



General information

Wellbore name	6608/10-18
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Field	VERDANDE
Discovery	6608/10-17 S Verdande
Well name	6608/10-18
Seismic location	Seismic 3D survey ST11M01. Inline 6201. Xline 5079
Production licence	128 D
Drilling operator	Equinor Energy AS
Drill permit	1714-L
Drilling facility	SONGA ENCOURAGE
Drilling days	33
Entered date	16.07.2018
Completed date	17.08.2018
Plugged date	17.08.2018
Release date	17.08.2020
Publication date	17.08.2020
Purpose - planned	APPRAISAL
Reentry	NO
Content	OIL
Discovery wellbore	NO
1st level with HC, age	EARLY CRETACEOUS
1st level with HC, formation	LANGE FM
Kelly bushing elevation [m]	32.0
Water depth [m]	373.0
Total depth (MD) [m RKB]	3469.0
Final vertical depth (TVD) [m RKB]	3469.0
Maximum inclination [°]	1.9
Bottom hole temperature [°C]	131
Oldest penetrated age	LATE JURASSIC
Oldest penetrated formation	MELKE FM
Geodetic datum	ED50
NS degrees	66° 6' 9.54" N



EW degrees	8° 4' 23.11" E
NS UTM [m]	7331847.61
EW UTM [m]	458098.81
UTM zone	32
NPDID wellbore	8506

Wellbore history

Well 6608/10-18 was drilled to appraise the Cape Vulture discovery made by 6608/10-17 S on the Revfallet Fault Complex in the Norwegian Sea. The Cape Vulture Discovery consists of three Inta-Lange Formation sands, named the Cape Vulture Upper, Main, and Lower. The primary objective for 6608/10-18 was to test the hydrocarbon potential and hydrocarbon contacts in the Cape Vulture Main and Lower sandstones.

Operations and results

Appraisal well 6608/10-18 was spudded with the semi-submersible installation Songa Encourage on 16 July 2018 and drilled to TD at 3469 m in the Late Jurassic Melke Formation. Operations proceeded without significant problems. The well was drilled with seawater and hi-vis pills down to 1350 m and with Enviromul oil-based mud from 1350 m to TD.

A thin water bearing Cape Vulture Upper sand without shows was penetrated from 3038 to 3041 m. Cape Vulture Main came in at 3078 m, 16 meters shallower than prognosis, and with a gross thickness of 26 meter. Good reservoir quality with an 'oil-down-to' situation was observed in Cape Vulture Main. Cape Vulture Lower came in at 3122 m, 26 meter (TVD) shallower than prognosed. The Cape Vulture Lower reservoir was oil-bearing as well but was only 4 meters thick and of moderate to poor quality. Oil shows were described in the oil-bearing reservoir sections, but nowhere else in the well.

One core was cut in the Lange Formation from 3082 to 3190 m with 99.6% recovery. Fluid samples were taken at 3083.0 m (oil), 3086.3 m (oil), and 3123.9 m (oil).

The well was permanently abandoned on 17 August 2018 as an oil appraisal well.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1360.00	3468.00

Cuttings available for sampling?	YES
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Cores at the Norwegian Offshore Directorate



Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	3082.0	3189.6	[m]

Total core sample length [m]	107.6
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
405	NORDLAND GP
405	NO FORMAL NAME
681	NAUST FM
1391	KAI FM
1639	HORDALAND GP
1639	BRYGGE FM
1876	ROGALAND GP
1876	TARE FM
1944	TANG FM
1973	SHETLAND GP
1973	SPRINGAR FM
2217	NISE FM
2695	KVITNOS FM
2850	CROMER KNOLL GP
2850	LYSING FM
2871	LANGE FM
3357	LYR FM
3418	VIKING GP
3418	SPEKK FM
3446	MELKE FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CMR MDT	2860	3123
FTWT	3082	3097
MWD LWD - ARC	456	1350
MWD LWD - ARC TELE	1350	2745



MWD LWD - CORE BHA	3082	3190
MWD LWD - GVR ARC TELE	2745	3082
MWD LWD - GVR ARC TELE	3190	3469
MWD LWD - TELE	405	456
ZAIT ECS PEX MSIP	2660	3470
ZO VSP	415	3470

Casing and leak-off tests

Casing type	Casing diam. [inch]	Casing depth [m]	Hole diam. [inch]	Hole depth [m]	LOT/FIT mud eqv. [g/cm3]	Formation test type
CONDUCTOR	30	442.0	36	456.5	0.00	
INTERM.	13 3/8	1340.4	17 1/2	1350.0	1.57	FIT
INTERM.	9 5/8	2737.0	12 1/4	2745.0	1.86	LOT
OPEN HOLE		3469.0	8 1/2	3469.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
407	1.35	13.0		KCl/Polymer	
1310	1.45	33.0		Enviromul	
1350	1.35	28.0		Enviromul	
1608	1.43	29.0		Enviromul	
2014	1.45	31.0		Enviromul	
2750	1.58	27.0		Enviromul	
2757	1.45	30.0		Enviromul	
2835	1.58	25.0		Enviromul	
3469	1.58	26.0		Enviromul	