

**General information**

Wellbore name	1/3-12 S
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	1/3-12
Seismic location	inline 9410 & crossline 19564
Production licence	297
Drilling operator	BG Norge AS
Drill permit	1287-L
Drilling facility	ROWAN GORILLA VI
Drilling days	234
Entered date	01.12.2009
Completed date	22.07.2010
Release date	03.10.2011
Publication date	03.10.2011
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	48.0
Water depth [m]	70.4
Total depth (MD) [m RKB]	5931.0
Final vertical depth (TVD) [m RKB]	5868.0
Maximum inclination [°]	18
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	SKAGERRAK FM
Geodetic datum	ED50
NS degrees	56° 45' 11.19" N
EW degrees	2° 49' 43.61" E
NS UTM [m]	6290057.13
EW UTM [m]	489529.49
UTM zone	31
NPDID wellbore	6260



Wellbore history

General

Well 1/3-12 S was drilled in the Breiflabb Basin of the southern North Sea, about half-way between the Albuskjell Field and the 1/3-11 discovery. The principal objective of the well was to penetrate the Mandarin East pod and evaluate a prognosed un-faulted section of Triassic (Skagerrak Formation) within which there was a strong amplitude event that was interpreted pre-drilling as being the Top Julius mudstone, with a Joanne Sandstone section above and the Judy Sandstone beneath. Both of these were prognosed to contain hydrocarbons. The secondary objective was to evaluate the hydrocarbon potential of the Late Jurassic Sandstones, if any were present.

Operations and results

Well 1/3-12 S was spudded with the jack-up installation Rowan Gorilla VI on 1 December 2009 and drilled to TD at 5931 m (5868 m TVD) in the Late Triassic Skagerrak Formation. At final TD the pipe became stuck and after some time working to free the pipe it parted just below the rotary table. A complex 12 day fishing operation then commenced, eventually recovering the fish from 5590 m upwards, but leaving the BHA across the Judy Sandstones. This made wire line logging operations impossible. Following recovery of the fish a further 32 days were spent plugging and abandoning the well before the rig moved off location. The well was drilled with seawater and pre-hydrated bentonite down to 1150 m, with Carbosea oil based mud from 1150 m to 5412 m, and with Magma-Teq oil based mud from 5412 m to TD.

The stratigraphic sequence was different to that expected, with a thicker Late Jurassic, and the unexpected presence of Middle Jurassic claystones and sandstones eroding down into the Triassic sequence. The Joanne sandstones was not encountered and the well went directly into what was believed to be the Judy Sandstones at 5817.5 m. When the well had gone deep enough to ensure that Julius Mudstone was not present, a core was taken for evaluation of reservoir quality. The LWD GR and resistivity logs clearly showed the Middle Jurassic and Skagerrak Sandstones to be water bearing. There were no oil shows above OBM seen on cuttings from the Jurassic and Triassic sandstones. No shows were seen on the core.

One core was cut from 5876 m to 5903 m in the Skagerrak Formation, Judy Member. Only 8.43 m (32.6%) was recovered. It was not possible to obtain wire line log data, pressures, and fluid samples over the Middle Jurassic and Skagerrak Sandstones due to the BHA becoming stuck at TD.

The well was permanently abandoned on 22 July 2010 as a dry well.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
249.00	5931.50

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	5876.0	5884.4	[m]

Total core sample length [m]	8.4
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
118	NORDLAND GP
1864	HORDALAND GP
3236	ROGALAND GP
3248	SELE FM
3267	FORTIES FM
3272	LISTA FM
3296	VIDAR FM
3339	LISTA FM
3449	MAUREEN FM
3473	SHETLAND GP
3473	EKOFISK FM
3581	TOR FM
4092	HOD FM
5075	BLODØKS FM
5082	HIDRA FM
5188	CROMER KNOLL GP
5188	RØDBY FM
5308	SOLA FM
5346	TUXEN FM
5398	ÅSGARD FM
5541	TYNE GP
5541	MANDAL FM
5556	FARSUND FM
5627	HAUGESUND FM
5736	VESTLAND GP



5818	NO GROUP DEFINED
5818	SKAGERRAK FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
LWD - HEL BAP MFR	4207	5913
LWD - PP ARC9	219	4207
LWD - PP DIR	118	219
LWD - PP DIR	219	1150

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	212.0	36	219.0	0.00	LOT
SURF.COND.	20	1132.0	26	1150.0	0.00	LOT
INTERM.	13 3/8	4202.0	17 1/2	4207.0	0.00	LOT
INTERM.	9 5/8	5400.0	12 1/4	5412.0	0.00	LOT
OPEN HOLE		5931.0	8 1/2	5931.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
219	1.60	16.0		Gel-Chem	
219	1.03	17.0		Gel-Chem	
219	1.32	13.0		Gel-Chem	
1016	1.67	49.0		CarboSEA	
1150	1.65	36.0		CarboSEA	
1150	1.14	10.0		Gel-Chem	
1928	1.67	42.0		CarboSEA	
3002	1.67	43.0		CarboSEA	
3250	1.91	63.0		CarboSEA	
3594	1.67	45.0		CarboSEA	
4207	1.69	45.0		CarboSEA	
4207	1.67	51.0		CarboSEA	
4893	1.86	55.0		CarboSEA	



5412	2.09	5.0		CarboSEA	
5592	2.24	51.0		Enviromul	
5876	2.22	49.0		CarboSEA	
5903	2.22	47.0		Enviromul	
5931	2.22	49.0		Magma-Teq	