



Generell informasjon

Brønnbane navn	7/12-9
Type	EXPLORATION
Formål	APPRAISAL
Status	SUSPENDED
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	ULA
Funn	7/12-2 Ula
Brønn navn	7/12-9
Seismisk lokalisering	BP84 - 135 BP84 -X- 570
Utvinningstillatelse	019
Boreoperatør	BP Norway Limited U.A.
Boretillatelse	630-L
Boreinnretning	ROSS ISLE
Boredager	59
Borestart	17.03.1990
Boreslutt	14.05.1990
Frigitt dato	14.05.1992
Publiseringsdato	03.10.2013
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	ULA FM
Avstand, boredekk - midlere havflate [m]	23.5
Vanndybde ved midlere havflate [m]	70.0
Totalt målt dybde (MD) [m RKB]	3820.0
Totalt vertikalt dybde (TVD) [m RKB]	3820.0
Temperatur ved bunn av brønnbanen [°C]	147
Eldste penetrerte alder	TRIASSIC
Eldste penetrerte formasjon	SKAGERRAK FM
Geodetisk datum	ED50
NS grader	57° 4' 21.52" N
ØV grader	2° 52' 56.51" E



NS UTM [m]	6325620.41
ØV UTM [m]	492867.44
UTM sone	31
NPDID for brønnbanen	1470

Brønnhistorie

General

Well 7/12-9 was the ninth appraisal well to be drilled on the Ula Field in the North Sea. The primary well objectives were to prove sufficient mobile oil in place in the SE-sector to support further development in this field area. In order to complete a full evaluation of the Ula Formation reservoir, the well was deepened with a 6" hole into the lower reservoir zones 3B, 4 and 5, including about 50 m of the Triassic. A secondary objective of this well was to be a possible future water injector should development of this area proceed.

Operations and results

Appraisal well 7/12-9 was spudded with the semi-submersible installation Ross Isle on 17 March 1990 and drilled to TD at 3820 m in the Triassic Skagerrak Formation. After the 30" conductor was set at 166 m, a 17 1/2" pilot hole was drilled without riser to 950 m. Shallow gas was observed between 677 - 680 m. No significant problem was reported from the operations. The well was drilled with spud mud down to 1008 m, with Petrofree mud down to 3684 m, and with Aker oil based mud from 3684 m to TD.

The Ula Formation came in at 3701 m, 20.5 m shallower than predicted. The thickness was 58.5 m, which was 20.5 m thinner than expected. The uppermost reservoir zones were absent in the well. Wire line logging, RFT pressure measurements fluid samples proved oil down to ca 3735 m, and that the lowermost Ula Formation and the Triassic section were water bearing. Virgin pressure conditions were confirmed below 3750 m (Ula reservoir zones 4 and 5).

One core was cut from 3689 m in the lowermost Farsund Formation to 3721.5 m in the middle of the Ula Formation reservoir zone 2B. The cored interval was 32.5m with 100% recovery. The log-core depth shift is -3.75 m. Good oil shows were observed on the core. RFT fluid samples were taken at 3719.8 m (oil) 3729.0 m (oil), 3734.7 m (oil), 3735 m (oil and water), and 3756.5 m (water).

The well was suspended for possible use in the Ula Field development at a later stage. In 2010 it was plugged and permanently abandoned. It is classified as an oil appraisal.

Testing

One Drill Stem Test was performed over the interval 3701 m to 3719 m. It produced 140 Sm³ oil and 11950 Sm³ gas/day through a 32/64" choke. The GOR was 87 Sm³/Sm³ and the oil density was 0.85 g/cm³. An injectivity test over the same interval stabilised at 2146 m³/d.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1500.00	3820.00



Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	3689.0	3721.5	[m]

Total kjerneprøve lengde [m]	32.5
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



3689-3694m



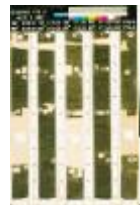
3694-3699m



3699-3704m



3704-3709m



3709-3714m



3714-3719m



3719-3721m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
3689.0	[m]	C	APT
3690.1	[m]	C	APT
3691.0	[m]	C	APT
3692.0	[m]	C	APT
3693.0	[m]	C	APT
3695.0	[m]	C	APT
3695.0	[m]	C	APT
3696.1	[m]	C	APT



3697.0	[m]	C	APT
3697.1	[m]	C	APT
3697.1	[m]	C	APT
3698.4	[m]	C	APT
3700.9	[m]	C	APT
3703.0	[m]	C	APT
3704.8	[m]	C	APT
3705.4	[m]	C	APT
3706.5	[m]	C	APT
3707.7	[m]	C	APT
3709.9	[m]	C	APT
3710.5	[m]	C	APT
3711.9	[m]	C	APT
3712.5	[m]	C	APT
3713.8	[m]	C	APT
3714.0	[m]	C	APT
3717.3	[m]	C	APT
3720.8	[m]	C	APT
3720.9	[m]	C	APT

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
92	NORDLAND GP
2772	ROGALAND GP
2772	BALDER FM
2804	SELE FM
2888	LISTA FM
2961	SHETLAND GP
2961	EKOFISK FM
3072	TOR FM
3347	HOD FM
3426	CROMER KNOLL GP
3426	RØDBY FM
3486	ÅSGARD FM
3632	TYNE GP
3632	MANDAL FM
3652	FARSUND FM
3701	ULA FM



3760 [SKAGERRAK FM](#)

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
1470_01_WDSS_General_Information	pdf	0.23
1470_02_WDSS_completion_log	pdf	0.20

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
1470_7_12_9_Completion_log	pdf	1.65
1470_7_12_9_Completion_report	pdf	4.39

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	3701	3719	12.7

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0				

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstyngde rel. luft	GOR [m3/m3]
1.0	140	11950	0.850	0.900	87

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL VDL GR	0	0
CBL VDL GR CCL	1092	3731
DIL LSS GR	946	3818





LDL CNL GR	3736	3819
LDL CNL NGT	3680	3742
RFT GR	3708	3738
RFT GR	3719	3719
RFT GR	3729	3729
RFT GR	3734	3734
RFT GR	3735	3735
RFT GR	3746	3784
VELOCITY	971	3820

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	166.0	36	170.0	0.00	LOT
INTERM.	20	949.0	26	950.0	1.77	LOT
INTERM.	13 3/8	2342.0	17 1/2	2350.0	2.13	LOT
INTERM.	9 5/8	3680.0	12 1/4	3684.0	1.89	LOT
LINER	7	3735.0	8 1/2	3742.0	1.98	LOT
OPEN HOLE		3820.0	6	3820.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
122	1.03			WATER BASED	21.03.1990
130	1.03			WATER BASED	15.05.1990
168	1.03			WATER BASED	21.03.1990
234	1.03			WATER BASED	21.03.1990
404	1.06			WATER BASED	27.03.1990
591	1.03			WATER BASED	21.03.1990
820	0.00			WATER BASED	28.03.1990
942	1.06			WATER BASED	27.03.1990
942	1.03			WATER BASED	27.03.1990
950	1.06			WATER BASED	27.03.1990
950	1.06			WATER BASED	27.03.1990
956	0.00			WATER BASED	28.03.1990
956	1.03			WATER BASED	03.04.1990
956	1.03			WATER BASED	03.04.1990



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 15.5.2024 - 23:12

1147	1.45	0.3		WATER BASED	03.04.1990
1416	1.50	58.0	22.0	OIL BASED	03.04.1990
1812	1.05	52.0	15.4	WATER BASED	05.04.1990
2202	1.55	54.0	18.7	WATER BASED	05.04.1990
2350	1.55		18.7	WATER BASED	05.04.1990
2350	1.55	56.0	17.3	OIL BASED	09.04.1990
2350	1.55	36.0	18.7	OIL BASED	09.04.1990
2493	1.55	45.0	20.0	OIL BASED	09.04.1990
2861	1.55	62.0	16.8	OIL BASED	11.04.1990
3008	1.55	65.0	18.2	OIL BASED	11.04.1990
3068	1.55	66.0	17.3	OIL BASED	11.04.1990
3077	1.55	68.0	18.2	OIL BASED	17.04.1990
3106	1.53	64.0	17.8	OIL BASED	17.04.1990
3150	1.53	65.0	15.8	OIL BASED	17.04.1990
3150	1.53	57.0	13.9	OIL BASED	17.04.1990
3288	1.55	63.0	14.4	OIL BASED	17.04.1990
3353	1.03			WATER BASED	14.05.1990
3441	1.55	62.0	12.5	OIL BASED	17.04.1990
3620	1.41	52.0	6.2	WATER BASED	08.05.1990
3684	1.03			WATER BASED	25.04.1990
3684	0.93	324.0	3.4	OIL BASED	25.04.1990
3689	0.93	26.0	4.8	WATER BASED	25.04.1990
3721	0.90	14.0	2.9	WATER BASED	25.04.1990
3732	0.93	15.0	3.4	WATER BASED	08.05.1990
3732	0.93	15.0	3.4	WATER BASED	08.05.1990
3732	0.93	15.0	3.4	WATER BASED	08.05.1990
3732	0.93	15.0	3.4	WATER BASED	09.05.1990
3732	0.93	13.0	2.9	OIL BASED	11.05.1990
3732	0.94	15.0	3.8	OIL BASED	14.05.1990
3732	1.03			WATER BASED	14.05.1990
3732	0.93	15.0	3.4	WATER BASED	08.05.1990
3732	0.93	15.0	3.8	OIL BASED	10.05.1990
3737	0.90	17.0	4.8	WATER BASED	26.04.1990
3742	0.90	17.0	4.3	WATER BASED	26.04.1990
3742	0.90	17.0	4.3	OIL BASED	30.04.1990
3742	1.03			WATER BASED	30.04.1990
3742	1.40	56.0	7.2	WATER BASED	30.04.1990
3742	1.43	46.0	5.8	WATER BASED	30.04.1990
3820	1.40	45.0	6.2	OIL BASED	03.05.1990
3820	1.40	51.0	6.2	WATER BASED	03.05.1990



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 brønnspar. Trykkdataene er rapportert inn til Oljedirektoratet og videre prosessert og kvalitetssikret av IHS Markit.

Dokument navn	Dokument format	Dokument størrelse [KB]
1470 Formation pressure (Formasjonstrykk)	pdf	0.21

