

General information

Wellbore name	6508/5-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link
Main area	NORWEGIAN SEA
Well name	6508/5-1
Seismic location	86 - 122 SP. 595
Drilled in production licence	125
Drilling operator	A/S Norske Shell
Drill permit	542-L
Drilling facility	WEST VANGUARD
Drilling days	33
Entered date	22.04.1987
Completed date	24.05.1987
Release date	24.05.1989
Publication date	30.06.2005
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	22.0
Water depth [m]	411.0
Total depth (MD) [m RKB]	2586.0
Final vertical depth (TVD) [m RKB]	2586.0
Maximum inclination [°]	1.8
Bottom hole temperature [°C]	66
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	RED BEDS (INFORMAL)
Geodetic datum	ED50
NS degrees	65° 42' 51.22" N
EW degrees	8° 28' 35.37" E
NS UTM [m]	7288341.64
EW UTM [m]	475973.17
UTM zone	32
NPDID wellbore	1044

Wellbore history

General

Well 6508/5-1 was drilled on a structure located in the western part of the Helgeland Basin off shore Mid Norway. The primary target was sandstone of the Early/Middle Jurassic Ile Formation. The Ti1je Formation was a secondary target in the case of a shaled out Early/Middle Jurassic sequence acting as a seal.

Operations and results

Wildcat well 6508/5-1 was spudded with the semi-submersible installation West Vanguard on 22 April 1987 and drilled to TD at 2589 m in the Triassic Red Beds. The hole was drilled without significant problems and without any signs of shallow gas. It was drilled with seawater and gel down to 961 m, and with KCl/polymer mud from 961 m to TD.

The top prospect was encountered at 1778 m and cored. The cored section exhibited excellent porosities with an average of 32% and permeabilities of generally several hundreds of mD to tens of Darcies. From petrophysical log evaluation the whole of Ile Formation had a net to gross of 64% and the same porosity average as in the cored section using a 15% porosity cut off. The Tilje Formation also possessed excellent reservoir characteristics. Reservoir characteristics remained good in the Åre Formation and Red Beds with an average of 25% porosity at around 2500 m. Unfortunately there were no signs of hydrocarbons on the logs and no shows were recorded in any part of the well, except for cut fluorescence in sidewall cores in claystones from the Spekk and upper Melke Formations. The RFT tool was run from 1786 m in the Ile Formation to 2542m in the Red Beds with 13 pressure points acquired. A clear water gradient of 1.013 g/cm³ was established. Post-well organic geochemical analyses included in the well completion reports only partly considered migrated hydrocarbons/shows, but from rock-eval PI data the lack of shows were confirmed. These analyses also proved excellent source rock potential in the Spekk Formation, although more gas-prone than further to the west and south on Mid Norway. Coals of the Åre Formation were present with potential for gas. The well section was however immature for any petroleum generation all through. One conventional core was cut in the Ile Formation from 1786 m to 1804 m. No attempts were made to take fluid samples.

The well was permanently abandoned on 24 may 1987 as a dry hole.

Testing

No drill stem test was performed.

Cuttings at the NPD

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
980.00	2586.00

Cuttings available for sampling?	YES
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Cores at the NPD

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	1786.0	1798.2	[m]

Total core sample length [m]	12.2
Cores available for sampling?	YES

Core photos



1786-1791m



1791-1795m



1791-1796m



1796-1798m

Palynological slides at the NPD

Sample depth	Depth unit	Sample type	Laboratory
1120.0	[m]	DC	OD
1130.0	[m]	DC	OD
1140.0	[m]	DC	OD
1150.0	[m]	DC	OD
1160.0	[m]	DC	OD
1170.0	[m]	DC	OD
1180.0	[m]	DC	OD
1190.0	[m]	DC	OD
1200.0	[m]	DC	OD
1210.0	[m]	DC	OD
1220.0	[m]	DC	OD
1230.0	[m]	DC	OD
1240.0	[m]	DC	OD
1250.0	[m]	DC	OD
1260.0	[m]	DC	OD
1270.0	[m]	DC	OD
1280.0	[m]	DC	OD
1290.0	[m]	DC	OD

1300.0 [m]	DC	OD
1310.0 [m]	DC	OD
1320.0 [m]	DC	OD
1330.0 [m]	DC	OD
1340.0 [m]	DC	OD
1350.0 [m]	DC	OD
1360.0 [m]	DC	OD
1370.0 [m]	DC	OD
1380.0 [m]	DC	OD
1390.0 [m]	DC	OD
1400.0 [m]	DC	OD

Lithostratigraphy

Top depth [m]	Lithostrat. unit
433	NORDLAND GP
1163	HORDALAND GP
1163	BRYGGE FM
1427	ROGALAND GP
1427	TARE FM
1476	TANG FM
1527	CROMER KNOLL GP
1527	LANGE FM
1562	LYR FM
1580	VIKING GP
1580	SPEKK FM
1650	MELKE FM
1710	FANGST GP
1710	NOT FM
1778	ILE FM
1824	BÅT GP
1824	TILJE FM
1981	ÅRE FM
2229	RED BEDS (INFORMAL)

Composite logs

Document name	Document format	Document size [KB]
1044	pdf	0.38

Geochemical information

Document name	Document format	Document size [KB]
1044 1	pdf	1.83
1044 2	pdf	2.58

Documents - older NPD WDSS reports and other related documents

Document name	Document format	Document size [KB]
1044 01 WDSS General Information	pdf	0.35
1044 02 WDSS completion log	pdf	0.23
1044 01 WDSS General Information	pdf	0.35
1044 02 WDSS completion log	pdf	0.23

Documents - reported by the production licence (period for duty of secrecy expired)

Document name	Document format	Document size [KB]
1044 01 Completion report	pdf	4.14
1044 02 Completion log	pdf	6.15
1044 01 Encl 1	pdf	0.83
1044 01 Encl 2	pdf	0.75
1044 01 Encl 3	pdf	2.63

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL	700	15185
ISF LSS GR	519	972
ISF LSS GR	961	1603
ISF LSS GR MSFL	1590	2580
LDL CNL GR	519	975
LDL CNL GR NGT	1590	2580
LDL CNL NGL	961	1605
RFT	1786	2542
SAT	450	2575
SHDT	1590	2581

SWS	0	0
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Casing and leak-off tests

Casing type	Casing diam. [inch]	Casing depth [m]	Hole diam. [inch]	Hole depth [m]	LOT mud eqv. [g/cm ³]	Formation test type
CONDUCTOR	30	519.0	36	677.0	0.00	LOT
SURF.COND.	20	960.0	26	975.0	1.50	LOT
INTERM.	13 3/8	1589.0	17 1/2	1603.0	1.62	LOT
OPEN HOLE		2586.0	12 1/4	2586.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm ³]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
457	1.03			WATER BASED	25.05.1987
1855	1.28	17.0	14.0	WATER BASED	25.05.1987
2586	1.28	16.0	14.0	WATER BASED	21.05.1987
2586	1.28	16.0	14.0	WATER BASED	21.05.1987