NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

T 1803

DEC 09 '96

ADMINISTRATIVE ORDER NO. WFX-696

APPLICATION OF THE WISER OIL COMPANY TO EXPAND ITS WATERFLOOD PROJECT IN THE MALJAMAR GRAYBURG-SAN ANDRES POOL IN LEA COUNTY, NEW MEXICO.

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-1538, The Wiser Oil Company has made application to the Division on October 22, 1996 for permission to expand its Maljamar Grayburg Unit Waterflood Project in the Maljamar Grayburg-San Andres Pool in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

(1) The application has been filed in due form.

(2) Satisfactory information has been provided that all offset operators have been duly notified of the application.

(3) No objection has been received within the waiting period as prescribed by Rule 701(B).

(4) The proposed injection wells are eligible for conversion to injection under the terms of Rule 701.

(5) The proposed expansion of the above referenced waterflood project will not cause waste nor impair correlative rights.

(6) The application should be approved.

IT IS THEREFORE ORDERED THAT:

The applicant, The Wiser Oil Company, be and the same is hereby authorized to inject water into the Grayburg and San Andres formations at approximately 3746 feet to approximately 4388 feet through 2 3/8-inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the wells described on Exhibit "A" attached hereto, for purposes of secondary recovery.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the wells, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to no more than .2 psi per foot of depth to the uppermost injection perforation.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said wells that such higher pressure will not result in migration of the injected fluid from the Grayburg or San Andres formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity tests so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject wells shall be governed by all provisions of Division Order No. R-1538, and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

DONE at Santa Fe, New Mexico, on this 3rd day of December, 1996.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

cc: Oil Conservation Division - Hobbs
Ms. Bonnie Jones, J.O. Easley, Inc.
Files: Case No.1803

EXHIBIT "A"
DIVISION ORDER NO. WFX-696
MALJAMAR GRAYBURG UNIT
APPROVED INJECTION WELLS

Well Name	*Well No.*	*Location*	*Unit*	*S-T-R*	*Injection Perforations*	*Packer Depth*	*Tubing Size*	*Pressure*
Maljamar Grayburg Unit	1	1988' FNL & 659' FWL	E	2-T17S-R32E	4087' - 4380'	3987'	2 3/8"	817 PSIG
Maljamar Grayburg Unit	2	2310' FSL & 330' FWL	L	2-T17S-R32E	4078' - 4084'	3978'	2 3/8"	816 PSIG
Maljamar Grayburg Unit	3	660' FNL & 660' FEL	A	3-T17S-R32E	4105' - 4388'	4005'	2 3/8"	821 PSIG
Maljamar Grayburg Unit	4	1980' FNL & 1980' FEL	G	3-T17S-R32E	4092' - 4356'	3992'	2 3/8"	818 PSIG
Maljamar Grayburg Unit	5	1988' FNL & 660' FEL	H	3-T17S-R32E	4091' - 4278'	3991'	2 3/8"	818 PSIG
Maljamar Grayburg Unit	8	2140' FSL & 2180' FWL	K	3-T17S-R32E	4092' - 4356'	3992'	2 3/8"	818 PSIG
Maljamar Grayburg Unit	9	1980' FSL & 660' FWL	L	3-T17S-R32E	3950' - 4116'	3850'	2 3/8"	790 PSIG
Maljamar Grayburg Unit	10	660' FSL & 660' FWL	M	3-T17S-R32E	3920' - 4017'	3820'	2 3/8"	784 PSIG
Maljamar Grayburg Unit	15	1980' FNL & 660' FWL	E	4-T17S-R32E	3881' - 4060'	3781'	2 3/8"	756 PSIG
Maljamar Grayburg Unit	18	1980' FNL & 660' FEL	H	4-T17S-R32E	4005' - 4190'	3905'	2 3/8"	801 PSIG
Maljamar Grayburg Unit	19	1980' FSL & 660' FEL	I	4-T17S-R32E	3954' - 4081'	3854'	2 3/8"	791 PSIG
Maljamar Grayburg Unit	23	2310' FSL & 330' FWL	L	4-T17S-R32E	3848' - 3957'	3748'	2 3/8"	770 PSIG
Maljamar Grayburg Unit	25	660' FSL & 990' FWL	M	4-T17S-R32E	3844' - 3966'	3744'	2 3/8"	769 PSIG
Maljamar Grayburg Unit	27	990' FSL & 1980' FEL	O	4-T17S-R32E	3888' - 4002'	3788'	2 3/8"	778 PSIG
Maljamar Grayburg Unit	28	660' FSL & 660' FEL	P	4-T17S-R32E	3912' - 4046'	3812'	2 3/8"	782 PSIG
Maljamar Grayburg Unit	32	660' FSL & 660' FEL	P	8-T17S-R32E	To Be Determined	TBD	2 3/8"	.2 psi/ft
Maljamar Grayburg Unit	33	670' FNL & 770' FEL	A	9-T17S-R32E	3888' - 4016'	3788'	2 3/8"	778 PSIG
Maljamar Grayburg Unit	34	330' FNL & 1980' FEL	B	9-T17S-R32E	3834' - 3990'	3734'	2 3/8"	767 PSIG
Maljamar Grayburg Unit	35	330' FNL & 2310' FWL	C	9-T17S-R32E	3848' - 3976'	3748'	2 3/8"	770 PSIG
Maljamar Grayburg Unit	36	330' FNL & 990' FWL	D	9-T17S-R32E	3796' - 3950'	3696'	2 3/8"	759 PSIG
Maljamar Grayburg Unit	38	1980' FNL & 1980' FWL	F	9-T17S-R32E	3785' - 4083'	3685'	2 3/8"	757 PSIG
Maljamar Grayburg Unit	40	1800' FNL & 660' FEL	H	9-T17S-R32E	3842' - 4139'	3742'	2 3/8"	768 PSIG

Well Name	Well No.	Location	Unit	S-T-R	Injection Perforations	Packer Depth	Tubing Size	Pressure
Maljamar Grayburg Unit	42	1980' FSL & 1980' FEL	J	9-T17S-R32E	3820' - 4099'	3720'	2 3/8"	764 PSIG
Maljamar Grayburg Unit	44	1980' FSL & 660' FWL	L	9-T17S-R32E	3746' - 3959'	3646'	2 3/8"	729 PSIG
Maljamar Grayburg Unit	46	660' FSL & 1980' FWL	N	9-T17S-R32E	3748' - 3932'	3648'	2 3/8"	750 PSIG
Maljamar Grayburg Unit	48	660' FSL & 660' FEL	P	9-T17S-R32E	3830' - 4110'	3730'	2 3/8"	766 PSIG
Maljamar Grayburg Unit	49	660' FNL & 660' FEL	A	10-T17S-R32E	4039' - 4211'	3939'	2 3/8"	808 PSIG
Maljamar Grayburg Unit	52	660' FNL & 690' FWL	D	10-T17S-R32E	3891' - 4186'	3791'	2 3/8"	778 PSIG
Maljamar Grayburg Unit	53	1980' FNL & 610' FWL	E	10-T17S-R32E	3882' - 4020'	3772'	2 3/8"	776 PSIG
Maljamar Grayburg Unit	54	1650' FNL & 2310' FWL	F	10-T17S-R32E	3820' - 4221'	3720'	2 3/8"	764 PSIG
Maljamar Grayburg Unit	55	1980' FNL & 1980' FEL	G	10-T17S-R32E	3894' - 3995'	3794'	2 3/8"	779 PSIG
Maljamar Grayburg Unit	56	1650' FNL & 990' FEL	H	10-T17S-R32E	3970' - 4105'	3870'	2 3/8"	794 PSIG
Maljamar Grayburg Unit	57	1980' FSL & 660' FEL	I	10-T17S-R32E	3916' - 4060'	3816'	2 3/8"	783 PSIG
Maljamar Grayburg Unit	59	19800' FSL & 1980' FEL	K	10-T17S-R32E	3856' - 4026'	3756'	2 3/8"	771 PSIG
Maljamar Grayburg Unit	60	1980' FSL & 660' FWL	L	10-T17S-R32E	3835' - 4008'	3735'	2 3/8"	767 PSIG
Maljamar Grayburg Unit	62	330' FSL & 1980' FWL	N	10-T17S-R32E	3819' - 4127'	3719'	2 3/8"	764 PSIG
Maljamar Grayburg Unit	64	660' FSL & 660' FEL	P	10-T17S-R32E	3886' - 4036'	3786'	2 3/8"	757 PSIG
Maljamar Grayburg Unit	66	1980' FNL & 660' FWL	L	11-T17S-R32E	3918' - 4057'	3818'	2 3/8"	784 PSIG
Maljamar Grayburg Unit	68	890' FSL & 1810' FWL	N	11-T17S-R32E	3934' - 4079'	3834'	2 3/8"	787 PSIG
Maljamar Grayburg Unit	71	990' FNL & 660' FWL	D	14-T17S-R32E	3856' - 4003'	3756'	2 3/8"	771 PSIG
Maljamar Grayburg Unit	75	660' FNL & 1980' FEL	B	15-T17S-R32E	3809' - 4135'	3709'	2 3/8"	762 PSIG
Maljamar Grayburg Unit	77	2310' FNL & 660' FEL	H	15-T17S-R32E	3926' - 4072'	3826'	2 3/8"	785 PSIG
Maljamar Grayburg Unit	152*	2005' FNL & 2152' FWL	F	4-T17S-R32E	To Be Determined	TBD	2 3/8"	.2 psi/ft
Maljamar Grayburg Unit	153*	672' FSL & 2162' FWL	N	4-T17S-R32E	To Be Determined	TBD	2 3/8"	.2 psi/ft
Maljamar Grayburg Unit	154*	1980' FSL & 990' FWL	1	4-T17S-R32E	To Be Determined	TBD	2 3/8"	.2 psi/ft

All wells located in Lea County, New Mexico

* New Drills

Note: Some wells to be re-completed may have perforated intervals other than shown as long as packer setting and maximum pressure are determined as outlined in body of order.

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

ADMINISTRATIVE ORDER NO. WFX-715

APPLICATION OF THE WISER OIL COMPANY TO EXPAND ITS WATERFLOOD PROJECT IN THE MALJAMAR GRAYBURG-SAN ANDRES POOL IN LEA COUNTY, NEW MEXICO.

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-1538, The Wiser Oil Company has made application to the Division on March 13, 1997 for permission to expand its Maljamar Grayburg Unit Waterflood Project in the Maljamar Grayburg-San Andres Pool in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

Case 1803

(1) The application has been filed in due form.

(2) Satisfactory information has been provided that all offset operators have been duly notified of the application.

(3) No objection has been received within the waiting period as prescribed by Rule 701(B).

(4) The proposed injection wells are eligible for conversion to injection under the terms of Rule 701.

(5) The proposed expansion of the above referenced waterflood project will not cause waste nor impair correlative rights.

(6) The application should be approved.

IT IS THEREFORE ORDERED THAT:

The applicant, The Wiser Oil Company, be and the same is hereby authorized to inject water into the Grayburg and San Andres formations at approximately 3750 feet to approximately 4400 feet through 2 3/8-inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the following described wells for purposes of secondary recovery, to wit:

Maljamar Grayburg Unit Well No.63
660' FSL & 1980' FEL, Unit Letter 'O'
Section 10, Township 17 South, Range 32 East, NMPM
Injection Interval: 3876 feet to 4014 feet
Maximum Injection Pressure: 775 psig

Maljamar Grayburg Unit Well No.155
1880' FNL & 2080' FWL, Unit Letter 'F'
Section 10, Township 17 South, Range 32 East, NMPM
Injection Interval: To be determined.
Maximum Injection Pressure: .2 psi/ft to uppermost perforation

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the wells, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to no more than .2 psi per foot of depth to the uppermost injection perforation.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said wells that such higher pressure will not result in migration of the injected fluid from the Grayburg or San Andres formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity tests so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject wells shall be governed by all provisions of Division Order No. R-1538, and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

DONE at Santa Fe, New Mexico, on this 20th day of May, 1997.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

SEAL

cc: Oil Conservation Division - Hobbs
Ms. Bonnie Jones, J.O. Easley, Inc.
Files: Case No.1803

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

DRUG FREE

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

RECEIVED
AUG 25 '94
O. C. D.
ARTESIA, OFFICE

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

ADMINISTRATIVE ORDER NO. WFX-660

APPLICATION OF THE WISER OIL COMPANY TO EXPAND ITS MALJAMAR GRAYBURG UNIT WATERFLOOD PROJECT, MALJAMAR GRAYBURG UNIT, IN THE MALJAMAR GRAYBURG SAN ANDRES POOL IN LEA COUNTY, NEW MEXICO

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-1538, The Wiser Oil Company has made application to the Division on June 29, 1994 for permission to expand its Maljamar Grayburg Unit Waterflood Project in the Maljamar Grayburg San Andres Pool in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

(1) The application has been filed in due form.

(2) Satisfactory information has been provided that all offset operators have been duly notified of the application.

(3) No objection has been received within the waiting period as prescribed by Rule 701(B).

(4) The proposed injection well is eligible for conversion to injection under the terms of Rule 701.

(5) The proposed expansion of the above referenced Maljamar Grayburg Unit Waterflood Project will not cause waste nor impair correlative rights.

(6) The application should be approved.

IT IS THEREFORE ORDERED THAT:

The applicant, The Wiser Oil Company, be and the same is hereby authorized to inject water into the Grayburg and San Andres formations at approximately 3970 feet to approximately 4290 feet through 2 3/8-inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the following described well for purposes of secondary recovery to wit:

Maljamar Grayburg Unit Well No. 13
660' FSL and 660' FEL
Section 3, Township 17 South, Range 32 East.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than .2 psi/ft of depth to the uppermost injection perforation.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Grayburg and San Andres formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity tests so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject well shall be governed by all provisions of Division Order No. R-1538, as amended and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

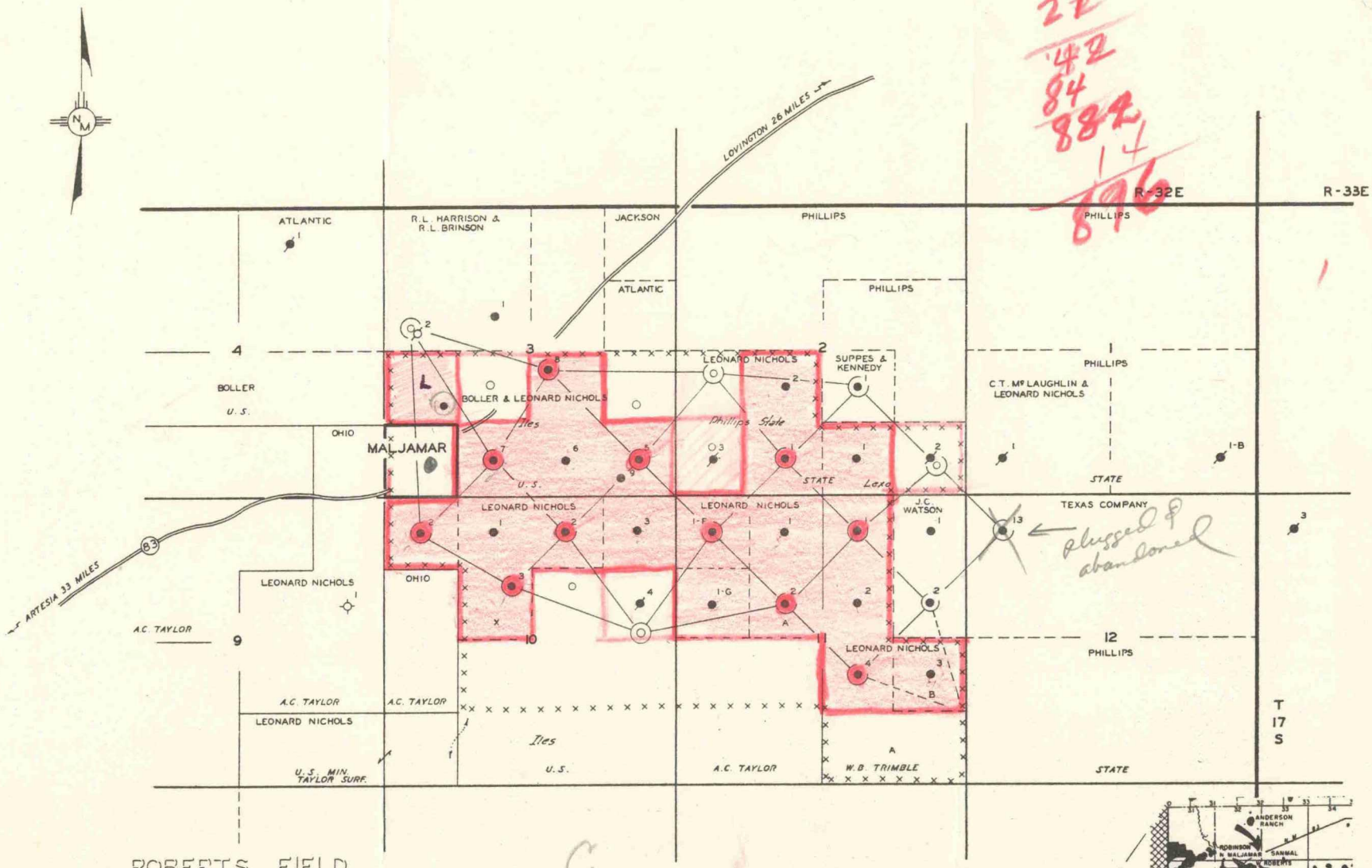
DONE at Santa Fe, New Mexico, on this 11th day of August, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

cc: Oil Conservation Division - Hobbs
Case File: 1803



ROBERTS FIELD
LEA COUNTY, NEW MEXICO

PROPOSED WATER-FLOOD DEVELOPMENT MAP

0 1 2 3 4 5000' 1 MILE

WATER-FLOOD ASSOCIATES INC.
FORT WORTH, TEXAS

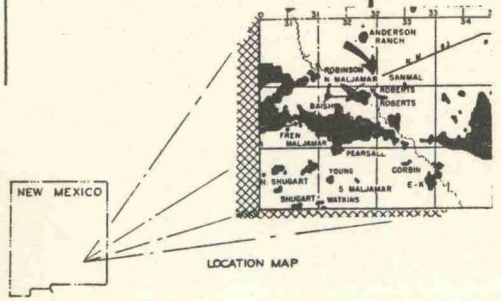


EXHIBIT Nº 5

WATER FLOOD ASSOCIATES, INCORPORATED
FORT WORTH, TEXAS

42
2t
42
84
884
1
196
896
1

Case 1803
Ex 5

propose 350 bbls. of water per day per well

Ex. 5

Box 395
Artesia, N. M.
December 2, 1959

Mr. Elvis A. Utz, Examiner
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Utz:

Regarding Case No. 1803 heard before you on November 10, 1959, I am sending herewith the theoretical cement tops for each casing string in each well to be converted to a water input well under this application.

Very truly yours,

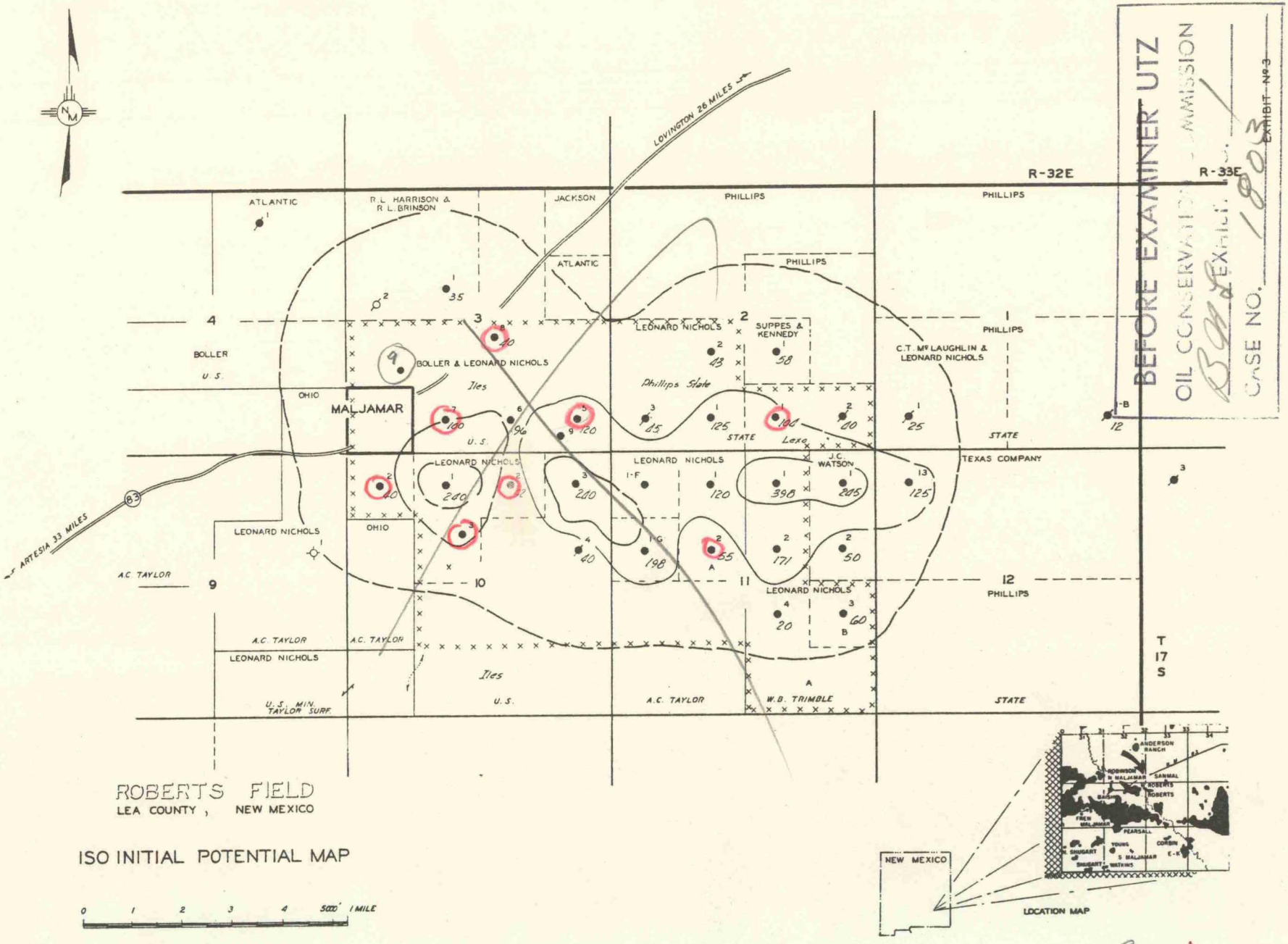
Harold C. Porter

HCP/nn

Encl.

LEONARD NICKOLS AND BOLLER & NICKOLS
Roberts Grayburg Pool
Lea County, New Mexico

Injection Well	Location	Surface Casing Size	Surface Casing Top Cement	Production Casing Size	Production Casing Top Cement
Iles No. 2	D Sec. 10	8 5/8"	882'	5 1/2"	3151'
Iles No. 5	P Sec. 3	8 5/8"	854'	5 1/2"	3128'
" " 7	N Sec. 3	8 5/8"	857'	5 1/2"	3060'
" " 8	J Sec. 3	8 5/8"	1017'	5 1/2"	3154'
Iles x No. 2	B Sec. 10	8 5/8"	571'	5 1/2"	3082'
Iles x No. 3	F Sec. 10	8 5/8"	488'	7"	3363'
Phillips State Lexeo No. 1	N Sec. 2	8 5/8"	486'	5 1/2"	3079'
A. C. Taylor A No. 2	F Sec. 11	8 5/8"	Surface	5 1/2"	1790'
A. C. Taylor F No. 1	D Sec. 11	8 5/8"	Surface	5 1/2"	884'
W. B. Trimble A No. 1	B Sec. 11	8 5/8"	Surface	5 1/2"	1615'
" " " A No. 4	J Sec. 11	8 5/8"	Surface	5 1/2"	2417'



ROBERTS FIELD
LEA COUNTY, NEW MEXICO

ISO INITIAL POTENTIAL MAP

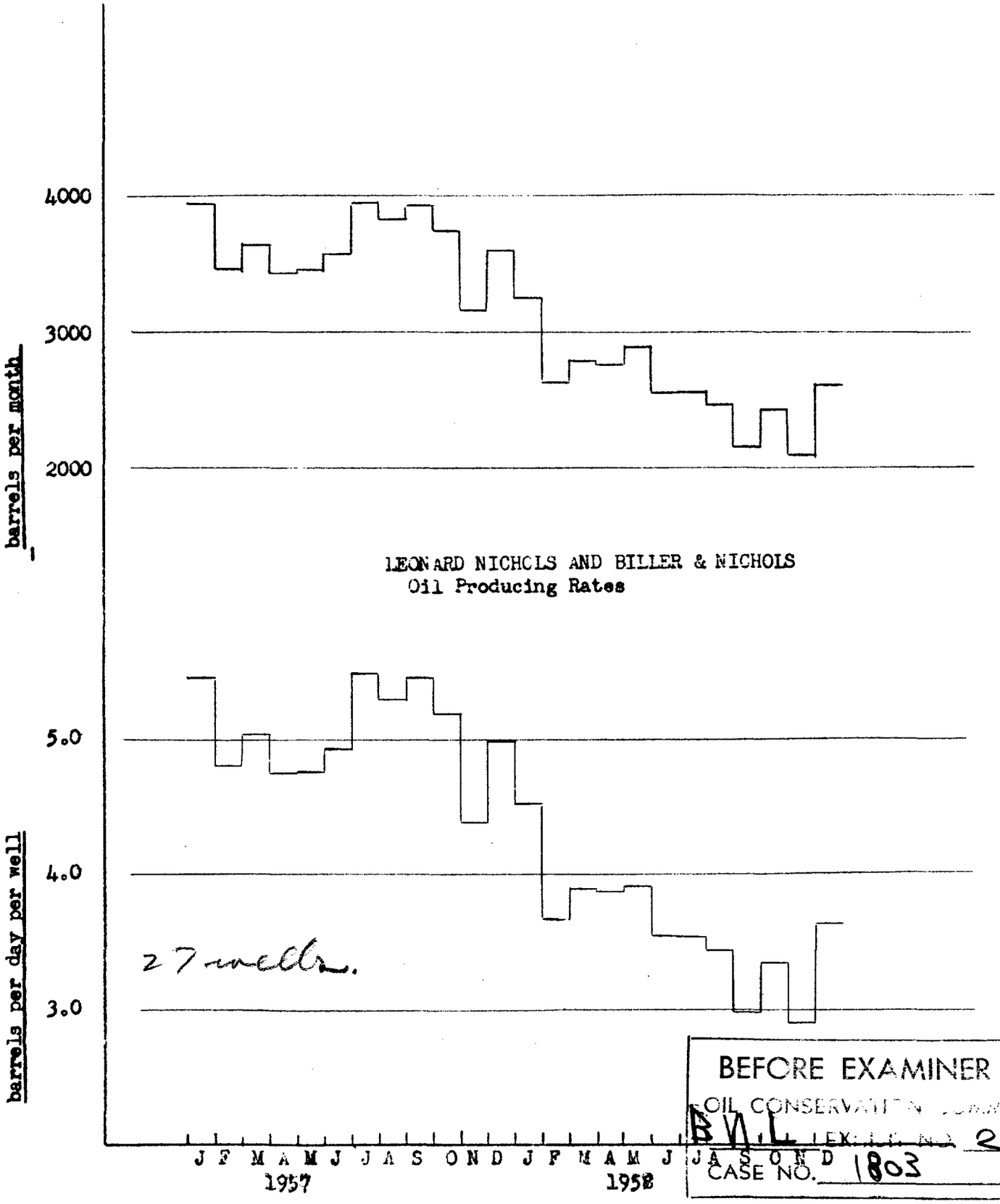
0 1 2 3 4 5000' 1 MILE

WATER-FLOOD ASSOCIATES, INC.
FORT WORTH, TEXAS

LOCATION MAP

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT No. 3
CASE NO. 1803

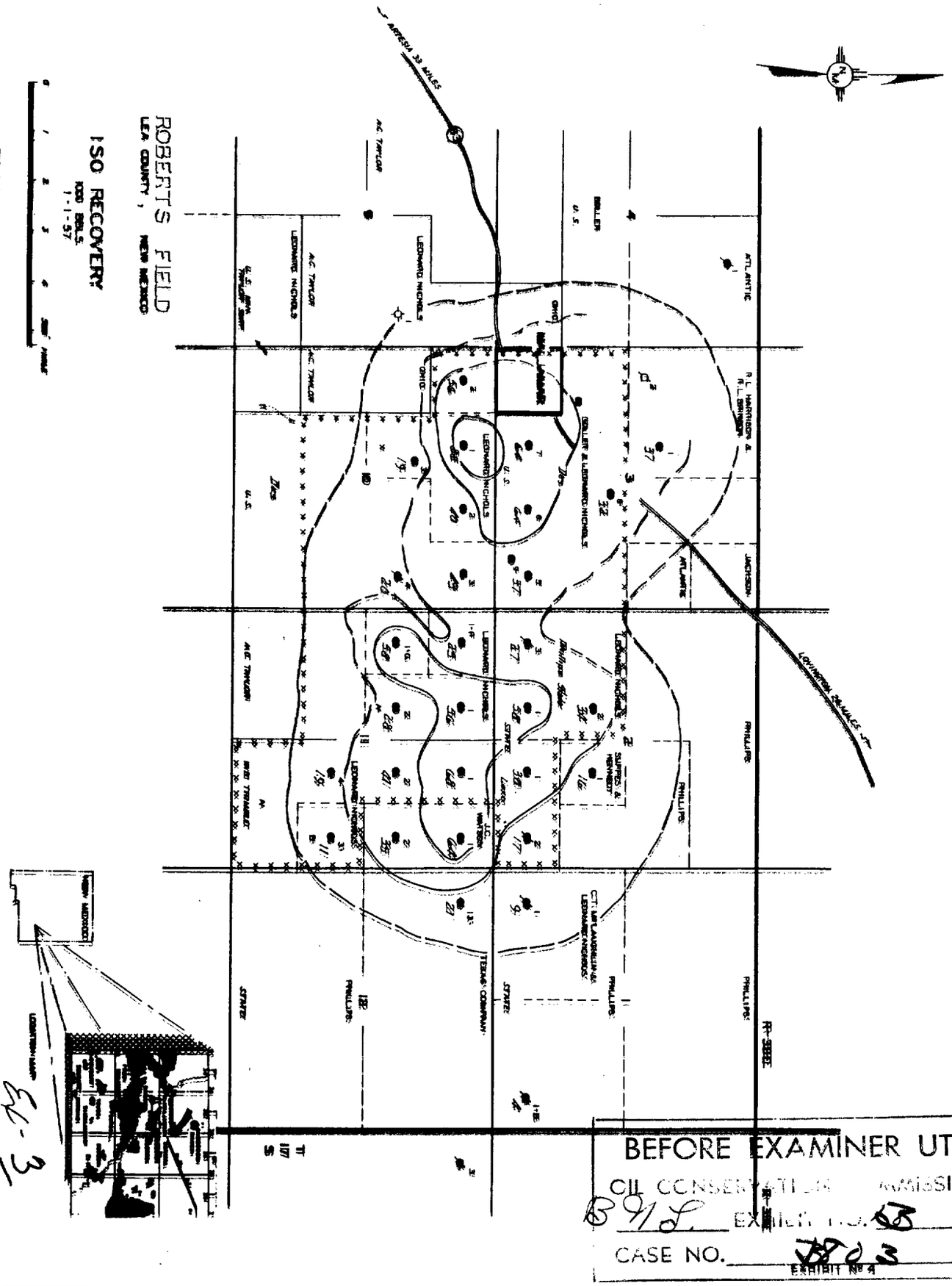
Ex-1



BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
B N L EX. NO. 2
CASE NO. 1803

data from NMO&GEC reports

E-2



WATER FLOOD ASSOCIATES, INCORPORATED

FORT WORTH, TEXAS

TABLE NO. 2 - SHEET NO. 1

WELL DATA

OPERATOR: LEASE:	WELL UNIT/SEC.		ELEV.	DATES SPUDDED - COMPT.	IP	STIMULATION DATE		CASING PROGRAM	PRODUCTIVE INTERVALS	REMARKS TD
LEONARD NICHOLS										
PHILLIPS STATE	#1	N/2	4190	9-14-44/11-30-44	76P	2-?-55	FRAC 10MG 15M#	13" @ 225: 8-5/8" @ 1273: 5½" @ 3983	4005-13: 4025-30: 4055-57	DEEPEN TO 4419, SLIGHT WATER PB 4058
	#?	K/2	4274	11-30-45/3-22-46	39	3-9-46	SHOT 230 QTS 4189-4312	10-3/4" @ 298: 8-5/8" @ 1230: 7" @ 4071	4110 TO 4275	4265 REPORT 6-17-53 SAMPLE FR 4000 TUB. CHIEFLY GYP.
	#3	M/2	NA	5-21-47/7-22-47	66	8-23-47	SHOT 220 QTS 3990-4120	8-5/8" @ 1194: 7" @ 3390: 5½" @ 3970	3990-95: 4036-74: 4089-94: 4105-30	4140 INDICATION OF PARAFFIN & SALT TROUBLE
						2-3-55	FRAC 10MG 15M#			
LEXO	#1	O/2	4265	3-2-45/4-24-45	57	4-29-45	SHOT 140 QTS 4170-4230	8-5/8" @ 1456: 5½" @ 4133 650 sx 250 sx	4150 TO 4298	4298
	#2	P/2	4258	6-2-46/7-14-46	74	7-9-46	SHOT 275 QTS 4197-4285	8-5/8" @ 1285: 5½" @ 4116 700 sx 250 sx	4150 TO 4300	4300 PP&A 10-23-56
TAYLOR A	#1	C/11	4151	10-28-45/1-16-46	110	1-17-46	SHOT 145 QTS 3999-4089	8-5/8" @ 1386: 5½" @ 3957 500 sx 300 sx		4101
	#2	F/11	NA	10-1-46/11-22-46	55	11-23-46	SHOT 210 QTS 4000-4090	8-5/8" @ 1221: 5½" @ 3965 500 sx 500 sx	4000 TO 4090	4110
TAYLOR F	#1	D/11	4123	4-3-47/5-9-47	146	5-5-47	SHOT 190 QTS 4085-3957	8-5/8" @ 1080: 5½" @ 3929 500 sx 700 sx		4085
TAYLOR G	#1	E/11	4158	6-11-47/7-11-47	198	7-12-47	SHOT 205 QTS 3948-4079	8-5/8" @ 1143: 5½" @ 3941 400 sx 700 sx	1070-1180: 1180-2314: 2314-2521: 2521-3320	4079
						6-24-54	FRAC 10MG 20M#			
TRIMBLE A	#1	B/11	4170	1-29-46/3-27-46	398	3-19-46	SHOT 180 QTS 4016-4126	8-5/8" @ 1391: 5½" @ 4007 500 sx 550 sx		4130
	#2	G/11	4149	7-20-46/9-3-46	170	9-4-46	SHOT 230 QTS 3978-4088	8-5/8" @ 1388: 5½" @ 3970 500 sx 550 sx		4104
	#3	J/11	4172	11-27 46/1-11-47	60	1-12-47	SHOT 260 QTS 4053-4181	8-5/8" @ 1165: 5½" @ 4047 500 sx 375 sx	4040 TO 4209	4209
TRIMBLE B	#1	I/11	4138	2-6-47/3-9-47	20	3-11-47	SHOT 380 QTS 3972-4125	8-5/8" @ 1155: 5½" @ 3965 350 sx 500 sx	3972 TO 4125	4125
ILES X	#1	C/10	4173	2-28-46/5-12-46	200	6-6-51	SHOT 260 QTS 4017-4120	8-5/8" @ 1060: 5½" @ 3863 50 sx 100 sx		4222 DEEPENED TD FR 3974 ORIG. 5-21-51
						6-4-55	FRAC 10MG 15M#			DONE

Ex-4

WATER FLOOD ASSOCIATES, INCORPORATED
FORT WORTH, TEXAS

TABLE NO. 2 - SHEET NO. 2

OPERATOR: LEASE:	WELL UNIT/SEC.		ELEV.	DATES SPUDDED - COMPT.	IP	STIMULATION DATE		CASING PROGRAM		PRODUCTIVE INTERVALS	TD	REMARKS
LEONARD NICHOLS - CONTD.												
ILES X	#2	B/10	NA*	6-22-51/6-28-51				8-5/8" @ 1161: 75 sx	5½" @ 3986 100 sx	4040-50: 4100-4115		*RESPUDDED ORIG. LOG NA
	#3	F/10	NA	4-2-47/6-23-47			SHOT 220 QTS 4090-4200	8-5/8" @ 1275: 100 sx	7" @ 3520 25 sx	TOP OF PAY 4090	4222	
ILES	#2	D/10	NO RECORD									
	#3	A/10	NA	4-3-47/6-5-47	240	6-5-47	SHOT 220 QTS 4090-4200	8-5/8" @ 1275: 50 sx	5½" @ 4065 100 sx		4211	
	#4	H/10	NA	2-9-48(COMPT.)	40		SHOT 360 QTS 4039-4241		5½" @ 3952 100 sx	TOP OF PAY 4014	4241	
	#5	P/3	NA	9-14-47/2-19-48	240	NONE		8-5/8" @ 1247: 50 sx	5½" @ 4032 100 sx	3410-16: 4025-45 4066-73 SAMP. LOG AVAIL.	4150	
	#6	O/3	NA	5-8-48/7-13-47	96	8-11-54	FRAC 20 MG 38M#	8-5/8" @ 1344: 50 sx	5½" @ 4063 100 sx	4075 TO 4080	4194	DEEPENED 10-20-51 FR 4080
	#7	N/3	4217	10-10-48/1-27-49	100	4-24-55	FRAC 10MG 15M#	8-5/8"	5½" @ 3964	4080 TO 4093	4269	RAD. LOG AVAIL.
	#8	J/3	4285	6-21-49/8-28-49	40	8-29-49	SHOT 130 QTS 4353-4353	8-5/8" @ 1410: 50 sx	5½" @ 4058 100 sx	4081-90: 4199-4210: 4337-44 SAMP. LOG AVAIL.	4353	
						9-1-49	SHOT 200 QTS 4200-4353					
	#9	P/3	NA	6-16-52/8-8-52	48	8-8-52	SHOT 310 QTS 4076-4211	8-5/8" @ 1275: 50 sx	5½" @ 4043 100 sx	4087-94: 4168-77: 4197-4202	4214	
						11-12-54	FRAC 20MG 40M#					
OHIO												
A. C. TAYLOR	#1	1/9	4124	10-4-47/11-6-47	DRY	11-7-47	SHOT 175 QTS 3865-3980	8-5/8" @ 1100: 300 sx	5½" @ 2452 500 sx	3685-4000: 4000-26	4026 PP&A	ROT. -DRY & 11-26-47
						11-18-47	ACID 2000G					
LEONARD NICHOLS												
STATE B	#1	P/1										
PHILLIPS STATE B	#1	M/1		11-2-46/1-19-47	53	1-20-47	SHOT 360 QTS 4150-4308	8-5/8" @ 1230: 100 sx	5½" @ 4110 100 sx	4160-70: 4230-40 4290-4308	4310	
BRINSON & WOODALL												
HARRISON	#1	E/3										
THE TEXAS COMPANY												
STATE O	#13	D/12	4255	4-19-46/7-3-46	52	7-6-46	SHOT 130 QTS 4181-4236	8-5/8" @ 1345: 650 sx	5½" @ 4143 300 sx	4177 TO 4190	4250	

WATER FLOOD ASSOCIATES, INCORPORATED
FORT WORTH, TEXAS

TABLE NO. 2 - SHEET NO. 3

WATER FLOOD ASSOCIATES, INCORPORATED
FORT WORTH, TEXAS

OPERATOR: LEASE:	WELL	UNIT/SEC.	ELEV.	DATES SPUDDED - COMPT.	IP	STIMULATION DATE		CASING PROGRAM	PRODUCTIVE INTERVALS	REMARKS TD
SUPPES & KENNEDY										
STATE	#1	J/2	4122	2-9-49/3-18-49	58	3-11-49	SHOT 365 QTS 4106-4314	9-5/8" @ 1200: 600 SX; 5½" @ 4000 100 SX	4050-4240: GRAYBURG 4240-4330 SAN ANDRES	
						6-21-54	FRAC 10MG 15M#			
WATSON DRILLING CO.										
TRIMBLE	#1	A/11	NA	10-27-45/1-7-46	200	6-22-49	SHOT 620 QTS 4231-4391	8-5/8" @ 1267: 50 SX; 7" @ 3540	4150 TO 4153	4153
	#2	H/11	NA	2-14-46/6-14-46	100	10-25-47	SHOT 320 QTS 4160-4286	8-5/8" @ 1232: 50 SX; 5½" @ 4062 50 SX	4160-74: 4248-52: 4285-95	4295

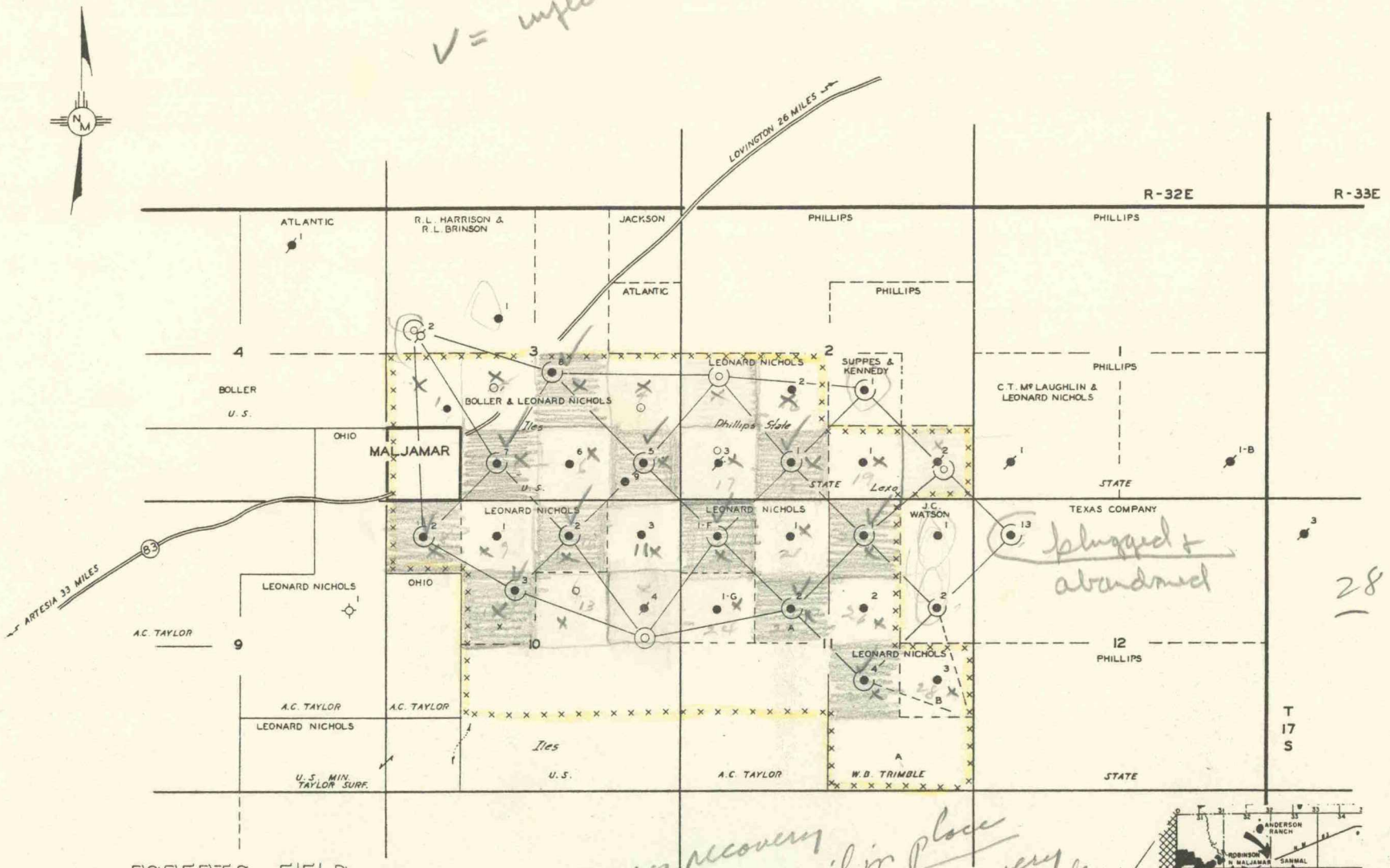
Pg 3

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO.
CASE NO.

V = injection wells

EXHIBIT Nº 5

WATER FLOOD ASSOCIATES, INCORPORATED
FORT WORTH, TEXAS



plugged + abandoned

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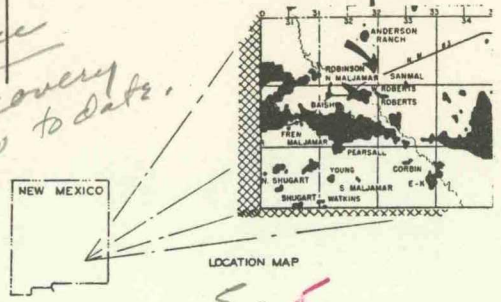
ROBERTS FIELD
LEA COUNTY, NEW MEXICO

PROPOSED WATER-FLOOD DEVELOPMENT MAP

0 1 2 3 4 5000' 1 MILE

WATER-FLOOD ASSOCIATES INC.
FORT WORTH, TEXAS



LOCATION MAP

Primary recovery 15-18% of orig oil in place
2,200,000 water flood recovery
have recovered 1,000,000 to date.

Ex-5

Water requirements — 350 BPD/well 1500-1800 psi 3850 B/D for 11 wells