



Generell informasjon

Brønnbane navn	6406/1-2
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORWEGIAN SEA
Funn	6406/1-2 (Sklinna)
Brønn navn	6406/1-2
Seismisk lokalisering	NA01 M2 - 3D inline 2386-xline1600
Utvinningstillatelse	256
Boreoperatør	Norsk Agip AS
Boretillatelse	1064-L
Boreinnretning	DEEPSEA BERGEN
Boredager	71
Borestart	26.06.2003
Boreslutt	04.09.2003
Frigitt dato	04.09.2005
Publiseringsdato	29.12.2005
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	GAS/CONDENSATE
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	LATE CRETACEOUS
1. nivå med hydrokarboner, formasjon.	LANGE FM
Avstand, boredekk - midlere havflate [m]	23.0
Vanndybde ved midlere havflate [m]	383.0
Totalt målt dybde (MD) [m RKB]	4500.0
Totalt vertikalt dybde (TVD) [m RKB]	4492.0
Maks inklinasjon [°]	8.7
Temperatur ved bunn av brønnbanen [°C]	164
Eldste penetrerte alder	TRIASSIC
Eldste penetrerte formasjon	RED BEDS (INFORMAL)
Geodetisk datum	ED50
NS grader	64° 55' 32.23" N



ØV grader	6° 7' 55.71" E
NS UTM [m]	7203419.29
ØV UTM [m]	364414.82
UTM sone	32
NPDID for brønnbanen	4762

Brønnhistorie

**General**

Well 6406/1-2 was drilled on the Sklinna prospect in the Norwegian Sea ca 10 km west of the Kristin Field. The Sklinna prospect is a faulted structural closure within a huge structure at Base Cretaceous level on the Sklinna High. The area closure was about 60 km²; crestal depth at ca 4160 m msl, and structural relief of more than 600 m. Structural closure was observed on all levels from The Lysing Fm and deeper. Therefore all possible reservoir levels like the Lysing and Lange sandstones were possible targets, but the primary target was the hydrocarbon potential in the Early Jurassic sandstone reservoirs of the Båt Group.

Operations and results

Wildcat well 6406/1-2 was spudded with the semi-submersible installation Deepsea Bergen on 26 June 2003 and drilled to TD at 4500 m in the Triassic Red Beds. The well was drilled with seawater/ high viscous sweeps with seawater/PAC spud mud down to 1205 m, with a water based silicate mud (Sildril) from 1205 m to 2415 m, and with Versapro oil based mud from 2415 m to TD. In addition to Versapro, Versatrol, VersaVert, and EDC99-ESCAID were used in intervals in the oil-based section. No shallow gas was observed.

No significant sand development was encountered above the Lange Formation. The well encountered Hydrocarbon bearing sandstone of Turonian age in the Lower Lange Formation from 4163 m - 4185 m (4157 - 4181 m TVD). The Early Jurassic Båt group was not present in the well as the Early Cretaceous rested unconformably on Triassic sediments. The reservoir hydrocarbon samples taken at 4178 m were all found to have more than 90 % mud contamination. A number of different petroleum-like products were used in the oil-based drilling mud, including Versatrol, which is a trade name for Gilsonite, a natural petroleum asphalt. Due to this strong contamination the PVT program was reduced and of all the geochemical analyses only the optical analyses (e.g. vitrinite reflectance), the gases and the light hydrocarbons were unaffected. The well was found to be immature down to about 3000 m. The lean Cretaceous and Triassic sediments below this depth had relatively poor source rock potential. The chemical and isotopic composition of the gas and light hydrocarbons in the reservoir indicated a high-maturity situation. Comparison with other data from the area indicated that the gasses had an affinity to the Spekk Formation, while the light hydrocarbons had some characteristics pointing to the Åre Formation. The heavier hydrocarbons (the oil) were masked by the oil-based mud and could not be characterized. Neither the Åre nor the Spekk Formations are present in the well.

No conventional core was taken in the well. Fifteen sidewall cores were retrieved out of 25 attempts. Due to tight hole and cemented formation MDT pressure test and sampling was only successful at 4178 m. Seven samples were taken, 4 MPSR, 2 SPMC and one gallon sample. Gas, condensate and mud filtrate was sampled, no formation water was observed. All samples were strongly contaminated by oil-based mud.

The well was permanently abandoned on 4 September 2003 as a gas/condensate discovery.

Testing

No drill stem test was performed in the well.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1210.00	4500.00



Borekaks tilgjengelig for prøvetaking?	YES
--	-----

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
3350.0	[m]	DC	OD
3360.0	[m]	DC	OD
3370.0	[m]	DC	OD
3380.0	[m]	DC	OD
3395.0	[m]	DC	OD
3400.0	[m]	DC	OD
3462.0	[m]	DC	OD
3471.0	[m]	DC	OD
3483.0	[m]	DC	OD
3495.0	[m]	DC	OD
3501.0	[m]	DC	OD
3513.0	[m]	DC	OD
3530.0	[m]	DC	OD
3540.0	[m]	DC	OD
3605.0	[m]	DC	OD
3840.0	[m]	DC	OD
4224.0	[m]	DC	OD
4256.0	[m]	DC	OD
4300.0	[m]	DC	OD
4315.0	[m]	DC	OD
4350.0	[m]	DC	OD
4404.0	[m]	DC	OD
4452.0	[m]	DC	OD
4500.0	[m]	DC	OD

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
406	NORDLAND GP
406	NAUST FM
1588	KAI FM
2084	HORDALAND GP
2084	BRYGGE FM
2458	ROGALAND GP



2458	TARE FM
2519	TANG FM
2574	SHETLAND GP
2574	SPRINGAR FM
2648	NISE FM
2730	KVITNOS FM
3368	CROMER KNOLL GP
3368	LYSING FM
3387	LANGE FM
4232	GREY BEDS (INFORMAL)
4478	RED BEDS (INFORMAL)

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
4762	pdf	0.58

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
4762_1	pdf	1.00

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
4762_6406_1_2_COMPLETION_LOG	.pdf	2.48
4762_6406_1_2_COMPLETION_REPORT	.PDF	1.67

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
IPLT AIT	4072	4506
MDT	4178	4178
MDT IPLT	4177	4186





MSCT	4155	4474
MWD - LWD GR RES DIR	3908	4500
MWD LWD - GR DIR	3645	3852
MWD LWD - GR RES DEN NEU PWD SON	2427	3645
MWD LWD - GR RES DIR SON	454	2415
MWD LWD - GR RES SON DEN NEU PWD	3852	3908
OBDT DSI	2770	4500
VSP APS	1900	4480

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	455.0	36	455.0	0.00	LOT
SURF.COND.	20	1199.0	26	1201.0	1.50	LOT
INTERM.	13 3/8	2404.0	17 1/2	2415.0	1.87	LOT
INTERM.	9 5/8	3901.0	12 1/4	3908.0	2.00	LOT
LINER	7	4140.0	8 1/2	4140.0	2.07	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	flytegrense [Pa]	Type slam	Dato, måling
578	1.47	18.0		WBM (SILDRIL)	
858	1.80	29.0		OBM (VERSAPRO)	
1210	1.03			SPUD MUD	
1210	1.03			SPUD MUD	
2415	1.53	24.0		SILDRIL	
2835	1.70	50.0		OIL (ENVIRON)	
3575	1.70	45.0		OIL (ENVIRON)	
3835	1.75	47.0		OIL (ENVIRON)	
3955	1.91	55.0		OBM (VERSAPRO)	
4140	1.89	46.0		OBM (VERSAPRO)	
4494	1.98	35.0		OBM (VERSAPRO)	
4500	1.98	34.0		OBM (VERSAPRO)	

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]
4762 Formation pressure (Formasjonstrykk)	pdf	0.27

