

DISPLAY G4

Jotun Field Reservoir Facies

Dag Bergslien, Gro Kyllingstad, Arne Solberg, Innes J. Ferguson & Charles F. Pepper (ExxonMobil)

The Jotun Field was discovered in 1994 and production started in October 1999. The field consists of three structures located on the western flank of the Utsira High, close to the eastern pinch-out of the Tertiary submarine fan system. The field currently has 16 horizontal producers and one water injector.

The reservoir at Jotun is comprised of Palaeocene Heimdal Formation sands shed from the East Shetland Platform and transported across the Viking Graben area onto the Utsira High by high density gravity flow processes dominated by sandy turbidites.

These distal gravity flow deposits display both thin-bedded sands alternating with shales and thicker, more massive sandstones (tens of meters thick). Minor sand injections occur throughout the field but are volumetrically insignificant. The production wells in one of the structures are completed in a slump and injection complex above thick massive reservoir sands. Seven generic facies described from core is applied to characterise the Jotun Field reservoir:

- Facies 1: High Density Turbidite
- Facies 2: Low Density Turbidite
- Facies 3: Sandy Debrite
- Facies 4: Muddy Debrite
- Facies 5: Turbiditic Shale
- Facies 6: Hemipelagic Shale
- Facies 7: Injectite

Plate A

Well: Norway 25/8-6 Interval: 2055 m – 2056 m

Hemipelagic Shale with Zoophycos trace fossil assemblage.

Plate B

Well: Norway 25/8-6 Interval: 2103 m – 2109 m

“Off Axis” Turbiditic Shale and Low Density Turbidites in shaly interval between massive “Channel Axis” sand units of High Density Turbidites. The massive sand can also in part be interpreted as Sandy Debrites.

Plate C

Well: Norway 25/8-6 Interval: 2125 m – 2127 m

Amalgamated fining up units interpreted as High Density Turbidites.

Plate D

Well: Norway 25/8- B-2 Interval: 2363 m – 2375 m

“Channel Axis” amalgamated High Density Turbidites overlaying “Off Axis to Channel Margin” Turbiditic shale interval with Low Density Turbidites and Injectite (sand injections). “Channel Margin” interbedded High Density Turbidites, Muddy Debris Flows and Low Density Turbidites (2370.1 - 2375mMDRKB)

Plate E

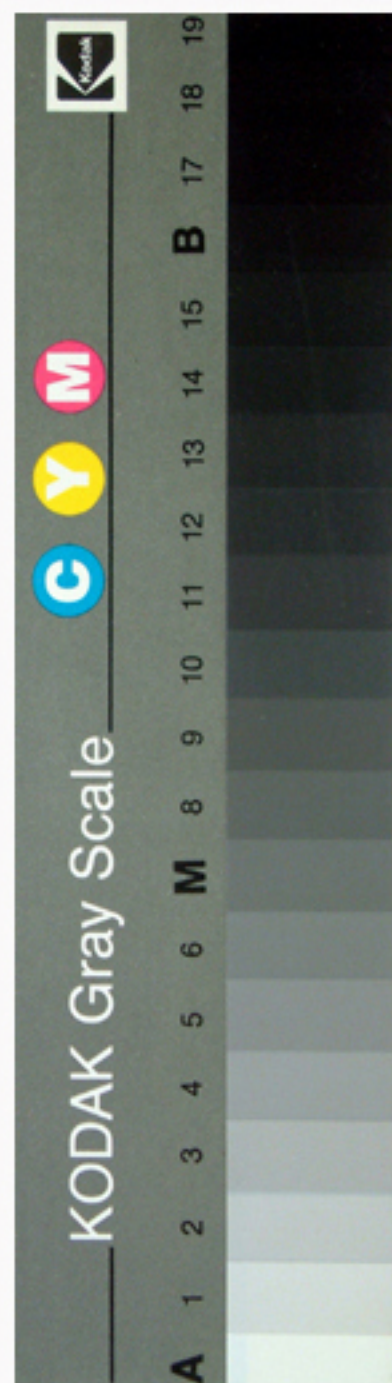
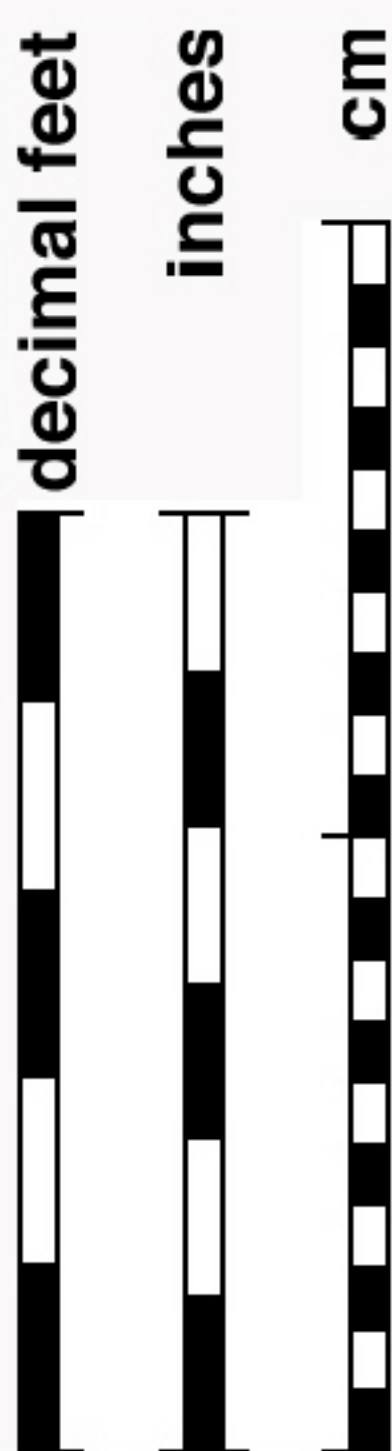
Well: Norway 25/8-8S Interval: 2256 m - 2259 m

“Channel Margin to Off Axis” interbedded Muddy Debris Flows and turbidites.

Display G4 Plate A

Well Norway 25/8-6

2055 m



Core photography and digital processing by
Robert Leppard (**Leppard** Sedimentology Ltd)
and
Colin Oakman (*Colin Oakman Associates*)



G3
G4

COMP: E580
WELL: 25/8-6
CORE: 1
DEPTH: 2055.00-2056.00
STICK: 2 OF 2

ESSED/NO/2005/05/25
2005/05/25
2005/05/25

Display G4 Plate B

Well Norway 25/8-6

2103 m

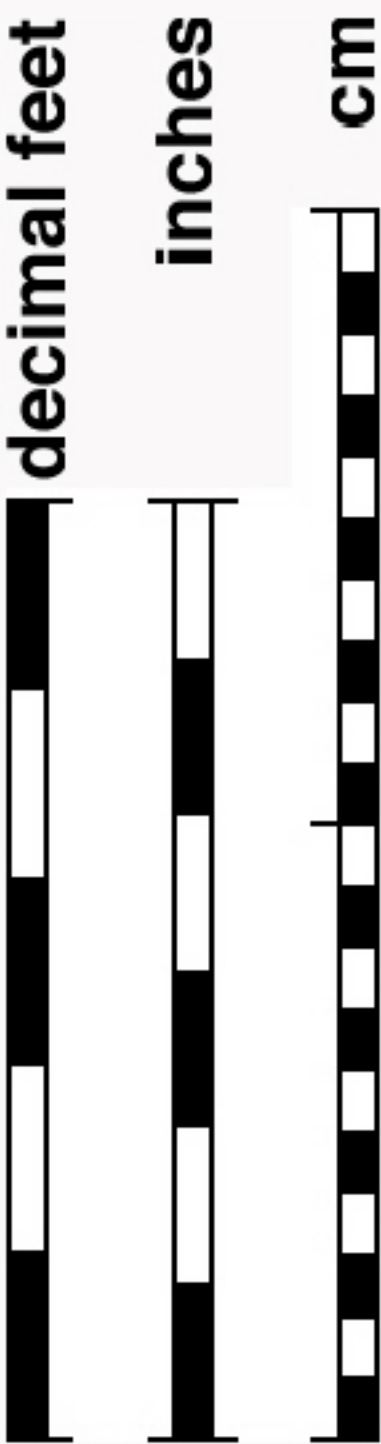
2104 m

2105 m

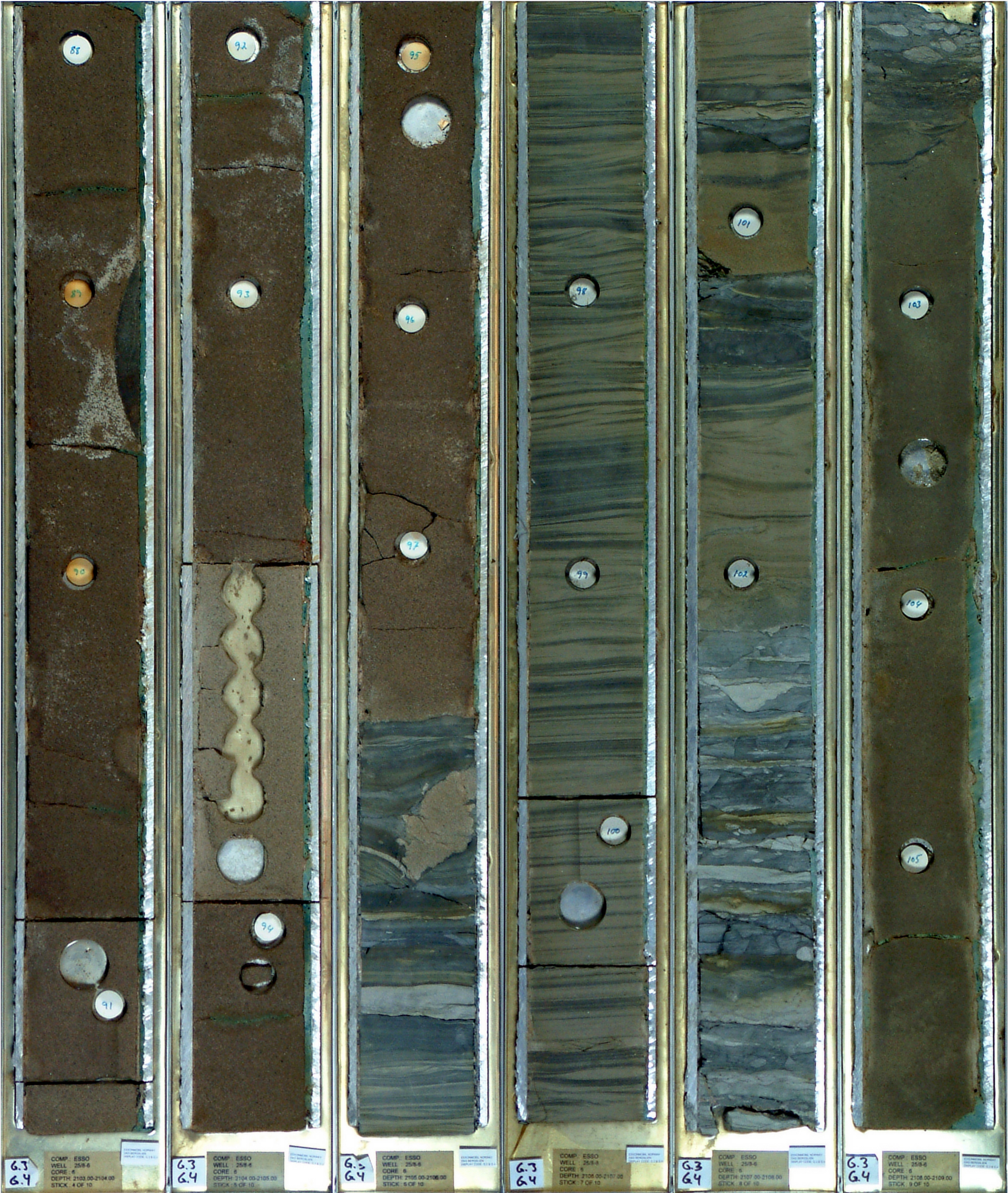
2106 m

2107 m

2108 m



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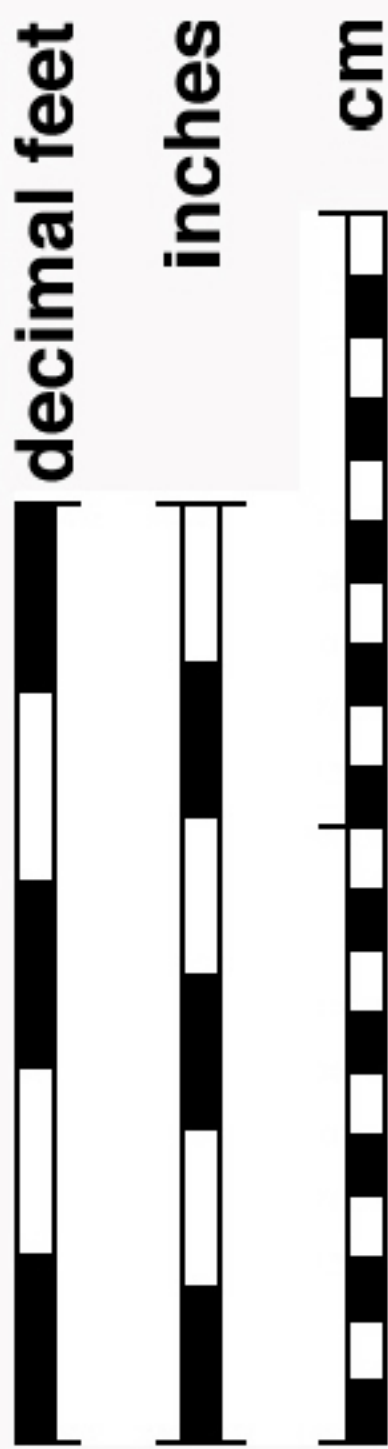


Display G4 Plate C

Well Norway 25/8-6

2125 m

2126 m



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Colin Oakman (Colin Oakman Associates)



6.3
6.4
COMP: ESSO
WELL: 25/8-6
CORE: 8
DEPTH: 2125.00-2126.00
STICK: 7 OF 19

6.3
6.4
COMP: ESSO
WELL: 25/8-6
CORE: 8
DEPTH: 2126.00-2127.00
STICK: 8 OF 19

Display G4 Plate D

Well Norway 25/8-B-2

2363 m

2364 m

2365 m

2366 m

2367 m

2368 m

2369 m

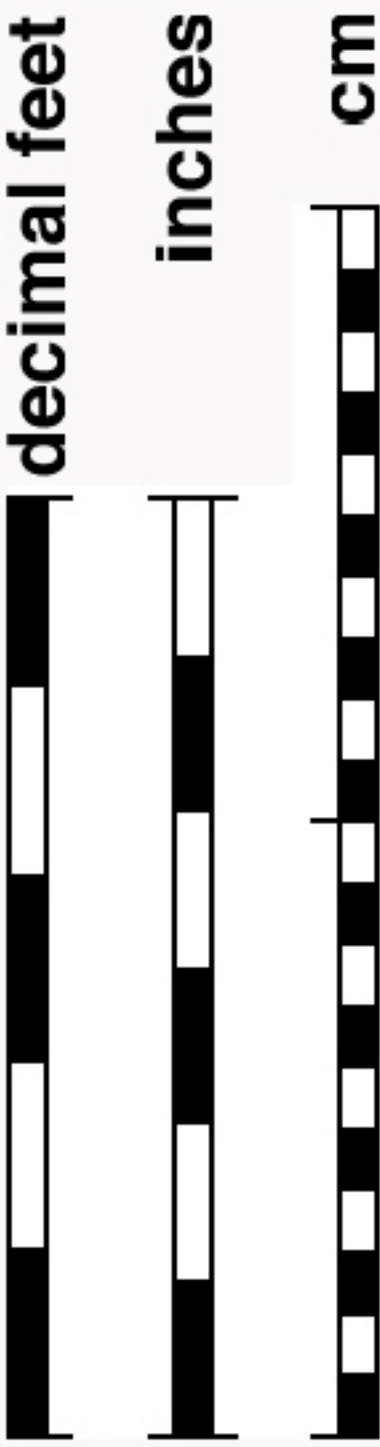
2370 m

2371 m

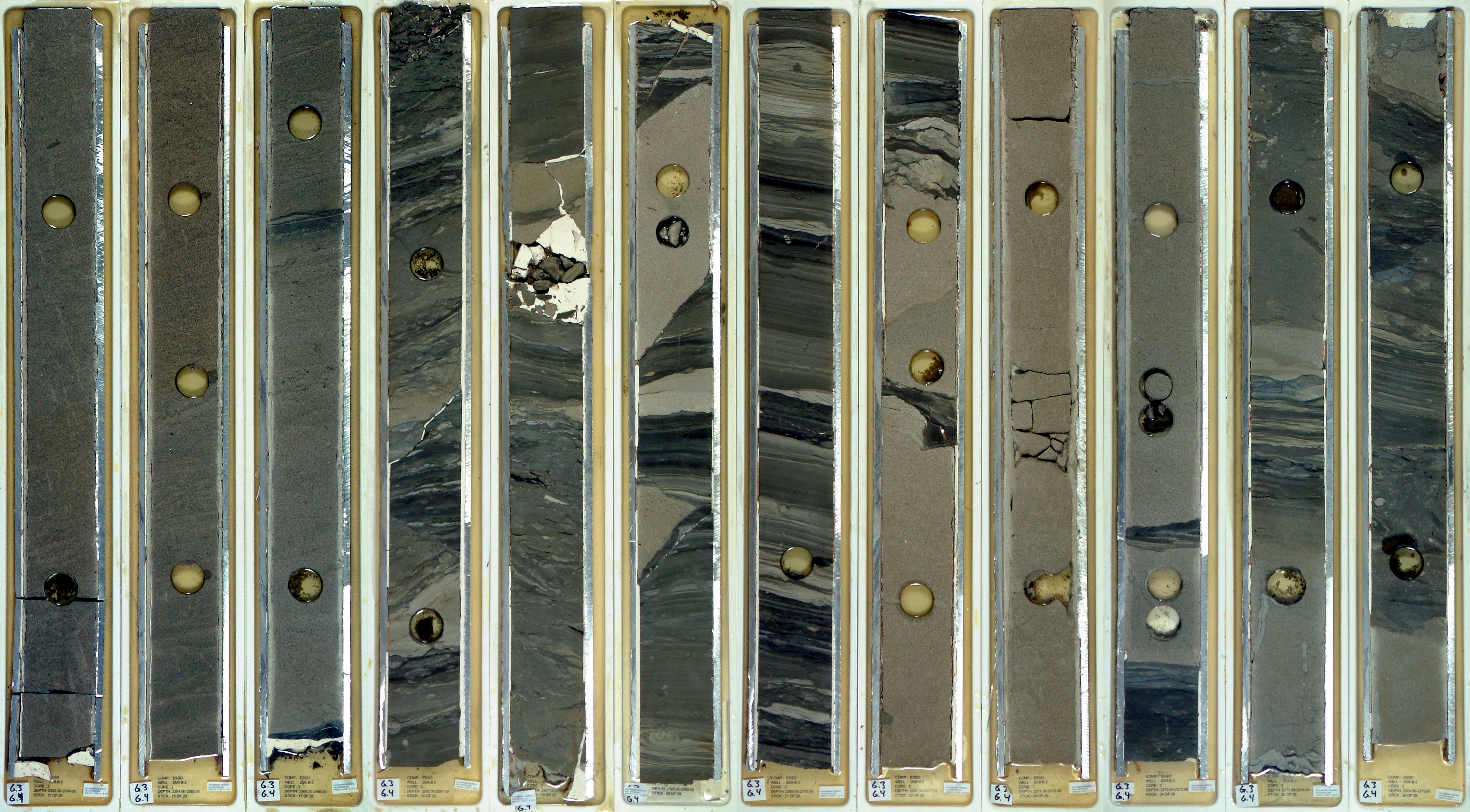
2372 m

2373 m

2374 m



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Display G4 Plate E

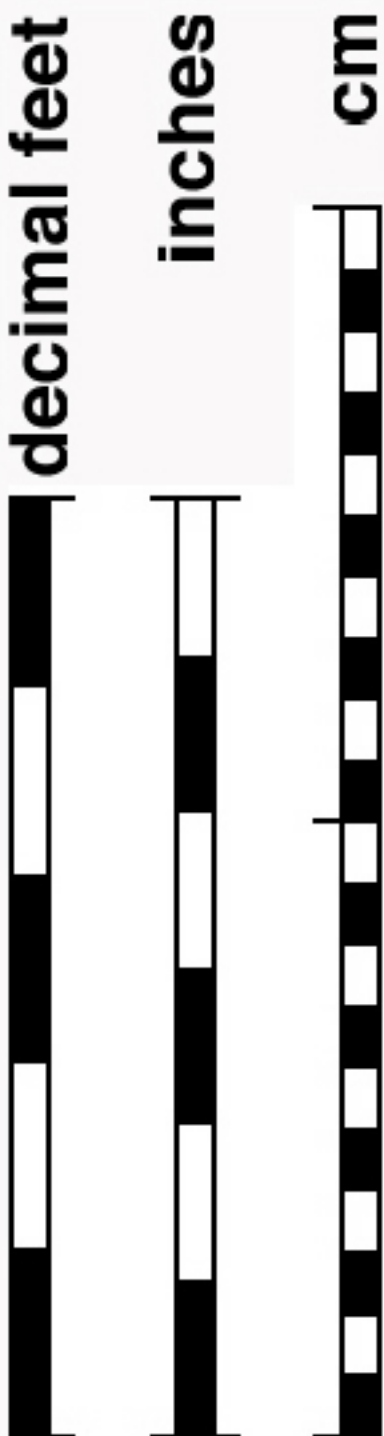
Well Norway 25/8-8S

2255 m

2256 m

2257 m

2258 m



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