NORSKE CONOCO A.S.

COMPOSITE WELL LOG

CHEVRON / FORTUM

WELL: 34/6-1 S

LOCATION :

Latitude: 61° 34' 56.34" N

Longitude: 02° 41' 07.70" E

UTM: 6,827,854.8mN 483,300.1mE

ELEVATIONS :

RT- MSL : 26.5 m

Water Depth : 379.8 m

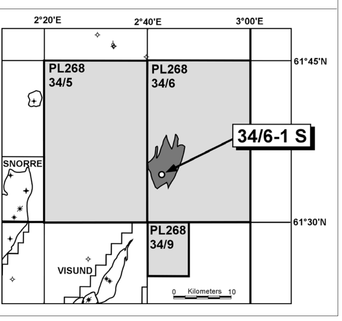
RT- Sea Floor : 406.3 m

Total Depth - Driller : 4360 mMD (-3896 mTVDSS)

Total Depth - Logger: 4366 mMD (-3900.5 mTVDSS)

Country	:	Norway
Area	:	North Sea
Licence	:	PL268
Field	:	Akkar Prospect
Date Spudded	:	18th July 2002
TD Date	:	12th August 2002
Date Completed	:	28th August 2002
Completion Status	:	Plugged and abandoned as dry well. No testing.

LOCATION MAP



GEOLOGIST	HOLE INTERVAL
E. Linaker (Cambrian)	406m - 3395m
M. Henderson (AkerGeo)	2422m - 4360m
N. Feery (Cambrian)	3395m - 4360m

MUDLOG SERVICE

Geoservices

MWD LOGGING SERVICE

Anadrill Schlumberger

WIRELINE LOGGING SERVICE

Schumberger

RIG

Transocean Winner

ELECTROPHYSICAL LOGS

TYPE	RUN NO	INTERVAL
LWD LOGS:		
17 1/2" HOLE		
CDR	1	1350m - 2407.5m
12 1/4" HOLE		
CDR/ ISONIC	2	2394m - 3383.7m
8 1/2" HOLE		
VISION 675R/RAB	3	3392m - 4360m
CDR=resistivity/GR		
VISION675R=resistivity/GR		
RAB=resistivity/GR at bit		
WIRELINE LOGS 8 1/2" HOLE		
DSI/AIT/IPLT/HNGS	1A	3552m - 3394m
DSI (thro' casing to TOC)	1A	3394m - 2750m
GR (thro' casing)	1A	3394m - 406.3m
DSI/AIT/GR	1B	4359m - 3394m
IPLT/HNGS	1C	4365m - 3394m
VSP/GR (thro' casing)	1D	3380m - 760m
MDT/GR	1E	Failed in casing
MDT/GR	2E	Failed in Casing
MDT/GR	3E	3470m - 3473m
TLC RUN: MDT/GR-VSP/GR	1F	Pipe-conveyed
MDT/GR	1F	3473m - 4299.5m
VSP/GR	1F	4325.8m - 3183m
GR=gamma ray, DSI=sonic, AIT=resistivity, IPLT=density+ neutron, HNGS=spectral GR, VSP=vertical seismic profile, MDT=formation tester, TLC= pipe-conveyed (tough logging)		

PLUG NO	INTERVAL	PURPOSE
1	4260m - 4150m	Abandonment
2	3900m - 3750m	Abandonment
3	3520m - 3410m	Abandonment
4	3344m - 3244m	Abandonment
5	2075m - 1975m	Abandonment
6	1334m - 1209m	Abandonment
7	670m - 435m	Abandonment

MUD TYPE	INTERVAL
Seawater and Hi-Vis sweeps	406.3m - 1350m
Glydrill WBM	1350m - 2422m
Versavert OBM	2422m - 4360m

HOLE SIZE	HOLE INTERVAL
36"	406.3m - 495m
26"	495m - 1350m
17 1/2"	1350m - 2422m
12 1/4"	2422m - 3395m
8 1/2"	3395m - 4360m

CASING DETAILS

SIZE	SHOE DEPTH
30"	492m
20"	1342m
13 3/8"	2411m
9 5/8"	3392m

WELLSITE CORE DATA

CORE NO	INTERVAL	CUT	REC	REC%	TYPE
					NO CORES WERE TAKEN

CORE DATA CORRECTED TO GR LOG

CORE NO	INTERVAL	DEPTH SHIFT

PREPARED BY :
C.M.T.Grieve

APPROVED :
A.J.Middleton

DATE :
February 2003

REMARKS

1/ The log curves presented are the final HQLD composite curves compiled by Logtek from depth-matched and spliced wireline and LWD data. Details of the individual curves and splice points which make up the final composite curves are provided as a table in the footer of this log.

2/ UTM Surface Co-ordinates: 6,827,854.8mN 483,300.1mE (UTM Zone 31 CM3°E, ED50).

MAIN LITHOLOGICAL SYMBOLS

SHALE, CLAYSTONE, CLAY, MUDSTONE
SILTSTONE, SILT
SANDSTONE, SAND
CONGLOMERATE LOOSE PEBBLES
COAL, LIGNITE, ETC.
LIMESTONE (UNDIFFERENTIATED)
DOLOMITIC LIMESTONE
DOLOMITE
CALCAREOUS DOLOMITE
HALITE
POLYHALITE
CARNALLITE
SYLVITE
POTASSIUM SALTS (UNDIFFERENTIATED)
ANHYDRITE
MARL
LITHOCLASTS INTRACLASTS
ONCOLITHS
BASALT
SEDIMENTARY VOLCANICS (TUFFS, AGGLOMERATES, ETC.)
IGNEOUS (UNDIFFERENTIATED)
BRECCIA
METAMORPHIC ROCKS

SECONDARY LITHOLOGICAL SYMBOLS

ARGILLACEOUS
ARENACEOUS
SILTY
CARBONACEOUS
CALCAREOUS
DOLOMITIC
ANHYDRITIC
RUDACEOUS
GLAUCONITE
HALITE
KAOLINITE
PYRITIC
IRONSTONE
MICACEOUS
BITUMEN
PELLETS
OOLITHS
MARLY
CHERT
VOLCANIC
IGNEOUS (UNDIFFERENTIATED)

GENERAL WELL SYMBOLS

12/03/00 13/03/00 MIDNIGHT DEPTH
CASING SHOE
LINER HANGER
BRIDGE PLUG OR DRILLABLE PLUG
CEMENT PLUG
29.7° 136.9° HOLE DEVIATION AND AZIMUTH
PERCUSSION SWC RECOVERED
PERCUSSION SWC UNRECOVERED
ROTARY SWC RECOVERED
ROTARY SWC UNRECOVERED
(RECOVERED) CORED INTERVAL
(NO RECOVERY)
GAS SHOW (CONTINUOUS)
OIL SHOW (CONTINUOUS)
RFT / FMT TEST
DRILL STEM TEST REGULAR
DRILL STEM TEST RE-RUN OR ADDITIONAL INTERVAL
PRODUCTION PERFORATIONS
PRODUCTION PERFORATIONS TESTED & SQUEEZED

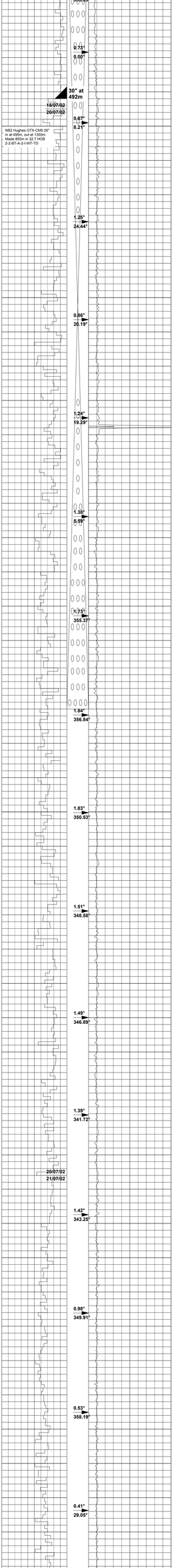
FOSSIL SYMBOLS

AMMONITES
BELEMNITES
BRACHIOPODS
BRYOZOANS
CORAL
CRINOID STEMS
ECHINOID SPINES
FORAMINIFERA
GASTROPODS
MICROFOSSILS
OSTRACODS
SHELL FRAGMENTS
NO PALAEONTOLOGICAL AGE DETERMINATIONS

SERIES	STAGE	GROUP	FORMATION	PENETRATION	GAMMA RAY	M	RESISTIVITY	DENSITY/NEUTRON	SONIC	LITHOLOGY
				ROP 100 m/hr 0; TGAS 0 % 2	CAL 6 in 16; Gamma Ray (GR composite) 0 API 150	400	Deep Resistivity (composite) 0.2 OHMM 20; Medium Resistivity (composite) 0.2 OHMM 20	Neutron Porosity (APLC) 0.45 P.U. -0.15; Density (LDL) 1.95 g/cc 2.95	Sonic (DTco composite) 140 us/ft 40	
							SEABED 406.3 mMD (-379.8 mTVDSS)			
UNASSIGNED				18/07/02; 0.19° 60.22°; NB1 Hughes MAX-GT3 17½" (36"HO) in at 406m, out at 495m. Made 89m in 10.5 HOB 1-1-NO-A-1-I-NO-TD; 0.58° 40.94°; 0.32° 339.78°; 0.61°		450				

WELL 34/6-1 S SPUDDED AT 05:30HRS ON 18TH JULY 2002.

36" HOLE SECTION DRILLED WITH SEAWATER . 10m3 HI-VIS SWEEPS WERE PUMPED EVERY 10m. NO RETURNS TO SURFACE.



AT 36" SECTION TD, WELL DISPLACED TO 1.2sg HI-VIS MUD PRIOR TO RUNNING CASING.

20" SECTION DRILLED WITH SEAWATER. 5m3 HI-VIS SWEEPS WERE PUMPED EVERY STAND. NO RETURNS TO SURFACE.

DRILLED WITH SEAWATER PUMPING 5m3 HI-VIS SWEEPS EVERY STAND. NO RETURNS TO SURFACE.

DRILLED WITH SEAWATER PUMPING 5m3 HI-VIS SWEEPS EVERY STAND. NO RETURNS TO SURFACE.

UNASSIGNED

UNASSIGNED

UNASSIGNED

UNASSIGNED

HORDALAND GROUP

UNDIFFERENTIATED

0.44°
85.64°

0.63°
115.72°

0.24°
151.19°

0.24°
186.99°

0.17°
248.14°

0.37°
244.63°

0.13°
318.63°

0.38°
356.69°

0.24°
264.93°

0.54°
219.73°

0.92°
228.89°

0.72°
215.36°

21/07/02
22/07/02

0.79°
213.86°

0.83°
202.16°

WIRELINE GR THROUGH CASING

LWD GR

0.37°
245.84°

20" at 1342m

22/07/02
26/07/02

NB3 Hughes MX-T03DDT 17½"
in at 1350m, out at 2422m
Make 1072m in 23.8 HOB
1-2-BT-A-E-I-NO-TD

0.31°
212.21°

LWD RESISTIVITY

950

1000

1050

1100

1150

1200

1250

1300

1350

DRILLED WITH SEAWATER PUMPING 5m3 HI-VIS SWEEPS EVERY STAND. NO RETURNS TO SURFACE.

PUMPED 20m3 HI-VIS SWEEP AND DISPLACED THE WELL TO 1.2sg HI-VIS MUD PRIOR TO RUNNING 20" CASING.

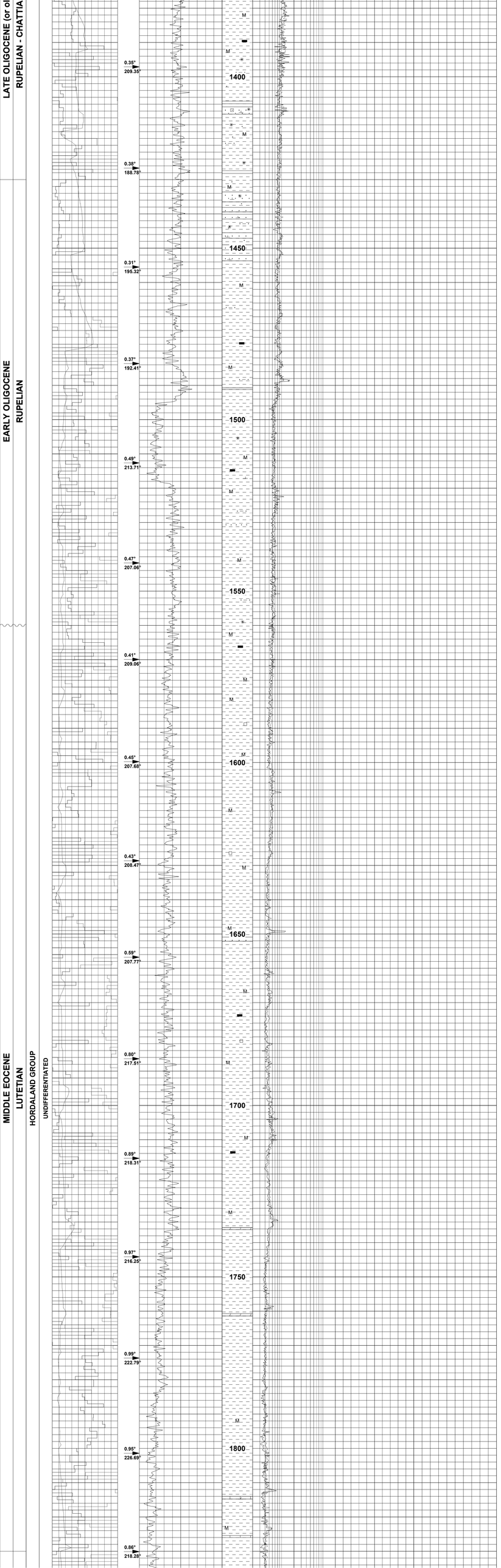
DISPLACED THE HOLE TO 1.25sg GLYDRILL WBM PRIOR TO DRILLING 17 1/2" HOLE.

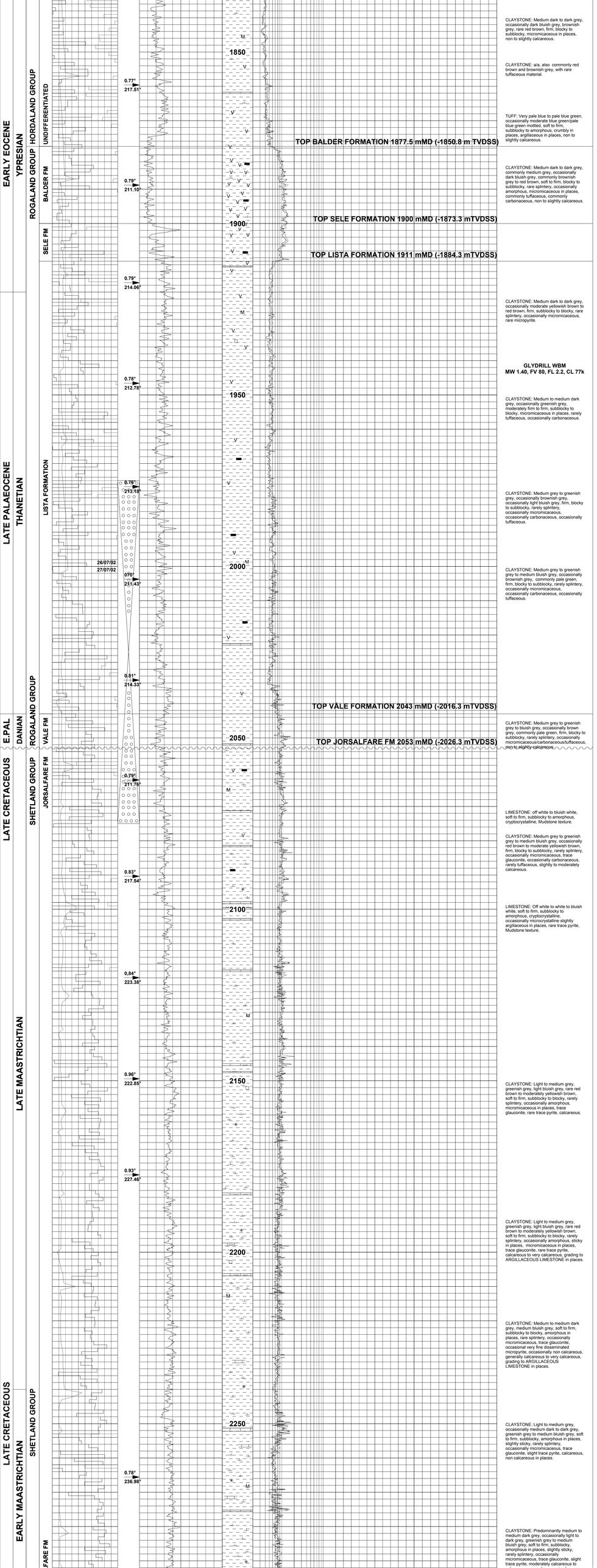
FIRST RETURNS AT 1350m.

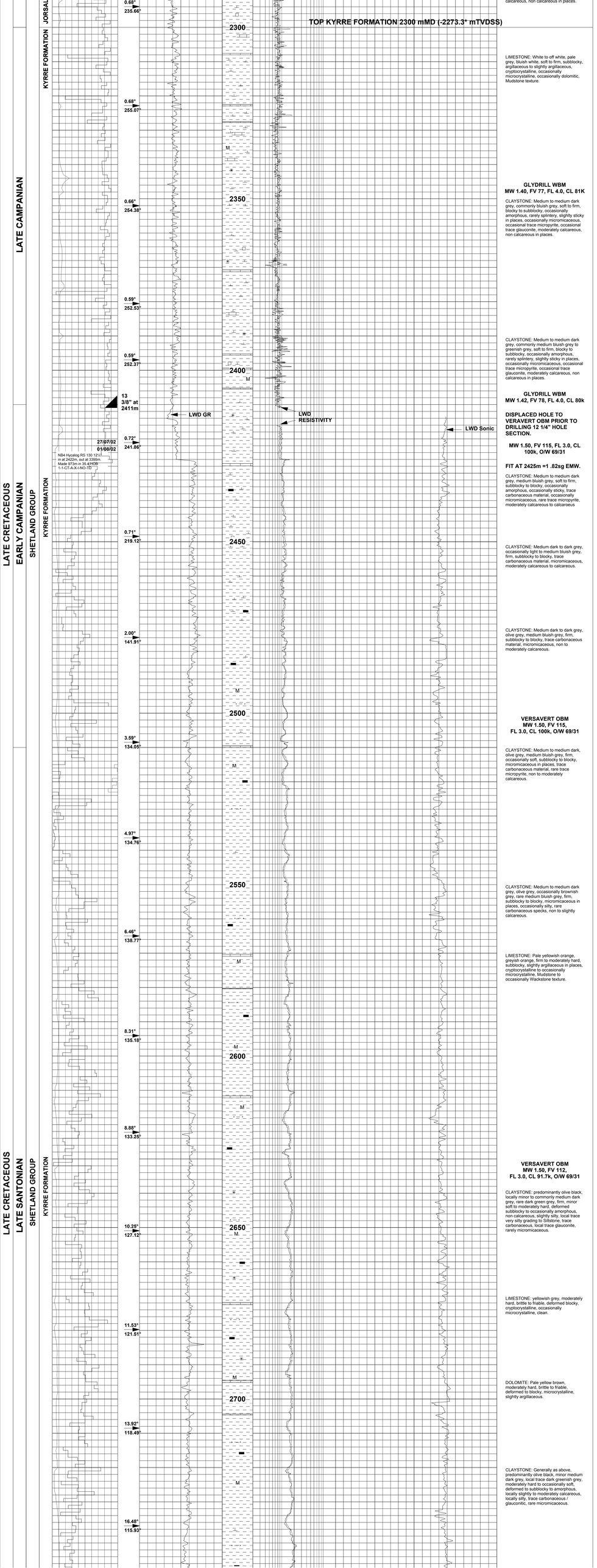
LOT at 1353m = 1.55sg EMW.

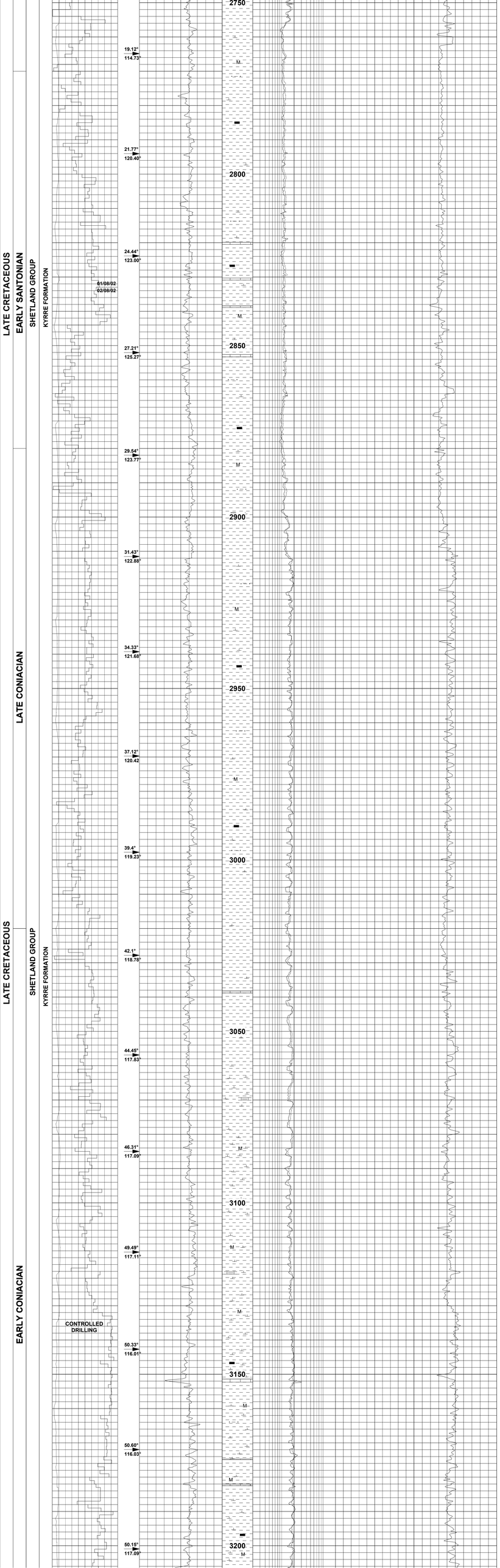
MW 1.25, FV 59, FL 3.6, CL 100k

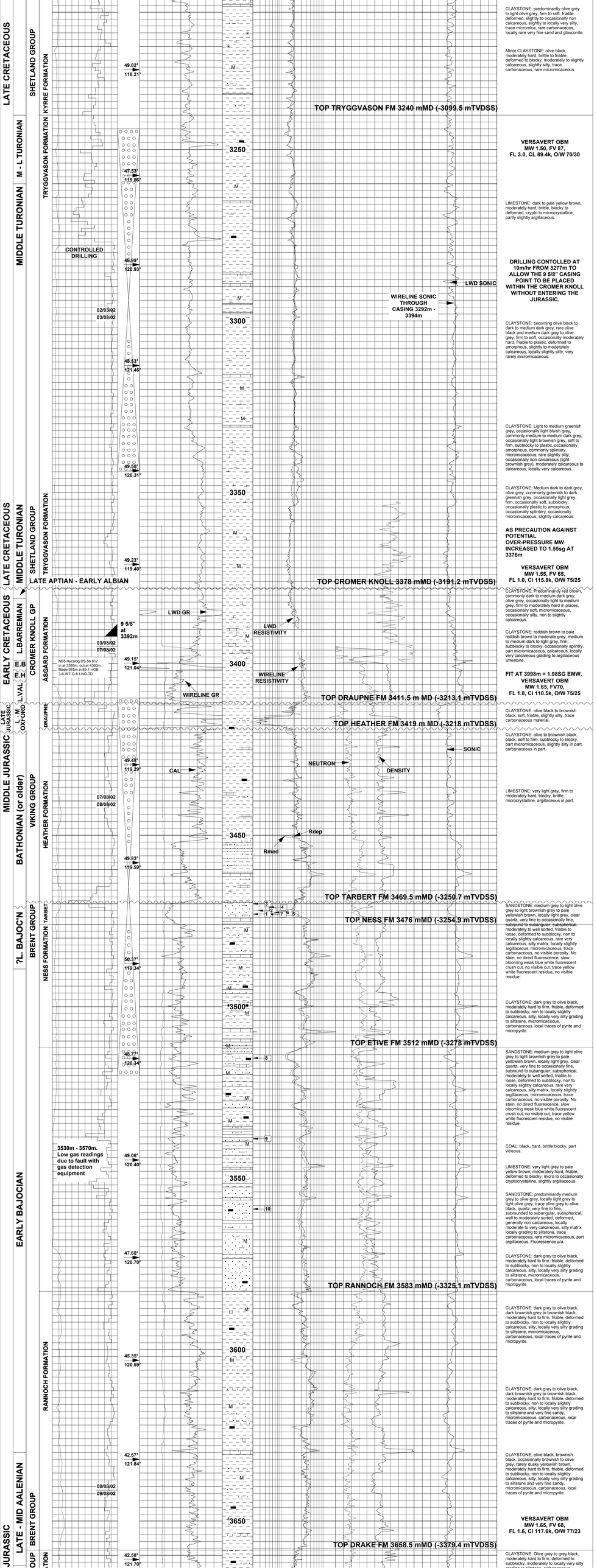
CLAYSTONE: Olive grey, medium grey to light brownish grey, occasionally light grey, soft to moderately firm, subblocky, occasionally blocky, silty in places, occasional very fine quartz, micromicaceous, occasional trace glauconite.

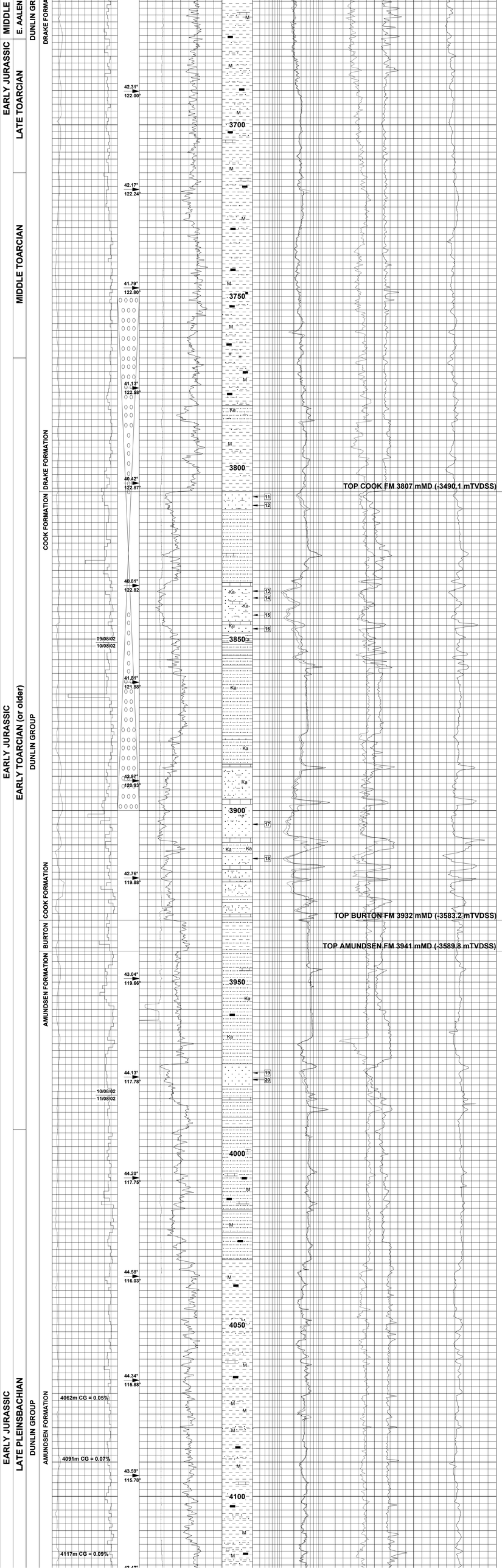

LATE OLIGOCENE (or ol
RUPELIAN - CHATTIA
EARLY OLIGOCENE
RUPELIAN
MIDDLE EOCENE
LUTETIAN
HORDALAND GROUP
UNDIFFERENTIATED
0.35°
209.35°
0.38°
188.78°
0.31°
195.32°
0.37°
192.41°
0.49°
213.71°
0.47°
207.06°
0.41°
209.06°
0.45°
207.68°
0.43°
208.47°
0.59°
207.77°
0.80°
217.51°
0.89°
218.31°
0.97°
216.25°
0.99°
222.79°
0.95°
226.69°
0.86°
218.28°
1400
1450
1500
1550
1600
1650
1700
1750
1800
CLAYSTONE: Olive grey to medium grey occasionally light brownish grey, occasionally light grey, soft to moderately firm, subblocky, occasionally blocky, silty in places, occasional very fine quartz, micromicaceous, occasional trace glauconite, occasional carbonaceous specks.
SANDSTONE: predominantly as loose sand grains, clear to translucent, colourless to very pale grey, fine to medium grained subrounded, rarely subangular, subspherical, poor to moderately sorted, commonly in greyish green argillaceous matrix, common loose calcite cement, common to abundant glauconite, occasional trace micropyrite, rare consolidated cutting, greyish green, hard, blocky, no visible porosity, no shows.
CLAYSTONE: Medium grey to greenish grey, occasionally olive grey, soft to firm, subblocky to blocky, crumbly, slightly silty in places, micromicaceous, occasional trace carbonaceous specks, non to slightly calcareous.
CLAYSTONE: Predominantly greyish green to bluish green, occasionally pale blue green, commonly medium to olive grey, soft to firm, subblocky to blocky, crumbly, slightly silty in places, micromicaceous, occasional trace carbonaceous specks, trace glauconite, non to slightly calcareous.
Trace SANDSTONE: Clear to translucent, colourless, very fine to coarse, rounded to well rounded, subspherical to spherical, poorly sorted.
CLAYSTONE: predominantly greyish blue green, commonly medium to olive grey, soft to firm, subblocky to blocky, crumbly, slightly silty in places, micromicaceous, occasional trace carbonaceous specks, trace glauconite, non to slightly calcareous.
CLAYSTONE: Medium dark to dark grey, commonly medium bluish grey to dusky blue green, moderately firm to occasionally soft, blocky to subblocky, occasionally crumbly, micromicaceous in places.
CLAYSTONE: Predominantly medium dark to dark grey, occasionally medium bluish grey, to dusky blue green, moderately firm to occasionally soft, blocky to subblocky, occasionally crumbly, micromicaceous, occasional very fine disseminated micropyrite, non calcareous.
CLAYSTONE: Predominantly medium dark to dark grey, rarely medium bluish grey, to dusky blue green, moderately firm to occasionally soft, blocky to subblocky, occasionally crumbly, micromicaceous, occasional very fine disseminated micropyrite.
Trace SANDSTONE: a/a.
CLAYSTONE: Medium dark to dark grey, rare dusky blue green, moderately firm to occasionally soft, blocky to subblocky, micromicaceous, rare very fine disseminated micropyrite, rarely microcarbonaceous.
CLAYSTONE: Medium dark to dark grey, commonly medium dark bluish grey, moderately firm to occasionally soft, blocky to subblocky, micromicaceous, rare very fine disseminated micropyrite, rarely microcarbonaceous.
CLAYSTONE: Medium dark to dark grey, moderately firm to firm, blocky to subblocky, occasionally slightly swelling, common waxy texture, slightly micromicaceous, non to occasionally slighlty calcareous.
DOLOMITE: Light brown to dark yellowish orange, moderately hard, subblocky to angular, crystalline.
GLYDRILL WBM
MW 1.28, FV 75, FL 3.5, CL 83k
DOLOMITE: Light brown to dark yellowish orange, moderately hard, subblocky to angular, crystalline.
CLAYSTONE: Medium dark to dark grey, common medium bluish grey, firm to moderately firm, subblocky to blocky, occasionally micromicaceous, occasionally waxy texture.
CLAYSTONE: Medium dark to dark grey, common medium bluish grey, occasional brownish grey, firm to moderately firm, subblocky to blocky, occasionally micromicaceous, occasionally waxy texture, non to slighlty calcareous.
LIMESTONE: Off white to pale yellowish orange, moderately hard, subblocky, microcrystalline, occasionally dolomitic, Mudstone to Wackstone texture.

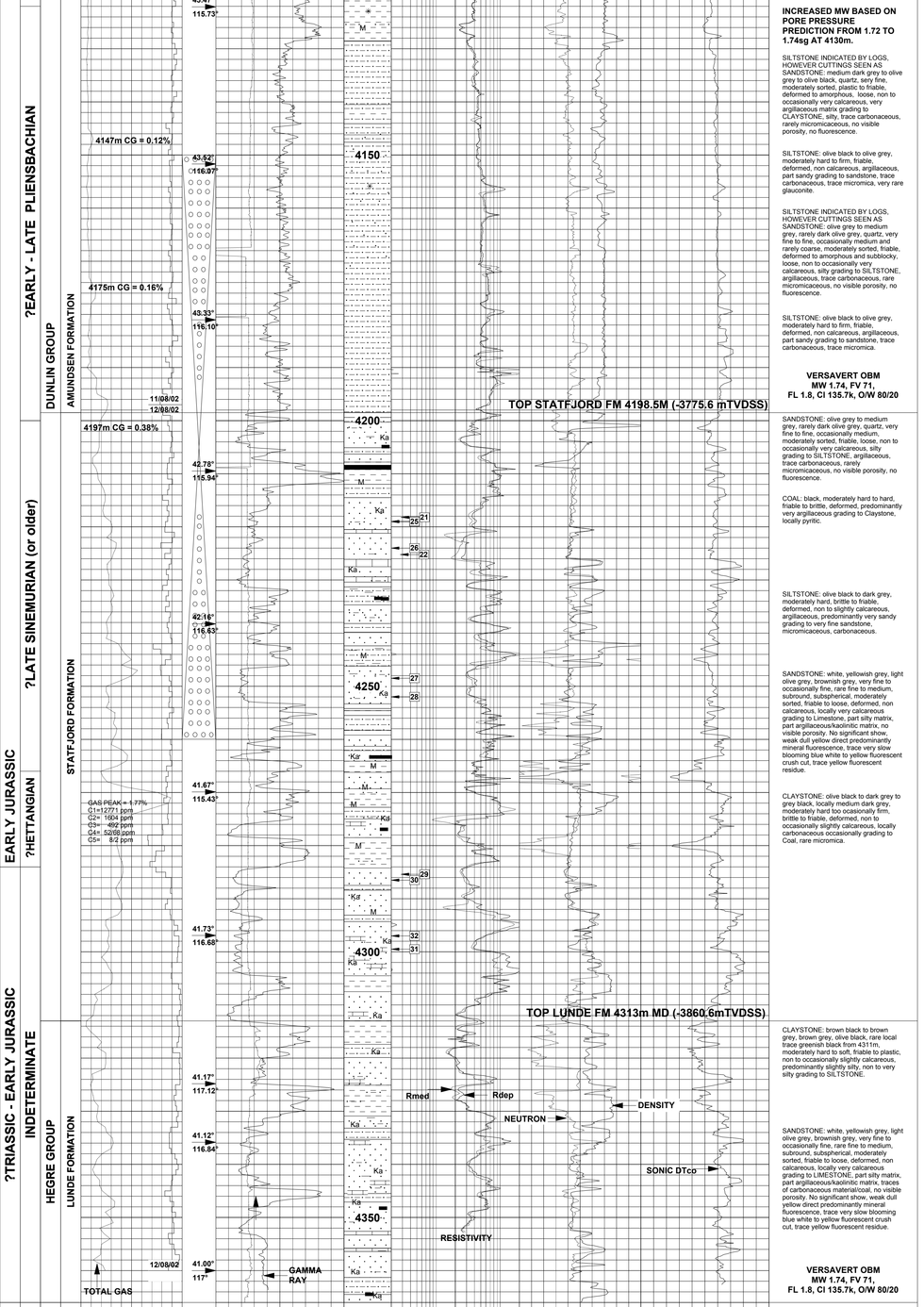

EARLY EOCENE
YPRESIAN
ROGALAND GROUP
HORDALAND GROUP
UNDIFFERENTIATED
BALDER FM
SELE FM
LATE PALAEOCENE
THANETIAN
LISTA FORMATION
E.PAL
DANIAN
ROGALAND GROUP
VALE FM
LATE CRETACEOUS
LATE MAASTRICHTIAN
SHETLAND GROUP
JORSALFARE FM
EARLY MAASTRICHTIAN
SHETLAND GROUP
JORSALFARE FM
TOP BALDER FORMATION 1877.5 mMD (-1850.8 m TVDSS)
TOP SELE FORMATION 1900 mMD (-1873.3 mTVDSS)
TOP LISTA FORMATION 1911 mMD (-1884.3 mTVDSS)
TOP VALE FORMATION 2043 mMD (-2016.3 mTVDSS)
TOP JORSALFARE FM 2053 mMD (-2026.3 mTVDSS)
1850
1900
1950
2000
2050
2100
2150
2200
2250
0.77°
217.51°
0.79°
211.10°
0.79°
214.06°
0.76°
212.78°
0.76°
213.18°
26/07/02
27/07/02
0.70°
211.43°
0.81°
214.33°
0.79°
211.76°
0.83°
217.54°
0.84°
223.38°
0.96°
222.85°
0.93°
227.46°
0.78°
236.98°
CLAYSTONE: Medium dark to dark grey, occasionally dark bluish grey, brownish grey, rare red brown, firm, blocky to subblocky, micromicaceous in places, non to slightly calcareous.
CLAYSTONE: a/a, also commonly red brown and brownish grey, with rare tuffaceous material.
TUFF: Very pale blue to pale blue green, occasionally moderate blue green/pale blue green mottled, soft to firm, subblocky to amorphous, crumbly in places, argillaceous in places, non to slightly calcareous.
CLAYSTONE: Medium dark to dark grey, commonly medium grey, occasionally dark bluish grey, commonly brownish grey to red brown, soft to firm, blocky to subblocky, rare splintery, occasionally amorphous, micromicaceous in places, commonly tuffaceous, commonly carbonaceous, non to slightly calcareous.
CLAYSTONE: Medium dark to dark grey, occasionally moderate yellowish brown to red brown, firm, subblocky to blocky, rare splintery, occasionally micromicaceous, rare micropyrite.
GLYDRILL WBM
MW 1.40, FV 80, FL 2.2, CL 77k
CLAYSTONE: Medium to medium dark grey, occasionally greenish grey, moderately firm to firm, subblocky to blocky, micromicaceous in places, rarely tuffaceous, occasionally carbonaceous.
CLAYSTONE: Medium grey to greenish grey, occasionally brownish grey, occasionally light bluish grey, firm, blocky to subblocky, rarely splintery, occasionally micromicaceous, occasionally carbonaceous, occasionally tuffaceous.
CLAYSTONE: Medium grey to greenish grey to medium bluish grey, occasionally brownish grey, commonly pale green, firm, blocky to subblocky, rarely splintery, occasionally micromicaceous, occasionally carbonaceous, occasionally tuffaceous.
CLAYSTONE: Medium grey to greenish grey to bluish grey, occasionally brown grey, commonly pale green, firm, blocky to subblocky, rarely splintery, occasionally micromicaceous/carbonaceous/tuffaceous, non to slightly calcareous.
LIMESTONE: off white to bluish white, soft to firm, subblocky to amorphous, cryptocrystalline, Mudstone texture.
CLAYSTONE: Medium grey to greenish grey to medium bluish grey, occasionally red brown to moderate yellowish brown, firm, blocky to subblocky, rarely splintery, occasionally micromicaceous, trace glauconite, occasionally carbonaceous, rarely tuffaceous, slightly to moderately calcareous.
LIMESTONE: Off white to white to bluish white, soft to firm, subblocky to amorphous, cryptocrystalline, occasionally microcrystalline slightly argillaceous in places, rare trace pyrite, Mudstone texture.
CLAYSTONE: Light to medium grey, greenish grey, light bluish grey, rare red brown to moderately yellowish brown, soft to firm, subblocky to blocky, rarely splintery, occasionally amorphous, micromicaceous in places, trace glauconite, rare trace pyrite, calcareous.
CLAYSTONE: Light to medium grey, greenish grey, light bluish grey, rare red brown to moderately yellowish brown, soft to firm, subblocky to blocky, rarely splintery, occasionally amorphous, sticky in places, micromicaceous in places, trace glauconite, rare trace pyrite, calcareous to very calcareous, grading to ARGILLACEOUS LIMESTONE in places.
CLAYSTONE: Medium to medium dark grey, medium bluish grey, soft to firm, subblocky to blocky, amorphous in places, rare splintery, occasionally micromicaceous, trace glauconite, occasional very fine disseminated micropyrite, occasionally non calcareous, generally calcareous to very calcareous, grading to ARGILLACEOUS LIMESTONE in places.
CLAYSTONE: Light to medium grey, occasionally medium dark to dark grey, greenish grey to medium bluish grey, soft to firm, subblocky, amorphous in places, slightly sticky, rarely splintery, occasionally micromicaceous, trace glauconite, slight trace pyrite, calcareous, non calcareous in places.
CLAYSTONE: Predominantly medium to medium dark grey, occasionally light to dark grey, greenish grey to medium bluish grey, soft to firm, subblocky, amorphous in places, slightly sticky, rarely splintery, occasionally micromicaceous, trace glauconite, slight trace pyrite, moderately calcareous to


JORSALFARE FORMATION
KYRRE FORMATION
LATE CAMPANIAN
LATE CRETACEOUS
EARLY CAMPANIAN
SHETLAND GROUP
KYRRE FORMATION
LATE CRETACEOUS
LATE SANTONIAN
SHETLAND GROUP
KYRRE FORMATION
TOP KYRRE FORMATION 2300 mMD (-2273.3* mTVDSS)
LIMESTONE: White to off white, pale grey, bluish white, soft to firm, subblocky, argillaceous to slightly argillaceous, cryptocrystalline, occasionally microcrystalline, occasionally dolomitic, Mudstone texture.
GLYDRILL WBM
MW 1.40, FV 77, FL 4.0, CL 81K
CLAYSTONE: Medium to medium dark grey, commonly bluish grey, soft to firm, blocky to subblocky, occasionally amorphous, rarely splintery, slightly sticky in places, occasionally micromicaceous, occasional trace microprytite, occasional trace glauconite, moderately calcareous, non calcareous in places.
CLAYSTONE: Medium to medium dark grey, commonly medium bluish grey to greenish grey, soft to firm, blocky to subblocky, occasionally amorphous, rarely splintery, slightly sticky in places, occasionally micromicaceous, occasional trace microprytite, occasional trace glauconite, moderately calcareous, non calcareous in places.
GLYDRILL WBM
MW 1.42, FV 78, FL 4.0, CL 80k
DISPLACED HOLE TO VERAVERT OBM PRIOR TO DRILLING 12 1/4" HOLE SECTION.
MW 1.50, FV 115, FL 3.0, CL 100k, O/W 69/31
FIT AT 2425m =1 .82sg EMW.
CLAYSTONE: Medium to medium dark grey, medium bluish grey, soft to firm, subblocky to blocky, occasionally amorphous, occasionally sticky, trace carbonaceous material, occasionally micromicaceous, rare trace microprytite, moderately calcareous to calcareous
CLAYSTONE: Medium dark to dark grey, occasionally light to medium bluish grey, firm, subblocky to blocky, trace carbonaceous material, micromicaceous, moderately calcareous to calcareous.
CLAYSTONE: Medium dark to dark grey, olive grey, medium bluish grey, firm, subblocky to blocky, trace carbonaceous material, micromicaceous, non to moderately calcareous.
VERSAVERT OBM
MW 1.50, FV 115,
FL 3.0, CL 100k, O/W 69/31
CLAYSTONE: Medium to medium dark, olive grey, medium bluish grey, firm, occasionally soft, subblocky to blocky, micromicaceous in places, trace carbonaceous material, rare trace microprytite, non to moderately calcareous.
CLAYSTONE: Medium to medium dark grey, olive grey, occasionally brownish grey, rare medium bluish grey, firm, subblocky to blocky, micromicaceous in places, occasionally silty, rare carbonaceous specks, non to slightly calcareous.
LIMESTONE: Pale yellowish orange, greyish orange, firm to moderately hard, subblocky, slightly argillaceous in places, cryptocrystalline to occasionally microcrystalline, Mudstone to occasionally Wackstone texture.
VERSAVERT OBM
MW 1.50, FV 112,
FL 3.0, CL 91.7k, O/W 69/31
CLAYSTONE: predominantly olive black, locally minor to commonly medium dark grey, rare dark green grey, firm, minor soft to moderately hard, deformed subblocky to occasionally amorphous, non calcareous, slightly silty, local trace very silty grading to Siltstone, trace carbonaceous, local trace glauconite, rarely micromicaceous.
LIMESTONE: yellowish grey, moderately hard, brittle to friable, deformed blocky, cryptocrystalline, occasionally microcrystalline, clean.
DOLOMITE: Pale yellow brown, moderately hard, brittle to friable, deformed to blocky, microcrystalline, slighty argillaceous.
CLAYSTONE: Generally as above, predominantly olive black, minor medium dark grey, local trace dark greenish grey, moderately hard to occasionally soft, deformed to subblocky to amorphous, locally slightly to moderately calcareous, locally silty, trace carbonaceous / glauconitic, rare micromicaceous.
2300
2350
2400
2450
2500
2550
2600
2650
2700
0.68°
255.66°
0.68°
255.07°
0.66°
254.38°
0.59°
252.53°
0.59°
252.37°
13 3/8" at 2411m
LWD GR
LWD RESISTIVITY
LWD Sonic
0.72°
241.86°
27/07/02
01/08/02
NB4 Hycalog RS 130 12¼"
in at 2422m, out at 3395m.
Made 973m in 35.4ROB
1-1-CT-A-X-I-NO-TD
0.71°
219.12°
2.00°
141.91°
3.59°
134.05°
4.97°
134.76°
6.46°
138.77°
8.31°
135.18°
8.86°
133.25°
10.25°
127.12°
11.53°
121.51°
13.92°
118.49°
16.48°
115.93°
M


LATE CRETACEOUS
EARLY SANTONIAN
SHETLAND GROUP
KYRRE FORMATION
LATE CONIACIAN
SHETLAND GROUP
KYRRE FORMATION
LATE CRETACEOUS
EARLY CONIACIAN
2750
2800
2850
2900
2950
3000
3050
3100
3150
3200
M
19.12°
114.73°
21.77°
120.40°
24.44°
123.00°
01/08/02
02/08/02
27.21°
125.27°
29.54°
123.77°
31.43°
122.88°
34.33°
121.68°
37.12°
120.42°
39.4°
119.23°
42.1°
118.78°
44.45°
117.83°
46.31°
117.09°
49.49°
117.11°
CONTROLLED DRILLING
50.33°
116.01°
50.60°
116.03°
50.15°
117.09°
CLAYSTONE: Olive black, locally minor to locally predominantly medium dark grey, local trace dark greenish grey, moderately hard to occasionally soft, deformed to subblocky to amorphous, slightly to moderately to locally non calcareous, locally silty, rare carbonaceous, rare micromicaceous.
VERSAVERT OBM
MW 1.50, FV 87,
FL 3.0, CL 89.4k, O/W 70/30
CLAYSTONE: olive black, medium dark grey, rare dark green grey, soft to moderately hard, predominantly firm, deformed to subblocky, locally amorphous, non to moderately calcareous, locally slightly silty, rare micromicaceous, rare carbonaceous.
2930m - 3040m SAMPLES
HEAVILY CONTAMINATED
WITH G-SEAL and CaCO3
MUD ADDITIVES
CLAYSTONE: Predominantly olive black, commonly medium dark grey, rare dark green grey, soft to moderately hard, predominantly firm, deformed to subblocky, locally amorphous, non to moderately calcareous, locally slightly silty, rare micromicaceous, rare carbonaceous.
CLAYSTONE: Medium dark to dark grey, olive black, firm, subblocky to blocky, slighty micromicaceous in places, trace microcarbonaceous, slightly silty in places, non to slighly calcareous.
LIMESTONE: White to off white, pale yellowish orange, firm to moderately hard, subblocky, slighty argillaceous in places, dolomitic in places, cryptocrystalline to occasionally microcrystalline, Mudstone texture.
CLAYSTONE: Medium dark to dark grey, olive black, becoming medium to medium dark grey, firm, subblocky to blocky, occasionally splintery, micromicaceous, rare trace carbonaceous material, slightly silty in places, moderately calcareous to calcareous.
CLAYSTONE: Medium to medium dark grey, olive grey to olive black, occasionally light to medium grey, soft to firm, subblocky to blocky, occasionally amorphous, rarely sticky, micromicaceous, slightly silty in places, moderately calcareous to calcareous, locally grading to ARGILLACEOUS LIMESTONE.
CLAYSTONE: Medium to medium dark grey, commonly greenish grey to olive grey to olive black, occasionally light to medium grey, soft to firm, subblocky to blocky, occasionally amorphous, rarely sticky, occasionally splintery, micromicaceous, slightly silty in places, moderately calcareous to calcareous, very calcareous in places, locally grading to ARGILLACEOUS LIMESTONE.
DRILLING CONTROLLED
FROM 3133m - 3176m TO
PREVENT HOLE ANGLE
BUILDING
CLAYSTONE: olive black to medium dark grey, moderately hard, friable to brittle, deformed to subblocky, moderately to very calcareous, partly silty, rare micromicaceous, rare carbonaceous.
LIMESTONE: dark to locally pale yellow brown to yellowish grey, moderately hard, brittle, blocky to deformed, crypto to microcrystalline, partly slighty argillaceous.


LATE CRETACEOUS
MIDDLE TURONIAN
M - L TURONIAN
SHETLAND GROUP
KYRRE FORMATION
TRYGGVASON FORMATION
CLAYSTONE: predominantly olive grey to light olive grey, firm to soft, friable, deformed, slightly to occasionally non calcareous, slightly to locally very silty, trace micromica, rare carbonaceous, locally rare very fine sand and glauconite.
Minor CLAYSTONE: olive black, moderately hard, brittle to friable, deformed to blocky, moderately to slightly calcareous, slightly silty, trace carbonaceous, rare micromicaceous.
49.02°
118.21°
TOP TRYGGVASON FM 3240 mMD (-3099.5 mTVDSS)
VERSAVERT OBM
MW 1.50, FV 87,
FL 3.0, CL 89.4k, O/W 70/30
3250
47.53°
119.86°
LIMESTONE: dark to pale yellow brown, moderately hard, brittle, blocky to deformed, crypto to microcrystalline, partly slightly argillaceous.
CONTROLLED DRILLING
46.99°
120.93°
DRILLING CONTOLLED AT 10m/hr FROM 3277m TO ALLOW THE 9 5/8" CASING POINT TO BE PLACED WITHIN THE CROMER KNOLL WITHOUT ENTERING THE JURASSIC.
LWD SONIC
WIRELINE SONIC THROUGH CASING 3292m - 3394m
02/03/02
03/08/02
3300
CLAYSTONE: becoming olive black to dark to medium dark grey, rare olive black and medium dark grey to olive grey, firm to soft, occasionally moderately hard, friable to plastic, deformed to amorphous, slightly to moderately calcareous, locally slightly silty, very rarely micromicaceous.
48.53°
121.46°
49.50°
120.31°
CLAYSTONE: Light to medium greenish grey, occasionally light bluish grey, commonly medium to medium dark grey, occasionally light brownish grey, soft to firm, subblocky to plastic, occasionally amorphous, commonly splintery, micromicaceous, rare slightly silty, occasionally non calcareous (light brownish grey), moderately calcareous to calcareous, locally very calcareous.
3350
CLAYSTONE: Medium dark to dark grey, olive grey, commonly greenish to dark greenish grey, occasionally light grey, firm, occasionally soft, subblocky, occasionally plastic to amorphous, occasionally splintery, occasionally micromicaceous, slightly calcareous.
AS PRECAUTION AGAINST POTENTIAL OVER-PRESSURE MW INCREASED TO 1.55sg AT 3376m
VERSAVERT OBM
MW 1.55, FV 65,
FL 1.0, CI 115.8k, O/W 75/25
49.23°
119.40°
LATE APTIAN - EARLY ALBIAN
TOP CROMER KNOLL 3378 mMD (-3191.2 mTVDSS)
EARLY CRETACEOUS
L.BARREMIAN
CROMER KNOLL GP
ASGARD FORMATION
CLAYSTONE: Predominantly red brown, commonly dark to medium dark grey, olive grey, occasionally light to medium grey, firm to moderately hard in places, occasionally soft, micromicaceous, occasionally silty, non to slightly calcareous.
LWD GR
LWD RESISTIVITY
9 5/8" at 3392m
03/08/02
07/08/02
CLAYSTONE: reddish brown to pale reddish brown to moderate grey, medium to medium dark to light grey, firm, subblocky to blocky, occasionally splintry, part micromicaceous, calcareous, locally very calcareous grading to argillaceous limestone.
NB5 Hycalog DS 56 8½" in at 3395m, out at 4360m. Made 975m in 89.1 HOB 3-6-WT-G-6-I-NO-TD
49.15°
121.04°
3400
WIRELINE RESISTIVITY
FIT at 3398m = 1.98SG EMW.
VERSAVERT OBM
MW 1.65, FV70,
FL 1.8, CI 110.5k, O/W 75/25
WIRELINE GR
TOP DRAUPNE FM 3411.5 m MD (-3213.1 mTVDSS)
LATE JURASSIC
L.VAL.
OXFORD
DRAUPNE
CLAYSTONE: olive black to brownish black, soft, friable, slightly silty, trace carbonaceous material.
TOP HEATHER FM 3419 m MD (-3218 mTVDSS)
MIDDLE JURASSIC
BATHONIAN (or older)
VIKING GROUP
HEATHER FORMATION
CLAYSTONE: olive to brownish black, black, soft to firm, subblocky to blocky, part micromicaceous, slightly silty in part, carbonaceous in part.
SONIC
NEUTRON
DENSITY
49.48°
119.29°
CAL
07/08/02
08/08/02
LIMESTONE: very light grey, firm to moderately hard, blocky, brittle, microcrystalline, argillaceous in part.
3450
Rdep
Rmed
49.83°
119.59°
TOP TARBERT FM 3469.5 mMD (-3250.7 mTVDSS)
?L. BAJOC'N
BRENT GROUP
NESS FORMATION
TARBET
SANDSTONE: medium grey to light olive grey to light brownish grey to pale yellowish brown, locally light grey, clear quartz, very fine to occasionally fine, subround to subangular, subspherical, moderately to well sorted, friable to loose, deformed to subblocky, non to locally slightly calcareous, rare very calcareous, silty matrix, locally slightly argillaceous, micromicaceous, trace carbonaceous, no visible porosity. No stain, no direct fluorescence, slow blooming weak blue white fluorescent crush cut, no visible cut, trace yellow white fluorescent residue, no visible residue.
TOP NESS FM 3476 mMD (-3254.9 mTVDSS)
50.37°
119.34°
3500
CLAYSTONE: dark grey to olive black, moderately hard to firm, friable, deformed to subblocky, non to locally slightly calcareous, silty, locally very silty grading to siltstone, micromicaceous, carbonaceous, local traces of pyrite and micropyrite.
TOP ETIVE FM 3512 mMD (-3278 mTVDSS)
EARLY BAJOCIAN
48.77°
120.34°
SANDSTONE: medium grey to light olive grey to light brownish grey to pale yellowish brown, locally light grey, clear quartz, very fine to occasionally fine, subround to subangular, subspherical, moderately to well sorted, friable to loose, deformed to subblocky, non to locally slightly calcareous, rare very calcareous, silty matrix, locally slightly argillaceous, micromicaceous, trace carbonaceous, no visible porosity. No stain, no direct fluorescence, slow blooming weak blue white fluorescent crush cut, no visible cut, trace yellow white fluorescent residue, no visible residue.
3530m - 3570m. Low gas readings due to fault with gas detection equipment
COAL: black, hard, brittle blocky, part vitreous.
49.06°
120.40°
3550
LIMESTONE: very light grey to pale yellow brown, moderately hard, friable, deformed to blocky, micro to occasionally cryptocrystalline, slightly argillaceous.
SANDSTONE: predominantly medium grey to olive grey, locally light grey to light olive grey, trace olive grey to olive black, quartz, very fine to fine, subrounded to subangular, subspherical, well to moderately sorted, deformed, generally non calcareous, locally moderate to very calcareous, silty matrix locally grading to siltstone, trace carbonaceous, rare micromicaceous, part argillaceous. Fluorescence a/a
47.60°
120.70°
CLAYSTONE: dark grey to olive black, moderately hard to firm, friable, deformed to subblocky, non to locally slightly calcareous, silty, locally very silty grading to siltstone, micromicaceous, carbonaceous, local traces of pyrite and micropyrite.
TOP RANNOCH FM 3583 mMD (-3325.1 mTVDSS)
RANNOCH FORMATION
CLAYSTONE: dark grey to olive black, dark brownish grey to brownish black, moderately hard to firm, friable, deformed to subblocky, non to locally slightly calcareous, silty, locally very silty grading to siltstone, micromicaceous, carbonaceous, local traces of pyrite and micropyrite.
3600
45.35°
120.59°
CLAYSTONE: dark grey to olive black, dark brownish grey to brownish black, moderately hard to firm, friable, deformed to subblocky, non to locally slightly calcareous, silty, locally very silty grading to siltstone and very fine sandy, micromicaceous, carbonaceous, local traces of pyrite and micropyrite.
42.57°
121.84°
CLAYSTONE: olive black, brownish black, occasionally brownish to olive grey, rarely dusky yellowish brown, moderately hard to firm, friable, deformed to subblocky, non to locally slightly calcareous, silty, locally very silty grading to siltstone and very fine sandy, micromicaceous, carbonaceous, local traces of pyrite and micropyrite.
08/08/02
09/08/02
3650
VERSAVERT OBM
MW 1.65, FV 68,
FL 1.6, CI 117.6k, O/W 77/23
TOP DRAKE FM 3658.5 mMD (-3379.4 mTVDSS)
LATE - MID AALENIAN
BRENT GROUP
42.58°
121.70°
CLAYSTONE: Olive grey to grey black, moderately hard to firm, deformed to subblocky, moderately to locally very silty


EARLY JURASSIC
LATE PLEINSBACHIAN
DUNLIN GROUP
AMUNDSEN FORMATION
EARLY JURASSIC
EARLY TOARCIAN (or older)
DUNLIN GROUP
AMUNDSEN FORMATION
BURTON
COOK FORMATION
EARLY JURASSIC
MIDDLE TOARCIAN
DRAKE FORMATION
EARLY JURASSIC
LATE TOARCIAN
DUNLIN GROUP
DRAKE FORMATION
MIDDLE
E. AALEN
42.31°
122.00°
42.17°
122.24°
41.79°
122.80°
41.13°
122.58°
40.42°
122.87°
40.81°
122.82
41.81°
121.88°
42.67°
120.93°
42.76°
119.88°
43.04°
119.66°
44.13°
117.78°
44.20°
117.75°
44.58°
116.03°
44.34°
115.88°
43.59°
115.78°
09/08/02
10/08/02
10/08/02
11/08/02
4062m CG = 0.05%
4091m CG = 0.07%
4117m CG = 0.09%
3700
3750
3800
3850
3900
3950
4000
4050
4100
M
Ka
11
12
13
14
15
16
17
18
19
20
TOP COOK FM 3807 mMD (-3490.1 mTVDSS)
TOP BURTON FM 3932 mMD (-3583.2 mTVDSS)
TOP AMUNDSEN FM 3941 mMD (-3589.8 mTVDSS)
INCREASED MW BASED ON PORE PRESSURE PREDICTION FROM 1.65 TO 1.72sg AT 3746m.
VERSAVERT OBM
MW 1.72, FV 68,
FL 1.8, Cl 118.8k, O/W 77/23
3922m - WIPER TRIP TO SHOE.
VERSAVERT OBM
MW 1.72, FV 70,
FL 2.0, Cl 126.7k, O/W 79/21
LIMESTONE: olive grey, firm, friable, crypto to microcrystalline, argillaceous.
LIMESTONE: very light grey, moderately hard, brittle, blocky, cryptocrystalline, clean.
GLAUCONITE: Locally common.
LIMESTONE: a/a, also dark to dusky yellow brown, moderately hard to firm, blocky, microcrystalline, argillaceous.
SILTSTONE INDICATED BY LOGS, HOWEVER CUTTINGS SEEN AS SANDSTONE: very light grey, quartz, very fine to occasionally fine, subrounded, subspherical, moderately to poorly sorted, friable to loose, deformed, occasionally very calcareous grading to limestone, silty/argillaceous/kaolinitic matrix, no visible porosity. No stain, no direct fluorescence, slow blooming weak blue white fluorescent crush cut, no visible cut, trace yellow white fluorescent residue, no visible residue.
SANDSTONE: very light to light grey, olive to brownish grey, subangular to subrounded, moderate to well sorted, deformed, friable to loose, non to slightly calcareous, rarely very calcareous grading to sandy limestone, argillaceous/kaolinitic/silty matrix, no visible porosity. No stain, no direct fluorescence, slow blooming weak blue white fluorescent crush cut, no visible cut, trace yellow white fluorescent residue, no visible residue.
CLAYSTONE: olive black to brownish black, medium to dark olive grey, firm to soft, part moderately hard, friable to plastic, non calcareous, slightly to very silty/very fine sandy, local trace carbonaceous, rare micromicaceous.
SANDSTSONE: as above.
SANDSTONE: as above, very silty grading to SILTSTONE
SANDSTONE: lt grey,light olive grey to medium olive grey, pale yellowish brown, olive grey, Qtz, very fine to fine, rarely medium, very rarely medium to coarse, subangular to subrounded, subspherical, moderately to poorly sorted, firm to moderately hard, friable to loose, predominantly non to trace very calcareous grading to LIMESTONE, slightly to locally very silty matrix grading to SILTSTONE, slightly to very argillaceous.
LIMESTONE: very light grey, moderately hard, brittle, blocky, cryptocrystalline, clean.
SILTY CLAYSTONE: olive black to brownish black, medium to dark olive grey, dark grey to rarely black, firm to soft, part moderately hard, friable to plastic, occasionally sandy, local trace carbonaceous, rarely micromicaceous.
SILTSTONE INDICATED BY LOGS, HOWEVER CUTTINGS SEEN AS SANDSTONE: light grey,light olive grey to medium olive grey, pale yellowish brown, ocasionally, dark olive grey, Quartz, very fine to fine, rarely medium, very rarely medium to coarse, subangular to subrounded, subspherical, moderately to poorly sorted, firm to moderately hard, friable to loose, predominantly non to trace very calcareous grading LIMESTONE, slightly to locally very silty matrix grading to SILTSTONE, slightly to very argillaceous, kaolinitic, trace carbonaceous material.
SILTSTONE/SANDSTONE: light grey,light olive grey to medium olive grey, pale yellowish brown, ocasionally, dark olive grey, Quartz, very fine to fine, subangular to subrounded, subspherical, moderately to poorly sorted, firm to moderately hard, friable to loose, predominantly non to trace very calcareous grading LIMESTONE, slightly to locally very silty matrix grading to SILTSTONE, slightly to very argillaceous, kaolinitic, trace carbonaceous material, trace micromica.
SILTSTONE/SANDSTONE: becoming olive grey to grey black, minor olive grey to light olive grey, else as above.
SILTSTONE: olive black, moderately hard, deformed/subblocky, friable to brittle, non calcareous, argillaceous grading to Claystone, locally sandy, trace carbonaceous, trace micromicaceous.
CLAYSTONE: olive black to olive grey, soft to firm, friable to plastic, local trace very calcareous grading to Limestone, slighlty to locally very silty, locally micromicaceous, local trace carbonaceous.
SILTSTONE: olive black to olive grey, moderately hard to firm, friable, deformed, argillaceous, part sandy grading to sandstone, trace carbonaceous, trace micromicaceous, very rare glauconite.



MDT PRESSURE TEST RESULTS

A total of 4 MDT runs were performed. The first 2 Runs (1E and 2E) were aborted when the tool failed in casing. A total of 32 pressure tests were taken in the 2 subsequent MDT runs: Run 3E (tests 1 – 6) and Run 1F (tests 7 – 32). The following test results were obtained: 11 successful, 4 "not fully stable", 11 aborted (tight, failed or unstable) and 6 tests supercharged aborted.

Test No.	Depth m MD	Depth m TVDSS	Formation	Hydrostatic Pressure (bar)	Formation Pressure (bar)	Pore Pressure g/cc	Stab. Time (mins)	Temp (ºC)	Mobility (cp)	Remarks
1	**3473**	**3252.9**	**Tarbert**	**554.811**	**500.727**	**1.57**	**5**	**117.7**	**1.34**	**Good**
2	3472	3252.3	Tarbert	554.624	-		(2)	117.7	-	Tight Aborted
3	3470	3251.0	Tarbert	554.305	-		(3)	117.6	-	Tight Aborted
4	3471	3251.6	Tarbert	554.219	(502.247)		(11)	117.7	0.1	Supercharged Aborted
5	3473	3252.5	Tarbert	554.356	(502.546)		(11)	117.9	0.08	Supercharged Aborted
6	3472.5	3279.1	Tarbert	554.342	(484.906)		(6)	118.0	0.06	Tight Aborted
7	3473	3252.9	Tarbert	557.408	(503.251)		(4)	108.0	0.25	Supercharged Aborted
8	**3515**	**3280.0**	**Etive**	**562.056**	**502.593**	**1.56**	**2**	**109.7**	**18.4**	**Excellent**
9	**3538.5**	**3295.5**	**Etive**	**564.353**	**505.012**	**1.56**	**3**	**112.4**	**0.6**	**Good**
10	3559	3309.0	Etive	566.622	(484.610)		(4)	112.5	0.1	Tight Aborted
11	3808.5	3491.3	Cook	596.935	568.501	(1.66)	(12)	121.1	0.1	Supercharged
12	3811	3493.2	Cook	596.091	(570.416)	(1.67)	(15)	121.6	0.1	Supercharged
13	**3836**	**3512.1**	**Cook**	**599.147**	**568.516**	**1.65**	**1**	**122.2**	**97.7**	**Excellent**
14	**3838**	**3513.6**	**Cook**	**599.366**	**568.653**	**1.65**	**2**	**122.7**	**80.8**	**Excellent**
15	**3843**	**3517.4**	**Cook**	**599.713**	**569.016**	**1.65**	**3**	**122.9**	**14.7**	**Good**
16	**3847**	**3520.4**	**Cook**	**600.101**	**569.699**	**1.65**	**12**	**123.1**	**0.5**	**Moderate**
17	**3904**	**3562.6**	**Cook**	**606.961**	**573.799**	**1.64**	**6**	**124.6**	**4.6**	**Moderate**
18	**3914**	**3570.0**	**Cook**	**608.223**	**574.494**	**1.64**	**5**	**124.7**	**14.9**	**Good**
19	3976.5	3615.6	Amundsen	615.690	(581.456)	(1.64)	(12)	125.9	0.1	Supercharged
20	3978.5	3617.0	Amundsen	615.880	(446.911)	-	(6)	126.0	0.1	Tight Aborted
21	4218	3789.9	Statfjord	646.835	(527.368)	-	(5)	130.8	0.0	Tight Aborted
22	4225	3795.0	Statfjord	647.357	(438.625)	-	(10)	132.4	0.4	Tight Aborted
23	4219	3790.6	Statfjord	646.030	(634.863)	(1.71)	(8)	131.3	1.2	Not fully stable (20cc)
24	4219	3790.6	Statfjord	646.310	(634.912)		(12)	131.7	0.1	Unstable Aborted
25	4219	3790.6	Statfjord	646.277	-		(5)	131.9	0.5	Failed
26	4224	3794.4	Statfjord	647.004	(635.041)		(3)	132.1	0.1	Not fully stable (3cc)
27	4248.5	3812.5	Statfjord	650.164	(637.505)		(15)	138.2	0.1	Not fully stable (5cc)
28	**4252**	**3815.1**	**Statfjord**	**650.770**	**636.682**	**1.70**	**5**	**138.3**	**0.4**	**Good (10cc)**
29	4285.5	3840.0	Statfjord	655.165	(639.661)		(12)	138.9	3.7	Not fully stable (20cc)
30	**4286.5**	**3840.8**	**Statfjord**	**655.367**	**639.400**	**1.71**	**10**	**134.0**	**6.2**	**Moderate (not fully stable)**
31	4299.5	3850.5	Statfjord	657.903	(446.412)		(3)	134.3	1.0	Tight Aborted
32	4297	3848.7	Statfjord	657.216	(480.675)		(5)	138.6	0.8	Tight Aborted –probe #2

Tests in **bold** were successful. Figures (in brackets) are the values recorded at the time at which an unsuccessful or dubious test was aborted.

COMPOSITE LOG CURVES

The log curves here presented are the final HQLD composite curves compiled by Logtek. The composite curves are derived from depth-matched and spliced wireline and LWD data, as detailed in the following tables:
The Gamma Ray curve (GR) consists of the following:

Log	Run	Curve	Top	Bottom	Splice
HNGS through csg	1A	HSGR	406.0	1318.1	1318.1
MWD CDR/iSONIC	3-4	GRC	1318.1	3386.2	3386.2
IPLT/HNGS	1C	HSGR	3386.2	3401.3	3401.3
DSI/AIT/GR	1B	GR	3401.3	4338.2	4338.2
IPLT/HNGS	1C	HSGR	4338.2	4363.7	

The Medium Resistivity curve (Rmed) consists of the following:

Log	Run	Curve	Top	Bottom	Splice
MWD CDR/ISONIC	3-4	PSR	1343.4	3389.7	n/a
DSI-AIT-GR	1B	AO30	3396.1	4347.7	4347.7
MWD ARC/VISION	5	P28H	4347.7	4352.9	

The Deep Resistivity curve (Rdep) consists of the following:

Log	Run	Curve	Top	Bottom	Splice
MWD CDR/ISONIC	3-4	ATR	1343.4	3389.7	n/a
DSI-AIT-GR	1B	AORT	3396.1	4347.7	4347.7
MWD ARC/VISION	5	P40H	4347.7	4352.9	

The Sonic curve (Dtco) consists of the following:

Log	Run	Curve	Top	Bottom	Splice
MWD CDR/ISONIC	4	DTBC	2413.6	3292.9	3292.9
DSI-AIT-GR	1B	DTCO	3292.9	4362.6	

The Density curve (LDL) consists of the following:

Log	Run	Curve	Top	Bottom	Splice
IPLT/HNGS	1C	LDL	3395.0	4366.0	n/a

The Neutron curve (APLC) consists of the following:

Log	Run	Curve	Top	Bottom	Splice
IPLT/HNGS	1C	APLC	3352.6	4360.0	n/a