THE BRITISH-AMERICAN OIL PRODUCING COMPANY

MAIN OFFICE
1963 JUN 19 AM 8

Box 474
Midland, Texas
June 17, 1963

WFX-141

Due July 5

Mr. A. L. Porter, Jr.
Secretary and Director
Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Porter:

The British-American Oil Producing Company hereby respectfully requests administrative approval and authorization to expand the waterflood project area in the Jalmat Field. This authorization is requested to allow injection into the following wells:

Well #13-11	NW/4, NW/4 of Section 13
Well #13-22	SE/4, NW/4 of Section 13
Well #14-33	NW/4, SE/4 of Section 14
Well #14-42	SE/4, NE/4 of Section 14
Well #14-44	SE/4, SE/4 of Section 14
Well #23-31	NW/4, NE/4 of Section 23
Well #23-42	SE/4, NE/4 of Section 23

P-2263

All of the above are in Township 22-South, Range 35-East, Lea County, New Mexico. These proposed injection wells are located within the boundaries of the Jalmat Yates Sand Unit as approved by Conservation Commission order No. R-2235. The attached plat shows this unit and the location of all wells therein.

It is necessary to convert these wells to injection in order to complete the five-spot patterns in this area and allow proper sweep efficiency of this portion of the reservoir. These wells will be operated in conjunction with the proposed Cone Jalmat Yates Pool Unit for maximum protection of correlative rights.

Attached is a tabulation of well completion data, tabulation of injection data, and schematics of each of the proposed injection wells. Injection into each well will be through internally plastic coated 2-1/16" intergal joint tubing. This tubing will be equipped with a packer which will be set approximately 20 feet above the top perforation in each well.

The annular space behind the tubing will be filled with fresh water to prevent possible corrosion and to indicate any packer leak.

Also attached is a tabulation of injection data and individual well logs. The injection system to be employed is a closed system in which Capitan Reef water will be injected into the Yates formation in the proposed wells. It is our intention that injection into these wells in this manner will provide adequate protection to all other strata.

We will appreciate your notifying us of your decision on this application as soon as possible. If any other data is required, please notify us.

Yours very truly,

THE BRITISH AMERICAN OIL PRODUCING COMPANY

Cecil E. Brandon

Cecil E. Brandon
District Superintendent

CEB:JPD:lc

Attachments

cc: Mr. S. E. Reynolds, State Engineer

Completion Data for Proposed
Water Injection Wells
Jalmat (Yates Sand) Unit
Lea County, New Mexico

WELL NO. 13-11

Surface Casing: 8 5/8" - 24# Set at 1825' with 850 sacks cement. Cement circulated. Tested with 1000 psi.
Production Casing: 4 1/2" - 16# drill pipe set at 3940' with 400 sacks cement. Calculated top of cement at 1830'. Tested with 1000 psi.
Perforations: 3806 - 3818', 3840-3854', 3872-3884', 3898-3930' with 4 shots per foot.
Top of Yates Sand: 3780' (-171')
Proposed Injection Completion: 2 1/16" intergal joint tubing with packer set at 3786'.

WELL NO. 13-22

Surface Casing: 8 5/8" - 24# set at 1760' with 800 sacks cement. Cement circulated.
Production Casing: 5 1/2" - 14# set at 3860' with 400 sacks cement. Top of cement at 2340'.
Perforations: 3718 - 3762', 3786-3822' with 4 shots per foot.
Open Hole: 3860 - 3895'
Top of Yates Sand: 3722' (-121')
Proposed Injection Completion: 2 1/16" intergal joint tubing with packer set at 3698'.

WELL NO. 14-33

Surface Casing: 8 5/8" - 24# set at 359' with 190 sacks cement. Cement circulated. Tested with 1000 psi.
Production Casing: 5 1/2" - 14# set at 3971' with 372 sacks cement. Top of cement at 1190'.
Perforations: 3838 - 3848', 3864-3873', 3877-3893', 3920-3936' with 4 shots per foot.
Top of Yates Sand: 3811' (-217')
Proposed Injection Completion: 2 1/16" intergal joint tubing with packer set at 3818'.

WELL NO. 14-42

Surface Casing: 8 5/8" - 22.7# spiral weld set at 334' with 200 sacks cement. Cement circulated. Tested with 500 psi.
Production Casing: 4 1/2" - 9.5# set at 3999' with 150 sacks cement. Top of cement at 3400'. Tested with 1000 psi.
Perforations: 3862 - 3900', 3926-3950' with 4 shots per foot.
Top of Yates Sand: 3812' (-186')
Proposed Injection Completion: 2 1/16" intergal joint tubing with packer set at 3842'.

WELL NO. 14-44

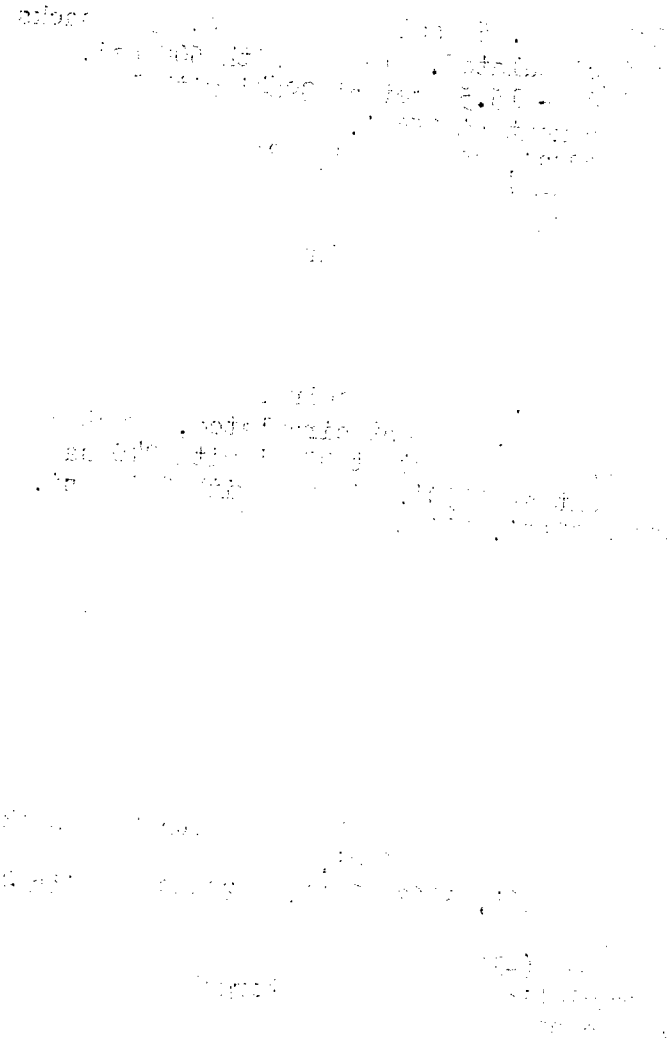
Surface Casing: 10 3/4" - 32.75# set at 339' with 350 sacks cement. Cement circulated. Tested with 500 psi.
Production Casing: 5 1/2" - 15.5# set at 3964' with 100 sacks cement. Top of cement at 3560'.
Perforations: 3815 - 3823', 3831-3838', 3869-3886', 3910-3932' with 4 shots per foot.
Top of Yates Sand: 3802' (-208')
Proposed Injection Completion: 2 1/16" intergal joint tubing with packer set at 3795'.

WELL NO. 23-31

Surface Casing: 8 5/8" - 22.7 and 32# spiral weld set at 335' with 200 sacks cement. Cement circulated. Tested with 750 psi.
Production Casing: 5 1/2" - 14# set at 3980' with 340 sacks cement. Top of cement at 1590'. Tested with 3000 psi.
Perforations: 3850 - 3855', 3862-3866', 3882-3893', 3901-3909', 3942-3946' 3950-3956', with 4 shots per foot.
Top of Yates Sand: 3833' (-229')
Proposed Injection Completion: 2 1/16" intergal joint tubing with packer set at 3830'.

WELL NO. 23-42

Surface Casing: 8 5/8" - 22.7# spiral weld set at 335' with 175 sacks cement. Cement circulated. Tested with 750 psi.
Production Casing: 5 1/2" - 14# set at 3947' with 540 sacks cement. Top of cement at 1690'.
Perforations: 3810 - 3836', 3862-3891', 3920-3928' with 4 shots per foot.
Top of Yates Sand: 3804' (-197')
Proposed Injection Completion: 2 1/16" intergal joint tubing with packer set at 3790'.



WATER INJECTION DATA
Jalmat (Yates Sand) Unit
Lea County, New Mexico

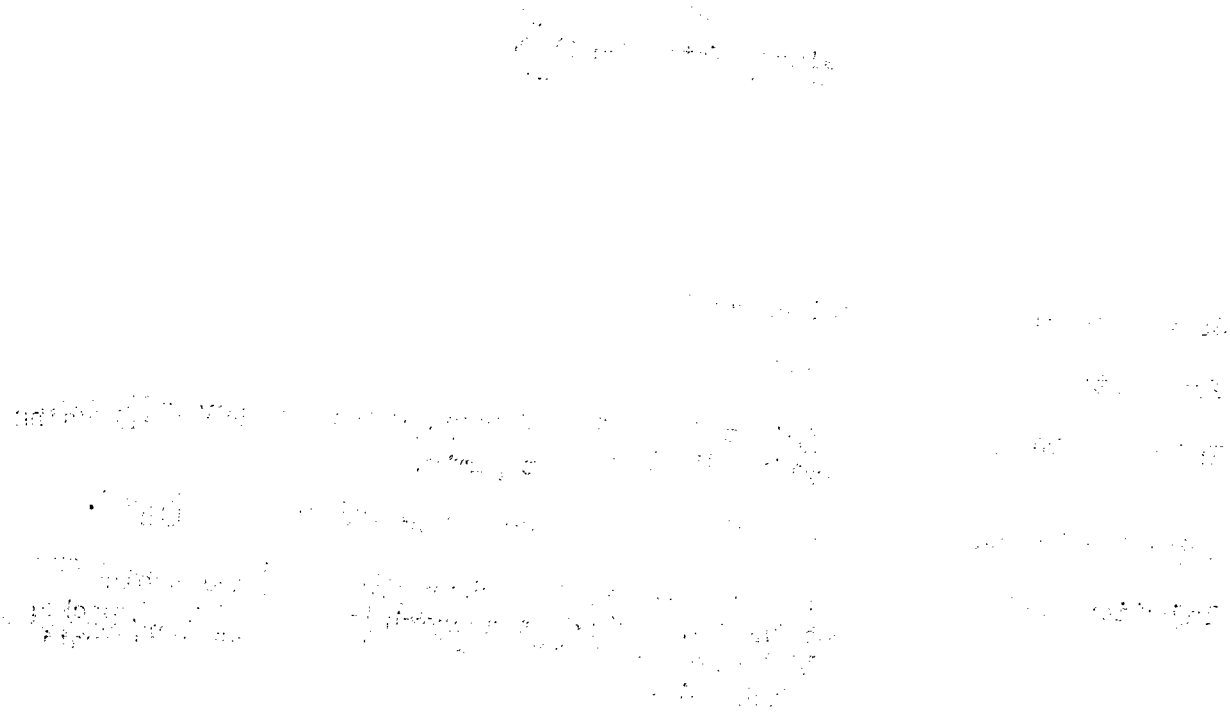
Source Water: Capitan Reef

Type System: Closed

Injection Volume: Anticipated at 350-400 barrels per day per well using positive displacement pumps.

Injection Pressure: Anticipated at 800-900 psi at injection wellhead.

Injection well completion: Injection will be down plastic lined tubing and into the Yates Sand at approximately 3900'. A packer will be set on tubing about 20' above the perforations in each well.

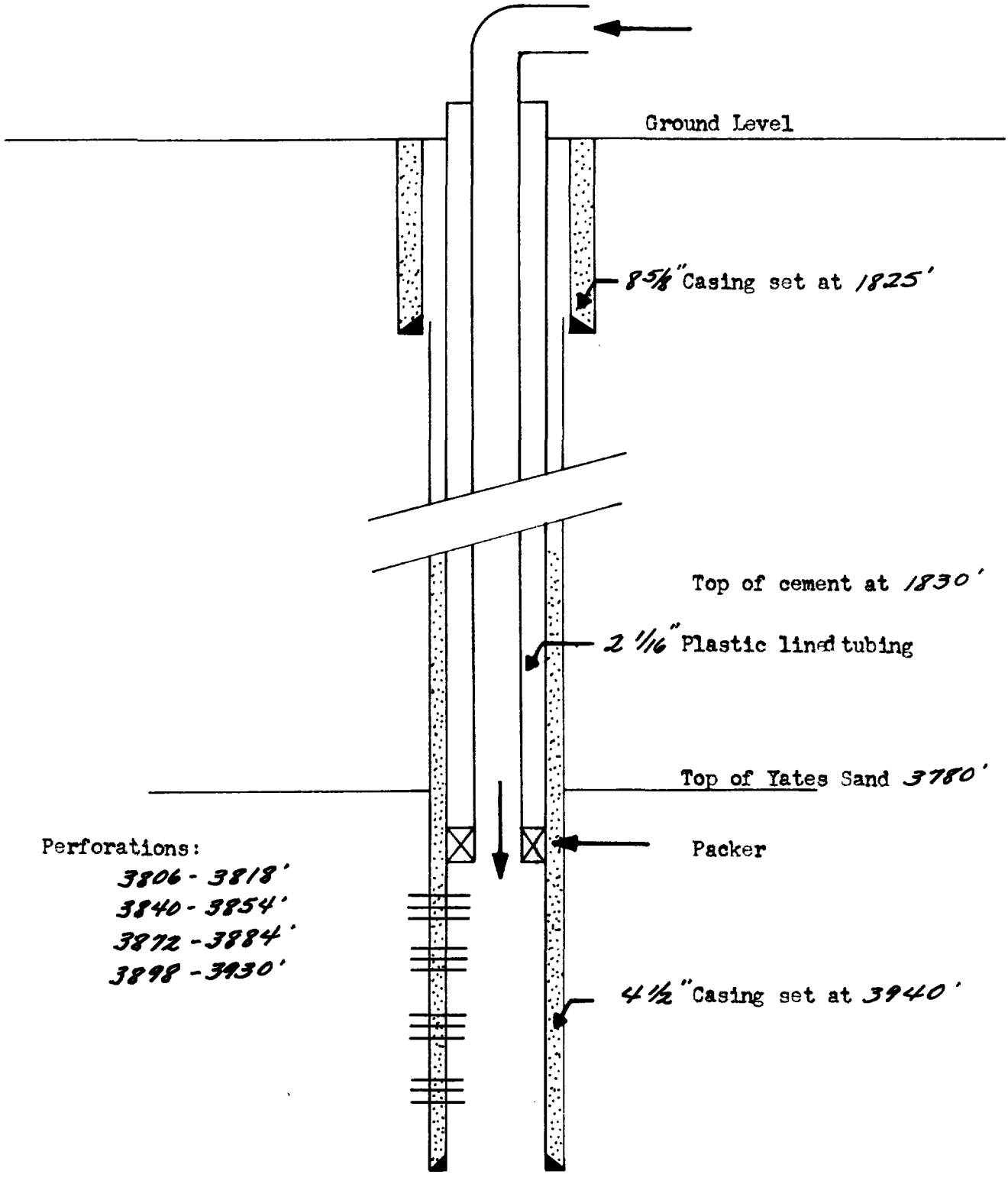


JALMAT YATES SAND UNIT

LEA COUNTY, NEW MEXICO

Proposed Water Injection Completion

Well No. 13-11

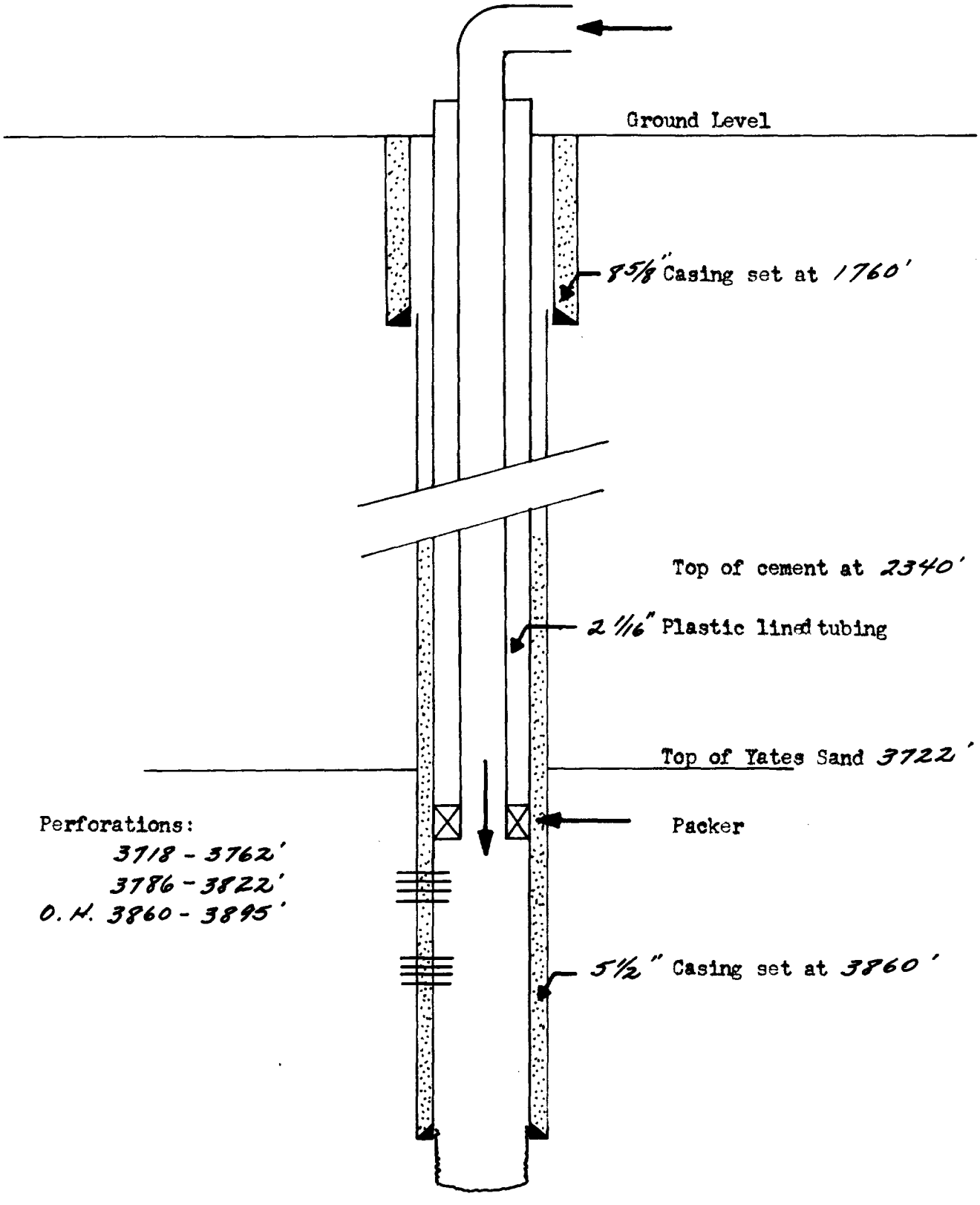


JALMAT YATES SAND UNIT

LEA COUNTY, NEW MEXICO

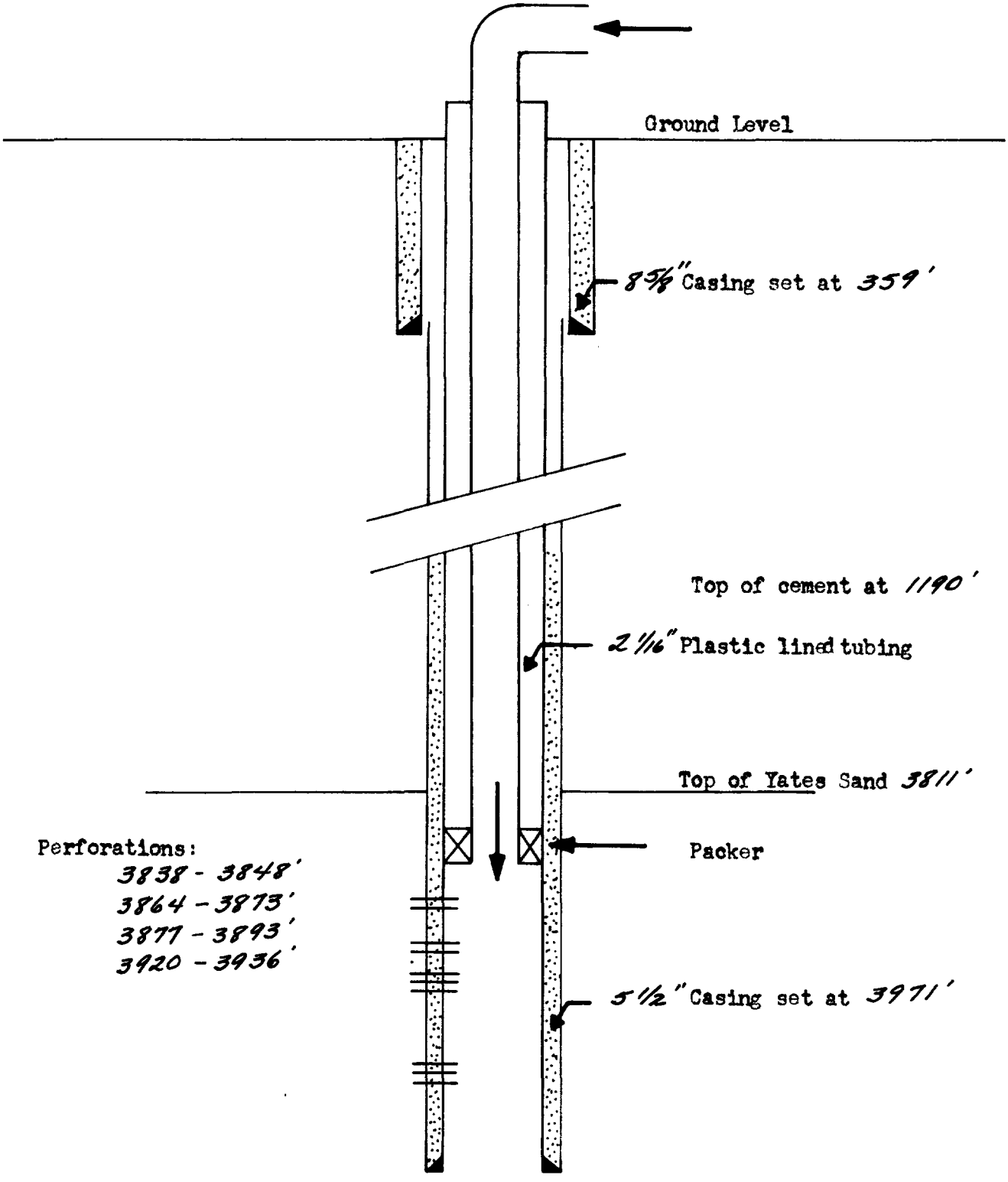
Proposed Water Injection Completion

Well No. 13-22



JALMAT YATES SAND UNIT
LEA COUNTY, NEW MEXICO

Proposed Water Injection Completion
Well No. 14-33

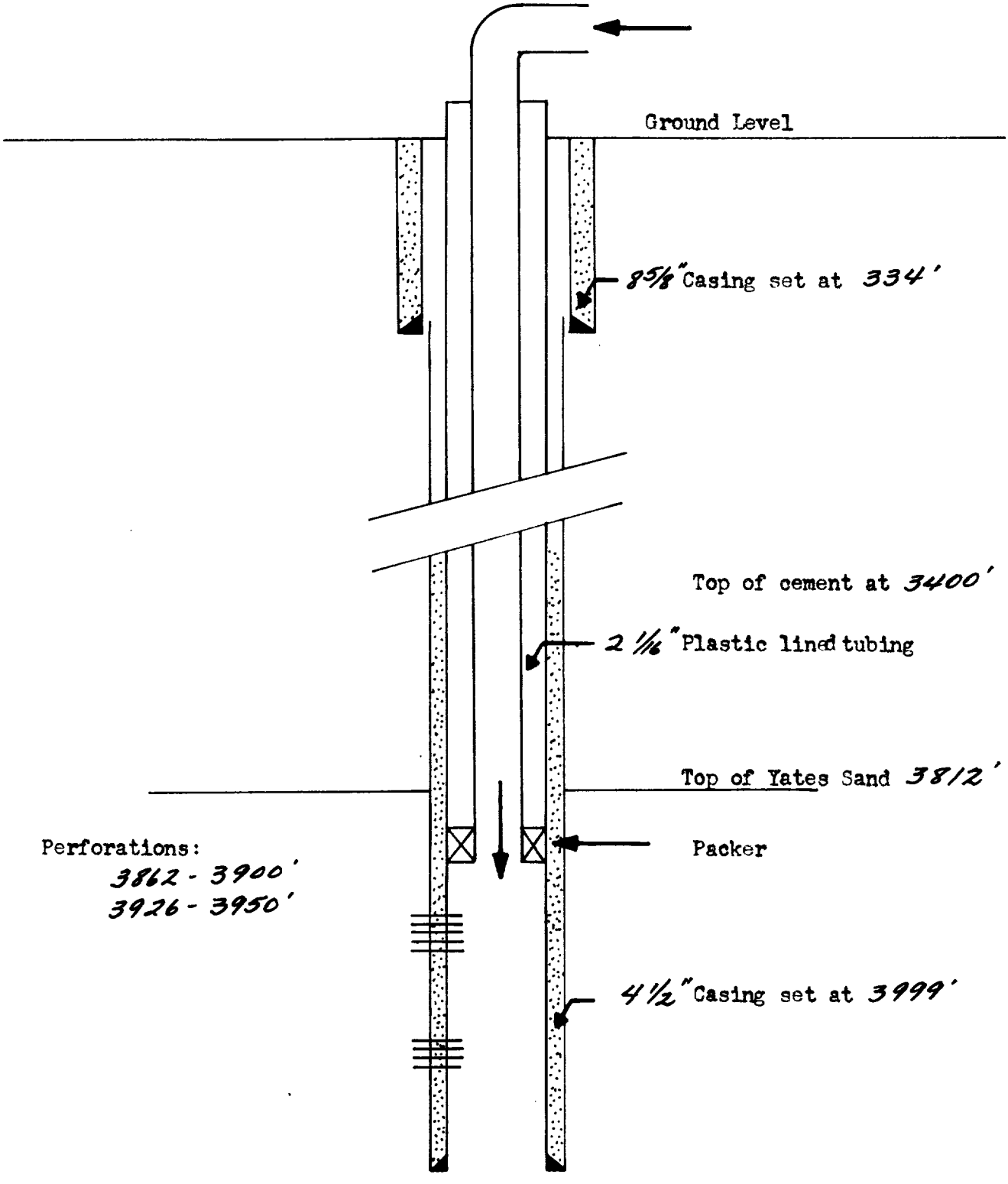


JALMAT YATES SAND UNIT

LEA COUNTY, NEW MEXICO

Proposed Water Injection Completion

Well No. 14-42

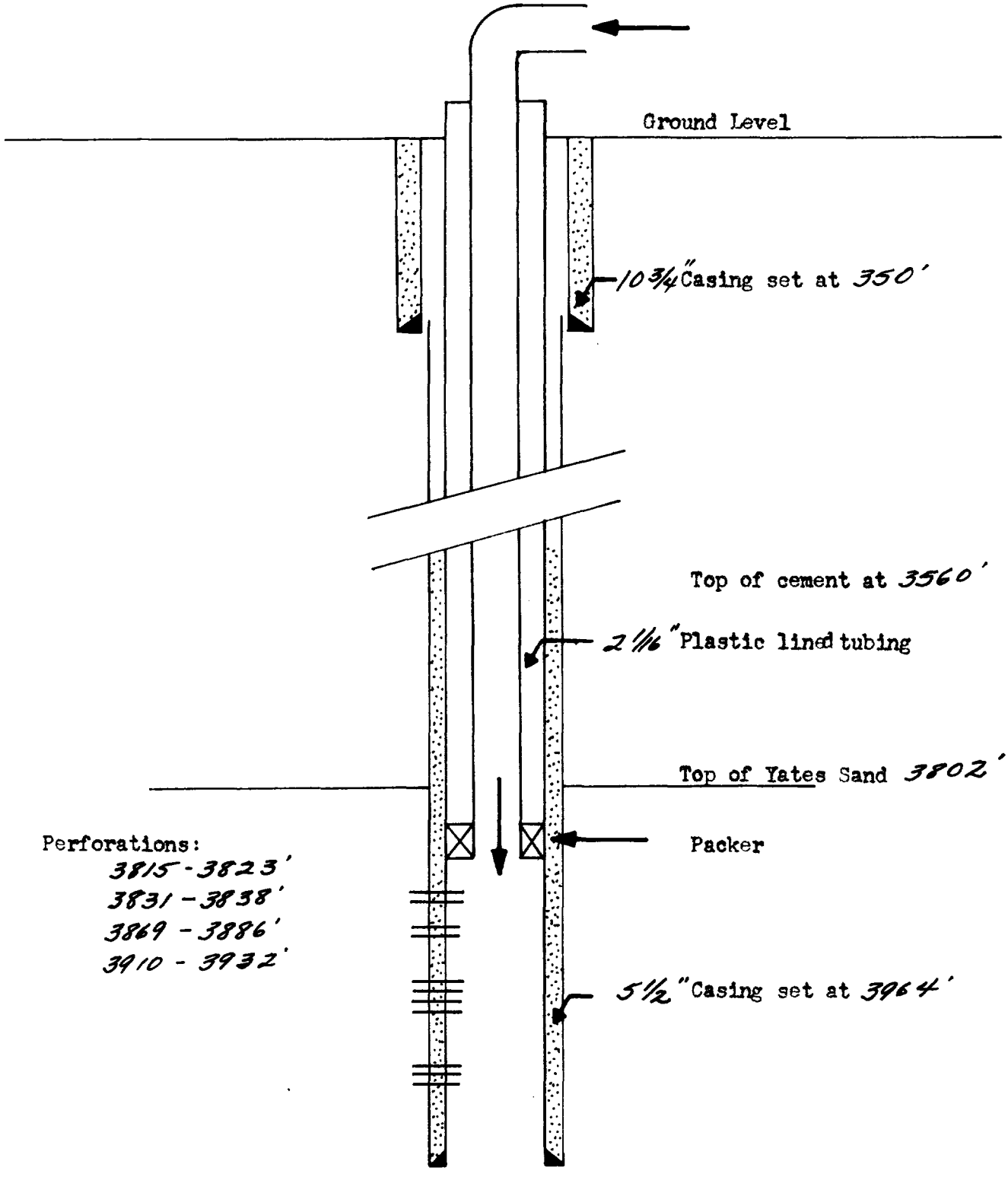


JALMAT YATES SAND UNIT

LEA COUNTY, NEW MEXICO

Proposed Water Injection Completion

Well No. 14-44

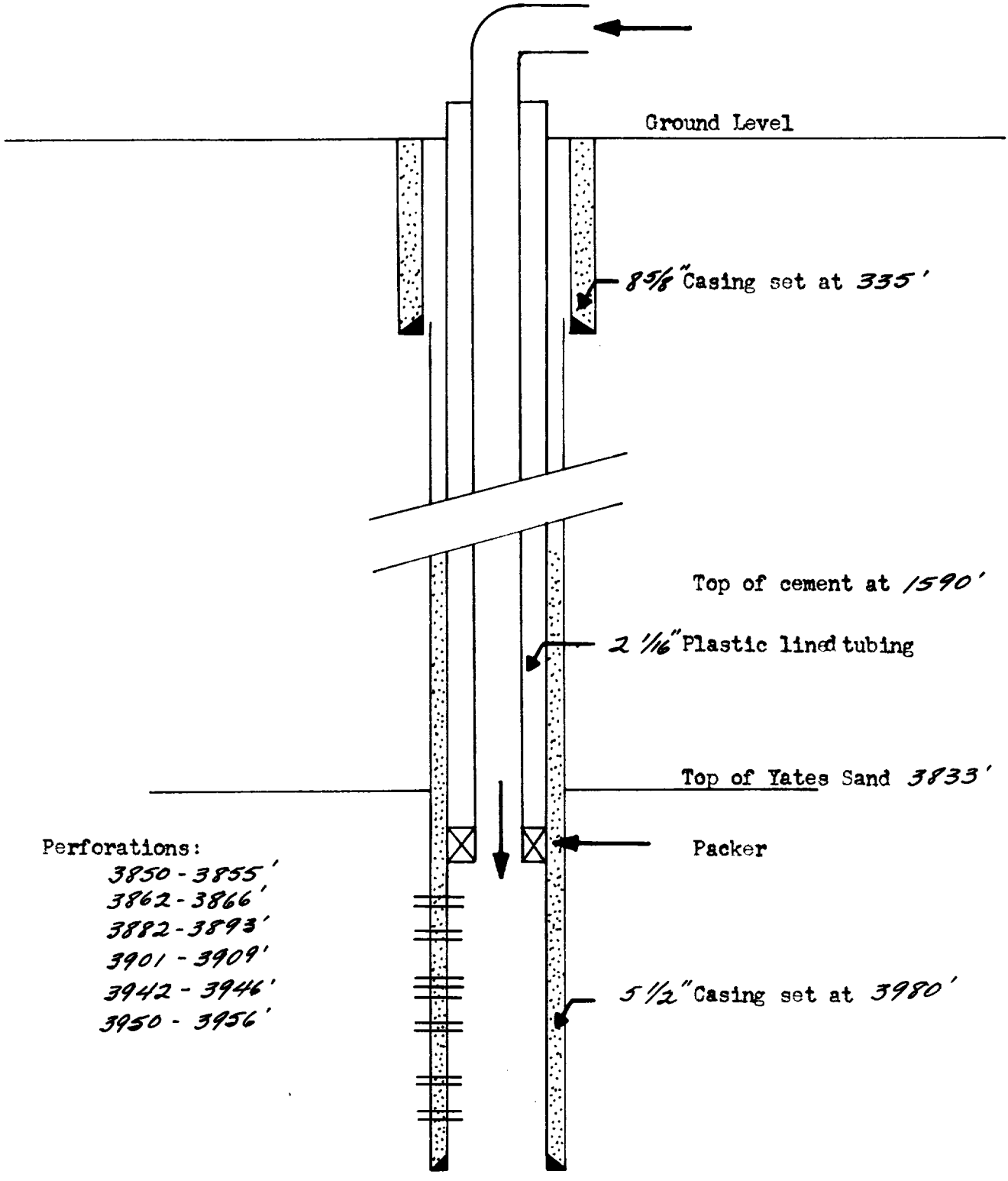


JALMAT YATES SAND UNIT

LEA COUNTY, NEW MEXICO

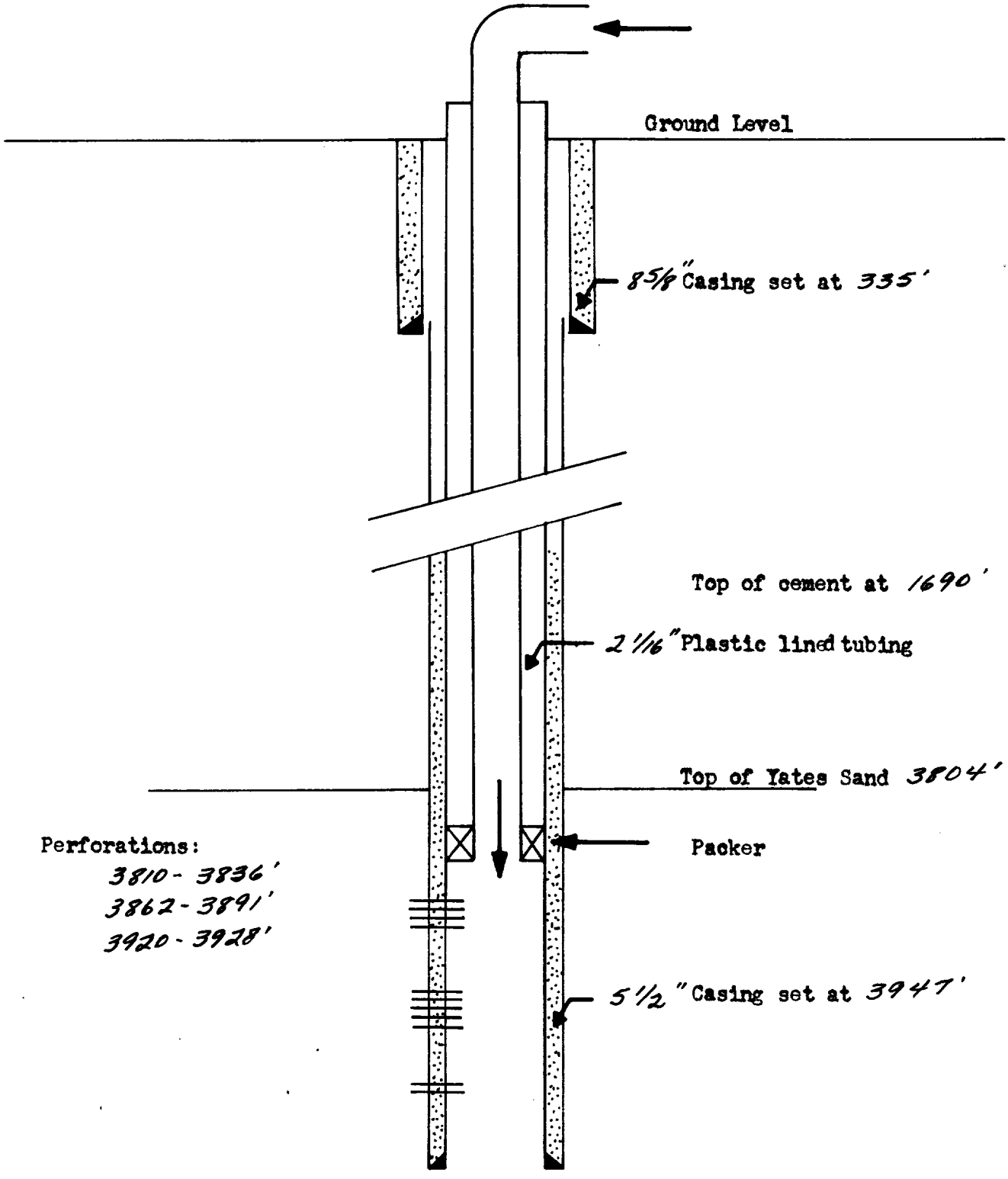
Proposed Water Injection Completion

Well No. 23-31



JALMAT YATES SAND UNIT
LEA COUNTY, NEW MEXICO

Proposed Water Injection Completion
Well No. 23 - 42



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

June 19, 1963

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, N. M.

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to the application of British-American Oil Producing Company which seeks administrative approval to convert the following wells to injections wells in the Jalmat Field:

Well #13-11 $NW\frac{1}{4}NW\frac{1}{4}$ Section 13
Well #13-22 $SE\frac{1}{4}NW\frac{1}{4}$ Section 13
Well #14-33 $NW\frac{1}{4}SE\frac{1}{4}$ Section 14
Well #14-42 $SE\frac{1}{4}NE\frac{1}{4}$ Section 14
Well #14-44 $SE\frac{1}{4}SE\frac{1}{4}$ Section 14
Well #23-31 $NW\frac{1}{4}NE\frac{1}{4}$ Section 23
Well #23-42 $SE\frac{1}{4}NE\frac{1}{4}$ Section 23

In view of the statement that injection into each well will be through internally plastic coated 2 1/16" integral joint tubing and that tubing will be equipped with a packer which will be set approximately 20 feet above the top perforation in each well, this office offers no objection to the granting of this application.

Very truly yours,

S. E. Reynolds
State Engineer

By: Frank E. Irby
Frank E. Irby, Chief,
Water Rights Division

ma
cc-British- American Oil Co.
F. H. Hennighausen

Reproduced By

West Texas Electrical Log Service

Dallas 2, Texas

REFERENCE Nº A 5574 -A

13-11

LANE WELLS COMPANY

Radioactivity Log

COMPANY: THE TEXAS COMPANY

WELL: STATE OF N MEXICO [illegible]

FIELD: JAL MAT

LOCATION: 660' FN & W LINES OF SEC. 13, T-22-S, R-35-E

COUNTY: LEA STATE: N MEX.

Well Location

COMPANY: THE TEXAS COMPANY
WELL: STATE OF N MEX. ST. NCT-A No. 4
FIELD: JAL MAT
LOCATION:
COUNTY: LEA
STATE: NEW MEXICO

LOG ZERO	TOP KELLY DRIVE BUSHING	ELEV. 3601
DRLG. ZERO	TOP KELLY DRIVE BUSHING	ELEV. 3601
PERM. DATUM	GROUND LEVEL	ELEV. 3590

			RECORDED SIMULTANEOUSLY	
TYPE OF LOG	GAMMA RAY	NEUTRON		
RUN NO.	ONE-RM	ONE-RM		
DATE STRAIN	9-12-56	9-12-56		
TOTAL DEPTH (DRILLER)	3940	3940		
EFFECTIVE DEPTH (DRILLER)	3938	3938		
TOP OF LOGGED INTERVAL	SURFACE	SURFACE		
BOTTOM OF LOGGED INTERVAL	3933	3933		
TYPE OF FLUID IN HOLE	WATER	WATER		
FLUID LEVEL	FULL	FULL		
MAXIMUM RECORDED TEMP.				
SOURCE STRENGTH & TYPE		300MC		
SOURCE SPACING — IN.		3.75		
LENGTH OF MEAS. DEVICE — IN.	24	1		
O.D. OF INSTRUMENT — IN.	2 5/8"	2 5/8"		
TIME CONSTANT — SECONDS	6	6		
LOGGING SPEED FT./MIN.	20-30	20-30		
STATISTICAL VARIATION — IN.	RECORDED	RECORDED		
SENSITIVITY REFERENCE	2 x 275	2 x 275		
RECORDED BY	ANALORD	ANALORD		
WITNESSED BY	MORSE	MORSE		

WELL RECORD

RUN	BIT SIZE	CASING	WT.—LB.	FROM WELL RECORD		FROM LOG	
ONE	11"	8 5/8"		SURFACE	TO 1825	SURFACE	TO
ONE	6 3/4"	4 1/2"	16	SURFACE	TO 3940	SURFACE	TO 3935
					TO		TO
					TO		TO
					TO		TO

REMARKS OR OTHER DATA

300 SERIES

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE