



Generell informasjon

Brønnbane navn	34/7-7
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	SNORRE
Funn	34/4-1 Snorre
Brønn navn	34/7-7
Seismisk lokalisering	G/E - 116 SP. 505
Utvinningstillatelse	089
Boreoperatør	Saga Petroleum ASA
Boretillatelse	483-L
Boreinnretning	TREASURE SAGA
Boredager	91
Borestart	17.09.1985
Boreslutt	16.12.1985
Frigitt dato	16.12.1987
Publiseringsdato	12.01.2015
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	EARLY JURASSIC
1. nivå med hydrokarboner, formasjon.	EIRIKSSON FM
Avstand, boredekk - midlere havflate [m]	26.0
Vanndybde ved midlere havflate [m]	302.0
Totalt målt dybde (MD) [m RKB]	3526.0
Totalt vertikalt dybde (TVD) [m RKB]	3524.0
Maks inklinasjon [°]	3.5
Temperatur ved bunn av brønnbanen [°C]	120
Eldste penetrerte alder	LATE TRIASSIC
Eldste penetrerte formasjon	LUNDE FM
Geodetisk datum	ED50
NS grader	61° 26' 54.53" N



ØV grader	2° 5' 55.69" E
NS UTM [m]	6813237.29
ØV UTM [m]	451945.36
UTM sone	31
NPDID for brønnbanen	525

Brønnhistorie

**General**

Well 34/7-7 was drilled on the western side of the "Inner Main Fault" near the geographic centre of the Snorre Field. The objectives were to test the reservoir quality of the Statfjord Group and the Oil-Water Contact, expected to be at 2611 m. Further objectives were to test the subdivision and reservoir characteristics of the Triassic Lunde Formation.

Operations and results

Wildcat well 34/7-7 was spudded with the semi-submersible installation Treasure Saga on 17 September 1985 and drilled to TD at 3526 m in the Late Triassic Lunde Formation. A 17 1/2" pilot hole was drilled from 455 m to 995 m to check for shallow gas before opening up to 26". No shallow gas was seen. Some fishing jobs were required during logging and testing, otherwise operations proceeded without significant problems. The well was drilled with spud mud down to 455 m, with gel mud from 455 m to 995 m, with gypsum/polymer mud from 995 m to 2562 m, and with gel mud from 2562 m to TD.

Well 34/7-7 penetrated top reservoir at 2561.1 m. The OWC was defined at 2615 m in the Statfjord Group. The average log porosity in the oil zone is 26.2%, the net/gross is 0.37, and the average water saturation is 26.2%. Weak oil shows were seen from around 2140 m in sandstone and siltstone from early Campanian in the Shetland Group (top Kyrre Formation) and down to the top Dunlin Group at 2455 m. Through the Dunlin Group down to the top Statfjord reservoir at 2561 m, the shows became stronger. Below the OWC, a sandstone interval at the bottom of the Statfjord (2640 - 2644 m) had good oil shows. Going into the Upper Lunde, the shows disappear.

Nineteen cores were cut and recovered during drilling of the well. Core 1 to 8 were cut from 2563 to 2669.5 m through the whole Statfjord Group and the first meters of the Upper Lunde Formation. Core 9 to 19 were cut in the interval 2888.2 to 3336.7 m in the Upper Lunde Formation. Total core recovery was 197.25 m (94.1%). The core - log depth shifts for the individual cores varied from -0.6 m to +1.8 m. FMT oil samples were taken at 2613.5 m and 2564.8 m.

The well was permanently abandoned on 16 December as an oil appraisal well.

Testing

Two Drill Stem Tests (DST) were carried out in the Statfjord Group, Eiriksson Formation.

DST 1 tested the interval 2561.5-2569.5 m at the top of the oil zone. The test produced 1720 Sm³ oil /day through a 14.3 mm choke. At stock tank conditions the GOR was 68 Sm³/Sm³, the oil density was 0.8362 g/cm³, and the gas gravity was 1.059 (air = 1). The bottom hole temperature was 93 °C.

DST 2 tested the interval 2611.7-2614.7 m just above the OWC. The test produced 980 Sm³ oil /day through a 71.8 mm choke. At stock tank conditions the GOR was 62.5 Sm³/Sm³, the oil density was 0.8403 g/cm³, and the gas gravity was 1.081 (air = 1). The bottom hole temperature was 93 °C.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
460.00	3526.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2562.0	2568.0	[m]
2	2569.0	2574.8	[m]
3	2585.0	2593.5	[m]
4	2593.5	2613.0	[m]
5	2614.0	2623.3	[m]
6	2624.0	2635.3	[m]
7	2635.5	2655.0	[m]
8	2656.0	2667.7	[m]
9	2877.0	2886.4	[m]
10	2886.4	2895.7	[m]
11	2895.7	2905.0	[m]
12	2905.0	2913.5	[m]
13	2913.7	2923.1	[m]
14	2923.1	2932.3	[m]
15	2932.4	2941.6	[m]
16	2941.6	2950.8	[m]
17	2951.1	2963.8	[m]
18	3320.0	3328.5	[m]
19	3329.0	3337.5	[m]

Total kjerneprøve lengde [m]	194.7
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



2562-2567m



2567-2568m



2569-2574m



2574-2574m



2574-2574m



2585-2590m



2590-2593m



2593-2598m



2598-2603m



2603-2608m



2608-2613m



2613-2613m



2614-2619m



2619-2623m



2624-2629m



2629-2634m



2634-2635m



2635-2640m



2640-2645m



2645-2650m



2650-2655m



2655-2655m



2656-2661m



2661-2666m



2666-2667m



2877-2883m



2883-2886m



2886-2892m



2892-2896m



2895-2901m



2901-2905m



2905-2911m



2911-2913m



2913-2919m



2919-2923m



2923-2929m



2929-2932m



2932-2938m



2938-2941m



2941-2947m



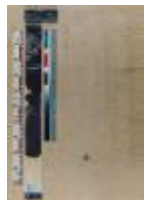
2947-2950m



2951-2957m



2957-2963m



2963-2963m



3320-3326m



3326-3328m



3329-3335m



3335-3337m

Palynologiske preparater i Sjøkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
2443.0	[m]	SWC	R.R.I
2457.0	[m]	SWC	R.R.I
2515.0	[m]	SWC	R.R.I

Oljeprøver i Sjøkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
DST	DST1	2561.50	2569.50	OIL	13.11.1985 - 15:00	YES
DST	DST1,1	0.00	0.00	OIL	23.11.1985 - 00:00	YES
DST	TEST2	2611.00	2614.00	OIL	08.12.1985 - 00:00	YES



Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
329	NORDLAND GP
968	UTSIRA FM
1068	UNDIFFERENTIATED
1147	HORDALAND GP
1147	UNDIFFERENTIATED
1678	ROGALAND GP
1678	BALDER FM
1693	SELE FM
1793	LISTA FM
1837	SHETLAND GP
1837	JORSALFARE FM
2139	KYRRE FM
2445	CROMER KNOLL GP
2445	UNDIFFERENTIATED
2455	DUNLIN GP
2455	AMUNDSEN FM
2560	STATFJORD GP
2560	EIRIKSSON FM
2629	RAUDE FM
2678	HEGRE GP
2678	LUNDE FM

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
525_GCH_1	pdf	0.40
525_GCH_2	pdf	7.08
525_GCH_3	pdf	1.92
525_GCH_4	pdf	0.22

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
525_01_WDSS_General_Information	pdf	0.31
525_02_WDSS_completion_log	pdf	0.25





Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
525_34_7_7_Completion_log	pdf	3.90
525_34_7_7_Completion_report	pdf	19.56

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	2562	2570	14.3
2.0	2615	2612	17.5

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0				
2.0	36.000	26.000	26.000	

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstyngde rel. luft	GOR [m3/m3]
1.0	1720	44720	0.840		26
2.0	1001	39400	0.840		39

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CDL CNL GR	1859	2762
CDL GR	450	1875
DIFL LS BHC GR	450	3524
DIP	1859	2759
DLL MLL GR	2450	2762
FMT	2562	2743
FMT	2797	3426
MWD	449	3522





SP	2450	2762
VSP	1000	3920

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	450.0	36	455.0	0.00	LOT
SURF.COND.	20	969.0	26	995.0	1.50	LOT
INTERM.	13 3/8	1862.0	17 1/2	1878.0	1.90	LOT
INTERM.	9 5/8	2750.0	12 1/4	2765.0	1.85	LOT
OPEN HOLE		3526.0	8 1/2	3526.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
455	1.03			WATER BASED	23.09.1985
855	1.68	23.0	10.1	WATER BASED	16.12.1985
896	1.11	8.0	43.0	WATER BASED	23.09.1985
995	1.11	6.0	46.0	WATER BASED	23.09.1985
1000	1.10	52.0	19.0	WATER BASED	26.09.1985
1448	1.25	52.0	20.0	WATER BASED	30.09.1985
1858	1.42	50.0	21.0	WATER BASED	30.09.1985
1878	1.42	50.0	20.0	WATER BASED	30.09.1985
1878	1.45	48.0	19.0	WATER BASED	01.10.1985
1878	1.53	17.0	10.1	WATER BASED	07.10.1985
1878	1.45	18.0	19.0	WATER BASED	02.10.1985
2022	1.53	22.0	8.2	WATER BASED	07.10.1985
2345	1.68	26.0	8.7	WATER BASED	07.10.1985
2475	1.68	30.0	9.6	WATER BASED	07.10.1985
2560	1.68	20.0	7.7	WATER BASED	18.11.1985
2560	1.68	23.0	6.3	WATER BASED	18.11.1985
2561	1.68	23.0	9.6	WATER BASED	18.11.1985
2561	1.68	23.0	9.6	WATER BASED	20.11.1985
2561	1.68	21.0	9.1	WATER BASED	25.11.1985
2561	1.68	25.0	10.6	WATER BASED	25.11.1985
2562	1.68	21.0	7.2	WATER BASED	07.10.1985
2562	1.68	23.0	6.8	WATER BASED	07.10.1985



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 20.5.2024 - 10:47

2562	1.68	24.0	8.2	WATER BASED	07.10.1985
2564	1.60	20.0	5.8	WATER BASED	21.10.1985
2564	1.68	24.0	5.8	WATER BASED	21.10.1985
2611	1.68	24.0	6.3	WATER BASED	08.10.1985
2612	1.68	23.0	10.1	WATER BASED	09.12.1985
2620	1.68	24.0	6.3	WATER BASED	11.10.1985
2640	1.68	22.0	6.8	WATER BASED	11.10.1985
2686	1.68	25.0	7.2	WATER BASED	03.11.1985
2686	1.68	23.0	11.1	WATER BASED	19.11.1985
2686	1.68	20.0	9.1	WATER BASED	28.11.1985
2686	1.68	19.0	7.7	WATER BASED	01.12.1985
2686	1.68	23.0	10.1	WATER BASED	09.12.1985
2686	1.68	22.0	9.6	WATER BASED	09.12.1985
2686	1.68	22.0	9.6	WATER BASED	16.12.1985
2686	1.68	20.0	7.7	WATER BASED	18.11.1985
2686	1.68	23.0	10.6	WATER BASED	19.11.1985
2686	1.68	20.0	8.7	WATER BASED	27.11.1985
2686	1.68	18.0	7.2	WATER BASED	28.11.1985
2686	1.68	18.0	7.7	WATER BASED	28.11.1985
2686	1.68	21.0	8.2	WATER BASED	01.12.1985
2686	1.68	19.0	7.2	WATER BASED	01.12.1985
2686	1.68	20.0	7.7	WATER BASED	01.12.1985
2686	1.68	21.0	8.7	WATER BASED	04.12.1985
2686	1.68	18.0	9.6	WATER BASED	09.12.1985
2686	1.68	25.0	7.7	WATER BASED	04.11.1985
2686	1.68	25.0	7.7	WATER BASED	05.11.1985
2686	1.68	26.0	8.7	WATER BASED	08.11.1985
2686	1.68	26.0	8.7	WATER BASED	11.11.1985
2686	1.68	25.0	8.2	WATER BASED	11.11.1985
2686	1.68	23.0	7.7	WATER BASED	13.11.1985
2686	1.68	24.0	7.7	WATER BASED	13.11.1985
2686	1.68	20.0	8.2	WATER BASED	18.11.1985
2750	1.60	20.0	4.8	WATER BASED	31.10.1985
2750	1.60	18.0	5.8	WATER BASED	21.10.1985
2765	1.68	24.0	5.8	WATER BASED	16.10.1985
2765	1.68	24.0	5.8	WATER BASED	16.10.1985
2905	1.60	19.0	5.8	WATER BASED	24.10.1985
2932	1.60	15.0	5.3	WATER BASED	24.10.1985
2960	1.60	16.0	5.8	WATER BASED	24.10.1985
2988	1.60	17.0	6.8	WATER BASED	24.10.1985



3133	1.60	16.0	5.3	WATER BASED	24.10.1985
3280	1.60	17.0	6.8	WATER BASED	28.10.1985
3336	1.60	17.0	6.3	WATER BASED	28.10.1985
3338	1.60	16.0	5.8	WATER BASED	28.10.1985
3526	1.60	17.0	5.3	WATER BASED	31.10.1985
3526	1.60	20.0	5.3	WATER BASED	31.10.1985
3526	1.60	19.0	5.3	WATER BASED	31.10.1985

Trykkplott

Porertrykksdataene kommer fra logging i brønnen hvis ingen annen kilde er oppgitt. I noen brønner der trykk ikke er logget, er det brukt informasjon fra formasjonstester eller brønnspark. Trykkdataene er rapportert inn til Oljedirektoratet og videre prosessert og kvalitetssikret av IHS Markit.

Dokument navn	Dokument format	Dokument størrelse [KB]
525 Formation pressure (Formasjonstrykk)	pdf	0.22

