



Generell informasjon





Brønnbane navn	1/5-4 S
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Brønn navn	1/5-4
Seismisk lokalisering	Il:1135 CL:2172
Utvinningstillatelse	144
Boreoperatør	Amerada Hess Norge AS
Boretillatelse	1034-L
Boreinnretning	DEEPSEA BERGEN
Boredager	38
Borestart	15.04.2002
Boreslutt	22.05.2002
Frigitt dato	22.05.2004
Publiseringsdato	29.06.2004
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL SHOWS
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	23.0
Vanndybde ved midlere havflate [m]	69.0
Totalt målt dybde (MD) [m RKB]	3090.0
Totalt vertikalt dybde (TVD) [m RKB]	2590.0
Maks inklinasjon [°]	55.4
Temperatur ved bunn av brønnbanen [°C]	120
Eldste penetrerte alder	LATE PERMIAN
Eldste penetrerte formasjon	ZECHSTEIN GP
Geodetisk datum	ED50
NS grader	56° 42' 32" N
ØV grader	2° 37' 41" E
NS UTM [m]	6285183.54
ØV UTM [m]	477227.98
UTM sone	31
NPDID for brønnbanen	4521



Brønnhistorie

General

The primary objective of the 1/5-4 S well was to test the hydrocarbon bearing potential of a Chalk prospect close to the crestal position on the NE side of a salt diapir. The well path was also planned to penetrate the edge of a mapped Palaeocene fan system. Hydrocarbon bearing Forties sandstone were targeted and treated as a secondary objective. Thicker and better quality sandstones were expected to be present down flank of the structure.

The overburden was known to contain charged feature, as experienced by the Conoco well 1/5-3 S. In order to avoid these fractures and the associated well bore instability problems, a delineated well path using Oil Based Mud was planned from the 12.25" hole section to TD.

Operations

Exploration well 1/5-4 S was spudded with the semi-submersible installation Deepsea Bergen on 17 April 2002 and drilled deviated to TD at 3090 m in rocks of Permian age. Drilling went very well and closely followed the plan. The well was drilled with seawater and gel sweeps down to 928 m and with KCl/Glycol mud from 928 m to 1646 m, and with oil based mud from 1646 m to TD.

Top Palaeocene was encountered 55 m higher than prognosis. Two thin sandstone beds were drilled, both within the Lista formation (Andrew Formation sandstones). The lower stringer was tight but contained some shows. The upper stringer had better reservoir properties however. Forties sandstone were absent. The primary objective, the Chalk, was 118 m higher than forecast, and 49 m thick, which was 80 m thinner than expected. The chalk was found to be water saturated with a maximum porosity of 25 %, and in pressure communication with the thin Palaeocene Andrews sand stringer. Minor shows were reported in the chalk. No sidewall or conventional cores were cut. An FMT sample was taken at 2945 m. It recovered only water. The well was permanently abandoned as a dry well with shows on 24 may 2002

Testing

No drill stem test was performed

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
940.00	3089.00

Borekaks tilgjengelig for prøvetaking?	YES
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Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
2870.0	[m]	DC	



2873.0	[m]	DC	
2876.0	[m]	DC	
2879.0	[m]	DC	
2882.0	[m]	DC	
2885.0	[m]	DC	
2888.0	[m]	DC	
2891.0	[m]	DC	
2894.0	[m]	DC	
2897.0	[m]	DC	
2903.0	[m]	DC	
2909.0	[m]	DC	
2915.0	[m]	DC	
2918.0	[m]	DC	
2921.0	[m]	DC	
2924.0	[m]	DC	
2927.0	[m]	DC	
2930.0	[m]	DC	
2933.0	[m]	DC	
2939.0	[m]	DC	
2942.0	[m]	DC	
2945.0	[m]	DC	
2951.0	[m]	DC	
2954.0	[m]	DC	
2957.0	[m]	DC	
2964.0	[m]	DC	
2969.0	[m]	DC	
2972.0	[m]	DC	
2975.0	[m]	DC	
2978.0	[m]	DC	
2981.0	[m]	DC	

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
93	NORDLAND GP
1718	HORDALAND GP
2903	ROGALAND GP
2903	BALDER FM
2935	SELE FM



2942	LISTA FM
2978	VÅLE FM
2994	SHETLAND GP
2994	EKOFISK FM
3013	TOR FM
3063	HOD FM
3077	ZECHSTEIN GP

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
4521	pdf	0.32

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
4521_1	pdf	10.48

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
4521_1_5_4_S_COMPLETION_LOG	.pdf	7.74
4521_1_5_4_S_COMPLETION_REPORT	.pdf	3.23

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
MWD - DIR	93	167
MWD - DIR	167	928
MWD - DIR DGR EWR-4	174	928
MWD - DIR DGR EWR-4 PWD AGS	2879	3266
MWD - DIR DGR EWR-4 PWD DDR	2879	3090
MWD - DIR DGR EWR-4 PWD GEOPILOT	1646	2660
MWD - DIR SGR EWR-4 PWD	928	1646





TTRM FMT GR	2944	3035
TTRM FMT GR	2945	2945
TTRM GR HDIL MAC	2513	3088
TTRM GR ZDEN CN	2873	3088

Foringsrør og formasjonsstyrketester

Type utforing	Utforing diam. [tommer]	Utforing dybde [m]	Brønnbane diam. [tommer]	Brønnbane dyp [m]	LOT/FIT slam eqv. [g/cm3]	Type formasjonstest
CONDUCTOR	30	167.0	36	170.0	0.00	LOT
INTERM.	20	923.0	26	925.0	1.85	LOT
INTERM.	14	1640.0	17 1/2	1644.0	1.90	LOT
INTERM.	9 5/8	2873.0	12 1/4	2875.0	1.96	LOT
OPEN HOLE		3090.0	8 1/2	3090.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
928	1.05			SEAWATER	
1345	1.55	71.0		KCL/GLYCOL	
1646	1.55	48.0		KCL/GLYCOL	
1700	1.75	60.6		XP-07	
2436	1.75	77.2		XP-07 OBM	
2660	1.78	77.2		XP-07 OBM	
2879	1.79	79.4		XP-07 OBM	
3010	1.78	75.2		XP-07 OBM	
3090	1.78	71.0		XP-07 OBM	

Trykkplott

Porertrykksdataene kommer fra logging i brønnen hvis ingen annen kilde er oppgitt. I noen brønner der trykk ikke er logget, er det brukt informasjon fra formasjonstester eller brønnspark. Trykkdataene er rapportert inn til Oljedirektoratet og videre prosessert og kvalitetssikret av IHS Markit.

Dokument navn	Dokument format	Dokument størrelse [KB]
4521 Formation pressure (Formasjonstrykk)	pdf	0.23

