

**CASE 4253: Application of RICE  
ENGINEERING FOR SALT WATER  
DISPOSAL, LEA COUNTY.**

Case 4253  
109 11/12/69  
SWD  
Case 4253

Case Number.

4253

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Application

Transcripts.

Small Exhibits

ETC.



# OIL CONSERVATION COMMISSION

**STATE OF NEW MEXICO**  
**P. O. BOX 2088 - SANTA FE**  
**87501**

**GOVERNOR  
DAVID F. CARGO  
CHAIRMAN**

**LAND COMMISSIONER  
ALEX J. ARMILLO  
MEMBER**

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

**November 24, 1969**

Mr. L. B. Goodheart  
Rice Engineering & Operating, Inc.  
Post Office Box 1142  
Hobbs, New Mexico 88240

Re: Case No. 4253  
Order No. R-3879

2. Applicant:  
Rice Engineering & Operating

**Dear Sir:**

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

Very truly yours,

G. L. Carter, Jr.

**A. L. PORTER, Jr.**  
**Secretary-Director**

ALP/ir

**Copy of order also sent to:**

Hobbs OCC            X

Artesia OCC

Aztec OCC\_\_\_\_\_

Other \_\_\_\_\_

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 4253  
Order No. R-3579

APPLICATION OF RICE ENGINEERING &  
OPERATING, INC., FOR SALT WATER  
DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 19, 1969, at Roswell, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 24th day of November, 1969, the Commission, a quorum being present, having considered the record, and being fully advised in the premises,

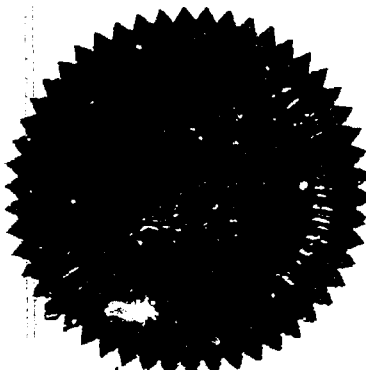
FINDS:

That the applicant's request for dismissal should be granted.

IT IS THEREFORE ORDERED:

That Case No. 4253 is hereby dismissed.

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



esr/

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*David F. Cargo*  
DAVID F. CARGO, Chairman

*Alex J. Armiijo*  
ALEX J. ARMIJO, Member

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

DOCKET: REGULAR HEARING - WEDNESDAY - NOVEMBER 19, 1969

OIL CONSERVATION COMMISSION - 9 A.M. - ROSWELL INN, 1815 NORTH MAIN  
ROSWELL, NEW MEXICO

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- ALLOWABLE: (1) Consideration of the oil allowable for December, 1969.
- (2) Consideration of the allowable production of gas for December, 1969, from fifteen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico, and also presentation of purchaser's nominations for said pools for the six-month period beginning January 1, 1970. Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, for December, 1969.

CASE 4252: The application of the Oil Conservation Commission upon its own motion for an order granting an exception to the ninth paragraph of Chapter II, Section 2 of Order No. R-333-F to permit shutting in gas wells for the required shut-in test at some period during the 1970 test season other than immediately following the 7-day deliverability flow test; further to permit measuring the shut-in test pressure during the 8th to 15th day of shut-in of the well rather than on the 8th day as presently required. The above exceptions would be for the 1970 annual deliverability test season only and would be applicable to all wells in San Juan, Rio Arriba, McKinley, and Sandoval Counties, New Mexico, subject to the testing requirements of Chapter II of Order No. R-333-F.

CASE 4253: Application of Rice Engineering & Operating, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres and Paddock formations in the perforated interval from 5030 feet to 6995 feet in its Vacuum SWD Well No. H-35, located in Unit H of Section 35, Township 17 South, Range 35 East, Vacuum Field, Lea County, New Mexico.

CASE 4254: Application of Kincaid & Watson Drilling Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the East Red Lake Unit Area comprising 518 acres, more or less, of State lands in Sections 35 and 36 of Township 16 South, Range 28 East and Sections 1 and 2 of Township 17 South, Range 28 East, East Red Lake Queen-Grayburg Pool, Eddy County, New Mexico.

- CASE 4255: Application of Kincaid & Watson Drilling Company for a water-flood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a water-flood project in the East Red Lake Unit Area by the injection of water into the Penrose sand of the Queen formation through 4 wells located in Section 36, Township 16 South, Range 28 East and Sections 1 and 2, Township 17 South, Range 28 East, East Red Lake Queen-Grayburg Pool, Eddy County, New Mexico.
- CASE 4256: Application of Southwestern Natural Gas, Inc. for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its T. P. State "4" Well No. 1 located in Unit O of Section 4, Township 11 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Inbe Permo-Pennsylvanian Pool and the disposal of produced salt water through the intermediate-production casing annulus into the San Andres, Glorieta, Tubb, and Abo formations in the open-hole interval from 4150 feet to 8500 feet.
- CASE 4257: Application of Sohio Petroleum Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the open-hole interval from 4920 feet to 4995 feet in its Phillips Lea SWD Well No. 4 located in Unit M of Section 31, Township 17 South, Range 34 East, Vacuum Grayburg-San Andres Pool, Lea County, New Mexico.
- CASE 4258: Southeastern nomenclature case calling for an order for the creation and extension of certain pools in Lea, Chaves and Eddy Counties, New Mexico.
- (a) Create a new pool in Lea County, New Mexico, classified as an oil pool for Montoya production and designated as the Loop 18-Montoya Pool. The discovery well is the Gulf Oil Corporation Harry Leonard NCT-E No. 5 located in Unit H of Section 16, Township 21 South, Range 37 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM  
SECTION 16: NE/4

(b) Extend the North Baum-Upper Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 13 SOUTH, RANGE 32 EAST, NMPM  
SECTION 26: NW/4

(c) Extend the Double L-Queen Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 29 EAST, NMPM  
SECTION 36: SE/4 SE/4

TOWNSHIP 15 SOUTH, RANGE 29 EAST, NMPM  
SECTION 1: E/2 E/2

TOWNSHIP 15 SOUTH, RANGE 30 EAST, NMPM  
SECTION 6: SW/4

(d) Extend the Hardy-Blinbry Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM  
SECTION 2: Lots 9, 10, 15 and 16

(e) Extend the Hobbs-Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 38 EAST, NMPM  
SECTION 28: SW/4  
SECTION 30: NE/4

(f) Extend the Lea-Pennsylvanian Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 34 EAST, NMPM  
SECTION 14: NE/4

(g) Extend the West Sawyer-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 37 EAST, NMPM  
SECTION 33: SE/4 and E/2 SW/4

(h) Extend the Shugart Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 30 EAST, NMPM  
SECTION 25: E/2 NW/4

(i) Extend the Spencer-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 36 EAST, NMPM  
SECTION 24: N/2 SW/4

(j) Extend the Sulimar-Queen Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 29 EAST, NMPM  
SECTION 25: NW/4 NW/4

(k) Extend the Tulk-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 32 EAST, NMPM  
SECTION 35: NW/4



dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Roswell, New Mexico  
November 19, 1969

REGULAR HEARING

-----  
IN THE MATTER OF: )

Application of Rice Engineering )  
& Operating, Inc. for salt water )  
disposal, Lea County, New Mexico. )

) Case No. 4253  
)  
-----

BEFORE: A. L. Porter, Examiner.

TRANSCRIPT OF HEARING

MR. PORTER: Case 4253.

MR. HATCH: Case 4253. The Commission has already issued administrative Order SWD-109 on November 14, 1969, which makes it unnecessary to hear this case and recommend that it be dismissed.

MR. PORTER: Case 4253, without objections, will be dismissed. Take up Case 4254.

STATE OF NEW MEXICO )  
 ) ss  
COUNTY OF BERNALILLO )

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

Glenda Burks  
Notary Public

My Commission Expires:

March 12, 1973

*RICE Engineering & Operating, Inc.*

Post Office Box 1142

Telephone (505) 393-9174

HOBBS, NEW MEXICO 88240

NOV 6 1969

November 5, 1969

New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico 87501

Re: Rule 701, Injection of  
Fluids into Reservoirs  
(Salt Water Disposal)

Gentlemen:

Attached is revised Form C-108 and Exhibit "B" showing a change in the Proposed Intervals of Injection for our Vacuum SWD Well No. H-35, located 2310' FNL & 990' FEL of Section 35, T17S, R35E, Lea County, New Mexico. The original application and related information was transmitted under our cover letter dated October 15, 1969.

Cities Service Oil Company protested the proposed perforations in the intervals 5030-40' and 5110-60'. Cities Service has been contacted regarding the deletion of the protested intervals and have advised Rice Engineering that a waiver would be forthcoming.

Rice Engineering & Operating, Inc., as operator of the Vacuum Salt Water Disposal System, respectfully requests administrative approval for the proposed salt water disposal well H-35 as per revised Form C-108.

Yours very truly,

Rice Engineering & Operating, Inc.

ORIGINAL SIGNED BY  
L. B. GOODHEART  
L. B. Goodheart  
Division Manager

JVR/nb

Attachments

REVISED

Form C-1  
Revised 1-1-65

## NEW MEXICO OIL CONSERVATION COMMISSION

## APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Rice Engineering & Operating, Inc.		ADDRESS P. O. Box 1142, Hobbs, New Mexico 88240	
LEASE NAME Vacuum SWD	WELL NO. H-35	FIELD Vac Edge	COUNTY Lea
LOCATION UNIT LETTER <u>H</u> ; WELL IS LOCATED <u>2310</u> FEET FROM THE <u>North</u> LINE AND <u>990</u> FEET FROM THE <u>East</u> LINE, SECTION <u>35</u> TOWNSHIP <u>17</u> South RANGE <u>35</u> East N.M.P.M.			
CASING AND TUBING DATA			
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT
SURFACE CASING	13 3/8"	321'	325
INTERMEDIATE	8 5/8"	3502'	600
LONG STRING	5 1/2"	9189'	775
TUBING	3 1/2"	5230'	NAME, MODEL AND DEPTH OF TUBING PACKER Floating oil blanket will be used to protect annulus
NAME OF PROPOSED INJECTION FORMATION San Andres		TOP OF FORMATION 4790'	BOTTOM OF FORMATION 6368'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Plastic-lined tubing		PERFORATIONS OR OPEN HOLES Perforations	PROPOSED INTERVAL(S) OF INJECTION 230-45', 5280-85', 5325-5345-68', 5660-74', 5720-25', 5750-85', 6955-95' into Paddock fm. app. by order No. R-3239
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil Well		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Yes
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH by bridge plug set at 7600' w/2 sx. cmt. on top; 6563-64', 6673-74', 6757-59' sqz. w/425 sx cmt. (6955-95' injection into Paddock formation approved by order No. R-3239)			
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA Base Triassic @ 1595'	DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA Base Grayburg 4705'	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA Top Glorieta 6368'	
ANTICIPATED DAILY INJECTION VOLUME (BBLS.) 2,500	MINIMUM 5,000	MAXIMUM Semi-closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Gravity
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - Yes		WATER TO BE DISPOSED OF Yes	NATURAL WATER IN DISPOSAL ZONE Yes
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) State Land - R. D. Lee, P. O. Box 363, Lovington, New Mexico 88260		APPROX. PRESSURE (PSI) Vacuum	
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL			
Phillips Petroleum Company, P. O. Box 477, Buckeye, New Mexico 88212			
Pan American Petroleum Corporation, Box 68, Hobbs, New Mexico 88240			
Amerada Hess Corporation, Box 668, Hobbs, New Mexico 88240			
Cities Service Oil Company, Box 69, Hobbs, New Mexico 88240			
Atlantic Richfield Company, Box 1920, Hobbs, New Mexico 88240			
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?	SURFACE OWNER Yes	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	THE NEW MEXICO STATE ENGINEER No
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)?	PLAT OF AREA Yes	ELECTRICAL LOG No	DIAGRAMMATIC SKETCH OF WELL Yes

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

(Signature) L. S. Goodheart

Division Manager  
(Title)November 5, 1969  
(Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests.

REVISED

PRINT "3"

13 3/8" OD 48#, H-40  
casing set at 321'  
w/325 sacks cement  
circulated to surface

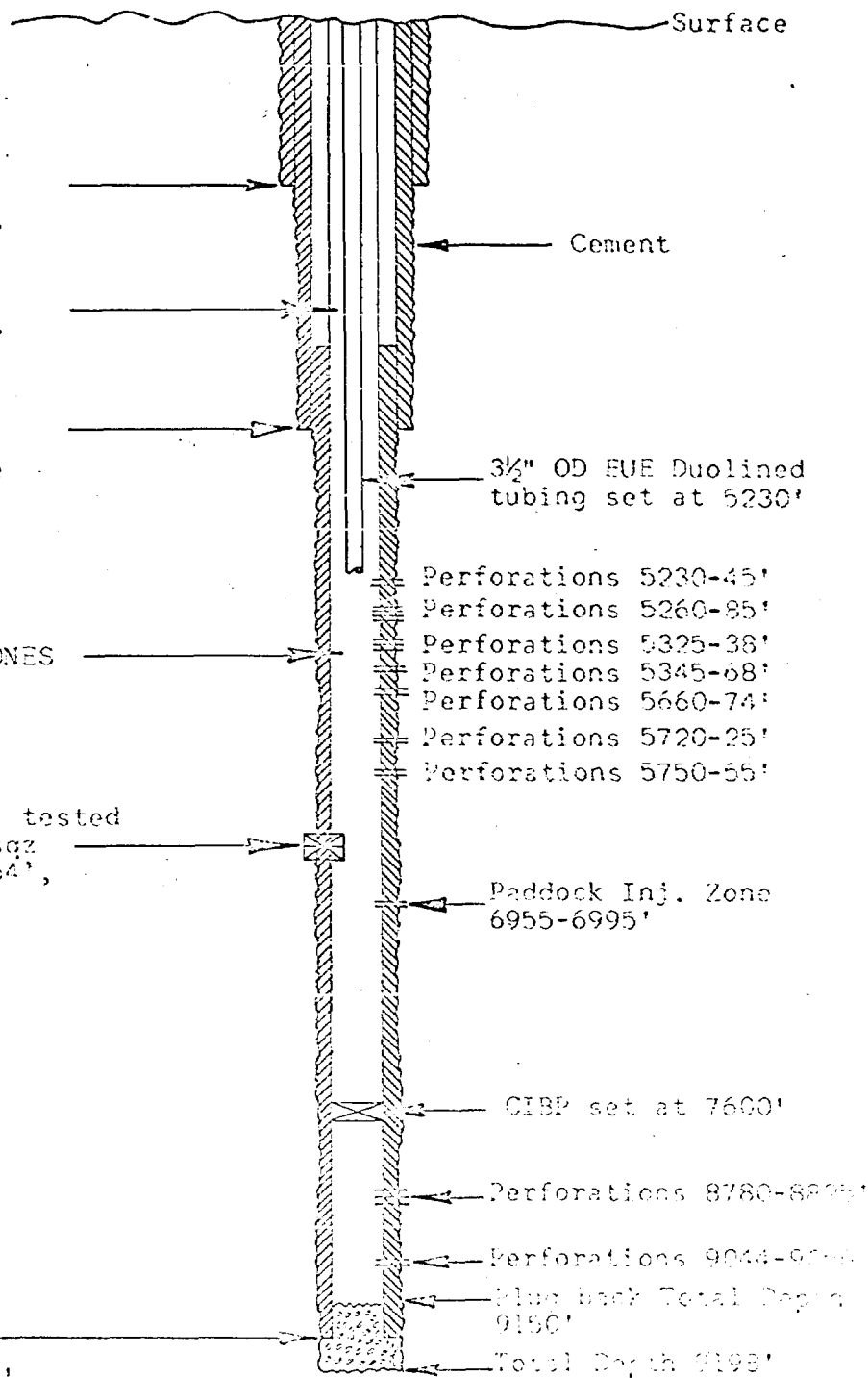
Treated oil in  
casing-tubing annulus

8 5/8" OD 32#, J-55  
casing set at 3502'  
w/600 sacks cement  
circulated to surface

PROPOSED INJECTION ZONES

Paddock perforations, tested  
salty sulfur water, sqz  
w/425 ex. cmt. 6663-64',  
6673-74, 6757-59'

8 5/8" OD 17#, J-55  
casing set at 9189'  
w/775 sacks cement,  
top of cement at 3400'



DWN		FLOW	WELL COMPLETION WELL H-35	SCALE None
			Rice Engineering & Operating, Inc. Dallas, New Mexico	DWG NO.

2017-01-11

Case 4252

Now ~~DISMISSE~~

8 5/8"	3602'	600'	Surface	Circulated
5 1/2"	9189'	775'	Vol. calc. of casing log & temp.	
3 1/2"	5030'		Flooding fire blanket will be used to protect annulus	
			TOP OF FORMATION	BOTTOM OF FORMATION
			4790'	6038'
OF ANNULUS	PERFORATIONS OR OPEN HOLES	PROPOSED INTERVAL(S) OF ISOLATION	C-9015328-3301536 C-9015369-5711018	
Perforations			B-15328-3301536 C-9015369-5711018	

NEW WELL DRILLED FOR DISPOSAL? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? <input checked="" type="checkbox"/> OIL <input type="checkbox"/> OTHER THAN THE PROPOSED INJECTION ZONE?	
No		Oil Well	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR PLUG DEEPER INTERVALS: 7600' w/2 9x5.5" 6663-64 6673-74 6757-58 6827 w/2 20 9x. 68-1681 681 injection into (addition) (to be approved by drilling) (3229)			
DEPTH OF BOTTOM OF DEEPEST		DEPTH OF BOTTOM OF NEXT HIGHER	
7600'		6827'	

FRESH WATER ZONE IN THIS AREA		SALT WATER ZONE IN THIS AREA		SALT OR GASEOUS ZONE IN THIS AREA	
Base Triassic 6358' 1		Base Grayburg 4705' 1		Top Glorieta 6358' 1	
ANTICIPATED DAILY INJECTION VOLUME (BBL/D)	MINIMUM	MAXIMUM	OPEN OR CLOSED TYPE SYSTEM	INJECTION TO BE BY GRAVITY OR PRESSURE	APPROX. PRESSURE (PSI)
	2,500	5,000	Semi-closed	Gravity	Vacuum
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC USE			ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC USE		
NO			NO		
NATURAL WATER IN DISPOSAL ZONE			NATURAL WATER IN DISPOSAL ZONE		
ARE WATER ANALYSES ATTACHED?			ARE WATER ANALYSES ATTACHED?		
NO			NO		

STATE, TERRITORY, OR OTHER GENERAL USE	Yes	Yes	No
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)	State Land - R. D. Lee, P. O. Box 363, Lovington, New Mexico 88260		
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF MILE OF THIS HOLE OR WELL	including Petroleum Company, Lovington, New Mexico 88260		

Run American Petroleum Corporation, Box 68, Hobbs, New Mexico 88240	15036	WAS
Amerade Hess Corporation, Box 68, Hobbs, New Mexico 88240	15037	WAS

United Service Oil Company, Inc. 10000  
United Service Oil Company, Inc. 10000  
THE BOARD OF THE ASSOCIATION OF SURFACE OWNERS  
SPECIALTY OIL COMPANY, INC. THE NEW MEXICO STATE ENGINEER

SENT TO EACH OF THE FOLLOWING?	5110-0	YES	NO
WAS THE FOLLOWING FORM ATTACHED TO THIS APPLICATION (SEE RULE 701-B)?	YES	NO	NO
I hereby certify that the information above is true and complete to the best of my knowledge and belief.			

NOTE: Should surface from the State Engineer, the surface owner, or well operators within one-half mile of the proposed injection well.

not accompany this application, the New Mexico Oil Conservation Committee will hold the application for a period of 15 days from the date of receipt by the Consulate Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for a hearing. If the applicant so requests, see Rule 701.

State Engineer, the owner or operator, of all operators within one-half mile of the proposed injection well

lication, the New York State Commission on the Status of Women will hold the application for a period of 15 days by the Commission's Secretariat office. If at the end of the 15-day waiting period no protest has been received, the application will be processed. If a protest is received, the application will be set for the 15th day of the next month. (See Rule 704.)

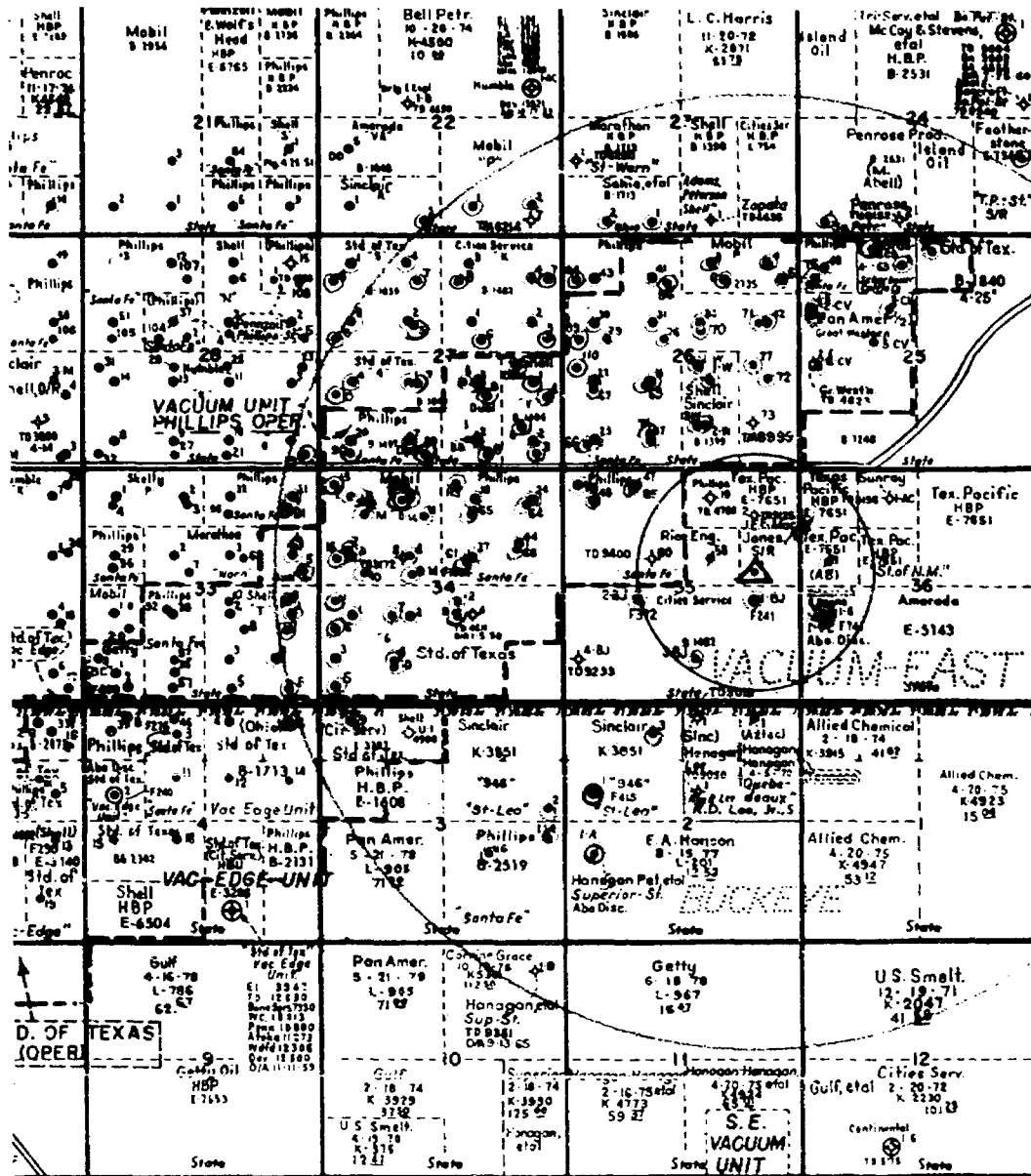
DIFFERENTIAL EQUATIONS

If the subject is deceased, see RULE 701.

R 35E

4253

T  
17  
S



Legend

- Yates
- Grayburg-San Andres
- Glorieta
- Abo
- Bone Springs

EXHIBIT "A"

LEA COUNTY, NEW MEXICO

DWN.	DRL	10 - 69	LOCATION PLAT VACUUM SWD WELL H-35	SCALE 1" - 4000'
			RICE ENGINEERING & OPERATING, INC. HOBBS, NEW MEXICO	DWG. NO. A - 446



Cities  
Served  
objected  
to these  
people

DRAFT

GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 4253

Order No. R-3879

*2nd*  
APPLICATION OF RICE ENGINEERING &  
OPERATING, INC., FOR SALT WATER  
DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 19, 1969, at Roswell, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this \_\_\_\_\_ day of November, 1969, the Commission, a quorum being present, having considered the record, and being fully advised in the premises,

FINDS:

That the applicant's request for dismissal should be granted.

IT IS THEREFORE ORDERED:

That Case No. 4253 is hereby dismissed.

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