

100

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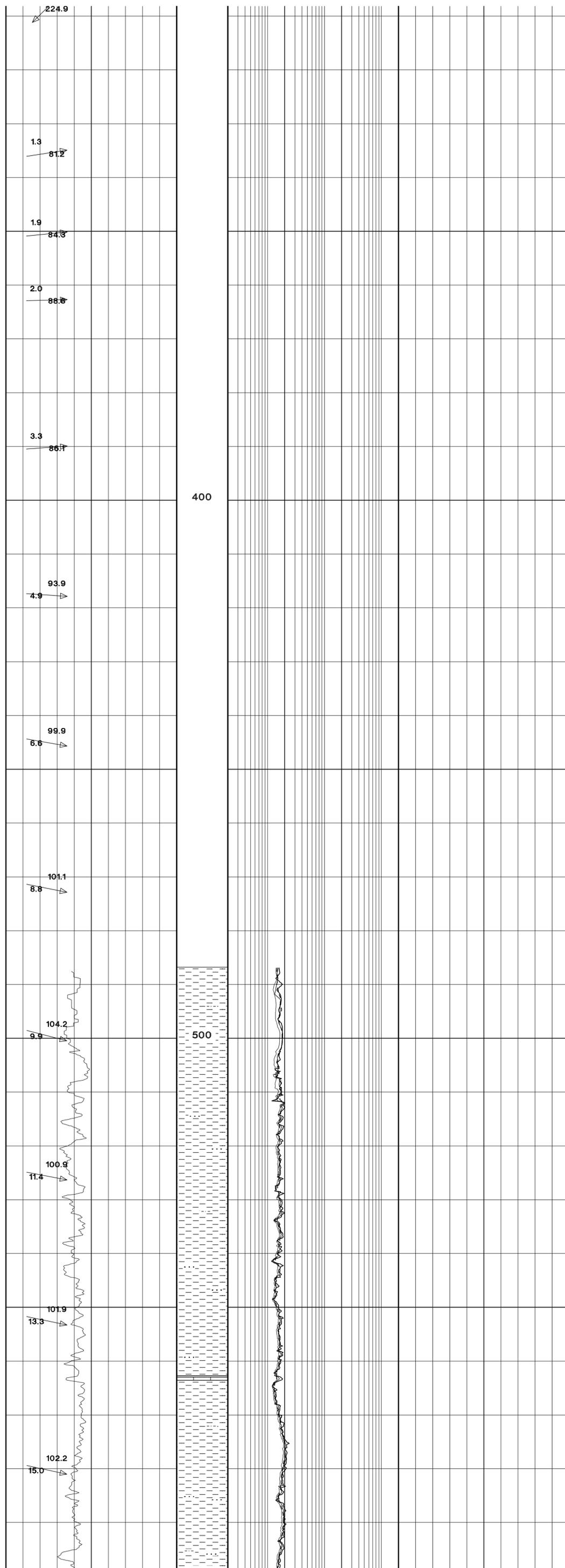
26 " 305m

SEABED @ 188.8m MDRKB

No Cuttings collected down to 1310m MDRKB

TERTIARY

NORDLAND



Lithology from 487m to 1310m MDRKB interpreted from GR/Res MWD logs only.

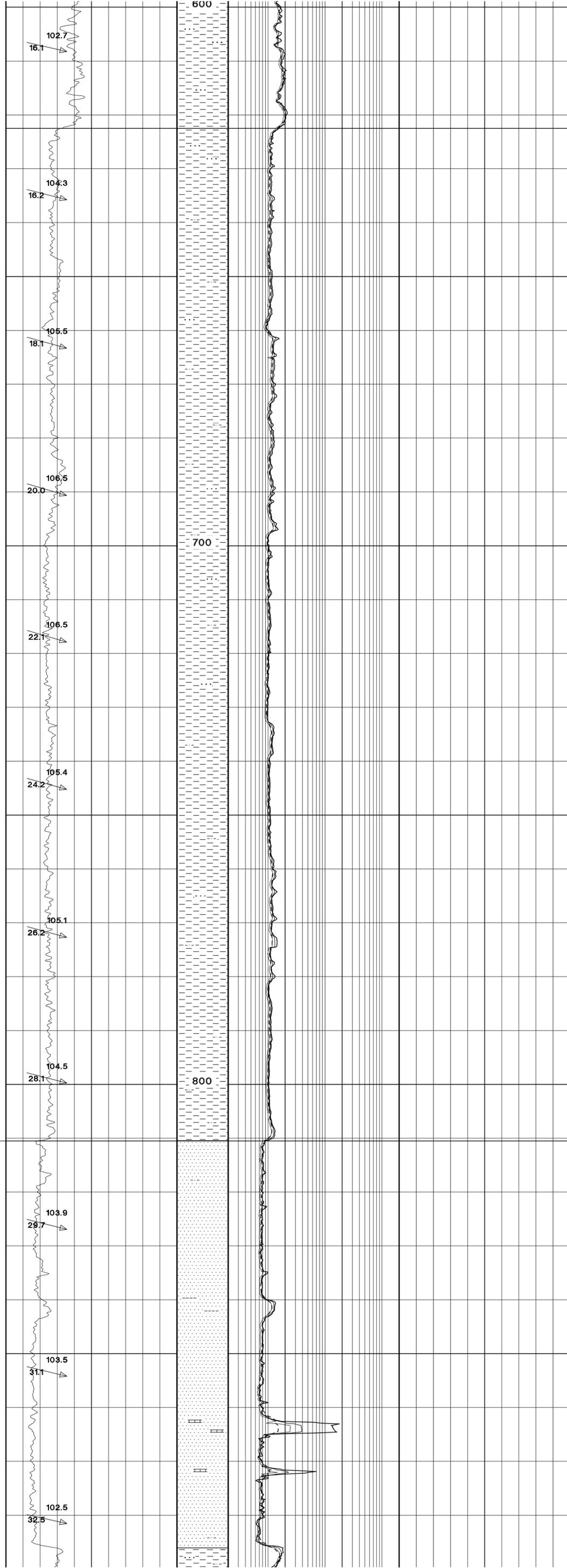
TERTIARY

NORRLAND

UTSIRA

UTSIRA MASSIVE SAND

SAND



633.6ms TWT

UTSIRA FORMATION
622.5m MDRKB (557.8m TVDSS)

807.0ms TWT

UTSIRA MASSIVE SAND
810.5m MDRKB (731.6m TVDSS)

TERTIARY

TERTIARY

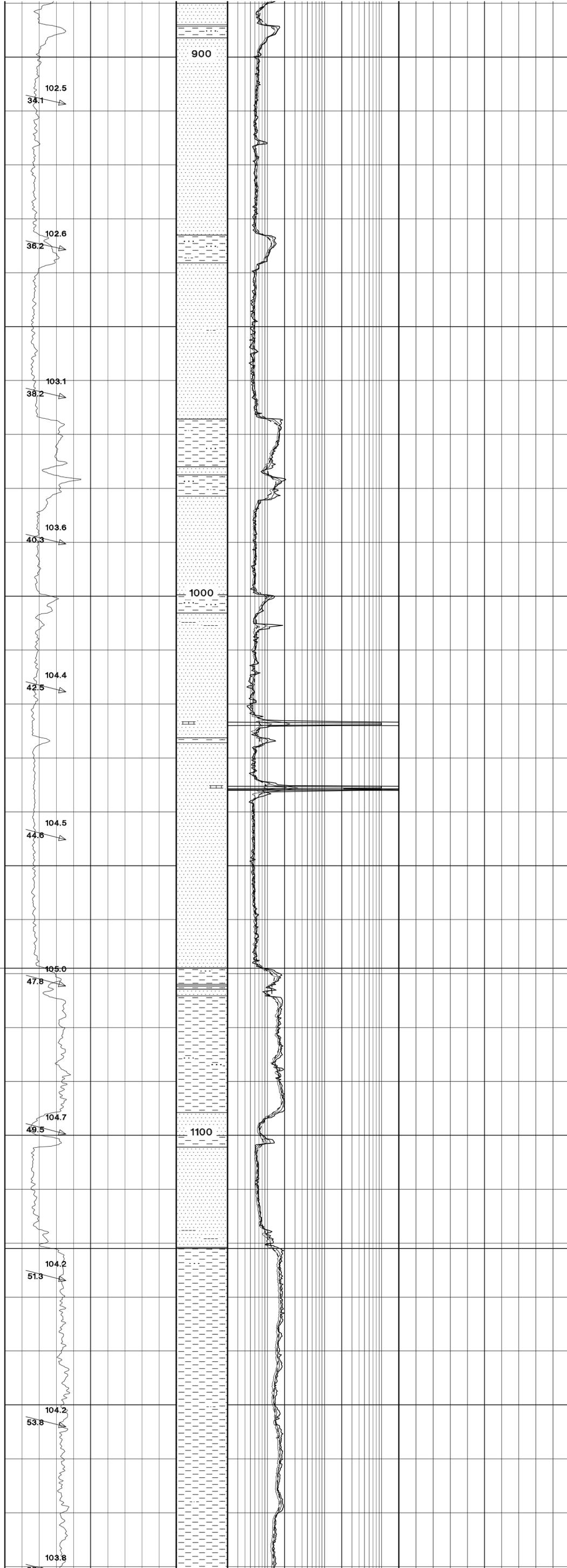
NORDLAND

HORDALAND NORDLAND

UNDIFFERENTIATED UTSIRA

UTSIRA MASSIVE

UTSIRA MASSIVE SAND

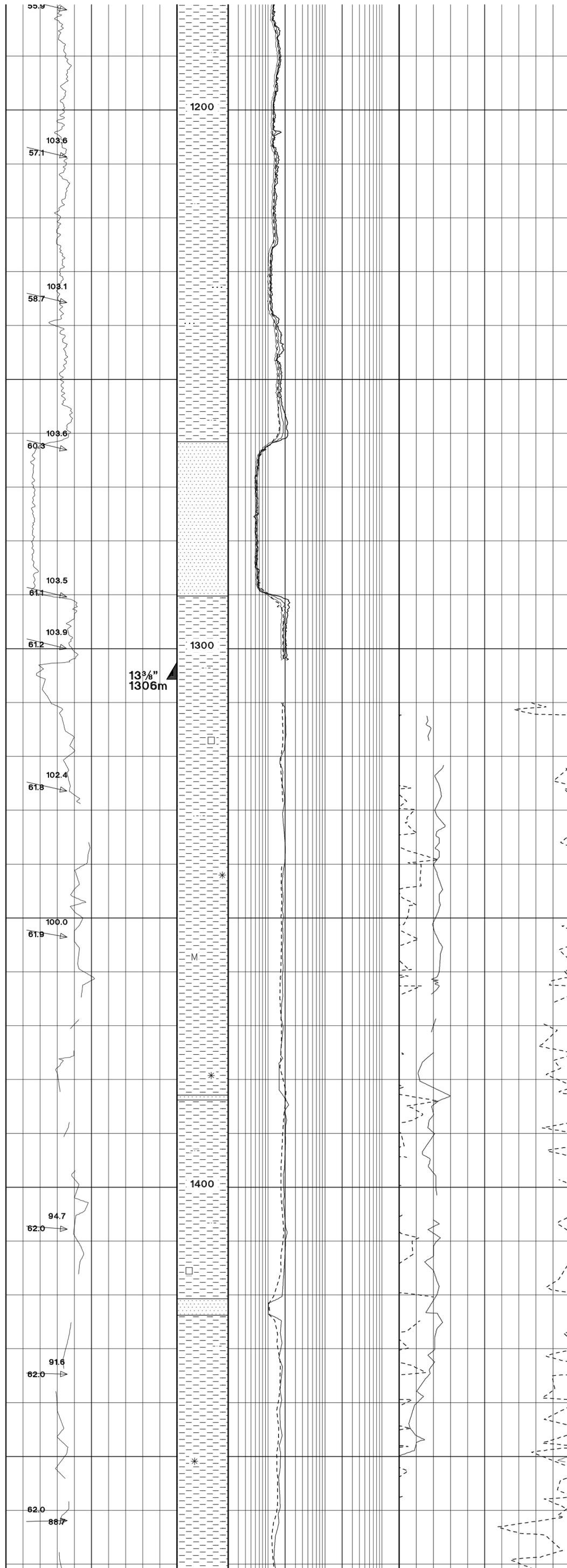


1001.2ms TWT
 Base UTSIRA MASSIVE SAND
 1069.0m MDRKB (937.2m TVDSS)

1028.4ms TWT
 HORDALAND GROUP
 1121.0m MDRKB (971.1m TVDSS)

TERTIARY

HORDALAND
UNDIFFERENTIATED



BEGIN TAKING SPOT SAMPLES
AT 50m INTERVALS

CLAYSTONE: brownish black, soft, friable in part,
subblocky, moderate to very silty, micromicaceous,
trace micropyrite, occasional glauconite, slightly
calcareous.

PIT @ 1313.0 m MDBRT
1.70 SG EMW

CLAYSTONE: dark grey to greyish black, also
brownish black, occasionally medium grey, firm to
moderately hard, crumbly to sub blocky break, silty
to very silty in part, common mica, glauconitic,
occasional micropyrite.

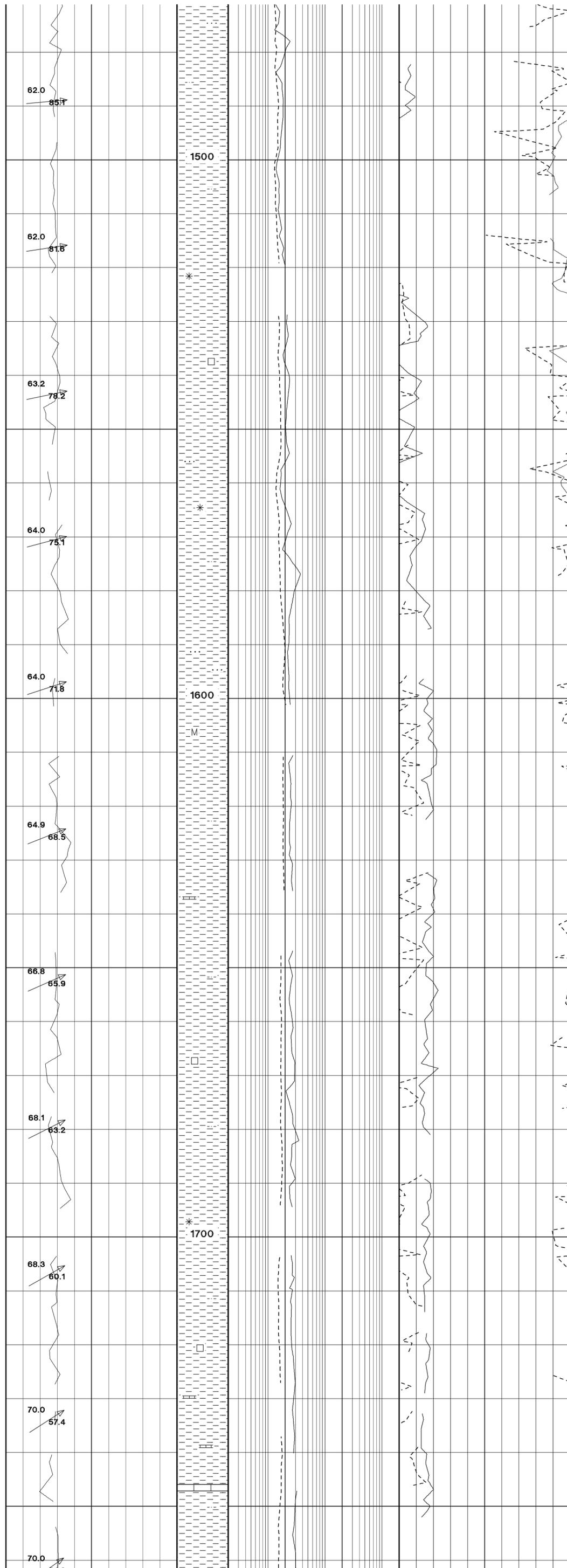
CLAYSTONE: dark grey to greyish black, occasionally
medium grey, firm to moderately hard, crumbly to sub
blocky break, silty to very silty in part, common
mica, glauconitic, occasional micropyrite.

SANDSTONE: light yellowish brown, firm to friable,
Bimodal, composed of clear occasionally opaque
quartz grains, vf to silt sub angular to rounded, well
sorted in argillaceous cement, and common coarse to
very coarse colourless, clear quartz grains, well
rounded, loose, slightly elongate, common micropyrite
and micromica.

CLAYSTONE: dark grey to greyish black, occasionally
green black, firm to moderately hard, sub blocky,
tabular to fissile break, common glauconite and mica,
occasional micropyrite, silty in part.

TERTIARY

HORDALAND
UNDIFFERENTIATED



CLAYSTONE: dark grey to brownish black, firm to moderately hard, blocky break, micromicaceous, micropyritic, occasional glauconite, silty in part.

CLAYSTONE: olive black to brown black, firm, blocky break, micromicaceous, micropyritic, occasional glauconite, silty in part, slight to moderately calcareous.

Trace SANDSTONE: light grey, locally hard, very fine to medium, subangular, poor to moderately sorted, local hard siliceous cement, slightly calcareous in places, common glauconite.

Trace LIMESTONE: pale to moderately yellowish brown, firm, subblocky, microcrystalline, argillaceous in parts.

CLAYSTONE: dark grey to brownish black, firm, subblocky, silty micromicaceous, micropyritic, local glauconite, swelling in part, non to moderately calcareous.

LIMESTONE: moderate to dark yellowish brown, firm to moderately hard, blocky to subangular, microcrystalline, locally cryptocrystalline, mudstone texture, argillaceous in parts, possibly slightly dolomitic.

TERTIARY

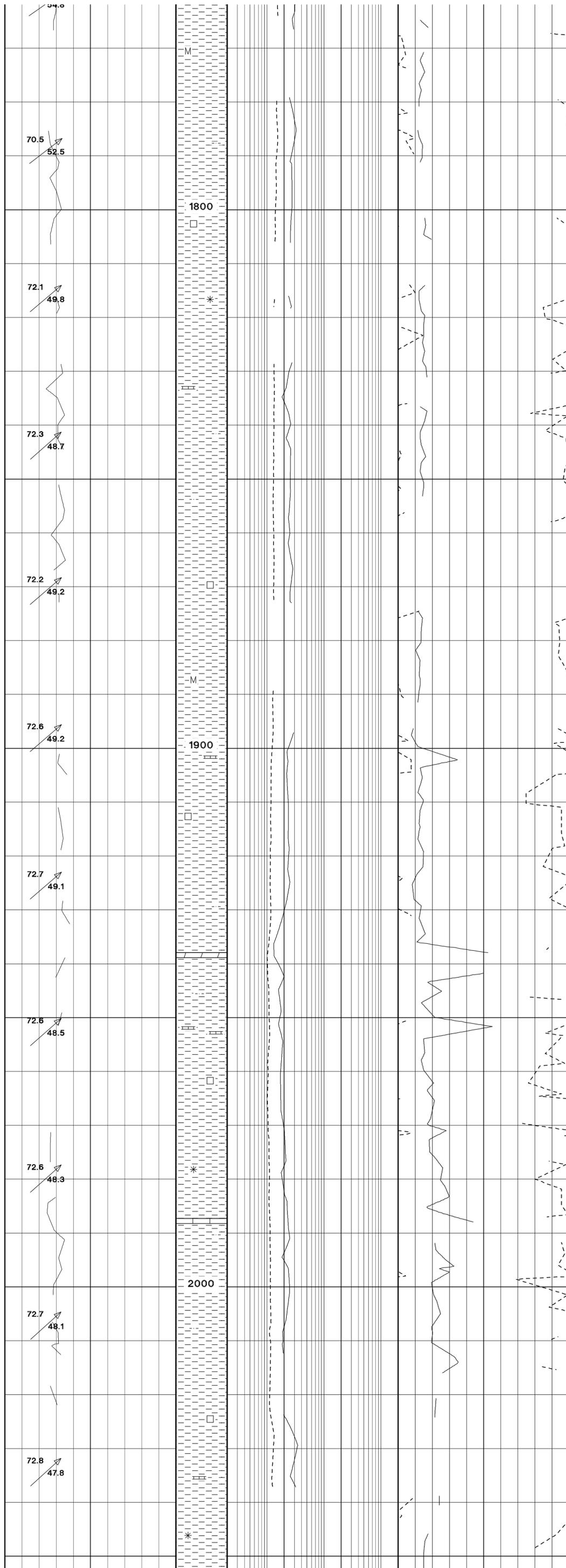
TERTIARY

HORDALAND

DALAND

UNDIFFERENTIATED

DIFFERENTIATED



CLAYSTONE: dark grey to brownish black, firm, subblocky, silty micromicaceous, micropyrritic, local glauconite, swelling in part, non to slightly calcareous.

Trace LIMESTONE: predominantly pale yellowish brown, firm to moderately hard, blocky to subangular, microcrystalline to locally cryptocrystalline, slightly dolomitic in parts, occasional black stylolitic laminae.

CLAYSTONE: dark grey to brownish black, occasionally greenish black, firm, subblocky, silty in part, trace micromica, micropyrritic, local glauconite, swelling in part, non calcareous.

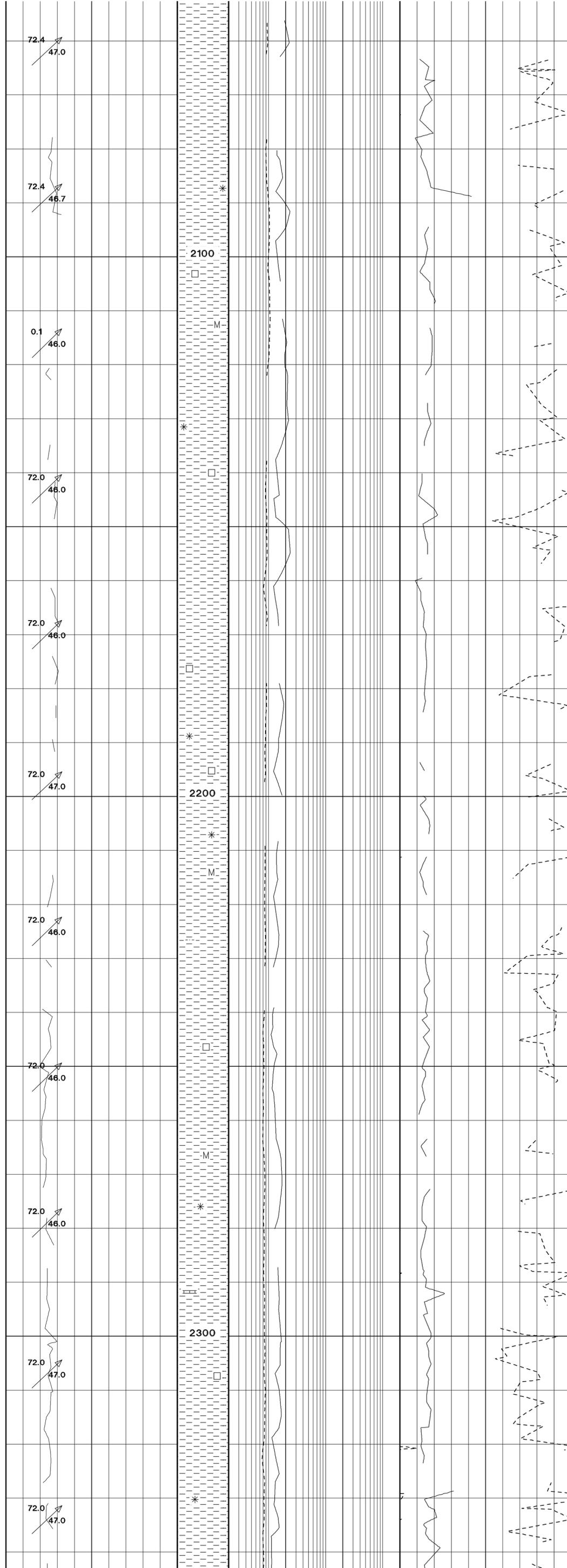
CLAYSTONE: becoming greenish black in part, dark grey, olive black, occasionally brownish black, firm, subblocky, slightly silty, trace micropyrritic, glauconite, non calcareous.

DOLOMITE: pale to dark yellowish brown, firm to moderately hard, subblocky, crumbly in part, microcrystalline, microsucrosic, argillaceous in part.

LIMESTONE: pale to moderate yellowish brown, yellowish grey, firm to moderately hard, subblocky, brittle in part, micro-cryptocrystalline, grades to Dolomite in parts.

CLAYSTONE: greenish black, dark grey, olive black, locally dark greenish grey, firm, subblocky, slightly silty, trace micropyrritic, glauconite, non calcareous.

CLAYSTONE: greenish black, dark grey, olive black, locally dark greenish grey, firm, subblocky, slightly



silty, trace micropyrritic, glauconite, non calcareous.

CLAYSTONE: dark grey to olive grey, olive black, moderately hard, blocky to angular break, hackly break in part, glauconitic, pyritic, locally micromicaceous.

CLAYSTONE: greyish black to olive black, occasionally greenish black, hard, blocky to hackly break, generally micropyrritic, locally micromicaceous, rare glauconite.

CLAYSTONE: greyish black to olive black, occasionally greenish black, rare medium bluish grey, hard, blocky to hackly break, generally micropyrritic and glauconitic, locally micromicaceous.

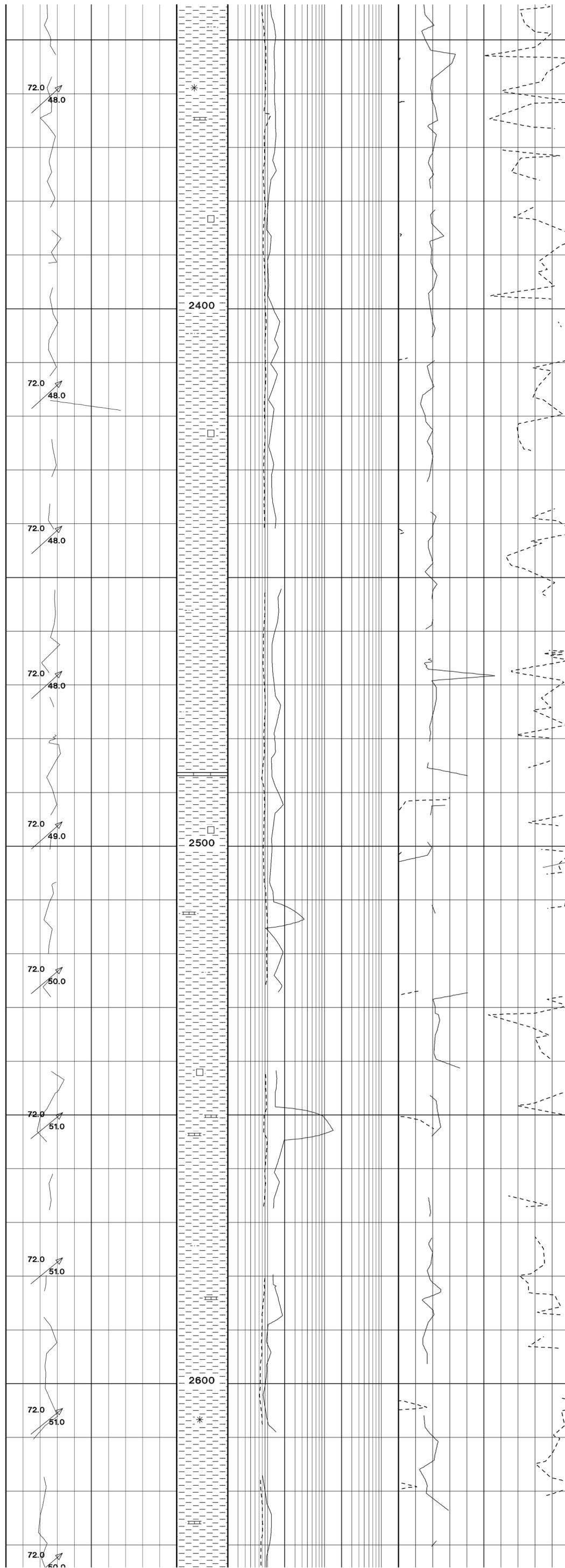
CLAYSTONE: olive black, moderately hard, blocky to angular break, common fine disseminated pyrite, slightly micromicaceous, rare glauconite.

CLAYSTONE: olive black, rarely greenish black, moderately hard, blocky to angular break, common fine disseminated pyrite, occasional very coarse nodular pyrite, locally micromicaceous, rare glauconite.

CLAYSTONE: dark grey to olive black, hard to brittle, blocky break, silty, micaceous, pyritic, locally

TERTIARY

HORDALAND
UNDIFFERENTIATED



glaucous.

CLAYSTONE: dark grey to olive black, hard to brittle, blocky break, silty, micaceous, pyritic, occasionally glauconitic.

CLAYSTONE: olive grey to olive black, moderately hard, blocky, common fine disseminated pyrite, occasional micro mica, rare glauconite.

CLAYSTONE: olive grey to olive black, occasionally medium blue grey, firm to hard, blocky, locally flaky to hackly break, generally micropyrritic, micromicaceous in part.

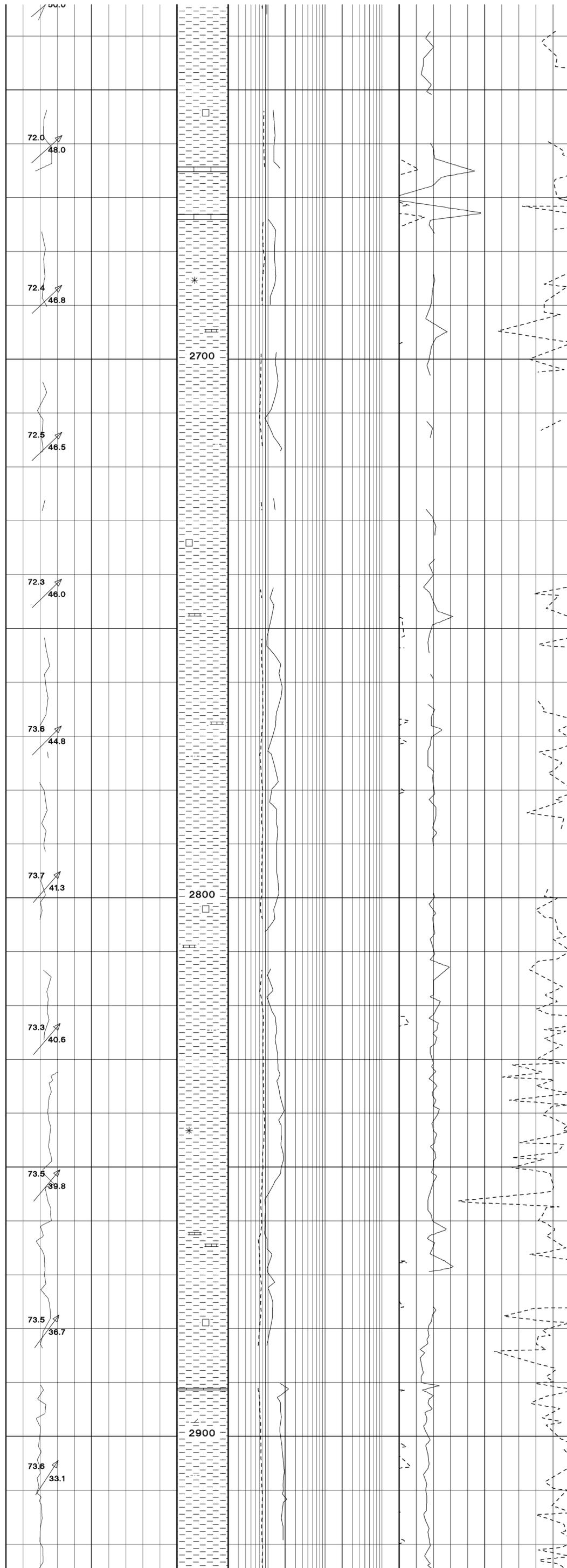
LIMESTONE: light grey, light olive grey, occasionally moderate yellowish brown translucent in part, firm to hard, blocky to crumbly break, crystalline to microcrystalline, mudstone texture.

CLAYSTONE: olive grey to olive black, rarely medium bluish grey, firm to hard, blocky occasionally flaky to hackly break, generally micropyrritic, micromicaceous in part.

CLAYSTONE: greenish black, olive black, firm to hard, blocky, common micropyrritic in discrete patches, rare glauconite, trace micropyrrite.

TERTIARY

HORDALAND
UNDIFFERENTIATED



CLAYSTONE: dark grey, greyish black, occasionally greenish black, firm, crumbly to subblocky, micropyrritic in discrete patches, micromicaceous, glauconitic in part.

LIMESTONE: pale to dark yellowish brown, greenish grey in places, firm to moderately hard, blocky to crumbly break, generally microcrystalline, rarely chalky texture, mudstone, slightly argillaceous in parts.

CLAYSTONE: dark grey to greyish black, locally greenish black, also olive black, firm, blocky, micropyrritic, slightly micromicaceous, rare glauconite, non calcareous.

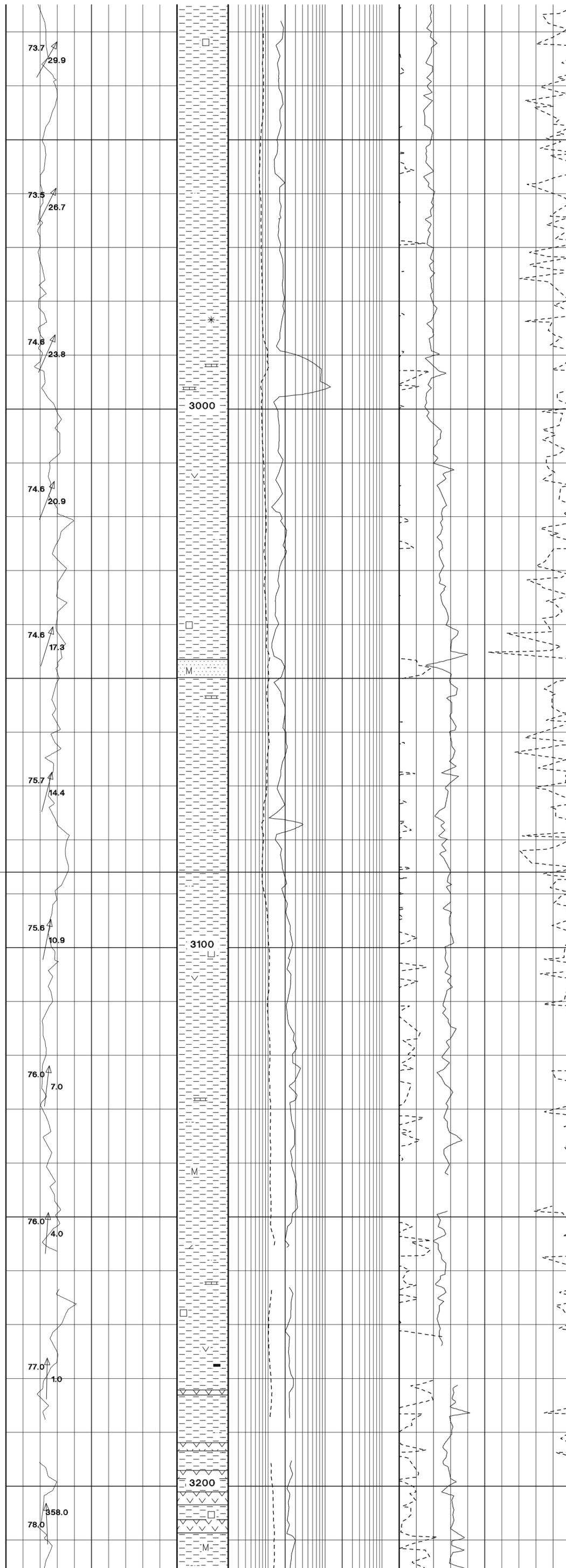
CLAYSTONE: olive black to greyish black, dark grey, rarely dark greenish grey, firm, blocky, locally silty, micropyrritic, slightly micromicaceous, rare glauconite, moderately swelling, non calcareous.

DOLOMITE: pale to dark yellowish brown, firm to locally hard, blocky to crumbly break, microcrystalline, microsugrosic in part, locally argillaceous, occasionally grades to dolomitic Limestone.

TERTIARY

ROGALAND HORDALAND

BALDER UNDIFFERENTIATED



CLAYSTONE: olive black to greyish black, dark grey, rarely dark greenish grey, firm, blocky, locally silty, micropyrritic, slightly micromicaceous, rare glauconite, moderately swelling, non calcareous.

Trace LIMESTONE: pale to moderate yellowish brown, occasionally yellowish grey and very light grey, firm to hard, blocky to crumbly break, generally microcrystalline, locally crystalline, locally argillaceous, occasionally dolomitic.

CLAYSTONE: becoming varicoloured, olive black, greyish black, dusky yellowish brown in part, also dark to medium dark grey, greenish black and rarely dusky green, firm, blocky, slightly silty, trace micropyrritic, slightly micromicaceous, trace glauconite, occasional trace Tuff, non calcareous

CLAYSTONE: dusky brown, dark grey to dark olive grey, dusky yellowish brown, olive black, occasionally greenish black and rarely dusky green, rare medium blueish grey to greenish grey, firm, blocky, slightly silty, trace micropyrite, trace glauconite, rarely tuffaceous, non calcareous.

SANDSTONE: olive grey, very fine to medium, dominantly fine to medium, silty, subangular to subrounded, poor to moderately sorted, argillaceous/silty matrix, weak silica cement in part, friable, rarely loose, trace mica and carbonaceous material, poor visible porosity, no visible Show.

CLAYSTONE: dusky brown (90%), locally dark grey to dark olive grey and medium blueish grey to greenish grey, firm, earthy texture, subblocky, slightly silty, rare micropyrite, slight to moderately swelling, non calcareous.

1685.4ms TWT
BALDER FORMATION
3086m MDRKB (1661.6 mTV DSS)

CLAYSTONE: dark grey, dusky brown, medium blue grey, occasionally green grey, firm to moderately hard, sub blocky, slightly silty, micropyritic, micromicaceous, common dark carbonaceous specks, rare trace tuff.

CLAYSTONE: dark grey occasionally dusky brown, hard, subblocky occasionally slightly hackly break, slightly silty, micropyritic, micromicaceous, carbonaceous.

LIMESTONE: dark yellowish brown, hard, subblocky to slightly hackly break, microcrystalline to cryptocrystalline, mudstone texture.

CLAYSTONE: dark grey to grey black, occasionally dusky brown, rare medium blue grey, hard, subblocky occasionally slightly hackly break, slightly silty, micropyritic, micromicaceous, carbonaceous.

LIMESTONE: dark yellowish brown, hard, subblocky to slightly hackly break, microcrystalline to cryptocrystalline, mudstone texture. Occasionally dolomitic in part, dusky yellowish brown, with yellow orange banding, hard, blocky slightly crumbly break, microcrystalline.

CLAYSTONE: dark grey to greyish black, occasionally brownish black, rare dark greenish grey, hard, blocky to slightly hackly break, pyritic, common carbonaceous specks, micromicaceous in part, occasional Tuff.

TUFF: medium blueish grey, occasionally very light grey, speckled, firm crumbly break, very common clear to dark greenish grey, very fine to fine, angular glassy fragments, calcareous in part, swelling.

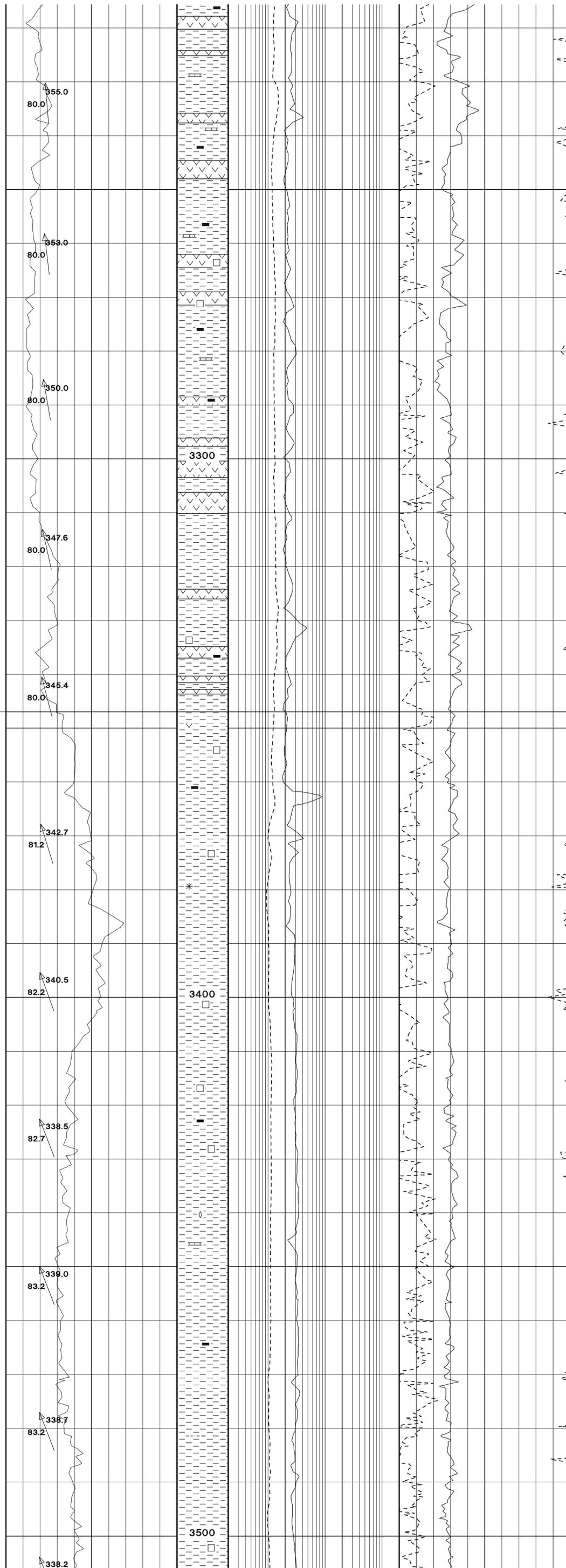
CLAYSTONE: dark grey to greyish black, brownish black, rare dusky brown to moderate brown, firm to moderately hard, subblocky to subhackly micropyritic.

TERTIARY

YPRESIAN 1 YPRESIAN 2

ROGALAND

SELE BALDER



moderately hard, subblocky to blocky micropyrritic, occasional very coarse nodular pyrite, common carbonaceous fragments.

LIMESTONE: yellowish grey with dark argillaceous streaks, hard, crumbly breaks, microcrystalline to cryptocrystalline, mudstone texture.

TUFF, light blueish grey to blueish white, specked, firm crumbly break, very common clear to dark greenish grey, very fine to fine, angular, glassy fragments, common carbonaceous fragments, calcareous in part, swelling.

CLAYSTONE: dark grey to greyish black rare dusky brown, firm to moderately hard, sub blocky to sub hackly micropyrritic, occasional very coarse nodular pyrite, common carbonaceous fragments.

TUFF, light blueish grey to blueish white, specked, firm crumbly break, very common clear to dark greenish grey, very fine to fine, angular, glassy fragments, common carbonaceous fragments, calcareous in part, swelling.

TUFF, light blueish grey to blueish white, specked, firm crumbly break, very common clear to dark greenish grey, very fine to fine, angular, glassy fragments, common carbonaceous fragments, very pyritic in part, nodular and finely disseminated, very calcareous in part, swelling.

CLAYSTONE: dark grey, brownish black, occasional moderate brown, rare dark greenish black, firm to hard, blocky, slightly hackly break, micropyrritic, occasional coarse nodular pyrite, carbonaceous, rarely micromicaceous.

TUFF, light blueish grey to blueish white, specked, firm crumbly break, very common clear to dark greenish grey, very fine to fine, angular, glassy fragments, common carbonaceous fragments, very pyritic in part, nodular and finely disseminated, very calcareous in part, swelling.

LIMESTONE: white, firm to hard, blocky to crumbly break, microcrystalline, common glassy inclusions, wackestone texture.

TUFF: medium to light blueish grey, common blue white inclusions, abundant dark green glassy inclusions, angular to assicular, firm, crumbly break, swelling.

CLAYSTONE: olive grey to olive black, grey black, rarely medium brown, occasionally tuffaceous medium to light blueish grey, hard to blocky break, very pyritic and carbonaceous in part.

1731.2ms TWT

SELE FORMATION (BASE BALDER)
3347.0m MDRKB (1713.6m TVDSS)

CLAYSTONE: olive grey to olive black, grey black, rarely medium brown, occasionally tuffaceous medium to light blueish grey, hard to blocky break, very pyritic and carbonaceous in part.

CLAYSTONE: olive black, moderately hard, blocky to brittle break, very common micropyrritic, occasional nodular pyrite, glauconitic in part.

CLAYSTONE: olive black to olive grey, moderately hard, blocky to brittle break, slightly hackly in part, common micro pyrite, common micro pyrite.

CLAYSTONE: olive black to olive grey, rare moderate brown, moderately hard, blocky to brittle break, slightly hackly in part, common micro pyrite and nodular pyrite, rare glauconite and carbonaceous fragments.

CLAYSTONE: olive black to olive grey, rare moderate brown, moderately hard, angular to hackly break, common micro pyrite and nodular pyrite, rare glauconite, common carbonaceous fragments, occasional intergrowths of sparry calcite.

LIMESTONE: light olive grey, firm to hard, blocky to crumbly break, microcrystalline, mudstone texture.

CLAYSTONE: dark grey black to olive black, occasionally dusky brown, rare dark greenish grey, hard to brittle, blocky to hackly break, very pyritic in part, carbonaceous, rare glauconite.

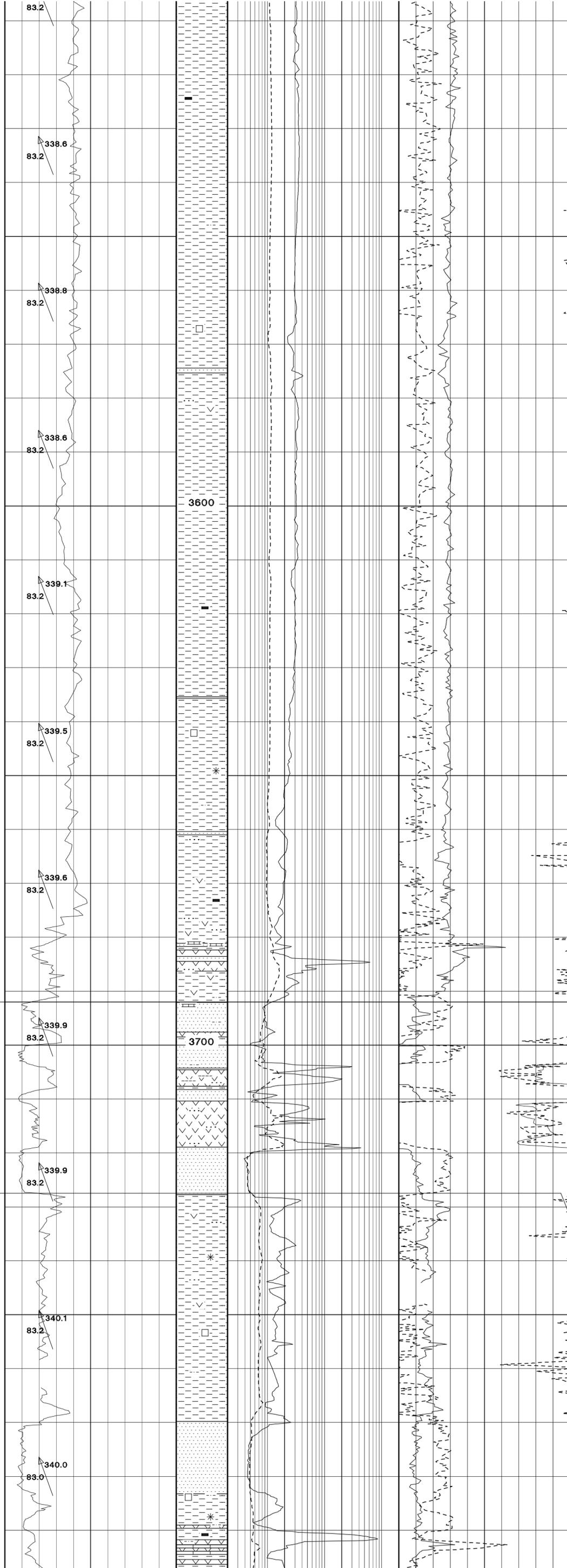
CLAYSTONE: dark greyish black to olive black, occasionally dusky brown, rare dark greenish grey, hard to brittle, blocky to hackly break, very pyritic in part, carbonaceous, rare glauconite.

LIMESTONE: yellowish grey, light brownish

ROGALAND

SELE

ZONE II SAND



orange, firm crumbly break, microcrystalline to cryptocrystalline.

CLAYSTONE: predominantly olive black, greyish black to dark grey in part, occasionally dusky brown, rare greenish black, firm to moderately hard, blocky, slightly silty, common disseminated pyrite, also nodular pyritic in part, carbonaceous, slight to moderately swelling, non calcareous.

SANDSTONE: brownish grey, clear Quartz, very fine to medium, dominantly fine to medium, silty, subangular, poor to moderately sorted, abundant argillaceous/silty matrix, weak silica cement in places, friable, loose in part, poor estimated porosity, no visible Show above OBM.

CLAYSTONE: olive black, also greyish black to dark grey in part, trace dusky brown and dark greenish grey, firm to moderately hard, blocky, slightly silty, common disseminated pyrite, carbonaceous, occasional grey tuffaceous streaks, non calcareous

3600

CLAYSTONE: greyish black to olive black in part, also dark grey, trace dusky brown, occasionally dark greenish grey to greenish black, firm to moderately hard, blocky, slightly silty, slightly micromaceous common disseminated pyrite, carbonaceous, occasional grey tuffaceous streaks, trace glauconite, non calcareous

SANDSTONE: brownish grey, clear Quartz, very fine to medium, dominantly fine to medium, subangular, poor to moderately sorted, argillaceous/silty matrix in part, weak silica cement in places, friable, loose in part, poor estimated porosity, no visible Show above OBM.

TUFF: medium bluish grey to medium grey in part, speckled, firm, crumbly break, silty texture, trace micropyrite, non calcareous, swelling.

SANDSTONE/SAND: very light grey, clear Quartz, very fine to coarse, dominantly fine to coarse, subangular to subrounded, poor to moderately sorted, common strong white calcite cement, local argillaceous matrix, friable to hard, loose in part, poor to moderate estimated porosity, no visible Show above OBM.

1774.2ms TWT
ZONE II SAND
3692m MDRKB (1756.9m TVDSS)

SANDSTONE/SAND: light grey, light brownish grey, clear Quartz, very fine to coarse, dominantly fine to medium, subangular to subrounded, moderately sorted, rare white calcite cement, trace argillaceous matrix, friable to rarely hard, predominantly loose in part, poor to moderate estimated porosity, no visible Show above OBM.

TUFF: light to medium bluish grey, medium grey in part, speckled, firm, crumbly break, silty texture, rare micropyrite, occasionally slightly calcareous, swelling, argillaceous, locally arenaceous.

SANDSTONE/SAND: light grey, light brownish grey, clear Quartz, very fine to coarse, dominantly fine to medium, rare coarse grains, subangular to subrounded, locally rounded, moderately sorted, rare calcite cement, local argillaceous/tuffaceous matrix, friable, generally loose, poor to good estimated porosity, no visible Show above OBM.

1785.9ms TWT
BASE ZONE II SAND
3727.5m MDBRT (1761.2m TVDSS)

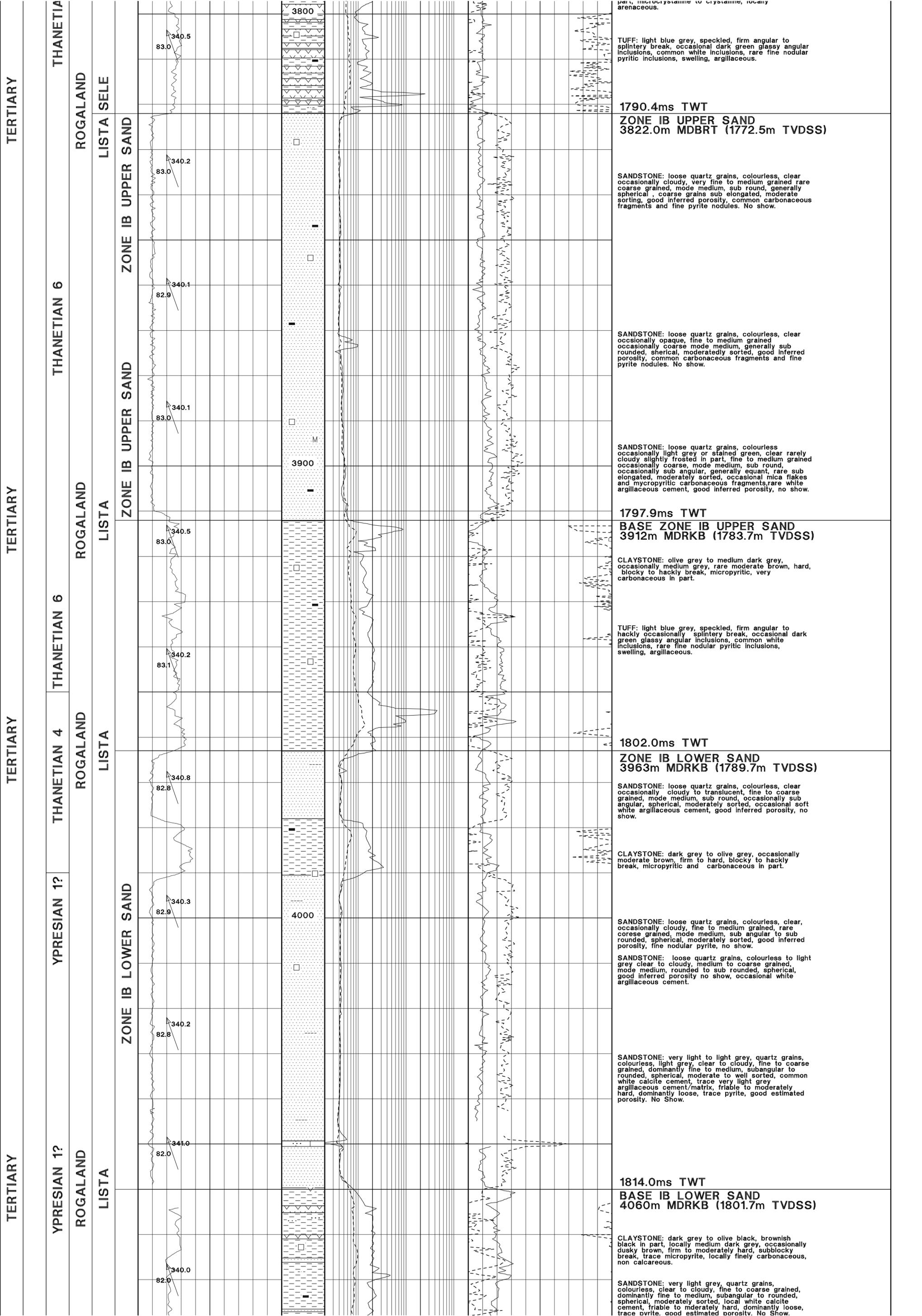
CLAYSTONE: predominantly dark grey to dark olive grey, also olive black to greyish black, occasionally dusky brown and greenish black, firm to moderately hard, blocky to subangular, locally silty, trace micropyrite, rare glauconite, trace Tuff, non calcareous.

CLAYSTONE: predominantly dark grey to dark olive grey, also olive black to greyish black, occasionally dusky brown, firm to moderately hard, blocky to sub angular, locally silty, trace micropyrite, rare chlorite.

SANDSTONE: loose quartz grains colourless, clear, occasionally opaque, fine to medium grained, moderate, medium, sub angular, generally spherical, well sorted, common light grey argillaceous cement, good inferred porosity, no show.

CLAYSTONE: Dark grey to olive black, occasionally moderate brown, rare dark green grey, hard, blocky to hackly break, micropyritic, very carbonaceous in part, rare glauconite.

LIMESTONE: white to very light grey, firm, brittle in part, microcrystalline to crystalline locally



TERTIARY

THANETIAN 4 YPRESIAN 1?

THANETIAN 4

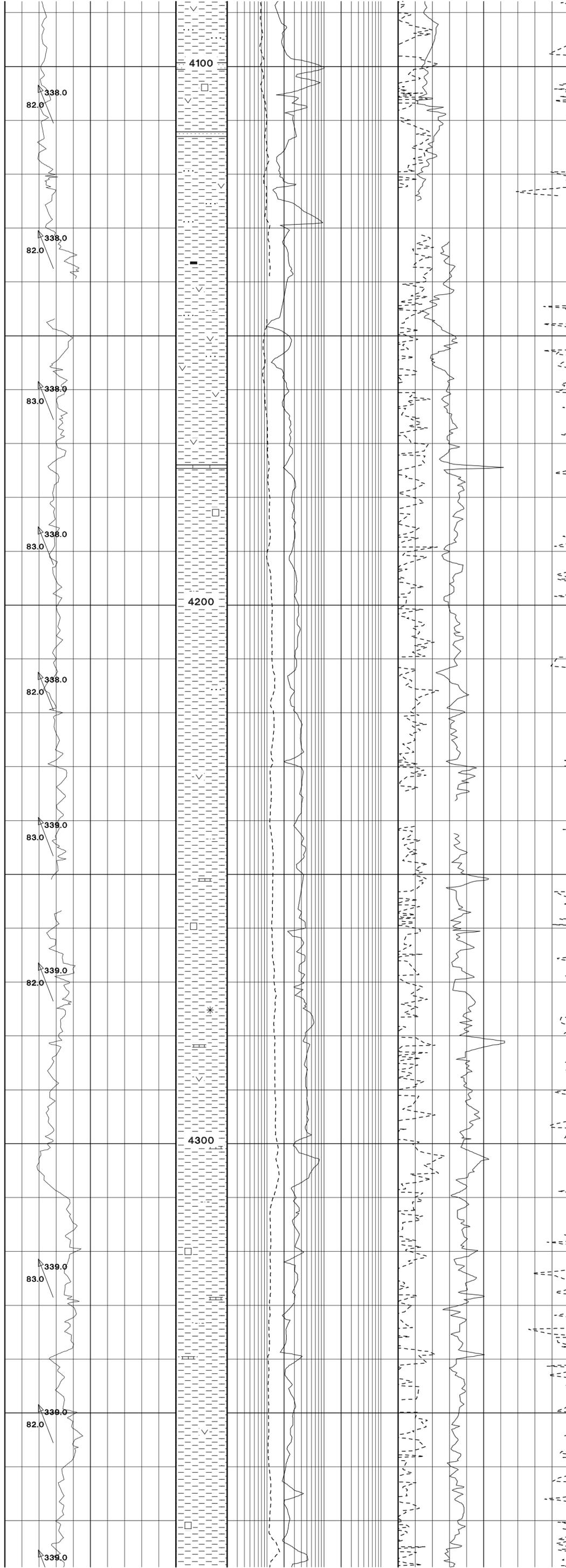
THANETIAN 3

THANETIAN 3

ROGALAND

LISTA

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TUFF: medium grey to medium bluish grey, firm, crumbly to sub blocky, slightly speckled, with white and dark glassy inclusions, silty texture, rare fine pyrite, argillaceous, non calcareous.

CLAYSTONE: dark grey to olive black, dark olive grey to olive grey, occasionally, rarely dusky brown, firm to moderately hard, subblocky, slightly silty in part, trace micropyrite, locally tuffaceous, non calcareous

CLAYSTONE: becoming predominantly dark greenish grey to greenish black, olive black to brownish black, rarely dusky brown, subwaxy in part, firm to moderately hard, subblocky, locally silty, trace micropyrite, tuffaceous in part, non calcareous.

TUFF: medium grey to medium bluish grey, firm, crumbly to sub blocky, slightly speckled, with white and dark inclusions, silty texture, rare fine pyrite, argillaceous, locally calcareous

CLAYSTONE: predominantly dark greenish grey, locally greenish black, locally brownish black to olive black, also dark to medium dark grey, rarely dusky brown, subwaxy in part, firm to moderately hard, subblocky, locally silty, trace micropyrite, tuffaceous in part, non calcareous.

Trace SANDSTONE: white to very light grey, very fine to fine, rarely medium, good calcareous cement, firm, argillaceous in places. No Show.

CLAYSTONE: predominantly dark greenish grey, locally greenish black and greenish grey, brownish black, dark to medium dark grey, subwaxy in part, firm to moderately hard, subblocky, locally silty, trace micropyrite, tuffaceous in part, non calcareous.

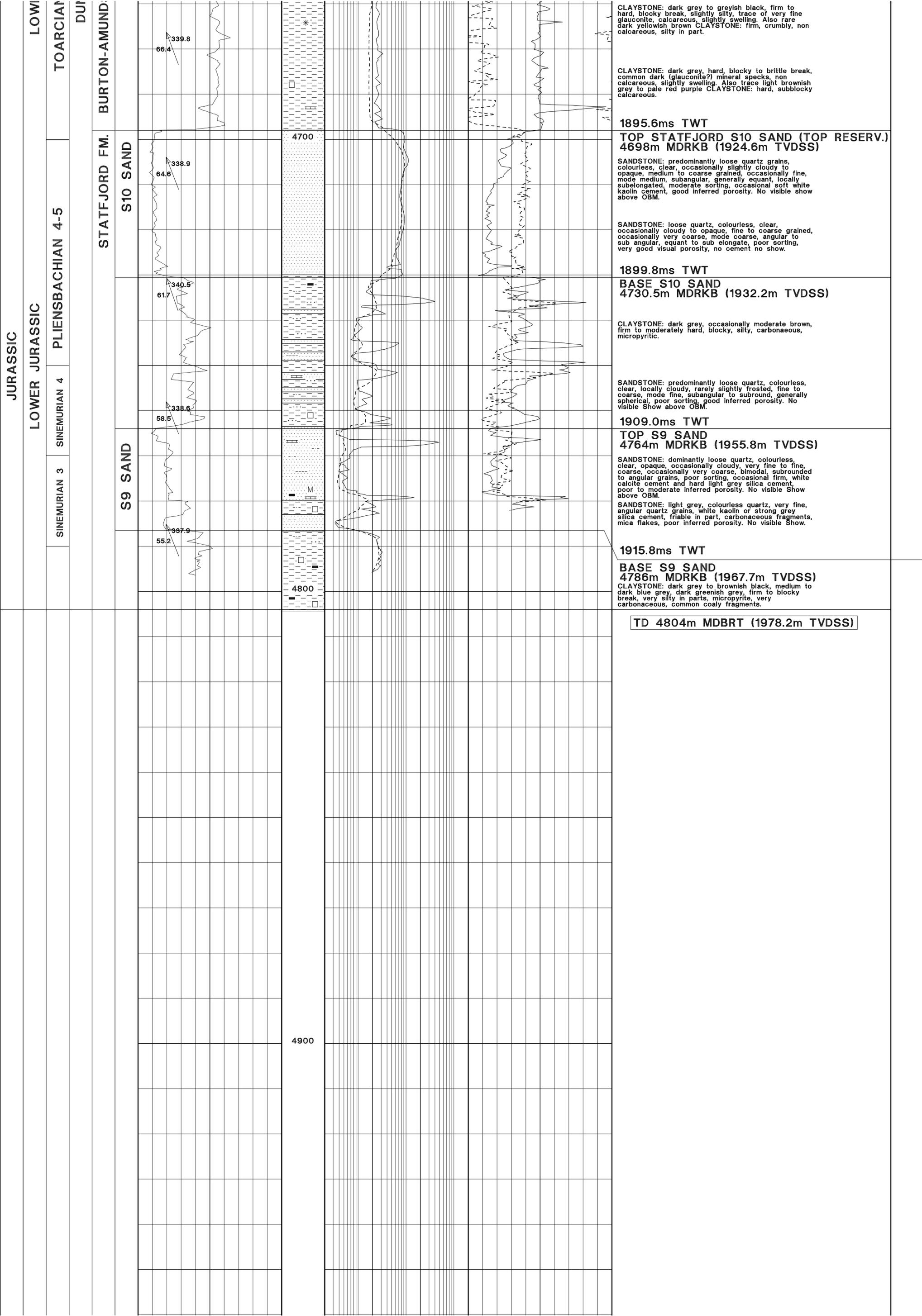
Trace LIMESTONE: very light grey, moderate yellowish brown, pale yellowish orange, firm, crumbly, microcrystalline, argillaceous in part, rarely sandy.

CLAYSTONE: predominantly dark greenish grey, locally dusky yellowish brown, dark to medium dark grey & dusky brown, occasionally olive black and brownish black, subwaxy in part, firm to moderately hard, subblocky, locally silty, trace micropyrite, tuffaceous in part, rare trace glauconite & chlorite, non calcareous.

Trace LIMESTONE: light grey to greenish grey, pale yellowish brown in part, firm to moderately hard, crumbly, rarely brittle, microcrystalline, chalky in part, locally argillaceous, rare pyrite.

CLAYSTONE: dark greenish grey, dusky brown, locally dusky yellowish brown, occasionally dark to medium dark grey, also dark greenish grey, rarely bluish grey, locally subwaxy, firm to moderately hard, subblocky, locally silty, trace micropyrite, tuffaceous in part, non calcareous.

CLAYSTONE: dark green grey, moderate brown, dusky yellowish brown, occasional tuffaceous medium blue grey, rare green black, firm to moderately hard, sub blocky, micropyritic, occasional nodular pyrite, rare sparry calcite, rare glauconite.



JURASSIC

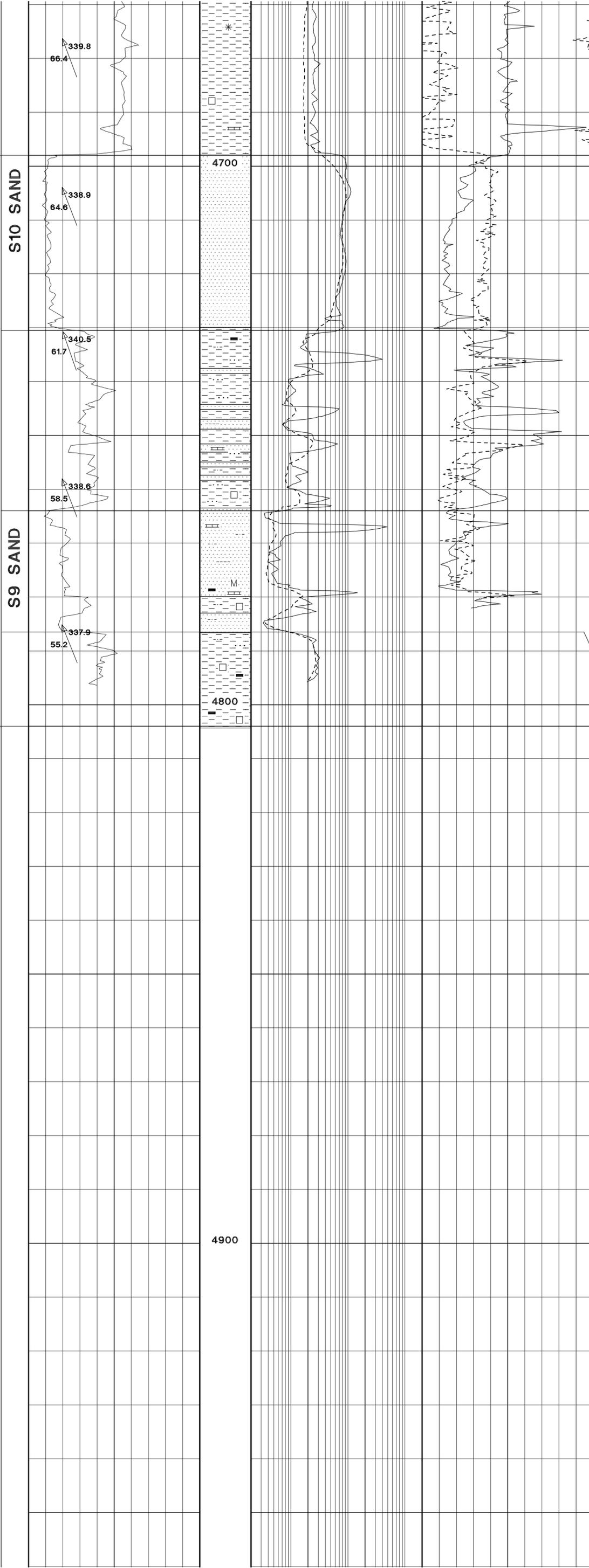
LOWER JURASSIC

LOW

SINEMURIAN 3 SINEMURIAN 4 PLIENSCHACHIAN 4-5 TOARCIAI

DUI

STATFJORD FM. BURTON-AMUND



CLAYSTONE: dark grey to greyish black, firm to hard, blocky break, slightly silty, trace of very fine glauconite, calcareous, slightly swelling. Also rare dark yellowish brown CLAYSTONE: firm, crumbly, non calcareous, silty in part.

CLAYSTONE: dark grey, hard, blocky to brittle break, common dark (glauconite?) mineral specks, non calcareous, slightly swelling. Also trace light brownish grey to pale red purple CLAYSTONE: hard, subblocky calcareous.

1895.6ms TWT

TOP STATFJORD S10 SAND (TOP RESERV.)
4698m MDRKB (1924.6m TVDSS)

SANDSTONE: predominantly loose quartz grains, colourless, clear, occasionally slightly cloudy to opaque, medium to coarse grained, occasionally fine, mode medium, subangular, generally equant, locally subelongated, moderate sorting, occasional soft white kaolin cement, good inferred porosity. No visible show above OBM.

SANDSTONE: loose quartz, colourless, clear, occasionally cloudy to opaque, fine to coarse grained, occasionally very coarse, mode coarse, angular to sub angular, equant to sub elongate, poor sorting, very good visual porosity, no cement no show.

1899.8ms TWT

BASE S10 SAND
4730.5m MDRKB (1932.2m TVDSS)

CLAYSTONE: dark grey, occasionally moderate brown, firm to moderately hard, blocky, silty, carbonaceous, micropyrritic.

SANDSTONE: predominantly loose quartz, colourless, clear, locally cloudy, rarely slightly frosted, fine to coarse, mode fine, subangular to subround, generally spherical, poor sorting, good inferred porosity. No visible Show above OBM.

1909.0ms TWT

TOP S9 SAND
4764m MDRKB (1955.8m TVDSS)

SANDSTONE: dominantly loose quartz, colourless, clear, opaque, occasionally cloudy, very fine to fine, coarse, occasionally very coarse, bimodal, subrounded to angular grains, poor sorting, occasional firm, white calcite cement and hard light grey silica cement, poor to moderate inferred porosity. No visible Show above OBM.

SANDSTONE: light grey, colourless quartz, very fine, angular quartz grains, white kaolin or strong grey silica cement, friable in part, carbonaceous fragments, mica flakes, poor inferred porosity. No visible Show.

1915.8ms TWT

BASE S9 SAND
4786m MDRKB (1967.7m TVDSS)

CLAYSTONE: dark grey to brownish black, medium to dark blue grey, dark greenish grey, firm to blocky break, very silty in parts, micropyrrite, very carbonaceous, common coaly fragments.

TD 4804m MDBRT (1978.2m TVDSS)

CHRONO/LITHO STRATIGRAPHY	GAMMA RAY	DEPTH AND LITH	RESISTIVITY	POROSITY	LITHOLOGY DESCRIPTION