



Generell informasjon

Brønnbane navn	33/9-21 S
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Funn	33/9-6 DELTA
Brønn navn	33/9-21
Seismisk lokalisering	inline 2216
Utvinningstillatelse	037 D
Boreoperatør	Revus Energy ASA
Boretillatelse	1171-L
Boreinnretning	MURCHISON A
Boredager	87
Borestart	23.12.2008
Boreslutt	19.03.2009
Frigitt dato	19.03.2011
Publiseringsdato	19.03.2011
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	BRENT GP
Avstand, boredekk - midlere havflate [m]	56.4
Vanndybde ved midlere havflate [m]	156.1
Totalt målt dybde (MD) [m RKB]	6051.0
Totalt vertikalt dybde (TVD) [m RKB]	3105.0
Maks inklinasjon [°]	70
Eldste penetrerte alder	MIDDLE JURASSIC
Eldste penetrerte formasjon	ETIVE FM
Geodetisk datum	ED50
NS grader	61° 23' 48.26" N
ØV grader	1° 44' 27.25" E
NS UTM [m]	6807790.25



ØV UTM [m]	432751.22
UTM sone	31
NPDID for brønnbanen	5791

Brønnhistorie

General

The Delta discovery, made by well 33/9-6 in 1976, is situated approximately 4.5 km east of the Murchison platform. Well 33/9-6 had good oil shows, but was not tested due to mechanical problems. An oil down-to at 2998 m TVDSS corresponding to the top Mid Ness shale was seen in the well. The well had moderate reservoir quality within the Tarbert/Ness Formations, and excellent reservoir quality within the water-bearing Etive Formation.

Well 33/9-21 S was drilled to appraise the Brent Group reservoir quality and the oil-water contact as seen in well 33/9-6. If the reservoir quality was within expectations a horizontal sidetrack would be drilled to further evaluate the oil-bearing sands and eventually to undertake a test production.

The well was drilled deviated from the Murchison Platform on the UK side of the border, where the well name is UK211/19a-M75z.

Operations and results

Appraisal well 33/9-21 S was spudded from the Murchison Platform on 22 December 2008 and drilled to TD at 6051 m (3048 m TVD SS) in the Middle Jurassic Etive Formation. The well was drilled with Bentonite PAC mud down to 805 m, with KCl/glycol mud from 805 m to 1577 m, and with Versaclean oil based mud from 1577 m to TD.

Top target reservoir came in at 5867 m (2972 m TVD SS), 10 m low to prognosis. Hydrocarbons were encountered in the Tarbert, Ness and Etive formations with an OWC within the Etive sands at 3004 m TVD SS. Log interpretation confirmed the expected Brent Group reservoir quality as seen in well 33/9-6. A horizontal sidetrack was thus decided to further appraise the oil-bearing sands. Shows were reported as "no shows above OBM" throughout the well bore.

No cores were cut and no wire line fluid samples were taken. The well was logged on LWD only. The formation pressure was measured with the StethoScope tool.

The well was permanently abandoned on 19 March 2009 as an oil appraisal.

Testing

No drill stem test was performed.

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
213	NORLAND GP
971	UTSIRA FM
1093	HORDALAND GP



2618	ROGALAND GP
2618	BALDER FM
2728	SELE FM
2846	LISTA FM
3056	VÅLE FM
3112	SHETLAND GP
5571	CROMER KNOLL GP
5571	RØDBY FM
5587	SOLA FM
5672	ÅSGARD FM
5702	MIME FM
5728	VIKING GP
5728	DRAUPNE FM
5813	HEATHER FM
5867	BRENT GP
5867	TARBERT FM
5903	NESS FM
5927	ETIVE FM

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
MWD - DI GR RES APWD	483	5155
MWD - DI GR RES APWD NEU DEN SON	5155	6050

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	243.0	36	243.0	0.00	LOT
SURF.COND.	20	481.0	26	486.0	0.00	LOT
INTERM.	13 3/8	1570.0	17 1/2	1580.0	1.61	LOT
INTERM.	9 5/8	5144.0	12 1/4	5155.0	1.78	LOT
OPEN HOLE		6051.0	8 1/2	6051.0	1.78	LOT

Boreslam



Dybde MD [m]	Egenvekt, slam [g/cm ³]	Viskositet, slam [mPa.s]	Fløtegrense [Pa]	Type slam	Dato, måling
506	0.00			seawater	
1577	1.17			KCL/Glycol	
5155	1.53			Versaclean	
6066	1.55			Versaclean	