

ORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

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CORE ANALYSIS RESULTS

Company PHILLIPS PETROLEUM COMPANY Formation GRAYBURG-SAN ANDRES File WP-3-3302
Well STATE "E" NO. 14 Core Type DIAMOND 4 3/8" Date Report 5-4-70
Field MALJAMAR Drilling Fluid WATER BASE MUD Analysts BOONE
County LEA State NEW MEX. Elev. Location 660 FN & 1980 FEL SEC 15-T17S-R33E

Lithological Abbreviations

SAND-SD SHALE-SH LIME-LM DOLOMITE-DOL CHERT-CH GYPSUM-GYP ANHYDRITE-ANHY CONGLOMERATE-CONG FOSSILIFEROUS-FOSS SANDY-SDY SHALY-SHY LIMY-LMY FINE-FN MEDIUM-MED COARSE-CSE CRYSTALLINE-XLN GRAIN-GRN GRANULAR-GRNL BROWN-BRN GRAY-GY VUGGY-VGY FRACTURED-FRAC LAMINATION-LAM STYLOLITIC-STY SLIGHTLY-SL/ VERY-V/ WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCY	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	

CONVENTIONAL ANALYSIS

4243.0-75.0 DOL, ANHY
75.0-77.0 SH, DOL
77.0-95.0 DOL, ANHY
95.0-97.0 ANHY
97.0-01.0 SS, ANHY, DOL
4301.0-07.0 DOL, ANHY
07.0-11.0 DOL, SHY, ANHY
11.0-27.0 DOL, ANHY
27.0-29.0 ANHY
29.0-30.0 DOL, SHY, ANHY
30.0-35.0 ANHY, DOL
35.0-41.0 DOL, ANHY
41.0-43.0 SH, DOL
43.0-44.0 ANHY, DOL
44.0-47.0 DOL, ANHY
47.0-56.0 DOL, SHY
56.0-81.0 DOL
81.0-86.0 DOL, SHY

1	86.0-87.0	1.0	5.2	25.0	48.0	SS, DOL
2	87.0-88.0	0.9	7.5	24.0	37.4	SS, DOL
3	88.0-89.0	3.0	8.4	16.7	42.0	SS, DOL
4	89.0-90.0	5.6	12.8	22.6	30.5	SS
5	90.0-91.0	0.8	8.5	14.1	28.2	SS, DOL
6	91.0-92.0	1.7	12.9	15.5	37.2	SS
7	92.0-93.0	0.4	7.9	17.7	40.5	SS, DOL
8	93.0-94.0	1.3	12.9	24.0	32.3	SS

94.0-07.5 DOL, ANHY
4407.5-08.0 SH
08.0-20.0 DOL, SHY
20.0-29.0 DOL
29.0-32.0 DOL, SDY
32.0-39.0 DOL
39.0-40.0 SS, DOL

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Well STATE "E" NO. 14

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYs	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
9	4440.0-41.0	1.9	17.0	9.4	41.8	SS
10	41.0-42.0	0.5	14.8	21.0	51.4	SS
11	42.0-43.0	<0.1	8.9	0.0	83.2	SS, DOL
	43.0-51.0	DOL				
	4451.0-53.0	DOL				
	53.0-56.0	DOL, SHY				
	56.0-64.0	DOL				
12	4464.0-65.0	0.1	6.2	14.5	21.0	DOL, SDY
	65.0-66.0	DOL				
	66.0-71.0	DOL, SHY				
	71.0-75.0	DOL				
	75.0-81.0	DOL, SHY				
13	4481.0-82.0	0.2	10	14.0	28.0	SS
14	82.0-83.0	1.2	12.6	15.9	33.3	SS
15	83.0-84.0	2.2	14.0	17.1	30.0	SS
16	84.0-85.0	3.4	14.0	19.3	27.2	SS
17	85.0-86.0	0.6	11.3	16.1	29.5	SS
	86.0-94.0	DOL, SHY				
	94.0-99.0	DOL				
	4499.0-03.0	LOST CORE				
	4499.0-03.0	DOL (RECOVERED FROM CORE ABOVE)				
	4503.0-21.0	DOL, ANHY				
	21.0-22.0	ANHY				
	22.0-31.0	DOL, ANHY				
	31.0-33.0	ANHY & DOL				
	4533.0-50.0	DOL, ANHY				
18	50.0-51.0	<0.1	3.8	13.2	29.0	DOL
	51.0-53.0	DOL				
	53.0-55.0	ANHY				
	55.0-62.0	DOL				
19	62.0-63.0	<0.1	4.7	10.6	23.5	DOL
20	63.0-64.0	0.4	6.8	13.2	22.1	DOL
21	64.0-65.0	0.2	6.6	10.6	28.8	DOL
22	65.0-66.0	<0.1	4.6	13.0	28.3	DOL
23	66.0-67.0	0.2	6.4	12.5	20.3	DOL
	67.0-90.0	DOL				
	90.0-00.0	SH				

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