

Petroleum Reservoir Engineering DALLAS, TEXAS

PHILLIPS PETROLEUM CO.
E. VACUUM GRABURG S.A. UNIT 3229-005
E. VACUUM GRABURG SAN ANDRES FIELD
LEA COUNTY, NEW MEXICO

DATE : 5-6-79
FORMATION : GRABURG
DRILL FLUID: SALT BASE MUD
LOCATION : 1110' FSL & 1290' FWL, SEC. 32, T-17-S, R-35-E, SUR
FILE NO : 3202-11118
ANALYSTS : NEFF
ELEVATION: 3965' OL

FULL DIAMETER ANALYSIS

SAMPLE NUMBER	DEPTH	PERM. TO MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION
340	4511.0-12.0	18.	16.	16.1	30.4	23.4	2.87	DOL, ANHY, SL/V, STY
341	4512.0-13.0	32.	27.	16.0	31.5	21.8	2.86	DOL, ANHY, SL/V, STY
342	4513.0-14.0	8.2	*	13.9	37.8	27.6	2.85	DOL, ANHY, F, PP
343	4514.0-15.0	0.1	*	8.2	64.2	19.4	2.75	DOL, ANHY, SHR, F, PP
344	4515.0-16.0	<0.1	<0.1	8.8	58.0	14.0	2.78	DOL, ANHY, SHR, SL/F
345	4516.0-17.0	<0.1	*	9.1	64.1	19.4	2.74	DOL, ANHY, SHR, F
346	4517.0-18.0	1.1	0.9	6.9	36.7	25.7	2.77	DOL, ANHY, SHR, SL/F, PP, STY
347	4518.0-19.0	0.3	0.2	5.5	39.2	29.4	2.81	DOL, ANHY, SHR, SL/F, PP, STY
348	4519.0-20.0	1.1	0.3	5.2	38.6	28.6	2.84	DOL, ANHY, SL/F, PP, STY
349	4520.0-21.0	1.7	0.7	6.2	47.6	21.4	2.85	DOL, V/ANHY, SL/F, SL/V, STY
350	4521.0-22.0	2.5	2.2	8.0	27.3	27.3	2.89	DOL, V/ANHY, F, PP, STY
351	4522.0-23.0	0.2	0.1	10.5	50.9	19.8	2.73	DOL, ANHY, SHR, SL/V, SL/F, FOSS, STY
352	4523.0-24.0	15.0	1.6	8.8	46.3	22.2	2.78	DOL, ANHY, SHR, FOSS, SL/F, SL/V, STY
353	4524.0-25.0	4.0	1.8	10.3	26.7	26.7	2.80	DOL, ANHY, SHR, FOSS, SL/F, V, STY
354	4525.0-26.0	24.	5.9	7.4	32.3	36.5	2.83	DOL, ANHY, SL/F, SL/V, FOSS, STY
355	4526.0-27.0	32.	18.	8.6	37.1	23.3	2.81	DOL, ANHY, SL/F, SL/V, FOSS, STY
356	4527.0-28.0	8.9	7.8	6.2	42.9	22.9	2.80	DOL, ANHY, FOSS, SL/F, PP, STY
357	4528.0-29.0	2.3	1.9	5.0	20.9	29.1	2.86	DOL, ANHY, SL/F, PP, STY
358	4529.0-30.0	37.	14.	6.5	12.6	29.4	2.85	DOL, ANHY, SL/F, PP, STY
359	4530.0-31.0	1.6	0.8	4.9	43.6	23.1	2.83	DOL, ANHY, SL/F, PP, STY
360	4531.0-32.0	8.0	7.1	6.3	36.1	22.9	2.84	DOL, ANHY, SL/F, PP, STY
361	4532.0-33.0	<0.1	<0.1	3.4	35.6	24.7	2.86	DOL, ANHY, SHR, FOSS, SL/F, PP, STY
362	4533.0-34.0	1.6	0.7	5.4	33.7	21.1	2.82	DOL, ANHY, SL/F, PP, STY
363	4534.0-35.0	1.8	1.7	5.4	38.6	28.6	2.81	DOL, ANHY, SL/F, PP, STY
364	4535.0-36.0	0.2	0.2	0.5	20.0	60.0	2.86	DOL, ANHY, SL/F, STY

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted), but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well, or sand in connection with which such report is used or relied upon.