

# GECO



## GEOPHYSICAL CC

A subsidiary of Det norske V

Denne rapport  
tilhører

**STATOIL**

# UND-ARKIVET

L.NR. 20088380023

KODE Well 31/2-4 nr 26

Returneres etter bruk

A/S Norske Shell  
P.O.Box 10  
4033 Forus  
att: Peter Stacher

**WORK COPY**

UND — ARKIVET	
Nr.:	

Date 10.07.1981  
FB/rr/147 lab

List of results from well: 31/2-4, frozen cores

11703

According to telephone conversation with you July 10th, 81 we send you enclosed a list of porosity and air permeability data of well: 31/2-4.

On core no. 19 and 20, some of the samples have not yet been analyzed. In the list those samples are indicated only by the depths.

Should you have further questions, please do not hesitate to get in touch with us.

Very truly yours  
GEOPHYSICAL COMPANY OF NORWAY A/S

FRED BRATTELI

Enclosures

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Telex: 25-910-881-5396

Singapore office:  
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(Podium Block)  
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# GECO



## GEOPHYSICAL COMPANY OF NORWAY A/S

A subsidiary of Det norske Veritas and A S Kongsberg Vapentabrikk

A/S Norske Shell  
P.O.Box 10  
4033 Forus  
att: Peter Stacher

13 JUL 1981

EPX/11

**WORK COPY**

UND — ARKIVET	
Nr.:	

Date 10.07.1981  
FB/rr/147 lab

List of results from well: 31/2-4, frozen cores

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According to telephone conversation with you July 10th, 81 we send you enclosed a list of porosity and air permeability data of well: 31/2-4.

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FRED BRATTELI

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Telex: 33122

# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....

Well ..... 31/2-4 ..... Frozen Cores ..... Core ..... no. 5 .....

Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1365.20	35	29	0.15	0.09	27.5				2.69	
1365.68	n.p.p.									
1367.00	56.3	48			32.7				2.69	
1367.35	204	184			35.4				2.67	
1367.70	588	558			31.1				2.67	
1368.28	434	404	307	277	35.4				2.65	
1368.62	591	561			36.2				2.69	
1369.00	576	546			35.5				2.68	
1369.35	642	612			36.3				2.67	
1369.70	355	325			35.1				2.67	
1370.05	540	530	471	441	37.8				2.69	
1370.40	694	664			38.1				2.67	
1370.75	292	272			36.6				2.67	
1371.10	655	625			28.9				2.65	
1371.60	549	519	378	348	36.7				2.66	
1371.95	293	273			36.1				2.68	
1372.30	632	602			37.3				2.67	
1372.65	385	355			35.0				2.65	
1372.98	337	307			35.6				2.65	
1373.31	655	625			37.1				2.68	



# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....

Well ..... 31/2-4 Frozen Cores ..... Core ..... 6 .....

Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1379.00	43.2	36			32.1				2.53	
1379.30	70.9	62			32.5				2.48	
1379.60	46.9	40			32.4				2.53	
1379.90	51.2	43			31.9				2.56	
1380.20	41.5	35			32.1				2.58	
1380.50	0.07	0.04			3.9				2.70	
1380.80	0.05	0.03			1.5				2.69	
1381.10	67.5	59			32.7				2.70	
1381.42	191	171			36.0				2.68	
1381.70	31.8	27			33.0				2.68	
1382.00	59.3	51			31.1				2.60	
1382.32	1967	1907			29.5				2,65	
1382.60	7258	7158			38.7				2.65	
1382.96	n.p.p.									
1383.32	10990	10840	9151	9001	35.1				2.62	
1383.60	n.p.p.									
1383.92	9644	9494			38.9				2.65	
1384.20	4733	4653			38.3				2.67	
1384.50	6371	6271			38.8				2.65	
1384.80	n.p.p.									

# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....  
 Well ..... 31/2-4 Frozen Cores ..... Core ..... 6 .....  
 Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1385.10	10350	10200			40.4				2.66	
1385.40	5822	5742			37.8				2.63	
1385.70	6384	6284			37.0				2.65	
1386.00	1145	1095			35.8				2.63	
1386.30	3666	3586			35.7				2.66	
1386.30			1685	1635	35.1				2.68	
1386.58	6741	6641			35.0				2.62	
1386.90	5863	5763			34.6				2.63	
1387.20	5432	5352			39.4				2.66	
1387.56	5578	5498			35.4				2.63	
1387.84	n.p.p.									
1388.20	4784	4704			35.7				2.64	
1388,45	6726	6626			37.2				2.63	
1388.75	5865	5765			39.8				2.65	
1389.15	5215	5135			33.8				2.64	
1389.46	10482	10357			37.9				2.64	
1389.46			5772	5692	36.2				2.62	
1389.82	9524	9399			36.0				2.64	
1390.15	9170	9045			36.6				2.63	
1390.52	7680	7580			33.0				2.63	
1390.85	0.02	0.01			1.0				2.68	
1391.18	7279	7179	4309	4229	38.4				2.65	

# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....  
 Well ..... 31/2-4 ..... Core ..... No 6 .....  
 Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1391.50	2920	2860			33.4				2.64	
1391.82	5026	4946			37.0				2.66	
1392.19	1639	1589			34.2				2.66	
1392.55	5330	5250			37.1				2.65	
1392.92	5686	5600	5600	3781	37.3				2.67	
1393.30	4309	4229			35.8				2.64	
1393.60	5392	5312			35.2				2.65	
1394.08	3393	3313			33.7				2.65	
1394,40	9977	9852			36.3				2.64	
1394.75	8734	8619	13910	13760	36.3				2.66	
1395.10	487	457			31.8				2.61	
1395.42	7217	6217			38.6				2.64	
1395.85	4267	4187			35.2				2.64	
1396,25	2435	2355			34.2				2.63	
			End of core no. 6							

# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....

Well ..... 31/2-4 ..... Core ..... No. 7 .....

Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1397.45	3810	3730	4467	4387	37.0				2.67	
1397.80	6475	6375			35.6				2.66	
1398.13	154	139			34.5				2.62	
1398.55	0.02	0.01			0.8				2.68	
1398.90	0.34	0.21			8.0				2.66	
1399.25	162	146	206	186	29.9				2.63	
1399.57	83	73			29.6				2.65	
1399.92	675	645			35.1				2.65	
1400.37	3030	2950			31.5				2.65	
1400.69	0.75	0.53			16.6				2.68	
1401.05	8284	8159	135	121	35.5				2.65	
1401.33	515	485			29.8				2.67	
1401.65	9869	9739			35.8				2.66	
1402.00	15781	15581			37.6				2.66	
1402.30	6847	6747			37.2				2.64	
1402.65	10851	10701	n.v.p.		36.2				2.65	
1402.92	n.p.p.									
1403.24	81	71			31.5				2.65	
1403.60	390	360			37.1				2.68	
1403.93	434	404			35.2				2.65	



# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....

Well ..... 31/2-4 ..... Core ..... No. 7 .....

Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1404.25	408	378	164	148	34.8				2.62	
1404.52	7556	7456			38.4				2.67	
1404.85	4140	4060			39.5				2.65	
1405.18	6333	6233			36.1				2.65	
1405.50	12509	12384			35.6				2.67	
1405.85	4240	4160	n.v.p		33.4				2.67	
1406.18	8027	7902			34.7				2.72	
1406.50	8221	8096			35.3				2.67	
1406.98	5785	5705			33.3				2.66	
1407.30	10376	10251			34.8				2.67	
1407.65	148	133	844	804	13.1				2.68	
1408.04	179	159			32.9				2.68	
1408.32	215	195			33.1				2.64	
1408.65	2211	2151			34.1				1.66	
1408.95	n.p.p.									
1409.25	1177	1117	3603	3523	36.3				2.67	



# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....  
 Well ..... 31/2-4 ..... Core ..... No. 9 .....  
 Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1415.79	20875	20625			30.8				2.65	
1416.12	7759	7634			34.4				2.65	
1416.45	6560	6460			35.5				2.64	
1416.86	18070	17870			35.4				2.65	
1417.13	10003	9878	n.v.p.p.		35.2				2.67	
1417.45	6881	6781			36.3				2.66	
1417.77	8729	8604			35.4				2.66	
1418.02	n.p.p.									
1418.25	n.p.p.									
1418.59	4649	4569	3660	3580	33.3				2.66	
1418.91	542	512			30.5				2.67	
1419.23	5107	5027			31.2				2.65	
1419.57	2510	2430			32.4				2.63	
1419.91	4232	4152			30.5				2.64	
1410.33	17289	17089	6636	6536	30.6				2.64	
1420.55	7329	7229			32.5				2.64	
1420.80	n.p.p.									
1422.70	3208	3128			32.7				2.63	
1423.02	6959	6859			33.1				2.62	
1423,30	5240	5160	4993	4913	33.1				2.61	



# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....  
 Well ..... 31/2-4 ..... Core ..... No. 11 .....  
 Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1443.62	4755	4675			30.1				2.66	
1444.00	12374	12269			30.3				2.64	
1444.30	12446	12321			30.1				2.63	
1444.65	1594	1544			26.5				2.63	
1445.00	19588	19338	15821	15621	32.5				2.61	
1445.40	22070	21770			32.9				2.61	
1445.75	n.p.p.									
1446.10	2604	2524			32.2				2.61	
1446.40	1790	1730			31.3				2.60	
1446.75	19230	18980	4963	4883	31.3				2.61	
1447.40	n.p.p.									
1447.35	20445	20155			31.6				2.61	
1447.70	25510	25160			29.3				2.62	
1448.04	25074	24724			33.2				2.61	
1448.36	5208	5128	3577	3497	30.9				2.60	
1448.68	13345	13195			34.1				2.61	
1449.00	16535	16285			33.2				2.61	
1449.31	17607	17357			32.0				2.61	
1449.60	5385	5303			31.07				2.62	
1449.90	6526	6426	5871	5771	33.4				2.62	



# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....  
 Well ..... 31/2-4 ..... Core ..... No. 12 .....  
 Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1452.53	13897	13697			32.5				2.62	
1452.85	18706	18456	14095	13895	32.3				2.63	
1453.18	18977	18727			34.0				2.62	
1453.51	22034	21736			33.7				2.62	
1453.83	23879	23579			34.4				2.63	
			End of core no. 12							

# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981.....  
 Well ..... 31/2-4 ..... Core ..... No. 13 .....  
 Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1454.40	19208	18958			30.2				2.64	
1454.82	16260	16010	19987	19737	30.5				2.61	
1455.15	22389	22089			29.9				2.64	
1455.48	33350	32950			31.1				2.64	
1455.86	21064	20764			31.1				2.63	
1456.24	28854	28504			30.1				2.64	
1456.55	37303	36903	35464	35064	31.9				2.62	
1456.88	45133	44633			31.8				2.63	
1457.20	48454	47954			33.0				2.63	
1457.55	21181	20881			25.5				2.63	
1457.85	28043	27693			33.3				2.63	
1458.15	17391	17141	9979	9854	34.8				2.63	
1458.45	55774	55174			33.3				2.63	
1458.85	73672	72972			30,3				2.62	
1459.17	20361	20061			30.2				2.60	
1459.48	19673	19423			32.2				2.62	
1459.84	15302	15102	1199	1149	35.2				2.62	
1460.27	616	586			31.2				2.61	
1460.65	333	303			26.1				2.63	
1460-95	105	93			28.2				2.58	



# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....

Well ..... 31/2-4 ..... Core ..... No. 13 .....

Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1461.30	35	29			24.2				2.53	
1461.62	19	15	8.3	6.4	23.0				2.52	
1461.95	14	11			23.6				2.55	
1462.28	2.6	1.9			21.0				2.56	
1462.60	0.63	0.42			20.6				2.49	
1462.93	5.7	4.3			22.1				2.51	
1463.35	0.117	0.07	0.072	0.04	24.1				2.48	
1463.67	0.50	0.32			24.6				2.55	
1464.00	0.57	0.37			22.8				2.56	
1464.31	3.9	2.9			22.2				2.60	
1465.04	11.8	9.3	n.v.p.		22.2				2.60	
1466.83	15	12			23.7				2.61	
1464.65	0.028	0.01			1.2				2.64	
			End of core no. 13							

# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....

Well ..... 31/2-4 ..... Core ..... No. 14 .....

Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1472.70	32	27			27.9				2.63	
1473.01	3.0	2.2			27.2				2.56	
1473.38	39	33			27.9				2.61	
1473.70	5.8	4.4	0.47	0.30	26.1				2.60	
1474.13	1.8	1.3			29.5				2.49	
1474.46	12	10			29.6				2.56	
1474.77	4.8	3.6			24.0				2.61	
1475.10	20	16			26.4				2.60	
1475.40	n.p.p									
1475.73	n,p,p,									
1476.05	12	10			23.1				2.65	
1476.36	32	27			28.3				2.68	
1476.69	29	24			29.2				2.64	
1477.00	4.2	3.1	2.3	1.6	27.4				2.61	
1477.33	71	62			31.3				2.63	
1477.68	14	11			27.5				2.63	
1478.01	16	13			27.9				2.63	
1478.34	5.6	4.2			26.4				2.62	
1478.67	13	10	3.4	2.5	27.9				2.63	
1479.00	37	31			30.4				2.61	



# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....  
 Well ..... 31/2-4 ..... Core ..... No. 16 .....  
 Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1484.55	2.4	1.7			24.7				2.58	
1484.88	8.3	6.4	10	7,8	26.3				2.65	
1485.22	8.0	6.1			25.8				2.59	
1485.55	1.3	0.91			25.6				2.69	
1485.88	6.2	4.7			31.8				2.62	
1486.19	5.7	4.3			31.6				2.61	
1486.52	3.7	2,7	2,3	1,6	26,1				2,66	
1486.85	6.9	5.2			27.1				2.62	
1487.14	25	21			29.3				2.60	
1487.47	6.7	5.1			27.3				2.61	
1487.80	8.2	6.3			27.3				2.66	
1488.18	n.m.p.		0.08	0.05	22.3				2.91	
1488.50	0.11	0.06			6.6				2.73	
1488.83	0.62	0.41			22.2				2.62	
1489.16	0.79	0.53			22.4				2.61	
1489.49	4.8	3.6			26.7				2.65	
1489.89	0.017	0.10	0.023	0.01	0.9				2.66	

# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....  
 Well ..... 31/2-4 ..... Core ..... No. 17 .....  
 Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1490.09	0.017	0.01			0.4				2.70	
1490.42	4.0	2.9			23.5				2.69	
1490.73	6.0	4.5			27.3				2.84	
1491.05	1.3	0.91			25.0				2.68	
1491.35	6.2	4.7	3.0	2.2	28.5				2.74	
1491.68	2.0	1.4			25.1				2.67	
1492.01	3.9	2.9			25.6				2.67	
1492.33	3.6	2.6			26.5				2.68	
1492.65	0.68	0.45			23.3				2.72	
1492.96	1.2	0.83	0.66	0.44	24.4				2.71	
1493.29	1.5	1.0			23.6				2.66	
1493.62	2.7	1.9			24.9				2.67	
1493.95	0.024	0.01			4.8				2.71	
1494.28	0.021	0.01			4.1				2.68	
1494.73	0.98	0.44	0.44	0.28	24.1				2.69	
1495.03	0.75	0.50			24.4				2.70	
1495.33	n.m.p.				24.8				2.64	
1495.66	1.7	1.2			24.8				2.61	
1495.99	3.4	2.5			25.3				2.63	
1496.45	4.6	3.4	1.11	0.8	25.5				2.64	

# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....  
 Well ..... 31/2-4 ..... Core ..... No. 17 .....  
 Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1496.73	n.m.p.									
1497.10	n.m.p.		n.p.p.		26.0				2.65	
1497.43	0.024	0.01			1.9				2.71	
1497.74	0.024	0.01			1.4				2.69	
1498.01	3.4	2.5	0.57	0.37	25.1				2.64	
1498.33	1.9	1.3			25.4				2.62	
1498.58	1.2	0.83			25.2				2.72	
1498.91	1.9	1.3			24.9				2.62	
1499.23	4.8	3.6			27.5				2.63	
1499.55	4.8	3.6	2.4	1.7	28.8				2.66	
1499.88	3.4	2.5			28.3				2.70	
1500.20	24	20			29.1				2.70	
1500.51	4.6	3.4			26.8				2.63	
1500.82	4.6	3.4			29.0				2.66	
1501.13	5.2	3.9	3.2	2.3	29.4				2.67	
1501.45	5.8	4.4			28.9				2.68	
1501.72	4.8	3.6			28.8				2.68	
1502.05	9.6	7.4			29.9				2.67	
1502-38	4.7	3.5			28.9				2.68	
1502.72	5.9	4.4	1.5	1.0	29.5				2.69	



# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....  
 Well ..... 31/2-4 ..... Core ..... No. 18 .....  
 Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1508.11	8.6	6.6	1.5	1.0	27.0				2.69	
1508.44	3.0	2.2			25.5				2.66	
1508.77	4.5	3.3			25.9				2.65	
1509.10	6.2	4.7			24.8				2.64	
1509.43	n.m.p.		n.v.p.p.		26.3				2.65	
1509.76	4.2	3.1			26.5				2.65	
1510.06	4.3	3.2			26.5				2.66	
1510.39	n.m.p.				27.2				2.66	
1510.77	n.m.p.									
1511.06	n.m.p.		n.v.p.p.		26.1				2.65	
1511.39	2.6	1.9			25.8				2.71	
1511.72	n.m.p.				26.3				2.68	
1512.05	0.031	0.02			4.1				2.67	
1512.38	n.m.p.				24.3				2.64	
1512.72	2.0	1.4	3.4	2.5	24.6				2.69	
1513.05	n.m.p.				1.7				2.80	
1513.39	5.2	3.9			24.3				2.67	
1513.65	3.1	2.2			25.1				2.68	
1513.98	5.3	4.0			26.1				2.67	
1514.31	n.m.p.		n.v.p.p.		25.9				2.68	



# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....  
 Well ..... 31/2-4 ..... Core ..... No. 18 .....  
 Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1514.64	2.8	2.0			25.6				2.55	
1514.97	2.3	1.6			23.8				2.66	
1515.33	14	11			28.7				2.66	
1515.66	1.6	1.1			23.9				2.67	
1515.99	2.5	1.8	n.v.p.p.		25.1				2.66	
1516.33	n.m.p.				23.5				2.66	
1516.66	n.m.p.				23.5				2.66	
1516.99	2.9	2.1			23.9				2.66	
1517.32	7.5	5.7			21.6				2.71	
1517.65	1.4	1.0	0.22	0.13	22.5				2.81	
1517.95	0.81	0.54			22.3				2.66	
1518.31	1.11	0.8			20.2				2.64	
1518.64	0.41	0.26			21.0				2.99	
1518.99	0.024	0.01			4.7				2.81	
1519.32	0.56	0.36	5.7	4.3	19.6				2.75	
1519.65	0.13	0.08			8.4				2.75	
1520.01	0.28	0.17			9.9				2.71	
1520.34	0.088	0.05			10.0				2.72	
1520.67	0.024	0.01			3.0				2.68	
1521.00	83	73	30	25	32.1				2.68	



# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....  
 Well ..... 31/2-4 ..... Core ..... No. 19 .....  
 Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		HELIUM POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1526.21										
1526.54										
1526.85										
1527.21										
1527.55										<i>See Core Report, Final Report.</i>
1527.93										
1528.26										
1528.58										
1528.94										
1529.27										
1529.58										
1529.92	20	16			27.8				2.69	
1530.22	41	35			29.9				2.69	
1530.61	7526	7401			36.2				2.66	
1531.15	6764	6664	2278	2218	36.2				2.67	
1531.45	2123	2063			34.7				2.66	
1531.77										
1532.10	2209	2149			34.8				2.64	
1532.45 1532.80	2321	2241	n.v.p.p.		36.3				2.63	
1533.12	8568	8443			32.2				2.62	
1533,69 1534.06	241	221			30.1				2.65	

# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....

Well ..... 31/2-4 ..... Core ..... No. 19 .....

Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		HELIUM POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1534.38	298	278			32.7				2.65	
1534.71	73	63	75	65	30.9				2.67	
1535.03	46	39			30.4				2.68	
1535.43	33	28			30.9				2.66	
1535.76										
1536.12	23	19			28.5				2.67	
1536.43	12	10	7.2	5.5	25.7				2.67	
1536.76	21	17			28.4				2.67	
1537.15	19	15			28.3				2.66	
1537.48	10.6	8.3			27.0				2.66	
1537.80	13	10			28.3				2.67	
1538.10	3.1	2.2	1.5	1.0	25.0				2.69	
1538.44	3.5	2.5			23.5				2.70	
1538.77	5.6	4.2			27.0				2.69	
1539.10	1.8	1.3			23.5				2.68	
1539.45	5.3	4.0			25.2				2.72	
1539.77	5.7	4.3	0.35	0.22	24.9				2.67	
1540.10	6.2	4.7			25.9				2.68	
1540.40	2.7	1.9			24.5				2.66	
1540.75	6.4	4.8			25.3				2.66	



# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....  
 Well ..... 31/2-4 ..... Core ..... No. 20 .....  
 Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		HELIUM POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1544.30	11.1	8.7			27.7				2.68	
1544.64										
1544.93	10.8	8.4			27.7				2.67	
1545.27	5.9	4.4			26.0				2.68	
1545.64	3.9	2.9			26.6				2.69	
1545.95	2.1	1.5			23.0				2.71	
1546.30										
1546.60										
1547.30	928	888			32.9				2.66	
1547.72	1875	1815	1865	1805	34.3				2.63	
1548.04	382	352			28.8				2.64	
1548.36	1619	1569			37.8				2.67	
1548.70	830	790			32.8				2.66	
1549.00	1042	992			35.2				2.64	
1549.32	999	959	1417	1367	34.7				2.65	
1549.69	464	434			33.8				2.65	
1549.95	844	804			34.7				2.64	<i>tdu</i>
1550.20	935	895			36.0				2.63	<i>Wulayh</i>
1550.55	665	635			34.1				2.64	
1550.85	501	471	347	317	33.2				2.66	

# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....

Well ..... 31/2-4 ..... Core ..... No. 20 .....

Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		HELIUM POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1555.43	203	183			28.1				2.65	
1555.86	102	90			29.7				2.66	
1556.06	226	206			33.3				2.68	
1556.35	54	46			29.5				2.71	
1556.73	239	219	94	83	33.0				2.63	
1557.02	204	184			32.3				2.64	
1557.37	22	18			25.5				2.62	
1557.68	134	120			30.6				2.63	
1558.00	87	76			30.5				2.66	
1558.24	37	31	0.33	0.21	27.3				2.62	
1558.40	n.p.p.									
1558.83	17	14			26.6				2.62	
1559.20	18	15			26.4				2.65	
1559.55	106	94			31.5				2.69	
1559.87			14	11						
1560.21										
1560.55	17	14			27.7				2.68	
1560.93	27	22			28.7				2.67	
1561.33	19	15			27,2				2.66	
1561.71	32	27	4.4	3.3	28.6				2.66	

# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....

Well ..... 31/2-4 ..... Core ..... no. 21 .....

Field ..... State .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION	
	KA	KL	KA	KL			SO	STW.			
1562.06	6.7	5.1	2.8	2.0	26.7				2.67		
1562.37	4.6	3.4	1.2	0.83	24.8				2.66		
1562.70	8.9	6.9	2.2	1.6	26.3				2.67		
1563.05	7.4	5.7	2.4	1.7	26.6				2.69		
1563.36	3.3	2.4	2.4	1.7	24.8				2.68		
1563.68	2.9	2.1	0.26	0.16	24.4				2.67		
1564.06	4.2	3.1	4.0	2.9	23.8				2.67		
1564.38	5.0	3.7	1.7	1.2	25.6				2.67		
1564.77	48	41	1.10	0.75	26.3				2.67		
1565.04	3.3	2.4	1.2	0.83	23.1				2.68		
1565.33	6.1	4.6	1.5	1.0	24.2				2.68		
1565.57	34	28	5.5	4.1	27.0				2.73		
			End of core no. 21								



# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....

Well ..... 31/2-4 ..... Core ..... No. 22 .....

Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1567.10	n.v.p.p.									
1567.47	1096	1046			26.5				2.64	
1568.02	0.26	0.16	2.0	1.4	9.8				2.68	
1568,35	0.21	0.13	0.62	0.41	10.2				2.68	
1568.68	n.h.p.p.									
1569.01	10293	10168			36.2				2.65	
1569.29	109	97			29.8				2.64	
1569.72	22	18	5.6	4.2	34.1				2.67	
1570.05	20	16			30.1				2.70	
1570.38	11.4	8.9			30.9				2.69	
1570.71	8.0	6.1			26.2				2.68	
1570.98	1719	1659			37.0				2.66	
1571.31	6.5	4.9			26.8				2.68	
1571.64	0.097	0.06	0.71	0.47	12.7				2.72	
1571.97	27	22			31.1				2.70	
1572.27	4.5	3.3	n.v.p.p.		30.0				2.68	
1572.60	27	22	11.6	9.1	29.4				2.67	
1572.93	9.7	7.5	n.v.p.p.		27.4				2.66	
1573.29	226	206	n.v.p.p.		29.3				2.64	
1573.62	n.p.p.									

# LABORATORY

## FINAL REPORT



Company ..... A/S Norske Shell ..... Date ..... July 1981 .....

Well ..... 31/2-4 ..... Core ..... No. 22 .....

Field ..... State ..... Norway .....

DEPTH	HORIZONTAL PERMEABILITY MILLIDARCY		VERTICAL PERMEABILITY MILLIDARCY		POROSITY %	SATURATION POROSITY %	PORE-SATURATION PORESATORAT		GRAIN DENS.	FORMATION DESCRIPTION
	KA	KL	KA	KL			SO	STW.		
1573.95	5.9	4.4	5.8	4.4	26.6				2.65	
1574.28	142	127	n.v.p.p.		21.1				2.67	
1574.78	1184	1134	2647	2567	36.1				2.66	
1575.55	2530	2450	686	656	37,3				2.66	
1575.95			163	147						
1576.10	3205	3125	2609	2529	36.0				2.68	
1576.44	2848	2768	7735	7610	36.6				2.64	
1577.16	1052	1002	n.v.p.p.		34.9				2.64	
1577.49	64	55			32.9				2.84	
1577.87	251	231	36	30	25.1				2.67	
1578.21	236	216	104	93	33.3				2.66	
1578.70	675	645	4.1	3.0	33.6				2.62	
1579.02	188	168	94	83	33.7				2.65	
1579.37	264	244	23	19	27.7				2.65	
1579.72	203	183	252	233	33.7				2.66	
1580.05	68	59	139	124	30.9				2.67	
1580.38	459	429	420	390	34.7				2.69	
1580.70	15	12	514	484	25.3				2.69	
1581.03	601	571	284	264	34.7				2.65	
1581.34	350	320	173	156	35.2				2.66	

