



Generell informasjon

Brønnbane navn	7120/12-3
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	BARENTS SEA
Funn	7120/12-3 (Alke Nord)
Brønn navn	7120/12-3
Seismisk lokalisering	513-350 SP 1545 AND 573-110 SP 1624
Utvinningstillatelse	061
Boreoperatør	Norsk Hydro Produksjon AS
Boretillatelse	367-L
Boreinnretning	TREASURE SCOUT
Boredager	51
Borestart	16.03.1983
Boreslutt	05.05.1983
Frigitt dato	05.05.1985
Publiseringsdato	11.02.2005
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	GAS
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	STØ FM
Avstand, boredekk - midlere havflate [m]	23.0
Vanndybde ved midlere havflate [m]	185.0
Totalt målt dybde (MD) [m RKB]	2523.0
Totalt vertikalt dybde (TVD) [m RKB]	2522.0
Maks inklinasjon [°]	3.1
Temperatur ved bunn av brønnbanen [°C]	118
Eldste penetrerte alder	LATE TRIASSIC
Eldste penetrerte formasjon	FRUHOLMEN FM
Geodetisk datum	ED50
NS grader	71° 11' 43.31" N
ØV grader	20° 46' 43.7" E



NS UTM [m]	7899413.56
ØV UTM [m]	492041.76
UTM sone	34
NPDID for brønnbanen	8

Brønnhistorie

General

Well 7120/12-3 is located in the Hammerfest Basin, south of the Snøhvit area. The primary objective was to test a sandstone reservoir of Middle to Early Jurassic age on a structure (Alke North) separate from the Alke Structure tested in well 7120/12-1 and 7120/12-2. A secondary objective was to test Middle Triassic sandstones, providing the Jurassic reservoir proved a gas column greater than 60 m. The well was planned to be drilled to 2498 + 30 m or to 3312 +100 m if the Jurassic test was positive.

Operations and results

Wildcat well 7120/12-3 was spudded with the semi-submersible installation on 16 March 1983 and drilled to TD at 2523 m in the Late Triassic Fruholmen Formation. Swelling shales and some tight hole problems occurred in the 17 1/2" section; otherwise no significant problems were encountered during drilling. The well was drilled using seawater / bentonite / hi-vis pills down to 605 m and with a gypsum / polymer mud from 605 m to TD.

The Middle to Early Jurassic sandstone reservoir was found gas bearing from 2157.5 to 2182.5 m (upper part of Stø Formation) where the gas/water contact was established. The reservoir consisted of very fine to fine, relatively homogeneous and clean sandstones made up of clear quartz with traces of mica, glauconite and carbonaceous material. From wire line logs the net pay was calculated to be 24 m, with an average porosity of 17 % and an average water saturation of 17 %. Traces of very weak shows were described from cuttings and sidewall cores between 1945 m to 2148.5 m in shales of the Late Jurassic Hekkingen and Fuglen Formation, reflecting the high organic content of these shales. Direct shows were only seen in the lower part of the gas-bearing reservoir from 2170 m to 2182.5 m. They appeared on sandstones as traces of dull yellow fluorescence with weak slow streaming dull yellow to white crush cut, no stain or residue were detected. Very weak shows were detected in shales from 2260 m (cuttings) and 2505,5 m (side wall core).

One core was taken in the water zone in the Stø Formation from 2195 to 2213 m. The recovery was 100 %, and the lithology was fine to very fine-grained sandstones, moderately silica cemented with irregular argillaceous laminae. RFT pressure recordings and sampling were successfully performed over the reservoir interval. The gas gradient was found to be 0.029 bar/m equivalent to a density of 0.29 g/cm³. The underlying water gradient was 0.109 bar/m corresponding to a density of 1.12 g/cm³. Three RFT segregated samples were taken, at 2160 m, 2172.5 m, and 2178.5 m, all recovered dry gas and minor amounts of water/mud filtrate.

Due to the small gas column in the Jurassic the well was not deepened to test the Middle Triassic sandstones. It was permanently abandoned as a gas discovery on 5 May 1983.

Testing

No drill stem test was performed.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
280.00	2523.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2195.0	2213.0	[m]

Total kjerneprøve lengde [m]	18.0
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



2195-2198m



2198-2201m



2201-2204m



2204-2207m



2207-2210m



2210-2213m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
695.0	[m]	SWC	IKU
709.0	[m]	SWC	IKU



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 29.5.2024 - 23:35

721.0	[m]	SWC	IKU
747.0	[m]	SWC	IKU
778.5	[m]	SWC	IKU
907.5	[m]	SWC	IKU
935.0	[m]	SWC	IKU
1019.0	[m]	SWC	IKU
1040.0	[m]	SWC	IKU
1207.0	[m]	SWC	IKU
1225.0	[m]	SWC	IKU
1241.0	[m]	SWC	IKU
1292.5	[m]	SWC	IKU
1317.0	[m]	SWC	IKU
1355.0	[m]	SWC	IKU
1380.5	[m]	SWC	IKU
1409.0	[m]	SWC	IKU
1465.0	[m]	SWC	IKU
1496.0	[m]	SWC	IKU
1502.0	[m]	SWC	IKU
1506.0	[m]	SWC	IKU
1539.0	[m]	SWC	IKU
1557.0	[m]	SWC	IKU
1566.0	[m]	SWC	IKU
1571.0	[m]	SWC	IKU
1586.0	[m]	SWC	IKU
1622.0	[m]	SWC	IKU
1647.0	[m]	SWC	IKU
1696.5	[m]	SWC	IKU
1723.3	[m]	SWC	IKU
1762.0	[m]	SWC	IKU
1770.0	[m]	SWC	IKU
1781.0	[m]	SWC	IKU
1796.0	[m]	SWC	IKU
1830.0	[m]	SWC	IKU
1856.0	[m]	SWC	IKU
1886.0	[m]	SWC	IKU
1894.0	[m]	SWC	IKU
1903.0	[m]	SWC	IKU
1939.0	[m]	SWC	IKU
1945.0	[m]	SWC	IKU
1951.5	[m]	SWC	IKU



1957.5	[m]	SWC	IKU
2048.0	[m]	SWC	IKU
2097.5	[m]	SWC	IKU
2105.9	[m]	SWC	IKU
2130.0	[m]	SWC	IKU
2140.0	[m]	SWC	IKU
2148.5	[m]	SWC	IKU
2155.0	[m]	SWC	IKU
2195.8	[m]	C	IKU
2199.3	[m]	C	IKU
2206.9	[m]	C	IKU
2210.0	[m]	C	IKU
2211.4	[m]	C	IKU
2251.0	[m]	SWC	IKU
2458.0	[m]	SWC	IKU
2513.5	[m]	SWC	IKU
2523.0	[m]	SWC	IKU
2523.0	[m]	DC	OD

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
208	NORDLAND GP
387	SOTBAKKEN GP
387	TORSK FM
738	NYGRUNNEN GP
738	KVEITE FM
864	ADVENTDALEN GP
864	KOLMULE FM
1422	KOLJE FM
1778	KNURR FM
1946	HEKKINGEN FM
2142	FUGLEN FM
2158	KAPP TOSCANA GP
2158	STØ FM
2220	NORDMELA FM
2342	TUBÅEN FM
2395	FRUHOLMEN FM



Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
8	pdf	0.40

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
8_01_WDSS_General_Information	pdf	0.16
8_02_WDSS_completion_log	pdf	0.26

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
8_01_Completion_Report	pdf	5.30
8_02_Completion_log	pdf	1.37

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL VDL	225	1480
CST	695	1506
CST	1507	1957
CST	1982	2523
DLL GR	2140	2520
HDT	585	2522
ISF LSS GR	268	1510
ISF LSS GR	2230	2524
ISF MSFL LSS GR	1487	2265
LDT CNL GR	1487	2523
LDT GR	268	1512
RFT	2172	2172
RFT	2178	2178
RFT	2180	2218
VELOCITY	382	2522





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	269.0	36	274.0	0.00	LOT
SURF.COND.	20	586.0	26	605.0	1.82	LOT
INTERM.	13 3/8	1485.0	17 1/2	1515.0	1.65	LOT
OPEN HOLE		2523.0	12 1/4	2523.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
274	1.03			spud mud	
585	1.10	42.0	6.0	spud mud	
1130	1.20	50.0	11.0	water based	
1515	1.25	60.0	17.0	water based	
2140	1.35	55.0	10.0	water based	
2523	1.35	50.0	10.0	water based	

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]
8 Formation pressure (Formasjonstrykk)	pdf	0.27

