



Generell informasjon

Brønnbane navn	1/9-2
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	TOMMELITEN A
Funn	1/9-1 Tommeliten Alpha
Brønn navn	1/9-2
Seismisk lokalisering	line 404-404.SP 572
Utvinningstillatelse	044
Boreoperatør	Den norske stats oljeselskap a.s
Boretillatelse	175-L
Boreinnretning	ROSS RIG (1)
Boredager	73
Borestart	01.06.1977
Boreslutt	12.08.1977
Frigitt dato	12.08.1979
Publiseringsdato	01.04.2012
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL SHOWS
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	PALEOCENE
1. nivå med hydrokarboner, formasjon.	EKOFISK FM
2. nivå med hydrokarboner, alder	LATE CRETACEOUS
2. nivå med hydrokarboner, formasjon	TOR FM
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	75.0
Totalt målt dybde (MD) [m RKB]	3459.0
Maks inklinasjon [°]	2.25
Temperatur ved bunn av brønnbanen [°C]	121
Eldste penetrerte alder	LATE CRETACEOUS
Eldste penetrerte formasjon	HOD FM
Geodetisk datum	ED50



NS grader	56° 23' 52.77" N
ØV grader	2° 55' 34.63" E
NS UTM [m]	6250517.66
ØV UTM [m]	495449.76
UTM sone	31
NPDID for brønnbanen	244

Brønnhistorie

General

Well 1/9-2 was drilled on a salt diapir structure located in the Feda Graben in the southern North Sea. It was drilled to confirm and further evaluate the proven hydrocarbons found on this seismic structure by the 1/9-1 well.

Operations and results

Appraisal well 1/9-2 was spudded with the semi-submersible installation Ross Rig on 1 June 1977 and drilled to TD at 3459 m in the Late Cretaceous Hod Formation. No significant problems were encountered in the operations. The well was drilled with spud mud down to 439 m and water based with lime/Drispac/lignosulphonate mud systems from 438 m to TD.

Good oil show was observed in a thin sandstone stringer at 1632 m in the Hordaland Group. Oil in cuttings was recorded also at 1710 m and 2858 m in claystones. The Ekofisk Formation was encountered at 3120 m with shows and tested small amounts of oil. The Tor Formation came in at 3195 m with shows and tested small amounts of oil. Below 3213.5 m only rare and weak fluorescence was observed on limestone.

The interval 3135-3215 in the Ekofisk and Tor formations was cored with nearly 100% recovery. RFT pressure readings were attempted in the Tor and Ekofisk formations, but all were unsuccessful due to tight formation. No fluid samples were taken.

The well was permanently abandoned on 12 August 1977. The poor results from DST are classified as shows.

Testing

Two drill stem tests were carried out.

DST 1 tested the Maastrichtian Tor Formation (3197 - 3209 m) and flowed approximately 6 - 10 m³/day of acidwater after stimulation, slugging badly. 2-10% of oil was measured in samples. The oil gravity was 34.0 deg API.

DST 2 & 2A tested the Danian Ekofisk Formation (3130 - 3154 m). The flow stabilized at approximately 13 - 15 m³/day of acidwater after the retest effort. Clean samples of formation fluids were not obtained, but this interval produced long enough to approach clean-up. 2-17% of oil was measured on samples taken during flow and reversing sequences with the smaller value probably being more representative. Oil gravity was 35.2 - 35.7 deg API.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
152.50	3460.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	3130.9	3148.8	[m]
2	3149.1	3167.1	[m]
3	3167.4	3185.7	[m]
4	3185.7	3201.1	[m]
5	3201.1	3219.6	[m]

Total kjerneprøve lengde [m]	88.0
Kjerner tilgjengelig for prøvetaking?	YES

Oljeprøver i Sokkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
DST	DST 1	3197.00	3209.00		27.07.1977 - 00:00	YES
DST	TEST2	3130.00	3154.00		02.08.1977 - 05:00	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
100	NORDLAND GP
1054	HORDALAND GP
2928	ROGALAND GP
2928	BALDER FM
2953	SELE FM
3026	LISTA FM
3030	ANDREW FM



3033	LISTA FM
3096	VÅLE FM
3120	SHETLAND GP
3120	EKOFISK FM
3195	TOR FM
3308	HOD FM

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
244 1 9 2	pdf	0.59

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
244 1	pdf	0.66
244 2	pdf	2.37
244 3	pdf	0.86

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
244 01 WDSS General Information	pdf	0.26

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
244 1 9 2 Completion log	pdf	2.43
244 1 9 2 Completion report	pdf	50.84

Borestrengtester (DST)





Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 1.6.2024 - 09:17

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	3197	3209	0.0
2.0	3130	3154	0.0

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0				
2.0				

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstygde rel. luft	GOR [m3/m3]
1.0					
2.0					

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL	125	1377
CBL VDL GR	800	2829
CBL VDL GR	2750	3397
DLL MSFL CAL SP GR	2856	3459
FDC CAL GR	432	2865
FDC CAL GR CNL	2856	3459
FIL	2856	3459
HDT	2856	3459
IES SP	2856	3459
ISF SONIC GR SP	153	2864
SONIC GR	2856	3434
VDL OH	2856	3440

Foringsrør og formasjonsstyrketester

Type utforing	Utforing diam. [tommer]	Utforing dybde [m]	Brønnbane diam. [tommer]	Brønnbane dyp [m]	LOT/FIT slam eqv. [g/cm3]	Type formasjonstest
CONDUCTOR	30	153.0	36	153.0	0.00	LOT



SURF.COND.	20	433.0	26	493.0	0.00	LOT
INTERM.	13 3/8	1375.0	17 1/2	1390.0	0.00	LOT
INTERM.	9 5/8	2856.0	12 1/4	2866.0	0.00	LOT
LINER	7	3458.0	8 1/2	3459.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
250	1.03	45.0		spud mud	
1155	1.29	47.0		waterbased	
1772	1.70	62.0		waterbased	
2658	1.85	63.0		waterbased	
2867	1.67	54.0		waterbased	
3218	1.67	50.0		waterbased	
3459	1.66	47.0		waterbased	