

**General information**

Wellbore name	15/12-14
Type	EXPLORATION
Purpose	APPRAISAL
Status	RE-CLASS TO DEV
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Field	VARG
Discovery	15/12-4 Varg
Well name	15/12-14
Seismic location	
Production licence	038
Drilling operator	Pertra AS (OLD)
Drill permit	1069-L
Drilling facility	MÆRSK GIANT
Drilling days	18
Entered date	14.12.2003
Completed date	31.12.2003
Release date	31.12.2005
Publication date	31.12.2005
Purpose - planned	APPRAISAL
Reclassified to wellbore	15/12-A-12 A
Reentry	NO
Content	OIL
Discovery wellbore	NO
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	INTRA HEATHER FM SS
Kelly bushing elevation [m]	51.0
Water depth [m]	87.0
Total depth (MD) [m RKB]	3305.0
Final vertical depth (TVD) [m RKB]	3081.0
Bottom hole temperature [°C]	130
Oldest penetrated age	MIDDLE JURASSIC
Oldest penetrated formation	SLEIPNER FM
Geodetic datum	ED50
NS degrees	58° 4' 40.47" N
EW degrees	1° 53' 25.84" E
NS UTM [m]	6438068.27



EW UTM [m]	434560.05
UTM zone	31
NPDID wellbore	4845

Wellbore history

General

Well 15/12-14 was drilled as an appraisal well in the Varg West segment. The well was sidetracked from the existing well 15/12-A-12. The objectives were to prove hydrocarbons in the Varg West segment, complete as an oil producer, and maximize the Varg oil production.

Operations and results

Appraisal well 15/12-14 was drilled as a sidetrack from 15/12-A-12 on the Varg field below the 13 3/8" casing shoe. The operations started on 8 December 2003 with re-entry of well 15/12-A-12. All operations were performed with the jack-up 3 legs installation Mærsk Giant. The well bore was kicked off on 14 December at 1348 m and was drilled to TD at 3305 m in the Middle Jurassic Hugin Formation. Maximum deviation in the well is 36.95 degrees towards the base of the reservoir, decreasing to 34.4 degrees at TD. Apart from a VSP_GR run and a CST-GR run all log data in the well originate from LWD. The well was drilled using oil-based mud (ENVIRON) from kick-off to TD.

Well 15/12-14 penetrated oil filled Late Oxfordian sandstone, Hugin Formation, at 3104.9 m (2867.6 m TVD MSL). A total of 105 m MD (3105 ? 3210 m), 84 m TVD (2868 ? 2952 m TVD MSL), was penetrated in the well. No oil/water contact was found in the well, the oil-down-to is placed at 2956 m TVD MSL (3214.5 m MD). Shows were recorded down to 3236 m. The reservoir consisted of fine to medium grained sandstone with some coarser grained beds in between. The average estimated porosity in the reservoir section was 21 % with a N/G of 0.7. The reservoir was found to be pressure depleted compared to the initial pressure observed in the Varg Field. Varg W is interpreted to be in communication with Varg N3 (15/12-A-5 T2). The results from the well thus confirmed the presence of hydrocarbon bearing reservoir in the Varg W segment, and increased the reserves in the field.

No conventional core was cut in the well. Formation pressure sampling was performed while drilling, utilizing the GeoTap tool from Halliburton. No fluid sample was taken.

The well was completed with a perforated liner and set in production with an initial production rate of 2000 Sm³/d. The well was classified as appraisal and was renamed to 15/12-A-12 A after completion.

Testing

No drill stem test was performed.

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
136	NORDLAND GP
1325	HORDALAND GP



2391	ROGALAND GP
2391	BALDER FM
2396	SELE FM
2420	LISTA FM
2571	SHETLAND GP
2984	CROMER KNOLL GP
2992	VIKING GP
2992	DRAUPNE FM
3015	HEATHER FM
3100	INTRA HEATHER FM SS
3220	HEATHER FM
3255	VESTLAND GP
3255	SLEIPNER FM

Composite logs

Document name	Document format	Document size [MB]
4845	pdf	0.27

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CST GR	3113	3300
LWD - GR RES ALD BAT	1320	3110
LWD - GR RES NEU ALD BAT GEOTAP	3110	3305
VSP GR	1725	3245

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
INTERM.	9 5/8	3099.0	12 1/4	3110.0	1.35	LOT
INTERM.	5 1/2	3254.0	8 1/2	3254.0	0.00	LOT

Drilling mud





Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1376	1.52	42.0		OIL (ENVIRON)	
1847	1.52	37.0		OIL (ENVIRON)	
2700	1.52	34.0		OIL (ENVIRON)	
3110	1.55	41.0		OIL (ENVIRON)	
3254	1.25	26.0		OIL (ENVIRO	

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]
4845_Formalion_pressure_(Formasjonstrykk)	pdf	0.22

