

815  
8/5

**CONTINENTAL OIL COMPANY**

DEVELOPMENT AND RESEARCH DEPARTMENT  
PRODUCTION RESEARCH DIVISION

CGX

**TECHNICAL SERVICE REPORT**

ADDRESS INQUIRY TO:  
J. J. REYNOLDS, DIRECTOR

REPORT NO.: 299-55

SEPTEMBER 7, 1955

SUBJECT: CORE ANALYSIS REPORT - CONTINENTAL OIL COMPANY,  
J. POWELL NO. 8 WELL, GENESEO FIELD, RICE COUNTY, KANSAS

SIMPSON SAND CORES FROM THE SUBJECT WELL WERE CAREFULLY EXAMINED IN THE LIGHT OF THE COMPLETION DIFFICULTIES ENCOUNTERED. LIQUID PERMEABILITIES WERE MEASURED IN ORDER TO EVALUATE THE PROBABILITY OF A PERMEABILITY BLOCK BEING PRESENT DUE TO CLAY SWELLING. DATA PRESENTED IN TABLE NO. 1 SHOW THIS FORMATION TO BE A CLEAN SAND HAVING NO WATER SENSITIVITY. IT IS THEREFORE CONCLUDED THAT IF A PERMEABILITY BLOCK EXISTS IT IS A HIGH WATER SATURATION BLOCK WHICH HAS DECREASED THE RELATIVE PERMEABILITY TO OIL.

THE SUBJECT WELL WAS COMPLETED AS A DRY HOLE AT TD 3264'. IT WAS ABANDONED BUT NOT PLUGGED MAKING IT AVAILABLE FOR A FUTURE SALT WATER DISPOSAL WELL.

*F. R. Conley*

F. R. CONLEY  
CORE ANALYSIS GROUP SUPERVISOR

FRC-WNE

DISTRIBUTION:

1. E. W. WEBB
2. R. G. PARKER
3. R. F. DARROW
4. LEWIS MCGUIRE
5. JOHN A. QUEEN
6. C. L. ARNETT
7. S. R. CROSS
8. FILE

TABLE No. 1

FLUID PERMEABILITIES

J. POWELL No. 8 WELL  
GENESEO FIELD  
RICE COUNTY, KANSAS

SAMPLE No.	DEPTH Ft.	POROSITY $\%$	PERMEABILITY, MILLIDARCYS			% KA
			AIR	HEPTANE	BRINE	
3	3216	10.2	18.3	17.4	16.9	92.5
7	3220	13.9	31.5	28.9	28.0	86.2
11	3224	12.7	164	161	163	99.4
13	3226	13.9	116	113	114	98.3

ALL PERMEABILITY DATA WERE OBTAINED ON LUCITE MOUNTED SAMPLES.

# CONTINENTAL OIL COMPANY

## CORE ANALYSIS REPORT

### CORE SUMMARY

REPORT No. 299-55

OPERATOR CONTINENTAL OIL COMPANY REPORT DATE 9-7-55 LABORATORY No. CGX  
 WELL J. POWELL No. 8 PRELIMINARY REPORT TO JOHN A. QUEEN  
 FIELD GENESE ON 4-12-55  
 COUNTY RICE STATE KANSAS REFERENCE ELEVATION 1732' RB  
 LOCATION Sec. 31 - T18S - R7W

#### CORE RECORDS

DATE CORED		4-4-55				
CORE No.		1				
TYPE OF CORE		DIAMOND				
FORMATION		SIMPSON				
INTERVAL CORED: FROM	FEET	3214				
TO	FEET	3229				
RECOVERED	FEET	15				
ANALYZED	FEET	15				
TYPE DRILLING MUD		STARCH				
WEIGHT	#/ GAL.	10.3				
VISCOSITY	MARSH SEC.	43				
WATER LOSS	cc/30 MIN.	14				
PH						
CHLORIDES	PPM					
REPORTED OIL GRAVITY	°API	37				

#### AVERAGES (PERMEABLE FOOTAGE ONLY)

FORMATION		SIMPSON				
INTERVAL AVGD.: FROM	FEET	3214				
TO	FEET	3229				
PRODUCTIVE (2)	FEET					
NON-PRODUCTIVE	FEET					
CORE LOSS	FEET					
PROBABLE PRODUCTION						
POROSITY	%	12.8				
PERMEABILITY - HORZ.	MD.	74				
SATURATION:						
RESIDUAL OIL	% PORE SP.	26				
RESIDUAL WATER	% PORE SP.	20				
VACANT	% PORE SP.	54				
I.W.S. (3)	% PORE SP.	18				

#### WELL COMPLETION DATA

COMPLETED AS A DRY HOLE AT TD 3264'.  
 ABANDONED BUT NOT PLUGGED.  
 POSSIBLE SWD WELL.

# CONTINENTAL OIL COMPANY

## CORE ANALYSIS REPORT

### RESULTS OF LABORATORY TESTS

OPERATOR CONTINENTAL OIL COMPANY WELL J. POWELL No. 8 LABORATORY No. CGX

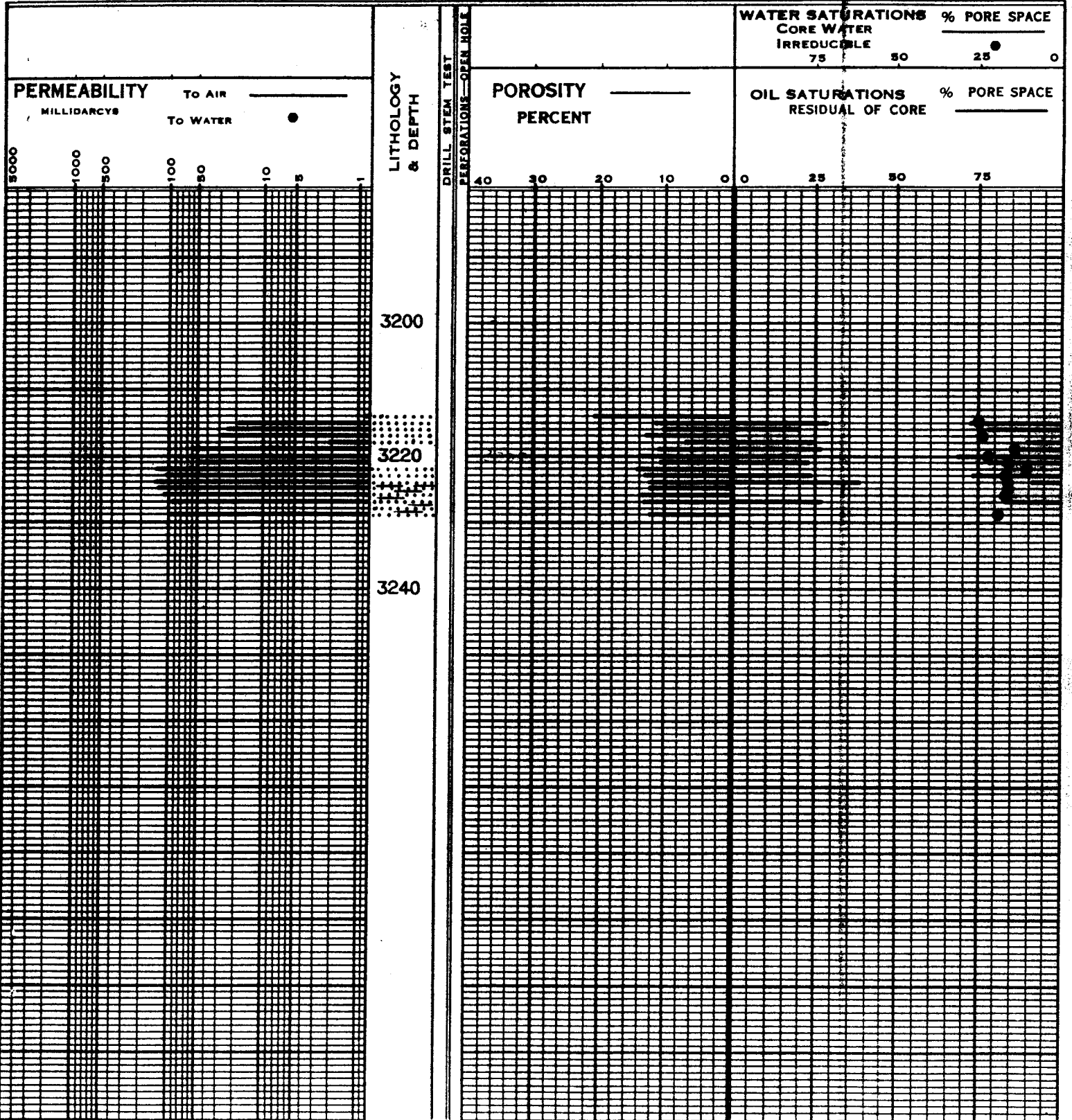
SAMPLE NO.	DEPTH FEET	POROSITY %	PERMEABILITY TO AIR MILLIDARCYs (1)		SATURATION % PORE SPACE					REMARKS
			HORIZONTAL	VERTICAL	OIL	WATER	VACANT	I.W.S. (3)		
<b>SIMPSON</b>										
1	3214	21.0	0.2							OOLITE WITH HIGH IRON CONTENT
2	3215	11.8	19		29	28	43	25		SAND
3	3216	10.2	26		20	22	58			SAND
4	3217	13.2	29					24		SAND
5	3218	7.0	2.2		25	11	64			SAND
6	3219	11.2	62		27	13	60	14		SAND
7	3220	13.9	39		20	32	48	22		SAND
8	3221	10.9	50		23	22	55	16		SAND
9	3222	14.5	149					11		SAND
10	3223	13.4	116		24	27	49	17		SAND
11	3224	12.7	159		38	9	53	16		SAND
12	3225	12.6	138					16		SAND
13	3226	13.9	120					17		SAND
14	3227	13.6	97		27	17	56			SAND
15	3229	12.5	99					19		SAND

(1) "-" INDICATES 'LESS THAN'  
 (2) PROBABLE PRODUCTION IF COMPLETELY ISOLATED  
 (3) IRREDUCIBLE INTERSTITIAL WATER SATURATION.  
 (4) EQUIVALENT SODIUM CHLORIDE.

(D) DISINTEGRATED  
 (NF) NO FLOW  
 (NCF) NO COMMERCIAL FLOW  
 (NS) NO SAMPLE OR NO SEALED SAMPLE  
 (NA) NO ANALYSIS

# CONTINENTAL OIL COMPANY COREGRAPH

OPERATOR CONTINENTAL OIL COMPANY WELL J. POWELL No. 8 LABORATORY No. CGX  
 FIELD GENESEO REFERENCE ELEVATION 1732' RB MUD STARCH  
 FORMATION SIMPSON



CONTINENTAL OIL COMPANY

PRODUCTION LABORATORY

IRREDUCIBLE WATER — PERMEABILITY

FIELD GENESEO STATE KANSAS

FORMATION SIMPSON

WELL

LAB. NO.

J. POWELL No. 8

CGX

1000

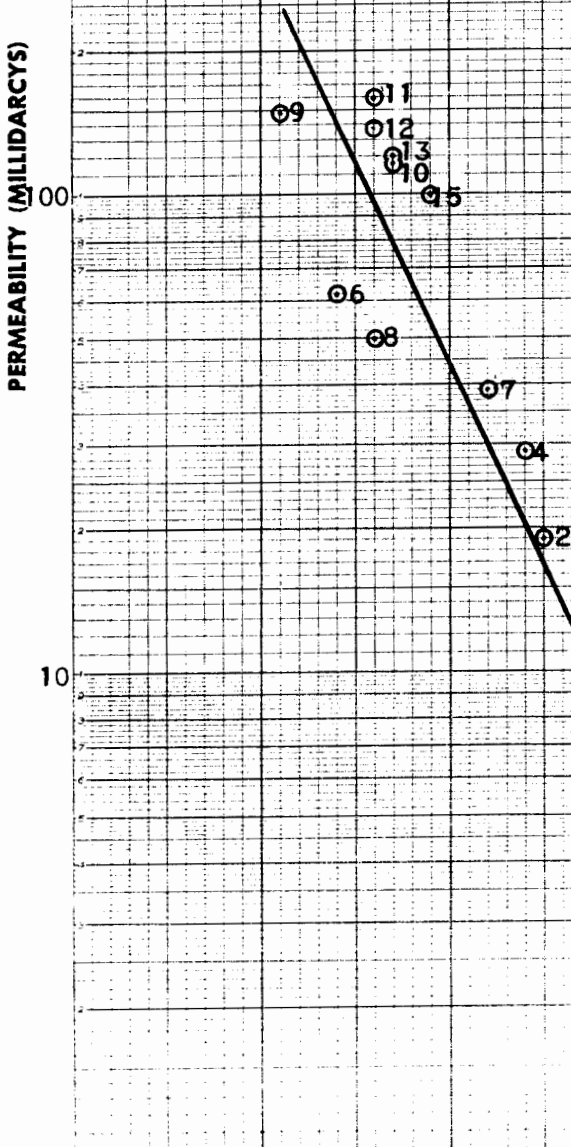
PERMEABILITY (MILLIDARCYS)

100

10

0 10 20 30 40 50 60 70

IRREDUCIBLE WATER



CODEX BOOK COMPANY, INC. NORWOOD, MASSACHUSETTS. PRINTED IN U.S.A.



NO. 31,288. 10 DIVISIONS PER INCH (70 DIVISIONS) BY FOUR 2 1/2 -INCH CYCLES RATIO RULING.