

CORE ANALYSIS RESULTS

Company PHILLIPS PETROLEUM COMPANY Formation SAN ANDRES File WP-3-3353
 Well PHILMEX NO. 12 Core Type DIAMOND 4 1/4" Date Report 11-11-70
 Field MALJAMAR Drilling Fluid WATER BASE MUD Analysts BOONE:NEFF
 County LEA State NEW MEX. Elev. Location 660 FN & WL SEC 35-T17S-R33E

Lithological Abbreviations

SAND-SO SHALE-SH LIME-LM DOLOMITE-DOL CHERT-CH GYPSUM-GYP ANHYDRITE-ANHY CONGLOMERATE-CONG FOSSILIFEROUS-FOSS SANDY-SOY SHALY-SHY LIMY-LMY FINE-FN MEDIUM-MED COARSE-CSE CRYSTALLINE-XLN GRAIN-GRN GRANULAR-GRNL BROWN-BRN GRAY-GY UGGY-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	

WHOLE-CORE ANALYSIS

1	4640.0-41.8	<0.1	<0.1	2.6	16.4	71.2	DOL, ANHY
2	41.8-43.2	<0.1	<0.1	2.8	16.9	56.3	DOL, ANHY
3	43.2-45.0	<0.1	<0.1	2.8	10.6	67.2	DOL, ANHY
	4645.0-50.0						DOL, ANHY
4	50.0-51.5	<0.1	<0.1	2.2	7.8	45.0	DOL, ANHY
5	51.5-53.2	<0.1	<0.1	1.1	2.7	41.0	DOL, ANHY
6	53.2-55.0	<0.1	<0.1	2.1	10.6	72.8	DOL, ANHY, FRAC
7	55.0-56.0	1.0	<0.1	1.8	18.2	60.3	DOL, SHY, FRAC
8	56.0-57.8	<0.1	<0.1	0.9	3.3	68.6	DOL, ANHY, SL/FRAC
9	57.8-59.5	<0.1	<0.1	2.3	18.6	65.7	DOL, ANHY, SL/FRAC
10	59.5-61.4	0.9	0.5	2.6	24.5	32.6	DOL, ANHY, FRAC
11	61.4-63.3	1.3	0.4	5.7	11.3	27.5	DOL, ANHY, FRAC
12	63.3-65.0	<0.1	<0.1	3.0	6.3	51.0	DOL, ANHY
	4665.0-82.0						DOL, SHY
13	82.0-83.9	3.3	2.9	13.2	6.8	34.2	DOL, ANHY
14	83.9-85.5	1.3	1.2	8.1	4.7	42.8	DOL, ANHY
15	85.5-87.0	4.2	3.5	13.4	11.7	33.8	DOL, ANHY
16	87.0-88.5	1.5	1.0	9.3	7.5	30.2	DOL, ANHY
17	88.5-90.0	1.9	0.9	9.0	5.1	40.2	DOL, ANHY
18	90.0-91.6	1.1	0.9	7.7	12.4	43.4	DOL, ANHY, SL/FRAC
19	91.6-93.1	3.1	1.0	6.4	11.2	53.5	DOL, ANHY, SL/FRAC
20	93.1-94.7	0.7	0.6	6.1	10.2	36.2	DOL, ANHY
21	94.7-96.3	0.4	0.3	5.7	6.5	44.2	DOL, ANHY, SL/FRAC
22	96.3-98.0	0.8	0.4	5.1	9.1	45.0	DOL, ANHY
23	98.0-99.6	1.2	1.1	6.1	8.5	51.1	DOL, ANHY
24	4699.6-01.0	1.0	1.0	6.9	4.1	56.2	DOL, ANHY, SL/FRAC
25	4701.0-02.5	1.9	1.5	6.0	9.6	41.8	DOL, ANHY
26	02.5-04.0	1.9	1.7	6.8	9.0	48.7	DOL, ANHY, SL/VGY
27	04.0-05.8	0.8	0.6	8.0	11.0	45.7	DOL, ANHY
28	05.8-07.5	0.9	0.8	9.7	9.4	44.6	DOL, ANHY, SL/FRAC
29	07.5-09.0	0.7	0.5	6.9	9.0	58.4	DOL, ANHY, SL/FRAC
30	09.0-10.5	1.2	0.9	10.1	12.9	36.7	DOL, ANHY, SL/FRAC
31	10.5-12.0	3.8	3.7	14.0	8.4	40.2	DOL, ANHY, SL/FRAC

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

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Well PHILMEX NO. 12

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYs		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
					OIL	TOTAL WATER	
32.	4712.0-13.7	1.8	1.3	12.4	12.5	41.2	DOL, ANHY
33	13.7-15.3	1.4	1.2	12.4	4.0	39.3	DOL, ANHY
34	15.3-16.7	1.1	1.0	11.4	10.8	30.9	DOL, ANHY
35	16.7-18.4	5.0	4.8	15.3	13.8	30.6	DOL, ANHY
36	18.4-20.0	63	1.3	12.0	11.4	38.6	DOL, ANHY, FRAC
37	20.0-21.5	8.3	3.6	11.9	3.3	37.2	DOL, ANHY
38	21.5-23.1	1.1	0.9	7.8	9.6	34.8	DOL, ANHY
39	23.1-24.7	<0.1	<0.1	5.2	0.7	72.7	DOL, ANHY
40	24.7-26.5	0.3	0.2	5.8	3.6	34.5	DOL, ANHY, SL/FRAC
41	26.5-28.0	1.0	0.6	5.7	9.7	39.8	DOL, ANHY
42	28.0-29.5	0.5	0.4	5.7	9.3	44.4	DOL, ANHY
43	29.5-31.0	<0.1	<0.1	3.3	7.0	56.0	DOL, ANHY
44	31.0-32.6	0.3	0.3	4.6	10.8	65.0	DOL, ANHY, SL/VGY/FRAC
45	32.6-34.3	1.4	1.4	11.6	10.7	37.6	DOL, ANHY
46	34.3-36.2	1.7	1.3	11.3	8.8	28.8	DOL, ANHY
47	36.2-37.2	3.4	2.8	11.1	11.9	29.2	DOL, ANHY
48	37.2-38.5	5.7	5.4	12.3	9.8	31.6	DOL, OOLITIC
49	4738.5-40.0	52	47	13.6	4.8	39.9	DOL, OOLITIC

VERTICAL SCALE: 5" = 100'

CORE-GAMMA SURFACE LOG

COREGRAPH

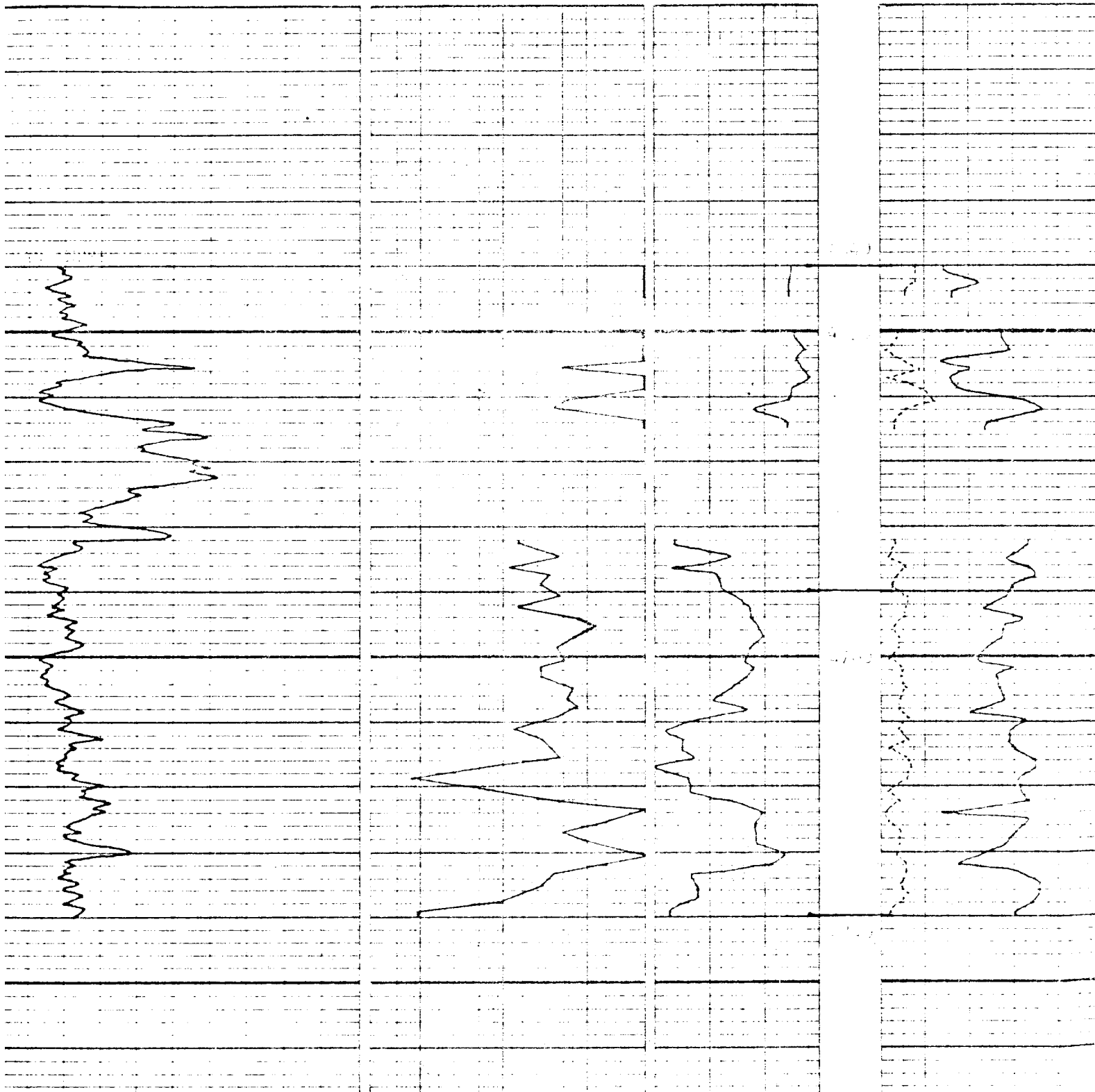
GAMMA RAY
RADIATION INCREASE
→

TOTAL WATER ———
PERCENT TOTAL WATER
80 60 40 20 0

PERMEABILITY ———
MILLIDARCY

POROSITY ———
PERCENT

OIL SATURATION ———
PERCENT PORE SPACE
0 20 40 60 80



INCLINATION REPORT

Field Name Undesignated - Grayburg/San Andres County Lea
Operator Phillips Petroleum Company Address Room B-2, Phillips Bldg. City Odessa, Texas
Lease Name Philmex Well No. 12 79760
Location Unit D, 660 feet from the north line and 660 feet from
west line of Section 35, Township 17-S, Range 33-E

<u>Depth (Feet)</u>	<u>Angle of Inclination (Degrees)</u>	<u>Depth (Feet)</u>	<u>Angle of Inclination (Degrees)</u>
370	1/4		
861	1/2		
1334	3/4		
1806	3/4		
2279	3/4		
2697	3/4		
3189	3/4		
3283	3/4		
3684	3/4		
3989	1-1/4		
4170	1-1/2		
4317	1-1/2		
4603	1-1/4		
4640	1-1/4		
4790	T.D.		

Heard and subscribed to before us, that the
19 70

17th day of November

J. C. Minott J. C. Minott
Notary Public in and for Ector