

**General information**

Wellbore name	15/12-12
Type	EXPLORATION
Purpose	WILDCAT
Status	RE-CLASS TO DEV
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Field	REV
Discovery	15/12-12 Rev
Well name	15/12-12
Seismic location	SG9809 - 308/NH0073 - 102
Production licence	038
Drilling operator	Saga Petroleum ASA
Drill permit	938-L
Drilling facility	SCARABEO 6
Drilling days	47
Entered date	25.12.2000
Completed date	09.02.2001
Release date	09.02.2003
Publication date	19.10.2006
Purpose - planned	WILDCAT
Reclassified to wellbore	15/12-C-1 H
Reentry	NO
Content	OIL/GAS
Discovery wellbore	YES
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	INTRA HEATHER FM SS
2nd level with HC, age	TRIASSIC
2nd level with HC, formation	SKAGERRAK FM
Kelly bushing elevation [m]	26.0
Water depth [m]	87.0
Total depth (MD) [m RKB]	3085.0
Final vertical depth (TVD) [m RKB]	3056.0
Maximum inclination [°]	26
Bottom hole temperature [°C]	126
Oldest penetrated age	TRIASSIC
Oldest penetrated formation	SKAGERRAK FM
Geodetic datum	ED50



NS degrees	58° 1' 40.68" N
EW degrees	1° 55' 28.34" E
NS UTM [m]	6432475.78
EW UTM [m]	436478.40
UTM zone	31
NPDID wellbore	3391

Wellbore history

General

The objective for well 15/12-12 was to test the hydrocarbon potential of the Rev structure in PL 038 approximately 5 km south-east of the Varg Field (Varg A Platform). The target level was Oxfordian Intra Heather Sands of the Viking Group.

Operations and results

Well 15/12-12 was spudded with the semi-submersible installation Scarabeo 6 on 25 December 2000 and drilled to TD at 3085 m in the Triassic Skagerrak Formation. At ca 2700 m the well starts to build angle up to a deviation of ca 25 deg at ca 2830 m. This deviation is kept down to TD where it leads to a difference between measured and vertical depth of ca 30 m. The well was drilled with seawater and hi-vis pills through to the base of the 17 1/2" section at 1384 m and with Glydrill KCL Polymer from 1384 m to TD.

A total of 121 m (2856 - 2977 m) gross Late Jurassic, Intra Heather reservoir sequence was penetrated in well 15/12-12 on the Rev Structure. The reservoir is interpreted as shallow marine sand bodies and is dated Oxfordian of age. On top of the reservoir lie 6 m sand dated Earliest Kimmeridgian of age. This sand was not considered as part of the net reservoir. The massive Intra Heather sands had very good reservoir quality. The cored interval of the reservoir had good hydrocarbon shows. Pressure data showed a clear gas gradient with a distinct GOC at 2954 m (2912 m TVD MSL) and an oil gradient down to base of reservoir (Top Triassic) at 2977 m (2932.5 m TVD MSL). MDT samples of the oil leg indicated an oil-down-to (ODT) situation. The pressure data also showed approximately 40 bars of depletion, caused by the production on the Varg Field (Southern Segment).

The interval between 2864 - 3000 m was cored in six cores, nearly the complete reservoir section and the upper part of Triassic. MDT fluid samples were taken throughout the reservoir at 2867.5 m, 2895 m, 2961 m, 2964.2 m, and 2972.5 m. Samples from the two deepest levels recovered variable proportions of water and oil, reflecting the lack of a clear oil-water contact (OWC) in the reservoir. This is interpreted as an effect of the pressure depletion due to the production on Varg. Apart from the sampled water, which was heavily mud contaminated, sampled fluids were considered representative for the reservoir.

The well was permanently abandoned on 9 February 2001 as an oil and gas discovery.

Testing

No drill stem test was performed



Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1440.00	3085.00

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	2864.0	2892.0	[m]
2	2892.0	2920.0	[m]
3	2920.0	2948.0	[m]
4	2948.0	2974.7	[m]
5	2976.0	2984.2	[m]
6	2986.0	2997.7	[m]

Total core sample length [m]	130.6
Cores available for sampling?	YES

Core photos



2864-2869m



2869-2874m



2874-2879m



2879-2884m



2884-2889m



2889-2894m



2894-2899m



2899-2904m



2904-2909m



2909-2914m



2914-2919m



2919-2924m



2924-2929m



2929-2934m



2934-2939m



2914-2919m 2919-2924m 2924-2929m 2929-2934m 2934-2939m



2939-2944m



2944-2949m



2949-2954m



2954-2959m



2959-2964m



2964-2969m



2969-2974m



2974-2980m



2980-2984m



2986-2991m



2991-2996m



2996-2998m

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
113	NORDLAND GP
1065	UTSIRA FM
1245	HORDALAND GP
2238	ROGALAND GP
2238	BALDER FM
2252	SELE FM
2312	LISTA FM
2420	VÅLE FM
2445	SHETLAND GP
2445	EKOFISK FM
2450	TOR FM
2558	HOD FM
2651	BLODØKS FM



2675	HIDRA FM
2711	CROMER KNOLL GP
2711	RØDBY FM
2733	SOLA FM
2774	RØDBY FM
2793	VIKING GP
2793	DRAUPNE FM
2861	INTRA HEATHER FM SS
2977	HEGRE GP
2977	SKAGERRAK FM

Composite logs

Document name	Document format	Document size [MB]
3391_15_12_12	pdf	0.42

Geochemical information

Document name	Document format	Document size [MB]
3391_1	pdf	2.20

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

Document name	Document format	Document size [MB]
3391_15_12_12_COMPLETION_LOG	.pdf	6.86
3391_15_12_12_COMPLETION_REPORT	.pdf	3.69

Logs

Log type	Log top depth [m]	Log bottom depth [m]
APS VSP CCL	2460	3040
CMR ECS	2820	2983
DP MDT	2964	2972
DSI ECS HNGS	2200	2829





FMI DSI CMR200	2182	2362
MDT	2859	2937
MDT	2895	3040
MWD ADN RAB	2827	3084
MWD CDR	113	1375
MWD CDR CDN RAB	1366	2823

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	185.0	36	185.0	0.00	LOT
SURF.COND.	20	599.0	26	605.0	0.00	LOT
INTERM.	13 3/8	1377.0	17 1/2	1384.0	2.18	LOT
INTERM.	9 5/8	2829.0	12 1/4	2836.0	0.00	LOT
OPEN HOLE		3085.0	8 1/2	3035.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
185	1.09			WATER BASED	
456	1.09			WATER BASED	
970	1.05			WATER BASED	
2110	1.35	20.0		WATER BASED	
2836	1.39	25.0		WATER BASED	
2841	1.35	23.0		WATER BASED	
3085	1.36	20.0		WATER BASED	
3088	1.36	19.0		WATER BASED	

Pressure plots

The pore pressure data is sourced from well logs if no other source is specified. In some wells where pore pressure logs do not exist, information from Drill stem tests and kicks have been used. The data has been reported to the NPD, and further processed and quality controlled by IHS Markit.

Document name	Document format	Document size [MB]
3391 Formation pressure (Formasjonstrykk)	pdf	0.22

