMP. SITE)	PARAMETER(S)	DATE DUE

COMMENTS: *pressure test may be conducted as part of EID inspection.

		YES	NO
OTHER APPLICABLE PERMITS:	RCRA	____	X
	RADIOACTIVE MAT.	____	X
	NPDES	____	X
	UST	____	X

FOR EID USE ONLY

STATUS OF DP:

ACTIVE: ____
WITHDRAWN: ____
EXPIRED, NOT RENEWED: ____
INACTIVE: ____
NOT YET APPROVED: ____

SEND REPORTS TO:

GROUND WATER SECTION
EID: GROUND WATER/HAZARDOUS WASTE BUREAU
P.O. BOX 968
SANTA FE, NM 87504-0968

MONITORING AND REPORTING FORM

ALL BLANKS MUST BE COMPLETED.

DISCHARGE PLAN NUMBER: 354

SIC NUMBER: _____

ORIGINAL:
RENEWAL: _____
MODIFICATION: _____
DATE RECEIVED:

NAME OF FACILITY: THE PERMIAN CORPORATION SALINE NO. 1 BRINE STATION

ADDRESS OF FACILITY: ON EAST-WEST HIGHWAY ACROSS FROM HOBBS AIRPORT

ALTERNATE OR PAST NAME OF FACILITY: _____

CITY OR CLOSEST TOWN: HOBBS USGS QUAD: HOBBS WEST T-39

COUNTY: LEA TWP: 18S RGE: 37E SEC: 36

CONTACT PERSON: MOBLEY (LAST NAME), OWEN (FIRST NAME) TITLE: DIV. MANAGER

ADDRESS OF CONTACT PERSON: P.O. BOX 3119
MIDLAND, TEXAS 79701

TELEPHONE: 915/683-4711

TYPE OF FACILITY: BRINE MANUFACTURE AND BRINE & FRESH WATER SALES

MEANS OF DISCHARGE (LAGOON, LEACH FIELD, OTHER -SPECIFY): injection well; above-ground storage in steel tanks.

REVIEWER: (CURRENT) MORGAN (LAST NAME), PAIGE (FIRST NAME)

DATE APPROVED: 9/15/85 DATE OF EXPIRATION: 9/15/90

MONITORING REQ: (COMMENT, IF NECESSARY, ON BACK)

SAMPLING SITE OR ID	VOLUME/PRESSURE	PARAMETER(S)	DATE DUE
brine well	NONE	QUARTERLY VOLUME BRINE SALES	March 31, June 30, Sept. 30, Dec. 31
" "	200 NORMAL WORKING PRESSURE SHUT IN 3 HOURS @ 295 PSI	PRESSURE TEST	

MONITORING AND REPORTING FORM

ALL BLANKS MUST BE COMPLETED.

DISCHARGE PLAN NUMBER: 354

ORIGINAL DP: _____
RENEWAL: _____
MODIFICATION: _____
DATE RECEIVED:

SIC NUMBER: _____

NAME OF FACILITY: THE PERMIAN CORPORATION SALINE NO. 1 BRINE STATION

ADDRESS OF FACILITY: ON EAST-WEST HIGHWAY ACROSS FROM HOBBS AIRPORT

ALTERNATE OR PAST NAME OF FACILITY: _____

CITY OR CLOSEST TOWN: HOBBS USGS QUAD: HOBBS WEST T-39

COUNTY: LEA TWP: 18S RGE: 37E SEC: 36

CONTACT PERSON: MOBLEY (LAST NAME), OWEN (FIRST NAME) TITLE: DIV. MANAGER

ADDRESS OF CONTACT PERSON: P.O. BOX 3119
MIDLAND, TEXAS 79701

TELEPHONE: 915/683-4711

TYPE OF FACILITY: BRINE MANUFACTURE AND BRINE & FRESH WATER SALES

MEANS OF DISCHARGE (LAGOON, LEACH FIELD, OTHER -SPECIFY): injection well; above-ground storage in steel tanks.

REVIEWER: (CURRENT) MORGAN (LAST NAME), PAIGE (FIRST NAME)

DATE APPROVED: 9/15/85 DATE OF EXPIRATION: 9/15/90

MONITORING REQ: (COMMENT, IF NECESSARY, ON BACK)

SAMPLING SITE OR ID	VOLUME/PRESSURE	PARAMETER(S)	DATE DUE
brine well	3888	QUARTERLY VOLUME BRINE SALES	March 31, June 30, Sept. 30, Dec. 31
" "	100 PSI NORMAL WORKING PRESSURE SHUT IN 145 PSI	PRESSURE TEST	JAN 1, 1986

RECEIVED
JAN 05 1987
HAZARDOUS WASTE BUREAU

SAMPLING SITE OR ID	STORET CODE (SAMP. SITE)	PARAMETER(S)	DATE DUE

COMMENTS: *pressure test may be conducted as part of EID inspection.

		YES	NO
OTHER APPLICABLE PERMITS:	RCRA	____	X
	RADIOACTIVE MAT.	____	X
	NPDES	____	X
	UST	____	X

FOR EID USE ONLY

STATUS OF DP:

ACTIVE: ____
WITHDRAWN: ____
EXPIRED, NOT RENEWED: ____
INACTIVE: ____
NOT YET APPROVED: ____

SEND REPORTS TO:

GROUND WATER SECTION
EID: GROUND WATER/HAZARDOUS WASTE BUREAU
P.O. BOX 968
SANTA FE, NM 87504-0968

BRINE STATION INSPECTION FORM

DATE 12/10 1986 EID INSPECTOR Lambert, Koschal Baker
FACILITY Go Permeian Corp LOCATION Hobbs
FACILITY REP ON SITE None COUNTY LEA
DP-354

WELL OPERATION

WELL IS INJECTING: __ THROUGH ANNULUS __ THROUGH TUBING
SOURCE OF FRESH WATER City Water
TRACE INJECTION/PRODUCTION LINES Buried Lines

WELL HEAD PRESSURE _____ PSIG PUMP PRESSURE _____ PSIG
LEAKS AROUND WELL OR PUMP None

STORAGE AREA

FOR PONDS:
GENERAL LINER APPEARANCE _____
AMOUNT OF FREEBOARD _____
ANY SIGN OF OVERFLOW OR LEAKS _____
LEAK DETECTION SYSTEM __ FLUIDS __ DRY

FOR TANKS:
GENERAL APPEARANCE Good Shape
LABLED PLAINLY X YES __ NO
BERMED TO PREVENT RUNOFF X YES __ NO
CHECK CONTENTS TO ASSURE PROPER FLUID/LABLE MATCH _____
NUMBER OF TANKS FOR 3 BRINE 2 (East) FRESH WATER 1 (West)

LOADING AREA

PROPERLY GRADED AND BERMED TO CONTAIN SPILLAGE	X YES	__ NO
ANY EVIDENCE OF RECENT SPILLAGE	__ YES	X NO
DOES FACILITY HAVE A SPILL COLLECTION SYSTEM	X YES	__ NO
ANY EVIDENCE OF OIL SPILLING/DUMPING	__ YES	X NO

MONITORING WELLS

DEPTH _____ FT STATIC WATER LEVEL _____ FT BELOW CASING
SAMPLED THIS VISIT __ YES __ NO TEMP _____ Ec _____

COMMENTS Facility appeared to be idle for sometime

MONITORING AND REPORTING FORM

ALL BLANKS MUST BE COMPLETED.

RECEIVED
OCT 6 1986
GROUND WATER/HAZARDOUS WASTE BUREAU

DISCHARGE PLAN NUMBER: 354

ORIGINAL DP: _____
RENEWAL: _____
MODIFICATION: _____
DATE RECEIVED: _____

SIC NUMBER: _____

NAME OF FACILITY: THE PERMIAN CORPORATION SALINE NO. 1 BRINE STATION

ADDRESS OF FACILITY: ON EAST-WEST HIGHWAY ACROSS FROM HOBBS AIRPORT

ALTERNATE OR PAST NAME OF FACILITY: _____

CITY OR CLOSEST TOWN: HOBBS USGS QUAD: HOBBS WEST T-39

COUNTY: LEA TWP: 18S RGE: 37E SEC: 36

CONTACT PERSON: MOBLEY (LAST NAME), OWEN (FIRST NAME) TITLE: DIV. MANAGER

ADDRESS OF CONTACT PERSON: P.O. BOX 3119
MIDLAND, TEXAS 79701

TELEPHONE: 915/683-4711

TYPE OF FACILITY: BRINE MANUFACTURE AND BRINE & FRESH WATER SALES

MEANS OF DISCHARGE (LAGOON, LEACH FIELD, OTHER -SPECIFY): injection well; above-ground storage in steel tanks.

REVIEWER: (CURRENT) MORGAN (LAST NAME), PAIGE (FIRST NAME)

DATE APPROVED: 9/15/85 DATE OF EXPIRATION: 9/15/90

MONITORING REQ: (COMMENT, IF NECESSARY, ON BACK)

SAMPLING SITE OR ID	VOLUME/PRESSURE	PARAMETER(S)	DATE DUE
brine well	8524 bbls?	QUARTERLY VOLUME BRINE SALES	March 31, June 30, Sept. 30 Dec. 31
" "	NORMAL WORKING PRESSURE 100 PSI 150 P.S.I.	PRESSURE TEST	SEPT. 29, 1986

SAMPLING SITE OR ID	STORET CODE (SAMP. SITE)	PARAMETER(S)	DATE DUE

COMMENTS: *pressure test may be conducted as part of EID inspection.

OTHER APPLICABLE PERMITS:	YES	NO
RCRA	____	X
RADIOACTIVE MAT.	____	X
NPDES	____	X
UST	____	X

FOR EID USE ONLY

STATUS OF DP:

ACTIVE: ____
WITHDRAWN: ____
EXPIRED, NOT RENEWED: ____
INACTIVE: ____
NOT YET APPROVED: ____

SEND REPORTS TO:

GROUND WATER SECTION
EID: GROUND WATER/HAZARDOUS WASTE BUREAU
P.O. BOX 968
SANTA FE, NM 87504-0968

MONITORING AND REPORTING FORM

ALL BLANKS MUST BE COMPLETED.

DISCHARGE PLAN NUMBER: 354

ORIGINAL DP: _____
RENEWAL: _____
MODIFICATION: _____
DATE RECEIVED: _____

SIC NUMBER: _____

NAME OF FACILITY: THE PERMIAN CORPORATION SALINE NO. 1 BRINE STATION

ADDRESS OF FACILITY: ON EAST-WEST HIGHWAY ACROSS FROM HOBBS AIRPORT

ALTERNATE OR PAST NAME OF FACILITY: _____

CITY OR CLOSEST TOWN: HOBBS USGS QUAD: HOBBS WEST T-39

COUNTY: LEA TWP: 18S RGE: 37E SEC: 36

CONTACT PERSON: MOBLEY (LAST NAME), OWEN (FIRST NAME) TITLE: DIV. MANAGER

ADDRESS OF CONTACT PERSON: P.O. BOX 3119
MIDLAND, TEXAS 79701

RECEIVED
JUL 7 1986
GROUND WATER/HAZARDOUS WASTE BUREAU

TELEPHONE: 915/683-4711

TYPE OF FACILITY: BRINE MANUFACTURE AND BRINE & FRESH WATER SALES

MEANS OF DISCHARGE (LAGOON, LEACH FIELD, OTHER -SPECIFY): injection well; above-ground storage in steel tanks.

REVIEWER: (CURRENT) MORGAN (LAST NAME), PAIGE (FIRST NAME)

DATE APPROVED: 9/15/85 DATE OF EXPIRATION: 9/15/90

MONITORING REQ: (COMMENT, IF NECESSARY, ON BACK)

SAMPLING SITE OR ID	VOLUME/PRESSURE	PARAMETER(S)	DATE DUE
brine well	12741 bbls	QUARTERLY VOLUME BRINE SALES	March 31, June 30, Sept. 30, Dec. 31
" "	150 NORMAL WORKING PRESSURE 205 PSI	PRESSURE TEST	JUNE 30

SAMPLING SITE OR ID	STORET CODE (SAMP. SITE)	PARAMETER(S)	DATE DUE

COMMENTS: *pressure test may be conducted as part of EID inspection.

		YES	NO
OTHER APPLICABLE PERMITS:	RCRA	____	X
	RADIOACTIVE MAT.	____	X
	NPDES	____	X
	UST	____	X

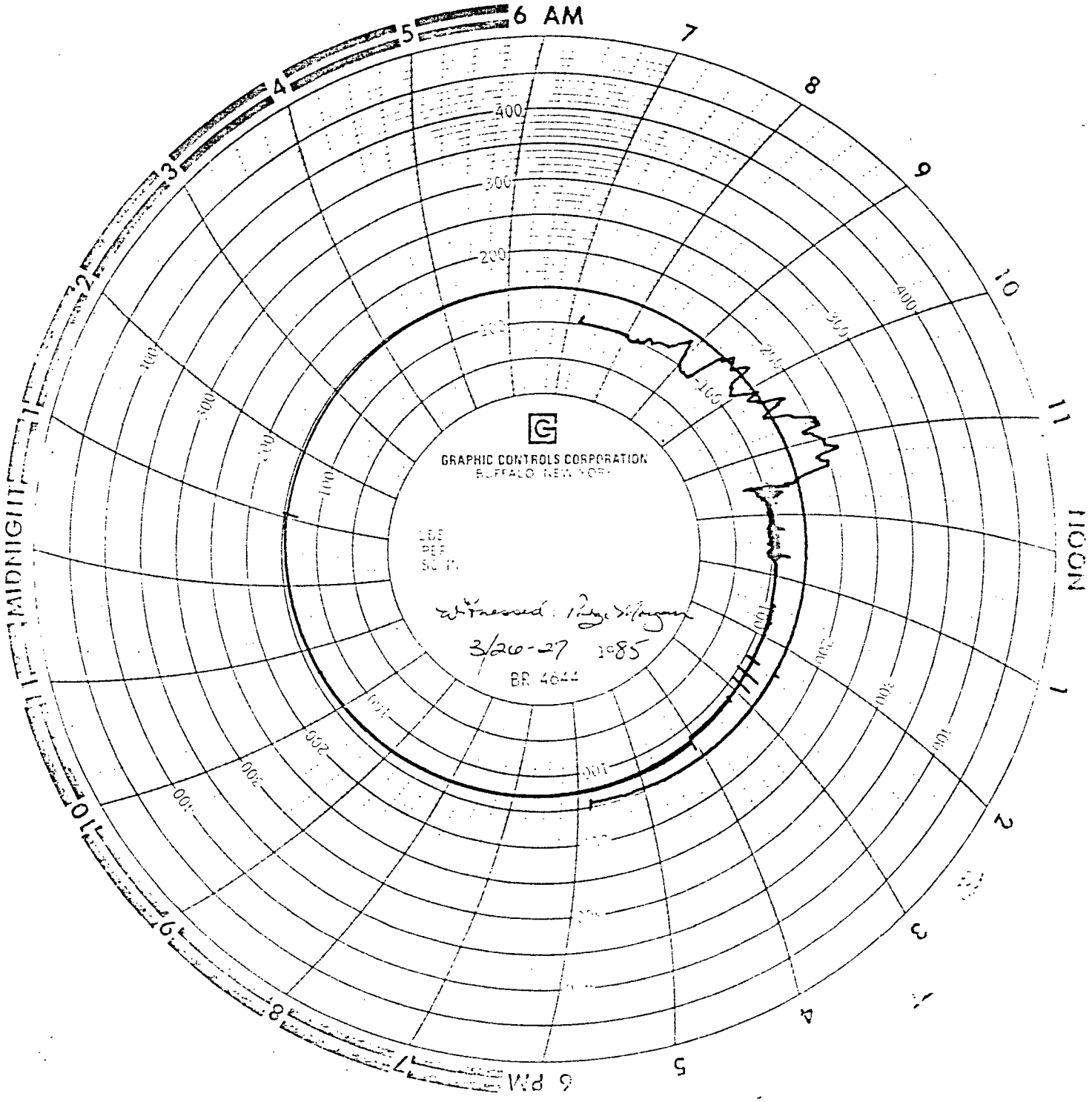
FOR EID USE ONLY

STATUS OF DP:

ACTIVE: ____
WITHDRAWN: ____
EXPIRED, NOT RENEWED: ____
INACTIVE: ____
NOT YET APPROVED: ____

SEND REPORTS TO:

GROUND WATER SECTION
EID: GROUND WATER/HAZARDOUS WASTE BUREAU
P.O. BOX 968
SANTA FE, NM 87504-0968


6 AM
NOON
6 PM
MIDNIGHT
GRAPHIC CONTROLS CORPORATION
BUFFALO NEW YORK
Witnessed
3/20-27 1985
BR 4644

Please advise if you require additional information. Thank you for your help in completing the approval of this discharge plan.

Yours truly,

Jim Ephraim

JIM EPHRAIM

JE:jg

cc: Owen Mobley
Charles Purdy
Jones, Gallegos, Snead & Wertheim
P.O. Box 2228
Santa Fe, New Mexico 87501
Hobbs Yard-Saline #1
Reader

THE PERMIAN CORPORATION
2500 CITYWEST BOULEVARD 713/787-2500
P.O.BOX 1183 HOUSTON, TEXAS 77251-1183

TELEX: 324-942
PERM CORP HOU UD

April 12, 1985

Mrs. Paige Grant Morgan
Ground Meter Section
New Mexico Environmental
Improvements Division
Box 968
Santa Fe, N.M. 87504-0968

Dear Mrs. Morgan:

The following response is given in reference to your letter of January 28, 1985 concerning the discharge plan DP-354 for Permian's brine station near Hobbs, New Mexico.

There is no surface brine pit at this site and there has never been one.

II. A. 3. Brine production is measured by sales receipts.

III. C. 4.and IV. A. 8. Noted. We shall accept your alternative (2) to insure the integrity of the brine well operations, with quarterly pressure tests.

IV. A. 9. The use of this brine facility is limited to Permian's trucks and drivers only. Trucks used to haul the 100 to 140 BBL. loads of brine have a capacity of 178 to 200 BBL's., therefore it is very unlikely that a driver will over-load to the point spillage would occur. A sump is provided at the hose connection point for collection of and drips that may take place when hoses are disconnected.

IV. A. 10. b.Noted.

IV. B. I. Noted.

I.C. Noted

I.D. There is no log available for the Saline No. 1 Brine Well. However, attached is a log from the Amerada-St. C No.3 approximately 4,000' NE of the brine well. As indicated, the Rustler is identified at 1630' to 1750'. The Salado salt lies directly under the Rustler anhydrite and is well below the limits of the log, possibly 2500' thick. This thickness is typical of the Salado in this area. Since the ground elevation of this well and the Saline No. 1 are almost the same, 3652 and 3650, the 8" (8-5/8" O.D.) casing has been set at 1760' at the bottom of the Rustler anhydrite and the 4½" O.D. casing is bottomed at 2400' in the salt section. The tubing bottomed at 2560' provides 160' of salt section for solution mining.

The records indicate 2,526,751 bbl have been produced from this site. Assuming a parabolic shaped cavern due to the practice of washing from the bottom through the tubing and returning the brine through the annulus, the maximum diameter is calculated below. To obtain the volume of the paraboloid:

$V = 1{,}526{,}751 \text{ bbl} \times 5.61 \text{ cu.ft./bbl} = 8{,}565{,}073 \text{ cu.ft.}$

$V = \pi h l^2/8$

(l is diameter at the base)

(h is the exposed thickness of salt)

$l = [V \times 8/\pi h]^{\frac{1}{2}}$

$= [(8{,}565{,}073 \times 8)/(\pi \times 160)]^{\frac{1}{2}}$

$= 369'$

The washing of caverns in the salt section of West Texas and New Mexico began in the early 1950's to provide storage for high vapor pressure hydrocarbons. Since then, numerous brine supply sites have been developed. Consequently, well over one hundred

caverns currently exist, varying in size from 30,000 to 2,000,000 barrel capacity. To date, no known subsidence has occurred.

11.A.1. There is no "earthen ditch (firewall)" surrounding the tanks at this time. This construction had been planned but was never instituted for the reasons you stated. Experience has shown leaks from tanks of this type began with a small seep, readily visible from the accumulated salt crystals at the point of the seep. These leaks are immediately repaired and if several develop in a short period of time (6 to 12 months) the tanks are replaced.

11.A.2. All piping is buried to not only protect from vehiclular traffic, but to prevent freezing of the fresh water lines.

11.A.3. See I.D.

There is no fixed "truckload". However, the majority of the trucks have capacities ranging from 100 to 140 bbls.

11.B.1. The 8-5/8" casing is Grade N-80, 24#. The 4½" casing is API F-H Drill pipe. "SE" means this tubing is joined by "screw ends". All cement used in this area is compatible with brine. Ninety-nine percent of the oil wells drilled in the Permian Basin are drilled, cased and completed with brine.

III.B.C. Geology - Hydrology

The Saline No. 1 brine well is located on the Central Basin Platform of the Permian Basin area of West Texas and Eastern New Mexico. See Figure 1, attached.

The sub-surface formations are in a transitional area between the Delaware Basin's back-reef or shelf area and the Platform.

The brine production is from the Salado formation of the Ochoa series. This series is of Upper Permian Age and extends across the Delaware Basin, Central Basin Platform, thins and pinches out on

the Eastern shelf. This series is predominatly evaporates; sucessive layers of anhydrite, halite, polyhalite and to the west, in the Carlsbad area, varying thicknesses of the potash rich sylvanite and langbeinite. The evaporites contain stringers of dolomite, shale, siltstone and sandstone.

These evaporites deposits were formed during recurrent retreats of shallow seas. The lowermost formation is the Castile and is chiefly anhydrite but contains some halite beds. It rests unconformably on the Delaware Mountain group in the Delaware Basin but does not extend beyond the basin margin. Overlying the Castile is the Salado, which ranges in thickness from 0 to 2,000 feet. In the back-reef and platform areas it rests uncomformably on the Whitehorse group. This formation is mainly halite containing some anhydrite. The Rustler formation overlies the Salado, and varies in thickness from 90 to 360 feet and consists chiefly of anhydrite but includes red beds (shale) and salt.

The Triassic rocks, overlying the Permian formation; is the Dockum group and is divisible into the Santa Rosa sandstone and the Chinle formation. The Santa Rosa is a fine - to coarse grained sandstone and ranges in thickness from 140 to 300 feet. The Chinle is dominantly red and green claystone and contains minor stringers of fine-grained sandstone and siltstone.

The Jurassic and Cretaceous rocks are absent in this area. Although the Cretaceous was present initially, it has been extensively eroded and only exposed as blocks of limestone in widely isolated areas.

The Tertiary rocks are represented by the Ogallala formation. This formation ranges in thickness from 0 to 300 feet. It is chiefly a calcareous, unconsolidated sand but contains clay, silt and gravel.

This formation covers the surface of this area of central Lea County, trendening northwest from the Hobbs area, forming the locally named "Caprock" and identified on geologic maps as Mescalero Ridge. This ridge forms a vertical drop of 100 to 150' from the Llano Estacado to the northeast to the Querecho Plains to the southwest.

The Quaternary sediments in this area are in the form of alluvial deposits and dune sands. The alluvium was deposited in topographically low areas where the Ogallala formation had been stripped away. The dune sands mantle the older alluvium and Ogallala in this area.

The underground aquifers in this area are the Ogallala and Quaternary alluvium deposits. The ground water present in these formations is unconfined where the underlying red beds are relatively impermeable. They form a lower confining layer, which prevents further downward movement.

From piezometric maps and the reported water levels in this area, 40 to 60 feet below the ground surfaces, all water wells are producing from the Ogallala or Quaternary.

111.C.3. Please refer to the USGS sketch. This area has very little elevation differences and drainages are not deep arroyo types. Therefore, "flooding levels" in the brine well area would require unheard of amounts of rainfall to result in any depth of water to affect the site.

111.C.4. See III.B.C.

111.C.5. The water well furnishing water for this operation is shown on the attached USGS sketch. This well is approximately 800 feet northeast of the Saline No. 1 brine well. This latter well is also located on this USGS sketch. The water well elevation is shown

as 3651 and the brine well lies on the 3650 contour. The water well was drilled in 1951 by J.D. Hudgins to a depth os 127'. There is no log available. The well was subsequently sold to Republic Factors, Inc. and is currently in the Harold Semple Estate. The static water level was measured at 65' in 1959. The well is currently equipped with a 5 hp submersible, 100 GPM pump at 90 feet below the ground surface.

Most of the historical information and location was obtained from the New Mexico State Engineers office in Roswell.

111.C.6. A sample and analysis of the saturated brine is attached. The principal use of brine is for the drilling of oil and gas wells.

IV.A.1. There are no oil or gas wells within one quarter mile of this site. The exhibit A map has a scale of 1"=4,000' and the nearest indicated oil wells are over 4,000' from this site.

IV.A.3. A test pressure of 1.5 times the 180 PSI normal operating pressure, 270 PSI, will be observed during future tests. Normal injection is through the tubing with periodic reverseals to wash out the annulus area.

IV.A.4. No, truck capacities vary.

IV.A.5. The fresh water injected is metered and reported quarterly. Brine and fresh water sales are recorded for billing purposes, with dates of sales. From these data, records of injection and produced volumes can be maintained.

IV.A.8. A sample of the water well, at the Hobbs Country Club, located and shown on the USGS sketch in the NE/NE/NE 4 Sec. 1, T19S, R37E. This well, down hydraulic gradient from the brine well, will provide the best monitoring well in this vicinity. A recent analysis of this water is attached.

IV.A.9. The loading trucks are equipped with their own loading pumps. Upon completion of loading the vehicle, the brine delivery valve is closed and the pump evacuates the delivery line so no brine spills from this delivery line.

IV.A.10.a. The site is visited daily by Permian personnel.

b. Loss of mechanical integrity will be indicated by reduced discharge pump pressure and loss of brine return to storage. See IVA.8. above. Water will be analyzed for conductance and chlorides.

We have been advised to report leaks and spills to:

Ground Water/Hazardous Waste Bureau
Environmental Improvement Division

IV.B.1. Plugging and Abandonment Procedures.

A cast iron bridge plug will be set in this 4½" casing at the 8" casing shoe at a depth of about 1760'. Cement will be circulated to the top of the bridge plug completely filling the 4½" casing. The casing will be sealed at the surface by welding a steel plate over the open end of the 4½" casing.

Cost estimate for plugging brine well:

Well service unit (8 hrs @ $100/hr)	$ 800
Cast iron bridge plug	1,000
Cementing	2,000
Welding, misc site work	700
	$4,500

Subject to your approval, we shall cancel our plug and abandonment bond to the Oil Corporation Commission and obtain a $5,000 bond for the EID.

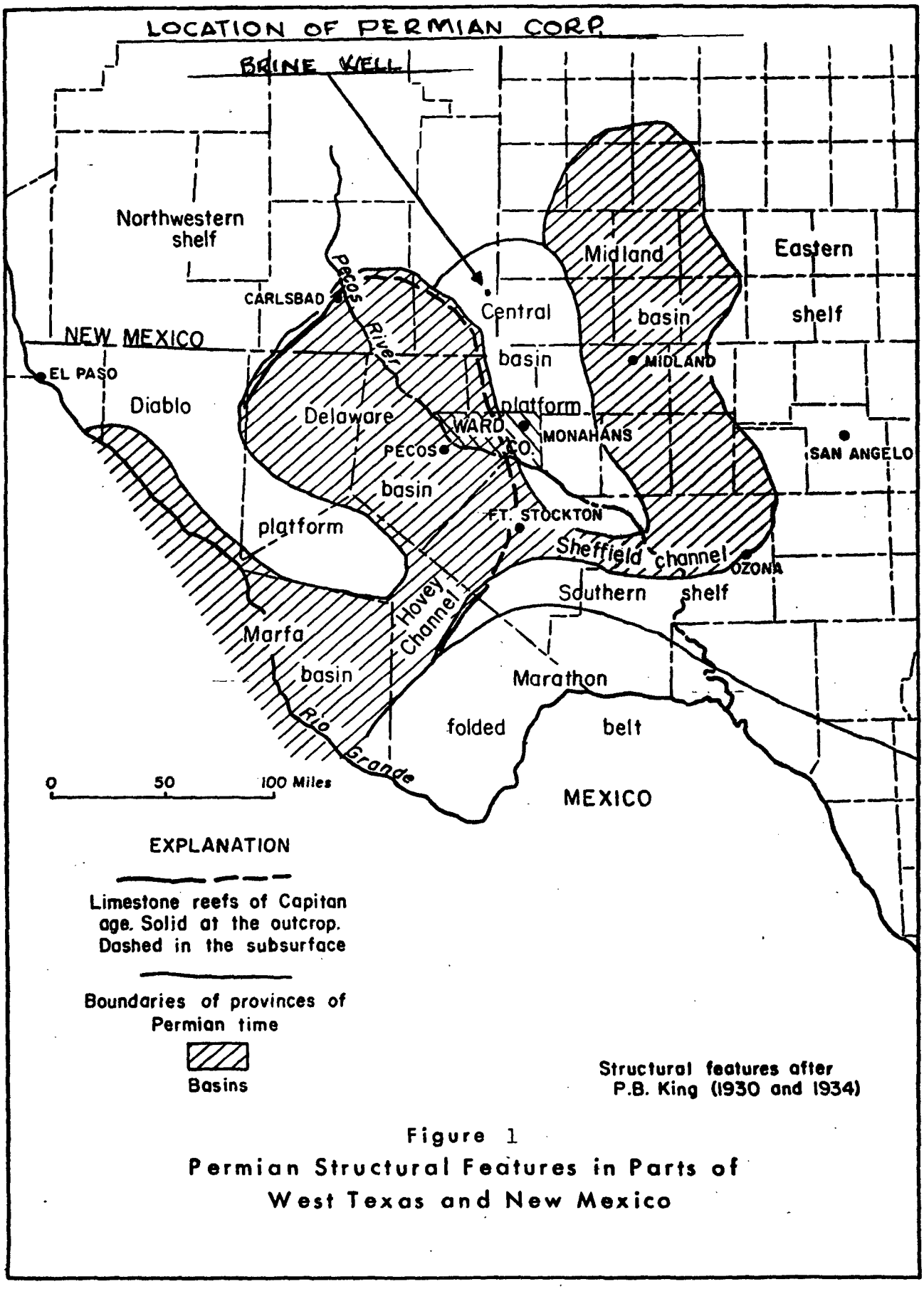
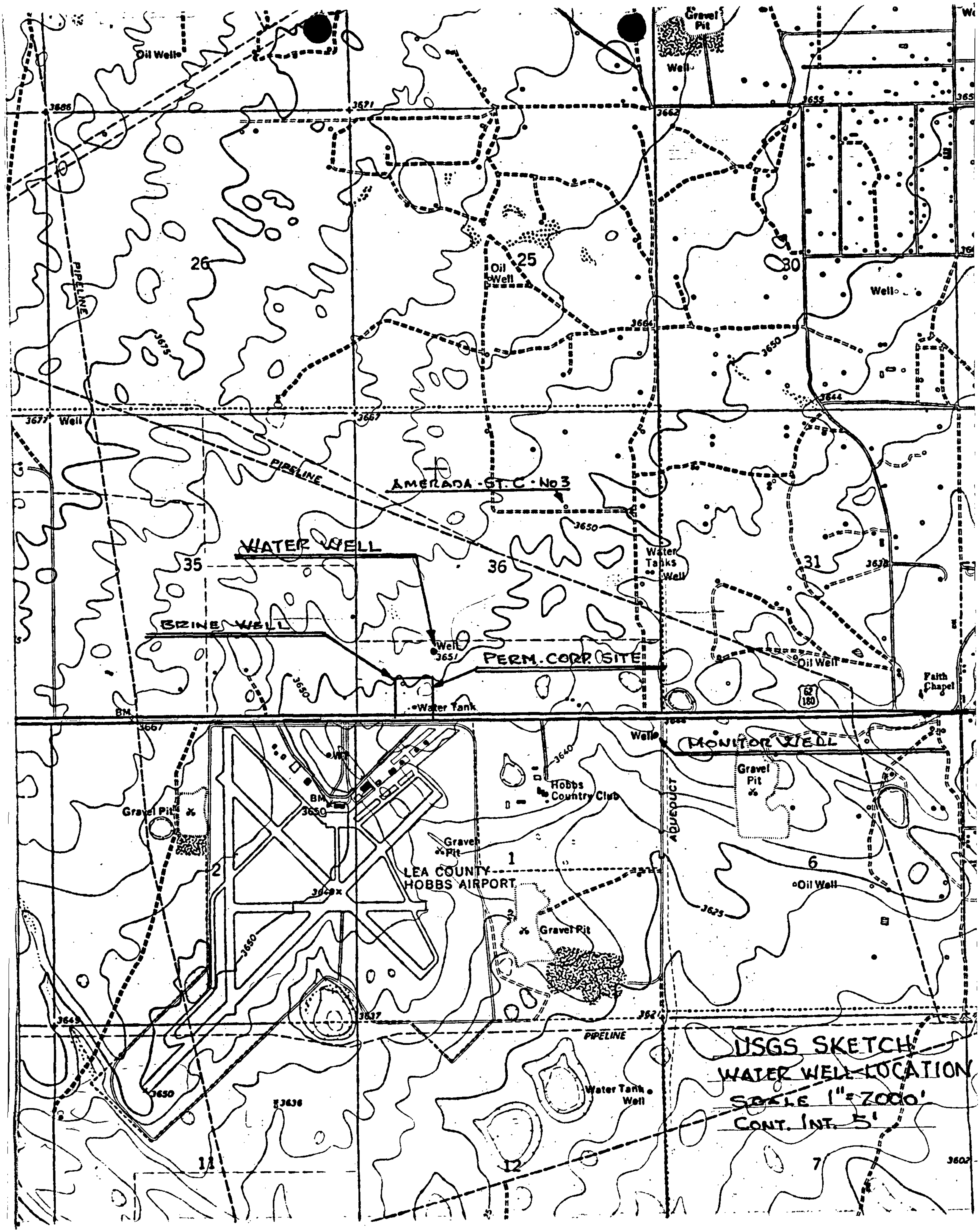


Figure 1

Permian Structural Features in Parts of West Texas and New Mexico



Oil Well
Gravel Pit
Well
3686
3671
3662
3655
26
25
Oil Well
30
Well
PIPELINE
3675
3664
3650
3644
3677 Well
3667
PIPELINE
AMERADA - ST. C - No 3
3650
WATER WELL
35
36
Water Tanks
Well
31
BRINE WELL
Well
3651
PERM. CORP. SITE
Oil Well
Faith Chapel
62
180
3650
Water Tank
BM
3667
Well
MONITOR WELL
3640
Hobbs Country Club
Gravel Pit
Gravel Pit
BM
3650
Gravel Pit
AQUEDUCT
2
1
6
LEA COUNTY
HOBBS AIRPORT
3648
Oil Well
3625
Gravel Pit
3650
3645
3637
3621
PIPELINE
USGS SKETCH
WATER WELL LOCATION
SCALE 1" = 2000'
CONT. INT. 5'
3650
3636
Water Tank
Well
11
12
7
3602

TONEY ANAYA
GOVERNOR

DENISE D. FORT
DIRECTOR

HEALTH ENVIRONMENT department

STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020

January 28, 1985

Owen Mobley, Division Manager
The Permian Corporation
P.O. Box 3119
Midland, TX 79702

RE: Second submittal on discharge plan DP-354 for Permian's brine extraction well Saline No. 1, SW¼ Section 36 T18S, R37E in Lea County.

Dear Mr. Mobley:

Thank you for your response on December 13 and 26, 1984 to the questions I raised on your first submittal. My comments on your recent submittal follow in the same order as our previous correspondence on this subject.

I.D. My request to submit a log was related to measuring the size of the salt cavity by such means as a sonar log - not a request for a driller's log. Nevertheless, the submitted information is useful and the computed size of the cavity on the basis of the production records you have submitted (even correcting for use of a faulty brine production value) is not so great as to call for direct measurement.

Regarding your point about the absence of known cases of subsidence due to salt dissolution in the Salado Formation: Roger Anderson (1982) points out that deep-seated collapse and brecciation resulting in formation of surface depressions is a common feature of the Salado Formation, and discusses the mechanisms for the process in "Deformation-dissolution potential of bedded salt, Waste Isolation Pilot Plant site, Delaware Basin, New Mexico" (in: Scientific Basis for Radioactive Waste Management - V. Werner Lutze, ed.). I believe that man-made caverns in the Salado set up the conditions which could result in surface subsidence if they are allowed to grow too large and are not left full of brine upon abandonment.

To repeat a question in my September 27th letter: were ponds ever used to store brine at this facility in the past?

II.A.3. How is brine production measured?

III.C.4. The analysis of the water from the Hobbs Country Club well (submitted December 26, 1984) and the most recent analysis from your source well (submitted August 31, 1984) will be taken as indicative of the quality of ground water most likely to be affected by spills or leaks at this facility.

IV.A.8. The Hobbs Country Club well is too far from the brine well to make it useful for monitoring purposes. If you were to wait for chloride contamination to show up at a well the better part of a mile from the brine facility, the costs to clean up the intervening aquifer would be astronomical. In order to monitor mechanical integrity in the brine well, you may either:

1) establish a monitor well (or wells, if you wish to sample the Ogalalla and Dockum Group aquifers separately) in close proximity to the brine well and propose a schedule of monitoring chloride concentrations in the monitor well(s); or

2) commit to carrying out quarterly pressure tests as follows: pump water into the brine well to bring the pressure up to approximate normal operating pressure. Shut in the well and attach a pressure recorder with a chart that has a scale appropriate to the pressure at which the test is run and the length of the test - at least six hours. Submit the chart to the EID.

   The EID will be witnessing this type of test on an annual basis, as time permits: we have made arrangements with Jim Ephriam of your staff to witness such a test at Permian's Hobbs facility.

IV.A.9. On the basis of our experience with other brine facilities, there are often problems with spillage due to driver inattention while loading brine. These problems can be minimized by providing some sort of paved platform in the loading area with a sump or sloped ramp which would deliver any spillage to an emergency pit. Any fluids in this pit should be pumped out regularly and disposed of properly. The pit itself must be lined.

IV.A.10.b. Please note that immediate notification of a significant leak or spill is required by Water Quality Control Commission Regulation 1-203. Any leak detected in the brine well is considered significant; surface spills that are contained in an emergency pit and are subsequently properly disposed of need not be reported. Spills that overtop the emergency pit or that occur elsewhere in the facility and amount to more than a couple of barrels of brine or several gallons of oil are significant.

Note also that Section 1-203 of the Water Quality Control Commission Regulations requires that the facility shall "take appropriate and necessary steps to contain and remove or mitigate the damage caused by the discharge."

IV.B.1. Your plugging and abandonment plan appears to be adequate if you will also agree to leave the cavity full of brine, identify the plugged well with a permanent marker bearing the name of the owner, type of well and plugging date, and remove your surface equipment and recontour the surface as necessary.

It is acceptable to transfer your plugging bond to the EID.

Thank you for your continued efforts at complying with the New Mexico Water Quality Control Commission Regulations. If your answers to the points raised above, the pressure test witnessed by EID and our inspection of the facilities are all satisfactory, I will be glad to recommend to the Director of EID that this discharge plan be approved.

Sincerely,

Paige Grant Morgan

Paige Grant Morgan
Water Resource Specialist
Ground Water Section

PGM:egr

cc: Jim Ephriam, Permian Corporation
Charles Purdy, Jones, Gallegos, Sneed and Wertheim
John Guinn, EID District IV, Manager

mples	Ion
2	Na
"	K
"	Ca
"	Mg
"	Cl
"	HCO3
"	CO3
"	SO4
"	TDS
	NO3+ NO2
	NH3
	kield N
	As
	Ba
	Cd
	CN
	Cr
	F
	Pb
	Hg
	Se
	Ag
	U
	V
	Ra 226
	Ra 228
	Cu
	Fe
	Mn
	Phenols
	Zn
	Al
	B
	Co
	Mo
	Ni
24	pH
3	Conduct.

SCAN(2)

ICAP

FIELD TRIP REPORT
GROUND WATER SECTION

SLD USER CODES
Ground Water: 59300
NO_3, HC, & Toxics: 59600
UIC: 59500

County Lea

FACILITY VISITED
Name of Facility: Permian Corporation Brine Station
Location: ± 5 mi west of Hobbs across from airport

Discharge Plan Number: DP-354
Type of Operation: Brine extraction well and associated surface facilities

ENVIRONMENTAL IMPROVEMENT DIVISION FIELD VISIT
EID Inspector(s): Patse Morgan, Steve Sanes
Date of Inspection or Visit: 3/26/85
Discharger's Representative Present During EID Visit:
Name: Richard Sentz
Title or Position: Field Manager?, Western Oil
Purpose of Visit:
a. Evaluation of Proposed Discharge Plan ✓
b. Compliance Inspection of Discharge with Approved Plan
c. Other (specify) pressure test of brine well
Inspection Activities During Field Visit:
a. Inspection of Facilities or Construction (specify)
Storage Tank area, brine well, water well

b. Sampling of Effluents (give sampling locations)
sampled brine from storage tank.

c. Sampling of Ground Water (give names or locations of wells)
Source well sampled from hose attached at well head. Source well ± 1000' n. of brine well.

d. Evaluation of geology, soils, water levels or other physical characteristics of the location (specify)

e. Other (specify)

Observations and Information Obtained during the Visit:
Pressure chart showed wide fluctuation in pressure (possibly due to encrustation in tubing causing blockage and then being washed out?). When pressure stabilized it took a long time to raise pressure in cavern. Ultimately chart showed a slight 1-2 psi rise in pressure and 12 hrs later a slight drop. Could be due to chart being put on off-center or could be due to temperature change in cavern and a leaky valve on surface. In either case no catastrophic failure - well passed test.

ACTION REQUIRED
Inform Permian of test results

MONITORING AND REPORTING FORM

ALL BLANKS MUST BE COMPLETED.

DISCHARGE PLAN NUMBER: 354

SIC NUMBER: _____

ORIGINAL DP: _____
RENEWAL: _____
MODIFICATION: _____
DATE RECEIVED: 1986

NAME OF FACILITY: THE PERMIAN CORPORATION SALINE NO. 1 BRINE STATION

ADDRESS OF FACILITY: ON EAST-WEST HIGHWAY ACROSS FROM HOBBS AIRPORT

ALTERNATE OR PAST NAME OF FACILITY: _____

CITY OR CLOSEST TOWN: HOBBS USGS QUAD: HOBBS WEST T-39

COUNTY: LEA TWP: 18S RGE: 37E SEC: 36

CONTACT PERSON: MOBLEY (LAST NAME), OWEN (FIRST NAME) TITLE: DIV. MANAGER

ADDRESS OF CONTACT PERSON: P.O. BOX 3119
MIDLAND, TEXAS 79701

TELEPHONE: 915/683-4711

TYPE OF FACILITY: BRINE MANUFACTURE AND BRINE & FRESH WATER SALES

MEANS OF DISCHARGE (LAGOON, LEACH FIELD, OTHER -SPECIFY): injection well; above-ground storage in steel tanks.

REVIEWER: (CURRENT) MORGAN (LAST NAME), PAIGE (FIRST NAME)

DATE APPROVED: 9/15/85 DATE OF EXPIRATION: 9/15/90

MONITORING REQ: (COMMENT, IF NECESSARY, ON BACK)

SAMPLING SITE OR ID	VOLUME/PRESSURE	PARAMETER(S)	DATE DUE
brine well	10,444 BBLS	QUARTERLY VOLUME BRINE SALES	March 31, June 30, Sept. 30, Dec. 31
" "	145 NORMAL WORKING PRESSURE 210 P. S. I.	PRESSURE TEST	MAY 16, 1986

SAMPLING SITE OR ID	STORET CODE (SAMP. SITE)	PARAMETER(S)	DATE DUE

COMMENTS: *pressure test may be conducted as part of EID inspection.

		YES	NO
OTHER APPLICABLE PERMITS:	RCRA	____	X
	RADIOACTIVE MAT.	____	X
	NPDES	____	X
	UST	____	X

FOR EID USE ONLY

STATUS OF DP:

ACTIVE: ____
WITHDRAWN: ____
EXPIRED, NOT RENEWED: ____
INACTIVE: ____
NOT YET APPROVED: ____

SEND REPORTS TO:

GROUND WATER SECTION
EID: GROUND WATER/HAZARDOUS WASTE BUREAU
P.O. BOX 968
SANTA FE, NM 87504-0968

HEALTH ENVIRONMENT department

STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968

TONEY ANAYA
GOVERNOR

DENISE D. FORT
DIRECTOR

March 4, 1986

James Ephraim
The Permian Corporation
P.O. Box 1183
Houston, Texas 77251-1183

RE: Permian Corporation Saline No. 1 Brine Station

Dear Mr. Ephraim:

Thank you for supplying me with the missing monitoring report for the above-referenced station. In the future, please advise the operator of the pressure test to record the test using a pressure recorder sensitive in the appropriate pressure range and a chart of the appropriate scale, and to send me the original chart together with the monitoring report form.

Thank you.

Sincerely,

Paige Grant Morgan
Acting Program Manager
Ground Water Section

PGM/mp

cc: EID District IV Manager

THE PERMIAN CORPORATION
2500 CITYWEST BOULEVARD 713/787-2500
P.O.BOX 1183 HOUSTON, TEXAS 77251-1183
TELEX: 324-942
PERM CORP HOU UD

February 28, 1986

Ground Water Section
EID: Ground Water/Hazardous Waste Bureau
P. O. Box 968
Santa Fe, N. M. 87504-0968

ATTN: Paige Morgan

Dear Ms. Paige:

In regard to your not receiving the "Monitoring and Reporting Form" on the operation of Permian's Saline #1 Brine Well, for quarter ended December 31, 1985, enclosed is a copy of the completed form. Also, by this letter, I will ask that all future reports be address to the attention of Paige Morgan at the address as shown on the back side of the reporting form.

If you require any changes on the reporting form, please let me know.

Yours truly,

Jim Ephraim

Jim Ephraim

JE/jlw
Enclosure

cc: Owen Mobley
Saline #1 file
Reading

f- SALINE #1

MONITORING AND REPORTING FORM

ALL BLANKS MUST BE COMPLETED.

DISCHARGE PLAN NUMBER: 354

ORIGINAL DP: _____
RENEWAL: _____
MODIFICATION: _____
DATE RECEIVED: _____

SIC NUMBER: _____

NAME OF FACILITY: THE PERMIAN CORPORATION SALINE NO. 1 BRINE STATION

ADDRESS OF FACILITY: ON EAST-WEST HIGHWAY ACROSS FROM HOBBS AIRPORT

ALTERNATE OR PAST NAME OF FACILITY: _____

CITY OR CLOSEST TOWN: HOBBS USGS QUAD: HOBBS WEST T-39

COUNTY: LEA TWP: 18S RGE: 37E SEC: 36

CONTACT PERSON: MOBLEY (LAST NAME), OWEN (FIRST NAME) TITLE: DIV. MANAGER

ADDRESS OF CONTACT PERSON: P.O. BOX 3119
MIDLAND, TEXAS 79701

TELEPHONE: 915/683-4711

TYPE OF FACILITY: BRINE MANUFACTURE AND BRINE & FRESH WATER SALES

MEANS OF DISCHARGE (LAGOON, LEACH FIELD, OTHER -SPECIFY): injection well; above-ground storage in steel tanks.

REVIEWER: (CURRENT) MORGAN (LAST NAME), PAIGE (FIRST NAME)

DATE APPROVED: 9/15/85 DATE OF EXPIRATION: 9/15/90

MONITORING REQ: (COMMENT, IF NECESSARY, ON BACK)

SAMPLING SITE OR ID	VOLUME/PRESSURE	PARAMETER(S)	DATE DUE
brine well	11,811 BBLS	QUARTERLY VOLUME BRINE SALES	March 31, June 30, Sept. 30, (Dec. 31)
" "	100 P.S.I. NORMAN WORKING PRESSURE 150 P. S. I.	PRESSURE TEST	JANUARY 6,1986
		REC'D - ENG. FEB 10 1986	

TPC-HOUST

SAMPLING SITE OR ID	STORET CODE (SAMP. SITE)	PARAMETER(S)	DATE DUE

COMMENTS: *pressure test may be conducted as part of EID inspection.

	YES	NO
OTHER APPLICABLE PERMITS: RCRA	____	X
RADIOACTIVE MAT.	____	X
NPDES	____	X
UST	____	X

FOR EID USE ONLY

STATUS OF DP:

ACTIVE: ____
WITHDRAWN: ____
EXPIRED, NOT RENEWED: ____
INACTIVE: ____
NOT YET APPROVED: ____

SEND REPORTS TO:

GROUND WATER SECTION
EID: GROUND WATER/HAZARDOUS WASTE BUREAU
P.O. BOX 968
SANTA FE, NM 87504-0968

No. of Samples	Ion
	Na
	K
	Ca
	Mg
	Cl
	HCO3
	CO3
	SO4
	TDS
////////	////////
	NO3+ NO2
	NH3
	kjeld N
////////	////////
	As
	Ba
	Cd
	CN
	Cr
	F
	Pb
	Hg
	Se
	Ag
	U
	V
	Ra 226
	Ra 228
////////	////////
	Cu
	Fe
	Mn
	Phenols
	Zn
////////	////////
	Al
	B
	Co
	Mo
	Ni
////////	////////
	pH
	Conduct.

FIELD TRIP REPORT
GROUND WATER SECTION

SLD USER CODES

County LEA

Ground Water: 59300

NO_3, HC, & Toxics: 59600

UIC: 59500

FACILITY VISITED

Name of Facility: Permian Brine

Location: Hobbs (across from Airport)

Discharge Plan Number: DP-

Type of Operation: Brine Well

ENVIRONMENTAL IMPROVEMENT DIVISION FIELD VISIT

EID Inspector(s): BAKER/SATES

Date of Inspection or Visit: 2/12/86

Discharger's Representative Present During EID Visit:

Name: NONE - SPOT CHECK

Title or Position:

Purpose of Visit:

a. Evaluation of Proposed Discharge Plan _____

b. Compliance Inspection of Discharge with Approved Plan ✓

c. Other (specify) _____

Inspection Activities During Field Visit:

a. Inspection of Facilities or Construction (specify)

Area on South end of Station had ~3' Berm to catch Spillage looked to be sloped Properly.

b. Sampling of Effluents (give sampling locations)

c. Sampling of Ground Water (give names or locations of wells)

d. Evaluation of geology, soils, water levels or other physical characteristics of the location (specify)

e. Other (specify)

Observations and Information Obtained during the Visit:

Lots of fluid against dike, couldn't tell if it was brine or water. Probably water - lots of snow & meltwater around

ACTION REQUIRED

HEALTH ENVIRONMENT department

STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020

TONEY ANAYA
GOVERNOR

DENISE D. FORT
DIRECTOR

February 19, 1986

James Ephriam
Permian Corporation
PO Box 1133
Houston, TX 77251-1133

Re: Permian Corporation Saline No. 1 Brine Station: monitoring commitments.

Dear Mr. Ephriam:

You are reminded that in discharge plan DP-354 for the above-referenced facility, your company made certain monitoring commitments (summarized on the attached form). The first of these - the volume of brine produced during the previous quarter, and the chart from a pressure test of the brine well - were due to be reported to this office by December 31, 1985. These two parameters are to be reported at the end of each calendar quarter.

Since you are coming up on the second reporting date required under your discharge plan (March 31st), you may fulfill your December and March reporting requirements simultaneously by submitting a report of the volume of brine produced for the past two quarters, and the chart from a pressure test of the brine well, conducted as you did the pressure test witnessed by EID on March 26th and 27th, 1985.

If in the future your monitoring commitments are late, incomplete, or not forthcoming, it will be viewed as a breach of the terms of your discharge plan and therefore as a violation of Section 3-104 of the New Mexico Water Quality Control Commission regulations. Through the courts, EID has been successful in obtaining financial penalties from facilities that have been delinquent in honoring their monitoring commitments. We hope to obtain your voluntary compliance in this matter.

Sincerely,

Paige Grant Morgan
Water Resource Specialist
Ground Water Section

PGM:pgm

MONITORING AND REPORTING FORM

ALL BLANKS MUST BE COMPLETED.

DISCHARGE PLAN NUMBER: 354

ORIGINAL DP: X
RENEWAL: _____
MODIFICATION: _____
DATE RECEIVED: 8/31/84

SIC NUMBER: _____

NAME OF FACILITY: ~~Permian Corporation Saline No. 1 Brine Sation~~

ADDRESS OF FACILITY: ~~on East-West Hwy. across from Hobbs airport~~

ALTERNATE OR PAST NAME OF FACILITY: _____

CITY OR CLOSEST TOWN: Hobbs USGS QUAD: Hobbs West T-39

COUNTY: Lea TWP: 18S RGE: 37E SEC: 36

CONTACT PERSON: Ephriam (LAST NAME), James (FIRST NAME) TITLE: _____

ADDRESS OF CONTACT PERSON: PO Box 1183
Houston, TX 77251-1183

TELEPHONE: (713) 787-2500

TYPE OF FACILITY: brine manufacture and brine and fresh water sales

MEANS OF DISCHARGE (LAGOON, LEACH FIELD, OTHER -SPECIFY): injection well; above-ground storage in steel tanks.

REVIEWER: (CURRENT) Morgan (LAST NAME), Paige (FIRST NAME)

DATE APPROVED: 9/15/85 DATE OF EXPIRATION: 9/15/90

MONITORING REQ: (COMMENT, IF NECESSARY, ON BACK)

SAMPLING SITE OR ID	STORET CODE (SAMP. SITE)	PARAMETER(S)	DATE DUE
brine well		volume of brine produced	March 31, June 30, Sept 30, Dec 31
" "		pressure test*	as above
		complete construction of emergency catchmemt	10/15/85

SAMPLING SITE OR ID	STORET CODE (SAMP. SITE)	PARAMETER(S)	DATE DUE

COMMENTS: *pressure test may be conducted as part of EID inspection.

OTHER APPLICABLE PERMITS:	YES	NO
RCRA	____	X
RADIOACTIVE MAT.	____	X
NPDES	____	X
UST	____	X

FOR EID USE ONLY

STATUS OF DP:

ACTIVE:	X
WITHDRAWN:	____
EXPIRED, NOT RENEWED:	____
INACTIVE:	____
NOT YET APPROVED:	____

SEND REPORTS TO:

GROUND WATER SECTION
EID: GROUND WATER/HAZARDOUS WASTE BUREAU
P.O. BOX 968
SANTA FE, NM 87504-0968

TONEY ANAYA
GOVERNOR

DENISE D. FORT
DIRECTOR

HEALTH ENVIRONMENT department

STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

October 9, 1985

Gary Goodwin, Vice President
Permian Corporation
PO Box 3119
Midland, Texas 79702

Re: Approval of Discharge Plan DP-354

Dear Mr. Goodwin:

The **discharge plan DP-354 for the Saline No. 1 brine station,** located in the SW/4 SW/4 Section 36, T18S R37E, just across the road from the airport west of the city of Hobbs, Lea County, New Mexico, **is hereby approved.** The approved discharge plan consists of:

1) The plan dated August 31, 1984;

2) The letter from your attorney, Charles Purdy, to Paige Grant of EID staff dated June 26, 1984, with attachments;

3) Supplements to the discharge plan, dated December 12 and December 18, 1984, together with the letters from EID to which they refer;

4) Letters dated April 12 and June 4, 1985, from James Ephraim of Permian Corporation to Paige Grant Morgan of EID staff;

5) A letter and accompanying plans from Keith Bracewell of Permian Corporation to Paige Grant Morgan, dated September 3, 1985; and

6) The plugging and abandonment bond received at EID on October 4, 1985.

The discharge plan was submitted pursuant to Section 5-101.B.3. of the New Mexico Water Quality Control Commission regulations. It is approved pursuant to Section 3-109. Please note subsections 3-109.E. and 3-109.F. which provide for possible future amendment of the plan. Please be advised that the approval of this plan does not relieve you of liability should your operation result in actual pollution of

surface or ground waters which may be actionable under other laws and/or regulations.

The monitoring and reporting shall be as specified in the discharge plan and supplements thereto. These requirements are summarized on the attached sheet. Any inadvertent omissions from this summary of a discharge plan monitoring or reporting requirement shall not relieve you of responsibility for compliance with that requirement.

Please note that Section 3-104 of the regulations requires that "**When a plan has been approved, discharges must be consistent with the terms and conditions of the plan.**"

Pursuant to subsection 3-109.G.4., this plan approval is for a period of five years. This **approval will expire on October 9, 1990,** and you should submit an application for renewed approval in ample time before that date.

Thank you for your cooperation during this discharge plan review.

Sincerely,

Richard Perkins
Acting Bureau Chief
Ground Water/Hazardous Waste Bureau

RP:PGM:pgm

cc: James Ephraim, Permian Corporation
Keith Bracewell, " "
Charles Purdy, Jones, Gallegos, Snead and Wertheim
John Guinn, EID District IV Manager

MONITORING AND REPORTING FORM

ALL BLANKS MUST BE COMPLETED.

DISCHARGE PLAN NUMBER: 354

ORIGINAL DP: X
RENEWAL:
MODIFICATION:
DATE RECEIVED: 8/31/84

SIC NUMBER:

NAME OF FACILITY: Permian Corporation Saline No. 1 Brine Sation

ADDRESS OF FACILITY: on East-West Hwy. across from Hobbs airport

ALTERNATE OR PAST NAME OF FACILITY:

CITY OR CLOSEST TOWN: Hobbs USGS QUAD: Hobbs West T-39

COUNTY: Lea TWP: 18S RGE: 37E SEC: 36

CONTACT PERSON: Ephriam, James TITLE:
LAST NAME FIRST NAME

ADDRESS OF CONTACT PERSON: PO Box 1183
Houston, TX 77251-1183

TELEPHONE: (713) 787-2500

TYPE OF FACILITY: brine manufacture and brine and fresh water sales

MEANS OF DISCHARGE (LAGOON, LEACH FIELD, OTHER -SPECIFY): injection well; above-ground storage in steel tanks.

REVIEWER: (CURRENT) Morgan, Paige
LAST NAME FIRST NAME

DATE APPROVED: 9/15/85 DATE OF EXPIRATION: 9/15/90

MONITORING REQ: (COMMENT, IF NECESSARY, ON BACK)

SAMPLING SITE OR ID	STORET CODE (SAMP. SITE)	PARAMETER(S)	DATE DUE
brine well		volume of brine produced	March 31, June 30, Sept 30, Dec 31
" "		pressure test*	as above
		complete construction of emergency catchmemt	10/15/85

SAMPLING SITE OR ID	STORET CODE (SAMP. SITE)	PARAMETER(S)	DATE DUE

COMMENTS: *pressure test may be conducted as part of EID inspection.

OTHER APPLICABLE PERMITS:	YES	NO
RCRA	____	X
RADIOACTIVE MAT.	____	X
NPDES	____	X
UST	____	X

FOR EID USE ONLY

STATUS OF DP:

ACTIVE: X
WITHDRAWN: ____
EXPIRED, NOT RENEWED: ____
INACTIVE: ____
NOT YET APPROVED: ____

SEND REPORTS TO:

GROUND WATER SECTION
EID: GROUND WATER/HAZARDOUS WASTE BUREAU
P.O. BOX 968
SANTA FE, NM 87504-0968

EID BUCKSLIP

CHECK ONE:

[X] LETTER TO Goodwin, Permian Corp.
for Perkins' signature

[ ] MEMO TO _____

[ ] PRESS RELEASE

[ ] OTHER

SUBJECT: D approval

DRAFTED BY: Paige Morgan _____ (Date)

CONCURRENCES:

NAME:		INITIAL	DATE REC'D	DATE APPROVED
Ron Conrad	Sect. Mgr.	RC	10/7/85	10/7/85
Richard Perkins	Bur. Chief	RP	____	10/8
Richard Holland	Dep. Dir.	____	____	____
Denise Fort	Director	____	____	____

FINAL DECISION NEEDED BY Oct. 9. (date) BECAUSE _____
so as not to redraft letter. Approval/disapproval required by Oct. 15 under terms of Assurance.

COMMENTS BY DRAFTER OR REVIEWER(S):
Perk - please sign enclosed bond for EID.

→ Margie, please note: keep original of bond form for us, send clean copy to Goodwin.
Thx - P.

THE PERMIAN CORPORATION
2500 CITYWEST BOULEVARD 713/787-2500
P.O.BOX 1183 HOUSTON, TEXAS 77251-1183

TELEX: 324-942
PERM CORP HOU UD

September 30, 1985

RECEIVED
OCT 4 1985
GROUND WATER/HAZARDOUS WASTE BUREAU

Paige Grant Morgan
Environmental Improvement Division
Post Office Box 968
Santa Fe, New Mexico 87504-0968

Dear Ms. Morgan:

RE: One-Well Plugging Bond Number 9286877
$5,000.00

Enclosed is the above-mentioned bond issued by American Casualty Company on September 27, 1985. This bond covers our Brine Well located in SW/4 of SW/4, T-18-S, R-37-E, Lea County, New Mexico.

We attempted to use the Oil Conservation Division (OCD) form by altering it in accordance with your letter of September 17, 1985. It was so messy, and hard to read, we had our attorney to make a bond form that would incorporate all of your requirements.

If you have any questions, please call me at (713) 787-2539.

Yours very truly,

Earl B Newland

Earl B. Newland
Director of Administration

EBN:ld

cc: James Ephraim

TONEY ANAYA
GOVERNOR

DENISE D. FORT
DIRECTOR

STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020

September 17, 1985

Earl Newland
Permian Corporation
PO Box 1183
Houston, TX 77251-1183

Dear Mr. Newland:

As we discussed by phone on Monday, I am sending you a couple of forms used by the Oil Conservation Division (OCD) for a plugging and abandonment bond. These forms are generally acceptable to the EID, with appropriate modifications to make the form applicable to a brine well and to name the EID as the responsible agency rather than the OCD. For instance, on the one-well plugging bond, the following changes are proposed:

1. Remove the "note" on the first page, through the address of the Oil Conservation Commission. The amount of the bond must be sufficient to accomplish the plugging and abandonment plan described in the discharge plan.

2. In the first paragraph, remove "and benefit . . ." through " . . .as amended", and replace with "of the Environmental Improvement Division".

3. Remove the first two "WHEREAS" statements.

4. Alter the third "WHEREAS" statement to read as follows: — please use your judgment

   WHEREAS, the above principal, individually or in association with one or more parties (if that is a correct statement), owns and operates one well of a depth of approximately 2600 feet for the production of brine, the identification of said well being SE /4 SW /4 SE /4 Section 36, T18S, R37E, Lea County, New Mexico.

5. NOW, THEREFORE: change "Oil Conservation Commission" to Environmental Improvement Division".

6. On the second page, change the approval agency to read "Environmental Improvement Division of New Mexico".

If you choose to use the blanket plugging bond form, please make similar alterations to the form as appropriate. In either case, once you have completed the form and had it signed by an individual who is empowered to sign for the

corporation, please return the form to me so that I can have it signed here. I will then return a copy to you and recommend approval of the discharge plan for the Permian Corporation Saline No. 1 brine station.

Thank you for your attention to this matter.

Sincerely,

Paige Grant Morgan
Water Resource Specialist

cc: James Ephraim, Permian Corporation
John Quinn, EID District IV Manager

PGM:pgm

THE PERMIAN CORPORATION
1509 W. WALL P. O. BOX 3119
MIDLAND, TEXAS 79702
915-683-4711

September 3, 1985

State of New Mexico
Environmental Improvement Division
P. O. Box 968
Santa Fe, New Mexico 87504-0968

Mrs. Paige Morgan,

Please find attached drawings which show our Saline brine water station at Hobbs, New Mexico. We have completed building a containment dike around our storage tanks and a caliche dike on the south side of our truck loading - turnaround to contain accidental spills.

As agreed during your on site inspection 8/22/85, we plan to do some more dirtwork as listed below:

(1) Blade truck turnaround - loading area for greater slope from north to south.

(2) Deepen spill containment area and slope towards southeast corner for easy pick-up by truck from buried sump barrel.

(3) Containment area to hold a total of 130 barrels.

Should a spill occur Permian will use a truck to pick up the brine water from the buried sump. All water will drain towards this sump for easy pick-up. Water will not be allowed to stand in this containment area but will be removed same day.

Please notify me if this plan as described above and shown on attached drawings meets your approval.

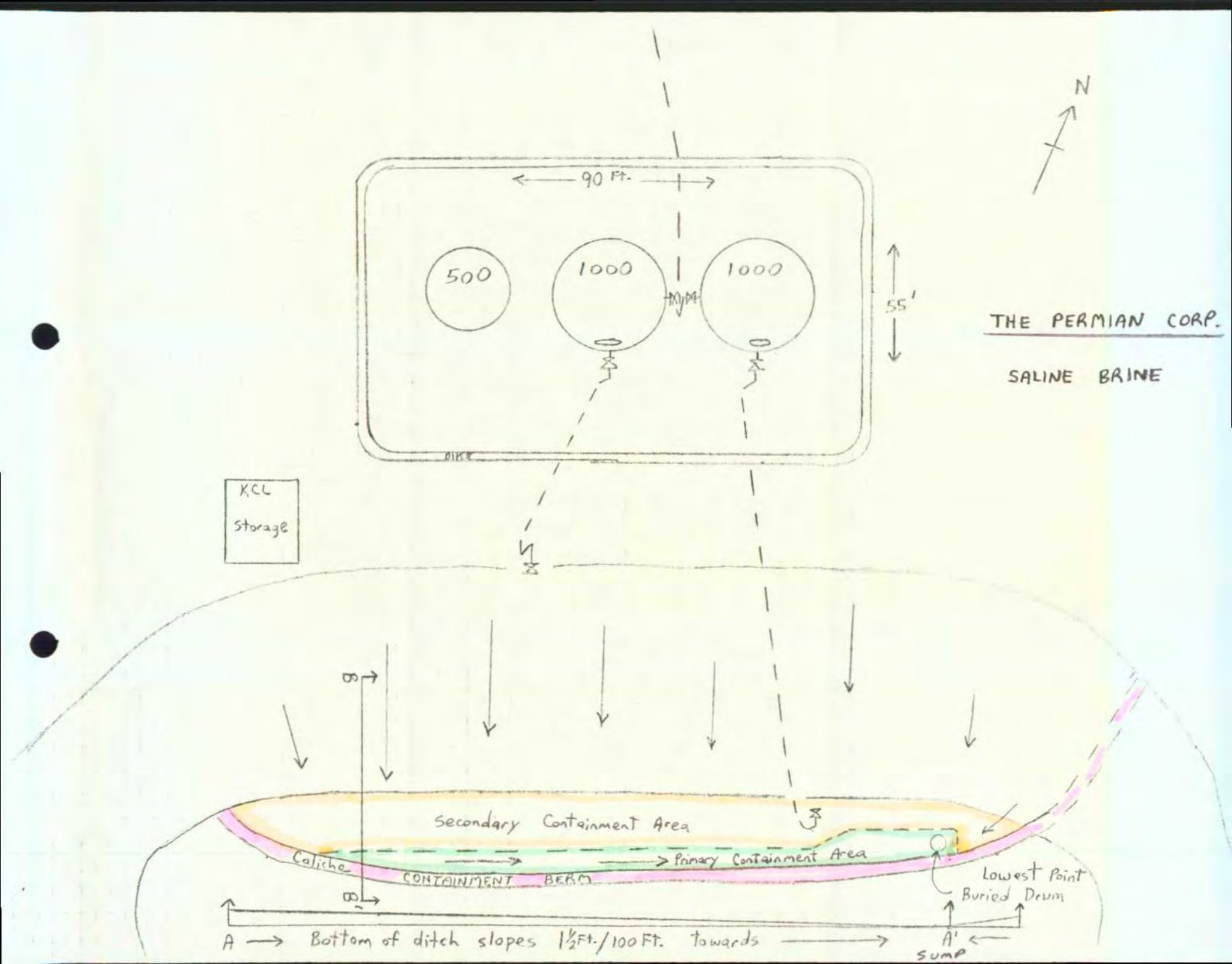
Yours truly,

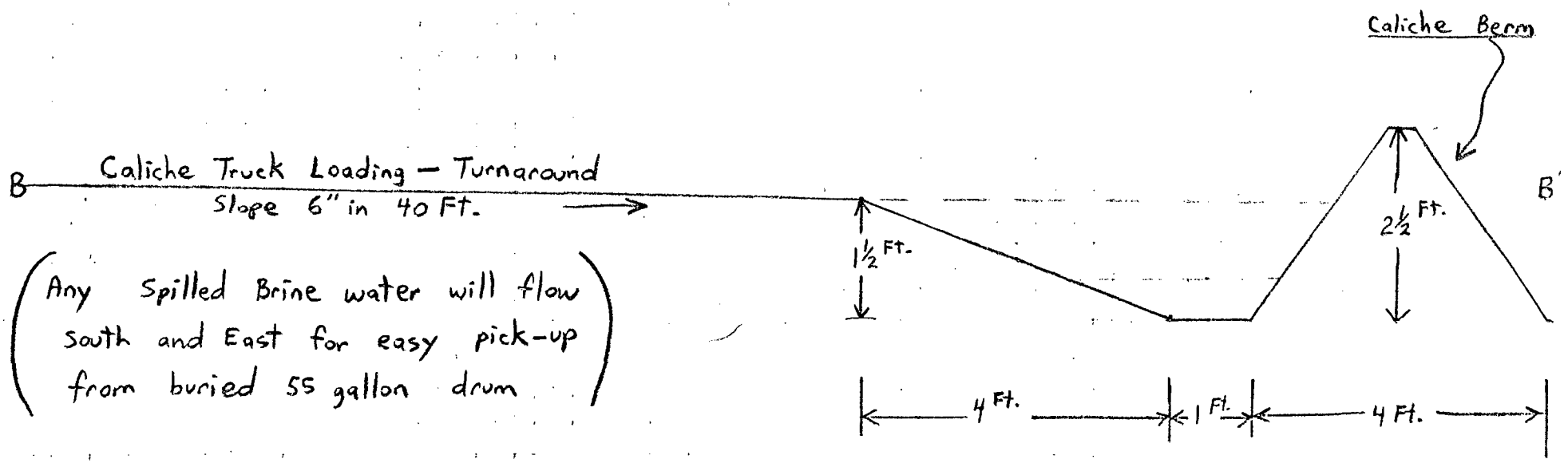
Keith Bracewell

Keith Bracewell

KB/rl

cc: Jim Ephraim
Owen Mobley
George Wood
file


N
90 Ft.
500
1000
1000
55'
DIKE
KCL
Storage
THE PERMIAN CORP.
SALINE BRINE
B
B
Secondary Containment Area
Primary Containment Area
Caliche
CONTAINMENT BERM
Lowest Point
Buried Drum
A
Bottom of ditch slopes 1½Ft./100 Ft. towards
A'
SUMP



(Any Spilled Brine water will flow South and East for easy pick-up from buried 55 gallon drum)

No. of Samples	Ion
	Na
	K
	Ca
	Mg
	Cl
	HCO3
	CO3
	SO4
	TDS
////////	////////////
	NO3+ NO2
	NH3
	kjeld N
////////	////////////
	As
	Ba
	Cd
	CN
	Cr
	F
	Pb
	Hg
	Se
	Ag
	U
	V
	Ra 226
	Ra 228
////////	////////////
	Cu
	Fe
	Mn
	Phenols
	Zn
////////	////////////
	Al
	B
	Co
	Mo
	Ni
////////	////////////
	pH
	Conduct.

FIELD TRIP REPORT
GROUND WATER SECTION

SLD USER CODES

County Lea

Ground Water: 59300
NO_3, HC, & Toxics: 59600
UIC: 59500

FACILITY VISITED

Name of Facility: Permian Corp. Brine Station
Location: west of Hobbs opposite airport

Discharge Plan Number: DP-354
Type of Operation: brine mfg + sales

ENVIRONMENTAL IMPROVEMENT DIVISION FIELD VISIT

EID Inspector(s): Paddy Morgan + Steve Sanes
Date of Inspection or Visit: 8/22/85
Discharger's Representative Present During EID Visit:
Name: Richard Lentz, Keith Bracewell
Title or Position: - local mgr; - engineer
Purpose of Visit:
a. Evaluation of Proposed Discharge Plan ✓
b. Compliance Inspection of Discharge with Approved Plan _____
c. Other (specify) _____
Inspection Activities During Field Visit:
a. Inspection of Facilities or Construction (specify)
inspected proposed arrangements for emergency discharge - not adequate as they stand.

b. Sampling of Effluents (give sampling locations)

c. Sampling of Ground Water (give names or locations of wells)

d. Evaluation of geology, soils, water levels or other physical characteristics of the location (specify)

e. Other (specify) discussed possible improvements on design. Blackwell will send plans in a week.

Observations and Information Obtained during the Visit:

ACTION REQUIRED

HEALTH ENVIRONMENT STATE OF NEW MEXICO

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 4:10	Date 6/27/85
Originating Party	Other Parties	
Paige Morgan	Jon Ephraim - Permian Corp. (713) 787-2500, 2544	

Subject: Plans for spill containment at Permian Corp's Crane Station in Hobbs.

Discussion: I responded to his June 4th letter saying that there wasn't enough detail about their spill containment plans for me to approve the I.P. I said either he should send in drawings of the proposed berm area, giving volume calculations ("It'll be big enough to contain an entire tank-spill", he said), indicating padding materials, if any ("it will be excavated into the native caliche"), etc.; or take the risk of constructing and then let us inspect in person or send us photographs and dimensions. He said they couldn't afford to do any more than they've proposed and did I intend to close them down. I said I had never done so and hoped that we could arrive at a solution that satisfied both of our concerns.

Conclusions or Agreements: Agreed: I will tell him when we have a trip scheduled to Hobbs area; he will try to get work done in first half of July.

Distribution:

Signed: Paige Grant Morgan

REPORT TO: MORGAN/SARES
Ground Water & Hazardous Waste Bureau
Environmental Improvement Division
Health & Environment Department
P.O. Box 968 - Crown Building
Santa Fe, NM 87504-0968

LAB NUMBER HM-0527
DATE RECEIVED 3/29/85
DATE REPORTED 6/18/85 JTA
Initials
SLD USER CODE NUMBER 59500

Well Location Address Permian Corp Hobbs NM

Point of Collection Brine Tank

Well Owner/User Richard Lentz

Number of People Drinking Water from Well 0

Collected 850326 Date 1211 Time

By P. Morgan Name EID Agency

Well Depth —NA—

Water Level —NA—

pH 5.78

Conductivity (Uncorrected) OFF SCALE umho/cm

Taste? Odor? Color? Collectors Remarks

BRINE VERY HIGH TDS

Temperature 24 °C

Conductivity at 25°C _____ umho/cm

PROJECT:

From _____, A-H_2SO_4 Sample:

From _____, NA Sample: Date Analyzed

- ☐ Nitrate-N^+ Nitrite-N _____ mg/l _____
- ☐ Ammonia-N _____ mg/l _____
- ☐ Chemical oxygen demand _____ mg/l _____
- ☐ _____ _____ _____

From F, A-HNO_3 Sample:

- ☒ ICAP Scan
- ☐ Metals by AA (Specify)

- ☐ Calcium _____ mg/l _____
- ☐ Potassium _____ mg/l _____
- ☐ Magnesium _____ mg/l _____
- ☐ Sodium _____ mg/l _____
- ☐ Bicarbonate _____ mg/l _____
- ☐ Chloride _____ mg/l _____
- ☐ Sulfate _____ mg/l _____
- ☐ Total Solids _____ mg/l _____
- ☐ _____

RECEIVED
JUN 24 1985
LIQUID WASTE/GROUND WATER SURVEILLANCE

This form accompanies 1 sample(s) marked as follows to indicate field treatment:

850326 1211

NF: Whole sample (no filtration).
F: Filtered in field with 0.45u membrane filter
A-H_2SO_4: Acidified with 2 ml conc H_2SO_4/l
A-HNO_3: Acidified with 5ml conc HNO_3/l
NA: No acid added

ICAP -SCREEN

Lab Number: HM 527

Sample Code: Permian Corp Hobbs N.M.

Date Submitted: 3/29/85

Date Reported: 6/18/85

By: Sares / Morgan

By: J. Ashby

Determination	Concentration (µg/ml)
Aluminum	<1.0
Barium	<1.0
Beryllium	<1.0
Boron	13.
Cadmium	<1.0
Calcium	1500.
Chromium	<1.0
Cobalt	<1.0
Copper	<1.0
Iron	<1.0
Lead	<1.0
Magnesium	700.
Manganese	1.2
Molybdenum	<1.0
Nickel	<1.0
Silicon	<10.
Silver	<1.0
Strontium	19.
Tin	<1.0
Vanadium	<1.0
Yttrium	<1.0
Zinc	<1.0

REPORT TO: Morgan/Saves

Ground Water & Hazardous Waste Bureau
Environmental Improvement Division
Health & Environment Department
P.O. Box 968 - Crown Building
Santa Fe, NM 87504-0968

LAB NUMBER HM-0524

DATE RECEIVED 3/29/85

DATE REPORTED 6/11/85 JTA
Initials

SLD USER CODE NUMBER 59500

Well Location Address Permian Corp. Hobbs NM

Point of Collection Well

Well Owner/User Richard Lentz

Number of People Drinking Water from Well 0

Collected 850326 (Date) 1152 (Time)

By Morgan (Name) EID (Agency)

Well Depth _____

Water Level _____

Taste? Odor? Color? Collectors Remarks

_____

_____

pH 6.6

Conductivity (Uncorrected) 500 umho/cm

Temperature 19 °C

Conductivity at 25°C _____ umho/cm

GROUND WATER/HAZARDOUS WASTE BUREAU

PROJECT:

From ____, A-H_2SO_4 Sample:

- ☐ Nitrate-N^+ Nitrite-N _____ mg/l _____
- ☐ Ammonia-N _____ mg/l _____
- ☐ Chemical oxygen demand _____ mg/l _____
- ☐ _____ _____ _____

From F, A-HNO_3 Sample:

- ☒ ICAP Scan
- ☐ Metals by AA (Specify)

From ____, NA Sample:

		Date Analyzed
☐ Calcium	_____ mg/l	_____
☐ Potassium	_____ mg/l	_____
☐ Magnesium	_____ mg/l	_____
☐ Sodium	_____ mg/l	_____
☐ Bicarbonate	_____ mg/l	_____
☐ Chloride	_____ mg/l	_____
☐ Sulfate	_____ mg/l	_____
☐ Total Solids	_____ mg/l	_____
☐ _____		_____

This form accompanies 1 sample(s) marked as follows to indicate field treatment:

NF: Whole sample (no filtration).
F: Filtered in field with 0.45u membrane filter 850326 1152
A-H_2SO_4: Acidified with 2 ml conc H_2SO_4/l
A-HNO_3: Acidified with 5ml conc HNO_3/l
NA: No acid added

ICAP SCREEN

Lab Number: HM 524

Sample Code: Permian Corp. Hobbs U.M.

Date Submitted: 3/29/85

Date Reported: 6/11/85

By: Morgan/Sares

By: J. Ashby

Determination	Concentration (µg/ml)
Aluminum	<.10
Barium	<.10
Beryllium	<.10
Boron	<.10
Cadmium	<.10
Calcium	66.
Chromium	<.10
Cobalt	<.10
Copper	<.10
Iron	<.10
Lead	<.10
Magnesium	11.
Manganese	<.05
Molybdenum	<.10
Nickel	<.10
Silicon	22.
Silver	<.10
Strontium	.56
Tin	<.10
Vanadium	<.10
Yttrium	<.10
Zinc	<.10

THE PERMIAN CORPORATION
2500 CITYWEST BOULEVARD 713/787-2500
P.O.BOX 1183 HOUSTON, TEXAS 77251-1183

TELEX: 324-942
PERM CORP HOU UD

June 4, 1985

RECEIVED

JUN 06 1985

GROUND WATER/HAZARDOUS WASTE
BUREAU

Mrs. Page Grant Morgan
Ground Meter Section
New Mexico Environmental
Improvements Division
Box 968
Santa Fe, New Mexico 87504-0968

Dear Mrs. Morgan:

In response to our telephone conversation on May 23, 1985, concerning the discharge plan DP-354 for Permian's brine section near Hobbs, New Mexico; Permian proposes the following to meet your requests for compliance and approval of the discharge plan:

II. A. 3. Brine sales will be reported to the N.M. E.I.D. on a quarterly basis.

III. C.4. and IV. A. 8. The brine production operation will be shut down immediately upon the discovery of loss of pressure in the system and will not be restarted until the problem has been determined and corrective action taken.

IV. A. 9. To provide for containment of a major spill resulting from the failure of a holding tank, a dike would be built around the holding tanks which will contain any spillage, and prevent the escape of product from the property. In the unlikely event such a spill should occur, the product will immediately be picked up by one of our trucks and moved to a proper disposal site.

To provide for containment of a major spill during the process of loading a truck, a catchment area would be provided to collect any such spillage into a separate containment dike and prevent the escape of product from the property. Again, in the unlikely event of such a spill, the product would immediately be picked up by another of our twenty-three other radio-dispatched transport trucks, which operate in the Hobbs area on a 24 hour a day, seven-days a week schedule (all trucks are equipped for self-loading from ground level basins) and moved to a proper disposal site.

Thank you for your help in completing this discharge plan.

Yours truly,

Jim Ephraim

JIM EPHRAIM

JE:jg
cc: Owen Mobley
W. L. Weddle
Charles Purdy, Jones, Gallegos
Snead & Wertheim
P.O. Box 2228
Santa Fe, N.M. 87501

STATE OF NEW MEXICO
ENVIRONMENT

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time	Date
	10:00	5/23/85

Originating Party	Other Parties
Paige Morgan	Jon Ephriam (713) 787-2500

Subject: Response to Permian's April 12, 1985 Letter

Discussion: Three final points on discharge plan:
(1) Brine production records. He agreed to send in monthly totals quarterly.
(2) need a contingency plan for surface spills and leaks. He agreed reluctantly to develop some plan for spill containment.
(3) need a statement that if the brine well appears to be leaking due to a loss of pressure, the operation will be shut down until appropriate repairs are made.

Conclusions or Agreements: He agreed to respond to the above points before June 14th, the date by which I would otherwise be obligated to reply to his April 12th letter.

Distribution

Signed: Paige Grant Morgan

TONEY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968.
(505) 984-0020
DENISE FORT, DIRECTOR

September 27, 1984

C.N. Adams, P.E.
Chief Engineer
THE PERMIAN CORPORATION
P.O. Box 1183
Houston, TX 77001

RE: Discharge Plan DP-354 submitted for Permian's brine extraction well Saline No. 1, SW¼ Sec. 36 T18S, R37E in Lea County, New Mexico.

Dear Mr. Adams:

I appreciate your submittal of a complete discharge plan for the above referenced facility, as opposed to sending in chapters according to the schedule specified in Permian's Assurance of Discontinuance. My comments on your submittal follow, in the form in which your discharge plan was presented. These comments must be satisfactorily addressed by you before I can recommend to the EID Director that this discharge plan be approved.

I.C. I assume that the salt formation encountered by your well is the Salado Formation, which is bedded salt rather than a salt dome. Please correct me if I am wrong. The question has bearing on the recommended well design. Not answered

It is of concern that you produce brine through the annulus rather than the tubing, due to the increased potential for casing corrosion, and hence of aquifer contamination, associated with this practice. During inspections of the surface facilities at brine stations, a note will be made as to whether injection is through tubing or annulus. More frequent casing pressure tests will be required of those facilities bringing brine up the annulus than of those that produce through the tubing.

I.D. As this well has been in continual operation for 16 years, I am concerned about the potential for subsidence. Please submit a discussion of the size and shape of the cavity and the thickness of salt in the roof of the cavity. Please support your discussion with the data, logs or other measurements, and any calculations that were used to arrive at your conclusions.

Were ponds ever used to store brine at this facility in the past? Not answered

II.A.1. Please give more information about the "earthen ditch (firewall)" around the brine tanks. Note that although such a structure may serve the purpose of preventing spillage from flowing overland, it also has the effect of ponding the spill and encouraging seepage to the subsurface and potentially to ground water. See further discussion under IV.A.10.

II.A.2. Is this pipe buried or otherwise protected from damage by vehicular traffic?

II.A.3. Please submit figures for total brine withdrawal over the years of operation. This information may be presented as part of the discussion of cavity size (see comment under I.D).

What volume is represented by "a truckload"?

II.B.1. What grade is your casing? What is "SE" production tubing? Do you know whether the cement used is compatible with brine?

III.B. & C. These sections of a discharge plan are crucial in order to make a determination as to whether or not an operation threatens ground water quality. It is necessary to carry out some research in a library and in the files of the State Engineer, at a minimum, in order to address these questions adequately. A good reference on the ground water of Lea County is: Nicholson, A., Jr. and A. Clebsch, Jr., 1961. Geology and Ground Water Conditions in Southern Lea County, New Mexico. U.S. Geological Survey Ground-Water Report 6. You may wish to consult a geologist or hydrologist to prepare this portion of the plan for you.

III.C.3. Please expand on your remark that the site is "not prone to flooding."

III.C.4. See my note under III B and C.

III.C.5. Please give the location of the water well relative to your brine well, including elevations of the land surface at each. Also provide details of the construction of your water well: driller's log, static water level, screened interval, etcetera. Some of this information may be available from the State Engineer's Office, if it is lacking in your files.

III.C.6. The analysis of your brine indicates a lower chloride concentration than for any other brine well I have reviewed. Just as a point of information, what is the principal use of the brine sold at this facility?

IV.A.1. The map you submitted as Exhibit A shows a large number of oil and gas wells in the neighborhood of your brine well, which inevitably intersect the salt formation tapped by your well. Please submit plugging reports (available from N.M. Oil Conservation Division) for any abandoned oil/gas wells within a quarter-mile radius of your brine well. Also consult the State Engineer's Office to identify water wells within the area of review.

IV.A.3. This test should be conducted at higher pressure, and recorded in such a fashion as to provide a clear record of the test results. The intervals at which the test should be conducted will be determined in part by the common mode of injection: down the tubing or down the annulus.

IV.A.4. Records of brine sales are probably sufficient for our purposes, so long as the volume of each sale is known (e.g., do all truck tanks used by your clients have the same volume?).

IV.A.5. Please clarify how you propose to compare volumes of brine extracted to water injected by "integration of the data on the pressure recording chart for injection pump operation".

IV.A.8. Please submit the analyses you have obtained from the wells you refer to in Sec. 1, T19S, R37E, and Sec. 31, T18S, R38E. Also give locations of these wells as precisely as possible, and any construction information you can obtain from the well owners or from public records.

IV.A.9. Do you mean by reference to a "loading cycle" that the pump is set to deliver an approximate tankful, after which it shuts off automatically?

IV.A.10.a. How much of the time is the facility manned or visited by an operator?

b. How will a loss of mechanical integrity be recognized? What ground water is analyzed, from what wells, at what intervals, and for what parameters?

For all subsurface leaks, and for significant leaks and spills at the surface: will you commit to notifying the EID of any such event, as per Section 1-203 of the Water Quality Control Commission regulations?

IV.B.1. Although the letter from Ronald J. Martinez indicates that the Permian Corporation is in good financial health, it does not guarantee that funds sufficient to properly abandon the brine well shall be made available for that purpose. At a minimum, you would be required to fill the cavity with brine and plug the well with cement from bottom to top, by way of full closure of this facility.

Please prepare a closure plan incorporating these minimum requirements and itemizing the cost of carrying out such a plugging plan. Then please submit proof that funds sufficient to execute the plan have been placed in escrow or that a bond for the amount has been purchased, to guarantee that the cost of closure of the facility would not fall upon the State.

Please respond to the above comments by December 14, 1984, the date specified in your Assurance of Discontinuance for your next submittal. If I can answer any questions on the contents of this letter, please do not hesitate to contact me at the address and telephone number given above (ext. 285).

Thank you for your compliance with the discharge plan requirement for this facility.

Sincerely,

Paige Grant
Water Resource Specialist
Ground Water Section

PG:jba

cc: Charles Purdy-Jones, Gallegos, Sneed & Wertheim
Jim Ephriam-Permian Corporation
John Guinn, EID District IV, Roswell

MSL

September 21, 1984

TO BE PUBLISHED ON OR BEFORE OCTOBER 1, 1984

PUBLIC NOTICE
NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following proposed discharge plan(s) have been submitted for approval to the Director of the New Mexico Environmental Improvement Division, P.O. Box 968, Crown Bldg., Santa Fe, New Mexico 87504-0968; telephone (505) 984-0020.

(DP-156) ANGEL FIRE SERVICE CORPORATION, Highway 38, Angel Fire, New Mexico 87710 proposes to amend its existing approved discharge plan, DP-156. The discharger proposes land application of up to 200,000 gallons per day of reclaimed domestic wastewater at a new 135-acre site several thousand feet north of the existing disposal site. Discharge to the proposed site would begin in spring 1985; the existing site would be retired in 1986. Additionally, the discharger proposes land spreading of stabilized sludge on 18 acres, and also proposes new effluent ponds for additional winter storage. The discharges will take place at T25N, R16E, Section 7 and 18, Colfax County, about one mile north of Angel Fire Village. The discharge is designed to contain less than 20 mg/l BOD and suspended solids, less than 10 mg/l total nitrogen, and about 600 mg/l total dissolved solids. The most vulnerable ground water at the site is at a depth of 15-35 feet and has 200-400 mg/l total dissolved solids.

(DP-214) CHINO MINES COMPANY, A Kennecott-Mitsubishi Partnership, Hurley, New Mexico 88043 has submitted a proposed modification to its approved ground water discharge plan, DP-214, for discharges from its copper and molybdenum ore processing, and copper reduction facilities in the Whitewater Creek drainage basin, covering Chino discharges from the new concentrator facility, acid plants and INCO furnace into the proposed new tailings area, Bolton Pond and the existing tailings area. Proposed modifications include increasing tailings disposed from 37,500 T/day to 42,500 T/day, with associated tailing fluids increased from 6,000 gpm to 10,300 gpm Chino also proposes to eliminate a separate facility to neutralize with lime, acid plant blowdown and INCO sludge, and substitute a neutralizing process which produces neutralization in the pipelines and in the tailings themselves. The location of the discharge is in Grant County, T19S, R12W, Sections, 4, 5, 8, 9, 10, 15, and 16 (Bolton Pond) and T19S, R12W, Sections 5, 6, 7, 8, 16, 17, 18, 19, 20, 21 (existing tailings). The ground water most likely to be affected is at depths ranging from approximately 19 feet to approximately 3,000 feet with total dissolved solids concentration ranging from 190 to 3,361 mg/l.

(DP-355) KENNETH TANK SERVICE (KTS), Drawer 1599, Lovington, New Mexico 88260, has submitted a discharge plan for an existing brine extraction well and associated surface facilities located in the SE¼ SE¼ SE¼ Section 27, T9S, R35E in Lea County, approximately one mile south of Crossroads, New Mexico. Brine is produced by injecting fresh water with a total dissolved solids (TDS) concentration of 1450 mg/l into dry salt beds of the Salado Formation at a depth of about 2,000 feet. The

resulting brine, with a TDS concentration of abour 230,000 mg/l, is stored at the surface in four above-ground steel tanks with a combined capacity of about 133,000 gallons. From July 1983 through March 1984, over 66,000 barrels of brine were produced at this facility. Ground water most likely to be affected by this operation is at a depth of approximately 140 feet and has a TDS concentration of roughly 500 mg/l.

(DP-357) PECOS RIVER RANCH, Dave Youngren, Ranch Manager, RR Station, Ilfeld, New Mexico 87538 proposes to discharge up to 9,500 gallons per day of domestic wastewater from their seasonal resort, to a lagoon followed by sand filters, then into an arroyo for 1,000 feet until it joins the Pecos River. They also propose to use some of the effluent for landscape irrigation during summer months. The lagoon and site of landscape irrigation is located in the SE¼ of Section 9 of T14N, R13E in San Miguel County. The arroyo which will be used to transport effluent is located in the SE¼ of Section 9 of T14N, R13E and the NE¼ of Section 16 of T14N, R13E. The ground water most likely to be affected is at a depth of 160 feet at the lagoon site and is estimated to decrease to approximately 40 feet near the Pecos River. The TDS of this ground water is 800 mg/l.

(DP-354) THE PERMIAN CORPORATION, P.O. Box 1183, Houston, Texas 77001 has submitted a discharge plan for its existing brine extraction well and associated surface facilities, "Saline No. 1", located in the SE¼ SW¼ SW¼ of Section 36, T18S, R37E in Lea County, New Mexico, north of the airport west of Hobbs. Brine is produced by injecting fresh water with a total dissolved solids (TDS) content of 430 mg/l into a dry salt formation at a depth of about 2,500 feet. Production averages less than 250 barrels per day of 14,500 mg/l TDS brine, which is stored in two 1000-barrel above-ground steel tanks and pumped to tank trucks for sale on demand. Ground water most likely to be affected by this operation is at a depth of roughly 50 feet and has a TDS content of about 500 mg/l.

(DP-356) RIO GRANDE UTILITIES COMPANY, P.O. Box 1179, Belen, New Mexico 87002 proposes to discharge treated wastewater from the Community College Area of Rio Communities. Based on projection of the township-range grid, the discharge will occur in NW¼, Section 26, T6N, R2E, about 1.7 miles southeast of Tome, in Valencia County. The discharge will consist of up to 100,000 gallons per day of domestic type wastewater that will undergo settling, aeration, and chlorination prior to discharge. Sludge will be discharged to lined drying beds. Treated wastewater will be discharged either to an on-site landscape irrigation system or to 1.1 acres of infiltration beds at the site. The proposed discharge is expected to contain less than 20 mg/l of BOD and suspended solids, less than 10 mg/l of total nitrogen, and about 700 mg/l of total dissolved solids. The ground water most likely to be affected by the discharge is at a depth of 45 feet or less in Rio Grande alluvium and has a total dissolved solids content of about 300 mg/l.

Any interested person may obtain further information from the Ground Water Section, Ground Water/Hazardous Waste Bureau, EID, and may submit written comments to the Director of the EID at the address given above. Prior to ruling on any proposed discharge plan or its modification, the Director of EID will allow thirty (30) days after the date of publication of this Notice during which comments may be submitted to her and a public hearing shall set forth the reasons why the hearing should be held. A hearing will be held if the Director determines that there is significant public interest.

A DISCHARGE PLAN DP 354

for

BRINE EXTRACTION FACILITIES

of

THE PERMIAN CORPORATION

at the Wellsite known as

SALINE NO. 1

located in

SW/4 Sec 36 T-18S, R-37E

Lea County, N.M.

Prepared for compliance with

New Mexico Water Quality Control Regulations

THE REPRODUCTION OF

THE

FOLLOWING

DOCUMENT (S)

CANNOT BE IMPROVED

DUE TO

THE CONDITION OF

THE ORIGINAL

I GENERAL DESCRIPTION

A. Facility Name: Saline No 1 Brine Well

Operated By: The Permian Corporation
P. O. BOX 1183
Houston, Texas 77001

B. Location:

SE/4 SW/4 SW/4 Section 36

Township 18-S, Range 37-E

Lea County, N.M.

as shown on attached Exhibt "A" and "A-1"

C. Schematic of Facility

Attached Exhibit "B" is a schematic drawing of The Permian Corporations Saline No. 1 Brine Facility.

Brief description of facility operation:

Fresh water obtained from applicants own well adjacent to the facility is produced into a 500 Bbl-bolted steel cone roof tank where it is stored until needed. To make liquid brine, fresh water is pumped down the extraction well tubing into the salt dome formation, where leaching action saturates the water enabling brine to be produced up through the annulus between the tubing and casing.

Produced brine is stored in two 1,000 Bbl tanks near the well site until it is needed for customer use. Tank trucks load from these storage tanks and move the brine to it's final destination.

I. D. Operational History

This facility was placed in operation as a brine well sometime prior to 1968 by Republic Factors, Inc. of Midland Texas (exact date unknown). Applicant acquired title thereto in November of 1968, and has maintained continuous operations from that time to the present date.

II DESCRIPTION OF FACILITY

A. Surface Facilites

1. Dimensions of Tanks:
   2 each 16 ft high Bolted Steel Brine Storage Tanks
   1 only 16 ft high Bolted Steel Fresh Water Storage Tank

Note: Brine Tanks are surrounded by an earthen ditch(firewall) to contain any possible spillage.

2. Length and Types of Pipes:
   475 ft of 4 inch (nominal diameter) Fiberglas pipe from brine well to storage tanks.

3. Average daily withdrawal from tanks in calendar years 1980 thru 1982: 250 BPD (estimated).

Note: Brine sales in 1983 and 1984 have been severly depressed and average is less than one truck-load per day.

4. Type of pond liner: None

Note: There is NO POND at this facility.

II B. Underground Facilities

1. Downhole pipe is as follows, and is shown schematically on attached Exhibit "C"
   1760 ft 8 inch casing set in cement
   2400 ft 4½" drill pipe set as casing and cemented
   2560 ft 2 1/16" SE Production Tubing

2. Normal construction procedures, including cementing and logging, were probably rigidly adhered to since one of the principals* of Republic Factors was an experienced down-hole completion expert having many years prior service with Haliburton Company. However, no records remain to verify the specific aspects of these programs, but fifteen years of un-interrupted operations attest to the thoroughness of the original well completion program.

* (now deceased)

3. Since the well was completed in a salt dome, it is assumed that no initial stimulation was required, and none has been applied during the operating term of the applicant.

4. Fresh water is injected at the rate of 125 BPH at an average pump pressure of 180 psi (200 maximum). Periodically flow is reversed (down thru the annulus and up thru the tubing) to dissolve out an particulate build-up in the piping.

5. Notification prior to drilling: Not applicable, since this is an existing well.

III. SITE CHARACTERISTICS

A. Soils:

No unlined surface impoundments used or proposed, therefore this section has been omitted.

B. Geology: (see note below)

C. Hydrology: (see note below)

NOTE (B&C): No information relating to either the geology or hydrology of this location has been found in our files, but successful operation in all prior years since applicant has owned the facility lead to the belief that there are no known or suspected fault conduits to ground water, and that no adjacent facilities have been in any way affected by the existance of this brine well .

3. Site not prone to flooding.

4. Depth and quality of ground water likely to be affected is not known to applicant.

5. Analysis of raw water used for injection in given in attached Exhibit "D".

6. Chemical analysis of the brine presently being produced from the facility is given in the attached Exhibit "E".

IV PROCEDURES TO PROTECT GROUND WATER QUALITY

A. During Operation

1. No evidence exists of any other wells or shafts that might penetrate the injection zone. If any are subsequently found, they will be plugged using best cementing techniques available for such procedures.

2. Should any information come to light regarding such conduit, injections pressures will be limited to avoid moving contaminants into protected ground water.

3. Mechanical integrity testing:
The well is periodically tested to assure mechanical as follows:

a) During normal operating conditions the brine outlet valve is closed and

b) additional pressure is added until the injection pressure reaches 235 psi (eqivalent to 130% of normal operating pressure)

c) The system is then closed in and the elevated pressure is monitored for twenty-four hours (or longer) without observing any loss of pressure.

d) The above procedure is mandatory at intevals not to exceed every five years, and was satisfactorily tested in 1984.

4. In-flow volumes into the brine storage tanks is confirmed by use of either of the following procedures:

a) Beginning and ending gages of the volumes of brine in each tank before and after operation of the injection pump, and adjusted for any volumes taken from the tanks for loading onto trucks.

b) Taking the elapsed time of operation of the injection pump and multiplying by the constant rate in volume per hour, again making adjustment for any volumes taken from the tanks for loading onto trucks

Out-flow from the brine storage tanks is determined by taking the sum of the volumes loaded onto truck during the accounting period, said volumes for each truck being calculated by marker measurement of the liquid level loaded into each compartment.

5. Comparison of injected volumes of fresh water to the volume of brine extracted (to determine underground losses-if any) accomplished by integration of the data on the pressure recording chart for injection pump operation.

The known pumping rate (125 BPH) multiplied by the hours of opeation, yields total injected volumes. Measurements made in 4-a (above) yield gross well out put. An arithmetic comparison of these volumes on a bi-weekly basis determines whether or not there is any underground losses.

6. Samples of fresh water and brine.

a) Fresh water samples are obtained from any faucet outlet on the fresh water piping, taking care to always use clean containers and acceptable techniques to prevent sample contamination.

b) Brine samples are collected from the sample cock on the discharge line going into the brine storage tanks. Two types of samples are taken:

1) One is for local on-site determination of the specific gravity of the produced brine, and no special precautions are required.

2) the other is for laboratory analysis of the chemical content of the brine, and care must be exercised to assure that no contamination is introduced into the sample container

7. Leak detection under the pond is not applicable since there are no ponds at this facility.

8. The nearest fresh water well to this brine well is applicants own raw water source well shich is located approximately 800 ft. NE. Periodic laboratory tests are made to assure that the quality of the fresh water from this well remains unchanged.

Additional samples taken from off-site wells located in section 1-19S-37E and 31-18S-38E serve as quality background levels to determine quality parameters in the area.

9. During truck loading operations at this facility, potential leakage/ spillage is minimized by use of on-truck loading pumps and gasketed transfer connections between tank headers and the truck suction hose. At the end of each loading cycle, the truck-mounted pump applies a suction to the header valves, causing brine to be pulled into the truck tank, and leaving very little drippage to collect in the sump barrels placed beneath the loading header valves.

10. Contingency Plans for:

a) Surface storage faciliites are provided with an earth firewall (dam) encircling them to serve as a retainer wall should a leak or spill occur. Any leak in the tankage or piping will be detected by system operator who will shut system down until repairs have been completed.

b) Loss of mechanical integrity of system will result in system being shut down until repairs or corrective action has been completed. Operating system at minimum pressures will reduce the severity of any possible damage that could result from system failure. Ground water is routinely analyzed to determine water quality and insure that the water is protected from contamination by the brine production process.

B. Post-operational commitments:

1. a) Should it become necessary to abandon this brine production facility, the well will be plugged and caped according to plans and specifications, approved by the director, that fully meets all the requirements for protection of ground water.

b) The Permian Corporation demonstrates its financial ability to perform the plugging and abandonment of this facility by the statement from R. J. Martinez attached hereto as Exhibit "F".

2. Pond Closure: Not applicable, No Pond.
(However, if facility is closed any brine residue in the storage tanks will be:

a) liquified and transported to an approved disposal well, or

b) tested for contaminants and hauled to an approved disposal site.

V. SIGN OFF REQUIREMENT

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for sbmitting false information including the possibility of fine and imprisonment. (5-1-1.H.2).

THE PERMIAN CORPORATION

for: John C. Draper, V-P

BY: C. N. Adams

C. N. Adams, PE
Chief Engineer
Registered No. 15203 (Tx)

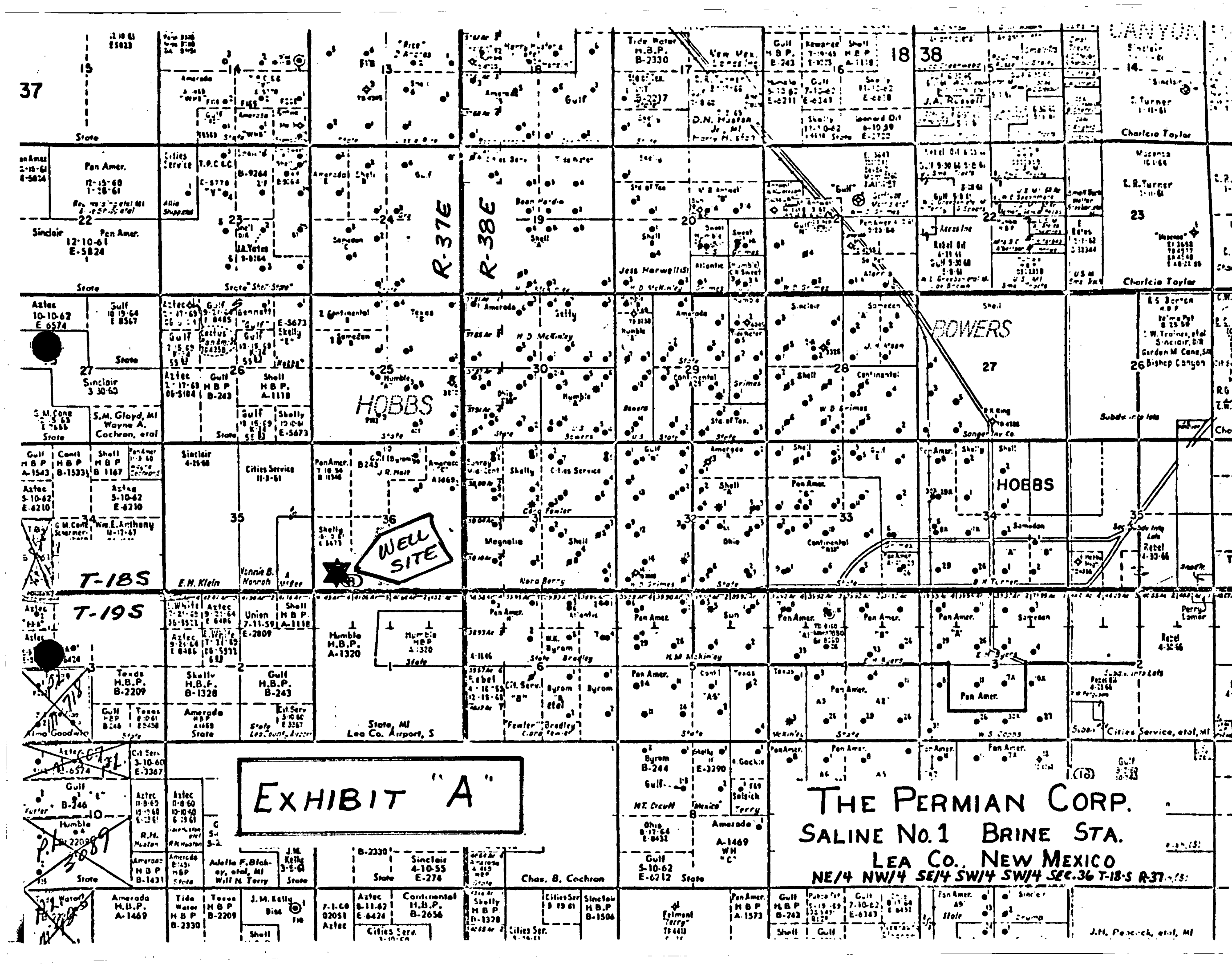
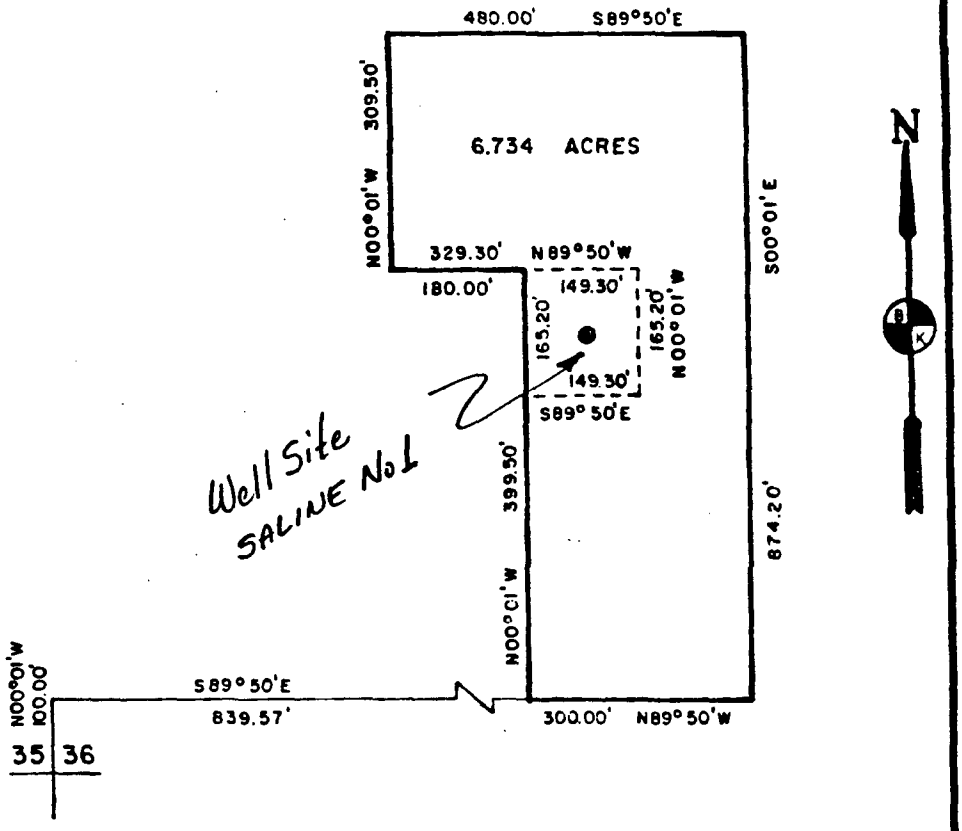


EXHIBIT "A"
THE PERMIAN CORP.
SALINE NO. 1 BRINE STA.
LEA CO., NEW MEXICO
NE/4 NW/4 SE/4 SW/4 SW/4 SEC. 36 T-18-S R-37
WELL SITE
HOBBS
BOWERS
R-37E
R-38E
T-18S
T-19S

PLAT OF SURVEY



DESCRIPTION

A tract of land situated in the Southwest Quarter of the Southwest Quarter ($SW\frac{1}{4}$ $SW\frac{1}{4}$) of Section 36, Township 18 South, Range 37 East, N.M.P.M., Lea County, New Mexico, being further described as follows:
Beginning at a point which lies N00° 01'W 100.00 feet and S89° 50'E 839.57 feet from the Southwest Section Corner of said Section 36; thence, N00° 01'W 399.50 feet; thence, S89° 50'E 149.30 feet; thence, N00° 01'W 165.20 feet; thence, N89° 50'W 329.30 feet; thence, N00° 01'W 309.50 feet; thence, S89° 50'E 480.00 feet; thence, S00° 01'E 874.20 feet; thence, N89° 50'W 300.00 feet to the point of beginning, containing 6.734 acres, more or less.

EXHIBIT "A-1"

I HEREBY CERTIFY THAT I AM THE REGISTERED LAND SURVEYOR WHO PREPARED THE ABOVE PLAT FROM FIELD NOTES OF ACTUAL SURVEYS MADE UNDER MY DIRECTION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Neal D. King
New Mexico R.L.S. No 6541
Texas R.P.S. No. 02308

NEAL D. KING
NEW MEXICO
6541
REGISTERED LAND SURVEYOR

KEN MARSH

A tract of land situated in the $SW\frac{1}{4}$ $SW\frac{1}{4}$ of Section 36, Township 18 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

BROWN & KING
ENGINEERING & SURVEYING, INC.
3515 INDUSTRIAL DRIVE — LOVINGTON HIGHWAY HOBBS, N. M. 88240

SCALE: 1 " = 200 '	DRAWN BY: Maudie W.
DATE: NOV. 11, 1981	SHEET 1 OF 1

EXHIBIT "A"

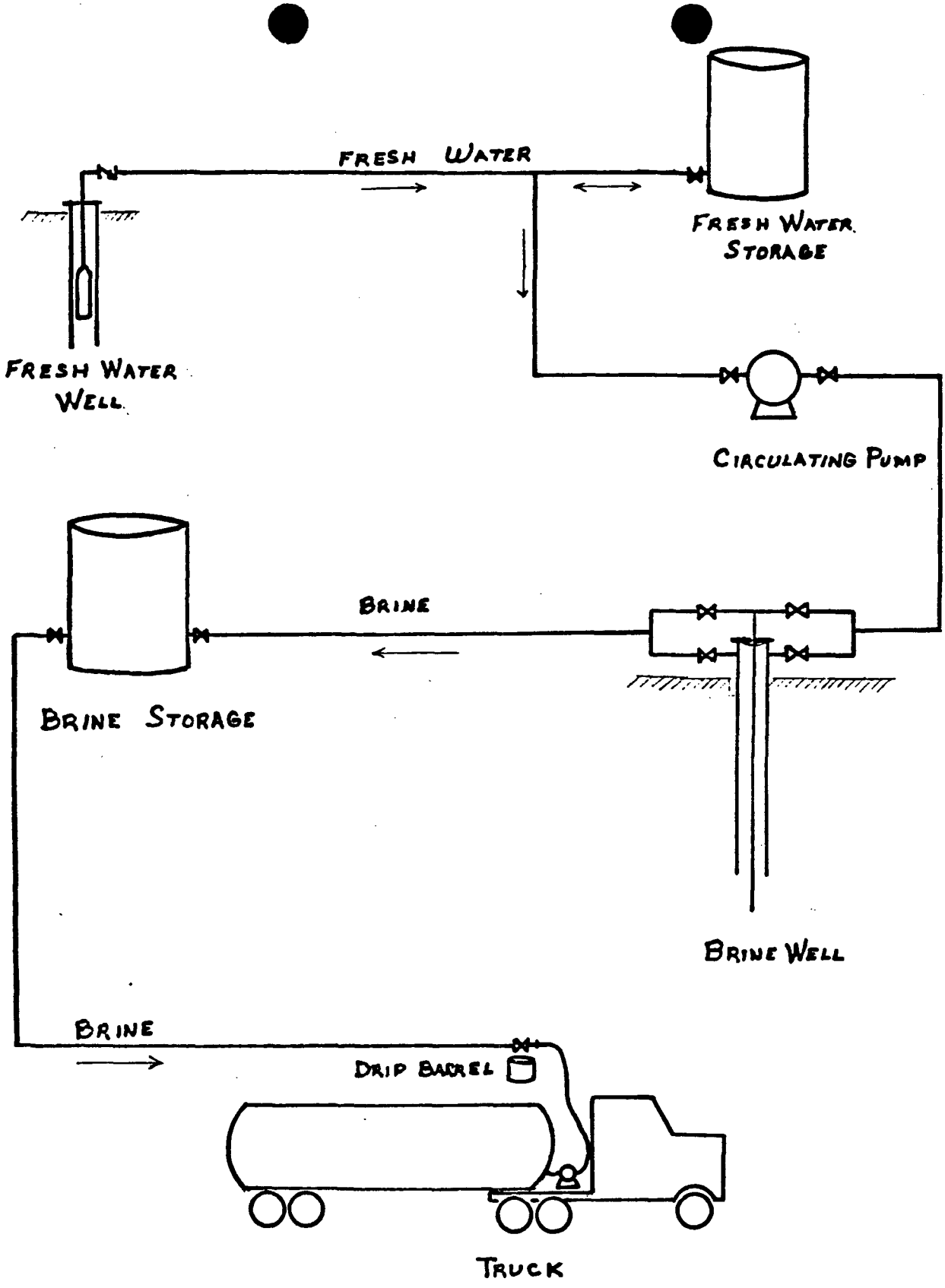


EXHIBIT "B"

THE PERMIAN CORP.

SCHEMATIC BRINE EXTRACTION FACILITY
SALINE No. 1

LEA COUNTY, NEW MEXICO

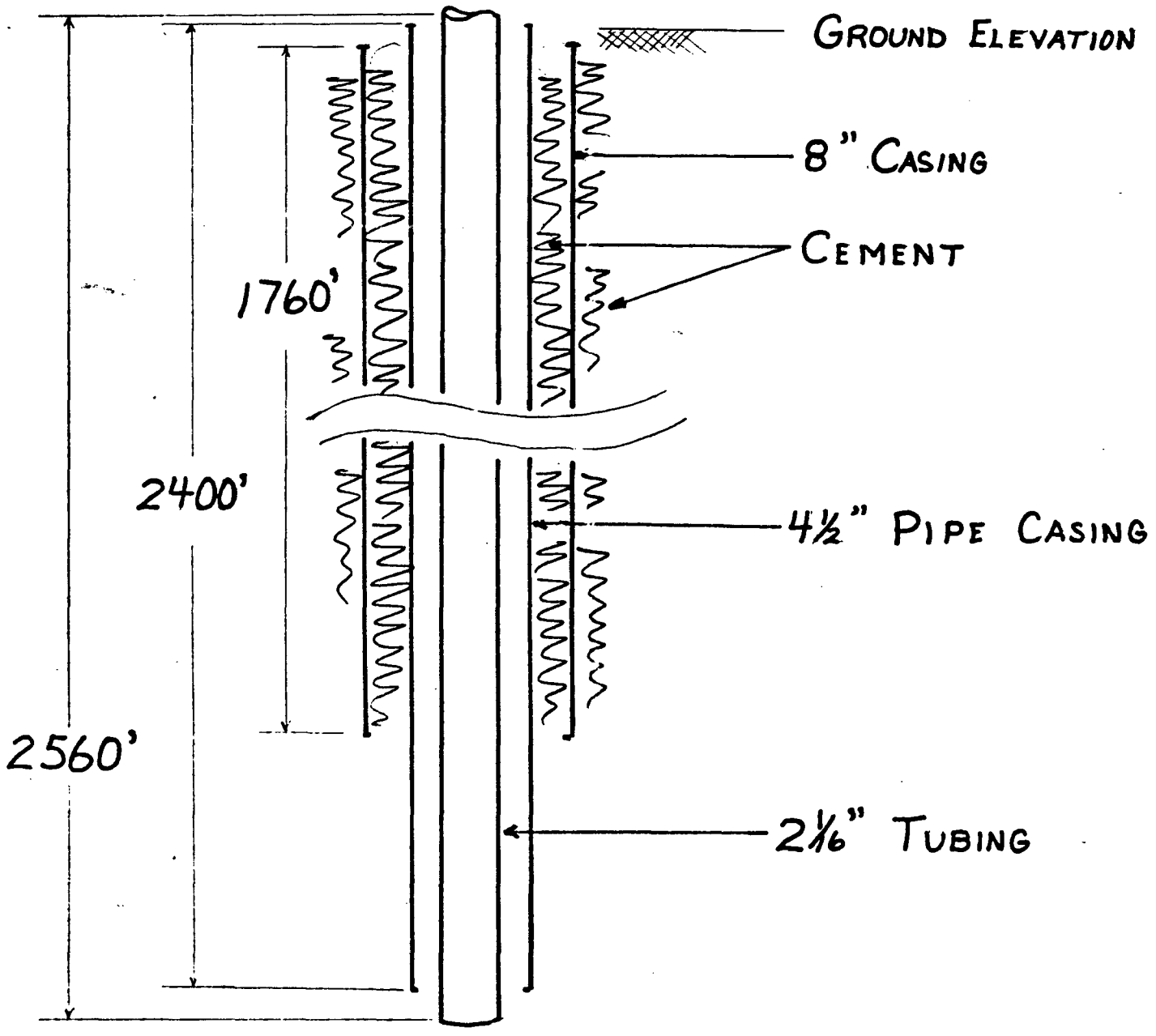


EXHIBIT "C"

THE PERMIAN CORP.

SCHEMATIC SALINE No.1 BRINE WELL

LEA COUNTY, NEW MEXICO

NO SCALE

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 68476
SAMPLE RECEIVED 6-8-84
RESULTS REPORTED 6-12-84

TO: Mr. Owen Mobley
P.O. Box 3119, Midland, Texas

COMPANY The Permian Corporation LEASE Saline #1
FIELD OR POOL
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Raw water - taken from water well. 6-7-84
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0015			
pH When Sampled				
pH When Received	7.34			
Bicarbonate as HCO_3	215			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	204			
Calcium as Ca	66			
Magnesium as Mg	9			
Sodium and/or Potassium	41			
Sulfate as SO_4	64			
Chloride as Cl	36			
Iron as Fe	0.86			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	430			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	19.50			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

REC'D. ENG.
JUN 1 5 1984

EXHIBIT "O"

Form No. 3

TPC-HOUSTON

By Waylan C. Martin, M.A.

SwL SOUTHWESTERN LABORATORIES

Materials, environmental and geotechnical engineering, nondestructive, metallurgical and analytical services

1703 W. Industrial Avenue [915 - 683-3348] • P.O. Box 2150 • Midland, Texas 79701

119904

Client No. 3320202
File No. C-1902-W

Report No. 35752

Report Date 8-21-84

Date Received 8-16-84

Report of tests on: Water

Client: The Permian Corporation

Identification: Hobbs, New Mexico, Brine Well, Saline No 1.

	mg/L
Calcium	124
Magnesium	65
Sodium & Potassium (Calc.)	5451
Carbonate	None
Bicarbonate	204
Sulfate	256
Chloride	8510
Total Dissolved Solids (Calc.)	14508
Hardness, as $CaCO_3$	576
pH	7.61

EXHIBIT "E"

Technician: KLH

Copies 3cc The Permian Corporation
Attn: George Wood

SOUTHWESTERN LABORATORIES
Jack H Barton

THE PERMIAN CORPORATION
2000 POST OAK BOULEVARD 713/840-7530
P. O. BOX 1183 HOUSTON, TEXAS 77251-1183
TWX: 910-881-1675

August 15, 1984

State of New Mexico
Environmental Improvement Division
P. O. Box 968
Santa Fe, NM 87504-0968

Gentlemen:

In response to your request for financial information, the following data is presented for your files.

The Permian Corporation was acquired by Wesray Operations, Inc. on December 23, 1983. Wesray Operations is essentially a holding company through which the acquisition was effected. Wesray Operations, Inc. is owned principally by William E. Simon, former United States Treasury Secretary and Ray Chambers. Prior to the acquisition, Permian was a 100% wholly owned subsidiary of Occidental Petroleum.

Permian is recognized as the largest marketer and transporter of crude oil in the United States, and has served the oil industry in a consistent capacity for nearly 30 years. The successful operations and experienced management team of Permian remain unchanged from previous ownership. Permian's total assets are in excess of $809 million, with a consolidated net worth of approximately $108 million. Permian is offered unsecured credit lines from all major oil companies and independents alike, many in excess of $10 million.

Our bank reference is Bank of the Southwest, P. O. Box 2629, Houston, TX 77001, Mr. Charles K. Smith. Their telephone number is (713) 751-6100. I am confident that this information should satisfy your requirements, and ask that you contact me at (713) 840-3648 should you have further questions regarding this matter.

Very truly yours,

THE PERMIAN CORPORATION

R J Martinez

Ronald J. Martinez
Credit Manager

RJM:lb

EXHIBIT "F"

ASSURANCE OF DISCONTINUANCE

WHEREAS, on January 4, 1983 (date), the Director of the New Mexico Oil Conservation Division (OCD)

requested THE PERMIAN CORPORATION (name of brine well owner) to submit a Discharge Plan pursuant to §§ 3-104 and 5-101.B.3 of the New Mexico Water Quality Control Commission (Commission) Regulations for discharges from the brine facility and brine well SALINE NO 1 (name of facility) located in Section 36, Township 18 ~~North~~/South, Range 37 ~~East~~/~~West~~, N.M.P.M., LEA County, New Mexico; and

WHEREAS, neither the regulations nor an extension to discharge without an approved Discharge Plan issued by the Director, nor any Court Order, allows THE PERMIAN CORPORATION (owner) to operate an injection well and associated surface facilities beyond December 20, 1982 (date), and

WHEREAS, the following information indicates that there is no present contamination of drinking water sources: A recent pressure test conducted at approximately one and one half (1.5) times the operating pressure demonstrated the integrity of tubing, casing, and salt cavity, and a water well located 1000 feet NE of the above referenced brine well shows no chloride contamination.; and

WHEREAS, THE PERMIAN CORPORATION (owner) has committed to the Commission to proceed with all diligence to prepare and secure an approved Discharge Plan; and

WHEREAS, the Commission and THE PERMIAN CORPORATION (owner) deem it appropriate to enter into this Assurance of Discontinuance.

THE PERMIAN CORPORATION (owner) assures the Commission as follows:

1. ASSURANCE: All unapproved discharges at the SALINE NO. 1 Brine Facility shall be discontinued as set forth in Paragraph 2 of the Assurance of Discontinuance.

2. SCHEDULE OF COMPLIANCE: It is agreed that the Discharge Plan shall comply with the following schedule:

A. THE PERMIAN CORPORATION (owner) shall submit plans and specifications of the in situ extraction well to the EID on or before July 31, 1984

B. THE PERMIAN CORPORATION (owner) shall submit a proposal outlining measures to be taken to correct any possible violation of the Water Quality Control Commission Regulations resulting from surface activities on or before July 31, 1984

C. EID shall complete review of materials submitted under Paragraph 2.A and B and shall provide comments to THE PERMIAN CORPORATION (owner) on or before September 30, 1984

D. THE PERMIAN CORPORATION (owner) shall submit the information listed in § 5-102.B.1d and the information listed in § 5-203.A of the Water Quality Control Commission Regulations to the EID on or before December 14, 1984

E. EID shall complete review of materials submitted under Paragraph 2.D herein and EID shall provide comments to THE PERMIAN CORPORATION (owner) on or before February 15, 1985

F. THE PERMIAN CORPORATION (owner) shall submit a complete Discharge Plan which shall address all applicable requirements of the Water Quality Control Commission Regulations, Parts 3 and 5 on or before April 15, 1985

G. EID shall complete review of Discharge Plan Application and EID shall provide comments to THE (owner) PERMIAN CORPORATION on or before June 14, 1985

H. THE PERMIAN CORPORATION (owner) shall submit responses to the EID comments on or before August 15, 1985

I. EID Director's approval or disapproval of Discharge Plan Application shall be promulgated on or before October 15, 1985

If a public hearing is scheduled by the EID Director pursuant to § 3-108 of the Commission's Regulations, all deadlines in Paragraphs 2.G through 2.I shall be 45 days later.

3. MUTUAL COOPERATION: THE PERMIAN CORPORATION (owner) and the EID shall mutually cooperate in accomplishing on a timely basis the matters contemplated by this Assurance. In this respect, direct communication among SALINE NO. 1 (brine facility) representatives and EID personnel is encouraged.

4. MEETINGS: It is understood that a representative(s) of _____ SALINE NO. 1 (brine facility) and the EID shall meet on at least two occasions to discuss the progress during the initial 240 days of the Compliance Schedule. The first meeting shall take place on approximately the 90th day, and the second meeting on approximately the 150th day, as the parties may

mutually and reasonably agree. EID shall endeavor to communicate any concerns which might necessitate additional information so as to allow THE PERMIAN CORPORATION (owner) sufficient time to respond.

5. EXTENSIONS FOR GOOD CAUSE: It is expressly agreed and understood by the parties hereto that events not reasonably foreseeable on the date of execution of this Assurance may occur which will make it impossible or extremely difficult for THE PERMIAN CORPORATION (owner) to comply in a timely fashion with those compliance dates set out in numbered paragraph 2. In the event such unforeseen events do occur, THE PERMIAN CORPORATION (owner) may apply to the Commission for an extension for an additional reasonable period of time to comply with such tasks in numbered paragraph 2. The additional reasonable period of time, if granted, shall in all cases be governed by the relevant circumstances.

6. ENFORCEMENT: The Commission shall not undertake enforcement against SALINE NO. 1 (brine facility) for the continuation of current discharges occurring during the pendency of this Assurance without first giving THE PERMIAN CORPORATION (owner) 15 days prior written notice by the Director that SALINE NO. 1 is in violation of the terms of this Assurance. This Paragraph shall not preclude appropriate action by the Director or the Commission under § 74-6-11 N.M.S.A. 1978.

Failure by THE PERMIAN CORPORATION (owner) to comply with any condition of this Assurance of Discontinuance shall be actionable as a violation of the Water Quality Act and of this Assurance under §§ 74-6-5 and 10 N.M.S.A. 1978, as applicable.

Nothing in this Assurance of Discontinuance shall relieve THE PERMIAN CORPORATION (owner) from the responsibility for complying with all the

Nothing in this Assurance of Discontinuance shall relieve THE (owner) PERMIAN CORPORATION from the responsibility for complying with all the provisions of the Water Quality Act, the regulations promulgated thereunder or any other provision of law except as otherwise specifically provided herein.

7. NO ADMISSION: The terms, execution and any conduct in accordance herewith shall not constitute an admission of any kind by THE PERMIAN COR- (owner) PORATION relating to matters under the Water Quality Act, Commission Regulations, or any other matters relating to health or environment.

Signed and acknowledged this 30th. day of May, 1984.

THE PERMIAN CORPORATION
(owner)

By: _____
Gary Goodwin, Vice President

STATE OF TEXAS)
) SS
COUNTY OF HARRIS)

The foregoing instrument was acknowledged before me this 30th. day of May, 1984, by _____, Vice President

SUE BISHOP
NOTARY PUBLIC IN
AND FOR HARRIS COUNTY
MY COMMISSION EXPIRES

My Commission Expires:

_____

_____
Notary Public

APPROVED:

WATER QUALITY CONTROL COMMISSION

By _____

Steven Asher, Chairman

Water Quality Control Commission

STATE OF NEW MEXICO)

: SS

COUNTY OF SANTA FE)

The foregoing instrument was acknowledged before me this 10 day of July, 1984, by Steven Asher, Chairman of the Water Quality Control Commission, on behalf of the Water Quality Control Commission.

My Commission Expires:

10-25-86

_____

Notary Public

ASSURANCE OF DISCONTINUANCE

WHEREAS, on January 4, 1983 (date), the Director of the New Mexico Oil Conservation Division (OCD)

requested THE PERMIAN CORPORATION (name of brine well owner) to submit a Discharge Plan pursuant to §§ 3-104 and 5-101.B.3 of the New Mexico Water Quality Control Commission (Commission) Regulations for discharges from the brine facility and brine well SALINE NO 1 (name of facility) located in Section 36, Township 18 ~~North~~/South, Range 37 ~~East~~/~~West~~, N.M.P.M., LEA County, New Mexico; and

WHEREAS, neither the regulations nor an extension to discharge without an approved Discharge Plan issued by the Director, nor any Court Order, allows THE PERMIAN CORPORATION (owner) to operate an injection well and associated surface facilities beyond December 20, 1982 (date), and

WHEREAS, the following information indicates that there is no present contamination of drinking water sources: A recent pressure test conducted at approximately one and one half (1.5) times the operating pressure demonstrated the integrity of tubing, casing, and salt cavity, and a water well located 1000 feet NE of the above referenced brine well shows no chloride contamination.; and

WHEREAS, THE PERMIAN CORPORATION (owner) has committed to the Commission to proceed with all diligence to prepare and secure an approved Discharge Plan; and

WHEREAS, the Commission and THE PERMIAN CORPORATION (owner) deem it appropriate to enter into this Assurance of Discontinuance.

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H. THE PERMIAN CORPORATION (owner) shall submit responses to the EID comments on or before August 15, 1985

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If a public hearing is scheduled by the EID Director pursuant to § 3-108 of the Commission's Regulations, all deadlines in Paragraphs 2.G through 2.I shall be 45 days later.

3. MUTUAL COOPERATION: THE PERMIAN CORPORATION (owner) and the EID shall mutually cooperate in accomplishing on a timely basis the matters contemplated by this Assurance. In this respect, direct communication among SALINE NO. 1 (brine facility) representatives and EID personnel is encouraged.

4. MEETINGS: It is understood that a representative(s) of SALINE NO. 1 (brine facility) and the EID shall meet on at least two occasions to discuss the progress during the initial 240 days of the Compliance Schedule. The first meeting shall take place on approximately the 90th day, and the second meeting on approximately the 150th day, as the parties may

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5. EXTENSIONS FOR GOOD CAUSE: It is expressly agreed and understood by the parties hereto that events not reasonably foreseeable on the date of execution of this Assurance may occur which will make it impossible or extremely difficult for THE PERMIAN CORPORATION (owner) to comply in a timely fashion with those compliance dates set out in numbered paragraph 2. In the event such unforeseen events do occur, THE PERMIAN CORPORATION (owner) may apply to the Commission for an extension for an additional reasonable period of time to comply with such tasks in numbered paragraph 2. The additional reasonable period of time, if granted, shall in all cases be governed by the relevant circumstances.

6. ENFORCEMENT: The Commission shall not undertake enforcement against SALINE NO. 1 (brine facility) for the continuation of current discharges occurring during the pendency of this Assurance without first giving THE PERMIAN CORPORATION (owner) 15 days prior written notice by the Director that SALINE NO. 1 is in violation of the terms of this Assurance. This Paragraph shall not preclude appropriate action by the Director or the Commission under § 74-6-11 N.M.S.A. 1978.

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7. NO ADMISSION: The terms, execution and any conduct in accordance herewith shall not constitute an admission of any kind by THE PERMIAN COR- (owner) PORATION relating to matters under the Water Quality Act, Commission Regulations, or any other matters relating to health or environment.

Signed and acknowledged this 30th. day of May, 1984.

THE PERMIAN CORPORATION
(owner)

By: _____
Gary Goodwin, Vice President

STATE OF TEXAS)
) SS
COUNTY OF HARRIS)

The foregoing instrument was acknowledged before me this 30th. day of May, 1984, by Gary Goodwin, Vice President

SUE BISHOP
NOTARY PUBLIC IN
AND FOR HARRIS COUNTY
MY COMMISSION EXPIRES

My Commission Expires:

_____

_____
Notary Public

APPROVED:

WATER QUALITY CONTROL COMMISSION

By _____

Steven Asher, Chairman

Water Quality Control Commission

STATE OF NEW MEXICO)

: SS

COUNTY OF SANTA FE)

The foregoing instrument was acknowledged before me this 10 day of July, 1984, by Steven Asher, Chairman of the Water Quality Control Commission, on behalf of the Water Quality Control Commission.

My Commission Expires:

10-25-86

_____

Notary Public

STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020
STEVEN ASHER, Director

JOSEPH GOLDBERG
SECRETARY
TED GUAMBANA
DEPUTY SECRETARY
JOSEPH F. JOHNSON
DEPUTY SECRETARY

June 28, 1984

Charles A. Purdy
Jones, Gallegos, Snead and Wertheim
P.O. Box 2228
Santa Fe, NM 87501

RE: Assurance of Discontinuance for Permian Corporation's Brine Well, "Saline No. 1"

Dear Chuck:

By this time, you and your client will have been notified that Permian's Assurance has been placed on the agenda of the Water Quality Control Commission meeting to be held July 10th.

The materials submitted as evidence that the brine well is not causing present contamination of ground water at the site, are acceptable. However, for future reference I have the following comments on these materials:

(1) The chart paper used for a two-hour pressure test should be for a 24-hour period, maximum. The chart submitted indicates that the test was conducted over a ten-hour period; Mr. James Ephriam of Permian Corporation explained to me by phone that it was actually a two-hour test. A chart paper with a larger scale for recording pressure would also be preferable to what was submitted for this Assurance.

(2) The iron in the water sample has increased dramatically since the water was analyzed in May. This may reflect some corrosion in the casing or plumbing of the well. The New Mexico drinking water standard for iron is 1.0 mg/l; the iron in Permian's water well has increased from 0.04 to 0.86 mg/l in less than a month. I recommend a retest for this parameter. However, this has no bearing on the matter at hand; chlorides remain low in the water well. Coupled with the results of the pressure test of the brine well showing no pressure drop-off in two hours, I feel that this gives us sufficient evidence that there is no present ground water

contamination due to operation of the Saline No. 1 brine well. I will support this Assurance before the Commission.

Sincerely,

Paige Grant

Paige Grant
Hydrologist
Ground Water Section

PG:clm

cc: John C. Draper, Vice-President
Permian Corporation

mslz

JONES, GALLEGOS, SNEAD & WERTHEIM

June 26, 1984

HAND-DELIVERED

Ms. Paige Grant
New Mexico Water Quality
Control Commission
Crown Building
725 St. Michael's Drive
Santa Fe, New Mexico 87501

Re: Permian Corporation - Brine Well; Our File No. 74001-04

Dear Paige:

Enclosed please find the original of a revised Assurance Of Discontinuance, another analysis of water from the fresh water well, and the results on the brine well pressure test conducted by Permian.

If you need any other information, please let me know.

Sincerely,

JONES, GALLEGOS, SNEAD & WERTHEIM, P. A.

Charles A. Purdy

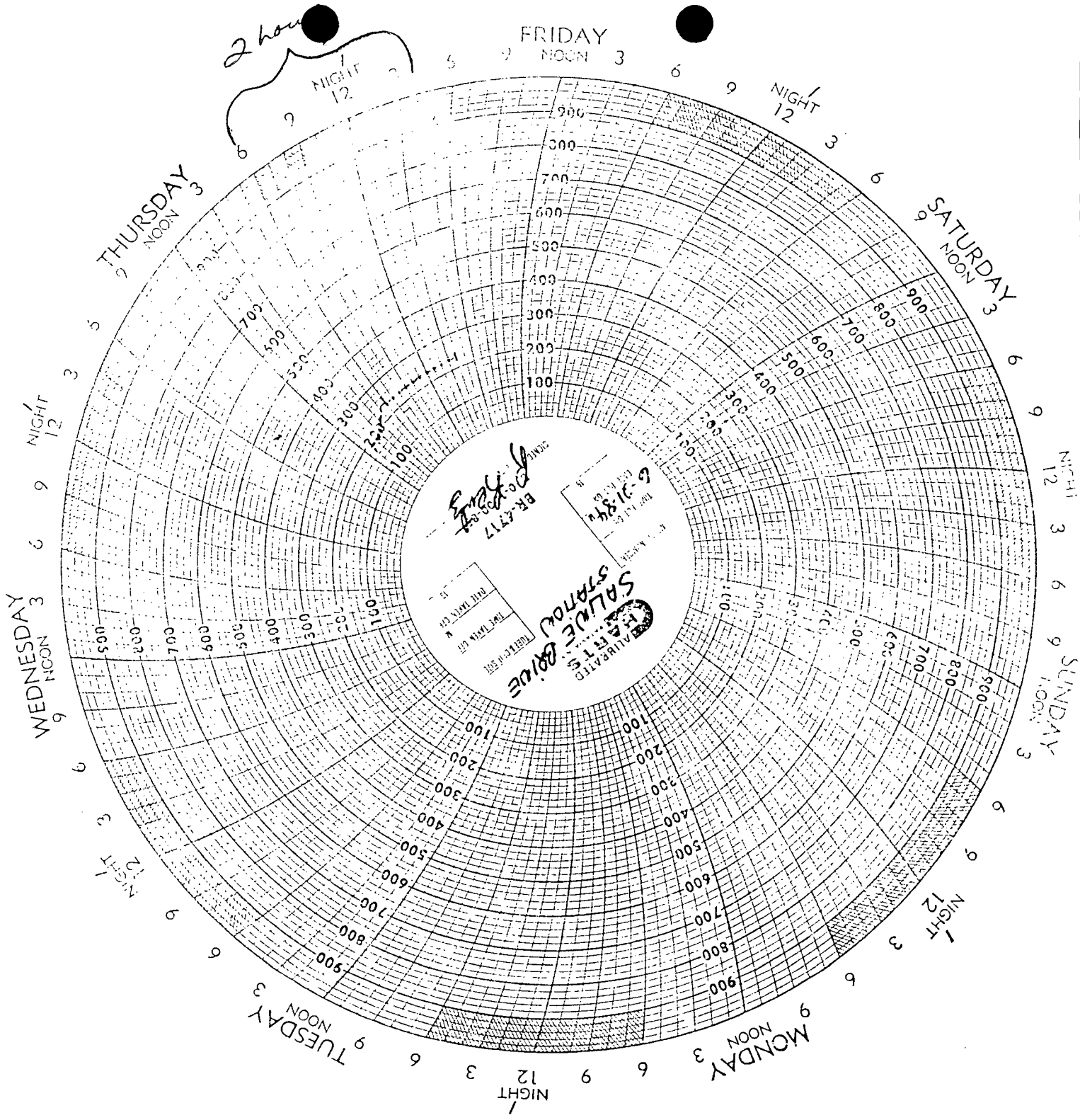
CHARLES A. PURDY

CAP:pjs

Enclosures

cc: Mr. William Weddle
with Enclosures

215 LINCOLN AVENUE SANTA FE, NEW MEXICO 87501 P.O. BOX 2228 (505) 982-2691 TELECOPIER (505) 984-0846 A PROFESSIONAL ASSOCIATION



"7-day chart used with 24-hour timer"

— pers. comm., Jim Ephriam, Seminan Corps to Paige Grant, EID, 6/20/84

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 68476

TO: Mr. Owen Mobley
P.O. Box 3119, Midland, Texas

SAMPLE RECEIVED 6-8-84

RESULTS REPORTED 6-12-84

COMPANY The Permian Corporation LEASE Saline #1

FIELD OR POOL

SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken from water well. 6-7-84

NO. 2

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0015			
pH When Sampled				
pH When Received	7.34			
Bicarbonate as HCO_3	215			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	204			
Calcium as Ca	66			
Magnesium as Mg	9			
Sodium and/or Potassium	41			
Sulfate as SO_4	64			
Chloride as Cl	36			
Iron as Fe	0.86			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	430			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	19.50			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

RECD. ENG.
JUN 15 19[illegible]

Form No. 3

TPC-HOUSTON

By Waylan C. Martin, M.A.

6/25/84

To: Richard Holland

From: Paige Grant PG

Re: Explanatory note for Permian Corp.'s Assurance:

The water analyses which were submitted as evidence of no contamination showed nothing of the kind - they were so different that it seemed unlikely they were from the same well. Hence I required Permian to perform a pressure test to demonstrate that the well does not leak. They just completed that test, and will be sending us the report of it by Federal Express so that we'll have it tomorrow. They assured me by phone it was a good test. If the report they send in does not substantiate that claim, I will withdraw their Assurance and go to Legal to request an enforcement action.

I talked to Permian's lawyer here in town about changing the language of the third "Whereas" of the Assurance we have in hand to reflect the new evidence we are submitting as evidence of no contamination: that is, the pressure test and ~~an~~ analyses of water from an adjacent well which corroborates the analysis made of that well's water in May of this year, and shows no chloride contamination. I also asked him to correct some other mistakes I had not caught on an earlier reading of the Assurance (see notes in pencil), which he plans to do and have in to us tomorrow. There are no errors on the last page, which contains the signatures, so we can retain that page and just add the corrected pages when they come in tomorrow.

JONES, GALLEGOS, SNEAD & WERTHEIM

June 4, 1984

HAND-DELIVERED

Ms. Paige Grant
New Mexico Water Quality
Control Commission
Crown Building
725 St. Michael's Drive
Santa Fe, New Mexico 87501

Re: The Permian Corporation - Brine Well; Our File No. 74001-04

Dear Paige:

Enclosed please find the original of a revised Assurance Of Discontinuance, and a copy of two water analysis reports taken from the fresh water well in Hobbs, New Mexico in February, 1982 and May, 1984.

If you need any further information, please contact me.

Sincerely,

JONES, GALLEGOS, SNEAD & WERTHEIM, P.A.

Charles A. Purdy

CHARLES A. PURDY

CAP:es

Enclosures

cc: Mr. William Weddle

215 LINCOLN AVENUE SANTA FE, NEW MEXICO 87501 P.O. BOX 2228 (505) 982-2691 TELECOPIER (505) 984-0846 A PROFESSIONAL ASSOCIATION

ASSURANCE OF DISCONTINUANCE

WHEREAS, on ~~May 1, 1984~~ January 4, 1983, the Director of the New Mexico Oil Conservation Division (OCD)/~~Environmental Improvement Division (EID)~~ requested THE PERMIAN CORPORATION (name of brine well owner) to submit a Discharge Plan pursuant to §§ 3-104 and 5-101.B.3 of the New Mexico Water Quality Control Commission (Commission) Regulations for discharges from the brine facility and brine well SALINE NO 1 (name of facility) located in Section 36, Township 18 ~~North~~/South, Range 37 East/West, N.M.P.M., LEA County, New Mexico; and

WHEREAS, neither the regulations nor an extension to discharge without an approved Discharge Plan issued by the Director, nor any Court Order, allows THE PERMIAN CORPORATION to operate an injection well and associated surface facilities beyond May 1, 1984 (date), and December 20, 1983

WHEREAS, the following information indicates that there is no present contamination of drinking water sources: Analysis of fresh water from our own source well located approximately 1000 Ft. NE of the above referenced brine well does not show any contamination.

; and

WHEREAS, THE PERMIAN CORPORATION (owner) has committed to the Commission to proceed with all diligence to prepare and secure an approved Discharge Plan; and

WHEREAS, the Commission and THE PERMIAN CORPORATION (owner) deem it appropriate to enter into this Assurance of Discontinuance.

THE PERMIAN CORPORATION (owner) assures the Commission as follows:

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H. THE PERMIAN CORPORATION (owner)

shall submit responses to the EID comments on or before August 15, 1985

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The signature page from this Assurance was a substituted for the one in the Assurance that went to the Commission, because of the false signature and no date on this page

provisions of the Water Quality Act, the regulations promulgated thereunder or any other provision of law except as otherwise specifically provided herein.

7. NO ADMISSION: The terms, execution and any conduct in accordance herewith shall not constitute an admission of any kind by THE PERMIAN (owner) CORPORATION relating to matters under the Water Quality Act, Commission Regulations, or any other matters relating to health or environment.

Signed and acknowledged this _____ day of _____, 19___.

THE PERMIAN CORPORATION
(owner)

By _____
Vice President

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

The foregoing instrument was acknowledged before me this 9th day of May, 19 84, by John C. Draper ~~d/b/a~~ Vice President of THE PERMIAN CORPORATION.

My Commission Expires:
9/12/84

_____
Notary Public

APPROVED:

WATER QUALITY CONTROL COMMISSION

BY _____

Steven Asher, Chairman

Water Quality Control Commission

STATE OF NEW MEXICO)

) : SS

COUNTY OF SANTA FE)

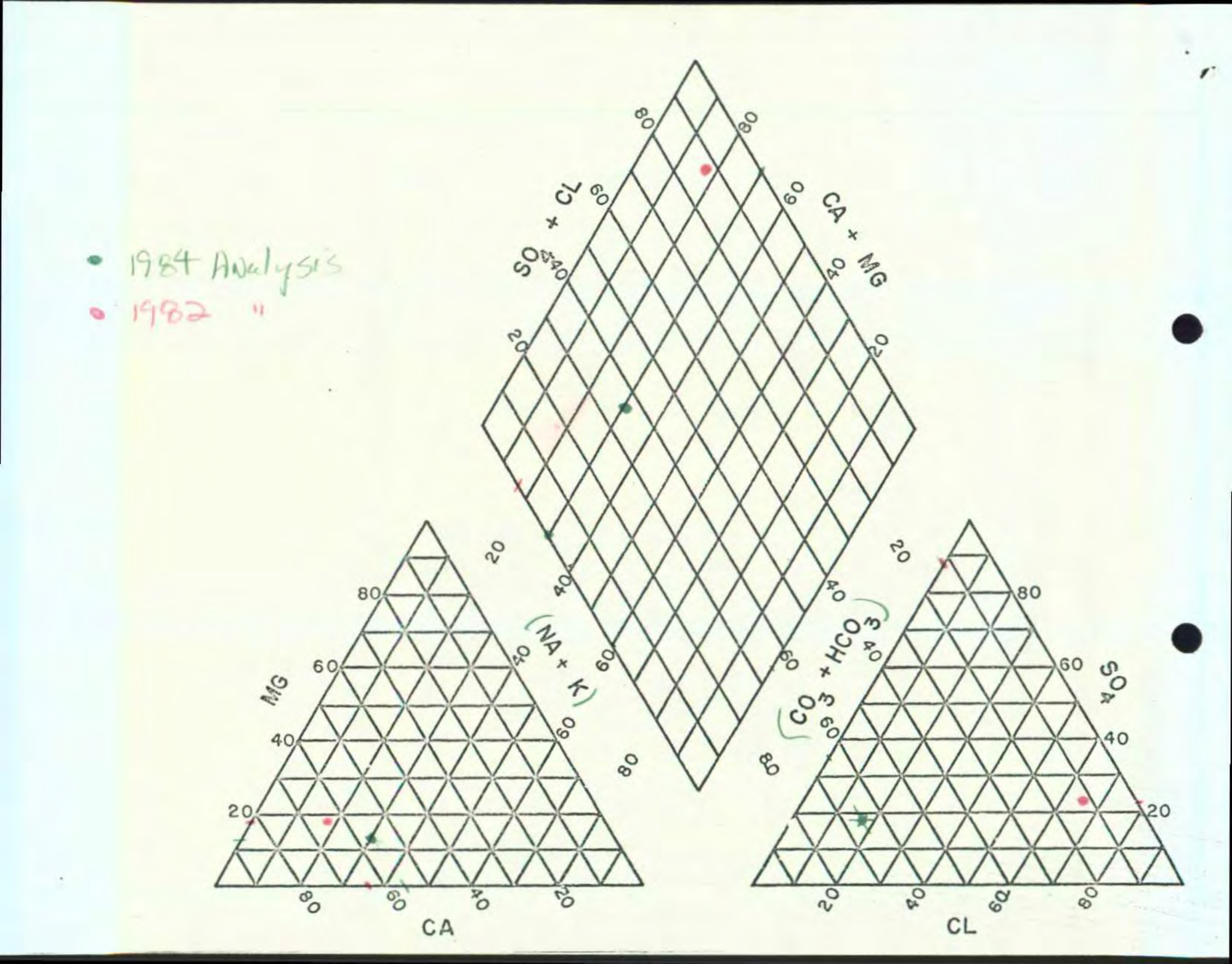
The foregoing instrument was acknowledged before me this _____ day of _____, 19 ___, by Steven Asher, Chairman of the Water Quality Control Commission, on behalf of the Water Quality Control Commission.

My Commission Expires:

_____

_____

Notary Public


1984 Analysis
1982 "
SO4 + CL
CA + MG
(NA + K)
(CO3 + HCO3)
MG
CA
CL
SO4
20
40
60
80

THE REPRODUCTION OF

THE

FOLLOWING

DOCUMENT (S)

CANNOT BE IMPROVED

DUE TO

THE CONDITION OF

THE ORIGINAL

SOUTHWESTERN LABORATORIES

FORT WORTH - DALLAS - HOUSTON - MIDLAND - BEAUMONT - TEXARKANA

CONSULTING, ANALYTICAL CHEMISTS
AND TESTING ENGINEERS

Midland Texas 2-9-82 File No. C-1902-W

Report of tests on Water

To The Permian Corporation Date Rec'd. 2-3-82

Received from

Identification Marks Hobbs Water Well

	mg/L
Calcium	351
Magnesium	63
Sodium (Calc.)	112
Carbonate	None
Bicarbonate	196
Sulfate	305
Chloride	638
Nitrate	23.7 — not included in TDS calc.
Total Dissolved Solids (Calc.)	1568
Total Hardness (As $CaCO_3$)	1135

3cc The Permian Corp.
Attn: Owen Mobley

Lab. No. 32957

SOUTHWESTERN LABORATORIES

Gary M. Bunch

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 584257

TO: The Permian Corporation
P.O. Box 3119, Midland, Texas

SAMPLE RECEIVED 5-16-84
RESULTS REPORTED 5-25-84

COMPANY The Permian Corporation LEASE Saline #1

FIELD OR POOL

SECTION BLOCK SURVEY COUNTY STATE

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken from water well.

NO. 2

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0014			
pH When Sampled				
pH When Received	7.78			
Bicarbonate as HCO_3	210			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	188			
Calcium as Ca	60			
Magnesium as Mg	9			
Sodium and/or Potassium	37			
Sulfate as SO_4	49			
Chloride as Cl	33			
Iron as Fe	0.04			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	398			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	21.50			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By

Waylan C. Martin, M.A.

HEALTH & ENVIRONMENT — STATE OF NEW MEXICO

MEMORANDUM OF MEETING OR CONVERSATION

☐ Telephone ☒ Personal	Time 2:00	Date 6/4/84
Originating Party	Other Parties	
Tony Dygowski		

Subject Assurances

Discussion — said if we only had two more to go he'd rather submit them to the Commission as a package deal than one this month (Permian Corp), one next month (Broom/Champion). I argued. However, when Permian's cleaned-up Assurance was delivered to me around 4:30, the analyses offered as evidence of no contamination looked very shaky. I called Chuck Purdy, Permian's lawyer and told him so & he agreed it seemed better to wait til next month.

Conclusions or Agreements

Distribution

File

Signed Patsy Grant

STATE OF NEW MEXICO
HEALTH ENVIRONMENT

MEMORANDUM OF MEETING OR CONVERSATION

[X] Telephone [ ] Personal	Time 4:30	Date 5/29/84
Originating Party		**Other Parties**
Paige Grant		Chuck Purdy

Subject Permian Corp's Assurance

Discussion I pointed out that on the signature page (a) the V.P. signature is not dated and (b) it is not his signature – someone signed for him, ~~yet~~ the notary public says John Draper signed ~~it~~. Since that needed to be changed, I suggested that they change the wording on the first page, too, to read (3rd WHEREAS): "Analyses of fresh water... do not show –" to avoid the issue as to whether they are truly random sampling.

Conclusions or Agreements

Purdy will have them send a revised Assurance ASAP.

Distribution
file

Signed Paige Grant

HEALTH ENVIRONMENT STATE OF NEW MEXICO

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal | Time 3:45 | Date 5/29/84

Originating Party	Other Parties
Paige Grant	Jim Ephriam (713) 840-3617

Subject: more info for me to support Assurance (this name given me at my request to Chuck Sandy for a Permian spokesman to answer some questions about the operation): Their water well, "dug" in 1953, has a 5 hp submersible pump at ≈100 ft, water table ≈ 90 ft. knows nothing more about well than that. Will send copies of chem. analyses from well ASAP. Surface storage in tanks - some kind of dam around tanks but no loading pad or spill prevention arrangement where trucks load. Inject down casing or tubing, 50-50. Soil very rocky at site - thinks there is shallow caliche

Discussion:

Conclusions or Agreements: I said I'd support their Assurance so long as their well analyses showed no trend indicating contamination from the brine well.

Distribution: file

Signed: Paige Grant

JONES, GALLEGOS, SNEAD & WERTHEIM

May 22, 1984

Ms. Paige Grant
New Mexico Water Quality
Control Commission
Post Office Box 968
Santa Fe, New Mexico 87504-0968

Re: The Permian Corporation - Brine Well; Our File No. 74001-04

Dear Paige:

Enclosed please find the Assurance Of Discontinuance relating to Permian's brine well in Lea County. I have completed the Assurance in accordance with our telephone conversation of last week.

Please keep me informed of any developments regarding this matter.

Sincerely,

JONES, GALLEGOS, SNEAD & WERTHEIM, P.A.

Charles A. Purdy

CHARLES A. PURDY

CAP:pjs

Enclosure

RECEIVED

MAY 25 1984

GROUND WATER/HAZARDOUS WASTE BUREAU

215 LINCOLN AVENUE SANTA FE, NEW MEXICO 87501 P.O. BOX 2228 (505) 982-2691 TELECOPIER (505) 984-0846 A PROFESSIONAL ASSOCIATION

RECEIVED

MAY 25 1984

GROUND WATER/HAZARDOUS WASTE BUREAU

ASSURANCE OF DISCONTINUANCE

WHEREAS, on May 1, 1984 (date), the Director of the New Mexico Oil Conservation Division (OCD)/Environmental Improvement Division (EID) requested THE PERMIAN CORPORATION (name of brine well owner) to submit a Discharge Plan pursuant to §§ 3-104 and 5-101.B.3 of the New Mexico Water Quality Control Commission (Commission) Regulations for discharges from the brine facility and brine well SALINE NO 1 (name of facility) located in Section 36, Township 18 ~~North~~/South, Range 37 East/West, N.M.P.M., LEA County, New Mexico; and

WHEREAS, neither the regulations nor an extension to discharge without an approved Discharge Plan issued by the Director, nor any Court Order, allows THE PERMIAN CORPORATION (owner) to operate an injection well and associated surface facilities beyond May 1, 1984 (date), and

WHEREAS, the following information indicates that there is no present contamination of drinking water sources: Random sampling of fresh water from our own source well located approximately 1000 Ft. NE of the above referenced brine well does not show any contamination.

; and

WHEREAS, THE PERMIAN CORPORATION (owner) has committed to the Commission to proceed with all diligence to prepare and secure an approved Discharge Plan; and

WHEREAS, the Commission and THE PERMIAN CORPORATION (owner) deem it appropriate to enter into this Assurance of Discontinuance.

THE PERMIAN CORPORATION (owner) assures the Commission as follows:

1. ASSURANCE: All unapproved discharges at the SALINE NO. 1 Brine Facility shall be discontinued as set forth in Paragraph 2 of the Assurance of Discontinuance.

2. SCHEDULE OF COMPLIANCE: It is agreed that the Discharge Plan shall comply with the following schedule:

A. THE PERMIAN CORPORATION (owner) shall submit plans and specifications of the in situ extraction well to the EID on or before July 31, 1984

B. THE PERMIAN CORPORATION (owner) shall submit a proposal outlining measures to be taken to correct any possible violation of the Water Quality Control Commission Regulations resulting from surface activities on or before July 31, 1984

C. EID shall complete review of materials submitted under Paragraph 2.A and B and shall provide comments to THE PERMIAN CORPORATION (owner) on or before September 30, 1984

D. THE PERMIAN CORPORATION (owner) shall submit the information listed in § 5-102.B.1d and the information listed in § 5-203.A of the Water Quality Control Commission Regulations to the EID on or before December 14, 1984

E. EID shall complete review of materials submitted under Paragraph 2.D herein and EID shall provide comments to THE PERMIAN CORPORATION (owner) on or before February 15, 1985

F. THE PERMIAN CORPORATION (owner) shall submit a complete Discharge Plan which shall address all applicable requirements of the Water Quality Control Commission Regulations, Parts 3 and 5 on or before April 15, 1985

G. EID shall complete review of Discharge Plan Application and EID shall provide comments to THE PERMIAN CORPORATION (owner) on or before June 14, 1985

H. THE PERMIAN CORPORATION (owner) shall submit responses to the EID comments on or before August 15, 1985

I. EID Director's approval or disapproval of Discharge Plan Application shall be promulgated on or before October 15, 1985

If a public hearing is scheduled by the EID Director pursuant to § 3-108 of the Commission's Regulations, all deadlines in Paragraphs 2.G through 2.I shall be 45 days later.

3. MUTUAL COOPERATION: THE PERMIAN CORPORATION (owner) and the EID shall mutually cooperate in accomplishing on a timely basis the matters contemplated by this Assurance. In this respect, direct communication among SALINE NO. 1 (brine facility) representatives and EID personnel is encouraged.

4. MEETINGS: It is understood that a representative(s) of SALINE NO. 1 (brine facility) and the EID shall meet on at least two occasions to discuss the progress during the initial 240 days of the Compliance Schedule. The first meeting shall take place on approximately the 90th day, and the second meeting on approximately the 150th day, as the parties may

mutually and reasonably agree. EID shall endeavor to communicate any concerns which might necessitate additional information so as to allow THE (owner) PERMIAN CORPORATION sufficient time to respond.

5. EXTENSIONS FOR GOOD CAUSE: It is expressly agreed and understood by the parties hereto that events not reasonably foreseeable on the date of execution of this Assurance may occur which will make it impossible or extremely difficult for THE PERMIAN CORPORATION (owner) to comply in a timely fashion with those compliance dates set out in numbered paragraph 2. In the event such unforeseen events do occur, THE PERMIAN CORPORATION (owner) may apply to the Commission for an extension for an additional reasonable period of time to comply with such tasks in numbered paragraph 2. The additional reasonable period of time, if granted, shall in all cases be governed by the relevant circumstances.

6. ENFORCEMENT: The Commission shall not undertake enforcement against SALINE NO. 1 (brine facility) for the continuation of current discharges occurring during the pendency of this Assurance without first giving THE PERMIAN CORPORATION (owner) 15 days prior written notice by the Director that SALINE NO. 1 is in violation of the terms of this Assurance. This Paragraph shall not preclude appropriate action by the Director or the Commission under § 74-6-11 N.M.S.A. 1978.

Failure by THE PERMIAN CORPORATION (owner) to comply with any condition of this Assurance of Discontinuance shall be actionable as a violation of the Water Quality Act and of this Assurance under §§ 74-6-5 and 10 N.M.S.A. 1978, as applicable.

Nothing in this Assurance of Discontinuance shall relieve THE (owner) PERMIAN CORPORATION from the responsibility for complying with all the

provisions of the Water Quality Act, the regulations promulgated thereunder or any other provision of law except as otherwise specifically provided herein.

7. NO ADMISSION: The terms, execution and any conduct in accordance herewith shall not constitute an admission of any kind by THE PERMIAN (owner) CORPORATION relating to matters under the Water Quality Act, Commission Regulations, or any other matters relating to health or environment.

Signed and acknowledged this _____ day of _____, 19___.

THE PERMIAN CORPORATION
(owner)

By _____
Vice President

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

The foregoing instrument was acknowledged before me this 9th day of May, 1984, by John C. Draper ~~d/b/a~~ Vice President of THE PERMIAN CORPORATION.

My Commission Expires:

9/12/84

_____
Notary Public

APPROVED:

WATER QUALITY CONTROL COMMISSION

By _____

Steven Asher, Chairman

Water Quality Control Commission

STATE OF NEW MEXICO)

: SS

COUNTY OF SANTA FE)

The foregoing instrument was acknowledged before me this _____ day of _____, 19___, by Steven Asher, Chairman of the Water Quality Control Commission, on behalf of the Water Quality Control Commission.

My Commission Expires:

_____

_____

Notary Public

HEALTH ENVIRONMENT STATE OF NEW MEXICO

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time ≈ 11:00	Date 5/17/84
Originating Party	Other Parties	
Charles Lundy		

Subject schedule of compliance for Permian Corp's Assurance

Discussion I suggested the following schedule: June 12 - submit Assurance; July 31 - submit A & B of schedule; Sept. 30 - EID comments due on A & B; December 14 - submit D; Feb. ~~25~~ 26th, 1985 - EID review of D; April 15 - submit F, complete d.p.; June 14 - EID review & comment on d.p.; August 15 - submit responses to EID comments (H); October 15th - EID approval / disapproval

Conclusions or Agreements

Lundy thought the above would be acceptable, had to run it by Permian to be sure.

Distribution

Signed Paige Grant

STATE OF NEW MEXICO
HEALTH ENVIRONMENT

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 9:00	Date 4/30/84
Originating Party: Charles Pendy	Other Parties: Paige	

Subject: outline for brine extraction well discharge plan, and Assurance

Discussion: W answered questions on both subjects. He plans to have Permian Corp. submit an Assurance by May 28th in time for the June 12th WQCC meeting.

Conclusions or Agreements

Distribution

Signed: Paige Grant

HEALTH ENVIRONMENT department

STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020
STEVEN ASHER, Director

TONEY ANAYA
GOVERNOR

ROBERT McNEILL
SECRETARY

Joseph Goldberg
DEPUTY SECRETARY

Ted Guambana
DEPUTY SECRETARY

April 18, 1984

Charles Purdy, Attorney
Jones, Gallegos, Sneed
and Wortheim
P.O. Box 2228
Santa Fe, NM 87501

RE: Discharge plan requirement for the brine extraction well of Permian Corporation, Lea County

Dear Mr. Purdy:

Pursuant to our telephone conversation of April 17th, I am sending you:

1. A copy of the New Mexico Water Quality Control Commission Regulations, which govern brine extraction wells (as well as most other operations which involve discharge of fluids in the state);

2. The draft of an outline for preparation of a discharge plan for brine extraction wells. Note that the codes in bold type in the outline refer to Sections of the regulations; and

3. A form for an Assurance of Discontinuance, which would allow your client to remain in operation while preparing a discharge plan, so long as he is able to produce sufficient evidence that his operation is not causing and will not cause an exceedance of the ground water standards while his discharge plan is being prepared.

Please do not hesitate to contact me if you have any questions on any of the above.

Sincerely,

Paige Grant

Paige Grant
Water Resource Specialist
Ground Water Section

PG:egr

Enclosures

mstt

STATE OF NEW MEXICO
ENVIRONMENT

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time	Date
	4:00	4/17/84

Originating Party	Other Parties
Charles Purdy, Atty. 982-2691	Larry Grant

Subject

Discussion Permian had contacted him to find out what was being expected of them. They/he were under the impression another bond was required - had never heard of WQCC reg etc. I explained the basics about a discharge plan and promised to send him the regs, an assurance form and a brine well outline.

Conclusions or Agreements

Distribution

Signed Larry Grant

STATE OF NEW MEXICO
HEALTH & ENVIRONMENT

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 1:30, 3:30	Date 4/9/84
Originating Party: Patsy Grant	Other Parties: Lila Dent, Lemman Corp. (713) 840-2701	

Subject: Status of ownership transfer of Occidental/Lemman's well

Discussion: Occidental has sold the Lemman Corp. to private owners, but is retaining the responsibility for bonding and permitting. William Weddle will be in touch with me next week regarding what will be required of them to be in compliance w/ NM Code.

Conclusions or Agreements

Distribution: file

Signed: Patsy Grant

STATE OF NEW MEXICO
HEALTH ENVIRONMENT

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time	Date
	1:20	2/22/84

Originating Party	Other Parties
Paige Grant	Sy Benskey
	(713) 840-4085

Subject: Assurance.

Discussion: Benskey says they sold the Permian Corp. (different from Permian Brine Sales and Service) in 12/23/83. He will pass on to new owners the need to prepare an Assurance.

Conclusions or Agreements

Distribution

Signed: Paige Grant

STATE OF NEW MEXICO
HEALTH & ENVIRONMENT

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal | Time: morning | Date: 2/13/84

Originating Party	Other Parties
Paige Grant	Sy Bensky's sec'y

Subject: Assurance of Discontinuance

Discussion: Bensky was out of town. Left a message that Assurance had to be in by 2/27/84 to get on agenda for 3/13 WQCC meeting.

Conclusions or Agreements

Distribution

Signed: A. Paige Grant

STATE OF NEW MEXICO
HEALTH ENVIRONMENT

MEMORANDUM OF MEETING OR CONVERSATION

☐ Telephone ☒ Personal | Time 5:00 | Date 1/31/84

Originating Party	Other Parties
Paige Grant	Karl Souder

Subject Occidental Oil & Gas

Discussion

That as of Karl said, this last contact with them, they planned to be in touch in February '84 to learn what they needed to do to present an ~~Agreed~~ Assurance of Discontinuance to the WQCC at their March meeting. I said I'd contact them around the middle of the month to prompt them.

There's a question as to the relationship of Occidental to the Permian Corporation and to Permian Brine Sales and Service.

Conclusions or Agreements

Distribution

Signed Paige Grant

OCCIDENTAL OIL AND GAS COMPANY

P. O. BOX 3466
HOUSTON, TEXAS 77001

SY BENSKY
MANAGER, ENVIRONMENT
AND HEALTH ADMINISTRATION

January 4, 1984

Mr. David G. Boyer
State of New Mexico
Environmental Improvement Division
P. O. Box 968
Santa Fe, New Mexico 87504-0968

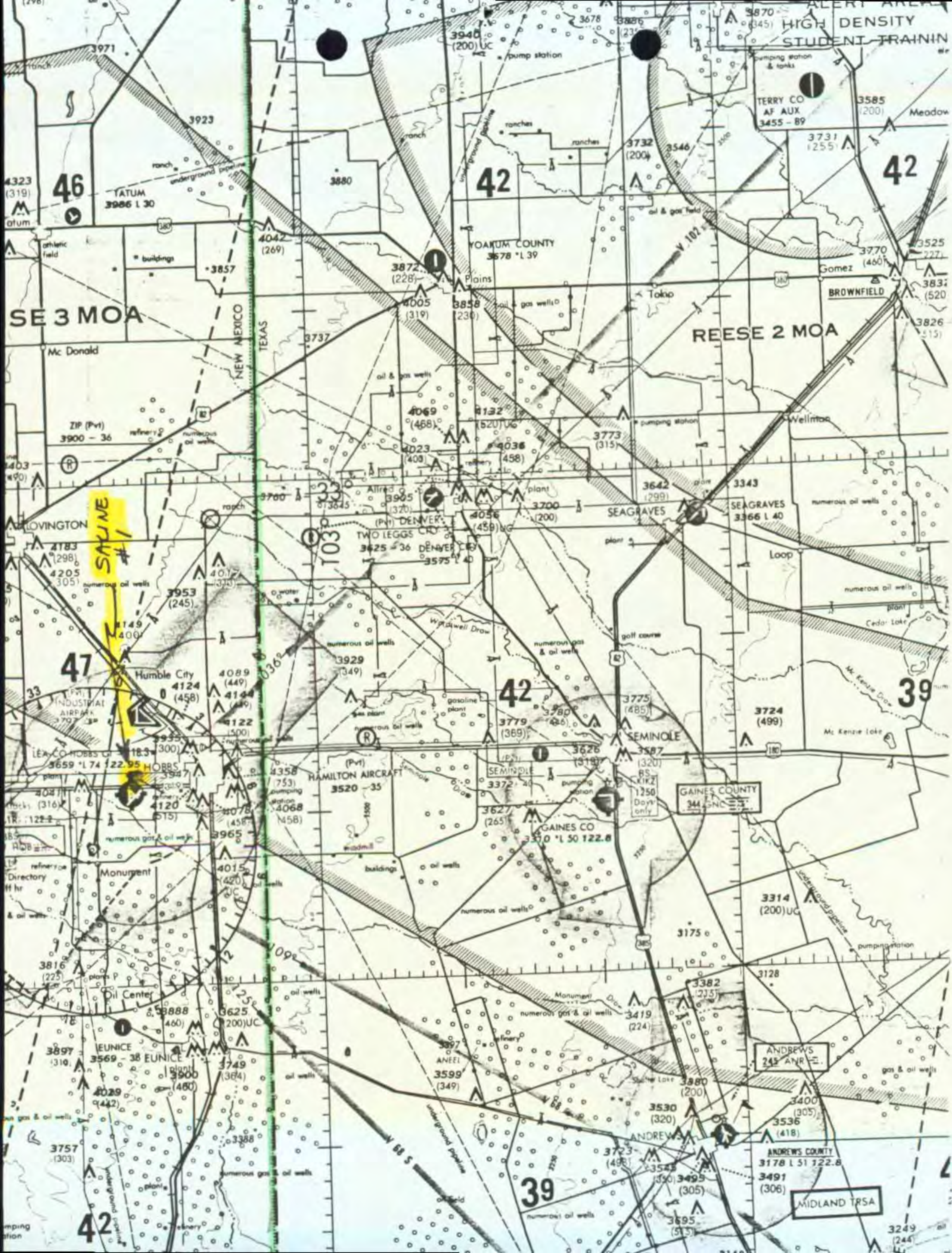
Dear Dave:

Enclosed, per our conversation, is a map and a survey plat which show the location of the Permian Corporation's Brine Production Well.

Very truly yours,

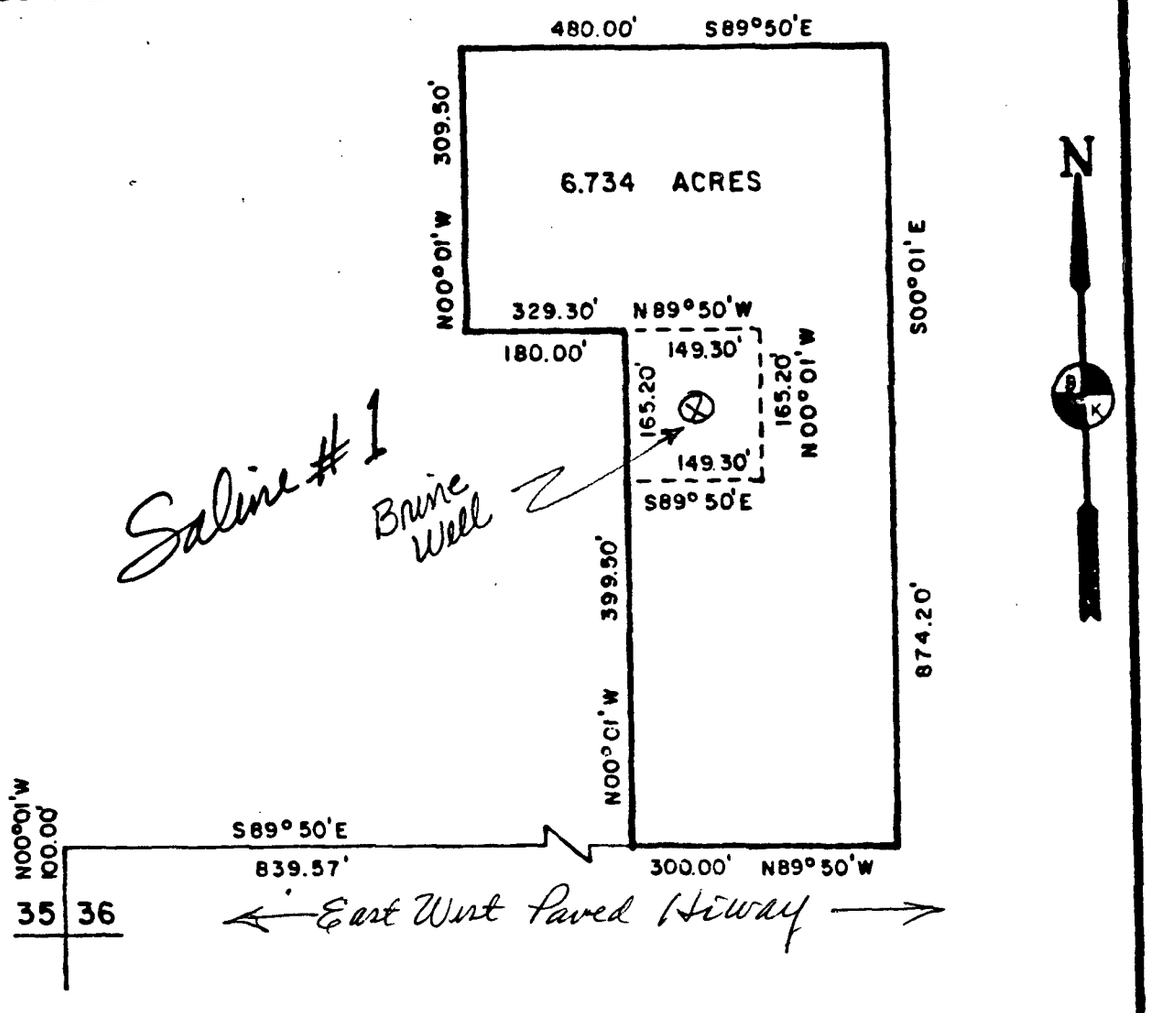
Sy Bensky

SB:pc
Enclosure



HIGH DENSITY
STUDENT TRAINING
TERRY CO
AF AUX
3455 - 89
REESE 2 MOA
SE 3 MOA
TATUM
3986 L 30
YOAKUM COUNTY
3678 *L 39
Plains
Tokio
Gomez
BROWNFIELD
Mc Donald
NEW MEXICO
TEXAS
ZIP (Pvt)
3900 - 36
LOVINGTON
SALINE #1
Humble City
INDUSTRIAL AIRPARK
LEA CO HOBBS
3659 *L 74 122.95
HOBBS
Monument
Oil Center
EUNICE
3569 - 38 EUNICE
Allred
(Pvt) DENVER CITY
TWO LEGGS
3625 - 36
DENVER CITY
3575 L 40
SEAGRAVES
3366 L 40
Wellman
Loop
Cedar Lake
Mc Kenzie Draw
Mc Kenzie Lake
SEMINOLE
3372 - 40
HAMILTON AIRCRAFT
(Pvt)
3520 - 35
GAINES COUNTY
344 GNC
GAINES CO
3310 *L 50 122.8
KIKZ
1250
Days only
ANDREWS
245 ANR
ANDREWS
ANDREWS COUNTY
3178 L 51 122.8
MIDLAND TRSA
numerous oil wells
numerous gas & oil wells
underground pipeline
pumping station
V 102

PLAT OF SURVEY



DESCRIPTION

A tract of land situated in the Southwest Quarter of the Southwest Quarter ($SW\frac{1}{4}$ $SW\frac{1}{4}$) of Section 36, Township 18 South, Range 37 East, N.M.P.M., Lea County, New Mexico, being further described as follows:
Beginning at a point which lies N00° 01'W 100.00 feet and S89° 50'E 839.57 feet from the Southwest Section Corner of said Section 36; thence, N00° 01'W 399.50 feet; thence, S89° 50'E 149.30 feet; thence, N00° 01'W 165.20 feet; thence, N89° 50'W 329.30 feet; thence, N00° 01'W 309.50 feet; thence, S89° 50'E 480.00 feet; thence, S00° 01'E 874.20 feet; thence, N89° 50'W 300.00 feet to the point of beginning, containing 6.734 acres, more or less.

I HEREBY CERTIFY THAT I AM THE REGISTERED LAND SURVEYOR WHO PREPARED THE ABOVE PLAT FROM FIELD NOTES OF ACTUAL SURVEYS MADE UNDER MY DIRECTION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Neal D. King
New Mexico R.L.S. No 6541
Texas R.P.S. No. 02308

NEAL D. KING NEW MEXICO 6541 REGISTERED LAND SURVEYOR

KEN MARSH

A tract of land situated in the $SW\frac{1}{4}$ $SW\frac{1}{4}$ of Section 36, Township 18 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

BROWN & KING
ENGINEERING & SURVEYING, INC.
3515 INDUSTRIAL DRIVE — LOVINGTON HIGHWAY HOBBS, N. M. 88240

SCALE: 1 " = 200 '	DRAWN BY: Maudie W.
DATE: NOV. 11, 1981	SHEET 1 OF 1

EXHIBIT "A"

STATE OF NEW MEXICO
HEALTH & ENVIRONMENT

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 9.10 am	Date 12/9/83
Originating Party	Other Parties	
Karl Sauder, EID	Sy Benski, Occidental Oil & Gas Company (OOG)	

Subject: Brine Manufacturing Wells.

Discussion: Benski indicates that Occidental has brine production wells in New Mex. Will set up a meeting for next week to discuss how they can come into compliance.

12/15/83. Had meeting here. I explained to Benski that OOG was out of compliance, and should arrange to go before the WQCC with an Assurance of Discontinuance. which would set up a time table for coming ~~into~~ in with a discharge plan. Explained Part 5 of the regs and that it would probably be useful to hire a consultant for OOG.

Conclusions or Agreements: Benski agreed to the above and David Boyer suggested that he shoot for the March WQCC meeting. (They have apparently been operating for 5-10 yrs).

Distribution: File.

Signed: Karl Sauder

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

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

January 4, 1983

Oxidendal Oil and Gas Co.
P.O. Box 3466
Houston, Texas 77001

ATTN: Mr. Benski

RE: Request for Discharge Plan
for Your Brine Facility and
Well(s) in New Mexico

Dear Sir:

Under the provisions of the Water Quality Control Commission (WQCC) regulations, you are hereby notified that the filing of a discharge plan for your brine well is required.

On September 20, 1982, Part 5, Water Quality Control -- Underground Injection, pages 41-70, a new section to the WQCC regulations became effective.

The Oil Conservation Division classifies your type of operation as an in situ extraction process whereby injection well(s) are used for mineral (salt) extraction. Please refer to the definition of "in situ extraction well" in Section 1-101. cc. page 4 of the regulations.

On pages 24 and 25 of the Water Quality Control Commission regulations (WQCC) in Section 3-106 (c) there are eight questions that must be addressed and incorporated in your discharge plan. Please follow the outline by supplying a descriptive and detailed narrative for each of these items. You will have to comply with Parts 3 and 5. The operators only had to comply with Part 3 because their discharge plans could be approved before December 20, 1982. A 90-day grace period was given to existing operators in which to submit and have approved a discharge plan. This 90-day period allowed present operators to come under only Part 3 instead of both 3 and 5.

If you have any questions on this matter, please do not hesitate to call Oscar Simpson at (505) 827-5822. Mr. Simpson has been assigned responsibility for review of all discharge plans and can be very helpful with any filing you make.

Sincerely,

Joe D. Ramey
Division Director

JDR/OS/dp

Enc.

STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020
Russell F. Rhoades, M.P.H., Director

Bruce King
GOVERNOR

George S. Goldstein, Ph.D.
SECRETARY

Larry J. Gordon, M.S., M.P.H.
DEPUTY SECRETARY

713 840 7100

Bach monday
Called 2:15 PM 12-27-82

December 3, 1982

Mr. Sy Bensky
Occidental Oil and Gas Company
P.O. Box 3466
Houston, Texas 77001

Dear Mr. Bensky:

Enclosed is a copy of the New Mexico Water Qualtiy Control Commission Regulations which include the regulations concerning underground injection control.

If I can answer any more questions concerning these regulations please feel free to call me at the above number.

Sincerely,

Karl Souder

Karl Souder
EID Ground-Water Hydrologist
Ground Water Section

KS:egr

Enclosure: WQCC Regulations

mss

µmho/[illegible]

1984	HCO_3	3.4	64%	Ca	3.0	57%
	SO_4	1.0	19%	Mg	.7	13%
	Cl	0.9	17%	Na	1.6	30%
		5.3			5.3	

[illegible]	HCO_3	3.21	12%	Ca	17.51	64%
	SO_4	6.35	23%	[illegible]	5.18	19%
	Cl	18.00	65%	Na	4.81	18%
		27.56			27.56	

* So I still have no evidence that the well is not doing envir. harm at present

The chemistry of the two samples is so different that it would be very unlikely to come from the same well — *

— also need location(s) of well(s), distance fr. brine well & surface facilities & diff. in elevation — also depth of well would be useful

HEALTH ENVIRONMENT department

STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020
STEVEN ASHER, Director

TONEY ANAYA
GOVERNOR

Joseph Goldberg
SECRETARY

Ted Guambana
DEPUTY SECRETARY

JOSEPH F. JOHNSON
DEPUTY SECRETARY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 11, 1984

Charles Purdy
Jones, Gallegos, Snead
and Wertheim
P.O. Box 2228
Santa Fe, NM 87501

Jim Ephriam
Permian Corporation
P.O. Box 1183
Houston, TX 77001

Dear Sirs:

Enclosed please find a copy of the Permian Corporation Assurance of Discontinuance with the notarized signatures of the Vice President of Permian and the Chairman of the Water Quality Control Commission. Thank you for your attendance at the commission meeting July 10th. I look forward to receiving Permian's first submittal specified in the Assurance, due July 31st.

Sincerely,

Paige Grant

Paige Grant
Water Resource Specialist
Ground Water Section

PG:egr

Enclosure

msk

P 456 371 268
RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Charles Purdy	
Street and No. P.O. Box 2228	
P.O., State and ZIP Code Santa Fe, NM	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	

PS Form 3800, Feb. 1982

P 456 371 267
RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Jim Ephriam	
Street and No. P.O. Box 1183	
P.O., State and ZIP Code Houston, TX 77001	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	

PS Form 3800, Feb. 1982

HEALTH ENVIRONMENT department

TONEY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020
Denise Fort, Director

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 24, 1984

C.N. Adams, P.E.
Chief Engineer
THE PERMIAN CORPORATION
P.O. Box 1183
Houston, TX 77001

Dear Mr. Adams:

Enclosed is a copy of the public notice pertaining to your proposed discharge which was issued by this division pursuant to New Mexico Water Quality Control Commission Regulations, Section 3-108.

If you have any questions, please do not hesitate to contact me at the above address and telephone number (ext. 279).

Sincerely,

Maxine S. Goad

Maxine S. Goad
Program Manager
Ground Water Section

MSG:jba

Enclosure

PS Form 3800, Feb. 1982 ★ U.S.G.P.O. 1983-403-517

Sent to	C.N. Adams
Street and No.	P.O. Box 1183
P.O. State and ZIP Code	Houston, TX 77001
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	

P 612 423 363

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

TONEY ANAYA
GOVERNOR

HEALTH ENVIRONMENT department

STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020
Denise Fort, Director

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 24, 1984

Bill Waldrop, Manager
CITY OF HOBBS
P.O. Box 1117
Hobbs, NM 88240

Dear Mayor Waldrop:

Enclosed is a public notice which includes notice of a proposed discharge plan(s) for one or more operations in or near your city.

If you have any questions, please do not hesitate to contact me at the above address and telephone number (ext. 279).

Sincerely,

Maxine S Goad

Maxine S. Goad
Program Manager
Ground Water Section

MSG:jba

Enclosure

PS Form 3800, Feb. 1982 ★ U.S.G.P.O. 1983-403-517

Sent to	Bill Waldrop, Mayor
Street and No.	Box 1117
P.O., State and ZIP Code	Hobbs, NM 88240
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	

(See Reverse)

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

P 612 423 358

TONEY ANAYA
GOVERNOR

HEALTH ENVIRONMENT department

STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020
Denise Fort, Director

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 24, 1984

Lea County Commissioners
Lea County Courthouse
Lovington, NM 88260

Board of County Commissioners:

Enclosed is a public notice which includes notice of proposed discharge plan(s) for one or more operations located in your county.

If you have any questions, please do not hesitate to contact ~~me~~ at the address and telephone number given above.

Sincerely,

Maxine S. Goad

Maxine S. Goad
Program Manager
Ground Water Section

MSG:jba

Enclosure

PS Form 3800, Feb. 1982 ★ U.S.G.P.O. 1983-403-517

Sent to	Lea Cnty Commissioners
Street and No.	Lea Cnty Courthse
P.O., State and ZIP Code	Lovington, NM 88260
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	

(See Reverse)

P 612 423 355
RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

THE PERMIAN CORPORATION
1509 W. WALL P. O. BOX 3119
MIDLAND, TEXAS 79702
915-683-4711

December 18, 1984

State of New Mexico
Environmental Improvement Division
P. O. Box 968
Santa Fe, New Mexico 87504-0968
Paige Grant

Re: Permian Saline No. 1 Discharge Plan DP354

Dear Mrs. Grant,

Attached are the water analyses from Permian's Saline No. 1 Brine well and monitor fresh water well located on the Hobbs County Club property.

Please advise if any additional information is required.

Sincerely,

Owen Mobley

Owen Mobley
Division Manager
The Permian Corporation

OHM:rl

cc: Jim Ephraim
file

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 128483

TO: Mr. Owen Mobley
P.O. Box 3119, Midland, Texas

SAMPLE RECEIVED 12-11-84

RESULTS REPORTED 12-13-84

COMPANY The Permian Corporation LEASE Saline #1

FIELD OR POOL

SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Brine sample. 12-10-84

NO. 2

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1982			
pH When Sampled				
pH When Received	7.36			
Bicarbonate as HCO_3	149			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	11,850			
Calcium as Ca	1,720			
Magnesium as Mg	1,835			
Sodium and/or Potassium	119,206			
Sulfate as SO_4	4,334			
Chloride as Cl	188,911			
Iron as Fe	1.1			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	316,154			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.044			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By Ronnie Tucker, B.S.

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 128482

TO: Mr. Owen Mobley
P.O. Box 3119, Midland, Texas

SAMPLE RECEIVED 12-11-84
RESULTS REPORTED 12-13-84

COMPANY The Permian Corporation LEASE Hobbs Country Club

FIELD OR POOL

SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken from water well located in NE corner of property. 12-10-84

NO. 2

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0021			
pH When Sampled				
pH When Received	7.07			
Bicarbonate as HCO_3	449			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	540			
Calcium as Ca	177			
Magnesium as Mg	24			
Sodium and/or Potassium	131			
Sulfate as SO_4	236			
Chloride as Cl	151			
Iron as Fe	0.16			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	1,167			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	7.50			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By Ronnie Tucker
Ronnie Tucker, B.S.

THE PERMIAN CORPORATION
1509 W. WALL P. O. BOX 3119
MIDLAND, TEXAS 79702

915-683-4711

December 12, 1984

State of New Mexico
Environmental Improvement Division
P. O. Box 968
Santa Fe, New Mexico 87504-0968
Paige Grant

Re: Permian's Saline No. 1 Discharge Plan DP354

Dear Mr. Grant,

In response to your questions concerning Permian's Discharge Plan of the Saline No. 1 brine well, I believe you will find them clarified in the attached enclosure. The additional water analyses will be forwarded to you within ten days.

If you have any additional questions please let me know.

Sincerely,

Owen Mobley

Owen Mobley
Division Manager
The Permian Corporation

OHM/rl

cc: Jim Ephraim
file

To Paige

Date 1-28-92 Time 10:30am

WHILE YOU WERE OUT

M. Jimmy Ephraim

of

Phone

Area Code Number Extension

TELEPHONED		PLEASE CALL	
CALLED TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		URGENT	
RETURNED YOUR CALL	✓		

Message

787 - 2500 (Houston)

713 - 840 - 3617

Would like to reschedule

test for week of 2/18

through 2/22 - call to

confirm.

Operator DCR

Permian Corporation. 26/85

Mac McCutchan present for company - went off to see why ~~recorder was on~~ another company rep wasn't present.

Tom Burtt present: talked about problem of disposal pits for tank-bottom waste, oil, brine, etc from oil-field operations. Agreed to do tour this afternoon.

Well pumping.

Recorder showed that chart was put on at $\approx$ 7 a.m. and was about steady at 100 psi for one hour, then started

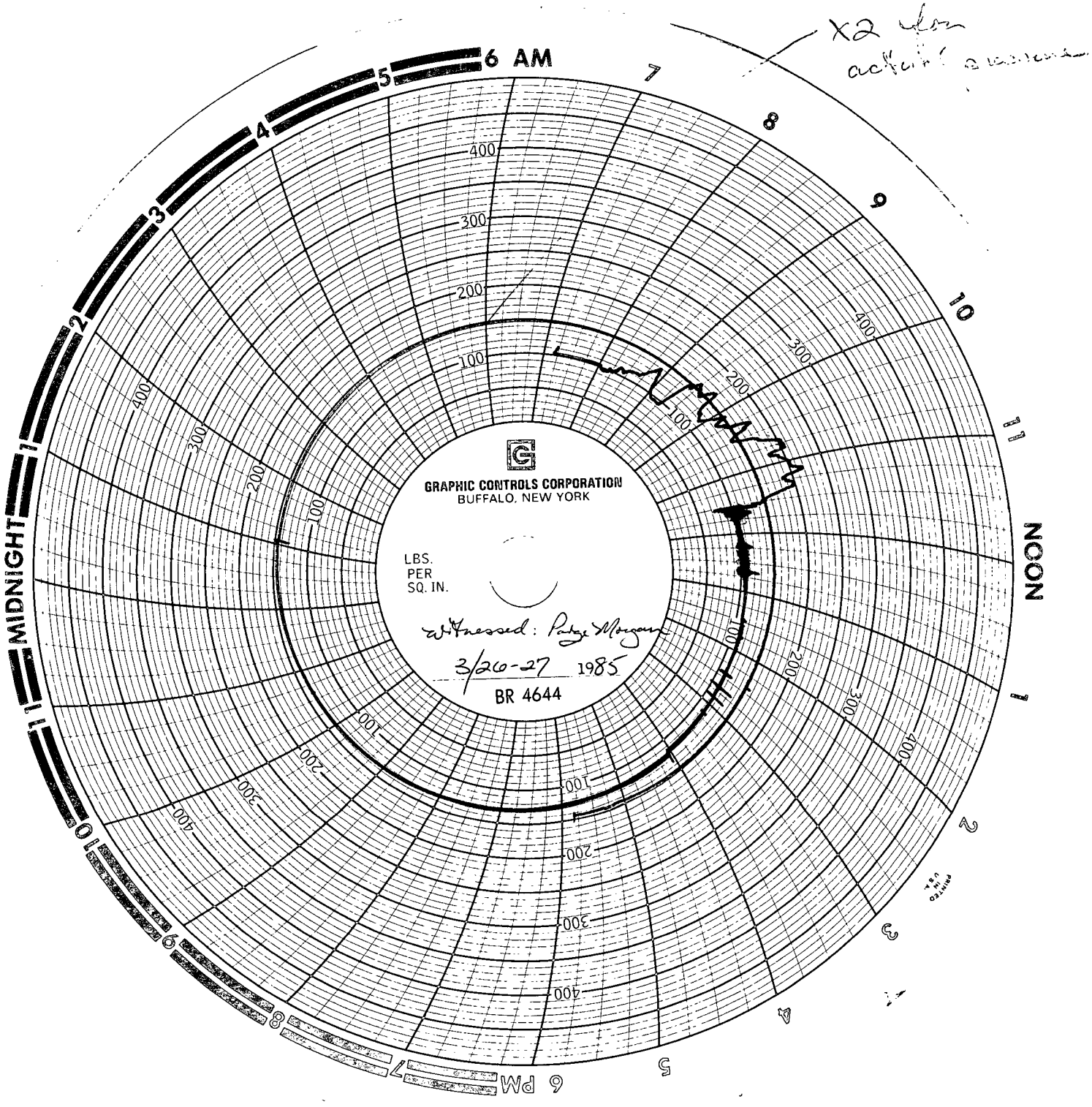
considerable fluctuation > 100 lbs.
Possibly encrustation in tubing
causing pressure ↑↓ will run off
Richard Lentz came for co.

~~Valve~~ Gauge in tubing on
well showed ≈ 300 psi w/
some wobble when we
arrived - Lentz turned it
down to 200.
Gauge inside originally ≈ 100,
when adjustment made outside
dropped off.

Well was not shut in. They
shut it in at 11:35 a.m. Agreed
to bring it up to 300 psi and
hold until this afternoon. 5:00 pm.

Source well water: T: 19°C pH 6.6
cond: 500 µMHOS
8503261152 + 53

Brine: T: 24°C pH 5.78
8503261212 8503261211


6 AM
NOON
MIDNIGHT
6 PM
100
200
300
400
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
LBS.
PER
SQ. IN.
Witnessed: Paige Morgan
3/20-27 1985
BR 4644

TONEY ANAYA
GOVERNOR

DENISE D. FORT
DIRECTOR

STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION

P.O. Box 968, Santa Fe, New Mexico 87504-0968

(505) 984-0020

3/26/85

Permian Corp. 4:52 p.m. -
well still pumping, not
up to 250 psi yet - note
recorder is for 0 -> 1000 psi,
chart for 0 -> 500, so double
reading on chart for actual
pressure.

Agreed that Lentz will
continue pumping up to
300 psi, shut in rdg
recorder on + well pack
up chart Wed p.m. after
final work + leave copy of
chart for Lentz to pick
up at EID office Thurs
a.m.

P 612 425 078

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to	Owen Mobley	
Street and No.	P.O. Box 3119	
P.O., State and ZIP Code	Midland, TX 78702	
Postage		$
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to whom and Date Delivered		
Return receipt showing to whom, Date, and Address of Delivery		
TOTAL Postage and Fees		$
Postmark or Date		

PS Form 3800, Feb. 1982 ★ U.S.G.P.O. 1983-403-517

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 3 | 29 | 85 — LAB NO. WE-1298
USER CODE: ☐ 59300 ☐ 59600 ☒ OTHER: 59500
Collection DATE: 85 | 03 | 26
Collection TIME: 1212
Collected by — Person/Agency: P. MORGAN/EID
SITE INFORMATION ►
Sample location: BRINE TANK, PERMIAN CORP HOBBS, NM
Collection site description: BRINE TANK

SEND FINAL REPORT TO ►
GROUND WATER & HAZARDOUS WASTE BUREAU
NM ENVIRONMENT IMPROVEMENT DIVISION/HED
Crown Building, PO Box 968
Santa Fe, NM 87504-0968
Attn: MORGAN/SARES

Station/ well code:
Owner: RICHARD LENTZ

SAMPLING CONDITIONS

☐ Bailed ☐ Pump ☐ Dipped ☒ Tap	Water level: —NA—	Discharge: —NA—	Sample type: BRINE
pH (00400): 5.78	Conductivity (Uncorrected): OFF SCALE µmho	Water Temp. (00010): 24 °C	Conductivity at 25°C (00094): µmho

Field comments: BRINE - VERY HIGH TDS

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1
☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☐ **A:** 2 ml H_2SO_4/L added
☒ **NA:** No acid added ☐ Other-*specify:* 850326/1212

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	1617	mg/l	4/15
☒ Magnesium (00925)	694	mg/l	4/15 138.0
☒ Sodium (00930)	12673	mg/l	4/16
☒ Potassium (00935)	333.7	mg/l	4/16
☒ Bicarbonate (00440)	151.4	mg/l	5/7
☒ Chloride (00940)	206,933.7	mg/l	5/3
☒ Sulfate (00945)	2457	mg/l	
☒ Total filterable residue (dissolved) (70300)	315,168	mg/l	5/4
☐ Other:			

NF, A-H_2SO_4		
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l
☐ Ammonia-N total (00610)		mg/l
☐ Total Kjeldahl-N ( )	guesstonable anal—	
☐ Chemical oxygen demand (00340)		
☐ Total organic carbon ( )	haven't run chang	
☐ Other:	bal but Na Cl ratios	
☐ Other:		

F, A-H_2SO_4		
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l
☐ Ammonia-N dissolved (00608)		mg/l
☐ Total Kjeldahl-N ( )		mg/l
☐ Other:		

Analyst | Date Reported: 5 | 13 | 85 | Reviewed by

Laboratory remarks: Way off

ELD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED	3 29 85	LAB NO.	WC-1295
Collection DATE	85 03 26	USER CODE	☐ 59300 ☐ 59600 ☒ OTHER: 59500
Collection TIME	1153	SITE INFORMATION ► Sample location	~~QUAY~~ PERMIAN CORP, HOBBS, NM
Collected by — Person/Agency	P. MORGAN/EID	Collection site description	FRESH WATER WELL

RECEIVED
JUN 26 1985
GROUND WATER HAZARDOUS WASTE BUREAU

SEND FINAL REPORT TO ►
GROUND WATER & HAZARDOUS WASTE BUREAU
NM ENVIRONMENT IMPROVEMENT DIVISION/HED
Crown Building, PO Box 968
Santa Fe, NM 87504-0968
Attn: MORGAN/SARES

Station/ well code

Owner RICHARD LENTZ

SAMPLING CONDITIONS

☐ Bailed ☐ Dipped ☐ Pump ☒ Tap	Water level	Discharge	Sample type
pH (00400) 6.6	Conductivity (Uncorrected) 500 µmho	Water Temp. (00010) 19 °C	Conductivity at 25°C (00094) µmho

Field comments

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☒ **NA:** No acid added ☐ Other-*specify:* 8503261153

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	54.8	mg/l	4/15
☒ Magnesium (00925)	11.1	mg/l	4/15 3.90
☒ Sodium (00930)	57.5	mg/l	4/16
☒ Potassium (00935)	2.73	mg/l	4/16
☒ Bicarbonate (00440)	153.3	mg/l	4/15
☒ Chloride (00940)	68.9	mg/l	4/15
☒ Sulfate (00945)	67.2	mg/l	4/4
☒ Total filterable residue (dissolved) (70300)	420	mg/l	5/9
☐ Other:			

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	6 10 85	

Laboratory remarks

SLD 726 (12/84) *DISTRIBUTION:* **WHITE** — EID, GW&HW Bureau **CANARY** — WS System **PINK** — EID Local Office **GOLDENROD** — SLD

Permian Corp:
Have constructed a 2' berm around brine tanks: 19½ paces long x 11 paces wide. Another berm to prevent spillage from running into roadway. Two ≈ 25 gal barrels moved in under loading spouts. Any spillage from loading trucks would probably flow toward berm by roadway but pumping any such spill would be near impossible.

Richard Lentz, rep. of Permian. Talked w/ him about excavating a pond at one end of ~~pond~~ berm. Agreed to excavate to caliche, about the width of a bulldozer blade. Said most spillage is by independents who fill to very top of tankers - they never load (Permian)

more than 120 bbls of brine and all their trucks are 185 bbl.

Permian Corp. (Lentz & engineer Keith Bracewell caught me & we went back to discuss plans for spill collection. Engineer will send in plans next week

9/13/85: Notified Jon Ephraim that we had never received a bond from them for P & A of the brine well. This is all that remains before I would be ready to approve the Permian d.p. I pointed out that the assurance ends October 15, so to try and get it done by then. Also asked that the language of the bond specifically apply to brine wells. He said they would get the bond to us ASAP

Paige Morgan

Paige,

Please call Earl Newland with Permian Co. in Houston.

#713-781239

K6364

3:00
9-13

V.

Reliance Insurance Companies

RELIANCE INSURANCE COMPANY
PHILADELPHIA, PENNSYLVANIA

UNITED PACIFIC INSURANCE COMPANY
FEDERAL WAY, WASHINGTON

PLANET INSURANCE COMPANY
FEDERAL WAY, WASHINGTON

CANCELLATION NOTICE

TO: Obligee/ Address: Environmental Improvement
POB 968
Santa Fe, New Mexico 87504
Certified P 056 085 440

UNITED PACIFIC-RELIANCE INS. CO.
P. O. BOX 16025
PHOENIX ARIZ. 85011

RE: Principal/ Address: Western Dewatering, Inc.
3817 Ash Avenue
Loveland, Colorado 80537

Bond No.: U 53 79 14

Bond Type: Well Driller's Bond Bond replaced with another surety
~~State of New Mexico~~

Effective Date: May 20, 1986

You are hereby notified the captioned bond is cancelled in accordance with the cancellation provisions contained therein or in applicable laws or regulations. This Notice is mailed to you on

May 24, 1989 and is to be effective on or about

May 30, 1989 or if such effective date does not provide for a sufficient number of days notice, as required, then upon the earliest date permitted. The issuance of this Cancellation Notice shall not, however, extend the effective date of cancellation if such bond has been cancelled upon an earlier date under the provisions of said bond.

United Pacific INSURANCE COMPANY shall not be responsible thereunder for any acts or defaults committed or loss occurring after the effective date of cancellation, nor for any losses not discovered in accordance with the provisions of such bond.

BY: Surety: United Pacific INSURANCE COMPANY

Mary Wise
Mary Wise
Attorney-in-Fact

CANCELLATION ACKNOWLEDGMENT (Please sign duplicate of this Notice and return to Surety)

By:

Date: 6/7/89

cc: Minard-Leavitt
% Linda

ACCEPTANCE COPY

THE PERMIAN CORPORATION

May 18, 1989

Larry Evans
(915) 684-7141

State of New Mexico
Environmental Improvement Division
P.O. Box 968
Santa Fe, NM 87504-0968

Re: One-Well Plugging Bond
for The Permian Corporation
Bond No: 5192-63-35

Gentlemen:

Enclosed is the new one-well plugging bond for The Permian Corporation. This bond replaces bond number 928-68-77 issued by American Casualty Co.

Should you have questions or need additional information, please let me know.

Sincerely,

Mary E. Isbell

Mary E. Isbell, CPCU
Supervisor - Insurance/Risk Management

MEI/slb

Enclosure

MEMORANDUM

DATE: May 23, 1994

TO: Owen Mobley

FROM: Steward E. Rogers

cc: Joe Colvin
Bob Hookstra

SUBJECT: SALINE NO. 1

COMPLETION PROCEDURE - SALINE NO. 1

1. Test formation to 250 psi for 4 hours. State requires chart recorder.
2. Move in rig-up service unit.
3. Pick up $2^{7/8"}$ tubing.
4. Trip in hole to 2,690 feet.
   Estimated top of fish 1,794'.
5. Pull out of hole.
6. Rig up casing crew.
7. Run - 1,700 feet 5½ casing with packer float shoe and two stage cementing collar ± 1,300 feet.
8. Inflate packer float, test and cement with 300 sacks Premium Plus cement.
9. Wait on cement 18 hours.
10. Rig up pump and test 5½" casing to 750 psi as per OCD requirements.
11. Pick up $4^{3/4"}$ drill bit, 3 - $2^{7/8"}$ drill collars, and trip in hole to drill cement and staging tool.
12. Drill to 1,750 feet.
13. Trip out of hole, lay down collars.
14. Trip in hole with ± 2,690' $2^{7/8"}$ tubing.
15. Land tubing, release rig.

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that he is Adv. Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Notice Of Publication

was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof, for one (1) day beginning with the issue of

June 14, 19 94

and ending with the issue of

June 14, 19 94

And that the cost of publishing said notice is the sum of $ 38.16 which sum has been (Paid) as Court Costs

Joyce Clemens

Subscribed and sworn to before me this 27th day of June, 19 94

Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28, 19 94

LEGAL NOTICE
NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan renewal application has been submitted to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505)827-5800:

(BW-012)-Scurlock Permian Corporation, Owen Mobley, Vice President, P.O. Box 4648, Houston, Texas, 77210-4648, has submitted an application for the renewal of a discharge plan for the SPC Saline No. 1 Brine Station, located in the SW/4SW/4 of Section 36, Township 18 South, Range 37 East, NMPM, Lea County, New Mexico. Up to 400 barrels per day of 1.2 specific gravity brine water is produced for use in the oil industry. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 40 feet with a total dissolved solids concentration of approximately 40 feet with a total dissolved solids concentration of approximately 400 mg/1. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

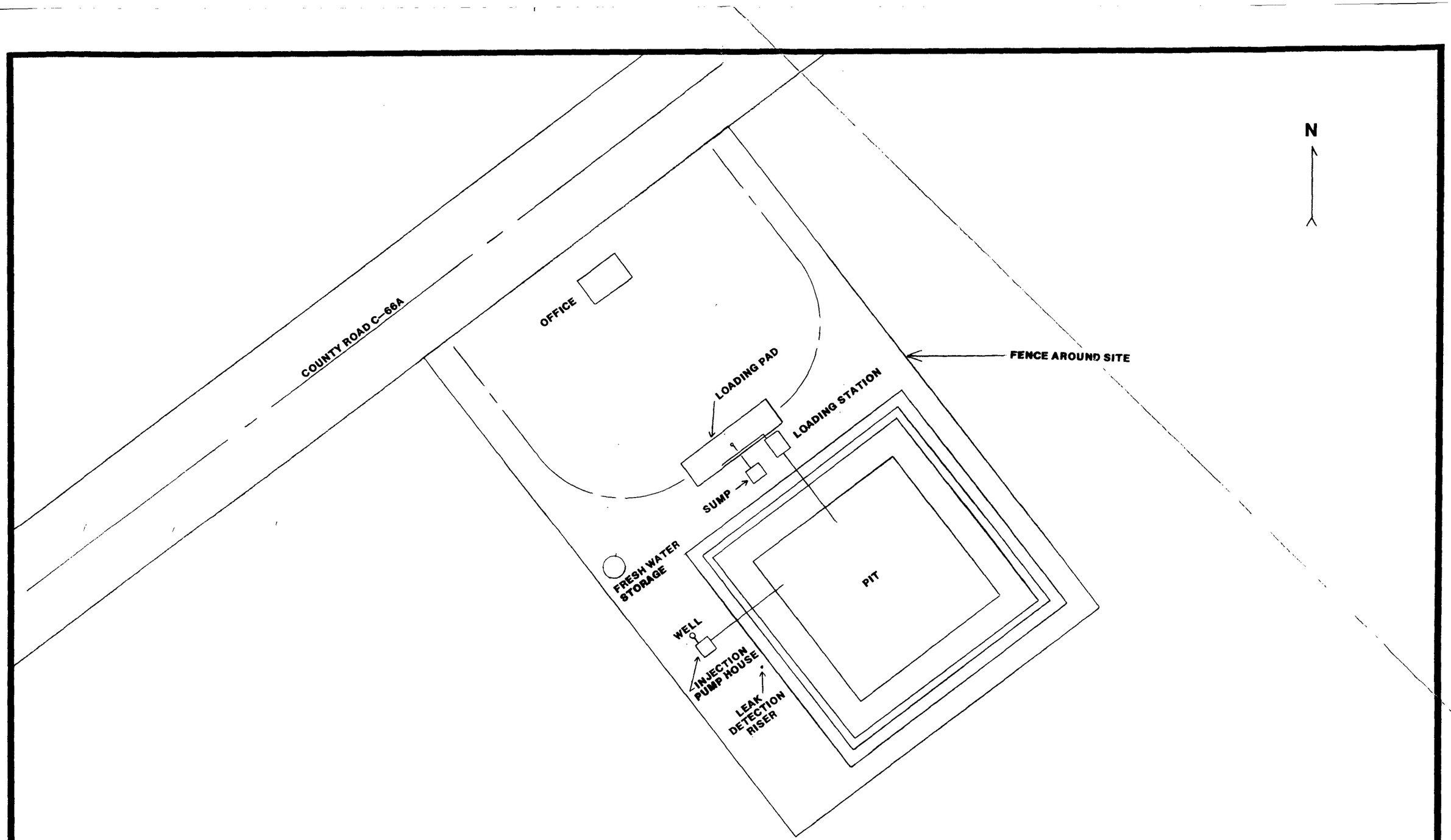
GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 7th day of June, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
WILLIAM J. LEMAY,
Director

SEAL

Published in the Lovington Daily Leader June 14, 1994.

invoice to Mary
6-30-94



SCALE 1" = 60'

NOTES

REVISIONS	BY	DATE

NATURAL RESOURCES ENGINEERING INC.

Engineers/Geologists

JOB. NO. NB01-003-001

SALTY DOG INC HOBBS #1

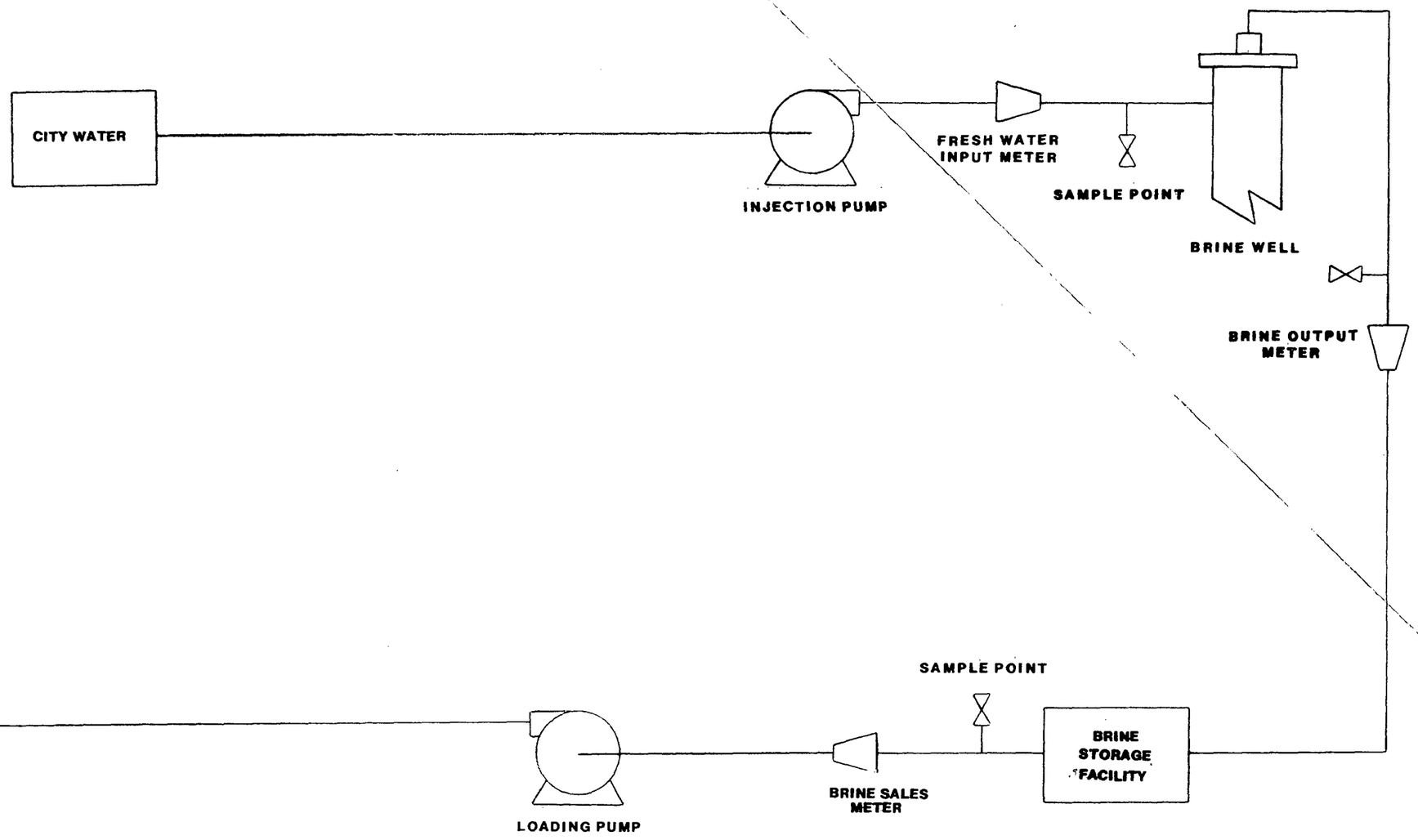
FACILITY PLOT PLAN

DWG. NO. 02

DRAWN BY JTJ CHECKED JEC APPROVED

DATE 7/24/87

SHT 1 OF 1



NOTES

REVISIONS	BY	DATE

NATURAL RESOURCES ENGINEERING INC.

Engineers/Geologists

SALTY DOG INC HOBBS #1

SYSTEM SCHEMATIC

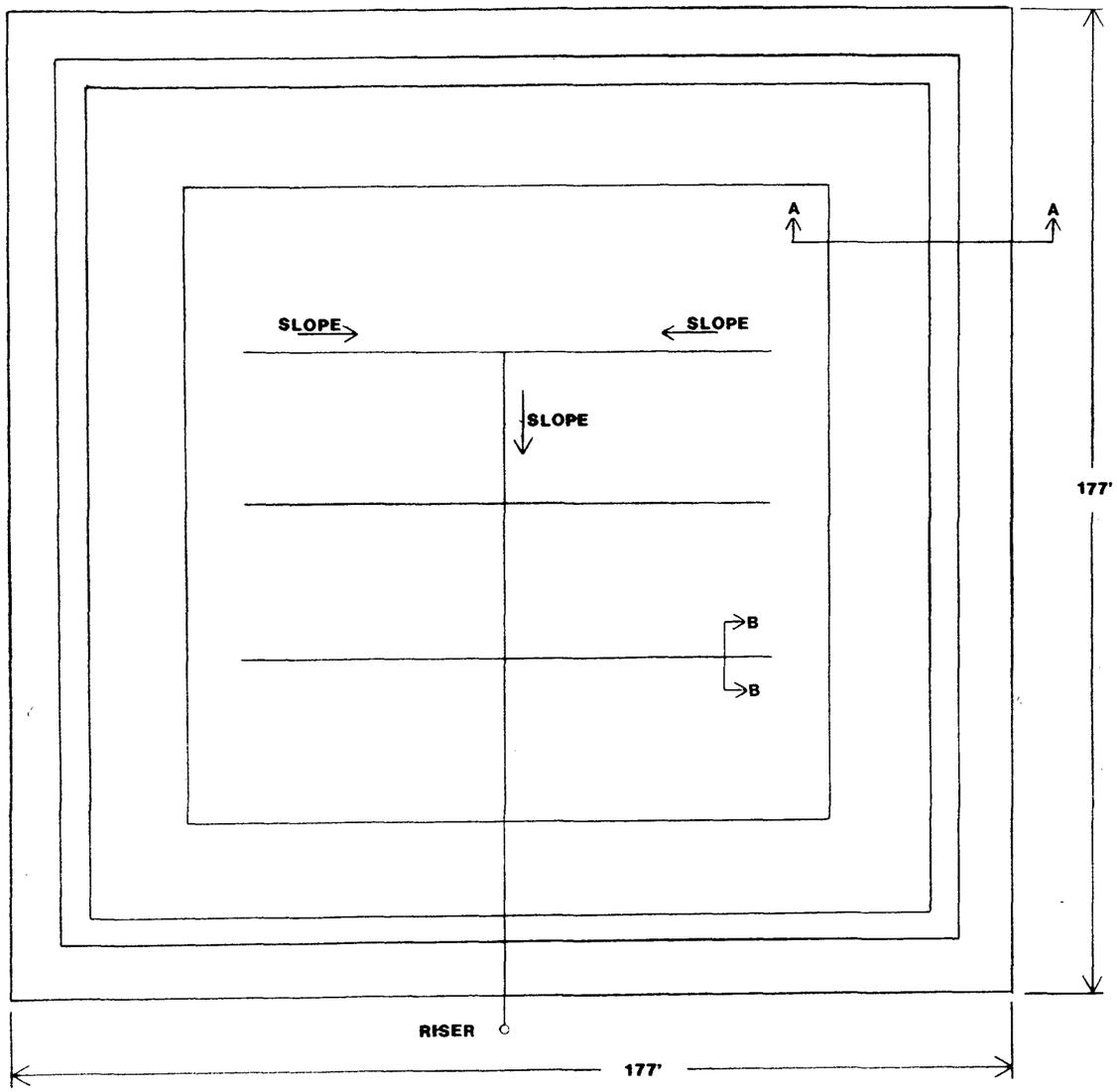
DRAWN BY JTJ CHECKED JEC APPROVED

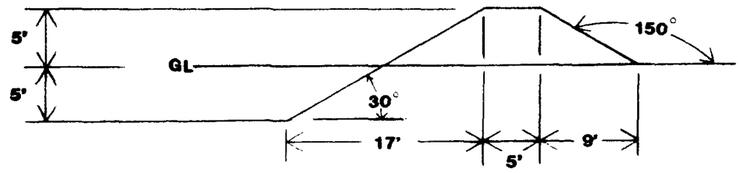
DATE 7/1/84

JOB. NO. NB01-003-001

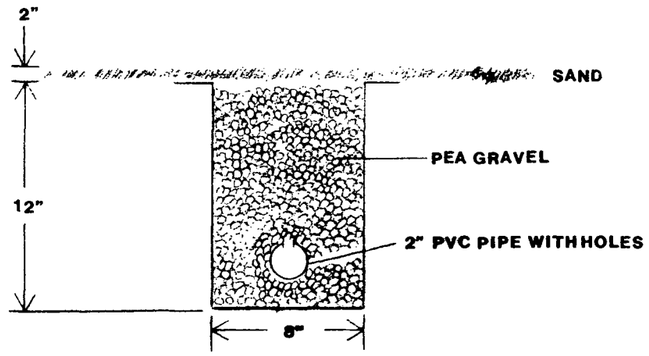
DWG. NO. 01

SHT 1 OF 1





DETAIL A



DETAIL B

NOTES

REVISIONS	BY	DATE

NATURAL RESOURCES ENGINEERING INC.

Engineers/Geologists

SALTY DOG INC HOBBS #1 **BRINE PIT**

DRAWN BY ITJ CHECKED JEC APPROVED [signature] DATE 7/5/84

JOB. NO. NB01-003-001

DWG. NO. 03

SHT 1 OF 1

12/6/88

Permian Corp DP-354

Well HEAD & Pumphouse

12/6/88

Permian Corp DP-354

TANKS

12/6/88

PERMIAN CORP DP-354

LOADING AREA & TANKS

12/6/88

Permian Corp DP-354

Loading Area

12/6/88
Permian Corp DP-354
Wellhead Sump w/ salt buildup