Generell informasjon

Brønnbane navn	6507/3-14
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORWEGIAN SEA
Funn	6507/3-13
Brønn navn	6507/3-14
Seismisk lokalisering	3D survey ST11M01: Inline: 5459. X-line: 4690
Utvinningstillatelse	159 B
Boreoperatør	Equinor Energy AS
Boretillatelse	1860-L
Boreinnretning	WEST HERCULES
Boredager	53
Borestart	28.07.2021
Boreslutt	18.09.2021
Plugget dato	18.09.2021
Frigitt dato	18.09.2023
Publiseringsdato	12.09.2023
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	DRY
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	31.0
Vanndybde ved midlere havflate [m]	368.0
Totalt målt dybde (MD) [m RKB]	3418.0
Totalt vertikalt dybde (TVD) [m RKB]	3415.0
Maks inklinasjon [°]	10.2
Eldste penetrerte alder	EARLY CRETACEOUS
Eldste penetrerte formasjon	LYR FM
Geodetisk datum	ED50
NS grader	65° 58' 55.27'' N
ØV grader	7° 43' 7.48'' E
NS UTM [m]	7318685.55
ØV UTM [m]	441807.53

UTM sone	32
NPDID for brønnbanen	9318

Brønnhistorie

General

Well 6507/3-14 was drilled to test the Black Vulture on the Halten Terrace in the Norwegian Sea. The objective was to test turbiditic sandstones within the Lange Formation.

Operations and results

Wildcat well 6507/3-14 was spudded with the semi-submersible installation West Hercules on 28 July 2021. No shallow gas was expected, but minor gas bubbles was observed streaming from conductor cement ports by ROV when running BOP. Streaming gas bubbles from the conductor port and four seabed locations outside conductor continued throughout well operations with a decreasing trend. A well control incident occurred at 1922 m with 3.9 m3 influx comprising water and some gas. The influx zone was sealed off with a 90 m cement plug and 9 5/8" liner run to 1836 m. Drilling commenced to core point at 3266.7 m, and when pulling out the drill pipe got stuck in Lysing Formation sand. After working to free the pipe a long time without success the section was P&A and a sidetrack 6507/3-14 T2 was kicked off from 1774 m. The sidetrack was drilled to final TD at 3418 m in the Early Cretaceous Lyr Formation. The well was drilled with seawater and hi-vis pills down to 1350 m and with Versatec oil-based mud from 1350 m to the sidetrack kick-off at 1774 m. The sidetrack was drilled with Versatec oil-based mud down to 2898 m and with ExploraDrill oil-based MUD from 2898 m to final TD.

The intra Lange Formation target sands were encountered at 3266 m. Approximately 24 m of sandstone with moderate reservoir properties was found. The pressure in the Lange sandstones was measured with WFT and were in a similar pressure regime as measured in the 6507/3-13 well, but the targets were penetrated below the OWC. The only hydrocarbon indication in the well was poor shows in these sandstones. The shows are described as "Spotted moderate yellow fair direct Fluorescence, slow blooming blue, white pale cut Fluorescence, fair blue, white residual fluorescens".

No cores were cut, and no fluid sample was taken due to dry well.

The well was permanently abandoned on 18 September 2021 as a dry well.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1360.00	3265.00

Borekaks tilgjengelig for prøvetaking?	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
399	NORDLAND GP
399	NO FORMAL NAME
659	NAUST FM
1358	KAI FM
1706	HORDALAND GP
1706	BRYGGE FM
1855	ROGALAND GP
1855	TARE FM
1923	TANG FM
1980	SHETLAND GP
1980	SPRINGAR FM
2165	NISE FM
2475	KVITNOS FM
2845	CROMER KNOLL GP
2845	LYSING FM
2877	LANGE FM
3379	LYR FM

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
GR RES DIR -T2	449	28982
LWD - GR RES DIR	449	1922
LWD - NBGR GR RES DIR	1836	3267

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	36	448.7	42	448.7	0.00	
INTERM.	13 3/8	1343.8	17 1/2	1350.0	1.58	FIT
INTERM.	9 5/8	1836.0	12 1/4	1922.0	1.73	FIT
LINER	7	2798.0	8 1/2	2798.0	1.83	FIT
LINER	7	2897.0	8 1/2	2898.0	1.82	FIT

OPEN HOLE		3267.0	6	3267.0	0.00	
OPEN HOLE		3418.0	6	3418.0	0.00	

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
450	1.60	33.0	8.5	Exploradrill	
1314	1.39	28.0	6.5	Versatec	
1569	1.60	33.0	8.0	Exploradrill	
1771	1.55	43.0	8.0	Versatec	
1774	1.62	31.0	8.5	Exploradrill	
1778	1.52	41.0	7.0	Versatec	
1782	1.55	38.0	9.0	Versatec	
1838	1.50	36.0	8.5	Versatec	
1922	1.55	35.0	6.5	Versatec	
2077	1.54	39.0	7.5	Versatec	
2376	1.55	39.0	8.5	Versatec	
2552	1.62	32.0	7.5	Exploradrill	
2585	1.55	38.0	9.0	Versatec	
2605	1.60	33.0	7.5	Exploradrill	
2640	1.55	38.0	10.0	Versatec	
2901	1.60	30.0	7.0	Exploradrill	
3008	1.62	31.0	7.0	Exploradrill	
3284	1.60	32.0	9.0	Exploradrill	
3418	1.60	33.0	8.0	Exploradrill	