

How we use gINT at GEO

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Agenda

- Who we are – Jens and Stine
- How/why GEO use gINT
- GEO logs

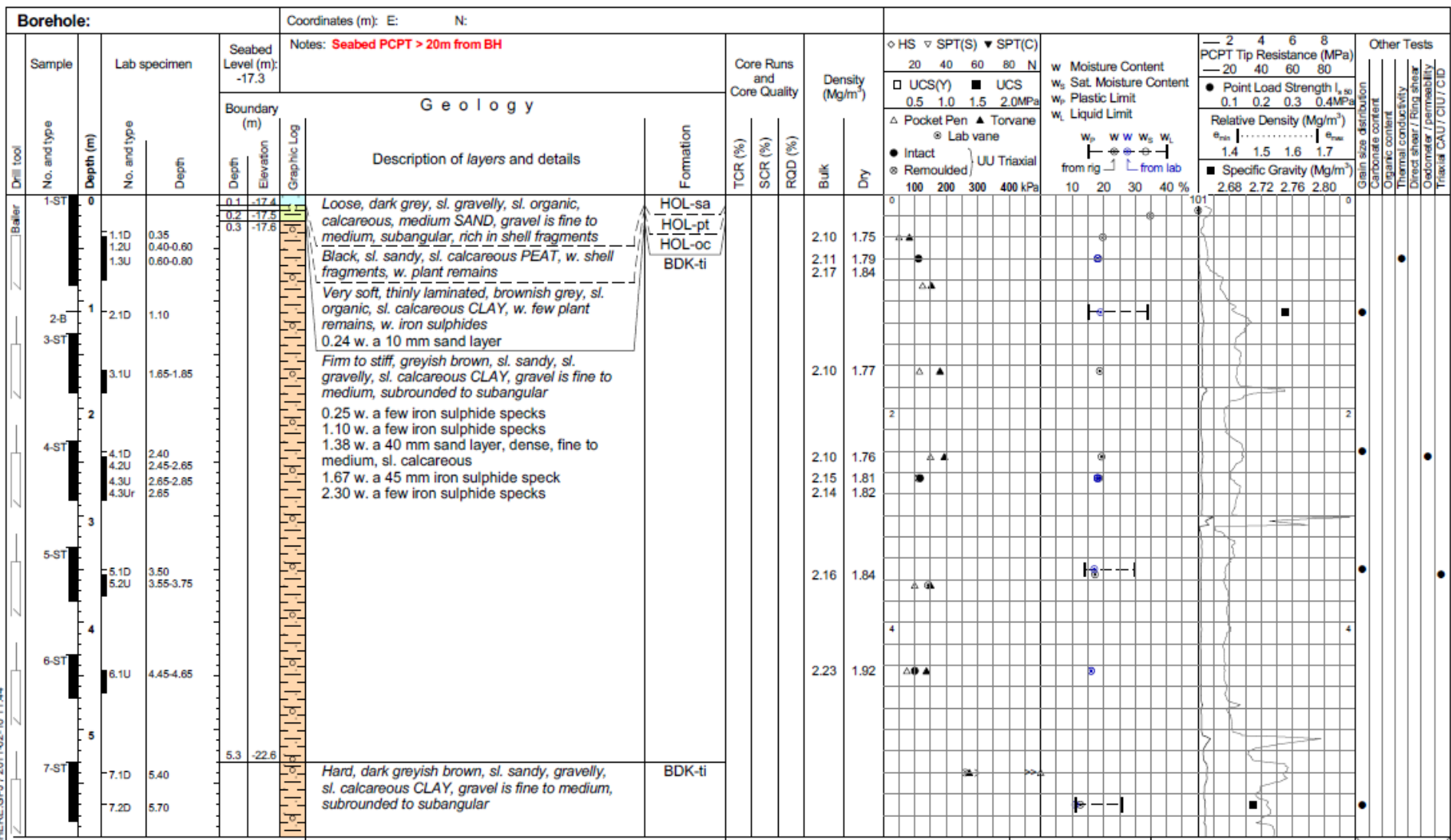
Who we are..

- Jens Galsgaard – Geologist
Experienced in gINT output
– Have designed the logs we use
- Stine Fogh – Project Engineer
Experienced in importing data into gINT and exporting to AGS files
– Have generated appropriate correspondance files

How/why GEO use gINT

- Produce borehole logs
- Produce AGS files and Excel files
- Primarily on offshore jobs
- Able to produce preliminary logs on-site
- The logs are dynamic – can be designed to the client's needs
- gINT is easy to use for non-programmers
- The database has a logic structure
- All parameters are assigned to a depth

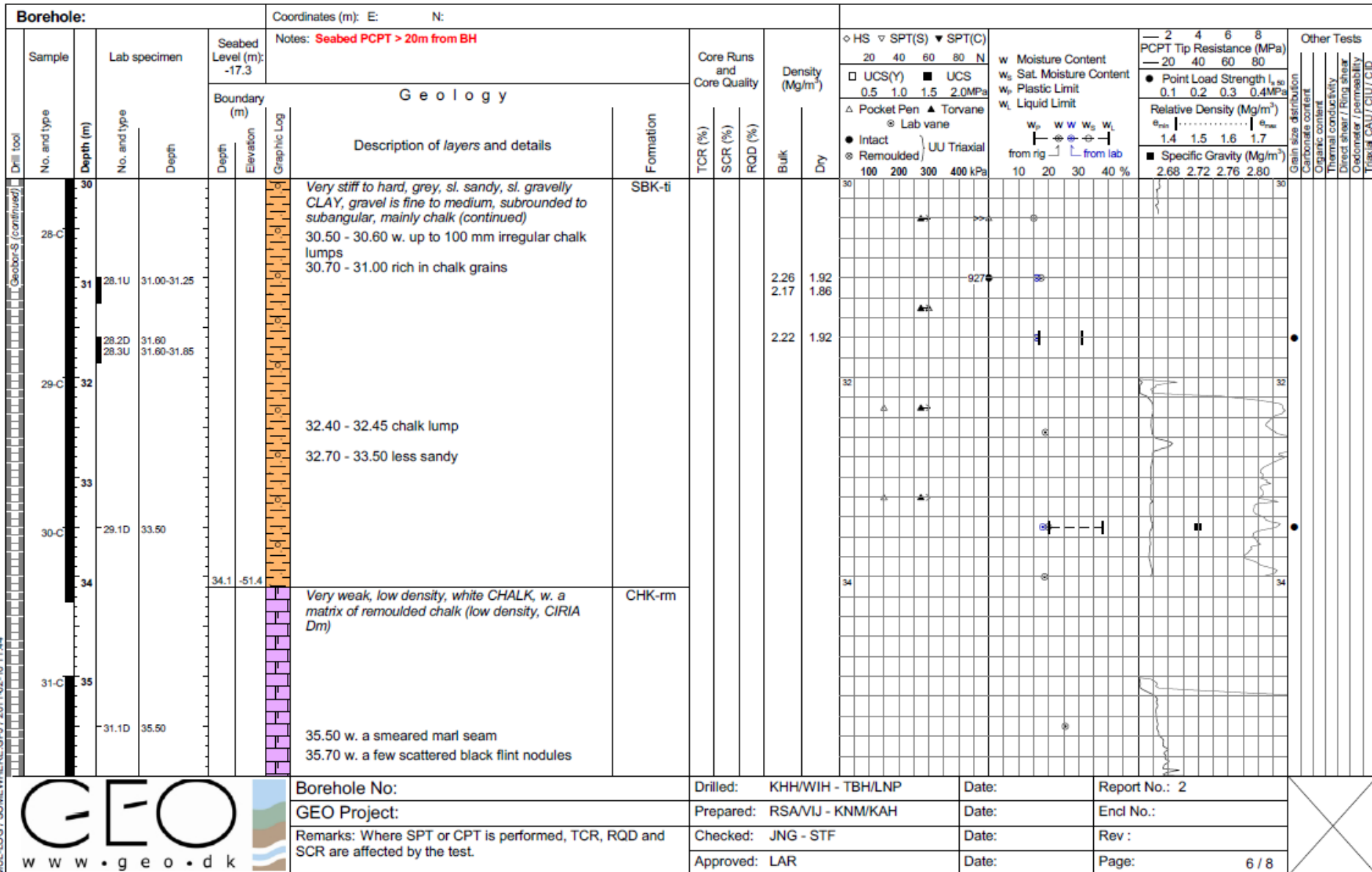
Offshore log - a site investigation in the UK



Borehole No:	Drilled: KHH/WIH - TBH/LNP	Date:	Report No.: 2
GEO Project:	Prepared: RSA/VIJ - KNM/KAH	Date:	Encl No.:
Remarks: Where SPT or CPT is performed, TCR, RQD and SCR are affected by the test.	Checked: JNG - STF	Date:	Rev :
	Approved: LAR	Date:	Page: 1 / 8

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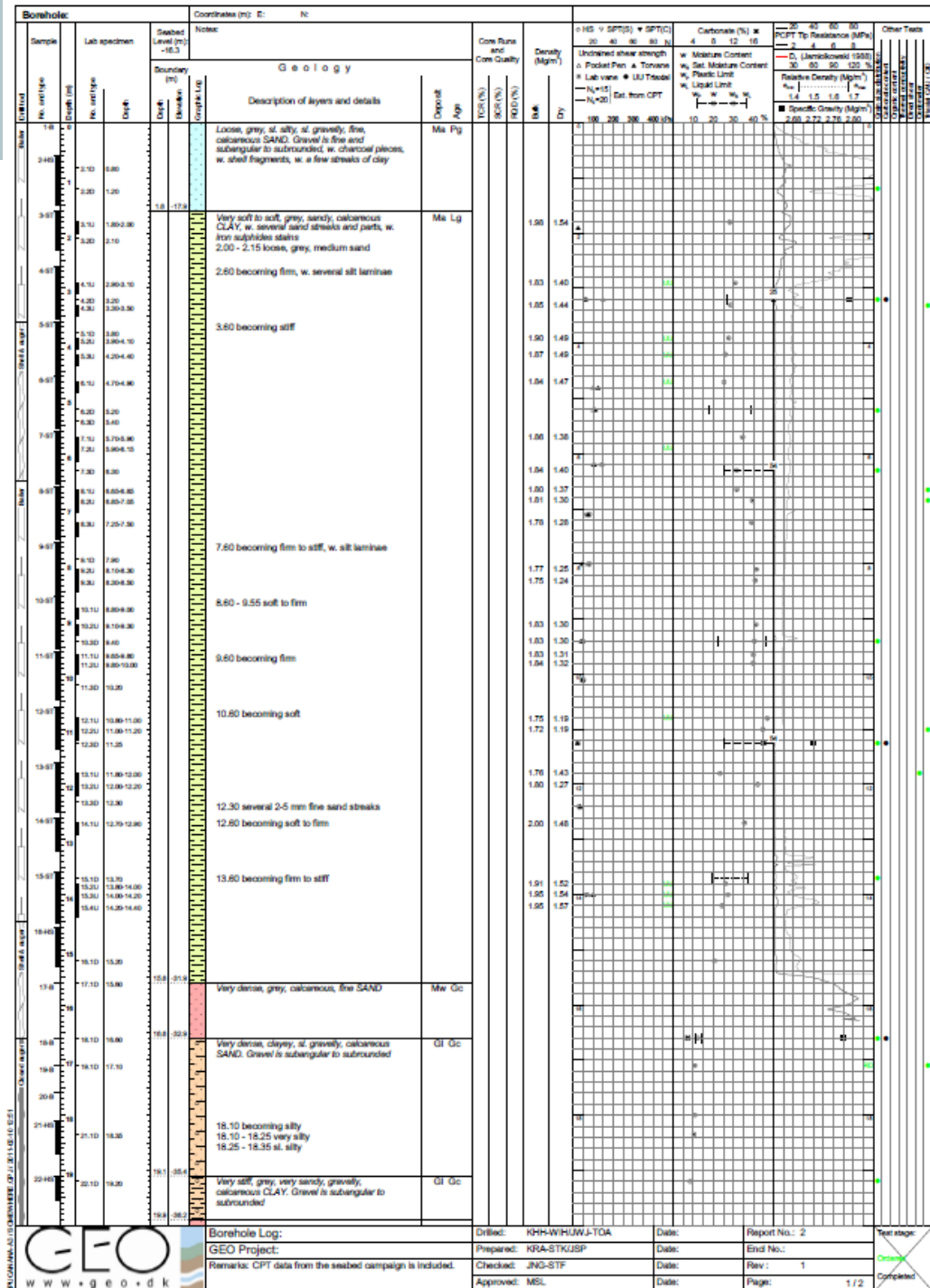
Offshore log – a site investigation in the UK



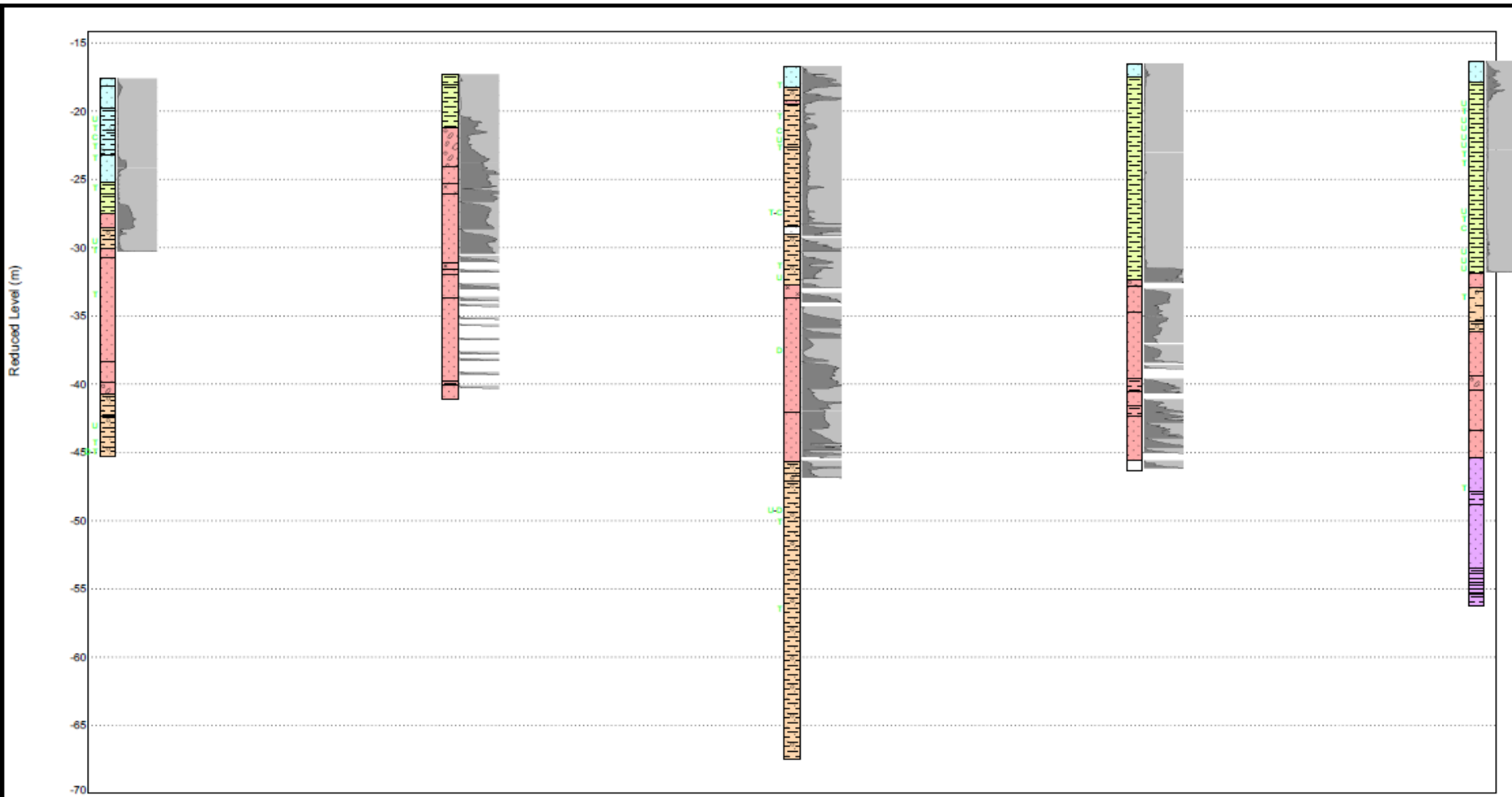
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Fence – A3 landscape



Tests:
 U triaxial unconfined
 D triaxial shear
 T triaxial CAU or CID
 C consolidation CRS or IL

Test stage:
 O ordered
 C completed

SUBSURFACE LONGITUDINAL SECTION

PCPT GRAFICS

Scale 0-50 MPa

LITHOLOGY GRAPHICS

SAND
 SILT

Organic CLAY
 Sandy CLAY

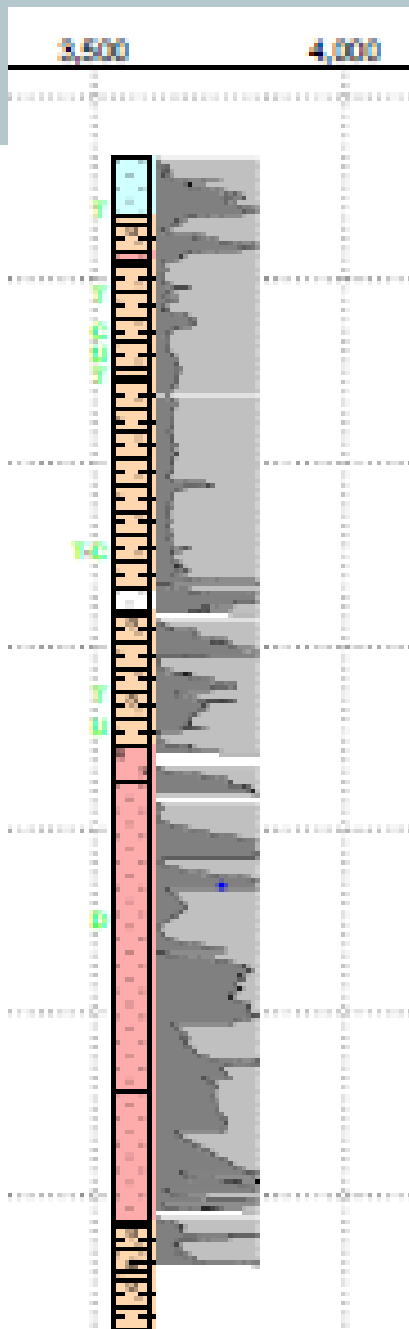
CLAY
 Clayey gravelly SAND

Sandy gravelly CLAY
 Sandy GRAVEL

GRAVEL
 MUDSTONE



GEO Project:		Report No.: 2
Prepared: JNG	Date:	Encl No.:
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Approved: MSL	Date:	Page:



Danish standards log – Vibrocore & sieve data

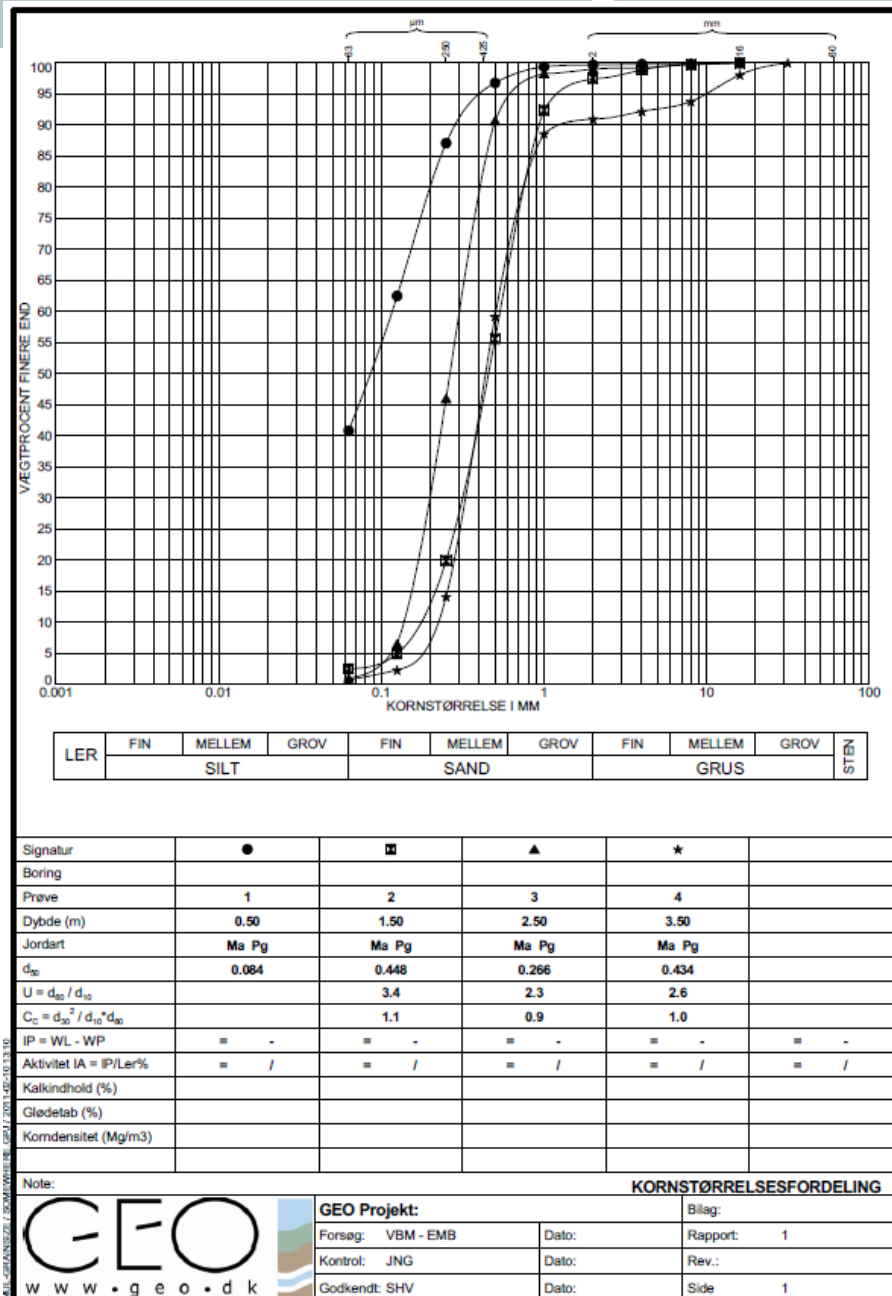
Boring:		Koordinater (m): E: N:																			
Prøve	Udtag	Kote (m): -22.9		Notes:	Komstørrelse					◇ HS ▽ SPT(S) ▼ SPT(C) 20 40 60 80 N □ UCS(Y) ■ UCS 0.5 1.0 1.5 2.0MPa		w Vandindhold w _s Mættet vandindhold w _p Plasticitetsgrænse w _L Flydegrænse		— 2 4 6 8 PCPT Tip Resistance (MPa) — 20 40 60 80		Andre forsøg					
		Nr. og type	Dybde (m)	Nr. og type	Dybde	Laggrænse (m)	Geologi				Finsand %	Mellemsand %	Grovsand %	Middelt (mm)	>2 mm (%)	△ Pocket Pen ▲ Torvane ⊗ Lab vane ● Intact ⊗ Remoulded	W _p W _s W _L W _L --- --- --- ---	● Point Load Strength I _{ps} 0.1 0.2 0.3 0.4MPa Relative Density (Mg/m ³) e _{min} ----- e _{max} 1.4 1.5 1.6 1.7 ■ Specific Gravity (Mg/m ³) 2.68 2.72 2.76 2.80	Korrosionsbeskrivelse Kalkindhold Gærbæb Varmelødningsvæne UU eller skæreboks Konsolidering Triax CAU eller CID		
Borens dybde					Dybde	Kote	Signatur	Beskrivelse af lag og detaljer				Miljø	Alder								
1-V		0					x	SAND, fint, ringe sorteret, stærkt siltet, kalkholdigt, m. siltslirer, gråbrunt				Ma	Pg								
2-V		0.7	-23.6				x	0.00 - 0.02 gab 0.18 - 0.32 mellem sand, m. skalfragmenter, m. forkullede plantedele				Ma	Pg	38	18	2	0.084	0			
								0.39 - 0.42 mellem sand, m. skalfragmenter, m. forkullede plantedele													
								0.57 - 0.60 gab													
3-V		1.5	-24.3					SAND, fint - mellem, grovere nedefter, sorteret, kalkholdigt, gråbrunt				Ma	Pg	13	50	32	0.448	3			
								0.70 - 0.90 m. siltslirer													
								SAND, mellem, sorteret, svagt gruset, kalkholdigt, gråbrunt				Ma	Pg								
								1.55 - 1.70 gruset sand													
4-V		2.6	-25.5					SAND, fint - mellem, sorteret, kalkfrit, m. enk. siltede, svagt organiske slirer, gråbrunt				Ma	Pg	32	59	6	0.266	1			
								SAND, mellem, sorteret, svagt gruset, kalkfrit, lys gråbrunt													
5-V		3.7	-26.5					MORÆNELER, ret fedt, sandet, gruset, kalkholdigt, brungråt				Gl	Gc	10	57	24	0.434	9			
								3.65 - 4.10 m. sandpartier (nedfald?)													
6-V		4.4	-27.2					LER, fedt, svagt sandet, kalkholdigt, brungråt				Sm	Gc								
7-B		5.7	-28.6					5.50 - 5.57 gab													



Boring:	Boret: ROB	Dato:	Rapport No.: 1	Test stage:
GEO Projekt:	Ing. geolog: VIJ - KS	Dato:	Bilag:	Ordered
Bemærkninger:	Kontrol: JNG	Dato:	Rev :	
	Godkendt: SHV	Dato:	Side: 1 / 1	

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Danish standards - grainsize



MILJØGRANSØV / SKOVKONTORET / GRU 2001-40-10-13-10

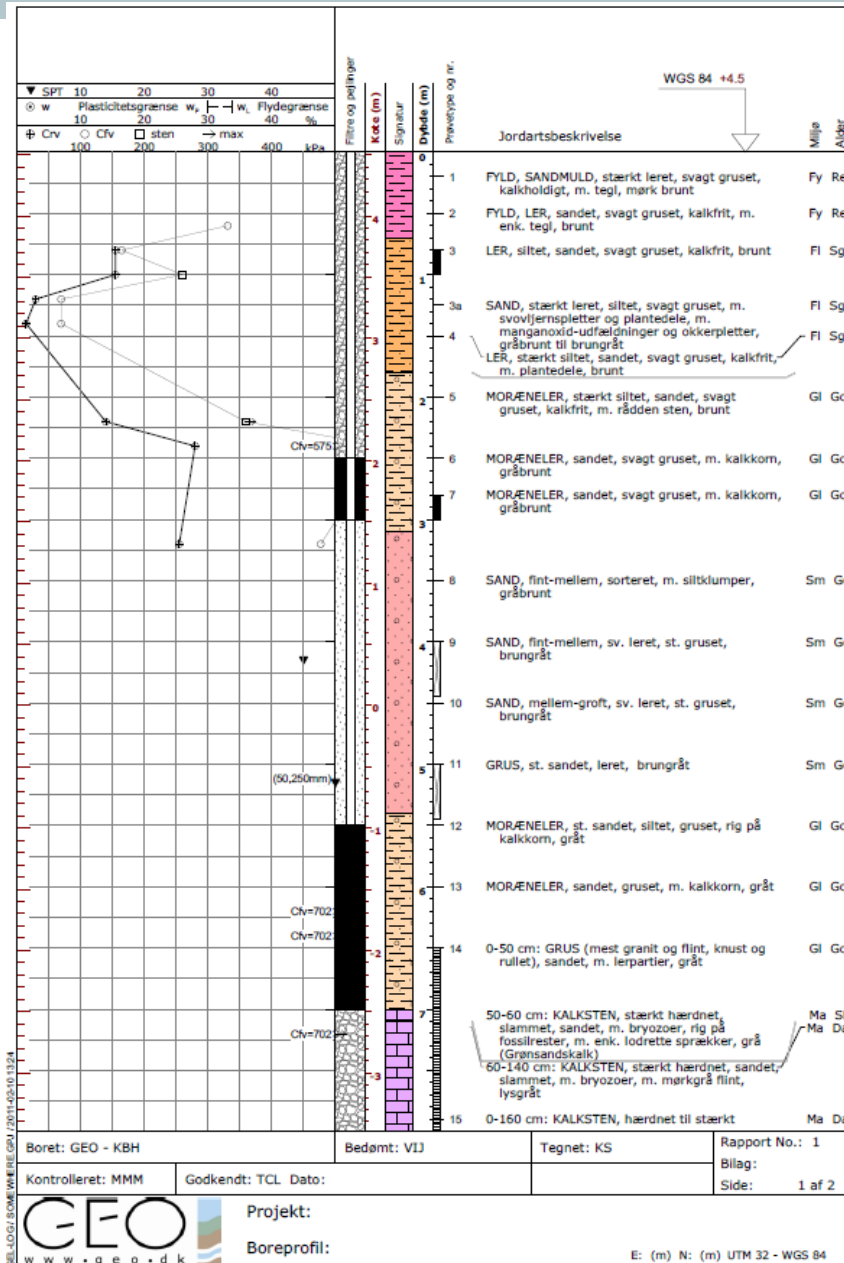


GEO Projekt:		Bilag:	
Forsøg: VBM - EMB	Dato:	Rapport: 1	
Kontrol: JNG	Dato:	Rev.: 1	
Godkendt: SHV	Dato:	Side: 1	

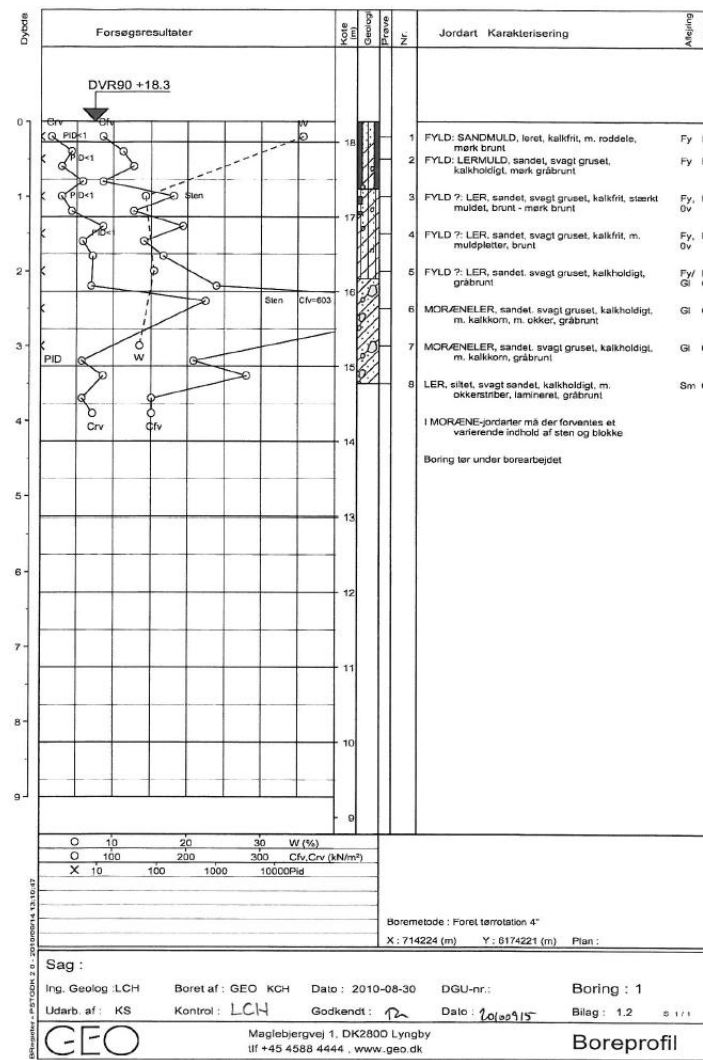
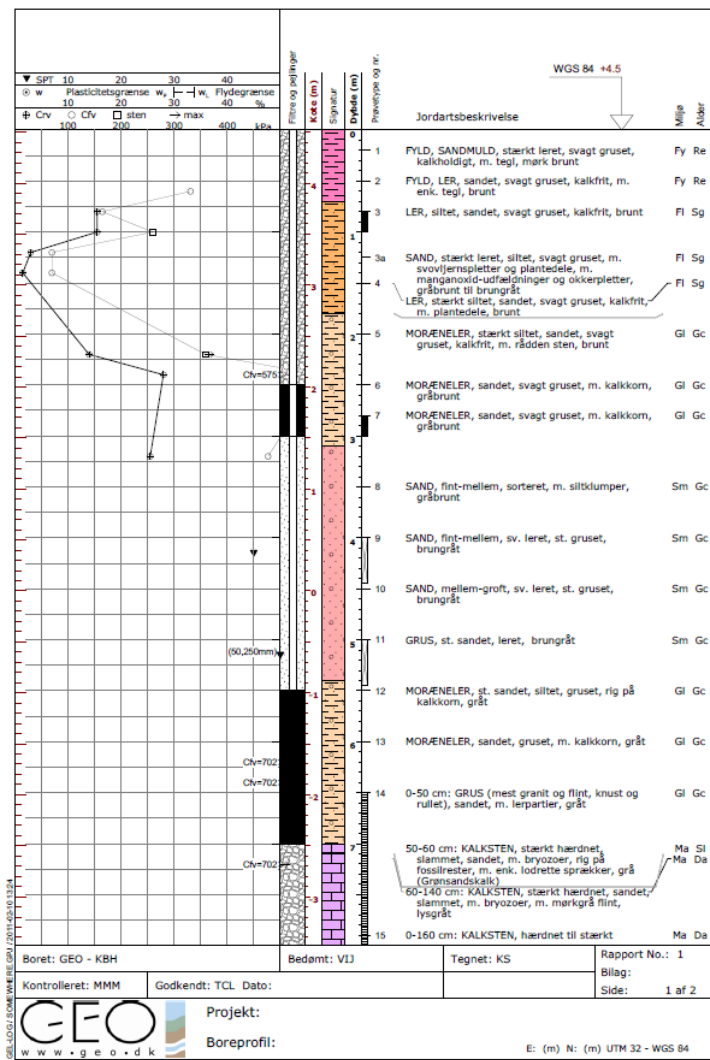


Signatur	●	☒	▲	★
Boring				
Prøve	1	2	3	4
Dybde (m)	0.50	1.50	2.50	3.50
Jordart	Ma Pg	Ma Pg	Ma Pg	Ma Pg
d_{50}	0.084	0.448	0.266	0.434
$U = d_{60} / d_{10}$		3.4	2.3	2.6
$C_c = d_{30}^2 / d_{10} \cdot d_{60}$		1.1	0.9	1.0
IP = WL - WP	= -	= -	= -	= -
Aktivitet IA = IP/Ler%	= /	= /	= /	= /
Kalkindhold (%)				
Glødetab (%)				
Korndensitet (Mg/m ³)				

GEO – Geotechnical on-shore log (in Danish)



Logs - gINT Vs. GEOGIS



How we use gINT at GEO

Thank you for your attention

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Stine Fogh

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