

FIELD DATA REPORT

CORE LABORATORIES, INC.

COMPANY PHILLIPS PETROLEUM COMPANY DATE 26/11/70 FILE NO. U.K.C.A. 327
 WELL 2/4-5X FIELD Ekofisk COUNTY North Sea STATE Norway

CORES _____ DRILLING FLUID _____

DEPTH FEET	PERMEABILITY MILLIDARCYs		POROSITY PER CENT	RESIDUAL LIQUID SATURATION			DEPTH - PRODUCTION	REMARKS		
	ka	kl		OIL % VOL.	% PORE	TOTAL WATER % PORE		FORMATION DESCRIPTION	ODOR	FLUORESCENCE
161	1.3	0.9	25.0				10423 10423			
164	0.18	0.11	20.2				10426			
165	5.9	4.4	23.7				27			
166	1.09	0.74	23.7				28			
167	4.1	3.0	24.1				29			
168	1.2	0.8	21.9				30			
●	0.46	0.29	18.2				31			
170	0.42	0.27	16.7				32			
171	2.1	1.5	26.7				33			
172	0.99	0.67	23.9				34			
173	1.7	1.2	24.6				35			
174	0.92	0.62	25.2				36			
175	10.4	8.1	26.8				37	fractured. (perm)		
176	2.1	1.5	26.8				38			
177	2.5	1.8	30.5				39			
178	6.1	4.6	35.6				40			
●	4.1	3.0	35.4				41			
180	3.0	2.2	30.7				42			
181	5.0	3.7	29.9				43			
182	8.3	6.4	32.2				45			
183	4.1	3.0	29.0				46			
184	5.8	4.4	30.9				47			
185	6.4	4.8	31.7				48			
186	6.6	5.0	25.8				49			
187	5.9	4.4	32.8				10450			

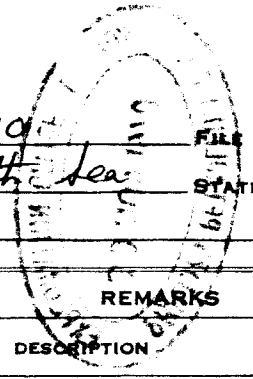
- (1) ALTERED CORE
 (2) EXPOSED CORE
 (3) INSUFFICIENT SAMPLE

- (4) CORE CONTAMINATED BY DRILLING FLUID
 (5) REFER TO ATTACHED LETTER

This Is A Field Copy of Data Submitted Upon Request and Is Not A Final Report

**FIELD DATA REPORT
CORE LABORATORIES, INC.**

COMPANY Phillips Petroleum Company DATE 26/11/70 FILE No UKCA 327
 WELL 2/4-5X FIELD Ekofisk COUNTY North Sea STATE Norway
 CORES _____ DRILLING FLUID _____



Sample DEPTH FEET	PERMEABILITY MILLIDARCS		POROSITY PER CENT	RESIDUAL LIQUID SATURATION			Depth PROBABLE PRODUCTION	REMARKS		
	Ka	Ki		OIL		TOTAL WATER % PORE		FORMATION DESCRIPTION	ODOR	FLUORESCENCE
				% VOL.	% PORE					
188	7.1	5.4	33.5				10451			
189	5.1	3.8	30.6				52			
190	8.0	6.2	34.8				53			
191	5.5	4.1	32.6				54			
192	5.9	4.4	31.8				55			
193	4.7	3.5	31.2				57			
5	3.5	2.5	29.9				59			
6	2.5	1.8	28.3				60			
197	1.6	1.1	24.4				61			
198	3.9	2.9	24.4				62			
199	1.4	1.0	24.6				63			
200	1.3	0.9	25.5				10464			

- (1) ALTERED CORE
- (2) EXPOSED CORE
- (3) INSUFFICIENT SAMPLE

- (4) CORE CONTAMINATED BY DRILLING FLUID
- (5) REFER TO ATTACHED LETTER

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CORE LABORATORIES, INC.
 Petroleum Reservoir Engineering
 DALLAS, TEXAS

File UKCA 327 Page No. 3
 Well 2/4-5X

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYs	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
<u>ORE NO 5</u>						
		Ka	Kl			
9	10514	4.7	3.5	37.0		Chk, 1st highly xln
0	15	12.0	10.0	37.3		AA Perm, frac
1	17	2.5	1.8	34.1		AA
	18	2.0	1.4	32.1		AA
	19	0.78	0.52	29.9		AA
4	20	0.80	0.54	28.9		AA
5	21	0.98	0.67	23.1		AA
6	22	0.85	0.57	20.9		AA
7	23	1.3	0.9	25.0		AA
8	24	1.2	0.8	37.0		AA
9	25	0.99	0.67	24.9		AA
3	26	0.18	0.11	20.2		AA
4	27	5.9	4.4	23.7		AA
5	28	1.09	0.74	23.7		AA
5	29	4.1	3.0	24.1		AA
7	30	1.2	0.8	21.9		AA
8	31	0.46	0.29	18.2		AA
9	32	0.42	0.27	16.7		AA
0	33	2.1	1.5	26.7		AA
1	34	0.99	0.67	23.9		AA
2	35	1.7	1.2	24.6		AA
3	36	0.92	0.62	25.2		AA
4	37	10.4	8.1	26.8		AA Frac (perm)
5	38	2.1	1.5	26.8		AA
5	10539	2.5	1.8	30.5		AA

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

File UKCA 327 Page No. 4
Well 2/4-5X

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYs	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
<u>WELL NO 5</u>						
		Ka	Kl			
67	10540	6.1	4.6	35.6		Chk, 1st highly xln
68	41	4.1	3.0	35.4		AA
69	42	3.0	2.2	30.7		AA
70	43	5.0	3.7	29.9		AA
71	45	8.3	6.4	32.2		AA
72	46	4.1	3.0	29.0		AA
73	47	5.8	4.4	30.9		AA
74	48	6.4	4.8	31.7		AA
75	49	6.6	5.0	25.8		AA
76	50	5.9	4.4	32.8		AA
77	51	7.1	5.4	33.5		AA
78	52	5.1	3.8	30.6		AA
79	53	8.0	6.2	34.8		AA
80	54	5.5	4.1	32.6		AA
81	55	5.9	4.4	31.8		AA
82	57	4.7	3.5	31.2		AA
83	59	3.5	2.5	29.9		AA
84	60	2.5	1.8	28.3		AA
85	61	1.6	1.1	24.4		AA
86	62	3.9	2.9	24.4		AA
87	63	1.4	1.0	24.6		AA
88	105 64	1.3	0.9	25.5		AA

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WEST EKOFISK

CORE ANALYSIS RESULTS

Company Phillips Petroleum Co. Formation _____ File U.K.C.A. 318
 Well 2/4-5X Core Type _____ Date Report 26.10.70.
 Field WEST EKOFISK Drilling Fluid _____ Analysts RFB
 County _____ State _____ Elev. _____ Location Norway, N. Sea

Lithological Abbreviations

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

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCY		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
		PERM - MAX	PERM - 50%		OIL	TOTAL WATER	
CORE NO 1.		Ka	Kl				
1	10,235	0.2	0.1	26.4			
	36	0.2	0.1	25.9			
	37	1.1	0.7	32.1			
4	38	3.1	2.2	29.7			Plug has a fracture
5	39	5.7	4.3	33.3			
6	40	6.5	4.9	32.8			
7	41	1.1	0.8	30.4			
8	42	0.1	0.08	21.7			
9	43	0.3	0.2	24.7			
10	44	8.7	6.7	39.4			
11	45	5.8	4.4	35.9			
12	46	8.7	6.7	40.2			
13	47	5.1	3.8	36.8			
	48	11.1	8.7	23.3			
15	49	0.1	0.08	25.7			
16	50	1.3	0.9	40.3			
17	51	0.3	0.2	30.2			
18	52	0.03	0.02	28.6			
19	53	0.5	0.3	31.4			
20	54	1.6	1.1	40.8			
21	55	3.0	2.2	39.9			
22	56	2.3	1.6	41.3			
	57	0.6	0.4	27.9			
24	58	4.2	3.1	25.9			Plug has vugs
25	59	2.8	2.0	39.7			
26	10,260	0.6	0.4	31.3			

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CORE LABORATORIES. INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

File UKCA 318 Page No. 2
 Well 2/4-5X

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYs		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
		Ka	Kl		OIL	TOTAL WATER	
<u>Core No.2 Continued</u>							
55	10,312	3.8	2.8	40.8			Ls, chk, wh, finely gran, tr arg mat, hd.
56	13	1.9	1.3	32.6			AA
57	14	0.4	0.2	29.2			AA vfg, Fe-stains from vf Fe-coated qtz grs.
58	15	0.8	0.6	32.2			AA v hd.
59	16	0.6	0.4	29.4			AA tr arg mat & min grs.
60	17	2.9	2.1	38.5			AA occ v f shell frags.
61	18	0.9	0.7	33.1			AA occ v f soln cavs.
62	19	0.3	0.2	25.4			AA still v hd.
63	20	1.7	1.2	31.1			AA
64	21	0.8	0.6	28.5			AA v small calcite, filled soln cavs.
65	22	3.0	2.2	39.5			AA v f bioturbated arg mat.
66	23	0.8	0.6	31.5			AA v f bioturbated arg mat.
67	24	0.8	0.6	30.8			AA v f bioturbated arg mat.
68	25	0.4	0.3	27.4			AA still v hd.
69	26	0.7	0.4	29.1			AA
70	27	0.6	0.4	30.9			AA weak stylolitic develop.
71	28	0.9	0.7	31.5			AA
<u>CORE NO. 3</u>							
72	29	0.8	0.6	33.1			AA
73	30	33.7	28.0	33.8			AA - Plug Fractured.
74	31	0.5	0.3	29.3			AA
75	32	1.0	0.7	32.8			AA lenses of v f arg mat.
76	33	2.3	1.6	34.1			AA
77	34	0.4	0.2	25.8			AA re X patches?
78	35	3.6	2.6	35.8			AA
79	36	1.0	0.7	28.8			AA
80	37	0.3	0.2	22.8			AA re X patches.
81	38	0.4	0.2	24.7			AA re X patches.
82	10,339	2.2	1.6	31.5			AA f soln cavs.

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
 DALLAS, TEXAS

File UKCA 318 Page No. 3
 Well 2/4-5X

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
<u>Core No.3 Continued</u>		Ka	Kl			
83	10,340	0.3	0.2	23.4		Ls, wh chalky, v f gr, v hd, re X patches? f soln cavs.
84	41	0.4	0.2	26.0		AA re X patches, fine soln cavs.
85	42	1.8	1.3	29.7		AA sl coarser, weak styl develop.
86	43	0.5	0.3	22.3		AA re X patches, soln cavs.
87	44	0.08	0.04	17.9		AA v hd, re X patches.
88	45	2.5	1.8	31.9		AA weak styl develop.
89	46	0.1	0.06	17.4		AA v hd, much re X
90	47	3.5	2.5	35.4		AA sl coarser & softer.
91	48	0.3	0.2	24.0		AA v hd.
92	10,349	0.3	0.2	25.2		AA, re X patches, hd.

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CORE LABORATORIES, INC.
 Petroleum Reservoir Engineering
 DALLAS, TEXAS

File UKCA 327 Page No. 2
 Well 2/4-5X

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYs		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
					OIL	TOTAL WATER	
		Ka	Kl				
27	10382	0.66	0.44	33.4			Chk, 1st highly xln
28	83	2.5	2.1	34.4			AA
29	84	1.4	1.0	30.9			AA
30	85	1.9	1.5	36.6			AA
31	86	0.81	0.54	34.6			AA
	87	0.78	0.52	35.9			AA
33	88	0.68	0.45	34.0			AA
34	89	0.86	0.58	30.3			AA
35	90	0.63	0.42	30.1			AA
36	91	7.1	5.4	36.1			AA
37	92	1.2	0.8	31.7			AA
38	93	0.89	0.60	30.3			AA
39	95	2.2	1.8	34.5			AA
40	96	0.98	0.67	31.6			AA
41	97	0.30	0.19	29.1			AA
42	98	1.8	1.5	27.6			AA
43	99	6.4	4.8	28.7			AA
44	10400	1.17	0.80	35.2			AA
45	01	2.1	1.5	37.3			AA
46	02	0.25	0.16	22.0			AA
47	03	0.33	0.21	24.4			AA
48	04	4.0	2.9	34.0			AA
49	05	0.36	0.23	25.2			AA
50	06	0.04	0.02	10.3			AA
51	07	0.5	0.32	21.5			AA
52	09	3.7	2.7	36.6			AA

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CORE ANALYSIS RESULTS

Company Phillips Petroleum Company Formation _____ File UKCA 327
 Well 2/4-5X Core Type _____ Date Report 19.11.70.
 Field Ekofisk Drilling Fluid _____ Analysts R. F. B.
 County North Sea State NORWAY Elev. _____ Location _____

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 - GRV VUGGY - VUGV	FRACTURED - FRAC LAMINATION - LAM STYLOLITIC - STV	SLIGHTLY - SL/ VERY - V/ WITH - W/
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SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYs		POROSITY PER CENT	RESIDUAL SATURATION PER CENT POSE		SAMPLE DESCRIPTION AND REMARKS
		XXXXX XXXX	XXXXX XXX		OIL	TOTAL WATER	

Ka K1

CORE NO 4

	10350	5.5	4.1	39.8			Chk, 1st highly xln
2	51	4.4	3.3	37.0			AA
	52	2.2	1.6	29.6			AA
4	53	7.4	5.7	23.3			AA
5	54	3.0	2.2	32.4			AA
6	55	0.49	0.62	29.9			AA
7	56	1.3	0.9	30.2			AA
8	57	0.21	0.13	18.8			AA
9	58	0.13	0.08	18.3			AA
	59	1.15	0.80	27.0			AA
11	60	0.43	0.28	15.5			AA
12	62	1.2	0.8	26.6			AA
13	64	0.92	0.62	35.6			AA
	65	3.4	2.5	37.2			AA
15	66	0.25	0.16	30.0			AA
16	67	4.6	3.4	38.0			AA
17	68	51.0	43.0	33.0			AA frac
18	69	1.4	1.0	32.3			AA
19	74	0.41	0.26	29.4			AA
20	75	0.50	0.32	29.1			AA
21	76	0.60	0.39	35.0			AA
22	77	0.89	0.60	39.2			AA
	78	0.58	0.38	33.6			AA
24	79	1.3	0.9	36.6			AA
25	80	1.02	0.69	35.7			AA
26	10381	0.47	0.30	37.4			AA

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CORE ANALYSIS RESULTS

Company PHILLIPS PETROLEUM CO. Formation _____ File UKCA 318
 Well 2/4-5X Core Type _____ Date Report 30.10.70
 Field EKOFISK Drilling Fluid _____ Analysts R.F.B.
 County NORTH SEA State NORWAY Elev. _____ Location _____

Lithological Abbreviations

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

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCY		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
		PERM - HAN	PERM - USE		OIL	TOTAL WATER	
		Ka	Kl				
<u>CORE NO. 2</u>							
32	10,289	5.1	3.8	31.7			Ls, chk, wh, finely gran, tr arg mat, hd.
33	90	0.4	0.3	36.8			AA
34	91	2.0	1.4	37.8			AA
35	92	0.5	0.3	38.3			AA v small soln cavity on frac, tr arg mat.
36	93	1.4	1.0	37.2			AA sl coarser & softer inter-gran pores.
37	94	3.1	2.2	39.3			AA
38	95	4.4	3.3	40.6			AA & occ small iron-stained qtz grs.
	96	3.3	2.4	40.1			AA & v f organic mat.
40	97	4.3	3.2	41.1			AA
41	98	2.6	1.9	36.8			AA
	99	2.3	1.6	37.3			AA
43	10,300	5.6	4.2	42.7 ✓			AA
44	01	2.5	1.8	39.5			AA
45	02	0.8	0.6	36.2			AA sl increase in v f qtz grs.
46	03	1.8	1.3	36.8			AA
47	04	1.7	1.2	33.8			AA
48	05	4.3	3.1	39.1			AA
49	06	1.8	1.3	35.3			AA, increase in v f qtz grs, min grs & arg mat.
50	07	4.1	2.9	37.6			AA good inter gran pores, vis.
1	08	0.6	0.4	34.2			AA
52	09	0.6	0.4	34.1			AA
53	10	2.5	1.8	37.3			AA
54	10,311	0.8	0.6	33.8			AA

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
 DALLAS, TEXAS

File U.K.C.A. 318 Page No. 2

Well 2/4-5X

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYs		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
					OIL	TOTAL WATER	
		Ka	Kl				
27	10,261	0.7	0.5	35.6			
28	62	0.7	0.5	35.7			
29	63	0.9	0.7	38.1			
30	64	0.9	0.7	36.2			
31	10,265	0.2	0.1	26.2			

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