HYDRO

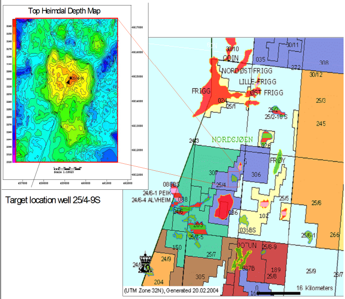
Completion Log

KLEGG

Scale: 1 / 500

Well: 25/4-9 S

Location Map



(UTM Zone 32N), Generated 20.02.2004

Target location well 25/4-9S

KB Elevation	29 m	**Country**	Norway
Water Depth	120 m	**Licence**	PL 036
Depth Reference	RKB		
		Owners	Hydro, AS Ugland Rederi, Total E & P Norge AS Marathon Petroleum Norge AS
Total Depth (Driller)	2377 m MD RKB 2297.3 m TVD RKB		
Total Depth (Logger)	2377 m MD RKB 2297.3 m TVD RKB		
		Field	KLEGG
Formation at Total Depth	Heimdal	**Platform**	Deepsea Delta
Date Spudded	05.09.2003		
Date Reached TD	17.09.2003	**Drilling Contractor**	Odfjell Drilling
Date Completed	30.09.2003	**Mudlogging Company**	Baker Huges Inteq
Well Status	Permanently P&A	**Logging Company**	Schlumberger
		MWD Company	Schlumberger
Well Classification	Exploration Well	**Geologists**	Barry Schønningsen Emil Skottlien Anders Knape
Prepared by	Barry Schønningsen		
Controlled by	Peter O. Rønning		
Date	Feb 2004		
Well Coordinates	**Spud location**	6 615 302 mN	459 328 mE

Output log file created : 2004-04-30 13:06:15
Winlog well ID : 25_4_9S
Winlog template version : 20010309 - AJC

Casing Records

Diameter	Shoe depth m MD RKB	Shoe depth m TVD RKB
30" Casing shoe	220	220
13 3/8" Casing shoe	1080	1079.9
9 5/8" Casing shoe	2231.1	2161.4

LOT / FIT

Type	Result SG	Depth m MD RKB	Depth m TVD RKB
FIT	1.45	1080.0	1080.0
FIT	1.40	2331.0	2161.3

Comments

Logs

Run no.	Log type	Logged interval
	MWD	
3	CDR - Gr, Res, Dir	220m - 1073m
4	CDR - Gr, Res, Dir	1073m - 2236m
7	GVR6/ARC - Gr, Res, Dir	2236 - 2377m
	Wireline	
1A	SP/DSI/HRLA/PEX	146 - 2377m
1A	GR/MDT	2240 - 2335m
1A	GR/VSP	800 - 2370m
1B	GR/MDT	2294 2294m

Cores

Core no.	Cored interval m MD RKB		Recovered interval m MD RKB		Rec. mMD	Rec. %
1	2237.0	2255.5	2237.0	2255.5	18.5	100.0

Pressure points (MDT)

Test no.	Depth m MD RKB	Depth m TVD RKB	Fmn. Press. SG	Test no.	Depth m MD RKB	Depth m TVD RKB	Fmn. Press. SG
1	2348.5	2270.8	0.95	22	2269.0	2196.6	0.95
2	2348.5	2270.8	0.95	23	2266.0	2193.8	0.95
3	2346.5	2268.9	0.95	24	2263.0	2191.0	0.95
4	2339.5	2262.4	0.95	25	2259.0	2187.3	0.95
5	2335.0	2258.2	0.95	26	2257.0	2185.4	0.95
6	2320.5	2244.7	0.95	27	2255.0	2183.6	0.95
7	2320.0	2244.2	0.95	28	2253.5	2182.2	0.95
8	2312.5	2237.3	0.95	29	2250.5	2179.4	0.95
9	2310.5	2235.4	0.95	30	2246.0	2175.2	0.95
11	2308.5	2233.5	0.94	31	2243.0	2172.4	0.95
12	2304.0	2229.3	0.94	32	2240.0	2169.6	0.95
13	2300.0	2225.6	0.94	33	2294.0	2220.0	0.95
14	2297.0	2222.8	0.95	34	2275.0	2202.2	0.95
15	2294.0	2220.0	0.95	35	2275.4	2202.6	0.95
16	2290.0	2216.3	0.95	36	2269.0	2196.6	0.95
17	2287.0	2213.5	0.95	37	2239.0	2168.6	0.95
18	2283.0	2209.7	0.95	38	2335.0	2258.2	0.95
19	2280.0	2206.9	0.95	39	2334.5	2257.8	0.95
20	2275.0	2202.2	0.95				
21	2272.0	2199.4	0.95				

Lithology Legend

- CONGLOMERATE
- SAND/SANDSTONE
- SILT/SILTSTONE
- CLAY/CLAYSTONE
- SHALE

- LIMESTONE
- DOLOMITE
- DOL. LIMESTONE
- CALC. DOLOMITE
- CHALK
- MARL

- ANHYDRITE
- SALT
- GYPSUM
- TUFF
- INTR. IGNEOUS
- EXTR. IGNEOUS

- · · · SANDY, VERY
- · · SANDY
- · SANDY, SLIGHTLY
- ॥ ॥ ॥ SILTY, VERY
- ॥ ॥ SILTY
- ॥ SILTY, SLIGHTLY
- — ARGILLACEOUS
- CALCAREOUS
- Q CEMENT: QUARTZ
- CEMENT: CARBONATE
- K CEMENT: KAOLINITE

- C CARBONACEOUS MAT.
- △ CHERT
- ✻ GLAUCONITE
- M MICA
- □ PYRITE
- v TUFFACEOUS
- MACROFOSSILS
- MACROFOSSILS FRAG
- MICROFOSSILS

Symbol legend

- Casing shoe
- Liner hanger
- Liner shoe
- ▶ Inc:(deg)° Az:(deg)° TVD m Deviation survey - MWD
- ▷ Inc:(deg)° Az:(deg)° TVD m Deviation survey - Other
- 1 Core interval

DST

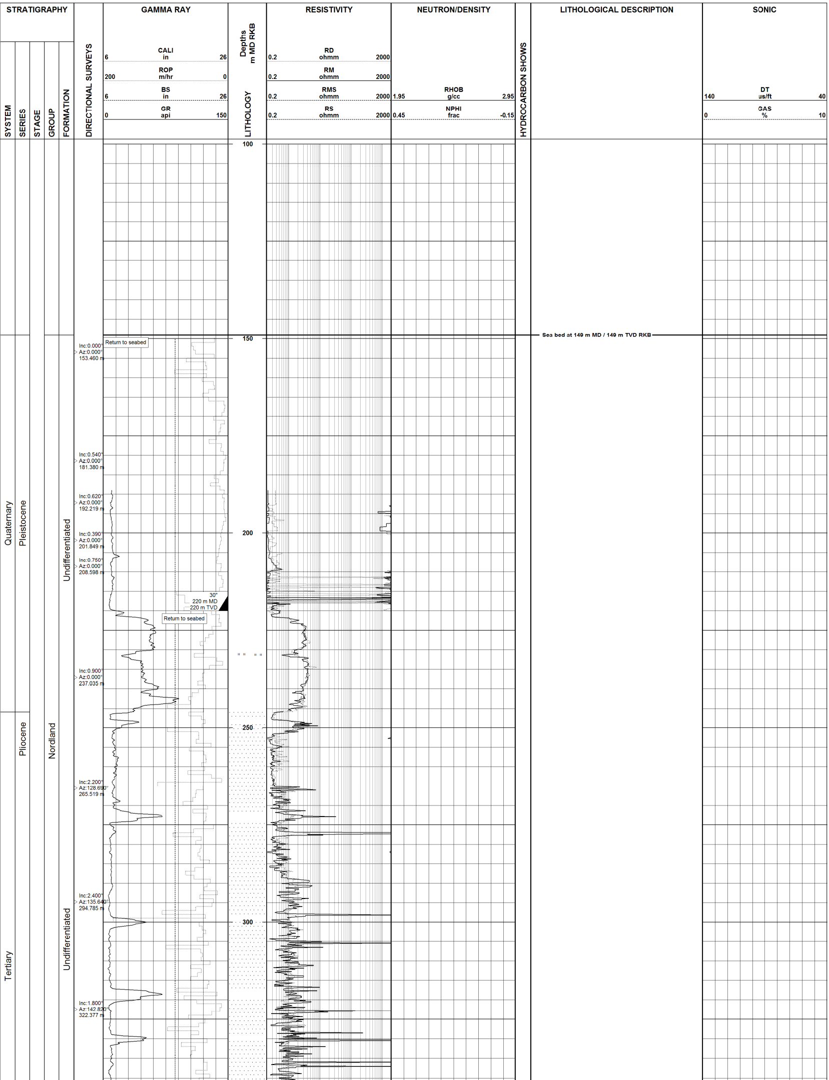
- ② Open hole
- 2 Open hole (rerun)
- Ⅱ Through casing
- Ⅱ Through casing (rerun)
- Perforation interval

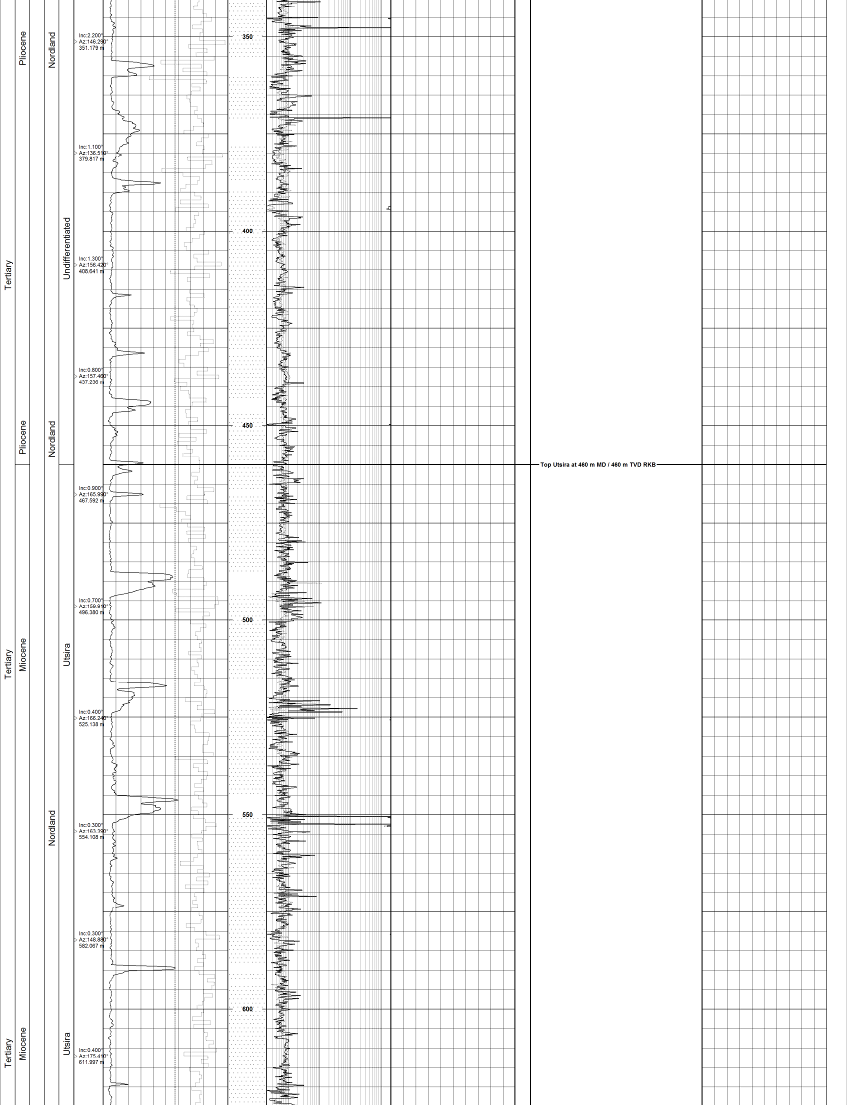
SHOWS

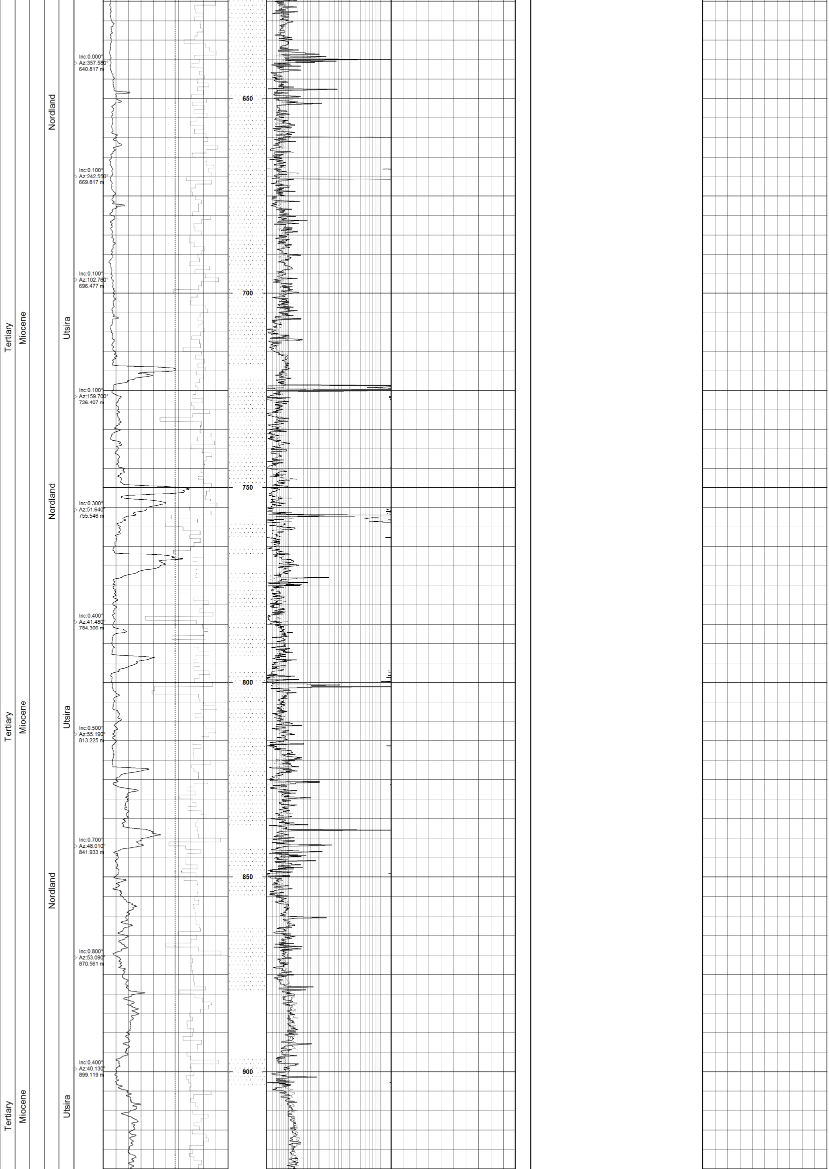
- Oil stain
- Fluorescence
- Visible cut
- Fluorescence cut
- ☼ Gas shows

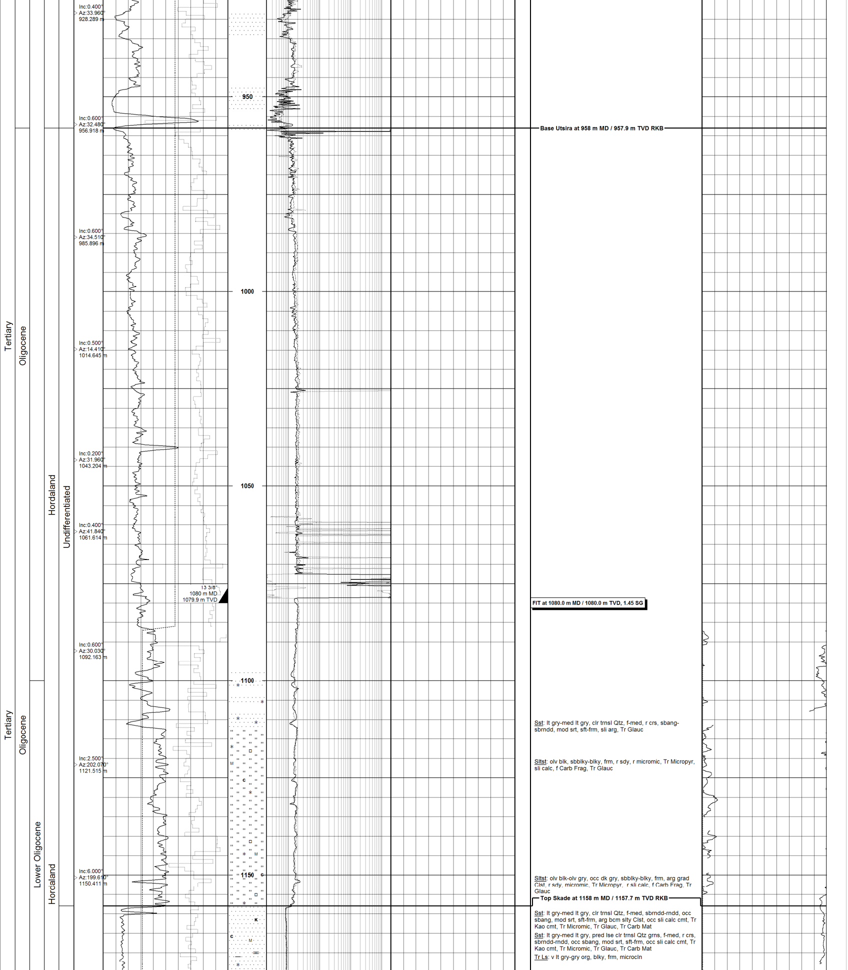
Sidewall core
(No recovery)

RFT / MDT









Sst: lt gry-med lt gry, clr trnsl Qtz, f-med, r crs, sbang-sbrndd, mod srt, sft-frm, sli arg, Tr Glauc

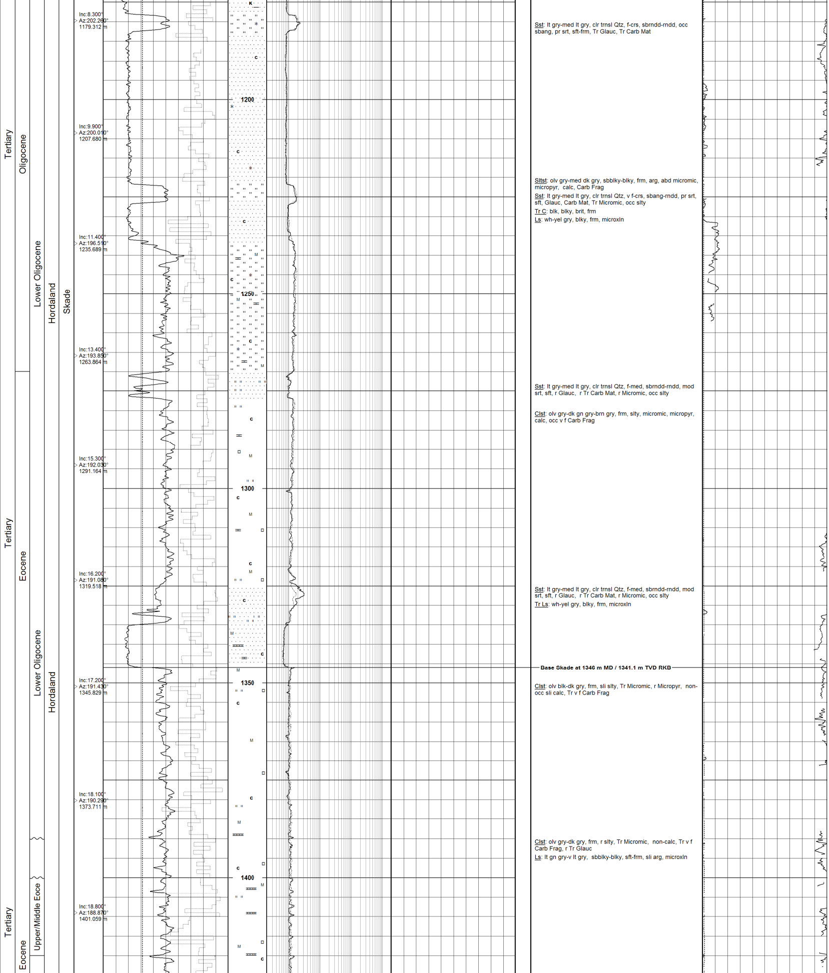
Sltst: olv blk, sbblky-blky, frm, r sdy, r micromic, Tr Micropyr, sli calc, f Carb Frag, Tr Glauc

Sltst: olv blk-olv gry, occ dk gry, sbblky-blky, frm, arg grad Clst, r sdy, micromic, Tr Micropyr, r sli calc, f Carb Frag, Tr Glauc

Sst: lt gry-med lt gry, clr trnsl Qtz, f-med, sbrndd-rndd, occ sbang, mod srt, sft-frm, arg bcm slty Clst, occ sli calc cmt, Tr Kao cmt, Tr Micromic, Tr Glauc, Tr Carb Mat

Sst: lt gry-med lt gry, pred lse clr trnsl Qtz grns, f-med, r crs, sbrndd-rndd, occ sbang, mod srt, sft-frm, occ sli calc cmt, Tr Kao cmt, Tr Micromic, Tr Glauc, Tr Carb Mat

Tr Ls: v lt gry-gry org, blky, frm, microcln



Sst: lt gry-med lt gry, clr trnsl Qtz, f-crs, sbrndd-rndd, occ sbang, pr srt, sft-frm, Tr Glauc, Tr Carb Mat

Sltst: olv gry-med dk gry, sbblky-blky, frm, arg, abd micromic, micropyr, calc, Carb Frag

Sst: lt gry-med lt gry, clr trnsl Qtz, v f-crs, sbang-rndd, pr srt, sft, Glauc, Carb Mat, Tr Micromic, occ slty

Tr C: blk, blky, brit, frm

Ls: wh-yel gry, blky, frm, microxln

Sst: lt gry-med lt gry, clr trnsl Qtz, f-med, sbrndd-rndd, mod srt, sft, r Glauc, r Tr Carb Mat, r Micromic, occ slty

Clst: olv gry-dk gn gry-brn gry, frm, slty, micromic, micropyr, calc, occ v f Carb Frag

Sst: lt gry-med lt gry, clr trnsl Qtz, f-med, sbrndd-rndd, mod srt, sft, r Glauc, r Tr Carb Mat, r Micromic, occ slty

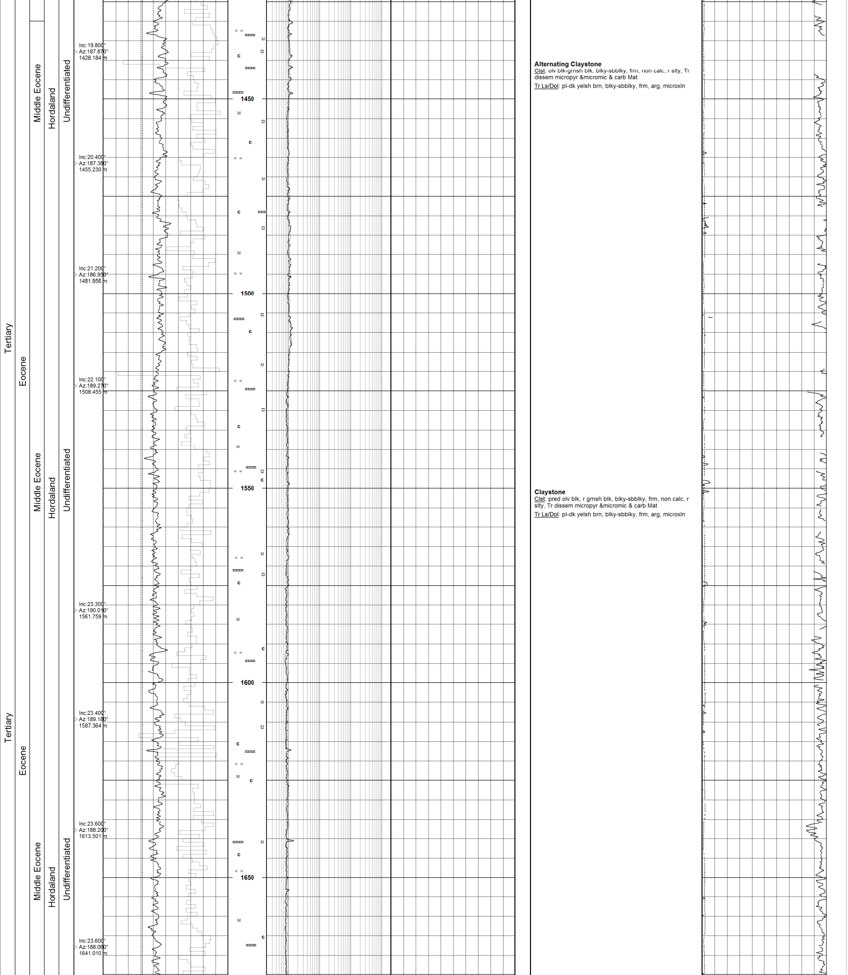
Tr Ls: wh-yel gry, blky, frm, microxln

Base Skade at 1346 m MD / 1341.1 m TVD RKB

Clst: olv blk-dk gry, frm, sli slty, Tr Micromic, r Micropyr, non-occ sli calc, Tr v f Carb Frag

Clst: olv gry-dk gry, frm, r slty, Tr Micromic, non-calc, Tr v f Carb Frag, r Tr Glauc

Ls: lt gn gry-v lt gry, sbblky-blky, sft-frm, sli arg, microxln

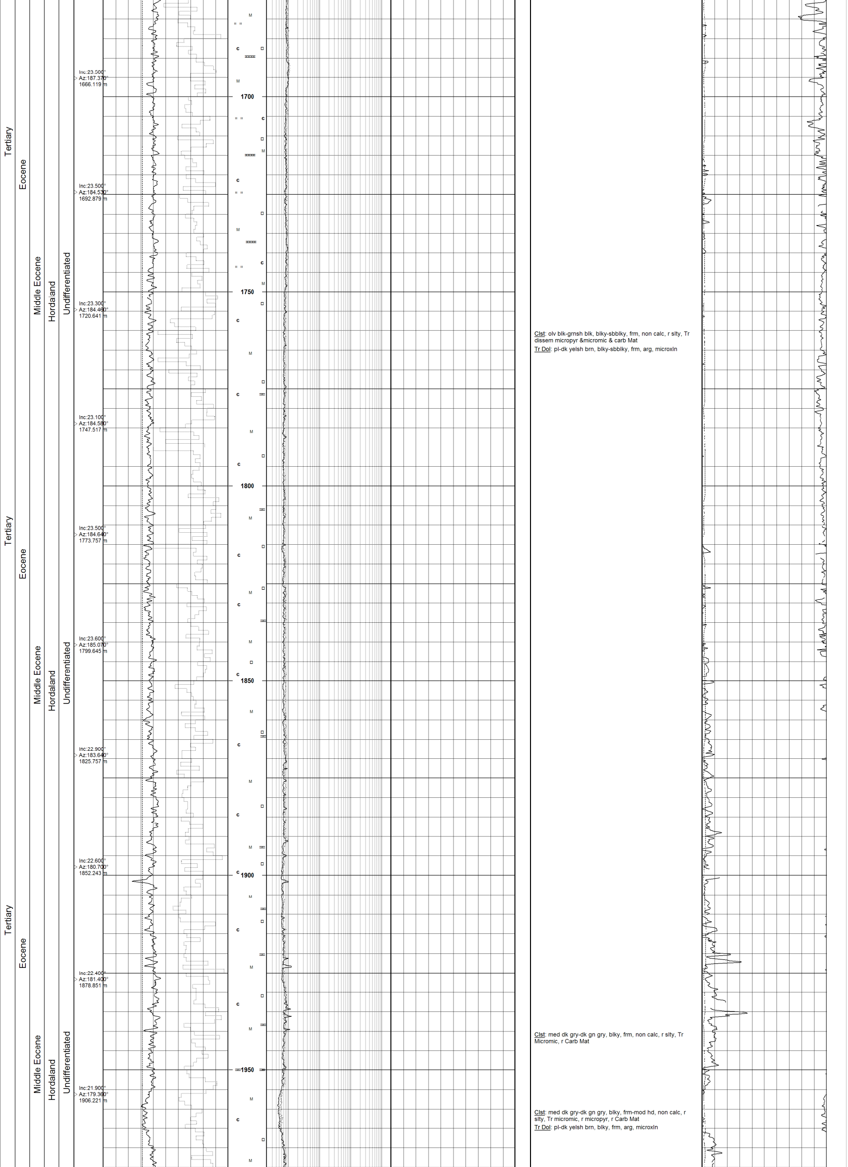


Alternating Claystone
Clst: olv blk-grnsh blk, blky-sbblky, frm, non calc, r slty, Tr dissem micropyr &micromic & carb Mat

Tr Ls/Dol: pl-dk yelsh brn, blky-sbblky, frm, arg, microxln

Claystone
Clst: pred olv blk, r grnsh blk, blky-sbblky, frm, non calc, r slty, Tr dissem micropyr &micromic & carb Mat

Tr Ls/Dol: pl-dk yelsh brn, blky-sbblky, frm, arg, microxln



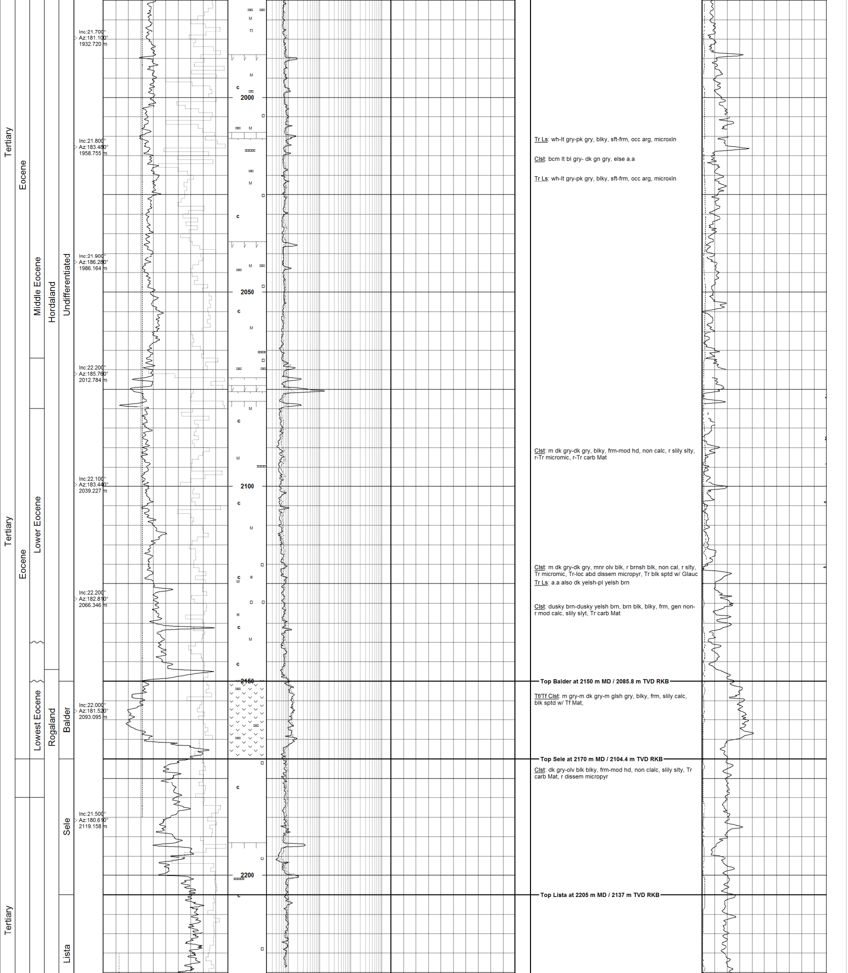
Clst: olv blk-grnsh blk, blky-sbblky, frm, non calc, r slty, Tr dissem micropyr &micromic & carb Mat

Tr Dol: pl-dk yelsh brn, blky-sbblky, frm, arg, microxln

Clst: med dk gry-dk gn gry, blky, frm, non calc, r slty, Tr Micromic, r Carb Mat

Clst: med dk gry-dk gn gry, blky, frm-mod hd, non calc, r slty, Tr micromic, r micropyr, r Carb Mat

Tr Dol: pl-dk yelsh brn, blky, frm, arg, microxln



Tr Ls: wh-lt gry-pk gry, blky, sft-frm, occ arg, microxln

Clst: bcm lt bl gry- dk gn gry, else a.a

Tr Ls: wh-lt gry-pk gry, blky, sft-frm, occ arg, microxln

Clst: m dk gry-dk gry, blky, frm-mod hd, non calc, r slily slty, r-Tr micromic, r-Tr carb Mat

Clst: m dk gry-dk gry, mnr olv blk, r brnsh blk, non cal, r slty, Tr micromic, Tr-loc abd dissem micropyr, Tr blk sptd w/ Glauc

Tr Ls: a.a also dk yelsh-pl yelsh brn

Clst: dusky brn-dusky yelsh brn, brn blk, blky, frm, gen non-r mod calc, slily slyt, Tr carb Mat

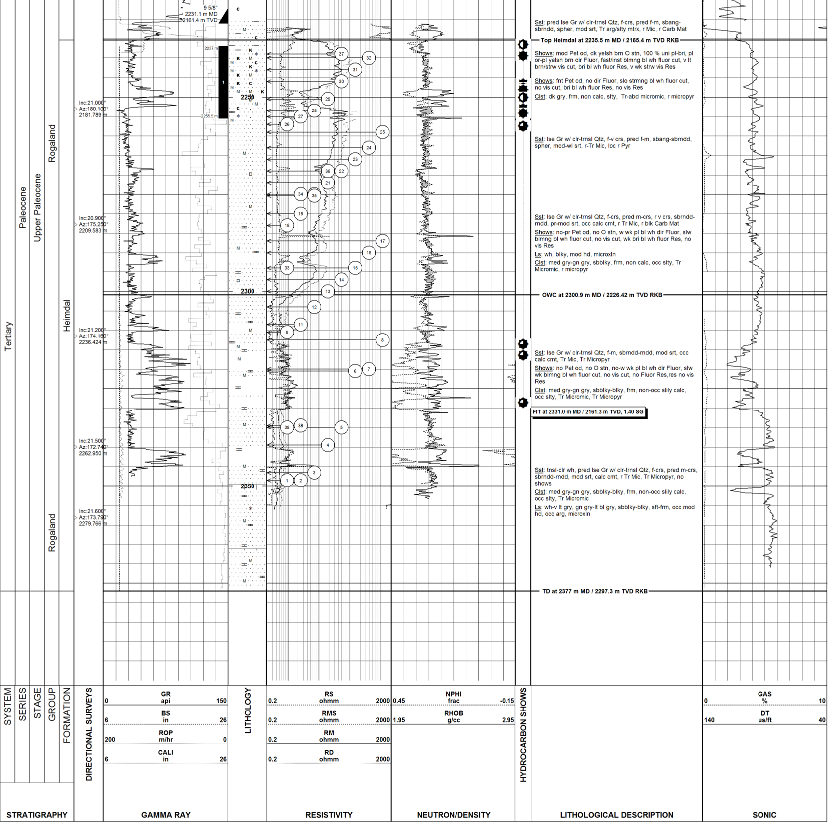
Top Balder at 2150 m MD / 2085.8 m TVD RKB

Tf/Tf Clst: m gry-m dk gry-m glsh gry, blky, frm, slily calc, blk sptd w/ Tf Mat,

Top Sele at 2170 m MD / 2104.4 m TVD RKB

Clst: dk gry-olv blk blky, frm-mod hd, non clalc, slily slty, Tr carb Mat, r dissem micropyr

Top Lista at 2205 m MD / 2137 m TVD RKB



Sst: pred lse Gr w/ clr-trnsl Qtz, f-crs, pred f-m, sbang-sbrndd, spher, mod srt, Tr arg/slty mtrx, r Mic, r Carb Mat

Top Heimdal at 2235.5 m MD / 2165.4 m TVD RKB

Shows: mod Pet od, dk yelsh brn O stn, 100 % uni pl-bri, pl or-pl yelsh brn dir Fluor, fast/inst blmng bl wh fluor cut, v lt brn/strw vis cut, bri bl wh fluor Res, v wk strw vis Res

Shows: fnt Pet od, no dir Fluor, slo strmng bl wh fluor cut, no vis cut, bri bl wh fluor Res, no vis Res

Clst: dk gry, frm, non calc, slty, Tr-abd micromic, r micropyr

Sst: lse Gr w/ clr-trnsl Qtz, f-v crs, pred f-m, sbang-sbrndd, spher, mod-wl srt, r-Tr Mic, loc r Pyr

Sst: lse Gr w/ clr-trnsl Qtz, f-crs, pred m-crs, r v crs, sbrndd-rndd, pr-mod srt, occ calc cmt, r Tr Mic, r blk Carb Mat

Shows: no-pr Pet od, no O stn, w wk pl bl wh dir Fluor, slw blmng bl wh fluor cut, no vis cut, wk bri bl wh fluor Res, no vis Res

Ls: wh, blky, mod hd, microxln

Clst: med gry-gn gry, sbblky, frm, non calc, occ slty, Tr Micromic, r micropyr

OWC at 2300.9 m MD / 2226.42 m TVD RKB

Sst: lse Gr w/ clr-trnsl Qtz, f-m, sbrndd-rndd, mod srt, occ calc cmt, Tr Mic, Tr Micropyr

Shows: no Pet od, no O stn, no-w wk pl bl wh dir Fluor, slw wk blmng bl wh fluor cut, no vis cut, no Fluor Res,res no vis Res

Clst: med gry-gn gry, sbblky-blky, frm, non-occ slily calc, occ slty, Tr Micromic, Tr Micropyr

FIT at 2331.0 m MD / 2161.3 m TVD, 1.40 SG

Sst: tnsl-clr wh, pred lse Gr w/ clr-trnsl Qtz, f-crs, pred m-crs, sbrndd-rndd, mod srt, calc cmt, r Tr Mic, Tr Micropyr, no shows

Clst: med gry-gn gry, sbblky-blky, frm, non-occ slily calc, occ slty, Tr Micromic

Ls: wh-v lt gry, gn gry-lt bl gry, sbblky-blky, sft-frm, occ mod hd, occ arg, microxln

TD at 2377 m MD / 2297.3 m TVD RKB