

CONTINENTAL OIL COMPANY

PONCA CITY, OKLAHOMA
APRIL 27, 1954

REPORT No. 131-54

CORE ANALYSIS REPORT

CONTINENTAL OIL COMPANY
G. S. PENDLEY NO. 1 WELL
GERLANE FIELD
BARBER COUNTY, KANSAS

ATTACHED ARE CORE ANALYSIS RESULTS ON THE MISSISSIPPI FORMATION CORED AT THIS WELL. RESULTS OF BOTH FULL DIAMETER AND PLUG ANALYSES ARE DETAILED IN THE ACCOMPANYING TABLES AND PRESENTED GRAPHICALLY ON THE CORE-GRAPH. THE LARGE CORE PERMEABILITIES ARE TO BE CONSIDERED AS MINIMUM VALUES. THESE DATA WILL BE RERUN WHEN EQUIPMENT IS AVAILABLE AND A SUPPLEMENTARY REPORT ISSUED.

OF THE ZONE, 4553' TO 4565', SEVEN FEET ARE ESTIMATED TO BE POSSIBLY PRODUCTIVE. THE SECTION, 4583' TO 4595', IS CONSIDERED TO BE THE BETTER SECTION CORED AT THIS WELL, WITH SEVEN FEET OF EFFECTIVE PAY. BOTH THE MATRIX AND FRACTURE SYSTEMS OF THIS LOWER PAY ARE OIL SATURATED.

POROSITIES REPORTED ARE CONSIDERED TO BE REALISTIC VALUES, THE PLUG VALUES REPRESENTING MATRIX VALUES AND THE LARGE CORE VALUES BEING BULK POROSITIES, I.E., INNERGRANULAR PLUS FRACTURES.



F. R. CONLEY
SENIOR RESEARCH ENGINEER
PRODUCTION RESEARCH DIVISION
DEVELOPMENT AND RESEARCH DEPARTMENT

FRC-VH

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CONTINENTAL OIL COMPANY

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CORE SUMMARY

REPORT NO. 131-54

OPERATOR <u>CONTINENTAL OIL COMPANY</u>	REPORT DATE <u>4-27-54</u> LABORATORY No. <u>BNJ</u>
WELL <u>G. S. PENDLEY No. 1</u>	PRELIMINARY REPORT TO <u>J. B. STEELE, JR.</u>
FIELD <u>GERLANE</u>	ON <u>3-31-54</u>
COUNTY <u>BARBER</u> STATE <u>KANSAS</u>	REFERENCE ELEVATION <u>1422' RB</u>
LOCATION _____	

CORE RECORDS

		3-11/12-54	3-12/13-54	3-13-54	3-14-54		
DATE CORED		1	2	3	4		
CORE No.		1	2	3	4		
TYPE OF CORE		DIAMOND	DIAMOND	DIAMOND	DIAMOND		
FORMATION		←-----MISSISSIPPI LINE-----→				MISSISSIPPI	
INTERVAL CORED: FROM	FEET	4505	4532	4573	4591	CHAT	
TO	FEET	4532	4573	4592	4610		
RECOVERED	FEET	27	41	19	19		
ANALYZED	FEET	10	15	7	5		
TYPE DRILLING MUD		←-STARCH IMPERMIX-----STARCH IMPERMIX-→					
WEIGHT	#/ GAL.	10.2	10.3	10.4	10.2		
VISCOSITY	MARSH SEC.	47	48	46	46		
WATER LOSS	CC/ 30 MIN.	14.6	13.0	14	14		
PH		6	7	7	7		
CHLORIDES	PPM	14,700	11,700	18,150	18,150		
REPORTED OIL GRAVITY	°API	20°	20°				

AVERAGES

FORMATION							
INTERVAL AVGD.: FROM	FEET						
TO	FEET						
PRODUCTIVE (2)	FEET						
NON-PRODUCTIVE	FEET						
CORE LOSS	FEET						
PROBABLE PRODUCTION							
POROSITY	%						
PERMEABILITY - HORZ.	MD.						
SATURATION:							
RESIDUAL OIL	% PORE SP.						
RESIDUAL WATER	% PORE SP.						
VACANT	% PORE SP.						
I.W.S. (3)	% PORE SP.						

WELL COMPLETION DATA

FLOWING 1 BARREL 7.6° API OIL/HOUR WITH CONSIDERABLE GAS. 4-23-54

CONTINENTAL OIL COMPANY

CORE ANALYSIS REPORT

RESULTS OF SMALL CORE ANALYSIS

OPERATOR CONTINENTAL OIL COMPANY WELL G. S. PENDLEY No. 1

LABORATORY No. BNJ

SAMPLE NO.	DEPTH FEET	POROSITY %	PERMEABILITY TO AIR MILLIDARCY (1)		SATURATION % PORE SPACE						
			HORIZONTAL	VERTICAL	OIL	WATER	VACANT	I.W.S. (3)			
MISSISSIPPI LIME											
16	4549	12.9	2.4		27	68	5				
17	4551	11.6	-.2		14	32	54				
19	4555	9.7	1.6		30	70	0				
20	4558	9.9	27		48	52	0				
22	4560	11.4	4.3		32	67	1				
24	4565	12.1	2.4		30	61	9				
25	4566	16.2	9.6		15	47	38				
26	4575	12.8	9.0		22	64	14				
27	4584	2.2	-.2								
30	4587	1.1	-.2								
31	4588	1.4	-.2								
32	4590	8.3	-.2								
33	4591	14.4	54		33	19	48				
35	4594	33.3	6.3		34	17	49				
37	4595	6.0	1.4								
											VUGGY

- (1) " - " INDICATES 'LESS THAN'
 (2) PROBABLE PRODUCTION IF COMPLETELY ISOLATED
 (3) IRREDUCIBLE INTERSTITIAL WATER SATURATION. VALUES MARKED BY AN ASTERISK (*) ARE LABORATORY DETERMINATIONS.
 (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

CORE ANALYSIS REPORT

RESULTS OF LARGE CORE ANALYSIS

OPERATOR CONTINENTAL OIL COMPANY WELL G. S. PENDLEY No. 1

LABORATORY No. BNJ

SAMPLE NO.	DEPTH FEET	POROSITY %	PERMEABILITY TO AIR MILLIDARCS (1)		NOTE					
			MAXIMUM	NORMAL TO MAX.						
1	4511	6.6								
2	4514	9.6	31	27						
3	4516	6.7	22	19						
3-A		8.7								
4	4520	11.2	31	22						
5	4521	13.4	18	17						
6	4523	8.4	31	25						
7	4525	10.6	11	9.9						
8	4526	8.0	17	6.3						
9	4528	14.9	8.2	6.3						
10	4531	12.3	5.7	3.3						
11	4533	19.8	12	IMP.						
12	4535	25.7	10	2.5						
13	4542	19.4	11	IMP.						
14	4544	13.3	38	13						
15	4548	18.6	5.6	2.6						
18	4552	11.3	321+	11	VF					
21	4559	14.7	66	47						
23	4562	15.2	266	151						
28	4585	5.9	421+	IMP.	VF					
29	4586	9.6	224+	144+	FS					
34	4592	9.7	319+	296+	FS					
36	4594	24.9	121	109	VUGGY					

VF = VERTICAL FRACTURE

HF = HORIZONTAL FRACTURE

FS = FRACTURE SYSTEM, BOTH VERTICAL AND HORIZONTAL

"+" INDICATES 'GREATER THAN'

(1) " - " INDICATES 'LESS THAN'

(2) PROBABLE PRODUCTION IF COMPLETELY ISOLATED

(3) IRREDUCIBLE INTERSTITIAL WATER SATURATION. VALUES MARKED BY AN ASTERISK (*) ARE LABORATORY DETERMINATIONS.

(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 G. S. PENDLEY No. 1 LABORATORY No. BNJ
 FIELD GERLANE REFERENCE ELEVATION 1422' RB MUD STARCH-IMPERMIX
 FORMATION MISSISSIPPI LIME AND CHAT

