



Generell informasjon





Brønnbane navn	16/5-2 S
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	JOHAN SVERDRUP
Funn	16/2-6 Johan Sverdrup
Brønn navn	16/5-2
Seismisk lokalisering	LN0902-R10-inline4980 & crossline 3210
Utvinningsstillatelse	501
Boreoperatør	Lundin Norway AS
Boretillatelse	1376-L
Boreinnretning	BREDFORD DOLPHIN
Boredager	62
Borestart	28.11.2011
Boreslutt	28.01.2012
Frigitt dato	28.01.2014
Publiseringsdato	28.01.2014
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL SHOWS
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	111.0
Totalt målt dybde (MD) [m RKB]	2042.0
Totalt vertikalt dybde (TVD) [m RKB]	2037.2
Maks inklinasjon [°]	9.8
Eldste penetrerte alder	LATE TRIASSIC
Eldste penetrerte formasjon	SKAGERRAK FM
Geodetisk datum	ED50
NS grader	58° 44' 43.55" N
ØV grader	2° 37' 58.2" E
NS UTM [m]	6511913.92
ØV UTM [m]	478748.94
UTM sone	31
NPDID for brønnbanen	6720



Brønnhistorie

General

Well 16/5-2 S was drilled to appraise the southern flank of the Avaldsnes (subsequently Johan Sverdrup) discovery on the Utsira High in the North Sea. The objectives were to prove the presence and quality of Late and Middle Jurassic

sequences on the south flank of the Johan Sverdrup structure; to prove an oil column of 20 to 45 m; and to calibrate the seismic interpretation and the depth conversion. The well was planned to reach total depth in sediments of Triassic age at a depth of approximately 2180 m TVD RKB.

Operations and results

Appraisal well 16/5-2 S was spudded with the semi-submersible installation Bredford Dolphin on 28 November 2011 and drilled to TD at 2042 m (2037 m TVD) in the Late Triassic Skagerrak Formation. The well was drilled with Sea water and hi-vis pills down to 755 m and with Performadril Water Based Mud from 755 m to TD.

At 1958 m the well encountered a 9 m thick sequence of Late Jurassic Draupne Formation sandstone of excellent quality. No Middle Jurassic sediments were found. The seismic interpretation of Base Jurassic was encountered shallower than expected while the BCU was deeper than expected. This meant that the Late Jurassic Intra-Draupne Formation sandstone was penetrated below the regional free water level seen in neighbouring wells in the Johan Sverdrup Discovery. A water gradient of 1.022 g/cc was confirmed in the reservoir interval. Residual hydrocarbon shows were observed in some intervals in the conventional cores from 1959 m to 1967 m, otherwise no shows were reported from the well.

Five cores were cut from 1919 m to 1974 m with good recovery. A fluid sample was acquired using the MDT tool at 1958.95 m. This contained only water without hydrocarbon traces.

The well was permanently abandoned on 28 January 2012 as a dry well with shows.

Testing

No drill stem test was performed.

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Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
760.00	2042.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerter i Sokkeldirektoratet



Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	1919.0	1937.7	[m]
2	1938.0	1958.2	[m]
3	1958.2	1967.3	[m]
4	1967.5	1968.1	[m]
5	1968.3	1974.2	[m]

Total kjerneprøve lengde [m]	54.4
Kjerner tilgjengelig for prøvetaking?	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
136	NORDLAND GP
793	UTSIRA FM
967	HORDALAND GP
1396	ROGALAND GP
1396	BALDER FM
1412	SELE FM
1422	LISTA FM
1479	SHETLAND GP
1479	EKOFISK FM
1487	TOR FM
1616	HOD FM
1769	BLODØKS FM
1785	SVARTE FM
1816	CROMER KNOLL GP
1816	RØDBY FM
1923	SOLA FM
1926	ÅSGARD FM
1958	VIKING GP
1958	INTRA DRAUPNE FM SS
1967	HEGRE GP
1967	SKAGERRAK FM

Logger



Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
FMI MSIP GR	1759	2040
MDT GR	1959	2014
MRX GR	1859	2027
MSCT GR	1783	2034
MSIP IN DCBL	1519	2045
MWD - DIR GR RES PWD SON	136	754
MWD - DIR GR RES PWD SON DEN NEU	748	2042
PEX HRLA ECD GR	1536	2042
VSI GR	716	2032

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	214.0	36	216.0	0.00	LOT
SURF.COND.	13 3/8	748.0	17 1/2	755.0	1.89	LOT
INTERM.	9 5/8	1546.0	12 1/4	2556.0	1.50	LOT
OPEN HOLE		2042.0	8 1/2	2042.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
758	1.30	27.0		Water Base	
1435	1.35	33.0		Water Base	
1556	1.35	32.0		Water Base	
1919	1.20	32.0		Water Base	
1967	1.21	26.0		Water Base	
2042	1.35	26.0		Water Base	
2042	1.20	21.0		Water Base	

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]
6720 Formation pressure (Formasjonstrykk)	pdf	0.22

