

# Heavy mineral exploration in Skjern, Denmark 1998 - 2002

Data Report

Jan Bernth Sørensen

GEOLOGICAL SURVEY OF DENMARK AND GREENLAND  
MINISTRY OF THE ENVIRONMENT



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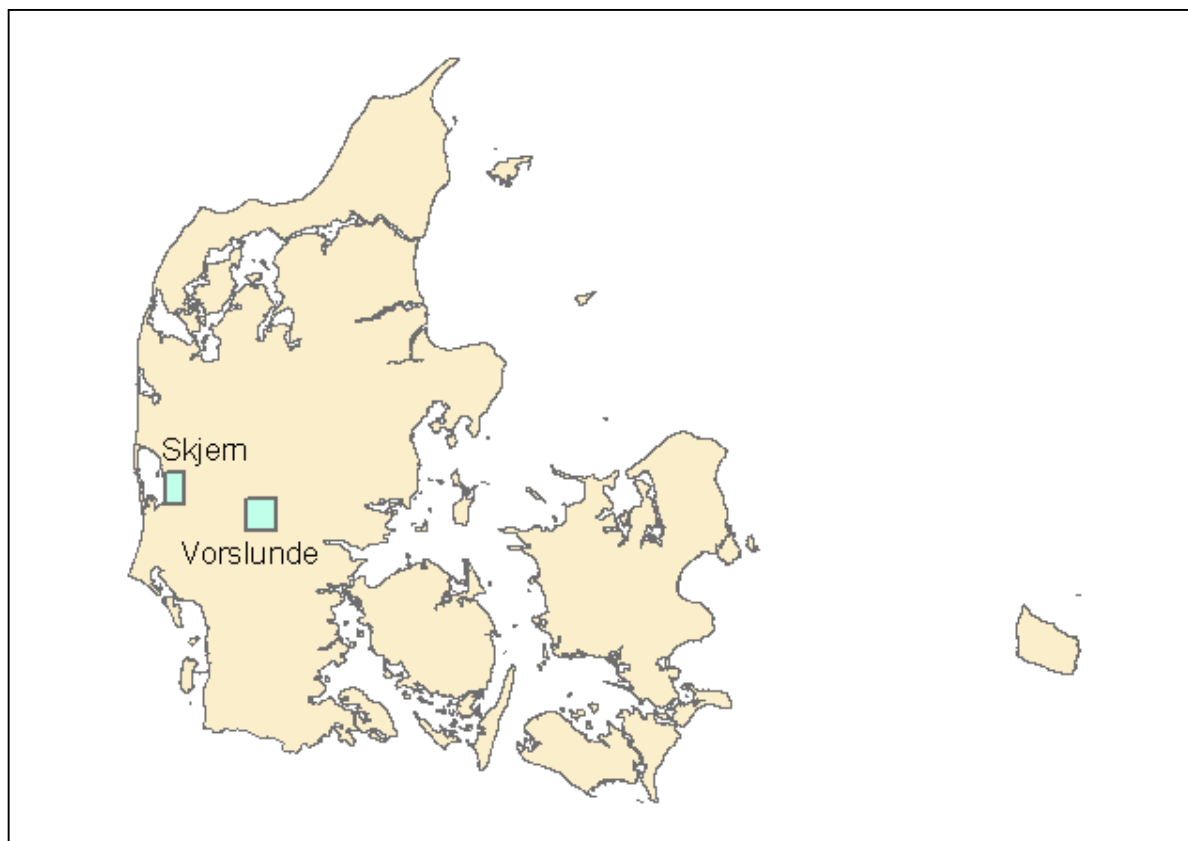
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# 1 Introduction

This report presents the results of the field- and laboratory work in the Skjern area (fig. 1) conducted by GEUS for DuPont in the period January 1<sup>st</sup> 1998 to December 31<sup>st</sup> 2002.



**Fig. 1:** Map of Denmark showing the two major study areas Skjern and Vorslunde.

Further background on the project can be found in:

Abildtrup, C., Appel, C., Andersen, G., Jørgensen, T.G. and Knudsen, C. 2000: Heavy mineral exploration in Denmark: Factual report January to October 2000, Danmarks og Grønlands Geologiske Undersøgelse, GEUS report 2000/80, 22 pp + app.

Jørgensen, T.G. 2002: Heavy mineral exploration in Denmark. Petrophysical and geological investigations of Miocene heavy mineral deposits in Central Jutland, Denmark. Unpubl. M.Sc. thesis. 96 pp.

Knudsen, C. 1998: Heavy Mineral exploration in Miocene sediments, Jylland. Danmarks og Grønlands Geologiske Undersøgelse, GEUS report 1998/45, 44 pp.

Knudsen, C and Appel, C. 2000: Heavy mineral exploration in Denmark 1999, Danmarks og Grønlands Geologiske Undersøgelse, GEUS report 2000/6, 31 pp.

Stendal, H., Knudsen, C., Appel, C., Jørgensen, T. Fischer, T., Abildtrup, C., and Rasmussen, T. 2001: Heavy mineral exploration in 2000, Summary report, Danmarks og Grønlands Geologiske Undersøgelse, GEUS report 2001/26, 69 pp. + app.

Sørensen, J.B. 2003: Heavy mineral exploration in Denmark, reconnaissance 1998 – 2000, Data report, Danmarks og Grønlands Geologiske Undersøgelse, GEUS report 2003/83.

Sørensen, J.B. 2003: Heavy mineral exploration in Vorslunde, Denmark 1998 – 2002, Data report, Danmarks og Grønlands Geologiske Undersøgelse, GEUS report 2003/85.

## **2 Borehole data**

DRILLBO	YUTM	XUTM	UTMZONE	ELEVATION	DRILSTDA	DRILENDA	LOCATION	COMMENT	DRILLER	BORHTOWN	DRILLED	PURPOSE	DATUM	LOCATSC	LOCATM	ELEVAME	USE	STATUS
Sk 99/1	6201298	466300	32		3	09-03-99	09-03-99	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk 99/2	6200851	465858	32		3	11-03-99	11-03-99	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk 99/3	6200354	465748	32		3	12-03-99	12-03-99	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk 99/4	6202338	464027	32		5	16-03-99	16-03-99	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.01	6196981	471603	32		8	15-05-00	15-05-00	Tarm		pc højslev	655	GEUS for R	WGS84	D	K	M	S	Z
Sk00.02	6198291	472616	32		6	16-05-00	16-05-00	Tarm		pc højslev	655	GEUS for R	WGS84	D	K	M	S	Z
Sk00.03	6199227	466545	32		4	16-05-00	16-05-00	Skjern-Stauning	stone stuck in drillstring	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.04	6199804	466889	32		3	17-05-00	17-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.05	6200179	467119	32		3	17-05-00	17-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.06	6201163	466729	32		4	17-05-00	17-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.07	6200660	466317	32		3	18-05-00	18-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.08	6201949	463652	32		5	22-05-00	22-05-00	Skjern-Stauning	drilling stopped on concrete	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.09	6202723	464221	32		7	22-05-00	22-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.10	6201544	463270	32		4	22-05-00	22-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.11	6203307	463037	32		8	23-05-00	23-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.12	6203613	463219	32		8	23-05-00	23-05-00	Skjern-Stauning	drilling stopped on concrete	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.13	6202691	462645	32		3	24-05-00	24-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.14	6199814	465746	32		2	24-05-00	24-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.15	6203914	461648	32		5	25-05-00	25-05-00	Skjern-Stauning	@29m	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.16	6204417	461806	32		4	25-05-00	25-05-00	Skjern-Stauning	drilling stopped on concrete	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.17	6202991	464233	32		8	25-05-00	25-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.18	6203393	461469	32		5	29-05-00	29-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.19	6204990	461204	32		4	29-05-00	29-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.20	6203995	460567	32		4	30-05-00	30-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.21	6204507	460959	32		4	30-05-00	30-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.22	6205729	460602	32		4	30-05-00	30-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.23	6206259	461453	32		4	31-05-00	06-06-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.24	6205491	462063	32		4	31-05-00	31-05-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.25L	6203914	461648	32		5	06-06-00	06-06-00	Skjern-Stauning	125mm PEH same location as Sk00.15 (borelogging)	pc højslev	669	GEUS for R	WGS84	D	K	M	A	Z
Sk00.26L	6200160	466153	32		3	07-06-00	07-06-00	Skjern-Stauning	125mm PEH same location as Sk 1 drilled in - 98 (borelogging)	pc højslev	669	GEUS for R	WGS84	D	K	M	A	Z
Sk00.27	6200982	462887	32		4	09-06-00	09-06-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.28	6202880	461039	32		4	09-06-00	09-06-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.29	6205644	459529	32		6	13-06-00	13-06-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.30	6205902	458784	32		6	13-06-00	13-06-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.31	6207559	459857	32		3	14-06-00	14-06-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.32	6207554	458622	32		3	15-06-00	15-06-00	Skjern-Stauning	quaternary	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.33	6205255	460138	32		6	15-06-00	15-06-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.34	6206681	459209	32		4	14-06-00	14-06-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.35	6206988	460333	32		2	14-06-00	14-06-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
Sk00.36	6204851	459196	32		4	16-06-00	16-06-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z

DRILLBO	YUTM	XUTM	UTMZONE	ELEVATION	DRILSTDA	DRILENDA	LOCATION	COMMENT	DRILLER	BORHTOWN	DRILLED	PURPOSE	DATUM	LOCATSC	LOCATM	ELEVAM	USE	STATUS
SK00.37	6205143	458555	32		4	15-06-00	15-06-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK00.38	6206756	458107	32		2	16-06-00	16-06-00	Skjern-Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK00.39	6207864	460627	32		3	16-06-00	16-06-00	St. Ulfkær		pc højslev	667	GEUS for R	WGS84	D	K	M	S	Z
SK01.40	6201298	466300	32		4	10-sep	10-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.41	6200851	465858	32		3	11-sep	11-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.42	6200354	465748	32		2	11-sep	11-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.43	6201401	465796	32		4	12-sep	12-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.44	6200912	465440	32		3	12-sep	12-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.45	6201221	463713	32		3	18-sep	18-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.46	6201033	464249	32		3	13-sep	13-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.47	6201304	464601	32		5	13-sep	13-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.48	6201681	464162	32		5	17-sep	17-sep	Stauning	measured	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.49	6201826	464922	32		4	17-sep	17-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.50	6202072	464396	32		5	19-sep	19-sep	Stauning	measured	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.51	6202142	463342	32		5	19-sep	19-sep	Stauning	measured	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.52	6202517	463695	32		6	18-sep	18-sep	Stauning	measured	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.53	6202279	462909	32		5	19-sep	19-sep	Stauning	measured	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.54	6202865	463378	32		7	20-sep	20-sep	Stauning	measured	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.55	6203482	463805	32		9	20-sep	20-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.56	6204155	463351	32		10	20-sep	20-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.57	6203036	462245	32		4	21-sep	21-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.58	6203291	462606	32		5	21-sep	21-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.59	6203648	462837	32		7	24-sep	24-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.60	6200572	465132	32		2	24-sep	24-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.61	6203128	461846	32		4	25-sep	25-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.62	6203552	462139	32		5			Stauning	Not drilled	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.63	6204062	462291	32		6	25-sep	25-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.64	6204602	462506	32		8	25-sep	25-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.65	6204028	461045	32		5	26-sep	26-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.66	6204313	461362	32		5	26-sep	26-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.67	6204783	461402	32		6	26-sep	26-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.68	6205053	461910	32		6	27-sep	27-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.69	6205823	462055	32		5			Stauning	Not drilled	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.70	6205629	461562	32		5	27-sep	27-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.71	6205339	460975	32		4	27-sep	27-sep	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.72	6204784	460603	32		5	08-okt	08-okt	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.73	6204954	459703	32		4			Stauning	Not drilled	pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.74	6205312	459370	32		5	08-okt	08-okt	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.75	6205526	458633	32		5	09-okt	09-okt	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.76	6206093	461046	32		4	09-okt	09-okt	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.77	6206047	460147	32		3	10-okt	10-okt	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.78	6206184	460536	32		3	10-okt	10-okt	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.79	6206665	460261	32		3	10-okt	10-okt	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.80	6206470	459522	32		3	11-okt	11-okt	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.81	6206294	458956	32		4	11-okt	11-okt	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.82	6206520	458583	32		4	11-okt	11-okt	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.83	6205999	459438	32		5	12-okt	12-okt	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z
SK01.84	6206812	459787	32		2	12-okt	12-okt	Stauning		pc højslev	669	GEUS for R	WGS84	D	K	M	S	Z



BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
Skjern 5	0	1	1	0.35			0.310		1.192		mbu	dbo	kva		ds	alias DGU ark nr 93. 822
Skjern 5	1	2	2	0.35			0.259		1.122		mbu	dbo	kva		ds	
Skjern 5	2	3	3	0.4			0.151		0.972		lbu	lbo	kva		ds	few chert fragments
Skjern 5	3	4	4	0.4	10		0.058		0.843		lbu	lbo	kva		ds	medium to coarse sand pebbles
Skjern 5	4	5	5	0.45	10		0.210		1.054		lbu	lbo	kva		ds	medium to coarse sand pebbles
Skjern 5	5	6	6	0.25	3		0.049		0.830		lbugå	lboga	kva		ds	fine to medium sand pebbles
Skjern 5	6	7	7	0.35	15		0.187		1.022		gubu	yebo	kva		dg	unsorted, pebbly few stones
Skjern 5	7	8	8	0.02	90						mbu	dbo	kva		di	crystalline rock fragments, clay and silt stringers
Skjern 5	8	9	9	0.03	2		0.860		1.956		mrøbu	drebo	kva		di	
Skjern 5	9	10	10	5	100						gubu	yebo	kva		dg	
Skjern 5	10	11	11	0.03	50						mbu	dbo	mio		gl	sample consists of 50 % quaternary gravel 50 % m
Skjern 5	11	12	12	0 001	2						mgå	dga	mio		gl	
Skjern 5	12	13	13	0 001							mgå	dga	mio		gl	
Skjern 5	13	14	14	0 001	2						mgå	dga	mio		gl	
Skjern 5	14	15	15	0 001	2						mgå	dga	mio		gi	
Skjern 5	15	16	16	0.04			0.941		2.068		lbu	lbo	mio		gi	
Skjern 5	16	17	17	0.04			2.068		3.632		mbu	dbo	mio		gi	
Skjern 5	17	18	18	0.04							mbu	dbo	mio		gi	
Skjern 5	18	19	19	0.04			2.500		4.232		mbu	dbo	mio		gi	
Skjern 5	19	20	20	0.04			2.628		4.410		mbu	dbo	mio		gi	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
Skjern 5	20	21	21	0.04							bugå	boga	mio		gi	clay stringers
Skjern 5	21	22	22	0.04							gå	ga	mio		gi	concretions
Skjern 5	22	23	23	0.04			2.636		4.421		bugå	boga	mio		gi	
Skjern 5	23	24	24	0.04			2.098		3.674		mbu	dbo	mio		gi	
Skjern 5	24	25	25	0.04							lgå	lga	mio		gi	
Skjern 5	25	26	26	0.04			1.379		2.676		gøgå	gega	mio		gi	
Skjern 5	26	27	27	0.04			1.187		2.410		mbu	dbo	mio		gi	
Skjern 5	27	28	28	0.04			0.983		2.127		buso	boba	mio		gi	
Skjern 5	28	29	29	0.04			0.969		2.107		buso	boba	mio		gi	
Skjern 5	29	30	30	0.04							gå	ga	mio		gi	
Skjern 5	30	31	31	0.04							mbugå	dboga	mio		gi	
Skjern 5	31	32	32	0.04							mbugå	dboga	mio		gi	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
Sk00.01	0	1	1	0.3	5	60					gubu	yebo	kva		ds	few stones
Sk00.01	1	2	2	0.3	10	80					gubu	yebo	kva		ds	few stones
Sk00.01	2	3	3	1	20	80					lbu	lbo	kva		ds	few stones
Sk00.01	3	4	4	1.1	30	90					lbu	lbo	kva		ds	stones
Sk00.01	4	5	5	1.1	40	90					lbu	lbo	kva		ds	few stones, few lignite redeposited
Sk00.01	5	6	6	1.1	40	50					gå	ga	kva		ds	stones, few lignite redeposited
Sk00.01	6	7	7	1	40	75					gå	ga	kva		ds	few lignite
Sk00.01	7	8	8	0.2	2	75					lgåbu	lgabo	mio		gs	
Sk00.01	8	9	9	0.125	2	60					lgåbu	lgabo	mio		gs	
Sk00.01	9	10	10	0.1		25					mgå	dga	mio		gs	with fine sand
Sk00.01	10	11	11	0.03		30					mgå	dga	mio		gi	with fine sand
Sk00.01	11	12	12	0.03		25					gå	ga	mio		gi	with silt
Sk00.01	12	13	13	0.1		50					mgå	dga	mio		gi	with fine sand
Sk00.01	13	14	14	0.03		50					gå	ga	mio		gi	with fine sand
Sk00.01	14	15	15	0.03		25					mgå	dga	mio		gi	with fine sand
Sk00.01	15	16	16	0.03		25					mgå	dga	mio		gi	redeposited lignite
Sk00.01	16	17	17	0.3		60					gå	ga	mio		gs	redeposited lignite
Sk00.01	17	18	18	0.3		60					gå	ga	mio		gs	redeposited lignite
Sk00.01	18	19	19	0.3		60					gå	ga	mio		gs	redeposited lignite
Sk00.01	19	20	20	0.3		50					gå	ga	mio		gs	redeposited lignite
Sk00.01	20	21	21	0.3		75					gå	ga	mio		gs	redeposited lignite
Sk00.01	21	22	22	0.3		75					gå	ga	mio		gs	many redeposited lignite fragments
Sk00.01	22	23	23	0.2		50					gå	ga	mio		gs	redeposited lignite
Sk00.01	23	24	24	0.3		75					gå	ga	mio		gs	redeposited lignite
Sk00.01	24	25	25	0.2		60					gå	ga	mio		gs	redeposited lignite
Sk00.01	25	26	26	0.2		60					gå	ga	mio		gs	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
Sk00.02	0	1	1	1	40	25					gå	ga	kva		ts	stones
Sk00.02	1	2	2	0.5	30	75					mgubu	dyebo	kva		ts	few stones
Sk00.02	2	3	3	0.4	20	90					lbu	lbo	kva		ts	few stones
Sk00.02	3	4	4	0.7	20	90					lbugå	lboga	kva		ts	
Sk00.02	4	5	5	1	15	90					lbugå	lboga	kva		ts	
Sk00.02	5	6	6	0.35	5	75					lbugå	lboga	kva		ts	few stones
Sk00.02	6	7	7	0.7	5	75					lbugå	lboga	kva		ts	few stones
Sk00.02	7	8	8	0.7	5	75					lbugå	lboga	kva		ts	
Sk00.02	8	9	9	0.35	2	80					lgå	lga	kva		ts	
Sk00.02	9	10	10	0.35	1	75					lgå	lga	kva		ts	
Sk00.02	10	11	11	0.35	1	75					lgå	lga	kva		ts	
Sk00.02	11	12	12	0.5	1	75					lgå	lga	kva		ts	
Sk00.02	12	13	13	1	2	80					lgåbu	lgabo	kva		ts	
Sk00.02	13	14	14	1	2	80					lgåbu	lgabo	kva		ts	
Sk00.02	14	15	15	0.5	2	75					lgåbu	lgabo	kva		ts	
Sk00.02	15	16	16	0.35	2	75					lgubu	lyebo	kva		ts	
Sk00.02	16	17	17	0.3	1	75					lgubu	lyebo	kva		ts	
Sk00.02	17	18	18	0.125	1	75					lbu	lbo	kva		ts	few lignite
Sk00.02	18	19	19	0.25	1	50					lgåbu	lgabo	kva		ts	few lignite
Sk00.02	19	20	20	0.35	1	75					gå	ga	kva		ts	few lignite
Sk00.02	20	21	21	1	5	50					gå	ga	kva		ts	
Sk00.02	21	22	22	1	10	75					gå	ga	kva		ts	redeposited lignite
Sk00.02	22	23	23	0.7	5	80					gå	ga	kva		ts	
Sk00.02	23	24	24	0.5	5	80					gå	ga	kva		ts	few clay stringers
Sk00.02	24	25	25	0.125	2	90					mgå	dga	kva		ts	few clay stringers
Sk00.02	25	26	26	0.45	2	90					mgå	dga	kva		ts	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
Sk00.03	0	1	1	0.4	5	50					mgåbu	dgabo	kva		ts	
Sk00.03	1	2	2	0.3	15	75					gåbu	gabo	kva		ts	
Sk00.03	2	3	3	0.35	2	75					lbugå	lboga	kva		ts	
Sk00.03	3	4	4	0.4	2	80					lbugå	lboga	kva		ts	
Sk00.03	4	5	5	0.3	2	90					lbugå	lboga	kva		ts	gravel at base
Sk00.03	5	6	6	0.35	25	75					lbugå	lboga	kva		ts	micaceous, laminated
Sk00.03	6	7	7	0.001		50					buso	boba	kva		gl	micaceous, laminated
Sk00.03	7	8	8	0.001		75					buso	boba	mio		gl	micaceous, laminated
Sk00.03	8	9	9	0.001		75					buso	boba	mio		gl	micaceous, laminated
Sk00.03	9	10	10	0.001		75					buso	boba	mio		gl	micaceous, laminated
Sk00.03	10	11	11	0.002		80					buso	boba	mio		gl	micaceous, laminated
Sk00.03	11	12	12	0.002							mgåbu	dgabo	mio		gl	micaceous, finesand lamina
Sk00.03	12	13	13	0.002		75					mgåbu	dgabo	mio		gl	finesand layers, concretions, redeposited shells
Sk00.03	13	14	14	1	10	75					mgåbu	dgabo	mio		ks	many clay clasts
Sk00.03	14	15	15	0.125		50					mgåbu	dgabo	mio		gs	micaceous, many finesand lamina
Sk00.03	15	16	16	0.002		75					buso	boba	mio		gl	micaceous, sand stringlers
Sk00.03	16	17	17	0.002		75					mbugå	dboga	mio		gl	kvaltssand, concretions, redeposited shells
Sk00.03	17	18	18	0.4	10	50					mgåbu	dgabo	mio		gs	kvaltssand, concretions, redeposited shells
Sk00.03	18	19	19	0.15	10	75					mgåbu	dgabo	mio		gs	micaceous, concretions
Sk00.03	19	20	20	0.001		75					buso	boba	mio		gl	micaceous, sandstringlers
Sk00.03	20	21	21	0.001		50					mgåbu	dgabo	mio		gl	micaceous, many clay clasts, shells
Sk00.03	21	22	22	0.15		75					mgåbu	dgabo	mio		gs	micaceous, clay clasts, kvartsgavel, redeposited sl
Sk00.03	22	23	23	0.125	10	75					mgåbu	dgabo	mio		gs	Stone stuck in drillstring.

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
Sk00.04	0	1	1	0.35		25	0.132		0.945		lbu	lbo	kva		ts	
Sk00.04	1	2	2	0.35	15	75	0.063		0.850		gubu	yebo	kva		ts	
Sk00.04	2	3	3	0.35	10	75	0.220		1.067		lgubu	lyebo	kva		ts	few stones
Sk00.04	3	4	4	0.45	15	50	0.117		0.924		lgubu	lyebo	kva		ts	stones
Sk00.04	4	5	5	1	25	60	0.076		0.868		lgubu	lyebo	kva		ts	few stones
Sk00.04	5	6	6	0.7	10	60	0.062		0.848		lgubu	lyebo	kva		ts	stones
Sk00.04	6	7	7	1	25	60	0.098		0.898		lgubu	lyebo	kva		ts	stones
Sk00.04	7	8	8	0.45	25	60	0.020		0.790		gubu	yebo	kva		ts	stones, clay clasts
Sk00.04	8	9	9	0.4	10	60	0.180		1.012		bugå	boga	kva		ds	clay clasts
Sk00.04	9	10	10	0.25	2	50	0.287		1.160		bugå	boga	kva		ds	few clay clasts
Sk00.04	10	11	11	0.2		60	0.281		1.152		lbugå	lboga	kva		ds	till with sand from above
Sk00.04	11	12	12	0.001		50	0.325		1.213		mgå	dga	kva		ml	till with gravel
Sk00.04	12	13	13	0.001		50	0.322		1.209		mgå	dga	kva		ml	till clasts, few stones
Sk00.04	13	14	14	1	40	50	0.276		1.145		bugå	boga	kva		ds	few stones
Sk00.04	14	15	15	1	50	60	0.252		1.112		bugå	boga	kva		ds	
Sk00.04	15	16	16	0.45	25	50	0.185		1.019		bugå	boga	kva		ds	
Sk00.04	16	17	17	0.25	10	60	0.162		0.987		bugå	boga	kva		ds	
Sk00.04	17	18	18	0.2	2	60	0.232		1.084		lbugå	lboga	kva		ds	stones
Sk00.04	18	19	19	0.9	50	60	0.326		1.215		bugå	boga	kva		ds	with many till clasts
Sk00.04	19	20	20	0.7	40	60	0.354		1.253		mbugå	dboga	kva		ds	with sand from above
Sk00.04	20	21	21	0.001		50					mbugå	dboga	kva		ml	with chalk clasts
Sk00.04	21	22	22	0.001		50					mbugå	dboga	kva		ml	
Sk00.04	22	23	23	0.03		50					mbugå	dboga	kva		mi	with schliren
Sk00.04	23	24	24	0.001		50					mbugå	dboga	kva		ml	
Sk00.04	24	25	26	0.001		50					mbugå	dboga	kva		ml	with till clasts, silty
Sk00.04	25	26	26	0.001		50					mgå	dga	kva		dl	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
Sk00.05	0	1	1	0.35	2	30					bu	bo	kva		ts	
Sk00.05	1	2	2	0.5	5	60					lbu	lbo	kva		ts	
Sk00.05	2	3	3	0.35	5	60					lgubu	lyebo	kva		ts	few stones
Sk00.05	3	4	4	0.45	20	60					lbugu	lboye	kva		ts	few stones
Sk00.05	4	5	5	1	40	40					lbu	lbo	kva		ts	few stones
Sk00.05	5	6	6	1	30	25					lgubu	lyebo	kva		ts	many stones
Sk00.05	6	7	7	1	50	25					gubu	yebo	kva		ts	
Sk00.05	7	8	8	0.2		20					lbu	lbo	kva		ds	
Sk00.05	8	9	9	0.2		25					lbu	lbo	kva		ds	
Sk00.05	9	10	10	0.2	2	30					lgubu	lyebo	kva		ds	
Sk00.05	10	11	11	0.3	2	30					lgubu	lyebo	kva		ds	
Sk00.05	11	12	12	0.3	2	40					lbu	lbo	kva		ds	
Sk00.05	12	13	13	0.2	2	40					lbu	lbo	kva		ds	
Sk00.05	13	14	14	0.3	5	50					lgubu	lyebo	kva		ds	
Sk00.05	14	15	15	0.35	10	40					lbu	lbo	kva		ds	with sand from above
Sk00.05	15	16	16	0.001		40					lbugå	lboga	kva		ml	
Sk00.05	16	17	17	0.001		40		0.295	0.295		lbugå	lboga	kva		ml	few clay clasts, silty
Sk00.05	17	18	18	0.125		40					lbugå	lboga	kva		ds	
Sk00.05	18	19	19	0.2		50		0.694	0.694		lbu	lbo	kva		ds	slightly silty
Sk00.05	19	20	20	0.2		50		0.128	0.128		lbugå	lboga	kva		ds	slightly silty
Sk00.05	20	21	21	0.2		25					lbugå	lboga	kva		ds	few clay clasts
Sk00.05	21	22	22	0.25	5	30					lbugå	lboga	kva		ds	
Sk00.05	22	23	23	0.1		40		0.106	0.106		lbu	lbo	mio		gs	
Sk00.05	23	24	24	0.2		50		0.093	0.093		lgåbu	lgabo	mio		gs	
Sk00.05	24	25	26	0.2		50					lgåbu	lgabo	mio		gs	
Sk00.05	25	26	26	0.2		50					gåbu	gabo	mio		gs	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.06	0	1	1	0.35	5	30	0.231		1.083		gubu	yebo	kva		ts	xmet model: in his borehole 3 one measurement p
SK00.06	1	2	2	0.35	5	30	0.210		1.054		gubu	yebo	kva		ts	
SK00.06	2	3	3	0.45	10	50					lbugå	lboga	kva		ts	
SK00.06	3	4	4	1	40	60					bugå	boga	kva		ts	stones
SK00.06	4	5	5	1	50	50					bugå	boga	kva		ts	stones
SK00.06	5	6	6	1	40	50					bugå	boga	kva		ts	few stones
SK00.06	6	7	7	0.4	25	40	0.998		2.147		gå	ga	kva		ds	
SK00.06	7	8	8	0.125	25	50	0.882		1.986		gå	ga	kva		ds	much mica
SK00.06	8	9	9	0.125	2	50	0.621		1.624		gå	ga	mio		gs	much mica
SK00.06	9	10	10	0.125		50	0.937		2.063		gå	ga	mio		gs	much mica
SK00.06	10	11	11	0.125		50	1.002		2.153		gå	ga	mio		gs	much mica, slightly silty
SK00.06	11	12	12	0.1		60	0.817		1.896		gå	ga	mio		gs	much mica, slightly silty
SK00.06	12	13	13	0.1		40	0.856		1.950		gå	ga	mio		gs	much mica, slightly silty
SK00.06	13	14	14	0.1		60	0.756		1.811		gå	ga	mio		gs	micaceous, slightly silty
SK00.06	14	15	15	0.1		60	0.559		1.538		gå	ga	mio		gs	micaceous, slightly silty
SK00.06	15	16	16	0.1		60	0.590		1.581		gå	ga	mio		gs	micaceous, slightly silty
SK00.06	16	17	17	0.1		60	0.385		1.296		gå	ga	mio		gs	micaceous, slightly silty
SK00.06	17	18	18	0.1		60	0.381		1.291		gå	ga	mio		gs	micaceous, slightly silty
SK00.06	18	19	19	0.1		60	0.137		0.952		gå	ga	mio		gs	micaceous, slightly silty
SK00.06	19	20	20	0.1		40	0.178		1.009		gå	ga	mio		gs	micaceous, slightly silty
SK00.06	20	21	21	0.1		60	0.228		1.079		gå	ga	mio		gs	micaceous, slightly silty
SK00.06	21	22	22	0.125		60	0.335		1.227		gå	ga	mio		gs	micaceous, slightly silty
SK00.06	22	23	23	0.1		60	0.413		1.335		gå	ga	mio		gs	micaceous, silty, clasts of silty clay
SK00.06	23	24	24	0.125		60	0.458		1.398		gå	ga	mio		gs	micaceous, silty, clasts of silty clay
SK00.06	24	25	26	0.001		40					mgåbu	dgabo	mio		gl	mica, very silty
SK00.06	25	26	26	0.001		60					mgåbu	dgabo	mio		gl	mica, very silty, and sand, micaceous



BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.07	0	1	1	0.3	5	30					gubu	yebo	kva		ts	xmet model: in his borehole 3 one measurement p
SK00.07	1	2	2	0.3	5	60					mgubu	dyebo	kva		ts	
SK00.07	2	3	3	0.4	25	30	0.123		0.933		lgubu	lyebo	kva		ts	
SK00.07	3	4	4	0.001		60					mgabu	dgabo	mio		gl	laminated, very silty, micaceous, sand from above
SK00.07	4	5	5	0.001		60					mgabu	dgabo	mio		gl	laminated, very silty, micaceous
SK00.07	5	6	6	0.001		60					mgabu	dgabo	mio		gl	laminated, silty, very micaceous
SK00.07	6	7	7	0.001		60					mgabu	dgabo	mio		gl	very silty, very micaceous, shell fragments
SK00.07	7	8	8	0.2	10	60	1.259		2.510		gã	ga	mio		gs	kvartssand and gravel, shells, mica, HM
SK00.07	8	9	9	0.1		60	1.631	1.980	1.980		gã	ga	mio		gs	slightly silty, mica, HM
SK00.07	9	10	10	0.001		60					mbugã	dboga	mio		gl	laminated, silty, finesand, mica
SK00.07	10	11	11	0.1		50	2.498	2.828	2.828		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	11	12	12	0.1		60	2.800	2.850	2.850		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	12	13	13	0.1		60	3.019	3.181	3.181		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	13	14	14	0.1		70	0.953		2.085		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	14	15	15	0.1		70	1.005		2.157		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	15	16	16	0.1		70	1.147		2.354		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	16	17	17	0.1		70	4.131	3.898	3.898		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	17	18	18	0.1		70	3.366	4.900	4.900		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	18	19	19	0.1		50	1.817	2.306	2.306		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	19	20	20	0.1		50	0.797		1.868		gã	ga	mio		gs	slightly silty, micaceous, HM, few clay clasts
SK00.07	20	21	21	0.1		50	0.782		1.848		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	21	22	22	0.1		40	0.812		1.889		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	22	23	23	0.1		50	0.501		1.457		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	23	24	24	0.1		50	0.605		1.602		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	24	25	26	0.1		50	0.819		1.899		gã	ga	mio		gs	silty, micaceous, HM
SK00.07	25	26	26	0.1		50	0.676		1.700		gã	ga	mio		gs	silty, micaceous, HM

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.08	0	1	1	0.125		30					gubu	yebo	kva		es	
SK00.08	1	2	2	0.125		40					gubu	yebo	kva		es	
SK00.08	2	3	3	0.35	2	70					gubu	yebo	kva		ts	
SK00.08	3	4	4	0.35	5	70					lgubu	lyebo	kva		ts	
SK00.08	4	5	5	0.35	5	30					lbu	lbo	kva		ts	
SK00.08	5	6	6	0.4	15	30					lbu	lbo	kva		ts	
SK00.08	6	7	7	0.7	20	60					lbu	lbo	kva		ts	
SK00.08	7	8	8	0.7	25	80					lbu	lbo	kva		ts	
SK00.08	8	9	9	1	10	20					lgabu	lgabo	kva		ts	
SK00.08	9	10	10	1	20	30					lgabu	lgabo	kva		ts	
SK00.08	10	11	11	1	40	60					lgabu	lgabo	kva		ts	stones
SK00.08	11	12	12	1	60	80					lgabu	lgabo	kva		ts	stones
SK00.08	12	13	13	1	30	60					lgabu	lgabo	kva		ts	many clay clasts from below
SK00.08	13	14	14	0.001		30					buso	boba	mio		gl	very silty, laminated, many shell fragments
SK00.08	14	15	15	0.001		40					mgabu	dgabo	mio		gl	silty, sand stringers, shell fragments
SK00.08	15	16	16	0.001		60					mgabu	dgabo	mio		gl	very silty, few sand stringers, shell fragments
SK00.08	16	17	17	0.06		20					mgabu	dgabo	mio		gs	silty, micaceous, clay clasts
SK00.08	17	18	18	0.001		40					mgabu	dgabo	mio		gl	laminated, silty, shell fragments
SK00.08	18	19	19	0.001		40					mgabu	dgabo	mio		gl	laminated, silty, shell fragments
SK00.08	19	20	20	0.001		40					mgabu	dgabo	mio		gl	laminated, silty, sand, few shell fragments
SK00.08	20	21	21	0.1		20					ga	ga	mio		gs	silty, micaceous, few shell fragments
SK00.08	21	22	22	0.1		40					ga	ga	mio		gs	silty, micaceous, few shell fragments
SK00.08	22	23	23	0.001		20					mgabu	dgabo	mio		gl	silty, laminated, shell fragments, sand stringers
SK00.08	23	24	24	0.001		40					mgabu	dgabo	mio		gl	silty, laminated, few shell fragments, sand stringers
SK00.08	24	25	25	0.001		40					mgabu	dgabo	mio		gl	silty, laminated, few shell fragments, many sand str

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.09	0	1	1	0.125		20					lbu	lbo	kva		es	
SK00.09	1	2	2	0.4		5					gåbu	gabo	kva		ts	
SK00.09	2	3	3	1		30					gåbu	gabo	kva		ts	few stones
SK00.09	3	4	4	1		20					gåbu	gabo	kva		ts	few stones
SK00.09	4	5	5	1		10					gåbu	gabo	kva		ts	few clay clasts from below
SK00.09	5	6	6	0.001		70					mgå	dga	mio		gl	laminated, slightly silty
SK00.09	6	7	7	0.001		70					mgå	dga	mio		gl	laminated, slightly silty
SK00.09	7	8	8	0.001		70					mgå	dga	mio		gl	slightly silty
SK00.09	8	9	9	0.001		70					mgåbu	dgabo	mio		gl	slightly silty
SK00.09	9	10	10	0.001		70					mgåbu	dgabo	mio		gl	slightly silty, few shell fragments
SK00.09	10	11	11	0.001		70					mgåbu	dgabo	mio		gl	slightly silty, few shell fragments
SK00.09	11	12	12	0.001		70					mgåbu	dgabo	mio		gl	slightly silty, few shells
SK00.09	12	13	13	0.001		50					mgåbu	dgabo	mio		gl	slightly silty, few shells
SK00.09	13	14	14	0.001		70					mgåbu	dgabo	mio		gl	slightly silty
SK00.09	14	15	15	0.001		70					mgågå	dgega	mio		gl	slightly silty, glauconite?
SK00.09	15	16	16	0.001		70					mgågå	dgega	mio		gl	slightly silty, glauconite?
SK00.09	16	17	17	0.001		70					mgågå	dgega	mio		gl	slightly silty, glauconite?
SK00.09	17	18	18	0.001		70					mgågå	dgega	mio		gl	slightly silty, glauconite?
SK00.09	18	19	19	0.001		70					mgåbu	dgabo	mio		gl	slightly silty, few shell fragments
SK00.09	19	20	20	0.001		70					mgåbu	dgabo	mio		gl	slightly silty, few shell fragments, sand stringers
SK00.09	20	21	21	0.4		70	1.196		2.422		mgåbu	dgabo	mio		gs	many shell fragments. Model measurements only o
SK00.09	21	22	22	0.4		5	70	0.819	1.899		mgå	dga	mio		gs	many shell fragments
SK00.09	22	23	23	0.1		40	1.439		2.759		mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.09	23	24	24	0.125		70	0.809		1.885		mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.09	24	25	25	0.1		70	0.841		1.929		mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.09	25	26	26	0.125		45	1.070		2.247		mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.09	26	27	27	0.125		70	1.373		2.668		mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.09	27	28	28	0.1		70	0.881		1.985		mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.09	28	29	29	0.1		60	0.804		1.878		mgå	dga	mio		gs	slightly silty, micaceous, HM

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.10	0	1	1	0.125		30	0.237		1.091		mbu	dbo	kva		es	
SK00.10	1	2	2	0.4		80	0.086		0.881		bugå	boga	kva		ts	
SK00.10	2	3	3	0.45	5	80	0.072		0.862		lgåbu	lgabo	kva		ts	
SK00.10	3	4	4	0.7	10	80	0.008		0.773		lgåbu	lgabo	kva		ts	
SK00.10	4	5	5	0.45	10	80	0.066		0.854		lgåbu	lgabo	kva		ts	few lignite clasts
SK00.10	5	6	6	0.7	15	80	0.067		0.855		lgåbu	lgabo	kva		ts	
SK00.10	6	7	7	0.5	10	80	0.000		0.000		lgåbu	lgabo	kva		ts	
SK00.10	7	8	8	0.9	20	80	0.000		0.000		lgåbu	lgabo	kva		ts	
SK00.10	8	9	9	1	20	80	0.111		0.916		lgåbu	lgabo	kva		ts	few stones
SK00.10	9	10	10	1	20	80	0.141		0.958		gåbu	gabo	kva		ts	stones
SK00.10	10	11	11	0.125	5	20					mgåbu	dgabo	mio		gs	mica, clay clasts, sand stringers from above
SK00.10	11	12	12	0.001		80					mgåbu	dgabo	mio		gl	slightly silty, mica
SK00.10	12	13	13	0.001		80					mgåbu	dgabo	mio		gl	silty, mica
SK00.10	13	14	14	0.001		80					mgåbu	dgabo	mio		gl	silty, mica
SK00.10	14	15	15	0.001		80					mgåbu	dgabo	mio		gl	silty, mica
SK00.10	15	16	16	0.001		80					mgåbu	dgabo	mio		gl	silty, glauconite?, mica
SK00.10	16	17	17	0.001		80					gøso	geba	mio		gl	silty, glauconite?, mica, few shell fragments
SK00.10	17	18	18	0.001		80					mbugå	dboga	mio		gl	silty mica, few shell fragments
SK00.10	18	19	19	0.001		80					mgåbu	dgabo	mio		gl	silty mica, few shell fragments
SK00.10	19	20	20	0.001		70					mgå	dga	mio		gl	silty mica, few shell fragments, stringers of fine sand
SK00.10	20	21	21	0.1		70	2.034	3.043	3.043		mgå	dga	mio		gs	slightly silty, micaceous, few shells
SK00.10	21	22	22	0.1		70	2.040	3.214	3.214		mgå	dga	mio		gs	slightly silty, micaceous, few shells
SK00.10	22	23	23	0.1		60	1.469		2.801		mgå	dga	mio		gs	slightly silty, micaceous, few shells
SK00.10	23	24	24	0.1		70	1.235		2.477		mgå	dga	mio		gs	slightly silty, micaceous, few shells
SK00.10	24	25	25	0.001		70					mgåbu	dgabo	mio		gl	silty, mica, few shell fragments
SK00.10	25	26	26	0.001		70					mgåbu	dgabo	mio		gl	silty, mica, few shell fragments
SK00.10	26	27	27	0.001		50					mgåbu	dgabo	mio		gl	silty, mica, few shell fragments, stringers of fine sand
SK00.10	27	28	28	0.125	20	30	0.468		1.412		gåbu	gabo	mio		gs	gravel of shell fragments, micaceous
SK00.10	28	29	29	0.125	5	60	0.457		1.396		gåbu	gabo	mio		gs	few gravel of shell fragments, micaceous
SK00.10	29	30	30	0.125		40	0.202		1.042		gåbu	gabo	mio		gs	micaceous, silty, few shell fragments
SK00.10	30	31	31	0.125	5	70					gå	ga	mio		gs	micaceous, silty, few shell fragments, clay clasts
SK00.10	31	32	32	0.001		70					mgåbu	dgabo	mio		gl	silty, shell fragments, sand stringers

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.11	0	1	1	0.125		20	0.053		0.836		gå	ga	kva		es	
SK00.11	1	2	2	0.125		60					gå	ga	kva		es	
SK00.11	2	3	3	0.35	2	60					gåbu	gabo	kva		ts	
SK00.11	3	4	4	0.9	10	85					gåbu	gabo	kva		ts	
SK00.11	4	5	5	0.4	5	80	0.017		0.786		gåbu	gabo	kva		ts	much redeposited lignite
SK00.11	5	6	6	0.001		85					mgåbu	dgabo	mio		gl	silty
SK00.11	6	7	7	0.001		85					mgåbu	dgabo	mio		gl	silty, mica, concretion, shell fragments
SK00.11	7	8	8	0.001		85					mgåbu	dgabo	mio		gl	silty, mica, shell fragments
SK00.11	8	9	9	0.001		90					mgåbu	dgabo	mio		gl	silty, mica, shell fragments
SK00.11	9	10	10	0.001		90					mgåbu	dgabo	mio		gl	silty, mica, shell fragments
SK00.11	10	11	11	0.1		85					mgå	dga	mio		gs	silty, clay clasts, shell fragments, mica
SK00.11	11	12	12	0.4		60	0.276		1.145		mgå	dga	mio		gs	slightly silty, few clay clasts, few shell fragments, m
SK00.11	12	13	13	0.125		90	0.894		2.003		mgå	dga	mio		gs	gravel of shell fragments and shells, mica
SK00.11	13	14	14	0.125	40	90	1.013		2.168		mgå	dga	mio		gs	slightly silty, few shell fragments, mica
SK00.11	14	15	15	0.125		70	0.652		1.667		mgå	dga	mio		gs	slightly silty, few shell fragments, mica
SK00.11	15	16	16	0.125		80	0.882		1.986		mgå	dga	mio		gs	slightly silty, few shell fragments, mica
SK00.11	16	17	17	0.125		80	1.043		2.209		mgå	dga	mio		gs	slightly silty, few shell fragments, micaceous
SK00.11	17	18	18	0.125		70	1.048		2.217		mgå	dga	mio		gs	slightly silty, micaceous
SK00.11	18	19	19	0.125		70	0.758		1.814		mgå	dga	mio		gs	slightly silty, micaceous
SK00.11	19	20	20	0.1		70	0.556		1.534		mgå	dga	mio		gs	slightly silty, micaceous
SK00.11	20	21	21	0.1		70	0.414		1.337		mgå	dga	mio		gs	slightly silty, micaceous
SK00.11	21	22	22	0.1		70	0.176		1.006		mgå	dga	mio		gs	slightly silty, micaceous
SK00.11	22	23	23	0.1		70	0.175		1.005		mgå	dga	mio		gs	slightly silty, micaceous
SK00.11	23	24	24	0.1		70	0.266		1.131		mgå	dga	mio		gs	slightly silty, micaceous
SK00.11	24	25	25	0.1		70	0.309		1.191		mgå	dga	mio		gs	slightly silty, micaceous
SK00.11	25	26	26	0.1		70	0.425		1.352		mgå	dga	mio		gs	slightly silty, micaceous
SK00.11	26	27	27	0.1		35	0.307		1.188		mgå	dga	mio		gs	slightly silty, micaceous
SK00.11	27	28	28	0.1		40	0.348		1.244		mgå	dga	mio		gs	slightly silty, micaceous
SK00.11	28	29	29	0.1		70					mgå	dga	mio		gs	slightly silty, micaceous, clay clasts
SK00.11	29	30	30	0.001		40					mgåbu	dgabo	mio		gl	silty, fine sand stringers, few shells
SK00.11	30	31	31	0.001		40					mgåbu	dgabo	mio		gl	silty, laminated, few finesand lamina
SK00.11	31	32	32	0.001		40					mgåbu	dgabo	mio		gl	silty, laminated, few finesand lamina

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.12	0	1	1	0.125			25	0.034	0.809		mbu	dbo	kva		es	
SK00.12	1	2	2	0.125			50	0.118	0.926		mbu	dbo	kva		es	
SK00.12	2	3	3	0.125			70	0.058	0.843		bu	bo	kva		es	
SK00.12	3	4	4	0.125			75	0.005	0.769		mgåbu	dgabo	kva		es	
SK00.12	4	5	5	0.35			80	0.032	0.807		gåbu	gabo	kva		ts	
SK00.12	5	6	6	0.35			75	0.126	0.937		mgåbu	dgabo	kva		ts	
SK00.12	6	7	7	0.001			80				mgåbu	dgabo	mio		gl	
SK00.12	7	8	8	0.001			70				mgåbu	dgabo	mio		gl	
SK00.12	8	9	9	0.001			70				mgåbu	dgabo	mio		gl	
SK00.12	9	10	10	0.001			70				mbugå	dboga	mio		gl	slightly silty, shell fragments, mica, few sand stringe
SK00.12	10	11	11	0.001			75				mbugå	dboga	mio		gl	slightly silty, few shell fragments, mica
SK00.12	11	12	12	0.001			75				mbugå	dboga	mio		gl	slightly silty, few shell fragments, mica
SK00.12	12	13	13	0.1			80				mbugå	dboga	mio		gs	silty, clay clasts from above, micaceous, shell fragm
SK00.12	13	14	14	0.1	40		70	0.655	1.671		mgå	dga	mio		gs	gravel of shell fragments, kvarts, mica
SK00.12	14	15	15	0.1	5		70	1.214	2.447		mgå	dga	mio		gs	few shell fragments, slightly silty, HM, mica
SK00.12	15	16	16	0.1			75	1.450	2.774		mgå	dga	mio		gs	few shell fragments, slightly silty, HM, mica
SK00.12	16	17	17	0.1			70	1.525	2.424	2.424	mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.12	17	18	18	0.1			75	0.754	1.809		mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.12	18	19	19	0.125			75	1.235	2.477		mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.12	19	20	20	0.125			75	0.363	1.265		mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.12	20	21	21	0.125			60	0.250	1.110		mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.12	21	22	22	0.125			60	0.190	1.026		mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.12	22	23	23	0.125			60	0.269	1.135		mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.12	23	24	24	0.125			60	0.164	0.990		mgå	dga	mio		gs	slightly silty, micaceous, HM
SK00.12	24	25	25	0.125			75	0.191	1.027		gå	ga	mio		gs	slightly silty, micaceous, HM
SK00.12	25	26	26	0.125			75	0.248	1.106		gå	ga	mio		gs	slightly silty, micaceous, HM
SK00.12	26	27	27	0.125			70	0.346	1.243		gå	ga	mio		gs	slightly silty, micaceous, HM
SK00.12	27	28	28	0.125			50	0.270	1.137		gå	ga	mio		gs	slightly silty, micaceous, HM
SK00.12	28	29	29	0.125			50	0.323	1.211		gå	ga	mio		gs	slightly silty, micaceous, HM
SK00.12	29	30	30	0.125			20	0.399	1.316		gå	ga	mio		gs	slightly silty, micaceous, few HM, few shell fragmen

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.13	0	1	1	0.3		50	0.021		0.791		bugå	boga	kva		ts	
SK00.13	1	2	2	0.3		5	0.027		0.800		bugå	boga	kva		ts	
SK00.13	2	3	3	0.3			75	0.065	0.852		bugå	boga	kva		ts	
SK00.13	3	4	4	0.4	10	75	0.092		0.890		bugå	boga	kva		ts	
SK00.13	4	5	5	0.3	5	75	0.123		0.933		bugå	boga	kva		ts	few stones
SK00.13	5	6	6	0.4	20	75	0.098		0.898		bugå	boga	kva		ts	stones
SK00.13	6	7	7	1	30	85	0.053		0.836		bugå	boga	kva		ts	stones
SK00.13	7	8	8	0.4	10	85	0.024		0.795		bugå	boga	kva		ts	
SK00.13	8	9	9	1	30	85	0.000		0.000		bugå	boga	kva		ts	stones
SK00.13	9	10	10	1	50	70	0.141		0.958		bugå	boga	kva		ts	few stones
SK00.13	10	11	11	1	50	75	0.000		0.000		bugå	boga	kva		ts	few stones
SK00.13	11	12	12	0.3	10	75	0.148		0.968		bugå	boga	kva		ts	
SK00.13	12	13	13	0 001		50					mbugå	dboga	kva		ml	
SK00.13	13	14	14	0.9		75	0.029		0.802		bugå	boga	kva		ds	clay clasts from above
SK00.13	14	15	15	0 001		60					mbugå	dboga	kva		ml	sand stringers from above
SK00.13	15	16	16	0 001		60					mbugå	dboga	kva		ml	
SK00.13	16	17	17	0 001		60					mbugå	dboga	kva		ml	
SK00.13	17	18	18	0 001		60					mbugå	dboga	kva		ml	
SK00.13	18	19	19	0 001		60					mbugå	dboga	kva		ml	many sand stringers from below
SK00.13	19	20	20	0.7	10	80	0.108		0.912		bugå	boga	kva		ds	
SK00.13	20	21	21	0.45	20	70	0.160		0.984		bugå	boga	kva		ds	
SK00.13	21	22	22	0.7	20	75	0.163		0.988		bugå	boga	kva		ds	clay clasts
SK00.13	22	23	23	1		70					mbugå	dboga	kva		ds	many clay clasts
SK00.13	23	24	24	0.4	20	60	0.325		1.213		mbugå	dboga	kva		ds	clay clasts
SK00.13	24	25	25	0.7	10	40	0.153		0.974		mbugå	dboga	kva		ds	few clay clasts
SK00.13	25	26	26	0.4	20	50	0.171		0.999		mbugå	dboga	kva		ds	stones, clay clasts
SK00.13	26	27	27	0.7	20	50	0.149		0.969		mbugå	dboga	kva		ds	stones, clay clasts
SK00.13	27	28	28	1	20	50					mbugå	dboga	kva		ds	few stones, few clay clasts
SK00.13	28	29	29	0.4	10	60	0.112		0.918		mbugå	dboga	kva		ds	
SK00.13	29	30	30	0.7	20	70	0.136		0.951		mbugå	dboga	kva		ds	few stones, few clay clasts
SK00.13	30	31	31	0.7	20	50	0.238		1.092		mbugå	dboga	kva		ds	few stones, few clay clasts
SK00.13	31	32	32	0.7	20	70					mbugå	dboga	kva		ds	many clay clasts, stones

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.14	0	1	1	0.35	10	50	0.125		0.936		gubu	yebo	kva		ts	
SK00.14	1	2	2	0.35	10	80	0.011		0.777		lbugå	lboga	kva		ts	
SK00.14	2	3	3	0.7	20	80	0.069		0.858		lbugå	lboga	kva		ts	
SK00.14	3	4	4	0.45	10	70	0.094		0.893		lbugå	lboga	kva		ts	few stones
SK00.14	4	5	5	1	20	75	0.047		0.827		lgubu	lyebo	kva		ts	few stones
SK00.14	5	6	6	1	30	80	0.054		0.837		lgubu	lyebo	kva		ts	few stones
SK00.14	6	7	7	1	30	80	0.009		0.775		lgåbu	lgabo	kva		ts	stones
SK00.14	7	8	8	1	50	80	0.002		0.765		lgåbu	lgabo	kva		ts	stones
SK00.14	8	9	9	1	20	75	0.002		0.765		gåbu	gabo	kva		ts	
SK00.14	9	10	10	0.35	2	70	0.000		0.000		gåbu	gabo	kva		ds	
SK00.14	10	11	11	0.35	1	75	0.000		0.000		gåbu	gabo	kva		ds	
SK00.14	11	12	12	0.4	1	75	0.078		0.870		mgåbu	dgabo	kva		ds	clay clasts
SK00.14	12	13	13	0.4	1	75	0.120		0.929		mgåbu	dgabo	kva		ds	few clay clasts
SK00.14	13	14	14	0.4	1	75	0.000		0.000		mgåbu	dgabo	kva		ds	clay clasts
SK00.14	14	15	15	0.35		80	0.000		0.000		gåbu	gabo	kva		ds	
SK00.14	15	16	16	0.35		80	0.003		0.766		gåbu	gabo	kva		ds	
SK00.14	16	17	17	0.35		85	0.000		0.000		gåbu	gabo	kva		ds	Hm ?
SK00.14	17	18	18	0.35		85	0.382		1.292		gåbu	gabo	kva		ds	Hm ?
SK00.14	18	19	19	0.35		90	0.006		0.770		gåbu	gabo	kva		ds	Hm ?
SK00.14	19	20	20	0.35		90	0.070		0.859		gåbu	gabo	kva		ds	Hm ?
SK00.14	20	21	21	0.25		90	0.016		0.784		gåbu	gabo	kva		ds	Hm ?
SK00.14	21	22	22	0.4		90	0.030		0.804		gåbu	gabo	kva		ds	Hm
SK00.14	22	23	23	0.25		90	0.075		0.866		gåbu	gabo	kva		ds	Hm
SK00.14	23	24	24	0.9		85	0.000		0.000		gåbu	gabo	kva		ds	Hm
SK00.14	24	25	25	1.5	25	35	0.006		0.770		gåbu	gabo	kva		ds	fine gravel
SK00.14	25	26	26	1.5	35	75	0.071		0.861		gåbu	gabo	kva		ds	Hm
SK00.14	26	27	27	0.3	10	80	0.036		0.812		gåbu	gabo	kva		ds	Hm
SK00.14	27	28	28	0.3	10	75	0.017		0.786		gåbu	gabo	kva		ds	Hm
SK00.14	28	29	29	0.45	25	75	0.060		0.845		gåbu	gabo	kva		ds	Hm ?
SK00.14	29	30	30	1	10	75	0.000		0.000		gåbu	gabo	kva		ds	Hm ?
SK00.14	30	31	31	0.4	5	60	0.078		0.870		gåbu	gabo	kva		ds	Hm
SK00.14	31	32	32	0.25	2	75	0.000		0.000		gåbu	gabo	kva		ds	Hm



BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.15	0	1	1	0.125							gubu	yebo	kva		es	Xmet data are available measured on dry samples
SK00.15	1	2	2	0.125		30					lgubu	lyebo	kva		es	
SK00.15	2	3	3	0.125		35					lbu	lbo	kva		es	
SK00.15	3	4	4	0.35	5	70					lbugá	lboga	kva		ds	
SK00.15	4	5	5	0.35	10	80					lbugá	lboga	kva		ds	
SK00.15	5	6	6	0.35	10	90					lbugá	lboga	kva		ds	
SK00.15	6	7	7	0.4	20	90					lbugá	lboga	kva		ds	
SK00.15	7	8	8	1	50	85					mbugá	dboga	kva		ds	clay clasts
SK00.15	8	9	9	0.001		85					mgá	dga	kva		dl	
SK00.15	9	10	10	0.001		85					mgá	dga	kva		dl	
SK00.15	10	11	11	0.001		85					mgá	dga	kva		dl	
SK00.15	11	12	12	0.001		70					mbugá	dboga	mio		gl	silty, shell fragments, sand from below
SK00.15	12	13	13	0.35	50	70					gábu	gabo	mio		gs	gravel as shell hash, clay clasts from below
SK00.15	13	14	14	0.001		65					mgábu	dgabo	mio		gl	silty, shell fragments, sand stringers from above
SK00.15	14	15	15	0.125		70					mgá	dga	mio		gs	slightly silty, micaceous, few shell fragments
SK00.15	15	16	16	0.125		45	0.760	1.817			gá	ga	mio		gs	slightly silty, micaceous, few shell fragments
SK00.15	16	17	17	0.125		70	1.336	2.616			gá	ga	mio		gs	slightly silty, micaceous, few shell fragments
SK00.15	17	18	18	0.125		80	2.205	3.823			gá	ga	mio		gs	slightly silty, micaceous, few shell fragments
SK00.15	18	19	19	0.1		70	2.344	4.015			gá	ga	mio		gs	slightly silty, micaceous, few shell fragments
SK00.15	19	20	20	0.1		80	1.231	2.470			mgá	dga	mio		gs	slightly silty, micaceous, HM
SK00.15	20	21	21	0.1		70	1.941	3.457			mgá	dga	mio		gs	slightly silty, micaceous, HM
SK00.15	21	22	22	0.1		65	2.587	4.352			mgá	dga	mio		gs	slightly silty, micaceous, HM
SK00.15	22	23	23	0.1		65	1.307	2.576			mgá	dga	mio		gs	slightly silty, micaceous, HM
SK00.15	23	24	24	0.1		65	0.706	1.742			mgá	dga	mio		gs	slightly silty, micaceous, HM
SK00.15	24	25	25	0.1		55	0.681	1.707			gá	ga	mio		gs	slightly silty, micaceous, HM
SK00.15	25	26	26	0.1		50	0.489	1.440			gá	ga	mio		gs	slightly silty, micaceous, HM
SK00.15	26	27	27	0.1		50	0.561	1.541			gá	ga	mio		gs	slightly silty, micaceous, HM, shell fragments
SK00.15	27	28	28	0.1		50	0.581	1.569			gá	ga	mio		gs	slightly silty, micaceous, HM, shell fragments
SK00.15	28	29	29	0.1		40	0.500	1.456			gá	ga	mio		gs	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.16	0	1	1	0.1		20					bu	bo	kva		es	
SK00.16	1	2	2	0.1		45					mgåbu	dgabo	kva		es	
SK00.16	2	3	3	0.3		60					gåbu	gabo	kva		ds	
SK00.16	3	4	4	0.4	10	80					gåbu	gabo	kva		ds	
SK00.16	4	5	5	0.4	10	75					gåbu	gabo	kva		ds	few stones
SK00.16	5	6	6	0.9	30	80					gåbu	gabo	kva		ds	
SK00.16	6	7	7	0.001		80					mgåbu	dgabo	mio		gl	
SK00.16	7	8	8	0.001		70					mgåbu	dgabo	mio		gl	
SK00.16	8	9	9	0.001		70					mgåbu	dgabo	mio		gl	
SK00.16	9	10	10	0.35		50					mgå	dga	mio		gs	shell hasch, clay clasts from above
SK00.16	10	11	11	0.125	10	70	0.675		1.699		mgå	dga	mio		gs	fine gravel, silty, micaceous
SK00.16	11	12	12	0.1		75	0.638		1.648		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	12	13	13	0.1		60	0.490		1.442		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	13	14	14	0.1		80	1.019		2.177		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	14	15	15	0.1		70	0.504		1.462		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	15	16	16	0.1		75	0.836		1.922		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	16	17	17	0.1		75	0.390		1.303		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	17	18	18	0.1		75	0.296		1.172		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	18	19	19	0.1		80	0.251		1.111		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	19	20	20	0.1		75	0.305		1.185		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	20	21	21	0.1		45	0.282		1.154		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	21	22	22	0.1		70	0.417		1.341		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	22	23	23	0.1		65	0.461		1.402		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	23	24	24	0.1		65	0.492		1.445		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	24	25	25	0.1		45	0.406		1.326		mgå	dga	mio		gs	slightly silty, micaceous
SK00.16	25	26	26	0.001	10	50					mgåbu	dgabo	mio		gl	concretion, sand from above

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.17	0	1	1	0.3	5	20					gabu	gabo	kva		ts	
SK00.17	1	2	2	0.45	10	20					gabu	gabo	kva		ts	
SK00.17	2	3	3	0.7	25	80					gabu	gabo	kva		ts	
SK00.17	3	4	4	1	40	85					gabu	gabo	kva		ts	
SK00.17	4	5	5	0.001		75					mgabu	dgabo	mio		gl	sand from above, mica
SK00.17	5	6	6	0.001		65					mgå	dga	mio		gl	mica
SK00.17	6	7	7	0.001		65					mgå	dga	mio		gl	mica
SK00.17	7	8	8	0.001		65					mgå	dga	mio		gl	mica
SK00.17	8	9	9	0.001		65					mgå	dga	mio		gl	mica
SK00.17	9	10	10	0.001		45					gøso	geba	mio		gl	mica, glauconite?
SK00.17	10	11	11	0.001		65					mgå	dga	mio		gl	mica
SK00.17	11	12	12	0.001		50					gøso	geba	mio		gl	mica, glauconite?
SK00.17	12	13	13	0.001		50					gøso	geba	mio		gl	mica, glauconite?
SK00.17	13	14	14	0.001		50					gåso	gaba	mio		gl	mica, glauconite?
SK00.17	14	15	15	0.001		40					gø	ge	mio		gl	mica
SK00.17	15	16	16	0.125		60					mgabu	dgabo	mio		gs	clay clasts from above
SK00.17	16	17	17	0.125	5	75					mgå	dga	mio		gs	silty, micaceous, HM, shell hasch
SK00.17	17	18	18	0.1		85	0.975		2.116		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	18	19	19	0.125		90	1.364		2.655		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	19	20	20	0.1		90	0.712		1.750		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	20	21	21	0.1		85	0.880		1.984		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	21	22	22	0.1		85	0.722		1.764		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	22	23	23	0.1		85	0.528		1.495		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	23	24	24	0.1		85	0.415		1.339		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	24	25	25	0.1		85	0.312		1.195		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	25	26	26	0.1		85	0.277		1.147		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	26	27	27	0.1		85	0.248		1.106		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	27	28	28	0.1		80	0.240		1.096		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	28	29	29	0.1		85	0.247		1.105		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	29	30	30	0.1		85	0.234		1.086		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	30	31	31	0.1		85	0.393		1.307		mgå	dga	mio		gs	silty, micaceous, HM
SK00.17	31	32	32	0.1		90	0.464		1.407		mgå	dga	mio		gs	silty, micaceous, HM

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.18	0	1	1	0.25			70	0.265	1.130		gabu	gabo	kva		ds	
SK00.18	1	2	2	0.25		2	70	0.347	1.244		gabu	gabo	kva		ds	
SK00.18	2	3	3	0.3		2	70	0.023	0.794		gabu	gabo	kva		ds	
SK00.18	3	4	4	0.3		5	65	0.123	0.933		gabu	gabo	kva		ds	
SK00.18	4	5	5	0.3		5	65	0.107	0.911		gabu	gabo	kva		ds	pebbles
SK00.18	5	6	6	0.3		5	65	0.066	0.854		lgå	lga	kva		ds	pebbles
SK00.18	6	7	7	0.3		5	65	0.083	0.877		lgå	lga	kva		ds	pebbles
SK00.18	7	8	8	0.3		5	70	0.000	0.000		lgå	lga	kva		ds	pebbles
SK00.18	8	9	9	0.3		5	70	0.105	0.908		lgå	lga	kva		ds	pebbles
SK00.18	9	10	10	0.3		5	70	0.145	0.963		lgå	lga	kva		ds	pebbles
SK00.18	10	11	11	0.5		20	70	0.000	0.000		lgå	lga	kva		ds	pebbles
SK00.18	11	12	12	0 001			65				gaso	gaba	kva		ds	mixed sample, top clay and kvartz sand kva/mio
SK00.18	12	13	13	0 002			65				gaso	gaba	mio		gi	molluscs, mica clay
SK00.18	13	14	14	0 002			65				mgå	dga	mio		gi	mica clay, moouscs
SK00.18	14	15	15	0 001			65				mgå	dga	mio		gl	mica clay, moouscs
SK00.18	15	16	16	0 002			70				mgå	dga	mio		gl	mica clay, moouscs
SK00.18	16	17	17	0 002			65				mgå	dga	mio		gi	mica clay
SK00.18	17	18	18	0.01			65				mgå	dga	mio		gi	laminated sand/silt/clay
SK00.18	18	19	19	0.06			50	2.375	4.291	4.291	gå	ga	mio		gs	mica
SK00.18	19	20	20	0.1			50	1.410	2.719		gå	ga	mio		gs	
SK00.18	20	21	21	0.1			60	0.816	1.895		gå	ga	mio		gs	
SK00.18	21	22	22	0.05			70				mgåbu	dgabo	mio		gi	molluscs
SK00.18	22	23	23	0.03			70				mgåbu	dgabo	mio		gi	molluscs
SK00.18	23	24	24	0.03			70				mgåbu	dgabo	mio		gi	molluscs
SK00.18	24	25	25	0.03			70				mgåbu	dgabo	mio		gi	molluscs
SK00.18	25	26	26	0.1			50	0.948	2.077		gå	ga	mio		gs	molluscs
SK00.18	26	27	27	0.1			50	0.791	1.860		gå	ga	mio		gs	molluscs
SK00.18	27	28	28	0.1			50	0.631	1.637		gå	ga	mio		gs	molluscs
SK00.18	28	29	29	0.1			50	0.663	1.683		gå	ga	mio		gs	molluscs
SK00.18	29	30	30	0.1			45	0.424	1.351		gå	ga	mio		gs	molluscs
SK00.18	30	31	31	0 001			70				mgåbu	dgabo	mio		gl	molluscs
SK00.18	31	32	32	0 001			70				mgåbu	dgabo	mio		gl	molluscs

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.19	0	1	1	0.35	5	75	0.143		0.961		gubu	yebo	kva		ds	
SK00.19	1	2	2	0.35	5	75	0.148		0.968		gugå	yega	kva		ds	
SK00.19	2	3	3	0.4	2	75	0.302		1.181		lgå	lga	kva		ds	
SK00.19	3	4	4	0.45	5	75	0.258		1.120		lgå	lga	kva		ds	
SK00.19	4	5	5	0.45	5	75	0.189		1.024		lgå	lga	kva		ds	
SK00.19	5	6	6	0.5	10	75	0.035		0.811		lgå	lga	kva		ds	pebbles
SK00.19	6	7	7	0.5	15	75	0.005		0.769		lgå	lga	kva		ds	
SK00.19	7	8	8	0.5	10	75					lgå	lga	kva		ds	
SK00.19	8	9	9	0.01	5	70					mgå	dga	kva		ml	
SK00.19	9	10	10	0.5	20	65					mgå	dga	kva		ms	
SK00.19	10	11	11	0.8	20	60					mgå	dga	kva		ds	chert, may be Hs shells
SK00.19	11	12	12	0.8	25	50					mgå	dga	mio		gs	sand + clay layers, shells
SK00.19	12	13	13	1	25	50					mgå	dga	mio		gs	concretion, shells
SK00.19	13	14	14	0.18		50	1.092		2.278		gå	ga	mio		gs	
SK00.19	14	15	15	0.15		50	0.851		1.944		gå	ga	mio		gs	
SK00.19	15	16	16	0.125		50	0.744		1.795		gå	ga	mio		gl	
SK00.19	16	17	17	0.125		50	0.439		1.371		gå	ga	mio		gs	
SK00.19	17	18	18	0.125		50	0.357		1.257		gå	ga	mio		gs	
SK00.19	18	19	19	0.125		50	0.266		1.131		gå	ga	mio		gs	
SK00.19	19	20	20	0.125		50	0.250		1.110		gå	ga	mio		gs	
SK00.19	20	21	21	0.125		50	0.280		1.151		gå	ga	mio		gs	
SK00.19	21	22	22	0.125		50	0.309		1.191		gå	ga	mio		gs	
SK00.19	22	23	23	0.125		50	0.488		1.439		gå	ga	mio		gs	
SK00.19	23	24	24	0.125		50	0.386		1.297		gå	ga	mio		gs	
SK00.19	24	25	25	0.125		50	0.596		1.590		gå	ga	mio		gs	
SK00.19	25	26	26	0.125		50	0.306		1.187		gå	ga	mio		gs	
SK00.19	26	27	27	0.002		70					gå	ga	mio		gl	silty

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.20	0	1	1	0.3			60	0.136	0.951		gubu	yebo	kva		es	Eolian sand
SK00.20	1	2	2	0.3			75	0.269	1.135		gugå	yega	kva		es	
SK00.20	2	3	3	0.3			75	0.177	1.008		lgå	lga	kva		es	
SK00.20	3	4	4	0.3			75	0.013	0.780		lgå	lga	kva		es	
SK00.20	4	5	5	0.3			75	0.131	0.944		lgå	lga	kva		es	
SK00.20	5	6	6	0.4			75	0.054	0.837		lgå	lga	kva		ds	possibly eolian
SK00.20	6	7	7	0.4			75	0.078	0.870		lgå	lga	kva		ds	
SK00.20	7	8	8	0.4			75	0.169	0.997		lgå	lga	kva		ds	
SK00.20	8	9	9	0.4			75	0.378	1.287		mgå	dga	kva		ds	
SK00.20	9	10	10	0.5	30		75	0.075	0.866		mgå	dga	kva		ds	gravel
SK00.20	10	11	11	1	50		75	0.200	1.040		mgå	dga	kva		dg	
SK00.20	11	12	12	0.002			65				mgå	dga	kva		gi	silty
SK00.20	12	13	13	0.002			60				mgå	dga	mio		gi	silty
SK00.20	13	14	14	0.002			65				gå	ga	mio		gi	silty
SK00.20	14	15	15	0.002			70				gå	ga	mio		gi	silty
SK00.20	15	16	16	0.002			60				gå	ga	mio		gi	shells, silty
SK00.20	16	17	17	0.002			60				gå	ga	mio		gi	shells, silty
SK00.20	17	18	18	0.002			50				gå	ga	mio		gi	concretions silty
SK00.20	18	19	19	0.002			50				gå	ga	mio		gi	silty
SK00.20	19	20	20	0.002			35				gå	ga	mio		gi	shells some gs finegrained
SK00.20	20	21	21	0.05			35				gå	ga	mio		gl	shells
SK00.20	21	22	22	0.1			25	1.253	2.501		gå	ga	mio		gs	HM
SK00.20	22	23	23	0.05			75				gå	ga	mio		gs	clay stringers
SK00.20	23	24	24	0.02			15				mgåbu	dgabo	mio		gl	concretions

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.21	0	1	1	0.35		50	0.284		1.156		gubu	yebo	kva		es	well sorted
SK00.21	1	2	2	0.35		10	0.345		1.241		lbu	lbo	kva		es	well sorted
SK00.21	2	3	3	0.35		60	0.228		1.079		lbu	lbo	kva		es	well sorted
SK00.21	3	4	4	0.35		80	0.210		1.054		lbu	lbo	kva		ds	well sorted
SK00.21	4	5	5	0.35		80	0.130		0.943		lbu	lbo	kva		ds	well sorted
SK00.21	5	6	6	0.35		75	0.116		0.923		lbu	lbo	kva		ds	pebbles
SK00.21	6	7	7	0.35	5	75	0.151		0.972		lbu	lbo	kva		ds	few pebbles
SK00.21	7	8	8	0.35		75	0.165		0.991		lbugå	lboga	kva		ds	sand from above
SK00.21	8	9	9	0.001		80					mbu	dbo	mio		gl	
SK00.21	9	10	10	0.001		80					mbu	dbo	mio		gl	few shell fragments
SK00.21	10	11	11	0.001		60					mbu	dbo	mio		gl	clay lamina, silt, fine sand
SK00.21	11	12	12	0.001		35					mbu	dbo	mio		gl	concretions, clay stringers
SK00.21	12	13	13	0.125		35					mbu	dbo	mio		gs	shell hash, micaceous
SK00.21	13	14	14	0.125		75	1.018		2.175		mbugå	dboga	mio		gs	mica, HM
SK00.21	14	15	15	0.125		50	1.553	1.968	1.968		mgå	dga	mio		gs	mica, HM, shell fragm.
SK00.21	15	16	16	0.125		60	0.974		2.114		gå	ga	mio		gs	mica HM
SK00.21	16	17	17	0.125		75	1.545	2.741	2.741		gå	ga	mio		gs	mica HM
SK00.21	17	18	18	0.125		30	2.548	4.527	4.527		mgå	dga	mio		gs	mica HM
SK00.21	18	19	19	0.125		50	0.667		1.688		gå	ga	mio		gs	mica HM
SK00.21	19	20	20	0.125		60	2.007	3.538	3.538		mgå	dga	mio		gs	mica HM
SK00.21	20	21	21	0.1		50	2.659	4.828	4.828		mgå	dga	mio		gs	mica HM
SK00.21	21	22	22	0.1		60	2.660	4.729	4.729		mgå	dga	mio		gs	mica HM
SK00.21	22	23	23	0.1		80	1.014		2.169		mgå	dga	mio		gs	mica HM
SK00.21	23	24	24	0.1		20	0.693		1.724		mgå	dga	mio		gs	mica HM
SK00.21	24	25	25	0.125		25	0.573		1.557		mgå	dga	mio		gs	mica
SK00.21	25	26	26	0.2		85	0.469		1.413		gå	ga	mio		gs	mica
SK00.21	26	27	27	0.125		50	0.542		1.514		gå	ga	mio		gs	mica
SK00.21	27	28	28	0.125		35	0.669		1.691		gå	ga	mio		gs	shell fragments
SK00.21	28	29	29	0.125		35	0.343		1.237		gå	ga	mio		gs	shell fragments
SK00.21	29	30	30	0.001		15					mgå	dga	mio		gl	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.22	0	1	1	0.25		25					røbu	rebo	kva		es	
SK00.22	1	2	2	0.25		40					lbu	lbo	kva		es	
SK00.22	2	3	3	0.35		50					lbugå	lboga	kva		ds	
SK00.22	3	4	4	0.35		40					lbugå	lboga	kva		ds	
SK00.22	4	5	5	0.35		75					lbugå	lboga	kva		ds	
SK00.22	5	6	6	0.35		70					lbugå	lboga	kva		ds	
SK00.22	6	7	7	0.35		50					lbugå	lboga	kva		ds	
SK00.22	7	8	8	0.001		75					buso	boba	mio		gl	downhole contamination: sand
SK00.22	8	9	9	0.001		75					buso	boba	mio		gl	
SK00.22	9	10	10	0.001		70					buso	boba	mio		gl	
SK00.22	10	11	11	0.001		75					buso	boba	mio		gl	shellfragments concretions
SK00.22	11	12	12	0.125		25	0.845		1.935		mgå	dga	mio		gs	mica shell hash HM clay stringers
SK00.22	12	13	13	0.125		40	1.587	3.102	3.102		mgå	dga	mio		gs	mica shell hash HM clay stringers
SK00.22	13	14	14	0.125		60	0.886		1.992		mgå	dga	mio		gs	concretions
SK00.22	14	15	15	0.125		60	0.476		1.422		gå	ga	mio		gs	HM
SK00.22	15	16	16	0.125		60	0.440		1.373		gå	ga	mio		gs	mica HM
SK00.22	16	17	17	0.125		65	0.310		1.193		gå	ga	mio		gs	mica HM
SK00.22	17	18	18	0.125		65	0.308		1.189		mgå	dga	mio		gs	mica Hm
SK00.22	18	19	19	0.125		35	0.250		1.109		mgå	dga	mio		gs	mica Hm
SK00.22	19	20	20	0.1		35	0.272		1.139		mgå	dga	mio		gs	mica
SK00.22	20	21	21	0.06		20	0.367		1.272		mgå	dga	mio		gs	silty,mica
SK00.22	21	22	22	0.1		40	0.369		1.274		mgå	dga	mio		gs	mica
SK00.22	22	23	23	0.06		40	0.412		1.334		mgå	dga	mio		gs	mica
SK00.22	23	24	24	0.125		25	0.461		1.402		mgå	dga	mio		gs	mica HM
SK00.22	24	25	25	0.125		25	0.350		1.248		mgå	dga	mio		gs	mica HM
SK00.22	25	26	26	0.125		60	0.340		1.234		mgå	dga	mio		gs	clay stringers mica



BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.23	0	1	1	0.35		50					mgåbu	dgabo	kva		ds	
SK00.23	1	2	2	0.001		75					mgåbu	dgabo	kva		ds	
SK00.23	2	3	3	0.002		75					mgåbu	dgabo	mio		gi	
SK00.23	3	4	4	0.002		80					mgåbu	dgabo	mio		gl	silty
SK00.23	4	5	5	0.002		75					mgåbu	dgabo	mio		gl	silty
SK00.23	5	6	6	0.002		75					mgåbu	dgabo	mio		gi	clay
SK00.23	6	7	7	0.002		75					mgåbu	dgabo	mio		gi	
SK00.23	7	8	8	0.002		75					mgåbu	dgabo	mio		gi	
SK00.23	8	9	9	0.45	5	75	0.514		1.476		mgåbu	dgabo	mio		ks	shell hash
SK00.23	9	10	10	0.5	20	35	0.472		1.418		mgåbu	dgabo	mio		gs	some gravel, medium to coarse
SK00.23	10	11	11	0.5	15	60	0.450		1.387		gå	ga	mio		gs	
SK00.23	11	12	12	0.125		60	0.575		1.560		gå	ga	mio		gs	
SK00.23	12	13	13	0.125		60	0.488		1.439		gå	ga	mio		gs	
SK00.23	13	14	14	0.125		75	0.531		1.499		gå	ga	mio		gs	
SK00.23	14	15	15	0.125		70	0.215		1.061		gå	ga	mio		gs	
SK00.23	15	16	16	0.125		70	0.177		1.008		gå	ga	mio		gs	
SK00.23	16	17	17	0.125		70	0.277		1.147		gå	ga	mio		gs	
SK00.23	17	18	18	0.125		70	0.408		1.328		gå	ga	mio		gs	
SK00.23	18	19	19	0.125		70	0.407		1.327		gå	ga	mio		gs	
SK00.23	19	20	20	0.125		70	0.221		1.069		gå	ga	mio		gs	
SK00.23	20	21	21	0.125		50	0.421		1.347		gå	ga	mio		gs	silty
SK00.23	21	22	22	0.125		65	0.391		1.305		gå	ga	mio		gs	silty
SK00.23	22	23	23	0.002		65					gåbu	gabo	mio		gl	silty, concretions
SK00.23	23	24	24	0.002		75					gåbu	gabo	mio		gl	silty, concretions
SK00.23	24	25	25	0.002		75					gåbu	gabo	mio		gl	silty, shells

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.24	0	1	1	0.25		60	0.176		1.006		mbu	dbo	kva		es	
SK00.24	1	2	2	0.25		30	0.229		1.080		røbu	rebo	kva		es	
SK00.24	2	3	3	0.001		75	0.132		0.945		bu	bo	kva		ml	clay till
SK00.24	3	4	4	0.001	2	75					gå	ga	kva		ml	clay till
SK00.24	4	5	5	0.001	2	75					gå	ga	kva		ml	clay till
SK00.24	5	6	6	0.001	2	75					gå	ga	kva		ml	clay till
SK00.24	6	7	7	0.001	5	65					gå	ga	kva		ml	clay till
SK00.24	7	8	8	0.001	5	75					gå	ga	kva		ml	clay till
SK00.24	8	9	9	0.001	5	60					gå	ga	kva		ml	clay till
SK00.24	9	10	10	0.001	5	85					gå	ga	kva		ml	clay till
SK00.24	10	11	11	0.001	10	85					gå	ga	kva		ml	clay till
SK00.24	11	12	12	0.001		85					buso	boba	mio		ml	clay till
SK00.24	12	13	13	0.001		65					buso	boba	mio		gl	
SK00.24	13	14	14	0.001		75					buso	boba	mio		gl	
SK00.24	14	15	15	0.001		90					buso	boba	mio		gl	
SK00.24	15	16	16	0.001		90					buso	boba	mio		gl	Sand
SK00.24	16	17	17	0.3		90	0.196		1.035		bu	bo	mio		gs	clay stringers
SK00.24	17	18	18	0.4	20	75	0.671		1.693		mgå	dga	mio		gs	shell hash
SK00.24	18	19	19	0.15		80	0.783		1.849		mgå	dga	mio		gs	mica, HM
SK00.24	19	20	20	0.125	2	75	0.663		1.682		mgå	dga	mio		gs	mica, HM, few shell fragments
SK00.24	20	21	21	0.125		85	0.342		1.237		mgå	dga	mio		gs	mica, HM
SK00.24	21	22	22	0.125		85	0.567		1.550		mgå	dga	mio		gs	mica, HM
SK00.24	22	23	23	0.125		90	0.296		1.173		mgå	dga	mio		gs	mica, HM
SK00.24	23	24	24	0.125		75	0.361		1.263		gå	ga	mio		gs	mica, HM
SK00.24	24	25	25	0.125		75	0.313		1.197		gå	ga	mio		gs	mica, HM
SK00.24	25	26	26	0.125		90	0.214		1.060		gå	ga	mio		gs	mica
SK00.24	26	27	27	0.125		65	0.227		1.077		mgå	dga	mio		gs	mica
SK00.24	27	28	28	0.125		65	0.319		1.205		mgå	dga	mio		gs	mica
SK00.24	28	29	29	0.125		65	0.526		1.492		mgå	dga	mio		gs	mica
SK00.24	29	30	30	0.06		65	0.364		1.267		mgå	dga	mio		gs	mica
SK00.24	30	31	31	0.125		65	0.353		1.252		gå	ga	mio		gs	mica
SK00.24	31	32	32	0.125		75	0.344		1.240		mgå	dga	mio		gs	mica, clay stringers





BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.27	0	1	1	0.25		60	0.357		1.258		mgåbu	dgabo	kva		ds	
SK00.27	1	2	2	0.25		70	0.493		1.446		lgubu	lyebo	kva		ds	
SK00.27	2	3	3	0.35		75	0.019		0.788		lgå	lga	kva		ds	well sorted
SK00.27	3	4	4	0.35	5	75	0.004		0.768		lgå	lga	kva		ds	
SK00.27	4	5	5	0.5	5	75	0.156		0.979		lgå	lga	kva		ds	
SK00.27	5	6	6	0.5	5	75	0.151		0.972		lgå	lga	kva		ds	
SK00.27	6	7	7	0.35	15	75	0.114		0.920		lgå	lga	kva		ds	
SK00.27	7	8	8	0.5	10	75	0.051		0.833		lgå	lga	kva		ds	
SK00.27	8	9	9	0.5	10	75	0.155		0.977		lgå	lga	kva		ds	pebbles
SK00.27	9	10	10	1	30	75	0.073		0.863		lgå	lga	kva		dg	30% pebbles
SK00.27	10	11	11	0.001		75					so	ba	mio		gl	
SK00.27	11	12	12	0.001		75					so	ba	mio		gl	
SK00.27	12	13	13	0.001		70					so	ba	mio		gl	
SK00.27	13	14	14	0.06		70	0.566		1.548		mgåbu	dgabo	mio		gl	finesand silty
SK00.27	14	15	15	0.06		75					mgåbu	dgabo	mio		gi	shells
SK00.27	15	16	16	0.002		75					mgåbu	dgabo	mio		gl	shells
SK00.27	16	17	17	0.002		75					mgåbu	dgabo	mio		gl	shells
SK00.27	17	18	18	0.002		70					mgåbu	dgabo	mio		gl	
SK00.27	18	19	19	0.002		75					mgåbu	dgabo	mio		gl	
SK00.27	19	20	20	0.06		50	1.459		2.787		mgå	dga	mio		gs	silty finesand
SK00.27	20	21	21	0.125		50	1.801	2.708	2.708		mgå	dga	mio		gs	silty finesand
SK00.27	21	22	22	0.125		50	1.279		2.537		mgå	dga	mio		gs	silty finesand
SK00.27	22	23	23	0.125		50	0.979		2.120		mgå	dga	mio		gs	silty finesand
SK00.27	23	24	24	0.125		50	1.258		2.508		mgå	dga	mio		gs	silty finesand
SK00.27	24	25	25	0.125		50	0.850		1.941		mgå	dga	mio		gs	silty finesand
SK00.27	25	26	26	0.001		75					mgåbu	dgabo	mio		gl	
SK00.27	26	27	27	0.001		70					mgåbu	dgabo	mio		gl	
SK00.27	27	28	28	0.03		70					mgåbu	dgabo	mio		gi	
SK00.27	28	29	29	0.03		75					mgåbu	dgabo	mio		gi	alternating layers of silt and clay

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.28	0	1	1	0.15			20	0.463			lbu	lbo	kva		es	
SK00.28	1	2	2	0.15			30	0.277			gubu	yebo	kva		es	
SK00.28	2	3	3	0.125			50	0.419			mgubu	dyebo	kva		es	
SK00.28	3	4	4	0.3			50	0.148			lgabu	lgabo	kva		ds	
SK00.28	4	5	5	0.3			70	0.051			gá	ga	kva		ds	few clay stringers
SK00.28	5	6	6	0.35			70	0.114			gá	ga	kva		ds	
SK00.28	6	7	7	0.35	2		75	0.077			lgá	lga	kva		ds	few pebbles
SK00.28	7	8	8	0.35	10		75	0.043			lgá	lga	kva		ds	few lignite fragments, few pebbles
SK00.28	8	9	9	0.35	2		75	0.146			higá	wiga	kva		ds	lignite fragments
SK00.28	9	10	10	0.35	5		75	0.048			gubu	yebo	kva		ds	few pebbles, iron concretion
SK00.28	10	11	11	0.45	30		50	0.167			gubu	yebo	kva		ds	many pebbles
SK00.28	11	12	12	0.4	50		75	0.145			gá	ga	kva		ds	many pebbles, clay from below
SK00.28	12	13	13	0.001			50				mbugá	dboga	mio		gl	
SK00.28	13	14	14	0.001			50				mbugá	dboga	mio		gl	
SK00.28	14	15	15	0.001			50				mbugá	dboga	mio		gl	
SK00.28	15	16	16	0.001			50				mbugá	dboga	mio		gl	
SK00.28	16	17	17	0.001			50				mbugá	dboga	mio		gl	
SK00.28	17	18	18	0.001			50				mbu	dbo	mio		gl	shell fragments, slightly silty
SK00.28	18	19	19	0.001			75				mbu	dbo	mio		gl	shell fragments, slightly silty
SK00.28	19	20	20	0.001			75				buso	boba	mio		gl	stringers of fine sand
SK00.28	20	21	21	0.001			75				buso	boba	mio		gl	sand from below, shell fragments
SK00.28	21	22	22	0.35	50		80	0.932			lgá	lga	mio		ks	shell hash, coarse sand, clay stringers
SK00.28	22	23	23	0.002			75				buso	boba	mio		gl	slightly silty, stringers of sand
SK00.28	23	24	24	0.002			75				lgabu	lgabo	mio		gl	gl
SK00.28	24	25	25	0.001			75				lgabu	lgabo	mio		gl	sand from below
SK00.28	25	26	26	0.1			50	1.153			bugá	boga	mio		gs	clay stringers, HM
SK00.28	26	27	27	0.1			50	1.583		2.342	bugá	boga	mio		gs	HM
SK00.28	27	28	28	0.001			75				buso	boba	mio		gl	sand from above, stringers of finesand
SK00.28	28	29	29	0.001			75				buso	boba	mio		gl	stringers of fine sand/lamina

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.29	0	1	1	0.25			20	0.050	0.832		bu	bo	kva		es	
SK00.29	1	2	2	0.25			70	0.113	0.919		gubu	lyebo	kva		es	
SK00.29	2	3	3	0.25			70	0.131	0.944		lgubu	lyebo	kva		es	
SK00.29	3	4	4	0.25			25	0.202	1.042		gá	ga	kva		ds	possibly HS
SK00.29	4	5	5	0.25			70	0.076	0.868		gá	ga	kva		ds	possibly HS
SK00.29	5	6	6	0.3			70	0.095	0.894		gá	ga	kva		ds	possibly HS
SK00.29	6	7	7	0.25			70	0.091	0.888		lgubu	lyebo	kva		ds	possibly HS
SK00.29	7	8	8	0.25			70	0.116	0.923		lgábu	lgabo	kva		ds	possibly HS
SK00.29	8	9	9	0.3			70	0.051	0.833		lgábu	lgabo	kva		ds	possibly HS
SK00.29	9	10	10	0.3		2	70	0.052	0.834		lgábu	lgabo	kva		ds	possibly HS
SK00.29	10	11	11	0.002		3	50	0.000	0.000		lgábu	lgabo	kva		ds	mix of ds + gl
SK00.29	11	12	12	0.002			65				mgábu	dgabo	mio		gl	thin silt lamina
SK00.29	12	13	13	0.35			70	0.275	1.144		gá	ga	mio		gl	mix of clay and mica sand
SK00.29	13	14	14	0.35			65	0.778	1.842		gá	ga	mio		gs	some downhole clay contamination
SK00.29	14	15	15	0.125			65	1.819	2.790	2.790	gá	ga	mio		gs	
SK00.29	15	16	16	0.125			65	0.956	2.089		gá	ga	mio		gs	
SK00.29	16	17	17	0.125			65	1.525	2.392	2.392	gá	ga	mio		gs	
SK00.29	17	18	18	0.125			65	0.960	2.094		gá	ga	mio		gs	
SK00.29	18	19	19	0.125			65	0.835	1.922		gá	ga	mio		gs	
SK00.29	19	20	20	0.125			65	2.115	3.353	3.353	gá	ga	mio		gs	HM
SK00.29	20	21	21	0.125			65	2.281	3.351	3.351	mgá	dga	mio		gs	HM
SK00.29	21	22	22	0.125			65	0.662	1.680		gá	ga	mio		gs	
SK00.29	22	23	23	0.125			65	0.474	1.420		gá	ga	mio		gs	
SK00.29	23	24	24	0.125			65	0.335	1.227		gá	ga	mio		gs	
SK00.29	24	25	25	0.125			65	0.436	1.367		gá	ga	mio		gs	
SK00.29	25	26	26	0.125			65	0.421	1.346		gá	ga	mio		gs	
SK00.29	26	27	27	0.125			65	0.525	1.490		gá	ga	mio		gs	
SK00.29	27	28	28	0.125			65	0.501	1.457		gá	ga	mio		gs	
SK00.29	28	29	29	0.125			50	0.262	1.126		gá	ga	mio		gs	
SK00.29	29	30	30	0.125			50	0.344	1.240		gá	ga	mio		gs	shells
SK00.29	30	31	31	0.002			60				gá	ga	mio		gl	shells
SK00.29	31	32	32	0.002			65				gá	ga	mio		gl	shells

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.30	0	1	1	0.15			50	0.186	1.020		lbu	lbo	kva		es	
SK00.30	1	2	2	0.15			50	0.207	1.049		gubu	yebo	kva		es	
SK00.30	2	3	3	0.15			50	0.262	1.126		lbu	lbo	kva		es	
SK00.30	3	4	4	0.15			50	0.213	1.058		lgabu	lgabo	kva		es	
SK00.30	4	5	5	0.3			40	0.121	0.930		lgabu	lgabo	kva		ds	
SK00.30	5	6	6	0.3			50	0.106	0.909		lgabu	lgabo	kva		ds	
SK00.30	6	7	7	0.35			75	0.174	1.004		lgabu	lgabo	kva		ds	
SK00.30	7	8	8	0.35			75	0.104	0.906		lgabu	lgabo	kva		ds	
SK00.30	8	9	9	0.35			75	0.000	0.000		lgabu	lgabo	kva		ds	
SK00.30	9	10	10	0.35			75	0.190	1.026		lgabu	lgabo	kva		ds	
SK00.30	10	11	11	0.35			70	0.052	0.834		lgabu	lgabo	kva		ds	clay stringers
SK00.30	11	12	12	0.4			95				røbu	rebo	kva		ds	clay stringers, pebbles
SK00.30	12	13	13	0.001	30		50				mgå	dga	mio		gl	
SK00.30	13	14	14	0.001			50				mgå	dga	mio		gl	
SK00.30	14	15	15	0.001			75				buso	boba	mio		gl	concretion (5cm)
SK00.30	15	16	16	0.001			75				mbu	dbo	mio		gl	shell fragments, sand stringers
SK00.30	16	17	17	0.001							mbu	dbo	mio		gl	finer sand stringers
SK00.30	17	18	18	0.125			30	1.679	2.609	2.609	mgå	dga	mio		gs	few shell fragments, HM
SK00.30	18	19	19	0.125			75	2.615	3.406	3.406	mgå	dga	mio		gs	few shell fragments, HM
SK00.30	19	20	20	0.125			75	2.114	2.879	2.879	mgå	dga	mio		gs	HM
SK00.30	20	21	21	0.125			40	3.776	4.707	4.707	mgå	dga	mio		gs	HM
SK00.30	21	22	22	0.125			40	3.458	4.742	4.742	mgå	dga	mio		gs	HM, concretions
SK00.30	22	23	23	0.125			75	1.948	2.705	2.705	mgå	dga	mio		gs	HM, concretions
SK00.30	23	24	24	0.125			40	2.842	4.471	4.471	mgå	dga	mio		gs	HM
SK00.30	24	25	25	0.125			70	2.998	4.490	4.490	mgå	dga	mio		gs	HM, shell fragments
SK00.30	25	26	26	0.125			70	1.023	2.182		mgå	dga	mio		gs	HM, concretions
SK00.30	26	27	27	0.125			50	0.733	1.779		mgå	dga	mio		gs	HM, concretions
SK00.30	27	28	28	0.125			70	0.581	1.568		mgå	dga	mio		gs	
SK00.30	28	29	29	0.125			70	0.613	1.612		mgå	dga	mio		gs	
SK00.30	29	30	30	0.125			50	0.697	1.730		mgå	dga	mio		gs	shell fragments
SK00.30	30	31	31	0.125			75	0.428	1.356		mgå	dga	mio		gs	shell fragments
SK00.30	31	32	32	0.125			75	0.481	1.430		mgå	dga	mio		gs	clay stringers, shell fragments



BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.31	0	1	1	0.3		75	0.279		1.149		lbu	lbo	kva		es	organic material
SK00.31	1	2	2	0.4		5	0.065		0.852		lbu	lbo	kva		ds	pebbles
SK00.31	2	3	3	0.35		50	0.050		0.832		bu	bo	kva		ds	few pebbles
SK00.31	3	4	4	0.4		2	0.126		0.937		gabu	gabo	kva		ds	
SK00.31	4	5	5	0.4		2	0.048		0.829		lgabu	lgabo	kva		ds	
SK00.31	5	6	6	0 001		50					gabu	gabo	kva		dl	sand from below
SK00.31	6	7	7	0 001		75					gabu	gabo	kva		dl	slightly silty
SK00.31	7	8	8	0 001		60					gabu	gabo	kva		dl	
SK00.31	8	9	9	0 001		50					gabu	gabo	kva		dl	
SK00.31	9	10	10	0 001		50					gabu	gabo	kva		dl	slightly silty
SK00.31	10	11	11	0 001		70					gabu	gabo	kva		dl	slightly silty
SK00.31	11	12	12	0 001		50					gabu	gabo	kva		dl	slightly silty
SK00.31	12	13	13	0 001		60					gabu	gabo	kva		dl	slightly silty
SK00.31	13	14	14	0.2		25	0.413		1.335		gabu	gabo	kva		ds	clay from above and below, HM
SK00.31	14	15	15	0 001							ga	ga	kva		gl	sand from above and below
SK00.31	15	16	16	0.3		75	0.470		1.414		gabu	gabo	kva		ds	clay from above and below, HM
SK00.31	16	17	17	0 001		80					gabu	gabo	kva		dl	slightly silty
SK00.31	17	18	18	0 001		85					gabu	gabo	kva		dl	slightly silty
SK00.31	18	19	19	0 001		80					gabu	gabo	kva		dl	slightly silty
SK00.31	19	20	20	0 001		100					gabu	gabo	kva		dl	slightly silty
SK00.31	20	21	21	0 001		75					gabu	gabo	kva		dl	slightly silty
SK00.31	21	22	22	0 001		75					gabu	gabo	kva		dl	slightly silty
SK00.31	22	23	23	0 001		75					gabu	gabo	kva		dl	slightly silty
SK00.31	23	24	24	0 001		30					mbu	dbo	kva		dl	clay stringers, mix of ds + dl, HM
SK00.31	24	25	25	0.4		75	0.240		1.095		gabu	gabo	kva		ds	clay stringers
SK00.31	25	26	26	0 001		75					gabu	gabo	kva		dl	slightly silty
SK00.31	26	27	27	0 001		70					gabu	gabo	kva		dl	slightly silty
SK00.31	27	28	28	0 001		85					gabu	gabo	kva		dl	slightly silty
SK00.31	28	29	29	0 001		100					gabu	gabo	kva		dl	slightly silty
SK00.31	29	30	30	0 001		70					gabu	gabo	kva		dl	mix of sand and clay
SK00.31	30	31	31	0 001		75					gabu	gabo	kva		dl	mix of sand and clay
SK00.31	31	32	32	0 001		100					gabu	gabo	kva		dl	mix of sand and clay

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.32	0	1	1	0.3			25	0.187			lgå	lga	kva		ds	
SK00.32	1	2	2	0.3			50	0.174			lgå	lga	kva		ds	
SK00.32	2	3	3	0.3			50	0.082			lgå	lga	kva		ds	
SK00.32	3	4	4	0.3			50	0.045			lgå	lga	kva		ds	
SK00.32	4	5	5	0.3			50	0.073			lgå	lga	kva		ds	
SK00.32	5	6	6	0.5		5	50	0.052			lgå	lga	kva		ds	
SK00.32	6	7	7	0.4			60	0.000			lgå	lga	kva		ds	
SK00.32	7	8	8	0.4			75	0.009			lgå	lga	kva		ds	
SK00.32	8	9	9	0.4			75	0.053			lgå	lga	kva		ds	
SK00.32	9	10	10	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	10	11	11	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	11	12	12	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	12	13	13	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	13	14	14	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	14	15	15	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	15	16	16	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	16	17	17	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	17	18	18	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	18	19	19	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	19	20	20	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	20	21	21	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	21	22	22	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	22	23	23	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	23	24	24	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	24	25	25	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	25	26	26	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	26	27	27	0.001			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	27	28	28	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s
SK00.32	28	29	29	0.002			75				gå	ga	kva		dl	silty clay glacial, alternating layers of clay silty and s

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.33	0	1	1	0.125		50	0.059		0.844		røbu	rebo	kva		es	
SK00.33	1	2	2	0.125		25	0.234		1.087		lbu	lbo	kva		es	
SK00.33	2	3	3	0.35		50	0.000		0.000		lbu	lbo	kva		ds	redeposited lignite fragments
SK00.33	3	4	4	0.35		70	0.000		0.000		lgåbu	lgabo	kva		ds	redeposited lignite fragments, few pebbles
SK00.33	4	5	5	0.4	10	100	0.054		0.837		lgubu	lyebo	kva		ds	redeposited lignite fragments, pebbles
SK00.33	5	6	6	0.35	40	75	0.107		0.911		lgubu	lyebo	kva		ds	many pebbles
SK00.33	6	7	7	0.3		75	0.065		0.852		lgå	lga	kva		ds	pebbles (ca. 5cm)
SK00.33	7	8	8	1	10	100	0.032		0.807		mgå	dga	kva		ds	pebbles (ca. 5cm)
SK00.33	8	9	9	0.001		75					mbugå	dboga	kva		dl	coar sand from below
SK00.33	9	10	10	0.001		75					mbugå	dboga	kva		dl	tectonite
SK00.33	10	11	11	0.001	5	70					bugå	boga	mio		gl	slightly silty
SK00.33	11	12	12	0.001	5	75					bugå	boga	mio		gl	slightly silty
SK00.33	12	13	13	0.9	50	100					mgåbu	dgabo	mio		ks	shell hasch
SK00.33	13	14	14	0.125	5	75	1.627	2.372	2.372		mgåbu	dgabo	mio		gs	gravel, cont. Mica, HM
SK00.33	14	15	15	0.125	2	75	2.323	2.928	2.928		mgåbu	dgabo	mio		gs	gravel, cont. Mica, HM
SK00.33	15	16	16	0.125		75	1.875	2.252	2.252		mgåbu	dgabo	mio		gs	cont. Mica, HM
SK00.33	16	17	17	0.125		75	1.008		2.161		mgåbu	dgabo	mio		gs	cont. Mica, HM
SK00.33	17	18	18	0.125		75	0.889		1.996		gå	ga	mio		gs	cont. Mica, HM
SK00.33	18	19	19	0.125		50	2.033	2.455	2.455		mgå	dga	mio		gs	cont. Mica, HM
SK00.33	19	20	20	0.125		75	2.482	3.300	3.300		mgå	dga	mio		gs	cont. Mica, HM
SK00.33	20	21	21	0.125		50	0.805		1.880		mgåbu	dgabo	mio		gs	micaceous clay stringers, cont. Mica, HM
SK00.33	21	22	22	0.125		75	0.525		1.490		mgåbu	dgabo	mio		gs	micaceous clay stringers, cont. Mica, HM
SK00.33	22	23	23	0.125		85	0.392		1.307		gå	ga	mio		gs	cont. Mica, HM
SK00.33	23	24	24	0.125		50	0.414		1.337		gå	ga	mio		gs	cont. Mica, HM
SK00.33	24	25	25	0.125		50	0.422		1.348		gå	ga	mio		gs	cont. Mica, HM
SK00.33	25	26	26	0.125		50	0.400		1.317		gå	ga	mio		gs	cont. Mica, HM
SK00.33	26	27	27	0.125		30	0.682		1.708		gå	ga	mio		gs	cont. Mica, HM
SK00.33	27	28	28	0.125		30	0.463		1.405		gå	ga	mio		gs	cont. Mica, HM
SK00.33	28	29	29	0.125		50	0.308		1.189		gå	ga	mio		gs	cont. Mica, HM
SK00.33	29	30	30	0.001		50					bugå	boga	mio		gl	finesand from above, shell fragments
SK00.33	30	31	31	0.001		50					bugå	boga	mio		gl	shell fragments
SK00.33	31	32	32	0.001		30					bugå	boga	mio		gl	shell fragments

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.34	0	1	1	0.125			40	0.090	0.887		mbu	dbo	kva		es	
SK00.34	1	2	2	0.25			50	0.075	0.866		bugå	boga	kva		ds	
SK00.34	2	3	3	0.3			70	0.072	0.862		lbugå	lboga	kva		ds	
SK00.34	3	4	4	0.3			70	0.025	0.797		lbugå	lboga	kva		ds	
SK00.34	4	5	5	0.3			85	0.176	1.006		lbugå	lboga	kva		ds	redeposited lignite
SK00.34	5	6	6	0.3		2	30	0.152	0.973		lbugå	lboga	kva		ds	redeposited lignite
SK00.34	6	7	7	0.3			50	0.034	0.809		gåbu	gabo	kva		ds	
SK00.34	7	8	8	0.4		30	85	0.064	0.851		gåbu	gabo	kva		ds	many pebbles, redeposited lignite, clay from below
SK00.34	8	9	9	0.001			75				gåbu	gabo	kva		dl	finesand lamina
SK00.34	9	10	10	0.001			75				gåbu	gabo	kva		dl	
SK00.34	10	11	11	0.001			75				bugå	boga	kva		dl	
SK00.34	11	12	12	0.001			70				bugå	boga	kva		dl	sandy
SK00.34	12	13	13	0.001			75				bugå	boga	kva		dl	
SK00.34	13	14	14	0.001			75				bugå	boga	kva		dl	
SK00.34	14	15	15	0.001			75				bugå	boga	kva		dl	
SK00.34	15	16	16	0.001			75				mbugå	dboga	kva		dl	tectonite, finesand/silt lamina
SK00.34	16	17	17	0.001			75				mgå	dga	kva		ml	
SK00.34	17	18	18	0.001			75				mgå	dga	kva		ml	
SK00.34	18	19	19	0.001			50				mgå	dga	kva		ml	
SK00.34	19	20	20	0.001			50				mgå	dga	kva		ml	
SK00.34	20	21	21	0.001			75				mgå	dga	kva		ml	
SK00.34	21	22	22	0.001			75				mgå	dga	kva		ml	
SK00.34	22	23	23	0.002			30				mgå	dga	kva		dl	lamina of finesand/silt
SK00.34	23	24	24	0.001			75				mgå	dga	kva		dl	
SK00.34	24	25	25	0.001			50				mbu	dbo	kva		dl	slightly silty
SK00.34	25	26	26	0.001			25				mbu	dbo	mio		gl	mica, shell fragments, slightly silty
SK00.34	26	27	27	0.001			10				mbugå	dboga	mio		gl	mica, shell fragments, slightly silty
SK00.34	27	28	28	0.06			10	0.651	1.666		mbugå	dboga	mio		gs	mica, shell fragments, slightly silty, HM
SK00.34	28	29	29	0.06			10	0.680	1.706		mbugå	dboga	mio		gs	mica, shell fragments, slightly silty, HM
SK00.34	29	30	30	0.125			25	0.619	1.622		mbugå	dboga	mio		gs	mica, shell fragments, HM
SK00.34	30	31	31	0.125			50	0.630	1.636		mbugå	dboga	mio		gs	mica, HM
SK00.34	31	32	32	0.125			50	0.529	1.496		mbugå	dboga	mio		gs	mica, HM

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.35	0	1	1	0.125		20	0.100		0.901		bugå	boga	kva		es	organic material
SK00.35	1	2	2	0.3		5	0.059		0.844		mgå	dga	kva		ds	pebbles
SK00.35	2	3	3	0.35		10	0.058		0.843		mgå	dga	kva		ds	pebbles
SK00.35	3	4	4	0.35		2	0.042		0.820		mgå	dga	kva		ds	pebbles
SK00.35	4	5	5	0.001		60					mgå	dga	kva		ml	slightly silty
SK00.35	5	6	6	0.001		40					gå	ga	kva		ml	slightly silty
SK00.35	6	7	7	0.001		60					gå	ga	kva		ml	slightly silty
SK00.35	7	8	8	0.001		60					bugå	boga	kva		ml	slightly silty
SK00.35	8	9	9	0.001		30					bugå	boga	kva		ml	chalk (5cm)
SK00.35	9	10	10	0.06		10					mgåbu	dgabo	mio		gs	clay stringers from above, mica, HM
SK00.35	10	11	11	0.06		10					mgåbu	dgabo	mio		gs	clay stringers from above, mica, HM
SK00.35	11	12	12	0.125		25	0.615		1.616		mgåbu	dgabo	mio		gs	slightly silty, mica, HM
SK00.35	12	13	13	0.125		25	0.660		1.679		mgåbu	dgabo	mio		gs	slightly silty, mica, HM
SK00.35	13	14	14	0.06		10	0.413		1.335		mgåbu	dgabo	mio		gs	slightly silty, mica, HM
SK00.35	14	15	15	0.06		25	0.654		1.670		mgåbu	dgabo	mio		gs	slightly silty, mica, HM
SK00.35	15	16	16	0.06		25	0.544		1.517		mgåbu	dgabo	mio		gs	slightly silty, mica, HM
SK00.35	16	17	17	0.06		25	0.515		1.476		mgåbu	dgabo	mio		gs	slightly silty, mica, HM
SK00.35	17	18	18	0.06		30	0.489		1.441		mgåbu	dgabo	mio		gs	slightly silty, mica, HM
SK00.35	18	19	19	0.15		60	0.660		1.678		mgåbu	dgabo	mio		gs	mica, HM
SK00.35	19	20	20	0.15		70	0.558		1.537		mgåbu	dgabo	mio		gs	mica, HM
SK00.35	20	21	21	0.15		60	0.461		1.402		mgåbu	dgabo	mio		gs	mica, HM
SK00.35	21	22	22	0.3		75	0.390		1.303		mgåbu	dgabo	mio		gs	shell fragments, mica, HM
SK00.35	22	23	23	0.3		75	0.579		1.565		mgåbu	dgabo	mio		gs	shell fragments, mica, HM
SK00.35	23	24	24	0.3		75	0.361		1.263		mgåbu	dgabo	mio		gs	shell fragments, mica, HM
SK00.35	24	25	25	0.3		75	0.364		1.267		mgå	dga	mio		gs	shell fragments, mica, HM
SK00.35	25	26	26	0.3		75	0.641		1.652		mgå	dga	mio		gs	shell fragments, mica, HM
SK00.35	26	27	27	0.3		50	0.326		1.214		mgå	dga	mio		gs	shell fragments, mica, HM
SK00.35	27	28	28	0.3		2	0.461		1.402		mgå	dga	mio		gs	shell fragments, mica, HM
SK00.35	28	29	29	0.3		85	0.441		1.374		mgå	dga	mio		gs	shell fragments, mica, HM, lignite
SK00.35	29	30	30	0.35		75	0.392		1.307		mgå	dga	mio		gs	shell fragments, mica, HM
SK00.35	30	31	31	0.3		50	0.554		1.532		mgå	dga	mio		gs	shell fragments, mica, HM
SK00.35	31	32	32	0.3		85	0.574		1.558		mgå	dga	mio		gs	shell fragments, mica, HM

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.36	0	1	1	0.2			35	0.334	1.226		lrøbu	lrebo	kva		es	well sorted
SK00.36	1	2	2	0.2			35	0.321	1.208		lgå	lga	kva		es	well sorted
SK00.36	2	3	3	0.2			40	0.330	1.220		lgå	lga	kva		es	well sorted
SK00.36	3	4	4	0.2			70	0.281	1.152		lgå	lga	kva		es	well sorted
SK00.36	4	5	5	0.2			70	0.099	0.900		lgå	lga	kva		es	well sorted
SK00.36	5	6	6	0.25			70	0.177	1.008		lgå	lga	kva		ds	possibly ES
SK00.36	6	7	7	0.3		2	70	0.103	0.905		lgå	lga	kva		ds	OM pebbles, few
SK00.36	7	8	8	0.3		2	75	0.316	1.201		lgå	lga	kva		ds	OM pebbles, few
SK00.36	8	9	9	0.3			75	0.128	0.940		lgå	lga	kva		ds	OM + pebbles, lignite
SK00.36	9	10	10	0.3			75	0.286	1.159		lgå	lga	kva		ds	
SK00.36	10	11	11	0.45		15	75	0.142	0.959		lgå	lga	kva		ds	pebbles, 10-20%, chert
SK00.36	11	12	12	1		30	75	0.054	0.837		lgå	lga	kva		dg	pebbles, 10-20%, chert
SK00.36	12	13	13	1		30	75	0.008	0.773		lgå	lga	kva		dg	pebbles, 10-20%, chert
SK00.36	13	14	14	1.7		30	75	0.313	1.197		lgå	lga	kva		dg	pebbles, 10-20%, chert , top miocene
SK00.36	14	15	15	0.002			65				mgåbu	dgabo	mio		gl	silty
SK00.36	15	16	16	0.002			65				mgåbu	dgabo	mio		gl	silty + fine gravel stringers
SK00.36	16	17	17	0.125			65	2.057	3.050	3.050	gå	ga	mio		gs	HM
SK00.36	17	18	18	0.08			75	2.394	3.628	3.628	gå	ga	mio		gs	HM
SK00.36	18	19	19	0.08			75	1.808	2.469	2.469	gå	ga	mio		gs	HM
SK00.36	19	20	20	0.002			70				gå	ga	mio		gl	contains top lower clay
SK00.36	20	21	21	0.002			75				mgåbu	dgabo	mio		gl	stringers of fine sand
SK00.36	21	22	22	0.002			60				mgåbu	dgabo	mio		gl	stringers of fine sand
SK00.36	22	23	23	0.002			65				mgåbu	dgabo	mio		gl	stringers of fine sand
SK00.36	23	24	24	0.125			65	1.687	2.552	2.552	gå	ga	mio		gs	
SK00.36	24	25	25	0.125			65	1.460		2.788	gå	ga	mio		gs	some clay + silt
SK00.36	25	26	26	0.125			65	1.028		2.189	gå	ga	mio		gs	concretions
SK00.36	26	27	27	0.125			65	0.939		2.066	gå	ga	mio		gs	
SK00.36	27	28	28	0.125			65	0.561		1.541	gå	ga	mio		gs	
SK00.36	28	29	29	0.125			65	0.777		1.840	gå	ga	mio		gs	concretions

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.37	0	1	1	0.3			30	0.299	1.177		bu	bo	kva		ds	humus
SK00.37	1	2	2	0.3			30	0.296	1.173		gu	ye	kva		ds	
SK00.37	2	3	3	0.25			40	0.255	1.116		lgå	lga	kva		ds	
SK00.37	3	4	4	0.3			50	0.213	1.058		lgå	lga	kva		ds	
SK00.37	4	5	5	0.3			50	0.238	1.092		lgå	lga	kva		ds	
SK00.37	5	6	6	0.3			50	0.078	0.870		lgå	lga	kva		ds	
SK00.37	6	7	7	0.3			60	0.279	1.149		lgå	lga	kva		ds	
SK00.37	7	8	8	0.3			60	0.224	1.073		lgå	lga	kva		ds	
SK00.37	8	9	9	0.3			50	0.075	0.866		lgå	lga	kva		ds	
SK00.37	9	10	10	0.3			70	0.179	1.011		lgå	lga	kva		ds	
SK00.37	10	11	11	0.3			70	0.231	1.083		lgå	lga	kva		ds	
SK00.37	11	12	12	0.35			50	0.069	0.858		lgå	lga	kva		ds	
SK00.37	12	13	13	0.8	40		75	0.087	0.883		lgå	lga	kva		ds	pebbles
SK00.37	13	14	14	0.45	40		75	0.111	0.916		lgå	lga	kva		ds	pebbles
SK00.37	14	15	15	0.25			65	0.162	0.987		lgå	lga	kva		ds	
SK00.37	15	16	16	2	50		65	0.146	0.965		gå	ga	kva		gs	pebbles + top miocene
SK00.37	16	17	17	0.002			75				buso	boba	mio		gi	
SK00.37	17	18	18	0.002			75				buso	boba	mio		gi	
SK00.37	18	19	19	0.002			75				buso	boba	mio		gi	
SK00.37	19	20	20	0.125			35	2.276	3.257	3.257	gå	ga	mio		gs	
SK00.37	20	21	21	0.125			35	1.518	2.776	2.776	gå	ga	mio		gs	coarse sand content 10%
SK00.37	21	22	22	0.125			35	1.691	2.267	2.267	gå	ga	mio		gs	
SK00.37	22	23	23	0.125			35	1.476	2.811		gå	ga	mio		gs	
SK00.37	23	24	24	0.002			60				buso	boba	mio		gi	
SK00.37	24	25	25	0.001			60				buso	boba	mio		gl	
SK00.37	25	26	26	0.001			60				buso	boba	mio		gl	
SK00.37	26	27	27	0.125			35	1.458	2.786		gå	ga	mio		gs	
SK00.37	27	28	28	0.125			35	1.643	2.365	2.365	gå	ga	mio		gs	
SK00.37	28	29	29	0.125			35	0.720	1.761		gå	ga	mio		gs	
SK00.37	29	30	30	0.125			25	0.679	1.705		gå	ga	mio		gs	
SK00.37	30	31	31	0.125			25	0.610	1.609		gå	ga	mio		gs	
SK00.37	31	32	32	0.001			60				buso	boba	mio		gl	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.38	0	1	1	0.3		65					lgå	lga	kva		ds	possibly eolian sand
SK00.38	1	2	2	0.3		65					lgå	lga	kva		ds	
SK00.38	2	3	3	0.3		75					lgå	lga	kva		ds	
SK00.38	3	4	4	0.3		75					lgå	lga	kva		ds	
SK00.38	4	5	5	0.3		75					lgå	lga	kva		ds	
SK00.38	5	6	6	0.3		75					lgå	lga	kva		ds	
SK00.38	6	7	7	0.3		75					lgå	lga	kva		ds	
SK00.38	7	8	8	0.3		75					lgå	lga	kva		ds	
SK00.38	8	9	9	0.4		75					lgå	lga	kva		ds	
SK00.38	9	10	10	0.4	5	75					lgå	lga	kva		ds	
SK00.38	10	11	11	0.45	5	75					lgå	lga	kva		ds	gravel, pebbles
SK00.38	11	12	12	0 002		75					lgå	lga	kva		di	sand
SK00.38	12	13	13	0.03		75					lgå	lga	kva		ml	diamicton
SK00.38	13	14	14	0 002		75					lgå	lga	kva		ml	diamicton
SK00.38	14	15	15	0 002		75					lgå	lga	kva		dl	Silty
SK00.38	15	16	16	0 002		75					lgå	lga	kva		dl	Silty
SK00.38	16	17	17	0 002		75					lgå	lga	kva		dl	Silty
SK00.38	17	18	18	0 002		75					lgå	lga	kva		dl	Silty
SK00.38	18	19	19	0 002		75					lgå	lga	kva		dl	sand layers
SK00.38	19	20	20	0 002		75					lgå	lga	kva		dl	Silty
SK00.38	20	21	21	0 002		75					lgå	lga	kva		dl	sand layers
SK00.38	21	22	22	0 002		75					lgå	lga	kva		dl	Silty
SK00.38	22	23	23	0 002		75					lgå	lga	kva		dl	Silty
SK00.38	23	24	24	0 002		75					lgå	lga	kva		dl	Silty
SK00.38	24	25	25	0 002		75					lgå	lga	kva		dl	Silty
SK00.38	25	26	26	0 002		75					lgå	lga	kva		dl	Silty
SK00.38	26	27	27	0 002		75					lgå	lga	kva		dl	Silty
SK00.38	27	28	28	0 002		75					lgå	lga	kva		dl	Silty
SK00.38	28	29	29	0 002		75					lgå	lga	kva		dl	Silty
SK00.38	29	30	30	0 002		75					lgå	lga	mio		gl	possibly miocene
SK00.38	30	31	31	0 002		70					lgå	lga	mio		gl	possibly miocene
SK00.38	31	32	32	0 002		70					lgå	lga	mio		gl	possibly miocene



BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK00.39	0	1	1	0.3		60	0.189		1.024		bu	bo	kva		ds	
SK00.39	1	2	2	0.3		75	0.151		0.972		lgubu	lyebo	kva		ds	
SK00.39	2	3	3	0.3		75	0.153		0.974		lgubu	lyebo	kva		ds	
SK00.39	3	4	4	0.3		75	0.153		0.974		lbugá	lboga	kva		ds	
SK00.39	4	5	5	0.35		75	0.320		1.206		gá	ga	kva		ds	
SK00.39	5	6	6	0.4		75	0.250		1.109		gá	ga	kva		ds	
SK00.39	6	7	7	0.45		75	0.065		0.852		gá	ga	kva		ds	
SK00.39	7	8	8	0.45		75	0.370		1.276		gá	ga	kva		ds	
SK00.39	8	9	9	0.5		75	0.332		1.223		gá	ga	kva		ds	
SK00.39	9	10	10	0.5		75	0.215		1.061		gá	ga	kva		ds	
SK00.39	10	11	11	0.5		75	0.284		1.156		gá	ga	kva		ds	clay + silt layers
SK00.39	11	12	12	0.5		75					gá	ga	kva		ds	clay + silt layers
SK00.39	12	13	13	0.5		75					gá	ga	kva		ds	clay + silt layers
SK00.39	13	14	14	0.5		75					gá	ga	kva		ds	clay and silt
SK00.39	14	15	15	1.8	60	75					gá	ga	kva		dg	
SK00.39	15	16	16	0 002		75					gá	ga	kva		ml	
SK00.39	16	17	17	0 002		75					gá	ga	kva		ml	
SK00.39	17	18	18	0 002		75					lgá	lga	kva		dl	
SK00.39	18	19	19	0 002		75					lgá	lga	kva		dl	
SK00.39	19	20	20	0 002		75					lgá	lga	kva		dl	
SK00.39	20	21	21	0 002		75					lgá	lga	kva		dl	
SK00.39	21	22	22	0 002		75					lgá	lga	kva		dl	
SK00.39	22	23	23	0 002		75					lgá	lga	kva		dl	
SK00.39	23	24	24	0 002		75					lgá	lga	kva		dl	
SK00.39	24	25	25	0 002		75					lgá	lga	kva		dl	
SK00.39	25	26	26	0 002		75					lgá	lga	kva		dl	
SK00.39	26	27	27	0 002		75					lgá	lga	kva		dl	
SK00.39	27	28	28	0 002		75					lgá	lga	kva		dl	
SK00.39	28	29	29	0 002		75					lgá	lga	kva		dl	
SK00.39	29	30	30	0 002		75					lgá	lga	kva		dl	
SK00.39	30	31	31	0 002		75					lgá	lga	kva		dl	
SK00.39	31	32	32	0 002		75					lgá	lga	kva		dl	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.40	0	1	1	0.35	1	100					mbu	dbo	kva		ds	
SK01.40	1	2	2	0.25	3	75					lbu	lbo	kva		ds	
SK01.40	2	3	3	0.35	10	75					lbu	lbo	kva		ds	
SK01.40	3	4	4	0.50	52	75					lbu	lbo	kva		ds	
SK01.40	4	5	5	0.50	15	100					lbu	lbo	kva		ds	
SK01.40	5	6	6	0.35	5	100					gå	ga	kva		ds	
SK01.40	6	7	7	0.50	34	100					gå	ga	kva		ds	
SK01.40	7	8	8	0.00		100					mbu	dbo	mio		gl	
SK01.40	8	9	9	0.00		100					mbu	dbo	mio		gl	
SK01.40	9	10	10	0.00		100					mbu	dbo	mio		gl	
SK01.40	10	11	11	0.00		100					mbu	dbo	mio		gl	
SK01.40	11	12	12	0.00		75					mbu	dbo	mio		gl	
SK01.40	12	13	13	0.00		50					mbu	dbo	mio		gl	shell fragments
SK01.40	13	14	14	0.09		100	0.984		2.128	1268	gå	ga	mio		gs	shell fragments
SK01.40	14	15	15	0.09		100	1.399		2.703	2002	gå	ga	mio		gs	
SK01.40	15	16	16	0.09		75	1.169		2.385	954	gå	ga	mio		gs	
SK01.40	16	17	17	0.09		75	0.780		1.844	581	gå	ga	mio		gs	
SK01.40	17	18	18	0.09		75	0.899		2.010	596	gå	ga	mio		gs	
SK01.40	18	19	19	0.09		75	0.737		1.785	465	gå	ga	mio		gs	
SK01.40	19	20	20	0.13		75	0.542		1.514	383	gå	ga	mio		gs	
SK01.40	20	21	21	0.13		75	0.331		1.222	269	gå	ga	mio		gs	
SK01.40	21	22	22	0.13		75	0.290		1.165	283	gå	ga	mio		gs	
SK01.40	22	23	23	0.13		75	0.167		0.994	149	gå	ga	mio		gs	
SK01.40	23	24	24	0.13		75	0.079		0.872	196	gå	ga	mio		gs	concretions
SK01.40	24	25	25	0.13		50	0.146		0.965	176	gå	ga	mio		gs	
SK01.40	25	26	26	0.13		50	0.223		1.071	318	gå	ga	mio		gs	
SK01.40	26	27	27	0.13		75	0.272		1.139	357	gå	ga	mio		gs	
SK01.40	27	28	28	0.13		75	0.363		1.265	569	gå	ga	mio		gs	
SK01.40	28	29	29	0.06		50	0.397		1.314	657	gå	ga	mio		gs	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.41	0	1	1	0.35	2	100					bu	bo	kva		ds	
SK01.41	1	2	2	0.35	1	100					bu	bo	kva		ds	
SK01.41	2	3	3	0.50	8	100					bugå	boga	kva		ds	
SK01.41	3	4	4	0.71	25	100					gåbu	gabo	kva		ds	
SK01.41	4	5	5	0.59	15	100					gå	ga	kva		ds	
SK01.41	5	6	6	0.25	3	100					gå	ga	kva		ds	
SK01.41	6	7	7	0.50	6	100					gå	ga	kva		ds	
SK01.41	7	8	8	0.84	17	100					gå	ga	kva		ds	
SK01.41	8	9	9	0.71	21	100					gå	ga	kva		ds	
SK01.41	9	10	10	0.00		50					mgå	dga	mio	Arnum	gi/gl	
SK01.41	10	11	11	0.03		50	1.088		2.272	1132	mgå	dga	mio	Arnum	gi	Cont. Sand
SK01.41	11	12	12	0.02		50	0.545		1.518	1125	mgå	dga	mio	Arnum	gi	
SK01.41	12	13	13	0.03		50	0.566		1.548	1155	mgå	dga	mio	Arnum	gi	cont. Coarse sand
SK01.41	13	14	14	0.00		100					buso	boba	mio	Arnum	gl	cont. coarse sand and silt
SK01.41	14	15	15	0.00		100					buso	boba	mio	Arnum	gl	silty
SK01.41	15	16	16	0.00		100					buso	boba	mio	Arnum	gl	shell fragm.
SK01.41	16	17	17	0.00		100					buso	boba	mio	Arnum	gl	shell fragm.and silt
SK01.41	17	18	18	0.01		100					mgå	dga	mio	Arnum	gi/gl	clay stringers
SK01.41	18	19	19	0.06		100	1.735	3.487	3.487	2996	lgå	lga	mio	Arnum	gs	shell fragm.and clay stringers
SK01.41	19	20	20	0.13		100	0.508		1.467	1409	lgå	lga	mio	Arnum	gs	shell fragm.
SK01.41	20	21	21	0.13		100	0.842		1.931	1494	lgå	lga	mio	Arnum	gs	shell fragm.
SK01.41	21	22	22	0.13		75					gåbu	gabo	mio	Arnum	gs	clay stringers
SK01.41	22	23	23	0.13		50	0.954		2.086	1791	mgå	dga	mio	Arnum	gs	clay stringers
SK01.41	23	24	24	0.13		50	0.594		1.587	1371	mgå	dga	mio	Arnum	gs	
SK01.41	24	25	25	0.13		50	0.484		1.433	894	mgå	dga	mio	Arnum	gs	
SK01.41	25	26	26	0.13		100	0.436		1.368	731	mgå	dga	mio	Arnum	gs	shell fragm.
SK01.41	26	27	27	0.13		50					mgå	dga	mio	Arnum	gs	clay stringers + shell fragm.
SK01.41	27	28	28	0.13		50	0.153		0.975	695	mgå	dga	mio	Arnum	gs	shell fragm.
SK01.41	28	29	29	0.13		75	0.392		1.306	857	mgå	dga	mio	Arnum	gs	few shell fragm.
SK01.41	29	30	30	0.06		50	0.086		0.881	557	mgå	dga	mio	Arnum	gs	shell fragm. + clay stringers
SK01.41	30	31	31	0.06		50					mgå	dga	mio	Arnum	gs	shell fragm. + clay stringers
SK01.41	31	32	32	0.00		100					buso	boba	mio	Arnum	gl	silty

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.42	0	1	1	0.25	1	100					røbu	rebo	kva		ds	
SK01.42	1	2	2	0.25	0	100					ol	ol	kva		ds	
SK01.42	2	3	3	0.35	9	100					lbu	lbo	kva		ds	
SK01.42	3	4	4	0.50	14	100					lbu	lbo	kva		ds	
SK01.42	4	5	5	0.50	3	100					bugå	boga	kva		ds	
SK01.42	5	6	6	0.25	1	100					bugå	boga	kva		ds	
SK01.42	6	7	7	0.71	29	100					lgå	lga	kva		ds	
SK01.42	7	8	8	0.71	11	100					lgå	lga	kva		ds	
SK01.42	8	9	9	0.35	9	100					lgå	lga	kva		ds	
SK01.42	9	10	10	0.00		100					mgå	dga	kva		ds	mix of ds and gl cont. Pebbles
SK01.42	10	11	11	0.01		100	0.894		2.003	2118	gå	ga	mio		gl	
SK01.42	11	12	12	0.13		100					gå	ga	mio		gi	
SK01.42	12	13	13	0.13		100	2.131	2.693	2.693	3665	gå	ga	mio		gi	
SK01.42	13	14	14	0.13		100	2.063	2.872	2.872	3731	gå	ga	mio		gs	
SK01.42	14	15	15	0.25		100	2.117	3.012	3.012	3614	gå	ga	mio		gs	
SK01.42	15	16	16	0.25		100	1.004		2.156	1334	gå	ga	mio		gs	
SK01.42	16	17	17	0.25		100	1.239		2.481	1886	gå	ga	mio		gs	
SK01.42	17	18	18	0.25		100	3.250	4.687	4.687	4824	gå	ga	mio		gs	
SK01.42	18	19	19	0.25		100	3.751	6.018	6.018	6119	gå	ga	mio		gs	
SK01.42	19	20	20	0.13		100	3.395	3.638	3.638	4302	gå	ga	mio		gs	
SK01.42	20	21	21	0.00		100					buso	boba	mio		gl	
SK01.42	21	22	22	0.00		100					buso	boba	mio		gl	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.43	0	1	1	0.25	4	100					røbu	rebo	kva.		ds	
SK01.43	1	2	2	0.50	6	100					mbu	dbo	kva.		ds	
SK01.43	2	3	3	0.35	3	100					bugå	boga	kva.		ds	
SK01.43	3	4	4	0.50	7	100					lbugå	lboga	kva.		ds	
SK01.43	4	5	5	0.35	5	100					lbugå	lboga	kva.		ds	
SK01.43	5	6	6	0.25	2	100					lbugå	lboga	kva.		ds	
SK01.43	6	7	7	0.35	9	100					lbugå	lboga	kva.		ds	pebbles
SK01.43	7	8	8	0.35	20	100					lbugå	lboga	kva.		ds	pebbles
SK01.43	8	9	9	0.25	1	100					lbugå	lboga	kva.		ds	pebbles
SK01.43	9	10	10	0.50	56	50					lbugå	lboga	kva.		ds	pebbles
SK01.43	10	11	11	0.13		25					mgå	dga	kva.		ds	unsorted, coarse-medium
SK01.43	11	12	12	0.00		100					mbugå	dboga	mio		gl	shell fragm.
SK01.43	12	13	13	0.00		100					mbugå	dboga	mio		gl	shell fragm.
SK01.43	13	14	14	0.00		100					mbugå	dboga	mio		gl	silty
SK01.43	14	15	15	0.00		100					mbugå	dboga	mio		gl	silty, shell fragm.
SK01.43	15	16	16	0.00		100					mbugå	dboga	mio		gl	silty, shell fragm.
SK01.43	16	17	17	0.25		100	1.327		2.604	2689	mbugå	dboga	mio		gs	silty, shell fragm.
SK01.43	17	18	18	0.25		100	2.868	4.368	4.368	4267	mgå	dga	mio		gs	
SK01.43	18	19	19	0.18		50	1.964	2.984	2.984	2890	mgå	dga	mio		gs	few clay strings
SK01.43	19	20	20	0.18		100	1.187		2.409	2263	mgå	dga	mio		gs	shell fragm., few clay stringes
SK01.43	20	21	21	0.18		75	0.833		1.919	1863	mgå	dga	mio		gs	shell fragm., few clay stringes
SK01.43	21	22	22	0.18		50	0.602		1.597	1318	mgå	dga	mio		gs	shell fragm., few clay stringes

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.44	0	1	1													
SK01.44	1	2	2	0.35		100					mbu	dbo	kva		ds	lignite
SK01.44	2	3	3	0.35	7	100					bugå	boga	kva		ds	
SK01.44	3	4	4	0.25	7	100					bugå	boga	kva		ds	
SK01.44	4	5	5	0.25	1	100					bugå	boga	kva		ds	few pebbles
SK01.44	5	6	6	0.31	0	100					bugå	boga	kva		ds	pebbles, unsorted
SK01.44	6	7	7	0.50	1	100					bugå	boga	kva		ds	
SK01.44	7	8	8	0.00	26	100					buso	boba	kva		dl	some gravel/ sand+silt
SK01.44	8	9	9	0.00		100					buso	boba	mio	Arnum	gl	slightly silty
SK01.44	9	10	10	0.06		100	0.427		1.354	425	mgå	dga	mio	Arnum	gs	shell hash, cont. Gravel
SK01.44	10	11	11	0.13		100	0.550		1.526	404	mgå	dga	mio	Arnum	gs	shell hash + clay stringes
SK01.44	11	12	12	0.13		75	1.747	3.012	3.012	2786	mgå	dga	mio	Arnum	gs	
SK01.44	12	13	13	0.13		100	2.114	3.091	3.091	2113	mgå	dga	mio	Arnum	gs	
SK01.44	13	14	14	0.13		100	1.009		2.163	608	mgå	dga	mio	Arnum	gs	
SK01.44	14	15	15	0.13		100	0.629		1.636	268	mgå	dga	mio	Arnum	gs	
SK01.44	15	16	16	0.13		75	0.544		1.517	507	mgå	dga	mio	Arnum	gs	
SK01.44	16	17	17	0.13		100	0.919		2.037	739	mgå	dga	mio	Arnum	gs	
SK01.44	17	18	18	0.13		100	1.276		2.533	1134	mgå	dga	mio	Arnum	gs	
SK01.44	18	19	19	0.13		75	1.374		2.669	1103	mgå	dga	mio	Arnum	gs	
SK01.44	19	20	20	0.06		100	0.513		1.474	517	mgå	dga	mio	Arnum	gs	
SK01.44	20	21	21	0.06		100	0.355		1.254	360	mgå	dga	mio	Arnum	gs	
SK01.44	21	22	22	0.06		75	0.453		1.391	475	mgå	dga	mio	Arnum	gs	concreations

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.45	0	1	1	0.25		10					bugu	bugu	kva		ds	
SK01.45	1	2	2	0.25		25					bugu	bugu	kva		ds	
SK01.45	2	3	3	0.50		5	75				gugå	yega	kva		ds	
SK01.45	3	4	4	0.50		4	100				gugå	yega	kva		ds	
SK01.45	4	5	5	0.50		10	100				gå	ga	kva		ds	
SK01.45	5	6	6	0.50		7	75				gå	ga	kva		ds	
SK01.45	6	7	7	1.00		36	75				gå	ga	kva		ds	
SK01.45	7	8	8	2.00		59	100				gåso	gaba	kva		dg	
SK01.45	8	9	9	0.02			100				mbu	dbo	mio		gi	concretions
SK01.45	9	10	10	0.00			75				mbu	dbo	mio		gi	shell fragments
SK01.45	10	11	11	0.00			100				mbu	dbo	mio		gi	
SK01.45	11	12	12	0.06			10	1.109	2.302	2183	mgå	dga	mio		gs	
SK01.45	12	13	13	0.06			50	1.073	2.252	1686	mgå	dga	mio		gs	
SK01.45	13	14	14	0.06			50	1.178	2.397	2072	mgå	dga	mio		gs	
SK01.45	14	15	15	0.13			50	1.090	2.275	2099	mgå	dga	mio		gs	clay stringers
SK01.45	15	16	16	0.03			50				bugå	boga	mio		gi	
SK01.45	16	17	17	0.06			25	1.247	2.493	2820	mgå	dga	mio		gs	
SK01.45	17	18	18	0.06			25	1.874	2.650	3512	mgå	dga	mio		gs	
SK01.45	18	19	19	0.06			25	1.825	2.751	3298	mgå	dga	mio		gs	
SK01.45	19	20	20	0.06			25	1.570	2.397	2134	mgå	dga	mio		gs	
SK01.45	20	21	21	0.06			50	2.090	2.626	2383	mgå	dga	mio		gs	
SK01.45	21	22	22	0.06			50	0.999	2.149	1760	mgå	dga	mio		gs	
SK01.45	22	23	23	0.02			100				mbu	dbo	mio		gi	shell fragments
SK01.45	23	24	24	0.00			100				mbu	dbo	mio		gi	
SK01.45	24	25	25	0.02			75				bugå	boga	mio		gi	
SK01.45	25	26	26	0.06			50	0.744	1.794	1127	mgå	dga	mio		gs	clay stringers
SK01.45	26	27	27	0.06			25	0.669	1.691	1186	mgå	dga	mio		gs	shell fragments
SK01.45	27	28	28	0.06			50	0.508	1.467	982	mgå	dga	mio		gs	shell fragments + clay stringers
SK01.45	28	29	29	0.06			50	0.438	1.371	686	mgå	dga	mio		gs	clay stringers
SK01.45	29	30	30	0.00			50				0 bugå	boga	mio		gi	
SK01.45	30	31	31	0.00			25				0 bu	bo	mio		gi	
SK01.45	31	32	32	0.00			50				0 bu	bo	mio		gl	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.46	0	1	1	0.50	1	100				0	røbu	rebo	kva		ds	
SK01.46	1	2	2	0.50	3	100				0	røbu	rebo	kva		ds	
SK01.46	2	3	3	1.00	6	100				0	gubu	yebo	kva		ds	
SK01.46	3	4	4	1.00	5	100				0	gå	ga	kva		ds	
SK01.46	4	5	5	1.00	23	100				0	gå	ga	kva		ds	
SK01.46	5	6	6	1.00	5	100				0	gå	ga	kva		ds	
SK01.46	6	7	7	1.00	10	100				0	gubu	yebo	kva		ds	
SK01.46	7	8	8	0.50	2	100				0	gubu	yebo	kva		ds	
SK01.46	8	9	9	0.50	4	100				0	gubu	yebo	kva		ds	
SK01.46	9	10	10	0.50		100				0	gå	ga	kva		ds	clay stringers
SK01.46	10	11	11	0.00		100				0	mgå	dga	mio		gi	shell fragments, clay stringers
SK01.46	11	12	12	0.00		75				0	buso	boba	mio		gl	shell fragments, silty
SK01.46	12	13	13	0.00		75				0	buso	boba	mio		gl	shell fragments
SK01.46	13	14	14	0.00		75				0	buso	boba	mio		gl	shell fragments
SK01.46	14	15	15	0.00		75				0	buso	boba	mio		gl	shell fragments, silty
SK01.46	15	16	16	0.02		25	0.683	1.710	687	mgå	dga	mio		gi	shell fragments	
SK01.46	16	17	17	0.02		50	0.612	1.612	803	mgå	dga	mio		gi	shell fragments	
SK01.46	17	18	18	0.00		100					buso	boba	mio		gl	shell fragments
SK01.46	18	19	19	0.00		100					buso	boba	mio		gl	shell fragments
SK01.46	19	20	20	0.00		100					buso	boba	mio		gl	shell fragments
SK01.46	20	21	21	0.01		100					buso	boba	mio		gl	shell fragments
SK01.46	21	22	22	0.06		100	1.871	2.717	2.717	3404	mgå	dga	mio		gs	shell fragments, clay stringers
SK01.46	22	23	23	0.06		100	1.783	2.274	2.274	3163	mgå	dga	mio		gs	
SK01.46	23	24	24	0.06		100	2.014	3.053	3.053	2761	mgå	dga	mio		gs	
SK01.46	24	25	25	0.03		100					mgå	dga	mio		gi	shell fragments, clay stringers
SK01.46	25	26	26	0.03		100	0.833	1.918	1086	mgå	dga	mio		gi	shell fragments	
SK01.46	26	27	27	0.03		100	0.594	1.586	753	mgå	dga	mio		gi	shell fragments, clay stringers, lignite	
SK01.46	27	28	28	0.06		50					mgå	dga	mio		gs	shell fragments
SK01.46	28	29	29	0.00		100					mgå	dga	mio		gl	shell fragments, silty



BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.47	0	1	1	0.50	5	100					røbu	rebo	kva		ds	
SK01.47	1	2	2	0.50	1	100					gåbu	gabo	kva		ds	
SK01.47	2	3	3	1.00	8	100					gåbu	gabo	kva		ds	
SK01.47	3	4	4	1.00	14	100					gåbu	gabo	kva		ds	
SK01.47	4	5	5	1.00	4	100					gåbu	gabo	kva		ds	
SK01.47	5	6	6	1.00	19	100					gåbu	gabo	kva		ds	
SK01.47	6	7	7	1.00	4	100					gå	ga	kva		ds	
SK01.47	7	8	8	0.50	3	100					gå	ga	kva		ds	
SK01.47	8	9	9	0.50	20	100					gå	ga	kva		ds	
SK01.47	9	10	10	0.50	21	100					gå	ga	kva		ds	
SK01.47	10	11	11	0.00	16	100					gå	ga	kva		ds	
SK01.47	11	12	12	0.00		100					buso	boba	mio		gl	shell fragments
SK01.47	12	13	13	0.00		100					so	ba	mio		gl	shell fragments
SK01.47	13	14	14	0.00		100	0.556		1.534	1327	mgå	dga	mio		gs	shell fragments, clay stringers
SK01.47	14	15	15	0.00		100					mgå	dga	mio		gs	shell fragments, clay stringers
SK01.47	15	16	16	0.02		50	3.342	4.381	4.381	6477	mgå	dga	mio		gs	
SK01.47	16	17	17	0.02		100	2.884	4.030	4.030	4164	mgå	dga	mio		gs	
SK01.47	17	18	18	0.00		100	1.624	1.705	1.705	1766	mgå	dga	mio		gs	
SK01.47	18	19	19	0.00		100	1.440		2.761	2404	gå	ga	mio		gs	
SK01.47	19	20	20	0.00		100	5.075	6.303	6.303	7170	gå	ga	mio		gs	shell fragments
SK01.47	20	21	21	0.01		100					gå	ga	mio		gs	shell fragments, clay stringers
SK01.47	21	22	22	0.06		100					mgå	dga	mio		gl	
SK01.47	22	23	23	0.06		75	1.552	2.177	2.177	2016	gå	ga	mio		gs	
SK01.47	23	24	24	0.06		75	0.958		2.091	1446	gå	ga	mio		gs	
SK01.47	24	25	25	0.03		50	0.649		1.662	721	gå	ga	mio		gs	
SK01.47	25	26	26	0.03		100	0.298		1.176	603	gå	ga	mio		gs	
SK01.47	26	27	27	0.03		100	0.460		1.401	523	gå	ga	mio		gs	
SK01.47	27	28	28	0.06		50	0.221		1.069	269	gå	ga	mio		gs	
SK01.47	28	29	29	0.00		50					mgå	dga	mio		gi	shell fragments
SK01.47	29	30	30	0.00		100					mgå	dga	mio		gl	
SK01.47	30	31	31	0.00		75					mgå	dga	mio		gl	
SK01.47	31	32	32	0.00		100					mgå	dga	mio		gl	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS	
SK01.48	0	1	1	0.13		50					gubu	yebo	kva		ds	reworked miocene	
SK01.48	1	2	2	0.13		100					gugå	yega	kva		ds	reworked miocene	
SK01.48	2	3	3	0.25		75					gå	ga	kva		ds	reworked miocene	
SK01.48	3	4	4	0.50		75					lgå	lga	kva		ds		
SK01.48	4	5	5	0.50		100					gugå	yega	kva		ds		
SK01.48	5	6	6	1.00		2	100				gugå	yega	kva		ds	lignite	
SK01.48	6	7	7	0.71		18	75				gugå	yega	kva		ds	pebbles + lignite	
SK01.48	7	8	8	1.00		6	75				gå	ga	kva		ds	pebbles + lignite	
SK01.48	8	9	9	0.50		7	100				gå	ga	kva		ds	pebbles	
SK01.48	9	10	10	0.50		3	75				gå	ga	kva		ds	pebbles	
SK01.48	10	11	11	0.71		5	75				gå	ga	kva		ds	pebbles	
SK01.48	11	12	12	0.50		2	100				gå	ga	kva		ds	pebbles	
SK01.48	12	13	13	0.50		3	75				gå	ga	kva		ds	pebbles + lignite	
SK01.48	13	14	14	0.13			25	0.407		1.327	685	bugå	boga	mio		gs	40% quaternary
SK01.48	14	15	15	0.13			25	0.416		1.340	901	buso	boba	mio		gs	
SK01.48	15	16	16	0.06			25	0.417		1.341	1036	gåso	gaba	mio		gs	shell fragments
SK01.48	16	17	17	0.00			50				sobu	vbo	mio		gi		
SK01.48	17	18	18	0.03			75				sobu	vbo	mio		gi	poorly sorted	
SK01.48	18	19	19	0.03			75				gåbu	gabo	mio		gi		
SK01.48	19	20	20	0.50			75				mbu	dbo	mio		gi		
SK01.48	20	21	21	0.03			75				mbu	dbo	mio		gi		
SK01.48	21	22	22	0.06			50	1.257		2.507	2476	mgå	dga	mio		gs	clay stringers
SK01.48	22	23	23	0.06			50	2.871	3.755	3.755	5242	mgå	dga	mio		gs	clay stringers
SK01.48	23	24	24	0.06			50	2.622	3.715	3.715	4747	mgå	dga	mio		gs	clay stringers
SK01.48	24	25	25	0.06			75	0.857		1.952	1454	mgå	dga	mio		gs	clay stringers
SK01.48	25	26	26	0.06			75	0.979		2.121	1518	mgå	dga	mio		gs	clay stringers
SK01.48	26	27	27	0.06			50	0.712		1.750	1121	mgå	dga	mio		gs	clay stringers
SK01.48	27	28	28	0.06			50	0.675		1.699	1229	mgå	dga	mio		gs	clay stringers
SK01.48	28	29	29	0.06			50	0.563		1.543	1105	mgå	dga	mio		gs	clay stringers
SK01.48	29	30	30	0.06			25	0.345		1.241	767	mgå	dga	mio		gs	clay stringers
SK01.48	30	31	31	0.00			50					mgå	dga	mio		gi	
SK01.48	31	32	32	0.00			25					mgå	dga	mio		gi	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.49	0	1	1	0.35	1	100					gubu	yebo	kva		ds	
SK01.49	1	2	2	0.50	2	100					gåbu	gabo	kva		ds	
SK01.49	2	3	3	0.50	9	100					mgå	dga	kva		ds	
SK01.49	3	4	4	0.50	11	100					gå	ga	kva		ds	
SK01.49	4	5	5	0.50	7	100					gå	ga	kva		ds	
SK01.49	5	6	6	0.50	0	100					gå	ga	kva		ds	clay stringers
SK01.49	6	7	7	0.00		100					mgå	dga	kva		dl	
SK01.49	7	8	8	0.00		100					mgå	dga	kva		dl	
SK01.49	8	9	9	0.00		100					mgå	dga	kva		dl	
SK01.49	9	10	10	0.00		75					mgå	dga	kva		dl	
SK01.49	10	11	11	0.00		100					mgå	dga	kva		dl	
SK01.49	11	12	12	0.00		100					mgå	dga	kva		dl	
SK01.49	12	13	13	0.71		100					gå	ga	kva		ds	
SK01.49	13	14	14	0.00		100					so	ba	mio		gl	
SK01.49	14	15	15	0.00		100					so	ba	mio		gl	
SK01.49	15	16	16	0.00		100					buso	boba	mio		gl	
SK01.49	16	17	17	0.00		100					buso	boba	mio		gl	
SK01.49	17	18	18	0.00		100					buso	boba	mio		gl	
SK01.49	18	19	19	0.01		25					mbu	dbo	mio		gi	
SK01.49	19	20	20	0.02		100					mbu	dbo	mio		gi	
SK01.49	20	21	21	0.06		25	0.455		1.393	1598	mbu	dbo	mio		gs	
SK01.49	21	22	22	0.02		75					mbu	dbo	mio		gi	
SK01.49	22	23	23	0.00		100					mbu	dbo	mio		gi	
SK01.49	23	24	24	0.06		50	0.600		1.594	1508	mol	dol	mio		gs	shell fragments
SK01.49	24	25	25	0.00		75					mgå	dga	mio		gi	
SK01.49	25	26	26	0.00		100					mgå	dga	mio		gl	
SK01.49	26	27	27	0.00		100					mgå	dga	mio		gl	
SK01.49	27	28	28	0.00		100					mgå	dga	mio		gl	
SK01.49	28	29	29	0.00		100					mgå	dga	mio		gl	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.50	0	1	1	0.25		25					bugå	boga	kva		ds	reworked miocene
SK01.50	1	2	2	0.25		10					bugå	boga	kva		ds	reworked miocene
SK01.50	2	3	3	0.71		75					gå	ga	kva		ds	pebbles
SK01.50	3	4	4	1.00		5	100				gå	ga	kva		ds	pebbles
SK01.50	4	5	5	1.00		10	100				gå	ga	kva		ds	pebbles + lignite
SK01.50	5	6	6	0.50		4	100				gå	ga	kva		ds	
SK01.50	6	7	7	0.03		2	75				buso	boba	mio		gi	
SK01.50	7	8	8	0.00			75				buso	boba	mio		gi	
SK01.50	8	9	9	0.00			75				buso	boba	mio		gi	few shell fragments
SK01.50	9	10	10	0.00			50				buso	boba	mio		gi	
SK01.50	10	11	11	0.00			50				mbu	dbo	mio		gi	silty
SK01.50	11	12	12	0.02			75				mbu	dbo	mio		gi	few shell fragments
SK01.50	12	13	13	0.06			10	0.345		1.241	851	mgå	dga	mio	gs	clay stringers
SK01.50	13	14	14	0.06			10	0.453		1.390	1096	bugå	boga	mio	gs	clay stringers + few shell fragments
SK01.50	14	15	15	0.03			10					bugå	boga	mio	gi	clay stringers
SK01.50	15	16	16	0.13			5	0.344		1.240	961	mgå	dga	mio	gs	clay stringers + many shell fragments
SK01.50	16	17	17	0.13			10	0.611		1.610	1303	bugå	boga	mio	gs	many shell fragments
SK01.50	17	18	18	0.06			25	0.685		1.712	897	bugå	boga	mio	gs	many shell fragments + concretions
SK01.50	18	19	19	0.03			25					bu	bo	mio	gi	
SK01.50	19	20	20	0.03			25					bu	bo	mio	gi	few pebbles
SK01.50	20	21	21	0.00			50					mbu	dbo	mio	gi	few concretions
SK01.50	21	22	22	0.13			10	0.932		2.055	1447	mgå	dga	mio	gs	silty + clay stringers
SK01.50	22	23	23	0.00			50					mbu	dbo	mio	gi	
SK01.50	23	24	24	0.02			50					mbu	dbo	mio	gi	concretions
SK01.50	24	25	25	0.06			25	0.967		2.104	1411	bugå	boga	mio	gs	clay stringers
SK01.50	25	26	26	0.13			25	1.686	2.169	2.169	3167	mgå	dga	mio	gs	clay stringers
SK01.50	26	27	27	0.13			25	2.130	3.001	3.001	2575	mgå	dga	mio	gs	
SK01.50	27	28	28	0.13			25	0.698		1.731	1069	mgå	dga	mio	gs	few concretions
SK01.50	28	29	29	0.13			25	2.058	2.699	2.699	2671	mgå	dga	mio	gs	few concretions

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.51	0	1	1	0.25		25					gubu	yebo	kva		ds	
SK01.51	1	2	2	0.25		50					gubu	yebo	kva		ds	
SK01.51	2	3	3	0.50	3	100					gugå	yega	kva		ds	pebbles
SK01.51	3	4	4	0.50	6	100					gugå	yega	kva		ds	pebbles
SK01.51	4	5	5	0.50	0	100					gå	ga	kva		ds	
SK01.51	5	6	6	0.50	14	100					gå	ga	kva		ds	pebbles + lignite
SK01.51	6	7	7	1.00	15	100					gå	ga	kva		ds	pebbles + lignite
SK01.51	7	8	8	1.00	21	100					gå	ga	kva		ds	pebbles + lignite
SK01.51	8	9	9	0.50	6	100					gå	ga	kva		ds	pebbles + stones
SK01.51	9	10	10	0.50	10	100					gå	ga	kva		ds	pebbles
SK01.51	10	11	11	1.00	28	100					gå	ga	kva		ds	pebbles
SK01.51	11	12	12	2.00	59	100					gå	ga	kva		dg	pebbles
SK01.51	12	13	13	1.00	44	75					gå	ga	kva		ds	pebbles
SK01.51	13	14	14	0.00		75					mbu	dbo	mio		gl	
SK01.51	14	15	15	0.00		100					mbu	dbo	mio		gl	concretions + pebbles
SK01.51	15	16	16	0.03		100					mbu	dbo	mio		gi	shell fragments
SK01.51	16	17	17	0.03		100					bugå	boga	mio		gi	
SK01.51	17	18	18	0.25		50	0.362		1.265	858	mgå	dga	mio		gs	
SK01.51	18	19	19	0.03		100					mbu	dbo	mio		gi	concretions
SK01.51	19	20	20	0.06		25	1.145		2.351	2228	mgå	dga	mio		gs	clay stringers
SK01.51	20	21	21	0.06		50	3.314	4.535	4.535	6030	mgå	dga	mio		gs	
SK01.51	21	22	22	0.13		50	1.720	2.658	2.658	3048	mgå	dga	mio		gs	
SK01.51	22	23	23	0.06		50	2.080	2.919	2.919	3298	mgå	dga	mio		gs	clay stringers
SK01.51	23	24	24	0.03		75					mbu	dbo	mio		gi	
SK01.51	24	25	25	0.06		25	4.474	5.797	5.797	6671	mgå	dga	mio		gs	shell fragments + clay stringers
SK01.51	25	26	26	0.03		75					mgå	dga	mio		gi	
SK01.51	26	27	27	0.06		25	1.158		2.369	1492	mgå	dga	mio		gs	clay stringers
SK01.51	27	28	28	0.06		50	1.786	2.052	2.052	2063	mgå	dga	mio		gs	
SK01.51	28	29	29	0.06		50	0.680		1.706	1205	mgå	dga	mio		gs	
SK01.51	29	30	30	0.06		50	0.528		1.495	757	mgå	dga	mio		gs	
SK01.51	30	31	31	0.06		50	0.685		1.713	985	mgå	dga	mio		gs	
SK01.51	31	32	32	0.06		50	0.340		1.234	468	mgå	dga	mio		gs	clay stringers

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.52	0	1	1	0.25		25					bu	bo	kva		ds	
SK01.52	1	2	2	0.25		75					bu	bo	kva		ds	
SK01.52	2	3	3	0.50		100					gåbu	gabo	kva		ds	few pebbles
SK01.52	3	4	4	1.00	5	100					gå	ga	kva		ds	pebbles, lignite
SK01.52	4	5	5	1.00	14	100					gå	ga	kva		ds	
SK01.52	5	6	6	0.50	13	75					gåso	gaba	kva		ds	pebbles, stones
SK01.52	6	7	7	0.00		50					sobu	vbo	mio		gl	
SK01.52	7	8	8	0.00		100					mbu	dbo	mio		gl	
SK01.52	8	9	9	0.00		75					mbu	dbo	mio		gl	
SK01.52	9	10	10	0.00		100					sobu	vbo	mio		gl	
SK01.52	10	11	11	0.00		50					mbu	dbo	mio		gi	
SK01.52	11	12	12	0.00		100					mbu	dbo	mio		gi	
SK01.52	12	13	13	0.02		25					bugå	boga	mio		gi	
SK01.52	13	14	14	1.00		50	0.478		1.426	808	mgå	dga	mio		gs	
SK01.52	14	15	15	0.13		25	2.305	3.208	3.208	4157	mgå	dga	mio		gs	
SK01.52	15	16	16	0.06		50	2.239	2.932	2.932	4416	mgå	dga	mio		gs	
SK01.52	16	17	17	0.06		50	2.127	2.599	2.599	2106	gå	ga	mio		gs	
SK01.52	17	18	18	0.06		50	1.936	2.426	2.426	2034	gå	ga	mio		gs	
SK01.52	18	19	19	0.06		75	1.186		2.408	1244	gå	ga	mio		gs	
SK01.52	19	20	20	0.06		50	0.815		1.894	925	gå	ga	mio		gs	
SK01.52	20	21	21	0.06		50	1.471		2.804	1736	gå	ga	mio		gs	
SK01.52	21	22	22	0.06		50	3.566	4.904	4.904	3706	mgå	dga	mio		gs	
SK01.52	22	23	23	0.06		75	1.654	2.572	2.572	1716	gå	ga	mio		gs	
SK01.52	23	24	24	0.06		50	0.410		1.332	484	gå	ga	mio		gs	
SK01.52	24	25	25	0.06		50	0.719		1.760	880	gå	ga	mio		gs	
SK01.52	25	26	26	0.06		50	0.560		1.539	536	gå	ga	mio		gs	
SK01.52	26	27	27	0.06		50	0.399		1.316	507	gå	ga	mio		gs	
SK01.52	27	28	28	0.06		50	0.405		1.324	597	gå	ga	mio		gs	
SK01.52	28	29	29	0.06		25	0.318		1.203	648	gå	ga	mio		gs	
SK01.52	29	30	30	0.06		25	0.401		1.318	584	gå	ga	mio		gs	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.53	0	1	1	0.25		10					gugå	yega	kva		ds	
SK01.53	1	2	2	0.25		75					gugå	yega	kva		ds	
SK01.53	2	3	3	0.25		25					lgå	lga	kva		ds	
SK01.53	3	4	4	0.50		100					gugå	yega	kva		ds	
SK01.53	4	5	5	0.50		100					gugå	yega	kva		ds	few pebbles
SK01.53	5	6	6	0.50	4	100					gugå	yega	kva		ds	few pebbles
SK01.53	6	7	7	0.71	2	100					gå	ga	kva		ds	pebbles
SK01.53	7	8	8	0.06	1	100					mgå	dga	kva		ds	pebbles
SK01.53	8	9	9	0.50	2	75					mgå	dga	kva		ds	pebbles
SK01.53	9	10	10	1.00	3	100					gå	ga	kva		ds	pebbles
SK01.53	10	11	11	1.00	20	100					gå	ga	kva		ds	pebbles, stones
SK01.53	11	12	12	1.00	17	100					gå	ga	kva		ds	pebbles, stones
SK01.53	12	13	13	1.00	18	100					gå	ga	kva		ds	pebbles, stones
SK01.53	13	14	14	0.00		75					sobu	vbo	mio		gi	shell fragments
SK01.53	14	15	15	0.00		75					buso	boba	mio		gi	shell fragments
SK01.53	15	16	16	0.00		75					buso	boba	mio		gl	shell fragments
SK01.53	16	17	17	0.00		100					mbu	dbo	mio		gi	
SK01.53	17	18	18	0.00		75					mbu	dbo	mio		gi	
SK01.53	18	19	19	0.03		100					mbu	dbo	mio		gi	
SK01.53	19	20	20	0.03		100					bugå	boga	mio		gi	
SK01.53	20	21	21	0.06		75	1.638	1.636	1.636	3418	mgå	dga	mio		gs	clay stringers
SK01.53	21	22	22	0.06		75	1.869	2.726	2.726	4000	mgå	dga	mio		gs	
SK01.53	22	23	23	0.06		50	2.228	3.155	3.155	4353	mgå	dga	mio		gs	
SK01.53	23	24	24	0.06		75	2.745	3.135	3.135	3967	mgå	dga	mio		gs	
SK01.53	24	25	25	0.13		25	1.126		2.325	1779	mgå	dga	mio		gs	
SK01.53	25	26	26	0.06		75	1.240		2.483	1797	mgå	dga	mio		gs	clay stringers
SK01.53	26	27	27	0.03		75					mbu	dbo	mio		gi	shell fragments
SK01.53	27	28	28	0.03		75					mbu	dbo	mio		gi	
SK01.53	28	29	29	0.03		75					mbu	dbo	mio		gi	poorly sorted
SK01.53	29	30	30	0.06		50	1.033		2.195	1503	bugå	boga	mio		gs	clay stringers, shell fragments
SK01.53	30	31	31	0.06		50	0.621		1.625	799	mgå	dga	mio		gs	clay stringers, shell fragments
SK01.53	31	32	32	0.06		50	0.706		1.742	907	mgå	dga	mio		gs	clay stringers, shell fragments

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.54	0	1	1	0.25		25					bu	bo	kva		ds	
SK01.54	1	2	2	0.25		100					gubu	yebo	kva		ds	
SK01.54	2	3	3	0.25		50					gugå	yega	kva		ds	
SK01.54	3	4	4	0.50		75					gugå	yega	kva		ds	
SK01.54	4	5	5	0.50		10					gugå	yega	kva		ds	
SK01.54	5	6	6	0.50		7	100				gå	ga	kva		ds	pebbles
SK01.54	6	7	7	0.71		18	100				gå	ga	kva		ds	pebbles
SK01.54	7	8	8	0.06		16	100				gå	ga	kva		ds	pebbles, stones
SK01.54	8	9	9	0.50		75					buso	boba	mio		gi	
SK01.54	9	10	10	1.00		75					buso	boba	mio		gl	
SK01.54	10	11	11	1.00		100					buso	boba	mio		gi	
SK01.54	11	12	12	1.00		75					bugå	boga	mio		gi	shell fragments
SK01.54	12	13	13	1.00		75					buso	boba	mio		gi	
SK01.54	13	14	14	0.00		100					mbu	dbo	mio		gl	
SK01.54	14	15	15	0.00		100					mbu	dbo	mio		gi	
SK01.54	15	16	16	0.00		75					mbu	dbo	mio		gi	
SK01.54	16	17	17	0.00		75					mbu	dbo	mio		gi	
SK01.54	17	18	18	0.00		75					mbu	dbo	mio		gi	
SK01.54	18	19	19	0.03		50	0.530		1.498	762	mgå	dga	mio		gs	clay stringers, coarse shell fragments
SK01.54	19	20	20	0.03		50	2.212	3.354	3.354	3428	mgå	dga	mio		gs	clay stringers, coarse shell fragments, entire snails
SK01.54	20	21	21	0.06		50	1.855	2.640	2.640	2252	gå	ga	mio		gs	
SK01.54	21	22	22	0.06		75	1.030		2.192	915	gå	ga	mio		gs	
SK01.54	22	23	23	0.06		75	0.712		1.750	634	gå	ga	mio		gs	
SK01.54	23	24	24	0.06		25	0.876		1.978	724	gå	ga	mio		gs	
SK01.54	24	25	25	0.13		50	1.955	3.119	3.119	1840	gå	ga	mio		gs	
SK01.54	25	26	26	0.06		50	1.802	2.236	2.236	1435	gå	ga	mio		gs	
SK01.54	26	27	27	0.03		10	0.564		1.545	667	gå	ga	mio		gs	
SK01.54	27	28	28	0.03		50	0.508		1.467	457	gå	ga	mio		gs	
SK01.54	28	29	29	0.03		50	0.464		1.406	480	gå	ga	mio		gs	
SK01.54	29	30	30	0.06		25	0.363		1.265	475	gå	ga	mio		gs	
SK01.54	30	31	31	0.06		25	0.493		1.447	720	gå	ga	mio		gs	
SK01.54	31	32	32	0.06		50	0.440		1.372	667	gå	ga	mio		gs	clay stringers



BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.55	0	1	1	0.35		100					røbu	rebo	kva		ds	
SK01.55	1	2	2	0.35		50					gå	ga	kva		ds	
SK01.55	2	3	3	0.00		50					gå	ga	kva		di	
SK01.55	3	4	4	0.00		100					so	ba	kva		dl	
SK01.55	4	5	5	0.00		100					so	ba	kva		dl	
SK01.55	5	6	6	0.00		100					so	ba	kva		dl	
SK01.55	6	7	7	0.00		100					so	ba	kva		dl	
SK01.55	7	8	8	0.00		100					so	ba	kva		dl	
SK01.55	8	9	9	0.00		100					so	ba	kva		dl	
SK01.55	9	10	10	0.00		100					so	ba	kva		dl	
SK01.55	10	11	11	0.00		100					so	ba	kva		dl	
SK01.55	11	12	12	0.00		100					so	ba	kva		dl	
SK01.55	12	13	13	0.00		100					so	ba	kva		dl	
SK01.55	13	14	14	0.00		100					buso	boba	mio		dl	
SK01.55	14	15	15	0.25		100					gå	ga	mio		gl	clay stringers
SK01.55	15	16	16	0.50		75	0.308		1.190	456	gå	ga	mio		gl	
SK01.55	16	17	17	0.13		100	1.660	3.512	3.512	1612	gå	ga	mio		gs	
SK01.55	17	18	18	0.13		75	0.784		1.851	518	gå	ga	mio		gs	
SK01.55	18	19	19	0.13		75	0.706		1.742	169	gå	ga	mio		gs	
SK01.55	19	20	20	0.13		100	0.930		2.053	222	gå	ga	mio		gs	
SK01.55	20	21	21	0.13		100	0.398		1.314	88	gå	ga	mio		gs	
SK01.55	21	22	22	0.13		100	0.255		1.117	0	gå	ga	mio		gs	
SK01.55	22	23	23	0.13		100	0.066		0.853	0	gå	ga	mio		gs	
SK01.55	23	24	24	0.13		100	0.108		0.912	0	gå	ga	mio		gs	
SK01.55	24	25	25	0.13		100	0.110		0.915	0	gå	ga	mio		gs	
SK01.55	25	26	26	0.13		100	0.050		0.832	0	gå	ga	mio		gs	
SK01.55	26	27	27	0.13		100	0.050		0.832	0	gå	ga	mio		gs	
SK01.55	27	28	28	0.13		75	0.099		0.900	0	gå	ga	mio		gs	
SK01.55	28	29	29	0.13		75	0.311		1.194	206	gå	ga	mio		gs	
SK01.55	29	30	30	0.13		75	0.258		1.120	235	gå	ga	mio		gs	
SK01.55	30	31	31	0.13		100	0.114		0.920	183	gå	ga	mio		gs	
SK01.55	31	32	32	0.06		100					gå	ga	mio		gs	clay stringers

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.56	0	1	1	0.50		75					bugå	boga	kva		ds	
SK01.56	1	2	2	0.50		50					bugå	boga	kva		ds	
SK01.56	2	3	3	0.25		75					bugå	boga	kva		ds	
SK01.56	3	4	4	0.25		100					gå	ga	kva		ds	
SK01.56	4	5	5	0.25		100					lbugå	lboga	kva		ds	
SK01.56	5	6	6	0.25		100					gå	ga	kva		ds	
SK01.56	6	7	7	0.25		75					gå	ga	kva		ds	
SK01.56	7	8	8	0.25		100					gå	ga	kva		ds	
SK01.56	8	9	9	0.01		100					mgå	dga	mio		gi	cont. Clay, sand
SK01.56	9	10	10	0.00		100					so	ba	mio		gl	
SK01.56	10	11	11	0.00		100					so	ba	mio		gl	
SK01.56	11	12	12	0.00		100					so	ba	mio		gl	
SK01.56	12	13	13	0.00		100					so	ba	mio		gl	
SK01.56	13	14	14	0.00		100					so	ba	mio		gl	
SK01.56	14	15	15	0.00		100					so	ba	mio		gl	
SK01.56	15	16	16	0.03		100					mgå	dga	mio		gs	cont. clay, gravel
SK01.56	16	17	17	0.25		100	0.091		0.888	277	gå	ga	mio		gs	
SK01.56	17	18	18	0.13		75	0.663		1.682	525	gå	ga	mio		gs	
SK01.56	18	19	19	0.13		75	0.518		1.481	90	gå	ga	mio		gs	
SK01.56	19	20	20	0.13		100	0.320		1.207	104	gå	ga	mio		gs	
SK01.56	20	21	21	0.13		25	0.232		1.084	63	gå	ga	mio		gs	
SK01.56	21	22	22	0.13		50	0.192		1.029	20	gå	ga	mio		gs	
SK01.56	22	23	23	0.13		50	0.196		1.035	19	gå	ga	mio		gs	
SK01.56	23	24	24	0.13		50	0.135		0.949	0	gå	ga	mio		gs	
SK01.56	24	25	25	0.13		50	0.030		0.803	0	gå	ga	mio		gs	
SK01.56	25	26	26	0.13		75	0.096		0.895	0	gå	ga	mio		gs	
SK01.56	26	27	27	0.13		50	0.166		0.992	0	gå	ga	mio		gs	
SK01.56	27	28	28	0.13		50	0.143		0.961	66	gå	ga	mio		gs	
SK01.56	28	29	29	0.13		50	0.246		1.103	454	gå	ga	mio		gs	
SK01.56	29	30	30	0.13		50	0.325		1.213	472	gå	ga	mio		gs	
SK01.56	30	31	31	0.13		50	0.160		0.984	206	gå	ga	mio		gs	
SK01.56	31	32	32	0.00		100					buso	boba	mio		gi	clay, shell

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.57	0	1	1	0.25		100					bugå	boga	kva		ds	cont. mgå. fine sand
SK01.57	1	2	2	0.25		2	75				bugå	boga	kva		ds	
SK01.57	2	3	3	0.25		1	100				gå	ga	kva		ds	
SK01.57	3	4	4	0.50		12	100				gå	ga	kva		ds	lignite
SK01.57	4	5	5	0.50		10	100				gå	ga	kva		ds	
SK01.57	5	6	6	0.50		11	100				gå	ga	kva		ds	
SK01.57	6	7	7	1.00		9	100				gå	ga	kva		ds	
SK01.57	7	8	8	0.50		2	100				gå	ga	kva		ds	
SK01.57	8	9	9	1.00		2	100				gå	ga	kva		ds	
SK01.57	9	10	10	1.00		16	100				sogå	vga	kva		ds	
SK01.57	10	11	11	0.00			100				sogå	vga	mio		gl	cont. coarse sand
SK01.57	11	12	12	0.00			100				sogå	vga	mio		gl	
SK01.57	12	13	13	0.00			100				sogå	vga	mio		gl	
SK01.57	13	14	14	0.00			100				sogå	vga	mio		gl	
SK01.57	14	15	15	0.00			100				sogå	vga	mio		gl	
SK01.57	15	16	16	0.00			100				sogå	vga	mio		gl	
SK01.57	16	17	17	0.00			100				sogå	vga	mio		gl	
SK01.57	17	18	18	0.00			100				sogå	vga	mio		gl	
SK01.57	18	19	19	0.13			25	1.931	3.099	3.099	4299	mgå	dga	mio	gs	
SK01.57	19	20	20	0.13			50	1.557	2.765	2.765	1894	mgå	dga	mio	gs	
SK01.57	20	21	21	0.13			100					mgå	dga	mio	gs	shell fragm.
SK01.57	21	22	22	0.06			25					mgå	dga	mio	gs	silt, clay, shell fragm.
SK01.57	22	23	23	0.00			100					mgå	dga	mio	gs	silt, shell fragm.
SK01.57	23	24	24	0.00			100					mgå	dga	mio	gs	clay
SK01.57	24	25	25	0.25			50	1.317		2.590	1548	mgå	dga	mio	gs	
SK01.57	25	26	26	0.25			75	1.298		2.563	1909	mgå	dga	mio	gs	shell fragm.
SK01.57	26	27	27	0.25			75	1.042		2.208	1395	mgå	dga	mio	gs	shell fragm.
SK01.57	27	28	28	0.25			50	0.640		1.651	835	mgå	dga	mio	gs	shell fragm.
SK01.57	28	29	29	0.25			50	0.355		1.255	963	mgå	dga	mio	gs	shell fragm.
SK01.57	29	30	30	0.13			50	0.193		1.030	650	mgå	dga	mio	gs	shell fragm.
SK01.57	30	31	31	0.00			50					gåso	gaba	mio	gl	shell fragm., silt
SK01.57	31	32	32	0.00			100					buso	boba	mio	gl	shell fragm., silt

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.58	0	1	1	0.25		100					gugå	yega	kva		ds	
SK01.58	1	2	2	0.25		100					gugå	yega	kva		ds	
SK01.58	2	3	3	0.13		100					gugå	yega	kva		ds	
SK01.58	3	4	4	0.50	1	100					gå	ga	kva		ds	
SK01.58	4	5	5	0.50	4	100					gå	ga	kva		ds	lignite
SK01.58	5	6	6	0.71	12	100					gå	ga	kva		ds	reworked miocene
SK01.58	6	7	7	0.00		75					mgå	dga	kva		dl	contains reworked miocene
SK01.58	7	8	8	0.03		75					mgå	dga	kva		di	
SK01.58	8	9	9	0.03		75					mgå	dga	kva		di	
SK01.58	9	10	10	1.00		75					gå	ga	kva		ds	
SK01.58	10	11	11	0.71	6	100					gå	ga	kva		ds	
SK01.58	11	12	12	0.50	5	100					gå	ga	kva		ds	
SK01.58	12	13	13	1.00	39	100					gå	ga	kva		ds	
SK01.58	13	14	14	1.00	22	100					gå	ga	kva		ds	
SK01.58	14	15	15	1.00	45	100					gå	ga	kva		dg	
SK01.58	15	16	16	2.00	60	100					gå	ga	kva		ds	
SK01.58	16	17	17	0.50		75					gå	ga	kva		ds	contains reworked miocene silt/clay
SK01.58	17	18	18	0.03		50					mgå	dga	kva		di	contains reworked miocene silt/clay
SK01.58	18	19	19	0.00		75					mgå	dga	kva		di	contains reworked miocene silt/clay
SK01.58	19	20	20	0.06		75					mgå	dga	kva		ds	contains reworked miocene silt/clay
SK01.58	20	21	21	0.50		25					mgå	dga	kva		ds	contains reworked miocene silt/clay
SK01.58	21	22	22	0.50		50					mgå	dga	kva		ds	contains reworked miocene silt/clay
SK01.58	22	23	23	0.03		75					mgå	dga	kva		di	contains reworked miocene silt/clay
SK01.58	23	24	24	0.03		50					gåbu	gabo	kva		di	contains reworked miocene silt/clay
SK01.58	24	25	25	0.02		50					gåbu	gabo	kva		di	contains reworked miocene silt/clay
SK01.58	25	26	26	0.25		50					mgå	dga	kva		ds	contains reworked miocene silt/clay

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.59	0	1	1	0.25		25					bugu	bugu	kva		ds	
SK01.59	1	2	2	0.25		50					bugu	bugu	kva		ds	
SK01.59	2	3	3	0.25		50					bugu	bugu	kva		ds	
SK01.59	3	4	4	0.25	1	75					gå	ga	kva		ds	
SK01.59	4	5	5	0.25	2	100					gå	ga	kva		ds	
SK01.59	5	6	6	0.50		100					gå	ga	kva		ds	
SK01.59	6	7	7	0.25		75					mgå	dga	kva		ds	reworked miocene silt/clay
SK01.59	7	8	8	0.25		100					mgå	dga	kva		ds	
SK01.59	8	9	9	0.50		100					mgå	dga	kva		ds	
SK01.59	9	10	10	0.50		100					mgå	dga	kva		ds	
SK01.59	10	11	11	0.50		100					mgå	dga	kva		ds	
SK01.59	11	12	12	0.06		100					mgå	dga	kva		ds	reworked miocene dominates
SK01.59	12	13	13	0.06		100					mgå	dga	kva		ds	reworked miocene dominates
SK01.59	13	14	14	0.35		75					mgå	dga	kva		ds	reworked miocene
SK01.59	14	15	15	0.25	11	75					gåbu	gabo	kva		ds	reworked miocene
SK01.59	15	16	16	0.25	16	75					gåbu	gabo	kva		ds	reworked miocene
SK01.59	16	17	17	0.25	16	75					gåbu	gabo	kva		ds	reworked miocene
SK01.59	17	18	18	0.50	14	75					gåbu	gabo	kva		ds	reworked miocene
SK01.59	18	19	19	0.50	30	50					gåbu	gabo	kva		ds	reworked miocene
SK01.59	19	20	20	0.50	21	75					gåbu	gabo	kva		ds	reworked miocene
SK01.59	20	21	21	0.25	9	75					gå	ga	kva		ds	
SK01.59	21	22	22	0.25	13	75					gå	ga	kva		ds	
SK01.59	22	23	23	1.00	7	75					gå	ga	kva		ds	
SK01.59	23	24	24	1.00	19	50					gå	ga	kva		ds	
SK01.59	24	25	25	0.50	8	50					gå	ga	kva		ds	
SK01.59	25	26	26	0.50	11	50					gå	ga	kva		ds	
SK01.59	26	27	27	0.25	15	50					gå	ga	kva		ds	
SK01.59	27	28	28	0.50	22	75					gå	ga	kva		ds	
SK01.59	28	29	29	0.25	9	50					gå	ga	kva		ds	
SK01.59	29	30	30	0.50	5	75					gå	ga	kva		ds	
SK01.59	30	31	31	0.03		10					bugå	boga	kva		di	high gravel cont., mio silt (possibly boundary to mio

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.60	0	1	1	0.25	4	75					mbu	dbo	kva		ds	
SK01.60	1	2	2	0.35	1	100					bugå	boga	kva		ds	
SK01.60	2	3	3	0.35	4	100					bugå	boga	kva		ds	
SK01.60	3	4	4	0.50	3	75					bugå	boga	kva		ds	pebbles
SK01.60	4	5	5	0.71	8	100					bugå	boga	kva		ds	pebbles
SK01.60	5	6	6	1.00	11	100				1.00	bugå	boga	kva		ds	pebbles
SK01.60	6	7	7	1.00	30	100					bugå	boga	kva		ds	pebbles
SK01.60	7	8	8	1.00	30	100					bugå	boga	kva		ds	stones
SK01.60	8	9	9	0.00		100					buso	boba	mio		gl	silty
SK01.60	9	10	10	0.00		100					buso	boba	mio		gl	silty
SK01.60	10	11	11	0.00		100					buso	boba	mio		gl	concreations
SK01.60	11	12	12	0.06		50	1.058		2.230	2123	mgå	dga	mio		gs	
SK01.60	12	13	13	0.06		75	1.633	2.766	2.766	4029	mgå	dga	mio		gs	
SK01.60	13	14	14	0.06		100	3.008	4.045	4.045	5180	mgå	dga	mio		gs	
SK01.60	14	15	15	0.06		100	2.232	3.378	3.378	3149	mgå	dga	mio		gs	
SK01.60	15	16	16	0.06		100	1.244		2.488	2000	mgå	dga	mio		gs	
SK01.60	16	17	17	0.06		100	1.737	2.321	2.321	2900	mgå	dga	mio		gs	few shell fragm., clay stringes
SK01.60	17	18	18	0.00		100					mgå	dga	mio		gl	silty
SK01.60	18	19	19	0.00		100					mgå	dga	mio		gi	mix of clay + silt, shell
SK01.60	19	20	20	0.06		100	2.216	2.418	2.418	3959	mgå	dga	mio		gs	
SK01.60	20	21	21	0.00		100					mgå	dga			gl	silty, concreations

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
Sk01.61	0	1	1	0.25	0	100					bugå	boga	kva		ds	
Sk01.61	1	2	2	0.25		100					bugå	boga	kva		ds	
Sk01.61	2	3	3	0.35		100					gå	ga	kva		ds	
Sk01.61	3	4	4	0.25		100					gå	ga	kva		ds	
Sk01.61	4	5	5	0.25		100					bugå	boga	kva		ds	
Sk01.61	5	6	6	0.25		100					bugå	boga	kva		ds	
Sk01.61	6	7	7	0.35	4	100					gå	ga	kva		ds	
Sk01.61	7	8	8	0.35	0	100					gå	ga	kva		ds	
Sk01.61	8	9	9	0.35	3	100					gå	ga	kva		ds	
Sk01.61	9	10	10	0.50	4	100					gå	ga	kva		ds	
Sk01.61	10	11	11	0.00	34	100					gå	ga	kva		ds	
Sk01.61	11	12	12	0.00	55	100					gå	ga	kva		ds	
Sk01.61	12	13	13	0.00		75					mgå	dga	mio		gi	cont. sand
Sk01.61	13	14	14	0.00		75					mgå	dga	mio		gi	
Sk01.61	14	15	15	0.00		75					mgå	dga	mio		gi	
Sk01.61	15	16	16	0.00		50					mgå	dga	mio		gi	
Sk01.61	16	17	17	0.00		75					mgå	dga	mio		gi	
Sk01.61	17	18	18	0.00		100					mgå	dga	mio		gi	clay
Sk01.61	18	19	19	0.00		100					mgå	dga	mio		gl	
Sk01.61	19	20	20	0.00		100					gåso	gaba	mio		gl	
Sk01.61	20	21	21	0.13		25	0.245		1.102	229	mgå	dga	mio		gs	
Sk01.61	21	22	22	0.13		25	0.314		1.198	142	mgå	dga	mio		gs	
Sk01.61	22	23	23	0.13		100	0.287		1.160	108	mgå	dga	mio		gs	lignite
Sk01.61	23	24	24	0.13		75	0.226		1.075	77	mgå	dga	mio		gs	shell frag., lignite
Sk01.61	24	25	25	0.18		50	0.456		1.395	29	mgå	dga	mio		gs	shell frag., pebbles
Sk01.61	25	26	26	0.13		100	0.547		1.522	14	mgå	dga	mio		gs	pebbles
Sk01.61	26	27	27	0.13		25	0.631		1.638	344	mgå	dga	mio		gs	shell frag.,
Sk01.61	27	28	28	0.13		50	0.615		1.616	226	mgå	dga	mio		gs	shell frag.
Sk01.61	28	29	29	0.13		50	0.581		1.569	392	mgå	dga	mio		gs	shell frag., pebbles
Sk01.61	29	30	30	0.13		50	0.309		1.191	38	mgå	dga	mio		gs	shell fragm.
Sk01.61	30	31	31	0.00		100					gåso	gaba	mio		gl	shell frag., silt
Sk01.61	31	32	32	0.00		100					mgå	dga	mio		gi	clay, shell fragm.

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.63	0	1	1	0.18		25					bugå	boga	kva		ds	
SK01.63	1	2	2	0.18		25					bugå	boga	kva		ds	
SK01.63	2	3	3	0.25		75					lgå	lga	kva		ds	
SK01.63	3	4	4	0.35		75					lgå	lga	kva		ds	
SK01.63	4	5	5	0.35		100					lgå	lga	kva		ds	
SK01.63	5	6	6	0.35		75					lgå	lga	kva		ds	
SK01.63	6	7	7	0.00		75					mgå	dga	kva		dl	flint
SK01.63	7	8	8	0.00		100					mgå	dga	kva		dl	sandy
SK01.63	8	9	9	0.00		50					mgå	dga	kva		dl	sandy
SK01.63	9	10	10	0.00		100					mgå	dga	kva		dl	sandy
SK01.63	10	11	11	0.00		100					mgå	dga	kva		dl	sandy
SK01.63	11	12	12	0.00		50					mgå	dga	kva		dl	sandy
SK01.63	12	13	13	0.00		100					mgå	dga	kva		dl	sandy
SK01.63	13	14	14	0.00		100					mgå	dga	kva		dl	sandy
SK01.63	14	15	15	0.00		50					mgå	dga	kva		dl	sandy
SK01.63	15	16	16	0.00		100					mgå	dga	kva		dl	sandy
SK01.63	16	17	17	0.00		75					mgå	dga	kva		dl	sandy
SK01.63	17	18	18	0.00		75					mgå	dga	kva		dl	sandy
SK01.63	18	19	19	0.00		75					mgå	dga	kva		dl	sandy
SK01.63	19	20	20	0.00		75					mgå	dga	kva		dl	sandy



BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.64	0	1	1	0.09		75					gå	ga	kva		ds	
SK01.64	1	2	2	0.13		75					gå	ga	kva		ds	
SK01.64	2	3	3	0.25		0	100				gugå	yega	kva		ds	
SK01.64	3	4	4	0.25		3	100				gugå	yega	kva		ds	
SK01.64	4	5	5	1.41		35	100				rø	re	kva		ds	
SK01.64	5	6	6	1.00		25	100				gåbu	gabo	kva		ds	
SK01.64	6	7	7	1.00		19	100				gå	ga	kva		ds	
SK01.64	7	8	8	1.00		14	100				røgå	rega	kva		ds	
SK01.64	8	9	9	0.50		5	100				gugå	yega	kva		ds	
SK01.64	9	10	10	0.50		8	100				gå	ga	kva		ds	
SK01.64	10	11	11	1.41		8	100				gugå	yega	kva		ds	
SK01.64	11	12	12	0.25		3	100				gå	ga	kva		ds	
SK01.64	12	13	13	0.25		3	100				gå	ga	kva		ds	
SK01.64	13	14	14	0.25			100				gå	ga	kva		ds	
SK01.64	14	15	15	0.25			100				gugå	yega	kva		ds	
SK01.64	15	16	16	2.83		58	100				gugå	yega	kva		ds	
SK01.64	16	17	17	2.83		56	100				gugå	yega	kva		ds	
SK01.64	17	18	18	1.00		33	100				røgå	rega	kva		ds	
SK01.64	18	19	19	0.50		19	100				røgå	rega	kva		ds	
SK01.64	19	20	20	0.25		6	100				røgå	rega	kva		ds	
SK01.64	20	21	21	0.50			100				gå	ga	kva		ds	lignite
SK01.64	21	22	22	0.25		6	100				gå	ga	kva		ds	lignite
SK01.64	22	23	23	0.25		2	100				gå	ga	kva		ds	lignite
SK01.64	23	24	24	0.25		1	100				gå	ga	kva		ds	
SK01.64	24	25	25	0.25		4	100				gå	ga	kva		ds	
SK01.64	25	26	26	0.25		4	100				gå	ga	kva		ds	lignite
SK01.64	26	27	27	0.25			100				gå	ga	kva		ds	
SK01.64	27	28	28	0.25		0	100				gå	ga	kva		ds	clay, lignite
SK01.64	28	29	29	0.25			100				gå	ga	kva		ds	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.65	0	1	1	0.18		25					bu	bo	kva		ds	
SK01.65	1	2	2	0.18		25					bu	bo	kva		ds	
SK01.65	2	3	3	0.25		75					bugå	boga	kva		ds	
SK01.65	3	4	4	0.25		100					bugå	boga	kva		ds	
SK01.65	4	5	5	0.35		100					bugå	boga	kva		ds	
SK01.65	5	6	6	0.35		75					bugå	boga	kva		ds	
SK01.65	6	7	7	0.35		75					bugå	boga	kva		ds	
SK01.65	7	8	8	0.35		100					lgå	lga	kva		ds	
SK01.65	8	9	9	0.35		100					lgå	lga	kva		ds	
SK01.65	9	10	10	0.50		100					lgå	lga	kva		ds	
SK01.65	10	11	11	0.00		100					gå	ga	kva		ds	
SK01.65	11	12	12	0.00		100					mgå	dga	kva		dl	
SK01.65	12	13	13	0.00		100					mgå	dga	mio		gl	
SK01.65	13	14	14	0.00		100					mgå	dga	mio		gl	
SK01.65	14	15	15	0.00		100					mgå	dga	mio		gl	
SK01.65	15	16	16	0.00		100					mgå	dga	mio		gl	
SK01.65	16	17	17	0.13		100					mgå	dga	mio		gi	shell fragments
SK01.65	17	18	18	0.13		15	1.831	2.184	2.184	4080	gå	ga	mio		gs	
SK01.65	18	19	19	0.13		50	2.512	3.020	3.020	4996	gå	ga	mio		gs	
SK01.65	19	20	20	0.13		50	1.924	2.852	2.852	3134	gå	ga	mio		gs	
SK01.65	20	21	21	0.00		100					mgå	dga	mio		gi	shell fragments
SK01.65	21	22	22	0.13		50	3.917	6.222	6.222	6491	gå	ga	mio		gs	shell fragments
SK01.65	22	23	23	0.00		100	2.012		3.555	2816	mgå	dga	mio		gl	
SK01.65	23	24	24	0.00		100	1.677		3.090	1358	mgå	dga	mio		gl	
SK01.65	24	25	25	0.13		50	1.221		2.457	1293	gå	ga	mio		gs	shell fragments
SK01.65	25	26	26	0.13		50	1.090		2.275	1039	gå	ga	mio		gs	shell fragments

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.66	0	1	1	0.18	1	50					bu	bo	kva		ds	
SK01.66	1	2	2	0.18	0	25					bu	bo	kva		ds	
SK01.66	2	3	3	0.25	0	50					bu	bo	kva		ds	
SK01.66	3	4	4	0.35	1	50					bugå	boga	kva		ds	
SK01.66	4	5	5	0.35	0	100					lgå	lga	kva		ds	
SK01.66	5	6	6	0.35	5	75					lgå	lga	kva		ds	
SK01.66	6	7	7	0.50	14	100					lgå	lga	kva		ds	
SK01.66	7	8	8	0.50	3	100					lgå	lga	kva		ds	
SK01.66	8	9	9	0.35	5	100					lgå	lga	kva		ds	
SK01.66	9	10	10	0.00		100					mgå	dga	kva		dl	sandy
SK01.66	10	11	11	0.00		100					mgå	dga	kva		dl	sandy
SK01.66	11	12	12	0.00		100					mgå	dga	kva		dl	sandy
SK01.66	12	13	13	0.00		75					mgå	dga	kva		dl	sandy
SK01.66	13	14	14	0.00		100					mgå	dga	kva		dl	sandy
SK01.66	14	15	15	0.00		100					mgå	dga	kva		dl	sandy
SK01.66	15	16	16	0.00		100					mgå	dga	kva		ds	sandy
SK01.66	16	17	17	0.35	39	75					gå	ga	kva		ds	poorly sorted
SK01.66	17	18	18	0.13	48	75					gå	ga	kva		ds	clay stringers
SK01.66	18	19	19	0.13		50	0.721		1.763	658	gå	ga	mio		gs	clay stringers
SK01.66	19	20	20	0.13		50	1.309		2.579	1643	gå	ga	mio		gs	
SK01.66	20	21	21	0.13		50	2.975	4.084	4.084	3210	gå	ga	mio		gs	concretions
SK01.66	21	22	22	0.13		50	1.748	2.518	2.518	1533	gå	ga	mio		gs	concretions
SK01.66	22	23	23	0.13		50	1.320		2.595	856	gå	ga	mio		gs	concretions
SK01.66	23	24	24	0.13		25	0.905		2.018	547	gå	ga	mio		gs	
SK01.66	24	25	25	0.13		50	0.445		1.380	359	gå	ga	mio		gs	
SK01.66	25	26	26	0.13		50	0.350		1.247	471	gå	ga	mio		gs	
SK01.66	26	27	27	0.13		25	0.465		1.408	590	gå	ga	mio		gs	
SK01.66	27	28	28	0.13		50	0.590		1.581	646	gå	ga	mio		gs	shell fragments
SK01.66	28	29	29	0.13		50	0.429		1.358	313	gå	ga	mio		gs	shell fragments
SK01.66	29	30	30	0.00		100					mgå	dga	mio		gl	shell fragments
SK01.66	30	31	31	0.00		50					mgå	dga	mio		gl	shell fragments
SK01.66	31	32	32	0.00		50					mgå	dga	mio		gl	concretions, shell fragments

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.67	0	1	1	0.18	0	50					bugå	boga	kva		ds	
SK01.67	1	2	2	0.18	0	50					bugå	boga	kva		ds	
SK01.67	2	3	3	0.25	1	100					bugå	boga	kva		ds	
SK01.67	3	4	4	0.35	1	100					bugå	boga	kva		ds	
SK01.67	4	5	5	0.35	0	50					bugå	boga	kva		ds	
SK01.67	5	6	6	0.35	9	100					bugå	boga	kva		ds	
SK01.67	6	7	7	0.50	18	100					bu	bu	kva		ds	
SK01.67	7	8	8	0.50	21	75					bu	bo	kva		ds	
SK01.67	8	9	9	0.35	25	75					bugå	boga	kva		ds	
SK01.67	9	10	10	0.00		100					lgå	lga	kva		dl	
SK01.67	10	11	11	0.00		100					mgå	dga	kva		dl	
SK01.67	11	12	12	0.00		100					mgå	dga	kva		dl	
SK01.67	12	13	13	0.00		100					mgå	dga	kva		dl	
SK01.67	13	14	14	0.00		100					mgå	dga	kva		di	
SK01.67	14	15	15	0.00		75					mgå	dga	kva		di	
SK01.67	15	16	16	0.00		100					gå	ga	kva		ds	
SK01.67	16	17	17	0.35	73	100					gå	ga	kva		dg	
SK01.67	17	18	18	0.13	61	100					gå	ga	kva		dg	
SK01.67	18	19	19	0.13	1	50					gå	ga	kva		ds	
SK01.67	19	20	20	0.13	0	50					gå	ga	kva		ds	
SK01.67	20	21	21	0.13	0	50					gå	ga	kva		ds	
SK01.67	21	22	22	0.13	0	75					gå	ga	kva		ds	
SK01.67	22	23	23	0.13	0	50					gå	ga	kva		ds	
SK01.67	23	24	24	0.13	0	50					gå	ga	kva		ds	
SK01.67	24	25	25	0.13	0	50					gå	ga	kva		ds	
SK01.67	25	26	26	0.13	0	50					gå	ga	kva		ds	
SK01.67	26	27	27	0.13	43	50					mgå	dga	kva		ds	shell fragments, pebbles
SK01.67	27	28	28	0.13		50					mgå	dga	kva		di	pebbles
SK01.67	28	29	29	0.13		50					mgå	dga	kva		di	shell fragments
SK01.67	29	30	30	0.00		25					mgå	dga	kva		di	shell fragments
SK01.67	30	31	31	0.00		100					mgå	dga	kva		di	
SK01.67	31	32	32	0.00		50					mgå	dga	kva		di	pebbles

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.68	0	1	1	0.25		50					bugå	boga	kva		ds	
SK01.68	1	2	2	0.25		100					bugå	boga	kva		ds	
SK01.68	2	3	3	0.50	1	100					gå	ga	kva		ds	
SK01.68	3	4	4	0.50	4	100					gå	ga	kva		ds	
SK01.68	4	5	5	0.50	4	100					gå	ga	kva		ds	
SK01.68	5	6	6	0.00		100					so	ba	mio		gl	
SK01.68	6	7	7	0.00		100					so	ba	mio		gl	
SK01.68	7	8	8	0.00		100					so	ba	mio		gl	
SK01.68	8	9	9	0.00		100					so	ba	mio		gl	
SK01.68	9	10	10	0.00		100					so	ba	mio		gl	
SK01.68	10	11	11	0.00		100					so	ba	mio		gl	
SK01.68	11	12	12	0.00		100					so	ba	mio		gl	
SK01.68	12	13	13	0.00		100					gåso	gaba	mio		gl	
SK01.68	13	14	14	0.00		100					so	ba	mio		gl	
SK01.68	14	15	15	0.00		100					so	ba	mio		gl	
SK01.68	15	16	16	0.13		100					mgå	dga	mio		gs	
SK01.68	16	17	17	0.13		50	0.577	1.563	769	769	mgå	dga	mio		gs	
SK01.68	17	18	18	0.13		75	0.246	1.104	333	333	mgå	dga	mio		gs	
SK01.68	18	19	19	0.13		100	0.375	1.282	142	142	mgå	dga	mio		gs	
SK01.68	19	20	20	0.13		75	0.208	1.051	137	137	mgå	dga	mio		gs	
SK01.68	20	21	21	0.13		75	0.195	1.033	107	107	mgå	dga	mio		gs	
SK01.68	21	22	22	0.13		100	0.141	0.957	21	21	mgå	dga	mio		gs	
SK01.68	22	23	23	0.06		100	0.088	0.884	20	20	mgå	dga	mio		gs	
SK01.68	23	24	24	0.06		100	0.145	0.963	67	67	mgå	dga	mio		gs	
SK01.68	24	25	25	0.06		75	0.152	0.973	28	28	mgå	dga	mio		gs	
SK01.68	25	26	26	0.06		75	0.219	1.066	209	209	mgå	dga	mio		gs	
SK01.68	26	27	27	0.06		75	0.382	1.293	716	716	mgå	dga	mio		gs	
SK01.68	27	28	28	0.06		75	0.265	1.130	393	393	mgå	dga	mio		gs	
SK01.68	28	29	29	0.06		75	0.275	1.144	395	395	mgå	dga	mio		gs	
SK01.68	29	30	30	0.06		50	0.358	1.259	363	363	mgå	dga	mio		gs	
SK01.68	30	31	31	0.00		75					bugå	boga	mio		gi	
SK01.68	31	32	32	0.00		50					bugå	boga	mio		gi	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.70	0	1	1	0.50		100					gubu	yebo	kva		ds	
SK01.70	1	2	2	0.50		100					gubu	yebo	kva		ds	
SK01.70	2	3	3	0.50	4	100					gugå	yega	kva		ds	pebbles
SK01.70	3	4	4	0.50	4	100					gugå	yega	kva		ds	pebbles
SK01.70	4	5	5	0.50	11	100					gugå	yega	kva		ds	pebbles, gi.
SK01.70	5	6	6	0.00		100					buso	boba	mio		gi	
SK01.70	6	7	7	0.00		100					gåso	gaba	mio		gl	
SK01.70	7	8	8	0.00		100					gåso	gaba	mio		gl	
SK01.70	8	9	9	0.00		100					gåso	gaba	mio		gl	
SK01.70	9	10	10	0.00		100					gåso	gaba	mio		gl	
SK01.70	10	11	11	0.00	10	100					gåso	gaba	mio		gl	
SK01.70	11	12	12	0.00		100					so	ba	mio		gs	cont. coarse sand, shell frag.
SK01.70	12	13	13	0.50	8	100	0.501		1.457	834	gå	ga	mio		gs	shell frag
SK01.70	13	14	14	0.13	31	100	0.806		1.881	303	gå	ga	mio		gs	cont. clay, granule, shell frag.
SK01.70	14	15	15	0.13		100	0.433		1.363	272	gå	ga	mio		gs	
SK01.70	15	16	16	0.13		100	0.861		1.958	452	gå	ga	mio		gs	
SK01.70	16	17	17	0.13		100	0.792		1.861	368	gå	ga	mio		gs	
SK01.70	17	18	18	0.13		75	0.286		1.159	7	gå	ga	mio		gs	
SK01.70	18	19	19	0.13		75	0.275		1.144	0	gå	ga	mio		gs	
SK01.70	19	20	20	0.13		75	0.180		1.012	0	gå	ga	mio		gs	
SK01.70	20	21	21	0.13		75	0.182		1.015	24	gå	ga	mio		gs	
SK01.70	21	22	22	0.13		75	0.185		1.019	0	gå	ga	mio		gs	
SK01.70	22	23	23	0.13		75	0.200		1.039	10	gå	ga	mio		gs	
SK01.70	23	24	24	0.09		75	0.415		1.339	492	gå	ga	mio		gs	
SK01.70	24	25	25	0.09		50	0.350		1.247	179	gå	ga	mio		gs	
SK01.70	25	26	26	0.09		75	0.285		1.157	371	gå	ga	mio		gs	
SK01.70	26	27	27	0.09		25	0.110		0.915	169	gå	ga	mio		gs	concretions

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.71	0	1	1	0.18	1	50					bu	bo	kva		ds	
SK01.71	1	2	2	0.18	1	50					bu	bo	kva		ds	
SK01.71	2	3	3	0.18	2	75					bugå	boga	kva		ds	lignite
SK01.71	3	4	4	0.18	1	75					lgå	lga	kva		ds	
SK01.71	4	5	5	0.35	9	100					lgå	lga	kva		ds	
SK01.71	5	6	6	0.35	20	75					lgå	lga	kva		ds	
SK01.71	6	7	7	0.00		100					gå	ga	kva		di	
SK01.71	7	8	8	0.00		100					mgå	dga	kva		dl	
SK01.71	8	9	9	0.00		100					mgå	dga	mio		gi	
SK01.71	9	10	10	0.00		100					mgå	dga	mio		gl	
SK01.71	10	11	11	0.00		100					mgå	dga	mio		gl	shell fragments
SK01.71	11	12	12	0.01		75					mgå	dga	mio		gi	shell fragments
SK01.71	12	13	13	0.00		75					mgå	dga	mio		gl	many shell fragments, concretions
SK01.71	13	14	14	0.13		100	1.862	1.967	1.967	1444	gå	ga	mio		gs	many shell fragments, concretions
SK01.71	14	15	15	0.13		50	1.273		2.529	849	gå	ga	mio		gs	
SK01.71	15	16	16	0.13		75	1.387		2.688	835	gå	ga	mio		gs	
SK01.71	16	17	17	0.13		50	0.893		2.001	484	gå	ga	mio		gs	
SK01.71	17	18	18	0.13		50	0.986		2.131	444	gå	ga	mio		gs	
SK01.71	18	19	19	0.13		100	0.950		2.081	396	gå	ga	mio		gs	
SK01.71	19	20	20	0.13		75	1.047		2.216	390	gå	ga	mio		gs	
SK01.71	20	21	21	0.13		75	0.650		1.664	250	gå	ga	mio		gs	
SK01.71	21	22	22	0.13		50	0.645		1.658	411	gå	ga	mio		gs	
SK01.71	22	23	23	0.13		50	0.373		1.279	298	gå	ga	mio		gs	
SK01.71	23	24	24	0.13		75	0.294		1.171	323	gå	ga	mio		gs	
SK01.71	24	25	25	0.13		50	0.490		1.443	808	gå	ga	mio		gs	
SK01.71	25	26	26	0.13		50	0.323		1.210	440	gå	ga	mio		gs	
SK01.71	26	27	27	0.13		50	0.205		1.047	429	gå	ga	mio		gs	
SK01.71	27	28	28	0.13		50	0.209		1.052	409	mgå	dga	mio		gs	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.72	0	1	1	0.18	1	25					bugå	boga	kva		ds	shell fragments
SK01.72	1	2	2	0.18	1	10					bugå	boga	kva		ds	
SK01.72	2	3	3	0.25	0	100					bugå	boga	kva		ds	
SK01.72	3	4	4	0.25	1	100					lgå	lga	kva		ds	
SK01.72	4	5	5	0.25	9	100					lgå	lga	kva		ds	
SK01.72	5	6	6	0.35	3	100					lgå	lga	kva		ds	
SK01.72	6	7	7	0.35	2	100					lgå	lga	kva		ds	
SK01.72	7	8	8	0.50	8	75					lgå	lga	kva		ds	
SK01.72	8	9	9	0.00		100					mgå	dga	kva		di	
SK01.72	9	10	10	0.00		100					mgå	dga	kva		dl	
SK01.72	10	11	11	0.00		100					mgå	dga	mio		gl	shell fragments
SK01.72	11	12	12	0.00		100					mgå	dga	mio		gl	shell fragments
SK01.72	12	13	13	0.00		75					gå	ga	mio		gi	shell fragments
SK01.72	13	14	14	0.06		50	0.577	1.563	1065		gå	ga	mio		gs	clay stringers, shell fragments
SK01.72	14	15	15	0.13		50	2.192	3.740	3.740	4768	gå	ga	mio		gs	
SK01.72	15	16	16	0.13		50	1.853	1.972	1.972	2762	gå	ga	mio		gs	
SK01.72	16	17	17	0.13		100	2.646	3.370	3.370	3319	gå	ga	mio		gs	
SK01.72	17	18	18	0.13		100	3.461	4.233	4.233	3985	gå	ga	mio		gs	concretions
SK01.72	18	19	19	0.13		75	1.667	2.320	2.320	1488	gå	ga	mio		gs	
SK01.72	19	20	20	0.13		75	1.977	3.632	3.632	2136	gå	ga	mio		gs	
SK01.72	20	21	21	0.13		50	4.462	5.733	5.733	4360	gå	ga	mio		gs	
SK01.72	21	22	22	0.13		50	1.838	2.343	2.343	1477	gå	ga	mio		gs	concretions
SK01.72	22	23	23	0.13		50	1.013		2.168	823	gå	ga	mio		gs	concretions
SK01.72	23	24	24	0.13		50	0.850		1.942	839	gå	ga	mio		gs	
SK01.72	24	25	25	0.13		25	0.741		1.791	628	gå	ga	mio		gs	
SK01.72	25	26	26	0.13		25	0.374		1.281	354	gå	ga	mio		gs	
SK01.72	26	27	27	0.13		25	0.715		1.754	741	gå	ga	mio		gs	
SK01.72	27	28	28	0.13		25	0.649		1.663	739	gå	ga	mio		gs	shell fragments
SK01.72	28	29	29	0.13		25	0.397		1.313	433	gå	ga	mio		gs	shell fragments
SK01.72	29	30	30	0.00		50					mgå	dga	mio		gi	shell fragments



BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.74	0	1	1	0.25		100					so	ba	kva		m	
SK01.74	1	2	2	0.25		50					gubu	yebo	kva		ds	
SK01.74	2	3	3	0.25		50					gubu	yebo	kva		ds	
SK01.74	3	4	4	0.35		75					gubu	yebo	kva		ds	
SK01.74	4	5	5	0.35		100					gugå	yega	kva		ds	
SK01.74	5	6	6	0.35		100					lgugå	lyega	kva		ds	
SK01.74	6	7	7	0.35		100					lgugå	lyega	kva		ds	
SK01.74	7	8	8	0.35		100					lgugå	lyega	kva		ds	
SK01.74	8	9	9	0.35		100					lgugå	lyega	kva		ds	
SK01.74	9	10	10	0.35		100					lgugå	lyega	kva		ds	
SK01.74	10	11	11	1.00	39	100					gugå	yega	kva		ds	pebbles
SK01.74	11	12	12	0.00		100					mgå	dga	mio		gi	clay
SK01.74	12	13	13	1.00	44	100					bugå	boga	mio		gs	pebbles/clay
SK01.74	13	14	14	0.25		100					gå	ga	mio		gs	lignite
SK01.74	14	15	15	1.00	14	100					mgå	dga	mio		gs	lignite, clay, pebbles
SK01.74	15	16	16	1.00		100					mgå	dga	mio		gs	lignite
SK01.74	16	17	17	0.71		100	0.609		1.607	1489	mgå	dga	mio		gs	pebbles,red silt
SK01.74	17	18	18	0.06		100	1.867	2.574	2.574	4055	mgå	dga	mio		gs	
SK01.74	18	19	19	0.06		100	2.031	2.996	2.996	3423	mgå	dga	mio		gs	
SK01.74	19	20	20	0.06		100	1.576	2.297	2.297	3905	mgå	dga	mio		gs	
SK01.74	20	21	21	0.06		100	3.679	6.228	6.228	6554	mgå	dga	mio		gs	
SK01.74	21	22	22	0.06		100	3.273	4.674	4.674	4478	mgå	dga	mio		gs	
SK01.74	22	23	23	0.06		100	3.208	4.288	4.288	5045	mgå	dga	mio		gs	
SK01.74	23	24	24	0.06		100	2.810	3.972	3.972	5034	mgå	dga	mio		gs	
SK01.74	24	25	25	0.06		100	1.563	2.141	2.141	1871	mgå	dga	mio		gs	
SK01.74	25	26	26	0.06		100	0.956		2.089	1095	mgå	dga	mio		gs	
SK01.74	26	27	27	0.06		100	0.584		1.572	793	mgå	dga	mio		gs	
SK01.74	27	28	28	0.06		100	0.613		1.612	702	mgå	dga	mio		gs	few concretions
SK01.74	28	29	29	0.06		100	0.538		1.509	971	mgå	dga	mio		gs	shell fragm.
SK01.74	29	30	30	0.06		75	0.515		1.477	878	mgå	dga	mio		gs	shell fragm.
SK01.74	30	31	31	0.06		50	0.299		1.177	604	mgå	dga	mio		gs	shell fragm.
SK01.74	31	32	32	0.00		100					gåbu	gabo	mio		gl	silt, shell fragm.

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS	
SK01.75	0	1	1	0.13		25					gubu	yebo	kva		ds		
SK01.75	1	2	2	0.13		0	100				gubu	yebo	kva		ds		
SK01.75	2	3	3	0.25		0	100				gugå	yega	kva		ds	lignite	
SK01.75	3	4	4	0.25		0	100				gugå	yega	kva		ds		
SK01.75	4	5	5	0.35		0	100				gå	ga	kva		ds		
SK01.75	5	6	6	0.50		0	100				gå	ga	kva		ds		
SK01.75	6	7	7	0.35		0	100				gå	ga	kva		ds		
SK01.75	7	8	8	0.35		0	100				gå	ga	kva		ds	lignite	
SK01.75	8	9	9	0.35		0	100				gå	ga	kva		ds	lignite	
SK01.75	9	10	10	1.00		20	100				mgå	dga	kva		ds	pebbles	
SK01.75	10	11	11	1.00			100				mgå	dga	kva		ds	pebbles	
SK01.75	11	12	12	0.00			100				sogå	vga	mio		gl	silt, pebbles	
SK01.75	12	13	13	0.00			100				so	ba	mio		gl		
SK01.75	13	14	14	0.00			100				so	ba	mio		gl		
SK01.75	14	15	15	0.00			100				so	ba	mio		gl		
SK01.75	15	16	16	0.00			100				so	ba	mio		gl		
SK01.75	16	17	17	0.00			100				sobu	vbo	mio		gl	shell frag.	
SK01.75	17	18	18	0.00			100				sobu	vbo	mio		gl	shell frag.	
SK01.75	18	19	19	0.03			100	1.038	2.203	1623	mgå	dga	mio		gi	cont. clay	
SK01.75	19	20	20	0.13			75	2.325	2.982	2.982	4082	mgå	dga	mio		gs	cont. clay
SK01.75	20	21	21	0.13			100	2.941	3.335	3.335	4762	mgå	dga	mio		gs	
SK01.75	21	22	22	0.13			100	1.635	1.755	1.755	1887	mgå	dga	mio		gs	
SK01.75	22	23	23	0.00			100				gåso	gaba	mio		gl	sand, shell frag.	
SK01.75	23	24	24	0.00			100				gåso	gaba	mio		gl	silty, shell frag.	
SK01.75	24	25	25	0.00			100				gåso	gaba	mio		gl	silty, shell frag.	
SK01.75	25	26	26	0.13			100	1.872	2.300	2.300	2294	mgå	dga	mio		gs	shell frag.
SK01.75	26	27	27	0.13			100	1.285	2.546	1514	mgå	dga	mio		gs	shell frag.	
SK01.75	27	28	28	0.13			100	1.171	2.387	1404	mgå	dga	mio		gs	shell frag.	
SK01.75	28	29	29	0.13			100	0.665	1.685	857	mgå	dga	mio		gs	shell frag.	
SK01.75	29	30	30	0.13			100	0.660	1.678	861	mgå	dga	mio		gs	shell frag.	
SK01.75	30	31	31	0.13			100	0.284	1.156	656	mgå	dga	mio		gs	shell frag.	
SK01.75	31	32	32	0.00			100				sogå	vga	mio		gl	silt, shell frag.	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.76	0	1	1	0.18	5	50					bu	bo	kva		ds	
SK01.76	1	2	2	0.18	4	50					bu	bo	kva		ds	
SK01.76	2	3	3	0.18	3	50					bugå	boga	kva		ds	
SK01.76	3	4	4	0.35	10	50					bugå	boga	kva		ds	
SK01.76	4	5	5	0.00		75					mgå	dga	kva		di	
SK01.76	5	6	6	0.00		100					mgå	dga	kva		dl	
SK01.76	6	7	7	0.00		100					mgå	dga	kva		dl	
SK01.76	7	8	8	0.00		100					mgå	dga	kva		dl	
SK01.76	8	9	9	0.00		100					mgå	dga	kva		dl	
SK01.76	9	10	10	0.00		100					mgå	dga	kva		dl	
SK01.76	10	11	11	0.00		75					gå	ga	kva		di	
SK01.76	11	12	12	0.13		50	1.295		2.560	967	gå	ga	mio		gs	
SK01.76	12	13	13	0.13		50	0.677		1.701	371	gå	ga	mio		gs	
SK01.76	13	14	14	0.13		50	0.754		1.808	419	gå	ga	mio		gs	
SK01.76	14	15	15	0.13		50	0.557		1.535	197	gå	ga	mio		gs	
SK01.76	15	16	16	0.13		50	0.417		1.341	214	gå	ga	mio		gs	
SK01.76	16	17	17	0.13		50	0.570		1.553	220	gå	ga	mio		gs	
SK01.76	17	18	18	0.13		50	0.394		1.309	167	gå	ga	mio		gs	
SK01.76	18	19	19	0.13		50	0.344		1.240	152	gå	ga	mio		gs	
SK01.76	19	20	20	0.13		50	0.378		1.286	262	gå	ga	mio		gs	
SK01.76	20	21	21	0.13		50	0.548		1.523	595	gå	ga	mio		gs	
SK01.76	21	22	22	0.13		50	0.558		1.537	499	gå	ga	mio		gs	
SK01.76	22	23	23	0.06		25	0.520		1.484	565	gå	ga	mio		gs	
SK01.76	23	24	24	0.06		50	0.561		1.541	443	gå	ga	mio		gs	cont. Clay/silt
SK01.76	24	25	25	0.01		75					mgå	dga	mio		gi	shell fragments
SK01.76	25	26	26	0.01		75					mgå	dga	mio		gi	
SK01.76	26	27	27	0.01		25					mgå	dga	mio		gi	
SK01.76	27	28	28	0.01		100					mgå	dga	mio		gi	
SK01.76	28	29	29	0.00		100					mgå	dga	mio		gi	
SK01.76	29	30	30	0.00		50					mgå	dga	mio		gi	shell fragments
SK01.76	30	31	31	0.00		100					mgå	dga	mio		gi	shell fragments
SK01.76	31	32	32	0.00		100					mgå	dga	mio		gl	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.77	0	1	1	0.35	0	40					lbugå	lboga	kva		ds	
SK01.77	1	2	2	0.35	2	30					lbugå	lboga	kva		ds	
SK01.77	2	3	3	0.25	1	70					lgå	lga	kva		ds	
SK01.77	3	4	4	0.25	1	50					lgå	lga	kva		ds	pebbles
SK01.77	4	5	5	0.35	7	100					lgå	lga	kva		ds	pebbles
SK01.77	5	6	6	0.50	1	100					lgå	lga	kva		gl	pebbles + cont very coarse sand
SK01.77	6	7	7	0.00	0	100					mgå	dga	mio		gl	cont sand
SK01.77	7	8	8	0.00	9	100					mgå	dga	mio		gs	cont sand
SK01.77	8	9	9	0.35	2	70	0.346		1.242	661	lgå	lga	mio		gs	shell fragm
SK01.77	9	10	10	0.13	8	70	1.945	3.079	3.079	1918	lgå	lga	mio		gs	shell fragm
SK01.77	10	11	11	0.13		60	1.622	2.541	2.541	1302	lgå	lga	mio		gs	
SK01.77	11	12	12	0.13		60	1.032		2.194	771	lgå	lga	mio		gs	
SK01.77	12	13	13	0.13		50	0.613		1.612	522	lgå	lga	mio		gs	
SK01.77	13	14	14	0.13		70	0.476		1.422	408	lgå	lga	mio		gs	
SK01.77	14	15	15	0.13		70	0.356		1.256	277	lgå	lga	mio		gs	
SK01.77	15	16	16	0.13		100	0.375		1.283	229	lgå	lga	mio		gs	
SK01.77	16	17	17	0.13		100	0.274		1.142	281	lgå	lga	mio		gs	
SK01.77	17	18	18	0.13		70	0.260		1.123	244	lgå	lga	mio		gs	
SK01.77	18	19	19	0.13		70	0.350		1.247	254	lgå	lga	mio		gs	
SK01.77	19	20	20	0.13		70	0.370		1.276	357	lgå	lga	mio		gs	
SK01.77	20	21	21	0.13		50	0.388		1.300	319	lgå	lga	mio		gs	
SK01.77	21	22	22	0.13		50	0.548		1.523	781	lgå	lga	mio		gs	
SK01.77	22	23	23	0.13		40	0.406		1.326	588	lgå	lga	mio		gs	
SK01.77	23	24	24	0.13		40	0.314		1.198	332	lgå	lga	mio		gs	
SK01.77	24	25	25	0.00		40					mgå	dga	mio		gi	
SK01.77	25	26	26	0.00		30					mgå	dga	mio		gi	pebbles
SK01.77	26	27	27	0.00		30					mgå	dga	mio		gi	pebbles + shell fragm
SK01.77	27	28	28	0.00		30					mgå	dga	mio		gi	pebbles
SK01.77	28	29	29	0.00		90					mgå	dga	mio		gl	
SK01.77	29	30	30	0.00		100					mgå	dga	mio		gl	shell fragm
SK01.77	30	31	31	0.00		100					mgå	dga	mio		gl	
SK01.77	31	32	32	0.00		100					mgå	dga	mio		gl	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.78	0	1	1	0.25	2	70					bugå	boga	kva		ds	
SK01.78	1	2	2	0.25	0	40					bugå	boga	kva		ds	
SK01.78	2	3	3	0.35	1	80					bugå	boga	kva		ds	
SK01.78	3	4	4	0.25	3	60					bugå	boga	kva		ds	pebbles
SK01.78	4	5	5	0.25		50	0.165		0.992	170	bu	bo	mio		gs	shell fragments
SK01.78	5	6	6	0.00		100					mgå	dga	mio		gl	cont. Sand
SK01.78	6	7	7	0.00		100					mgå	dga	mio		gl	cont. Sand
SK01.78	7	8	8	0.00		100					mgå	dga	mio		gl	cont. Sand
SK01.78	8	9	9	0.13		75	1.212		2.444	946	lgå	lga	mio		gs	shell frag.
SK01.78	9	10	10	0.13		75	1.254		2.502	626	lgå	lga	mio		gs	
SK01.78	10	11	11	0.13		50	1.061		2.234	555	lgå	lga	mio		gs	
SK01.78	11	12	12	0.13		75	0.812		1.889	484	lgå	lga	mio		gs	
SK01.78	12	13	13	0.13		75	1.010		2.164	553	lgå	lga	mio		gs	
SK01.78	13	14	14	0.13		100	0.788		1.856	361	lgå	lga	mio		gs	
SK01.78	14	15	15	0.13		100	0.790		1.858	163	lgå	lga	mio		gs	
SK01.78	15	16	16	0.13		50	0.546		1.520	224	lgå	lga	mio		gs	
SK01.78	16	17	17	0.13		50	0.465		1.407	174	lgå	lga	mio		gs	
SK01.78	17	18	18	0.13		5	0.505		1.464	251	lgå	lga	mio		gs	
SK01.78	18	19	19	0.13		50	0.465		1.408	293	lgå	lga	mio		gs	
SK01.78	19	20	20	0.13		25	0.424		1.350	333	lgå	lga	mio		gs	
SK01.78	20	21	21	0.13		25	0.607		1.605	645	lgå	lga	mio		gs	
SK01.78	21	22	22	0.13		25	0.688		1.718	653	lgå	lga	mio		gs	
SK01.78	22	23	23	0.06		25	0.660		1.679	519	lgå	lga	mio		gi	
SK01.78	23	24	24	0.00		75					mgå	dga	mio		gl	cont.sand
SK01.78	24	25	25	0.00		50					mgå	dga	mio		gl	cont.sand
SK01.78	25	26	26	0.00		25					mgå	dga	mio		gl	cont.sand
SK01.78	26	27	27	0.00		25					mgå	dga	mio		gl	cont.sand
SK01.78	27	28	28	0.00		75					mgå	dga	mio		gl	cont.sand
SK01.78	28	29	29	0.00		100					mgå	dga	mio		gl	cont.sand
SK01.78	29	30	30	0.00		25					mgå	dga	mio		gl	cont sand

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.79	0	1	1	0.35	6	25					mgå	dga	kva		ds	
SK01.79	1	2	2	0.35	3	25					mgå	dga	kva		ds	
SK01.79	2	3	3	0.50	8	25					mgå	dga	kva		ds	
SK01.79	3	4	4	0.50	4	100					mgå	dga	kva		ds	
SK01.79	4	5	5	0.35		100					mgå	dga	kva		ds	
SK01.79	5	6	6	0.35	2	25					mgå	dga	kva		ds	
SK01.79	6	7	7	0.13	0	25					mgå	dga	mio		gs	
SK01.79	7	8	8	0.00		25	0.588		1.578	635	mgå	dga	mio		gl	cont.sand
SK01.79	8	9	9	0.13		25	0.636		1.645	1069	mgå	dga	mio		gs	
SK01.79	9	10	10	0.00		25	0.814		1.892	960	mgå	dga	mio		gl	
SK01.79	10	11	11	0.13		25	0.640		1.650	1012	mgå	dga	mio		gs	
SK01.79	11	12	12	0.06		25	0.571		1.555	1048	mgå	dga	mio		gs	
SK01.79	12	13	13	0.06		25	0.593		1.586	940	mgå	dga	mio		gs	
SK01.79	13	14	14	0.13		25	0.479		1.427	885	mgå	dga	mio		gs	
SK01.79	14	15	15	0.13		25	0.566		1.548	894	mgå	dga	mio		gs	
SK01.79	15	16	16	0.13		25	0.579		1.566	952	mgå	dga	mio		gs	
SK01.79	16	17	17	0.13		40	0.554		1.532	910	mgå	dga	mio		gs	
SK01.79	17	18	18	0.13		25	0.465		1.408	860	mgå	dga	mio		gs	
SK01.79	18	19	19	0.13		25	0.410		1.331	864	mgå	dga	mio		gs	
SK01.79	19	20	20	0.13		25	0.495		1.449	856	mgå	dga	mio		gs	
SK01.79	20	21	21	0.13		50	0.565		1.546	854	mgå	dga	mio		gs	
SK01.79	21	22	22	0.13		25	0.572		1.556	893	mgå	dga	mio		gs	
SK01.79	22	23	23	0.13		100	0.514		1.475	868	mgå	dga	mio		gs	
SK01.79	23	24	24	0.13		100	0.521		1.485	917	mgå	dga	mio		gs	
SK01.79	24	25	25	0.25		100	0.530		1.497	842	mgå	dga	mio		gs	shell frag.
SK01.79	25	26	26	0.13		75	0.575		1.560	821	mgå	dga	mio		gs	
SK01.79	26	27	27	0.13		75	0.533		1.502	821	mgå	dga	mio		gs	
SK01.79	27	28	28	0.13		50	0.482		1.432	779	mgå	dga	mio		gs	
SK01.79	28	29	29	0.13		50	0.497		1.452	817	mgå	dga	mio		gs	
SK01.79	29	30	30	0.25		50	0.481		1.429	810	mgå	dga	mio		gs	shell frag. +coarse sand
SK01.79	30	31	31	0.13		25	0.499		1.454	888	mgå	dga	mio		gs	
SK01.79	31	32	32	0.06		25	0.522		1.486	716	mgå	dga	mio		gs	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.80	0	1	1	0.00		30					mgå	dga	kva		dl	cont sand (+ pebbles and shell fragm)
SK01.80	1	2	2	0.06		100					gå	ga	kva		ds	
SK01.80	2	3	3	0.06		80					gå	ga	kva		ds	
SK01.80	3	4	4	0.50		100					gå	ga	kva		ds	cont sand, very coarse sand, pebbles and shell fragm
SK01.80	4	5	5	0.06		80					gå	ga	kva		ds	pebbles (+shell fragm)
SK01.80	5	6	6	0.35		60					gå	ga	kva		ds	shell fragm
SK01.80	6	7	7	1.00		80					gå	ga	kva		ds	pebbles
SK01.80	7	8	8	0.50		60					gå	ga	kva		ds	
SK01.80	8	9	9	0.35		70					gå	ga	kva		ds	
SK01.80	9	10	10	0.35		60					gå	ga	kva		ds	
SK01.80	10	11	11	0.35		60					gå	ga	kva		ds	
SK01.80	11	12	12	0.25		60					gå	ga	kva		ds	
SK01.80	12	13	13	0.25		60					gå	ga	kva		ds	
SK01.80	13	14	14	0.13		60					gå	ga	kva		ds	
SK01.80	14	15	15	0.13		60					gå	ga	kva		ds	
SK01.80	15	16	16	0.13		50					gå	ga	kva		ds	
SK01.80	16	17	17	0.13		30					gå	ga	kva		ds	shell fragm
SK01.80	17	18	18	0.00		40					gå	ga	kva		ds	pebbles
SK01.80	18	19	19	0.50		60					gå	ga	kva		di	pebbles
SK01.80	19	20	20	0.25		6					gå	ga	kva		ds	pebbles
SK01.80	20	21	21	0.25		25					gå	ga	kva		ds	pebbles
SK01.80	21	22	22	0.13		3					gå	ga	kva		ds	pebbles
SK01.80	22	23	23	0.13		0					gå	ga	kva		ds	
SK01.80	23	24	24	0.13		0					gå	ga	kva		ds	
SK01.80	24	25	25	0.13		0					bugå	boga	kva		ds	
SK01.80	25	26	26	0.13		0					bugå	boga	kva		ds	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.81	0	1	1	0.18	0	100					bu	bo	kva		ds	
SK01.81	1	2	2	0.18	0	50					bu	bo	kva		ds	
SK01.81	2	3	3	0.25	0	100					bugå	boga	kva		ds	
SK01.81	3	4	4	0.25	0	100					lgå	lga	kva		ds	
SK01.81	4	5	5	0.25	0	100					lgå	lga	kva		ds	
SK01.81	5	6	6	0.25	0	100					lgå	lga	kva		ds	
SK01.81	6	7	7	0.25	1	100					lgå	lga	kva		ds	
SK01.81	7	8	8	0.25	2	75					lgå	lga	kva		ds	
SK01.81	8	9	9	0.25	16	100					bugå	boga	kva		ds	
SK01.81	9	10	10	0.01		75					mgå	dga	kva		di	
SK01.81	10	11	11	0.00		100					mgå	dga	kva		dl	
SK01.81	11	12	12	0.00		100					mgå	dga	kva		dl	
SK01.81	12	13	13	0.03		10					mgå	dga	kva		di	
SK01.81	13	14	14	0.06		10					mgå	dga	kva		ds	
SK01.81	14	15	15	0.06		10					mgå	dga	kva		ds	
SK01.81	15	16	16	0.06		10					mgå	dga	kva		ds	
SK01.81	16	17	17	0.06		10					mgå	dga	kva		ds	
SK01.81	17	18	18	0.06		10					mgå	dga	kva		ds	
SK01.81	18	19	19	0.06		25					gå	ga	kva		ds	
SK01.81	19	20	20	0.13		50	0.707		1.744	946	gå	ga	mio		gs	miocene slice
SK01.81	20	21	21	0.13		25	0.766		1.825	984	gå	ga	mio		gs	miocene slice
SK01.81	21	22	22	0.13		75	0.620		1.622	539	gå	ga	mio		gs	miocene slice
SK01.81	22	23	23	0.13		100	0.685		1.713	629	gå	ga	mio		gs	miocene slice
SK01.81	23	24	24	0.13		50	0.726		1.770	540	gå	ga	mio		gs	miocene slice
SK01.81	24	25	25	0.13		50	0.726		1.770	646	gå	ga	mio		gs	miocene slice
SK01.81	25	26	26	0.25		100	0.761		1.819	601	gå	ga	mio		gs	miocene slice
SK01.81	26	27	27	0.25		75	0.772		1.833	519	gå	ga	mio		gs	miocene slice
SK01.81	27	28	28	2.00		75	0.788		1.855	579	gå	ga	kva		dg	pebbles, flint
SK01.81	28	29	29	0.13		100	0.512		1.473	506	gå	ga	kva		ds	pebbles, reworked miocene
SK01.81	29	30	30	0.13		50	0.853		1.947	1206	gå	ga	kva		ds	reworked miocene
SK01.81	30	31	31	0.13		15	0.780		1.845	862	mgå	dga	kva		ds	pebbles, flint, reworked miocene
SK01.81	31	32	32	0.13		25	0.748		1.800	714	mgå	dga	kva		ds	reworked miocene



BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.82	0	1	1	0.25		50					mrøbu	drebo	kva		ds	
SK01.82	1	2	2	0.25		25					røbu	rebo	kva		ds	
SK01.82	2	3	3	0.25		100					gåbu	gabo	kva		ds	
SK01.82	3	4	4	0.25		100					gåbu	gabo	kva		ds	
SK01.82	4	5	5	0.25		100					gåbu	gabo	kva		ds	lignite
SK01.82	5	6	6	0.50		100					gå	ga	kva		ds	lignite
SK01.82	6	7	7	0.50		100					gå	ga	kva		ds	lignite
SK01.82	7	8	8	0.50		100					gå	ga	kva		ds	lignite
SK01.82	8	9	9	0.50		100					gå	ga	kva		ds	lignite
SK01.82	9	10	10	0.50		100					gå	ga	kva		ds	
SK01.82	10	11	11	0.50	6	100					gå	ga	kva		ds	pebbles
SK01.82	11	12	12	2.00	50	100					mgåbu	dgabo	kva		ds	
SK01.82	12	13	13	0.00		100					gåso	gaba	mio		gl	
SK01.82	13	14	14	0.00		100					gåso	gaba	mio		gl	pebbles, silt
SK01.82	14	15	15	0.00		100					mgå	dga	mio		gl	pebbles, silt
SK01.82	15	16	16	0.00		100					mgå	dga	mio		gl	
SK01.82	16	17	17	0.00		100					mgå	dga	mio		gi	
SK01.82	17	18	18	0.00		100					mgå	dga	mio		gi	silt
SK01.82	18	19	19	0.00							mgå	dga	mio		gl	silt,shell frag., concreations
SK01.82	19	20	20	0.00		50					mgå	dga	mio		gl	silt,shell frag., concreations
SK01.82	20	21	21	0.00		100					mgå	dga	mio		gl	silt,shell frag., concreations
SK01.82	21	22	22	0.00		100					mgå	dga	mio		gl	shell frag.
SK01.82	22	23	23	0.00		100					mgå	dga	mio		gl	
SK01.82	23	24	24	0.00		100					mgå	dga	mio		gl	
SK01.82	24	25	25	0.00		100					mgå	dga	mio		gl	
SK01.82	25	26	26	0.00		100					mgå	dga	mio		gl	
SK01.82	26	27	27	0.00		75					mgå	dga	mio		gl	
SK01.82	27	28	28	0.06		50	0.444		1.379	953	mgå	dga	mio		gs	
SK01.82	28	29	29	0.06		50	0.425		1.352	565	mgå	dga	mio		gs	clay
SK01.82	29	30	30	0.06		50	0.506		1.465	447	mgå	dga	mio		gs	
SK01.82	30	31	31	0.06		50	0.386		1.298	332	mgå	dga	mio		gs	
SK01.82	31	32	32	0.06		50	0.436		1.368	584	mgå	dga	mio		gs	

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.83	0	1	1	0.25		50					gu	ye	kva		ds	
SK01.83	1	2	2	0.25		100					gu	ye	kva		ds	
SK01.83	2	3	3	0.25		100					gugå	yega	kva		ds	cont. peet
SK01.83	3	4	4	0.25		100					gugå	yega	kva		ds	lignite
SK01.83	4	5	5	0.25		100					gugå	yega	kva		ds	lignite
SK01.83	5	6	6	0.25		100					gugå	yega	kva		ds	lignite
SK01.83	6	7	7	0.25		100					gu	ye	kva		ds	
SK01.83	7	8	8	0.35		100					gu	ye	kva		ds	
SK01.83	8	9	9	0.50		100					gugå	yega	kva		ds	pebbles
SK01.83	9	10	10	0.00		100					mgå	dga	kva		dl	
SK01.83	10	11	11	0.00		100					so	ba	mio		gl	
SK01.83	11	12	12	0.00		100					so	ba	mio		gl	shell frag.
SK01.83	12	13	13	1.00	9	100	0.252		1.112	502	gå	ga	mio		gs	shell frag.
SK01.83	13	14	14	0.50	13	100	1.188		2.412	1529	gå	ga	mio		gs	pebbles, shell frag.
SK01.83	14	15	15	0.13		100	1.090		2.275	1230	gå	ga	mio		gs	clay, shell frag.
SK01.83	15	16	16	0.13		100	1.083		2.265	1054	gå	ga	mio		gs	
SK01.83	16	17	17	0.13		100	1.509	2.180	2.180	1201	gå	ga	mio		gs	
SK01.83	17	18	18	0.13		100	1.271		2.526	970	gå	ga	mio		gs	
SK01.83	18	19	19	0.13		100	0.620		1.623	552	gå	ga	mio		gs	
SK01.83	19	20	20	0.13		100	0.195		1.033	308	gå	ga	mio		gs	
SK01.83	20	21	21	0.13		100	0.221		1.068	205	gå	ga	mio		gs	
SK01.83	21	22	22	0.13		100	0.304		1.185	207	gå	ga	mio		gs	
SK01.83	22	23	23	0.13		50	0.259		1.122	151	gå	ga	mio		gs	
SK01.83	23	24	24	0.13		100	0.447		1.382	421	gå	ga	mio		gs	
SK01.83	24	25	25	0.09		50	0.734		1.781	722	gå	ga	mio		gs	
SK01.83	25	26	26	0.09		50	0.518		1.481	912	gå	ga	mio		gs	
SK01.83	26	27	27	0.09		50	0.379		1.288	599	gå	ga	mio		gs	
SK01.83	27	28	28	0.09		50	0.411		1.333	610	gå	ga	mio		gs	
SK01.83	28	29	29	0.00		50					gå	ga	mio		gl	silt

BOREHOLENO	TOP	BOTTOM	BAGNO	Grainsize	GRAVELPCT	RECOVERY	TiO2 (XMET) field	TiO2 XRF pellets	TiO2 calibrated	Zr	Farve	Color	AGE	FORMATION	ROCKSYMBOL	REMARKS
SK01.84	0	1	1	0.18	0	75					bu	bo	kva		ds	
SK01.84	1	2	2	0.18	0	75					bu	bo	kva		ds	
SK01.84	2	3	3	0.35	6	100					bugå	boga	kva		ds	
SK01.84	3	4	4	0.35	26	100					lgå	lga	kva		ds	
SK01.84	4	5	5	0.50	24	100					lgå	lga	kva		ds	
SK01.84	5	6	6	0.00		100					mgå	dga	kva		di	
SK01.84	6	7	7	0.00		100					mgå	dga	kva		di	
SK01.84	7	8	8	0.00		100					mgå	dga	kva		di	
SK01.84	8	9	9	0.00		100					mgå	dga	kva		di	
SK01.84	9	10	10	0.00		100					mgå	dga	mio		gl	
SK01.84	10	11	11	0.00		100					mgå	dga	mio		gl	
SK01.84	11	12	12	0.00		100					mgå	dga	mio		gl	
SK01.84	12	13	13	0.00		10					mgå	dga	mio		gi	
SK01.84	13	14	14	0.00		25					mgå	dga	mio		gi	
SK01.84	14	15	15	0.00		25					mgå	dga	mio		gi	
SK01.84	15	16	16	0.01		25					mgå	dga	mio		gi	
SK01.84	16	17	17	0.06		10	0.656		1.673	971	gå	ga	mio		gs	
SK01.84	17	18	18	0.06		10	0.643		1.654	730	gå	ga	mio		gs	
SK01.84	18	19	19	0.06		10	0.621		1.625	925	gå	ga	mio		gs	
SK01.84	19	20	20	0.13		50	0.723		1.766	1134	gå	ga	mio		gs	
SK01.84	20	21	21	0.13		25	0.407		1.327	784	gå	ga	mio		gs	
SK01.84	21	22	22	0.13		25	0.331		1.222	693	gå	ga	mio		gs	
SK01.84	22	23	23	0.13		50	0.223		1.072	391	gå	ga	mio		gs	
SK01.84	23	24	24	0.13		25	0.370		1.276	542	gå	ga	mio		gs	
SK01.84	24	25	25	0.13		50	0.822		1.903	642	gå	ga	mio		gs	
SK01.84	25	26	26	0.13		50	0.391		1.305	605	gå	ga	mio		gs	
SK01.84	26	27	27	0.13		50	0.349		1.246	494	gå	ga	mio		gs	
SK01.84	27	28	28	0.13		75	0.481		1.429	574	gå	ga	mio		gs	
SK01.84	28	29	29	0.25		75	0.257		1.119	300	gå	ga	mio		gs	shell fragments
SK01.84	29	30	30	0.25		75	0.392		1.307	316	gå	ga	mio		gs	shell fragments
SK01.84	30	31	31	0.25		100	0.144		0.962	152	gå	ga	mio		gs	shell fragments
SK01.84	31	32	32	0.25		100	0.284		1.157	130	gå	ga	mio		gs	shell fragments

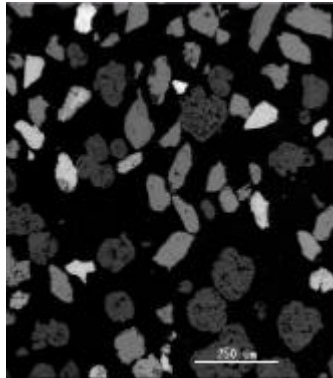
**3 CCSEM**

**Geological Survey of Denmark and Greenland**

Thoravej 8, DK-2400 Copenhagen NV

Ph: +45 38142000, Fax : 38142050

Sample Name	SK99/1 17-28
Date	8/9/99
Submitter	Dupont
Analyzed by	CCA
Acc Voltage	17 kV
Magnification	100x
Guard region	155 $\mu\text{m}$
Sieve	200 $\mu\text{m}^2$



Number of frames:

Number of valuable particles analyzed:

Heavy minerals in raw sand (%):

Average content	Category										
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	sphene	sillimanite	staurolite	Y-phosphate
TiO <sub>2</sub> w/w	53.1	77.7	90.9	0.8	18.0	24.2	0.2	35.9	0.3	0.6	0.0
Fe <sub>2</sub> O <sub>3</sub> w/w	35.9	7.9	2.2	11.6	58.9	13.7	0.4	2.9	1.8	28.4	4.9
MnO w/w	2.7	0.2	0.2	0.5	1.7	5.1	0.2	0.0	0.0	5.0	0.0
Cr <sub>2</sub> O <sub>3</sub> w/w	0.1	0.2	0.2	0.1	0.0	0.8	0.3	0.0	0.4	0.1	0.0
SiO <sub>2</sub> w/w	3.0	4.5	1.9	43.7	11.8	23.4	29.3	29.8	42.5	36.5	0.9
Al <sub>2</sub> O <sub>3</sub> w/w	1.6	2.5	1.3	20.3	2.1	11.5	0.2	2.6	53.2	19.1	0.6
MgO w/w	0.3	0.7	0.2	3.1	0.8	0.5	0.2	0.4	0.2	2.8	0.0
CaO w/w	0.4	1.5	0.4	17.1	1.4	5.2	0.1	26.5	0.2	5.7	7.5
ZrO <sub>2</sub> w/w	0.4	1.0	0.6	0.2	0.5	1.8	65.1	0.0	0.0	0.1	0.0
Total	97.5	96.1	97.8	97.3	95.2	86.2	95.9	98.0	98.6	98.3	13.9

**Normalised average contents of the valuable Ti-containing minerals:**

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti-ox.
TiO <sub>2</sub> w/w	54.4	80.9	93.0	18.9
Fe <sub>2</sub> O <sub>3</sub> w/w	36.8	8.2	2.2	61.9
MnO w/w	2.7	0.2	0.2	1.8
Cr <sub>2</sub> O <sub>3</sub> w/w	0.1	0.3	0.2	0.0
SiO <sub>2</sub> w/w	3.1	4.6	1.9	12.4
Al <sub>2</sub> O <sub>3</sub> w/w	1.7	2.5	1.3	2.2
MgO w/w	0.3	0.7	0.2	0.8
CaO w/w	0.4	1.5	0.4	1.4
ZrO <sub>2</sub> w/w	0.4	1.1	0.6	0.5
Total	100.0	100.0	100.0	100.0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile

**Weight percent on a mineral basis**

**the heavy mineral concentrate**

Category	w/w
ilmenite	21.30
leucoxene	1.62
pyrite	0.00
rutile	4.87
silicate	55.23
sphene	0.54
other Ti-ox.	2.12
unclassified	3.40
zircon	6.61
almandine	0.00
phosphate	0.00
sillimanite	0.03
staurolite	3.74
Y-phosphate	0.53
Total	100.00

**the raw sand**

Category	w/w
ilmenite	1.75
leucoxene	0.13
pyrite	0.00
rutile	0.40
silicate	96.33
sphene	0.04
other Ti-ox.	0.17
unclassified	0.28
zircon	0.54
almandine	0.00
phosphate	0.00
sillimanite	0.00
staurolite	0.31
Y-phosphate	0.04
Total	100.00

**the valuable heavy minerals**

Category	w/w
ilmenite	58.28
leucoxene	4.44
rutile	13.33
other Ti-ox.	5.79
zircon	18.08
almandine	0.00
sillimanite	0.07
Total	100.00

Valuable heavy minerals

in raw sand

**Geological Survey of Denmark and Greenland**

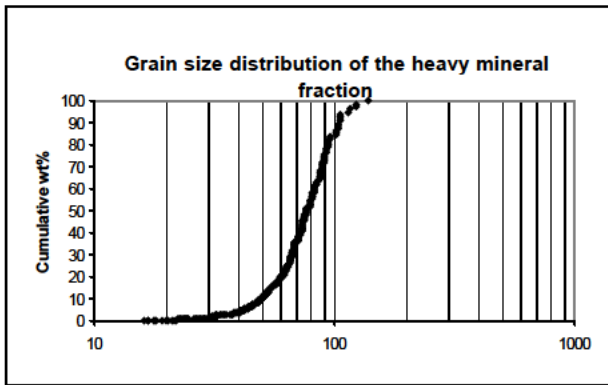
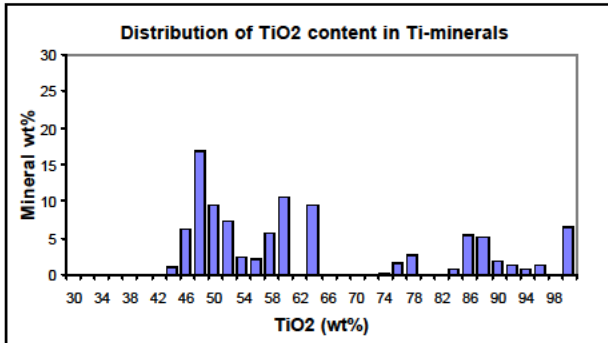
Thoravej 8, DK-2400 Copenhagen NV

Ph: +45 38142000, Fax : 38142050

Sample Name: **K99/1 17-28**

Date: **8/9/99**

Submitter: **Dupont**  
 Analyzed by: **CCA**  
 Acc Voltage: **17kV**



Average grain parameters	Category										
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	sphene	sillimanite	staurolite	Y-phosphate
Aspect ratio	1.76	1.55	1.51	1.71	1.68	1.98	1.73	1.56	1.91	1.70	1.58
Circularity	2.29	1.97	2.05	2.65	3.23	3.71	1.97	1.84	3.87	2.62	1.66
Perimeter (µm)	292.16	179.44	296.65	316.76	290.38	420.59	276.24	311.82	103.42	311.14	243.96
Length (µm)	119.19	69.01	119.00	134.94	125.38	190.06	109.67	121.11	47.04	129.90	90.41

**Geological Survey of Denmark and Greenland**

Thoravej 8, DK-2400 Copenhagen NV

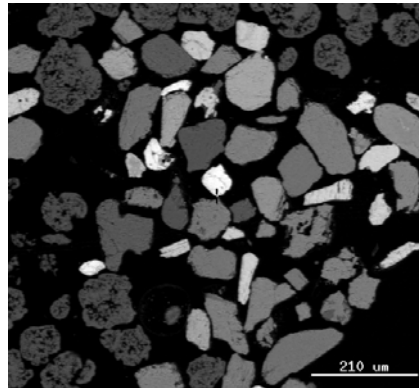
Ph: +45 38142000, Fax : 38142050

Sample Name:	SK99/1 21
Date:	10-08-99
Submitter:	Dupont
Analyzed by:	CCA
Acc Voltage:	17 kV
Magnification:	120x
Guard region:	75 µm
Sieve:	200 µm <sup>2</sup>

Number of frames:

Number of valuable particles analyzed:

Heavy minerals in raw sand (%):



Average content	Category									
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	staurolite
TiO <sub>2</sub> w/w	52,1	73,7	94,6	0,7	37,9	10,2	0,2	0,0	38,0	0,4
Fe <sub>2</sub> O <sub>3</sub> w/w	38,9	12,3	1,1	12,2	36,5	11,7	0,8	31,0	1,0	31,1
MnO w/w	2,5	1,6	0,2	0,5	2,5	7,2	0,3	0,3	0,4	2,3
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,2	0,1	0,2	0,1	0,1	0,1	0,1	0,1
SiO <sub>2</sub> w/w	2,5	6,6	1,5	41,1	10,8	22,9	29,6	1,5	29,8	37,8
Al <sub>2</sub> O <sub>3</sub> w/w	1,4	1,9	0,5	21,6	6,3	6,3	0,2	1,0	1,9	18,6
MgO w/w	0,3	0,3	0,1	1,6	0,3	2,9	0,1	0,3	0,1	3,5
CaO w/w	0,7	0,9	0,3	20,0	2,8	5,2	0,2	0,2	26,9	4,6
ZrO <sub>2</sub> w/w	0,2	0,6	0,2	0,2	1,3	10,8	64,5	0,2	0,2	0,1
Total	98,7	98,1	98,7	98,0	98,5	77,3	95,9	34,7	98,4	98,5

**Normalised average contents of the valuable Ti-containing minerals:**

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti-ox.
TiO <sub>2</sub> w/w	52,8	75,2	95,8	38,5
Fe <sub>2</sub> O <sub>3</sub> w/w	39,4	12,6	1,1	37,0
MnO w/w	2,5	1,6	0,2	2,5
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,2	0,2
SiO <sub>2</sub> w/w	2,6	6,7	1,6	11,0
Al <sub>2</sub> O <sub>3</sub> w/w	1,4	1,9	0,5	6,4
MgO w/w	0,3	0,3	0,1	0,3
CaO w/w	0,7	0,9	0,3	2,8
ZrO <sub>2</sub> w/w	0,2	0,6	0,2	1,4
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals excl. rutile:

**Weight percent on a mineral basis:**

**the heavy mineral concentrate**

Category	w/w
ilmenite	23,03
leucoxene	4,02
pyrite	1,28
rutile	1,78
silicate	52,42
sphene	0,61
otherTi-ox.	10,77
unclassified	2,14
zircon	2,24
almandine	0,00
phosphate	0,00
sillimanite	0,00
staurolite	1,70
Y-phosphate	0,00
Total	100,00

**the raw sand**

Category	w/w
ilmenite	3,39
leucoxene	0,59
pyrite	0,19
rutile	0,26
silicate	93,01
sphene	0,09
otherTi-ox.	1,58
unclassified	0,31
zircon	0,33
almandine	0,00
phosphate	0,00
sillimanite	0,00
staurolite	0,25
Y-phosphate	0,00
Total	100,00

**the valuable heavy minerals**

Category	w/w
ilmenite	55,04
leucoxene	9,61
rutile	4,25
otherTi-ox.	25,74
zircon	5,36
almandine	0,00
sillimanite	0,00
Total	100,00

Valuable heavy minerals in raw sand:

Geological Survey of Denmark and Greenland

Thoravej 8, DK-2400 Copenhagen NV

Ph: +45 38142000, Fax : 38142050

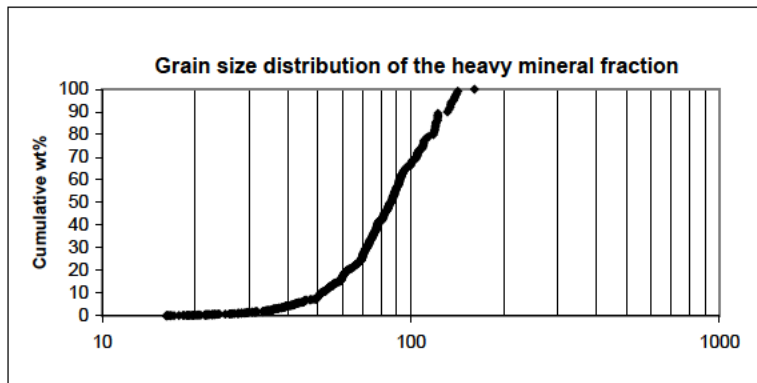
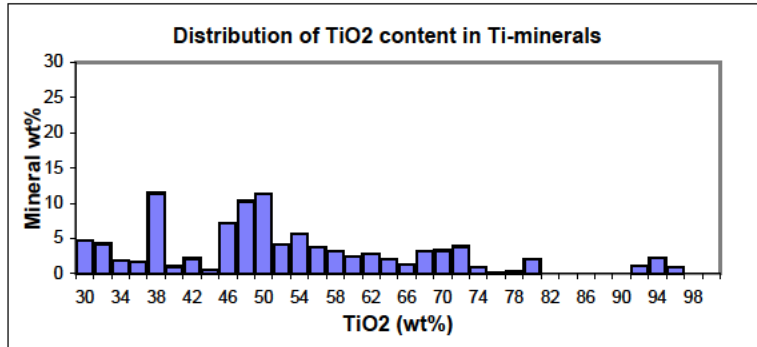
Sample Name: SK99/1 21

Date: 10-08-99

Submitter: Dupont

Analyzed by: CCA

Acc Voltage: 17kV



Average grain parameters	Category									
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	staurolite
Aspect ratio	1,82	1,61	2,07	1,68	1,88	1,71	1,56	1,56	1,93	1,65
Circularity	2,43	3,60	2,09	2,82	3,14	3,24	1,79	2,10	2,34	2,97
Perimeter (µm)	305,32	441,72	193,26	342,54	494,41	428,44	246,72	326,19	209,91	319,89
Length (µm)	127,29	196,05	77,57	147,19	218,84	190,66	94,28	135,13	88,25	139,66



**Geological Survey of Denmark and Greenland**

Thoravej 8, DK-2400 Copenhagen NV

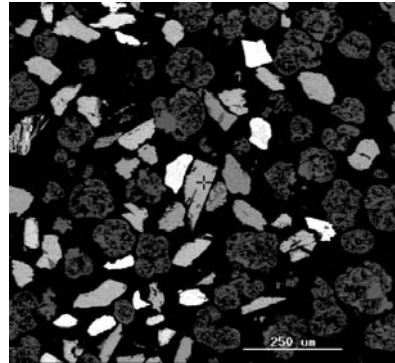
Ph: +45 38142000, Fax : 38142050

Sample Name:	SK99/1 24
Date:	26-08-99
Submitter:	Dupont
Analyzed by:	CCA
Acc Voltage	17 kV
Magnification	100x
Guard region	55 µm
Sieve	200 µm <sup>2</sup>

Number of frames:

Number of valuable particles analyzed:

Heavy minerals in raw sand (%):



Average content	Category										
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	sillimanite	staurolite
TiO <sub>2</sub> w/w	52,6	77,5	94,7	0,9	29,3	10,0	0,3	0,1	36,9	0,0	0,7
Fe <sub>2</sub> O <sub>3</sub> w/w	37,1	8,9	1,1	12,0	55,8	12,8	0,7	32,1	1,1	1,3	30,2
MnO w/w	2,8	0,7	0,1	0,5	1,7	0,4	0,1	0,1	0,2	0,0	3,0
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,1	0,1	0,1	13,0	0,1	0,0	0,2	0,2	0,1
SiO <sub>2</sub> w/w	3,9	4,1	1,5	42,6	3,7	14,9	29,5	1,4	30,0	43,3	37,0
Al <sub>2</sub> O <sub>3</sub> w/w	1,0	3,0	0,4	20,0	1,5	7,2	0,2	0,8	2,1	53,7	18,3
MgO w/w	0,2	0,3	0,1	3,3	1,8	1,8	0,0	0,3	0,1	0,1	2,8
CaO w/w	0,3	1,5	0,2	17,6	1,7	14,6	0,6	0,1	27,0	0,4	5,0
ZrO <sub>2</sub> w/w	0,3	0,7	0,1	0,2	0,6	9,4	63,8	0,2	0,2	0,0	0,3
Total	98,4	97,0	98,4	97,1	96,1	84,2	95,3	35,2	98,0	98,9	97,4

**Normalised average contents of the valuable Ti-containing minerals:**

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti-ox.
TiO <sub>2</sub> w/w	53,5	79,9	96,2	30,4
Fe <sub>2</sub> O <sub>3</sub> w/w	37,8	9,2	1,1	58,1
MnO w/w	2,8	0,7	0,1	1,7
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,1	0,1
SiO <sub>2</sub> w/w	3,9	4,2	1,5	3,8
Al <sub>2</sub> O <sub>3</sub> w/w	1,0	3,1	0,4	1,6
MgO w/w	0,2	0,3	0,1	1,9
CaO w/w	0,3	1,6	0,2	1,8
ZrO <sub>2</sub> w/w	0,3	0,7	0,1	0,6
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile:

**Weight percent on a mineral basis**

**the heavy mineral concentrate**

Category	w/w
ilmenite	12,21
leucoxene	2,81
pyrite	1,71
rutile	3,13
silicate	69,02
sphene	1,18
otherTi-ox.	1,85
unclassified	4,13
zircon	1,15
almandine	0,00
phosphate	0,00
sillimanite	0,15
staurolite	2,65
Y-phosphate	0,00
Total	100,00

**the raw sand**

Category	w/w
ilmenite	0,82
leucoxene	0,19
pyrite	0,11
rutile	0,21
silicate	97,92
sphene	0,08
otherTi-ox.	0,12
unclassified	0,28
zircon	0,08
almandine	0,00
phosphate	0,00
sillimanite	0,01
staurolite	0,18
Y-phosphate	0,00
Total	100,00

**the valuable heavy minerals**

Category	w/w
ilmenite	57,32
leucoxene	13,19
rutile	14,71
otherTi-ox.	8,70
zircon	5,38
almandine	0,00
sillimanite	0,70
Total	100,00

Valuable heavy minerals

in raw sand:

Geological Survey of Denmark and Greenland

Thoravej 8, DK-2400 Copenhagen NV

Ph: +45 38142000, Fax : 38142050

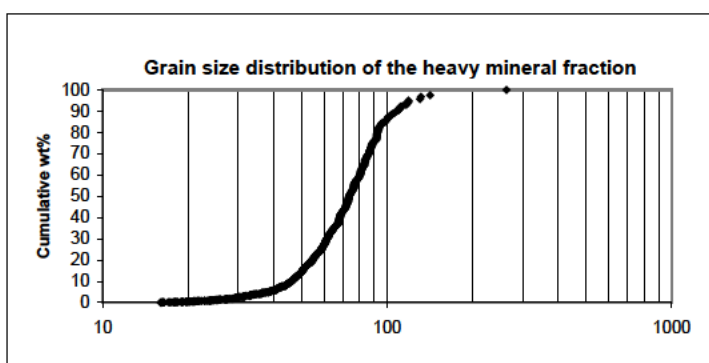
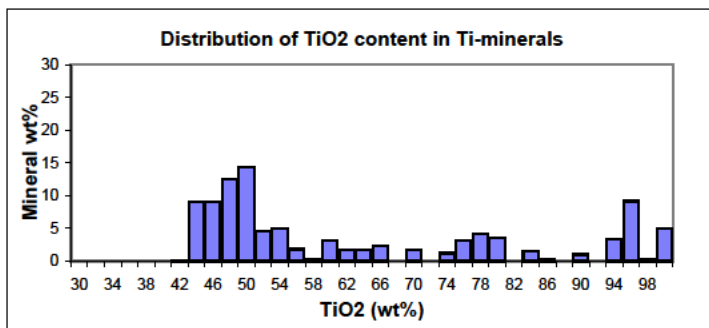
Sample Name: SK99/1 24

Date: 26-08-99

Submitter: Dupont

Analyzed by: CCA

Acc Voltage: 17kV



Average grain parameters	Category										
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	sillimanite	staurolite
Aspect ratio	1,71	1,54	1,69	1,70	2,00	1,41	1,31	2,04	1,73	1,75	1,65
Circularity	2,10	2,18	1,97	2,40	2,17	2,84	1,49	1,88	2,08	4,77	2,01
Perimeter (µm)	213,19	274,06	218,81	281,82	245,27	514,05	204,31	482,77	220,25	402,92	259,49
Length (µm)	84,62	109,90	87,14	116,84	99,98	223,65	70,46	189,75	87,52	186,97	103,60

**Geological Survey of Denmark and Greenland**

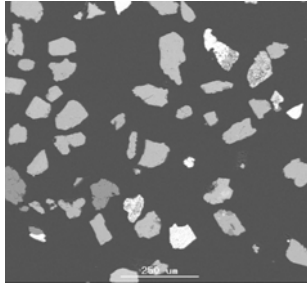
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Sample Name	K99/1 17-27 let
Date	07-03-00
Submitter	Dupont
Analyzed by	CCA
Acc. Voltage	17 kV
Magnification	100x
Guard region	120 µm
Sieve	100 µm <sup>2</sup>

Number of frames

Number of valuable particles analyzed

Heavy minerals in raw sand (%):



Average content	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	Ti magnetite	unclassified	zircon	garnet	sillimanite	staurolite
TiO <sub>2</sub> w/w	53,2	75,3	0,0	93,0	0,8	37,0	34,9	14,6	0,4	0,2	0,2	0,4
Fe <sub>2</sub> O <sub>3</sub> w/w	36,8	8,8	34,6	1,5	12,3	1,6	43,6	16,0	0,8	31,4	1,1	13,3
MnO w/w	1,7	0,5	0,1	0,1	0,4	0,1	2,1	0,6	0,1	2,3	0,2	0,0
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,1	0,1	0,1	0,1	0,2	0,1	0,2	0,1	0,3	0,2
SiO <sub>2</sub> w/w	3,8	6,6	3,3	2,4	42,6	29,7	10,1	24,5	29,1	37,4	42,6	34,5
Al <sub>2</sub> O <sub>3</sub> w/w	1,7	3,9	0,8	0,6	19,9	2,0	3,0	6,3	0,2	19,6	53,6	46,4
MgO w/w	0,3	0,3	0,1	0,1	2,4	0,1	0,7	3,0	0,1	3,3	0,0	1,5
CaO w/w	0,2	0,5	0,1	0,1	18,7	27,6	1,8	16,4	0,2	3,5	0,1	0,0
ZrO <sub>2</sub> w/w	0,3	0,7	0,1	0,3	0,1	0,1	0,6	5,3	63,9	0,2	0,0	0,0
Total	98,2	96,7	39,3	98,3	97,3	98,3	97,0	86,8	94,9	98,0	98,0	96,4

**Normalised average contents of the valuable Ti containing minerals:**

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	54,2	77,9	94,6	36,0
Fe <sub>2</sub> O <sub>3</sub> w/w	37,4	9,1	1,5	44,9
MnO w/w	1,8	0,6	0,1	2,2
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,1	0,2
SiO <sub>2</sub> w/w	3,9	6,8	2,5	10,4
Al <sub>2</sub> O <sub>3</sub> w/w	1,7	4,1	0,7	3,1
MgO w/w	0,3	0,3	0,1	0,7
CaO w/w	0,2	0,5	0,1	1,8
ZrO <sub>2</sub> w/w	0,3	0,7	0,3	0,7
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals excl. rutile:

**the heavy mineral concentrate**

Category	w/w
ilmenite	7,95
leucoxene	3,54
pyrite	1,55
rutile	3,66
silicate	72,13
sphene	2,04
otherTi-ox.	3,30
unclassified	1,86
zircon	0,96
garnet	2,57
monazite	0,00
phosphate	0,00
sillimanite	0,30
staurolite	0,13
Y-phosphate	0,00
Total	100,00

**Weight percent on a mineral basis:**

Category	w/w
ilmenite	0,00
leucoxene	0,00
pyrite	0,00
rutile	0,00
silicate	100,00
sphene	0,00
otherTi-ox.	0,00
unclassified	0,00
zircon	0,00
garnet	0,00
monazite	0,00
phosphate	0,00
sillimanite	0,00
staurolite	0,00
Y-phosphate	0,00
Total	100,00

**the valuable heavy minerals**

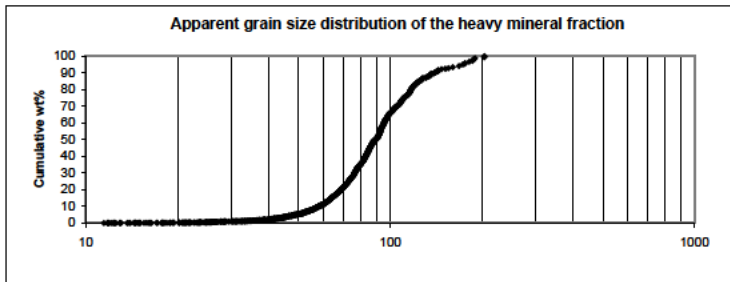
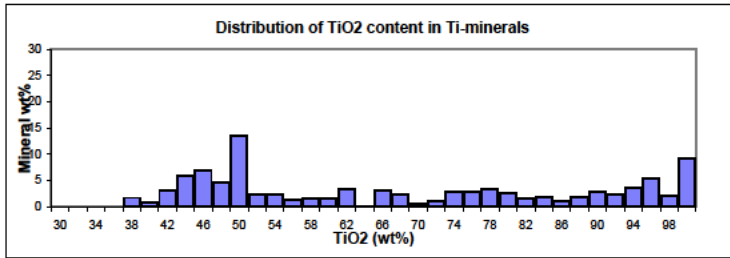
Category	w/w
ilmenite	35,66
leucoxene	15,90
rutile	16,44
otherTi-ox.	14,79
zircon	4,32
garnet	11,53
sillimanite	1,36
Total	100,00

Valuable heavy minerals in raw sand:

Sample Name SK99/1 17-27 let

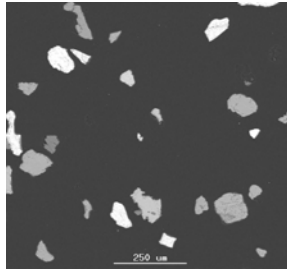
Date 07-03-00

Submitter Dupont  
 Analyzed by CCA  
 Acc. Voltage 17kV



Average grain parameters	Category											
	ilmenite	leucoxene	pyrite	rutile	alicates	sphene	Ti magnetite	unclassified	zircon	garnet	sillimanite	staurolite
Aspect ratio	1,78	1,76	1,33	1,75	1,63	1,63	1,60	1,45	1,94	1,78	1,38	1,35
Circularity	2,08	2,04	2,09	1,77	2,03	2,10	2,24	2,28	2,23	1,94	1,71	2,04
Perimeter (µm)	300,85	348,08	343,27	276,34	321,86	411,23	402,07	356,16	301,51	266,35	285,01	236,71
Length (µm)	121,88	141,22	141,23	105,04	128,95	165,27	167,79	148,25	123,31	104,71	102,21	97,62
Total grains	63	21	8	26	830	12	14	18	8	26	3	2

Sample Name SK99/1 17-27 mellem  
 Date 07-03-00  
 Submitter Dupont  
 Analyzed by CCA  
 Acc. Voltage 17 kV  
 Magnification 100x  
 Guard region 120 µm  
 Sieve 100 µm<sup>2</sup>



Number of frames 34

Number of valuable particles analyzed 469

Heavy minerals in raw sand (%): 0.00

Average content	Category												
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox.	unclassified	zircon	garnet	phosphate	sillimanite	staurolite
TiO <sub>2</sub> w/w	51,6	75,7	0,1	94,0	0,9	37,6	40,6	5,9	0,2	0,2	0,0	0,0	0,7
Fe <sub>2</sub> O <sub>3</sub> w/w	40,9	14,7	30,1	1,8	12,2	1,4	36,9	13,8	1,2	31,1	0,4	0,7	11,9
MnO w/w	2,3	1,1	0,0	0,1	0,4	0,1	2,0	0,3	0,2	3,4	0,0	0,0	0,3
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,1	0,1	0,2	0,1	0,1	0,1	3,5	0,1	0,1	0,0	0,1	0,1
SiO <sub>2</sub> w/w	2,0	3,7	8,3	1,0	42,4	29,2	11,1	18,9	29,4	37,4	0,5	42,5	33,6
Al <sub>2</sub> O <sub>3</sub> w/w	0,8	1,9	0,4	0,6	20,3	1,6	3,3	15,1	0,3	19,6	0,0	53,9	45,2
MgO w/w	0,2	0,3	0,1	0,1	2,1	0,1	0,7	1,1	0,1	2,9	0,1	0,0	0,8
CaO w/w	0,2	0,2	0,1	0,1	18,9	27,6	2,8	13,2	0,3	3,8	58,3	0,1	0,0
ZrO <sub>2</sub> w/w	0,2	0,4	0,3	0,2	0,1	0,3	0,3	9,0	63,8	0,1	1,8	0,0	1,7
Total	98,2	98,1	39,4	98,3	97,6	97,9	97,8	80,8	95,7	98,5	61,1	97,3	94,5

Normalised average contents of the valuable Ti containing minerals:

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	52,5	77,1	95,6	41,6
Fe <sub>2</sub> O <sub>3</sub> w/w	41,7	15,0	1,8	37,8
MnO w/w	2,3	1,1	0,1	2,1
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,1	0,2	0,1
SiO <sub>2</sub> w/w	2,0	3,8	1,0	11,3
Al <sub>2</sub> O <sub>3</sub> w/w	0,8	2,0	0,7	3,4
MgO w/w	0,2	0,3	0,1	0,7
CaO w/w	0,2	0,2	0,1	2,9
ZrO <sub>2</sub> w/w	0,2	0,4	0,2	0,3
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals: 61,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile: 53,4

Weight percent on a mineral basis:

the heavy mineral concentrate

Category	w/w
ilmenite	21,42
leucoxene	2,71
pyrite	2,34
rutile	6,16
silicate	49,33
sphene	3,70
otherTi-ox.	3,81
unclassified	2,76
zircon	3,13
garnet	2,41
monazite	0,00
phosphate	1,38
sillimanite	0,37
staurolite	0,47
Y-phosphate	0,00
Total	100,00

the raw sand

Category	w/w
ilmenite	0,00
leucoxene	0,00
pyrite	0,00
rutile	0,00
silicate	100,00
sphene	0,00
otherTi-ox.	0,00
unclassified	0,00
zircon	0,00
garnet	0,00
monazite	0,00
phosphate	0,00
sillimanite	0,00
staurolite	0,00
Y-phosphate	0,00
Total	100,00

the valuable heavy minerals

Category	w/w
ilmenite	53,53
leucoxene	6,78
rutile	15,39
otherTi-ox.	9,53
zircon	7,83
garnet	6,01
sillimanite	0,93
Total	100,00

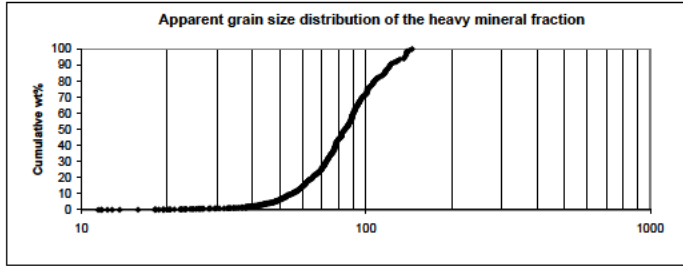
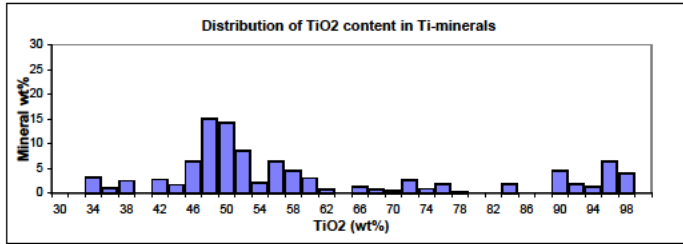
Valuable heavy minerals

in raw sand: 0,00

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Sample Name **SK99/1 17-37 mellem** Date **07-03-00**

Submitter **Dupont**  
 Analyzed by **CCA**  
 Acc. Voltage **17kV**



Average grain parameters	Category												
	limonite	leucoxene	pyrite	rutile	silica	sphene	other Ti ox.	unclassified	zircon	garnet	phosphate	stibnite	clausenite
Aspect ratio	1,89	1,51	1,42	1,58	1,56	1,44	1,76	1,67	1,39	1,89	1,25	1,38	1,30
Circularity	1,89	1,85	1,91	1,78	1,89	2,23	2,34	2,70	1,67	1,85	1,71	1,83	1,55
Perimeter (µm)	272,70	275,98	408,14	273,55	308,95	449,98	321,70	344,97	252,42	280,98	429,98	288,47	244,54
Length (µm)	106,79	106,86	185,40	104,59	119,80	185,16	134,02	148,20	92,35	108,33	157,64	111,50	97,30
Total grains	91	11	4	22	274	9	12	15	14	11	2	2	2

Geological Survey of Denmark and Greenland

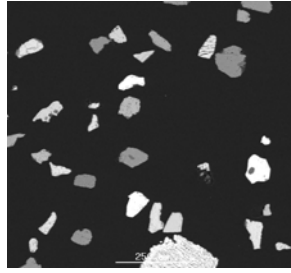
Thoravej 8, DK-2400 Copenhagen NV  
Ph +45 38142000, Fax. 38142050

Sample Name	SK99/1 17-27 tung
Date	07-03-00
Submitter	Dupont
Analyzed by	CCA
Acc. Voltage	17 kV
Magnification	100x
Guard region	120 µm
Sieve	100 µm <sup>2</sup>

Number of frames

Number of valuable particles analyzed

Heavy minerals in raw sand (%):



Average content	Category												
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	otherTi-ox.	unclassified	zircon	garnet	monazite	staurolite	Y phos.
TiO <sub>2</sub> w/w	50,7	77,4	0,1	94,3	0,8	37,7	41,4	7,1	0,2	0,2	23,4	1,0	0,0
Fe <sub>2</sub> O <sub>3</sub> w/w	43,0	15,1	34,0	1,6	11,4	1,2	42,5	21,0	0,9	28,9	1,0	13,4	0,9
MnO w/w	2,2	0,7	0,2	0,1	0,3	0,2	1,7	0,6	0,1	4,0	0,0	0,0	0,0
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,1	0,0	0,2	0,1	0,1	0,1	13,5	0,2	0,1	0,0	0,2	0,0
SiO <sub>2</sub> w/w	1,4	2,2	1,5	1,4	43,4	29,3	8,8	16,6	29,4	37,7	2,2	31,9	3,8
Al <sub>2</sub> O <sub>3</sub> w/w	0,6	1,4	0,5	0,4	20,6	1,4	2,1	9,3	0,2	19,5	8,4	48,9	0,8
MgO w/w	0,2	0,1	0,1	0,1	1,2	0,0	0,3	1,9	0,1	3,7	0,0	1,2	0,3
CaO w/w	0,1	0,1	0,0	0,1	19,7	28,1	0,4	3,9	0,2	4,1	0,7	0,1	1,8
ZrO <sub>2</sub> w/w	0,2	0,2	0,1	0,2	0,1	0,1	0,8	13,3	63,8	0,3	4,2	0,2	4,1
Total	98,6	97,3	36,6	98,4	97,7	98,1	98,1	87,3	95,1	98,5	39,9	97,0	11,7

Normalised average contents of the valuable Ti containing minerals:

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	51,5	79,5	95,9	42,2
Fe <sub>2</sub> O <sub>3</sub> w/w	43,6	15,5	1,6	43,3
MnO w/w	2,3	0,7	0,1	1,7
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,1	0,2	0,1
SiO <sub>2</sub> w/w	1,4	2,3	1,4	9,0
Al <sub>2</sub> O <sub>3</sub> w/w	0,6	1,4	0,5	2,1
MgO w/w	0,2	0,1	0,1	0,4
CaO w/w	0,1	0,1	0,1	0,4
ZrO <sub>2</sub> w/w	0,2	0,2	0,2	0,9
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile:

Weight percent on a mineral basis:

the heavy mineral concentrate

Category	w/w
ilmenite	37,21
leucoxene	2,43
pyrite	3,67
rutile	7,04
silicate	22,18
sphene	0,95
otherTi-ox.	5,32
unclassified	1,48
zircon	16,53
garnet	2,34
monazite	0,05
phosphate	0,00
sillimanite	0,00
staurolite	0,35
Y-phosphate	0,45
Total	100,00

the raw sand

Category	w/w
ilmenite	0,00
leucoxene	0,00
pyrite	0,00
rutile	0,00
silicate	100,00
sphene	0,00
otherTi-ox.	0,00
unclassified	0,00
zircon	0,00
garnet	0,00
monazite	0,00
phosphate	0,00
sillimanite	0,00
staurolite	0,00
Y-phosphate	0,00
Total	100,00

the valuable heavy minerals

Category	w/w
ilmenite	52,50
leucoxene	3,44
rutile	9,94
otherTi-ox.	7,50
zircon	23,33
garnet	3,30
sillimanite	0,00
Total	100,00

Valuable heavy minerals

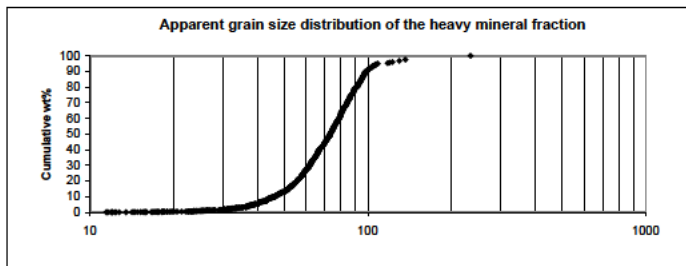
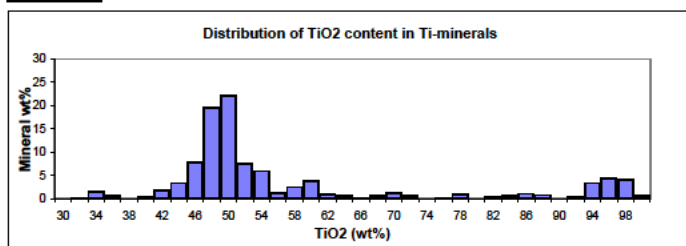
in raw sand:

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Sample Name **EK99/1 17-27 tung**

Date **07-03-00**

Submitter **Dupont**  
 Analyzed by **CCA**  
 Acc. Voltage **17kV**



Average grain parameters	Category												
	limonite	leucocene	pyrite	rutile	silicite	sphene	other Ti ox.	unclassified	zircon	garnet	Monazite	clausonite	Y phos.
Aspect ratio	1.59	1.44	1.37	1.53	1.51	1.80	1.57	1.54	1.48	1.89	1.32	1.84	1.31
Circularity	1.74	1.76	1.79	1.63	1.81	1.93	1.96	2.10	1.80	1.80	2.38	1.98	1.46
Perimeter (µm)	222.59	266.85	259.13	204.63	277.94	303.87	260.15	336.04	246.22	200.15	162.43	311.16	265.47
Length (µm)	84.07	102.03	101.57	75.43	106.87	120.00	104.45	136.75	88.36	76.91	68.27	124.21	90.07
Total grains	282	13	12	51	188	6	30	10	95	24	1	2	2



**Geological Survey of Denmark and Greenland**

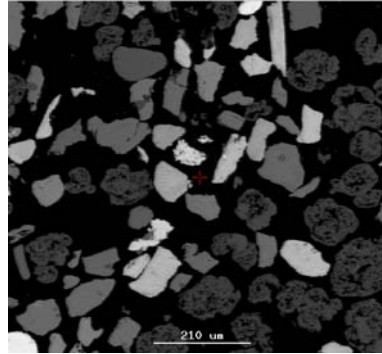
Thoravej 8, DK-2400 Copenhagen NV  
Ph: +45 38142000, Fax : 38142050

Sample Name:	SK99/3 15-24
Date:	20-08-99
Submitter:	Dupont
Analyzed by:	CCA
Acc Voltage:	17 kV
Magnification:	120x
Guard region:	50 µm
Sieve:	200 µm <sup>2</sup>

Number of frames:

Number of valuable particles analyzed:

Heavy minerals in raw sand (%):



Average content	Category									
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	staurolite
TiO <sub>2</sub> w/w	50,4	75,8	92,3	1,0	36,2	5,9	0,3	0,6	38,4	0,4
Fe <sub>2</sub> O <sub>3</sub> w/w	40,6	8,4	1,6	12,0	45,4	8,5	0,6	30,4	1,1	29,9
MnO w/w	2,5	0,7	0,1	0,5	2,5	0,3	0,2	0,2	0,1	3,6
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,1	0,0	0,1	0,1	3,9	0,1	0,1	0,1	0,1
SiO <sub>2</sub> w/w	1,7	6,3	2,0	40,8	4,4	25,1	29,5	4,1	28,8	36,8
Al <sub>2</sub> O <sub>3</sub> w/w	2,3	4,8	1,5	21,3	3,5	6,0	1,2	1,8	2,2	20,4
MgO w/w	0,3	0,3	0,1	2,1	0,4	0,9	0,1	0,1	0,0	3,1
CaO w/w	0,3	0,8	0,2	20,0	1,2	6,2	0,5	0,3	27,4	3,7
ZrO <sub>2</sub> w/w	0,3	0,4	0,3	0,2	0,7	32,3	63,4	0,2	0,1	0,2
Total	98,4	97,7	98,3	97,8	94,5	88,9	95,9	37,7	98,2	98,3

**Normalised average contents of the valuable Ti-containing minerals:**

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti-ox.
TiO <sub>2</sub> w/w	51,2	77,6	93,9	38,3
Fe <sub>2</sub> O <sub>3</sub> w/w	41,3	8,7	1,6	48,0
MnO w/w	2,5	0,7	0,1	2,6
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,1	0,0	0,1
SiO <sub>2</sub> w/w	1,7	6,4	2,1	4,6
Al <sub>2</sub> O <sub>3</sub> w/w	2,3	4,9	1,6	3,7
MgO w/w	0,3	0,3	0,1	0,5
CaO w/w	0,3	0,8	0,3	1,3
ZrO <sub>2</sub> w/w	0,3	0,5	0,3	0,8
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals excl. rutile:

**Weight percent on a mineral basis**

**the heavy mineral concentrate**

Category	w/w
ilmenite	29,05
leucoxene	5,83
pyrite	5,33
rutile	3,46
silicate	32,10
sphene	0,59
otherTi-ox.	7,30
unclassified	4,51
zircon	9,49
almandine	0,00
phosphate	0,00
sillimanite	0,00
staurolite	2,36
Y-phosphate	0,00
Total	100,00

**the raw sand**

Category	w/w
ilmenite	2,53
leucoxene	0,51
pyrite	0,46
rutile	0,30
silicate	94,09
sphene	0,05
otherTi-ox.	0,63
unclassified	0,39
zircon	0,83
almandine	0,00
phosphate	0,00
sillimanite	0,00
staurolite	0,20
Y-phosphate	0,00
Total	100,00

**the valuable heavy minerals**

Category	w/w
ilmenite	52,71
leucoxene	10,57
rutile	6,27
otherTi-ox.	13,24
zircon	17,21
almandine	0,00
sillimanite	0,00
Total	100,00

Valuable heavy minerals in raw sand:

**Geological Survey of Denmark and Greenland**

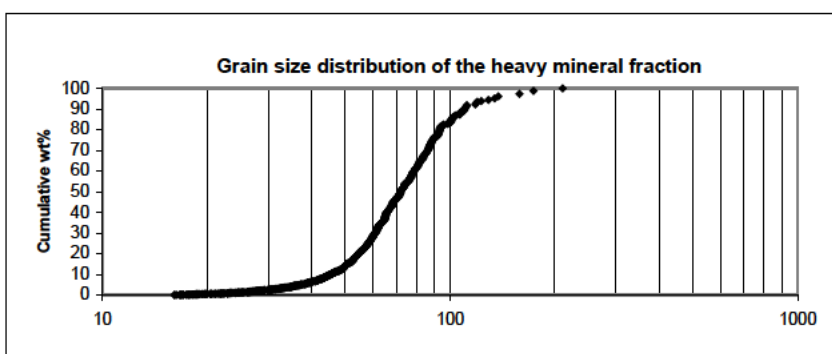
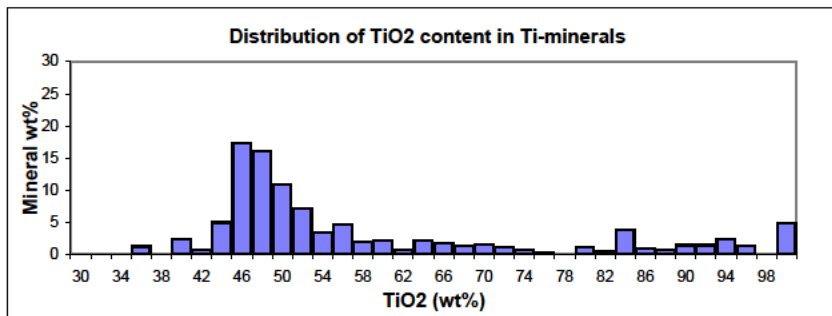
Thoravej 8, DK-2400 Copenhagen NV

Ph: +45 38142000, Fax : 38142050

Sample Name: **SK99/3 15-24**

Date: **20-08-99**

Submitter: **Dupont**  
 Analyzed by: **CCA**  
 Acc Voltage: **17kV**



Average grain parameters	Category									
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	staurolite
Aspect ratio	1,79	1,71	1,62	1,66	2,03	1,50	1,49	1,34	1,76	1,59
Circularity	2,20	2,79	2,20	2,94	2,62	2,90	1,97	2,71	2,00	2,11
Perimeter (µm)	249,65	304,45	223,35	294,94	295,01	365,75	289,54	328,67	286,65	260,82
Length (µm)	101,35	129,32	89,91	127,61	126,64	157,05	112,76	142,59	115,16	103,46

**Geological Survey of Denmark and Greenland**

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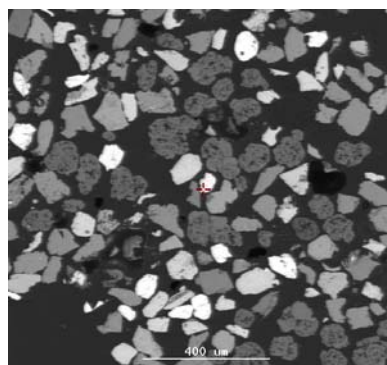
Ph: +45 38142000, Fax : 38142050

Sample Name:	SK99/3 18
Date:	24-08-99
Submitter:	Dupont
Analyzed by:	CCA
Acc Voltage	17 kV
Magnification	80x
Guard region	100 $\mu\text{m}$
Sieve	200 $\mu\text{m}^2$

Number of frames:

Number of valuable particles analyzed:

Heavy minerals in raw sand (%):



Average content	Category										
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	staurolite	Y-phosphate
TiO <sub>2</sub> w/w	52,1	75,3	93,6	1,5	39,2	6,5	0,4	0,0	37,9	1,0	0,0
Fe <sub>2</sub> O <sub>3</sub> w/w	39,1	13,3	1,7	11,6	38,8	7,0	0,6	31,0	1,2	29,2	3,1
MnO w/w	2,4	0,8	0,2	0,7	2,4	0,7	0,2	0,7	0,0	2,5	0,0
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,1	0,1	0,1	0,2	0,1	0,0	0,0	0,1	0,0
SiO <sub>2</sub> w/w	2,2	3,4	1,3	43,8	10,5	18,4	29,0	3,0	29,5	38,4	2,6
Al <sub>2</sub> O <sub>3</sub> w/w	1,1	1,9	0,8	19,4	3,5	13,2	0,3	1,1	1,7	18,4	1,7
MgO w/w	0,3	0,3	0,1	2,4	0,6	0,6	0,2	0,2	0,1	4,1	0,0
CaO w/w	0,4	0,8	0,2	17,5	1,3	8,6	0,4	0,0	27,2	4,6	2,7
ZrO <sub>2</sub> w/w	0,5	0,3	0,3	0,2	1,0	23,1	64,5	0,5	0,0	0,2	6,5
Total	98,2	96,3	98,2	97,4	97,5	78,4	95,8	36,6	97,6	98,3	16,6

**Normalised average contents of the valuable Ti-containing minerals:**

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti-ox.
TiO <sub>2</sub> w/w	53,0	78,3	95,2	40,2
Fe <sub>2</sub> O <sub>3</sub> w/w	39,8	13,8	1,7	39,8
MnO w/w	2,5	0,9	0,2	2,4
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,1	0,1
SiO <sub>2</sub> w/w	2,3	3,5	1,3	10,8
Al <sub>2</sub> O <sub>3</sub> w/w	1,1	2,0	0,8	3,6
MgO w/w	0,3	0,3	0,1	0,7
CaO w/w	0,4	0,8	0,2	1,4
ZrO <sub>2</sub> w/w	0,5	0,3	0,3	1,0
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile:

**Weight percent on a mineral basis**

**the heavy mineral concentrate**

Category	w/w
ilmenite	28,38
leucoxene	4,66
pyrite	0,14
rutile	4,99
silicate	29,99
sphene	0,52
otherTi-ox.	13,39
unclassified	9,71
zircon	4,84
almandine	0,00
phosphate	0,00
sillimanite	0,00
staurolite	3,31
Y-phosphate	0,08
Total	100,00

**the raw sand**

Category	w/w
ilmenite	3,94
leucoxene	0,65
pyrite	0,02
rutile	0,69
silicate	90,27
sphene	0,07
otherTi-ox.	1,86
unclassified	1,35
zircon	0,67
almandine	0,00
phosphate	0,00
sillimanite	0,00
staurolite	0,46
Y-phosphate	0,01
Total	100,00

**the valuable heavy minerals**

Category	w/w
ilmenite	50,44
leucoxene	8,29
rutile	8,87
otherTi-ox.	23,81
zircon	8,60
almandine	0,00
sillimanite	0,00
Total	100,00

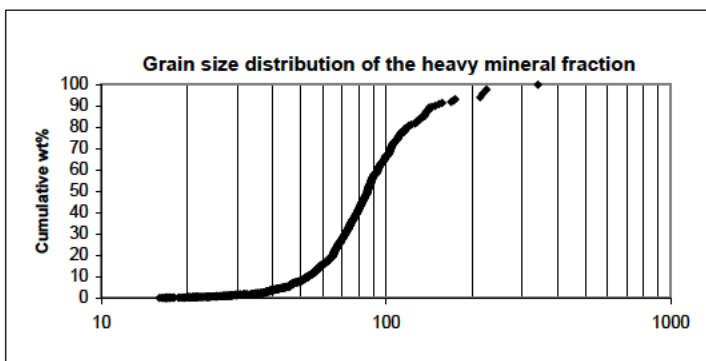
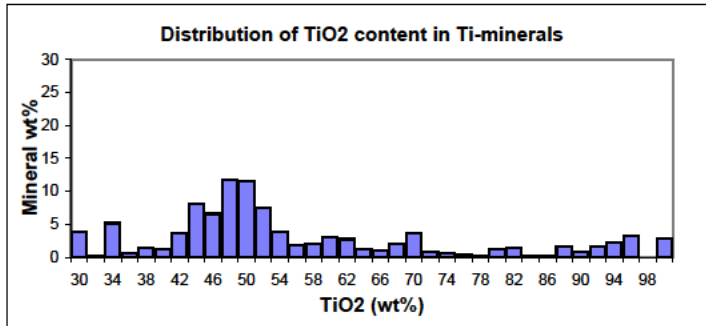
Valuable heavy minerals

in raw sand:

Sample Name: SK99/3 18

Date: 24-08-99

Submitter: Dupont  
 Analyzed by: CCA  
 Acc Voltage: 17kV



Average grain parameters	Category										
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	staurolite	Y-phosphate
Aspect ratio	1,70	1,47	1,77	1,69	1,67	1,73	1,51	1,14	1,66	1,73	1,64
Circularity	2,05	2,41	2,14	2,40	3,29	3,05	1,68	1,36	1,68	2,14	1,44
Perimeter (µm)	278,65	377,67	279,30	315,49	495,80	442,01	246,71	228,39	278,54	314,96	172,38
Length (µm)	110,63	160,34	112,74	131,22	218,68	194,68	89,44	71,66	102,88	126,45	57,68

**Geological Survey of Denmark and Greenland**

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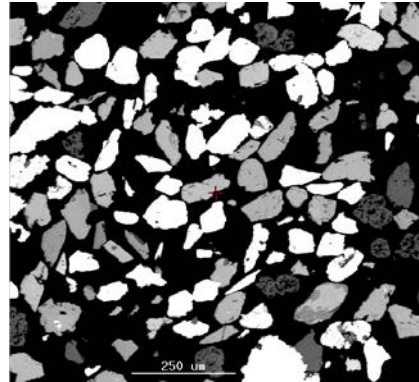
Ph: +45 38142000, Fax : 38142050

Sample Name:	SK99/3 22
Date:	06-09-99
Submitter:	Dupont
Analyzed by:	CCA
Acc Voltage:	17 kV
Magnification:	100x
Guard region:	55 µm
Sieve:	200 µm <sup>2</sup>

Number of frames:

Number of valuable particles analyzed:

Heavy minerals in raw sand (%):



Average content	Category											
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	sillimanite	staurolite	
TiO <sub>2</sub> w/w	52,6	77,8	95,6	1,1	35,6	5,5	0,1	0,2	36,4	0,2	0,4	
Fe <sub>2</sub> O <sub>3</sub> w/w	39,5	7,9	0,8	11,3	39,0	2,2	0,2	30,8	1,4	0,3	30,0	
MnO w/w	2,7	0,9	0,1	0,3	1,7	0,2	0,2	0,1	0,2	0,0	1,8	
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,1	0,1	0,1	0,2	0,1	0,1	0,1	0,1	0,1	
SiO <sub>2</sub> w/w	1,7	4,5	0,7	42,4	15,5	17,3	29,2	0,6	30,4	43,0	37,3	
Al <sub>2</sub> O <sub>3</sub> w/w	1,2	4,4	0,9	20,6	3,0	2,8	0,4	0,5	2,5	54,2	20,5	
MgO w/w	0,2	0,5	0,1	3,2	1,3	0,3	0,0	0,0	0,0	0,0	4,0	
CaO w/w	0,3	0,7	0,1	17,6	1,4	30,6	0,1	0,1	27,2	0,2	3,2	
ZrO <sub>2</sub> w/w	0,3	0,2	0,1	0,2	0,2	31,6	64,8	0,3	0,1	0,0	0,1	
Total	98,5	96,9	98,5	96,8	97,8	90,8	95,2	32,7	98,2	98,0	97,3	

**Normalised average contents of the valuable Ti-containing minerals:**

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti-ox.
TiO <sub>2</sub> w/w	53,4	80,2	97,1	36,4
Fe <sub>2</sub> O <sub>3</sub> w/w	40,1	8,1	0,8	39,9
MnO w/w	2,7	0,9	0,1	1,8
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,1	0,1
SiO <sub>2</sub> w/w	1,7	4,6	0,7	15,8
Al <sub>2</sub> O <sub>3</sub> w/w	1,2	4,5	0,9	3,0
MgO w/w	0,2	0,6	0,1	1,3
CaO w/w	0,3	0,7	0,1	1,5
ZrO <sub>2</sub> w/w	0,3	0,2	0,1	0,2
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. ru ile:

**the heavy mineral concentrate**

Category	w/w
ilmenite	30,79
leucoxene	2,12
pyrite	2,22
rutile	4,12
silicate	44,06
sphene	1,78
otherTi-ox.	4,13
unclassified	6,00
zircon	2,33
almandine	0,00
phosphate	0,00
sillimanite	0,72
staurolite	1,74
Y-phosphate	0,00
Total	100,00

**Weight percent on a mineral basis:**

**the raw sand**

Category	w/w
ilmenite	2,46
leucoxene	0,17
pyrite	0,18
rutile	0,33
silicate	95,52
sphene	0,14
otherTi-ox.	0,33
unclassified	0,48
zircon	0,19
almandine	0,00
phosphate	0,00
sillimanite	0,06
staurolite	0,14
Y-phosphate	0,00
Total	100,00

**the valuable heavy minerals**

Category	w/w
ilmenite	69,64
leucoxene	4,80
rutile	9,32
otherTi-ox.	9,34
zircon	5,27
almandine	0,00
sillimanite	1,62
Total	100,00

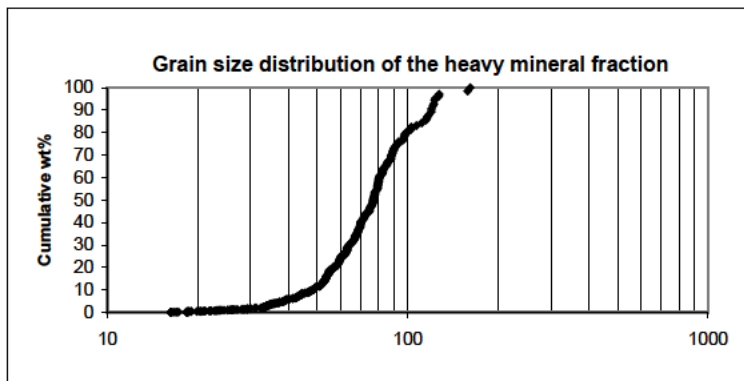
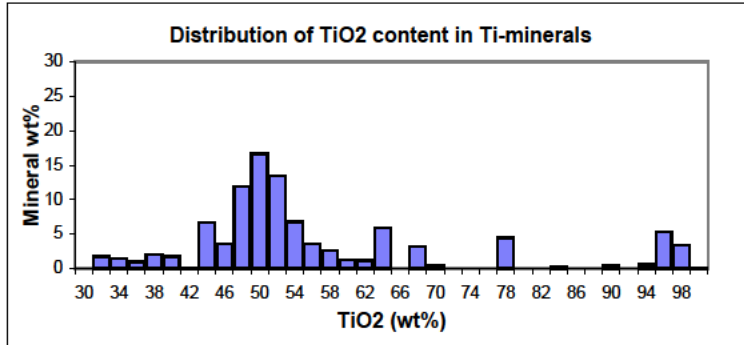
Valuable heavy minerals

in raw sand:

Sample Name: SK99/3 22

Date: 06-09-99

Submitter: Dupont  
 Analyzed by: CCA  
 Acc Voltage: 17kV



Average grain parameters	Category										
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	sillimanite	staurolite
Aspect ratio	1,77	2,06	1,79	1,74	1,98	2,30	1,40	1,46	1,77	2,10	2,07
Circularity	2,28	2,96	2,19	2,69	2,95	2,96	1,69	2,14	2,42	5,73	2,72
Perimeter (µm)	304,15	373,74	243,07	294,57	293,48	383,14	232,47	222,70	335,94	770,98	233,01
Length (µm)	124,79	165,45	100,09	125,69	129,06	165,73	85,70	93,39	141,72	362,74	99,60

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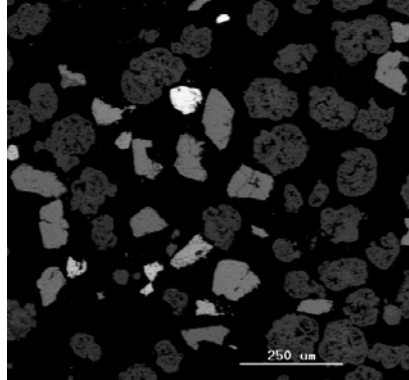
Ph: +45 38142000, Fax : 38142050

Sample Name:	SK99/4 23-30
Date:	10-08-99
Submitter:	Dupont
Analyzed by:	CCA
Acc Voltage:	17 kV
Magnification:	100x
Guard region:	100 $\mu\text{m}$
Sieve:	200 $\mu\text{m}^2$

Number of frames:

Number of valuable particles analyzed:

Heavy minerals in raw sand (%):



Average content	Category											
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	sillimanite	staurolite	
TiO <sub>2</sub> w/w	51,6	82,0	94,9	0,7	43,8	0,3	0,1	0,0	35,2	0,2	0,2	
Fe <sub>2</sub> O <sub>3</sub> w/w	39,7	4,7	0,7	13,0	44,6	9,3	0,4	33,6	1,2	1,7	30,9	
MnO w/w	3,2	0,4	0,1	0,4	2,8	0,3	0,0	0,0	0,1	0,0	2,5	
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,1	0,1	0,1	0,3	4,9	0,3	0,1	0,0	0,0	0,1	
SiO <sub>2</sub> w/w	1,7	7,1	0,8	43,6	5,8	14,3	31,8	2,8	30,6	42,5	33,2	
Al <sub>2</sub> O <sub>3</sub> w/w	1,0	2,1	1,0	19,3	0,6	19,3	0,3	1,4	2,9	53,2	22,9	
MgO w/w	0,5	0,2	0,0	4,6	0,2	3,1	0,1	0,6	0,0	0,0	3,4	
CaO w/w	0,2	0,8	0,3	14,9	0,1	0,6	0,2	0,1	28,5	0,2	4,2	
ZrO <sub>2</sub> w/w	0,2	0,8	0,4	0,2	0,2	24,7	62,4	0,6	0,0	0,2	0,1	
Total	98,2	98,2	98,4	96,8	98,3	76,8	95,5	39,3	98,4	97,8	97,4	

**Normalised average contents of the valuable Ti-containing minerals:**

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti-ox.
TiO <sub>2</sub> w/w	52,5	83,5	96,5	44,5
Fe <sub>2</sub> O <sub>3</sub> w/w	40,4	4,8	0,8	45,4
MnO w/w	3,2	0,4	0,1	2,8
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,1	0,1	0,3
SiO <sub>2</sub> w/w	1,7	7,3	0,8	5,9
Al <sub>2</sub> O <sub>3</sub> w/w	1,0	2,1	1,0	0,6
MgO w/w	0,5	0,2	0,0	0,2
CaO w/w	0,2	0,8	0,3	0,1
ZrO <sub>2</sub> w/w	0,2	0,8	0,4	0,2
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals excl. ru ile:

**the heavy mineral concentrate**

Category	w/w
ilmenite	22,03
leucoxene	3,21
pyrite	3,87
rutile	4,55
silicate	53,74
sphene	0,93
otherTi-ox.	1,47
unclassified	3,24
zircon	2,15
almandine	0,00
phosphate	0,00
sillimanite	1,10
staurolite	3,71
Y-phosphate	0,00
Total	100,00

**Weight percent on a mineral basis:**

the raw sand	
Category	w/w
ilmenite	2,01
leucoxene	0,29
pyrite	0,35
rutile	0,41
silicate	95,79
sphene	0,08
otherTi-ox.	0,13
unclassified	0,29
zircon	0,20
almandine	0,00
phosphate	0,00
sillimanite	0,10
staurolite	0,34
Y-phosphate	0,00
Total	100,00

**the valuable heavy minerals**

Category	w/w
ilmenite	63,84
leucoxene	9,31
rutile	13,19
otherTi-ox.	4,26
zircon	6,23
almandine	0,00
sillimanite	3,18
Total	100,00

Valuable heavy minerals in raw sand:

**Geological Survey of Denmark and Greenland**

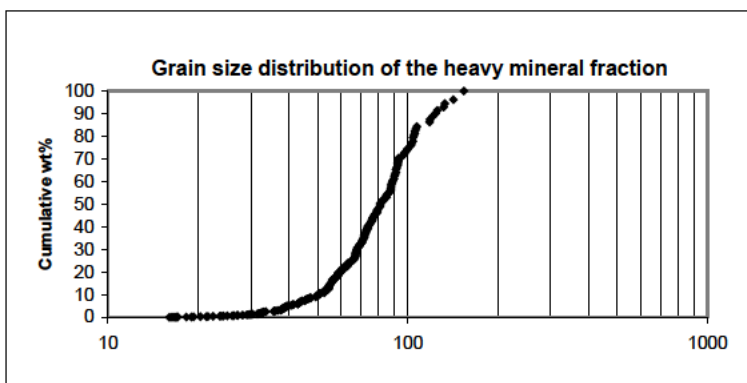
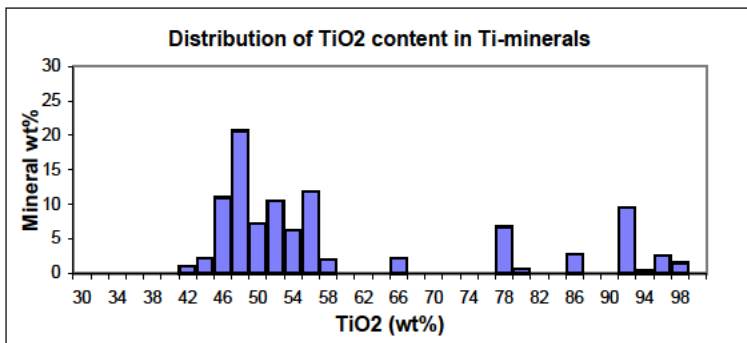
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Ph: +45 38142000, Fax : 38142050

Sample Name: **SK99/4 23-30**

Date: **10-08-99**

Submitter: **Dupont**  
 Analyzed by: **CCA**  
 Acc Voltage: **17kV**



Average grain parameters	Category										
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	sillimanite	staurolite
Aspect ratio	1,81	1,57	1,42	1,72	1,84	1,61	1,69	1,61	1,36	2,17	1,78
Circularity	1,97	1,98	1,78	2,46	1,93	2,39	1,84	2,46	1,32	3,97	1,74
Perimeter (µm)	266,85	272,38	275,25	310,53	239,47	281,78	243,32	487,25	329,93	644,46	228,96
Length (µm)	104,39	103,52	105,13	129,50	90,61	116,52	91,38	213,44	98,28	293,91	87,39



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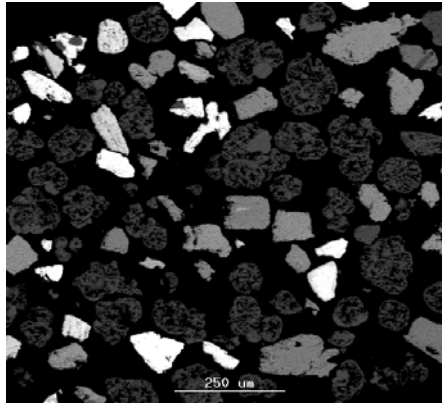
Ph: +45 38142000, Fax : 38142050

Sample Name:	SK99/4 25
Date:	24-08-99
Submitter:	Dupont
Analyzed by:	CCA
Acc Voltage:	17 kV
Magnification:	100x
Guard region:	55 µm
Sieve:	200 µm <sup>2</sup>

Number of frames:

Number of valuable particles analyzed:

Heavy minerals in raw sand (%):



Average content	Category									
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	staurolite
TiO <sub>2</sub> w/w	51,6	76,9	94,4	0,7	40,6	3,1	0,3	0,1	38,5	0,4
Fe <sub>2</sub> O <sub>3</sub> w/w	39,4	8,6	0,9	11,6	41,9	8,7	0,7	32,2	1,2	29,0
MnO w/w	3,0	0,5	0,1	0,5	2,6	0,5	0,3	0,2	0,2	2,0
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,1	0,1	0,1	0,0	0,1	0,1	0,0	0,2	0,1
SiO <sub>2</sub> w/w	2,0	5,7	1,2	44,4	7,6	18,5	29,1	3,9	29,3	38,1
Al <sub>2</sub> O <sub>3</sub> w/w	1,1	3,4	0,7	19,6	3,3	5,4	0,2	1,1	1,8	19,6
MgO w/w	0,4	0,3	0,1	3,2	0,7	4,7	0,1	0,4	0,1	3,0
CaO w/w	0,4	1,1	0,2	16,9	1,0	10,2	0,4	0,2	27,3	6,4
ZrO <sub>2</sub> w/w	0,4	0,9	0,3	0,2	0,3	22,1	64,3	0,8	0,1	0,1
Total	98,4	97,5	98,1	97,3	98,0	73,3	95,5	38,9	98,7	98,6

**Normalised average contents of the valuable Ti-containing minerals**

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti-ox.
TiO <sub>2</sub> w/w	52,5	78,9	96,2	41,5
Fe <sub>2</sub> O <sub>3</sub> w/w	40,1	8,9	0,9	42,8
MnO w/w	3,1	0,5	0,1	2,6
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,1	0,1	0,0
SiO <sub>2</sub> w/w	2,0	5,9	1,3	7,7
Al <sub>2</sub> O <sub>3</sub> w/w	1,1	3,4	0,7	3,3
MgO w/w	0,4	0,3	0,1	0,7
CaO w/w	0,4	1,1	0,2	1,0
ZrO <sub>2</sub> w/w	0,4	0,9	0,4	0,3
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals excl. rutile:

**the heavy mineral concentrate**

Category	w/w
ilmenite	27,71
leucoxene	7,14
pyrite	4,86
rutile	4,67
silicate	45,60
sphene	1,26
otherTi-ox.	2,64
unclassified	0,94
zircon	3,30
almandine	0,00
phosphate	0,00
sillimanite	0,00
staurolite	1,88
Y-phosphate	0,00
Total	100,00

**Weight percent on a mineral basis:**

the raw sand	
Category	w/w
ilmenite	3,27
leucoxene	0,84
pyrite	0,57
rutile	0,55
silicate	93,58
sphene	0,15
otherTi-ox.	0,31
unclassified	0,11
zircon	0,39
almandine	0,00
phosphate	0,00
sillimanite	0,00
staurolite	0,22
Y-phosphate	0,00
Total	100,00

**the valuable heavy minerals**

Category	w/w
ilmenite	60,96
leucoxene	15,71
rutile	10,27
otherTi-ox.	5,81
zircon	7,26
almandine	0,00
sillimanite	0,00
Total	100,00

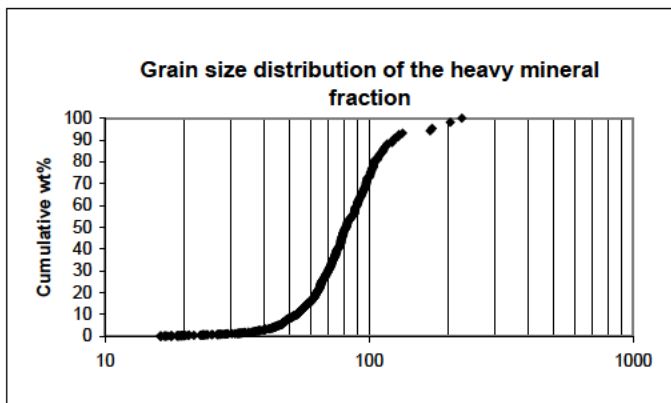
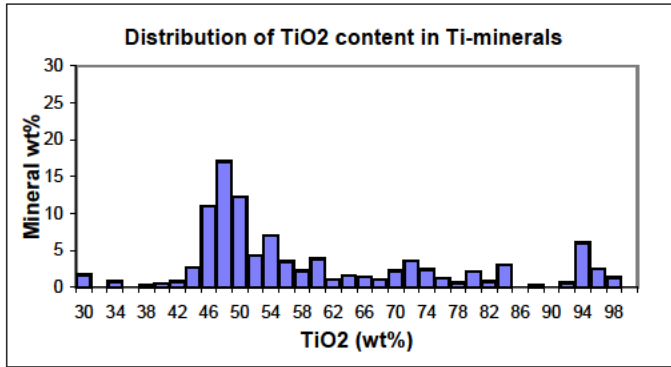
Valuable heavy minerals in raw sand:

**Geological Survey of Denmark and Greenland**  
 Thoravej 8, DK-2400 Copenhagen NV  
 Ph: +45 38142000, Fax : 38142050

Sample Name: **SK99/4 25**

Date: **24-08-99**

Submitter: **Dupont**  
 Analyzed by: **CCA**  
 Acc Voltage: **17kV**



Average grain parameters	Category									
	ilmenite	leucoxene	rutile	silicate	other Ti-ox.	unclassified	zircon	pyrite	sphene	staurolite
Aspect ratio	1,731403	2,015774	1,724611	1,730436	1,73857	1,80125	1,513146	1,589917	1,70612	1,964105
Circularity	2,117038	2,683839	2,246273	2,875739	2,325776	2,766399	1,68367	3,032948	2,143338	2,271624
Perimeter (μm)	283,5153	383,6001	343,7593	339,0407	291,6464	257,6999	251,4333	476,0606	366,7678	291,0831
Length (μm)	113,5319	163,4562	141,647	145,6573	121,4024	109,7006	93,34545	204,4587	150,1568	119,083

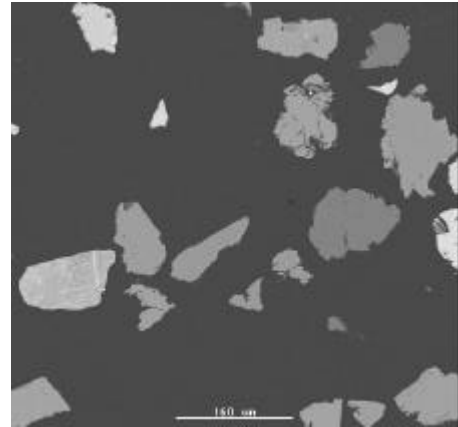


Geological Survey of Denmark and Greenland  
 Thoravej 8, DK-2400 Copenhagen NV  
 Ph.: +45 38142000, Fax: +45 38142050

GEUS

Sample Name:	SK0006 9-24 m
Date:	8/31/00
Submitter:	Dupont
Analyzed by:	CCA
Acc Voltage	17 kV
Magnification	160x
Guard region	90 µm
Sieve	100 µm <sup>2</sup>

Number of frames:	81
Number of valuable particles analyzed:	643
Heavy minerals in raw sand (%):	4.35



Average content										
Category	TiO <sub>2</sub> wt%	Fe <sub>2</sub> O <sub>3</sub> wt%	MnO wt%	Cr <sub>2</sub> O <sub>3</sub> wt%	SiO <sub>2</sub> wt%	Al <sub>2</sub> O <sub>3</sub> wt%	MgO wt%	CaO wt%	ZrO <sub>2</sub> wt%	Total
Ilmenite	52.7	38.4	2.5	0.2	1.7	1.1	0.3	0.3	0.3	97.3
Leucoxene	75.2	8.7	0.7	0.3	4.5	5.0	0.3	1.0	0.4	96.0
Rutile	93.8	1.2	0.1	0.1	1.5	1.1	0.2	0.1	0.2	98.3
Ti magnetite	29.3	48.6	1.4	0.2	6.4	3.6	0.5	3.2	0.2	93.3
Magnetite	0	0	0	0	0	0	0	0	0	0
Chromite	0	0	0	0	0	0	0	0	0	0
Pyrite	0.2	31.3	0.2	0.1	1.9	0.5	0.1	0.1	0.1	34.5
Phosphate	0.1	0.1	0.0	0.2	0.8	0.1	0.0	55.9	1.2	58.4
Monazite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Y-phosphate	0.0	0.0	0.0	0.0	1.8	0.1	0.3	1.2	3.5	6.8
Sphene	35.5	1.5	0.2	0.2	30.2	2.3	0.1	27.8	0.2	97.9
Garnet	0.4	23.6	4.1	0.2	40.0	20.9	3.0	3.0	0.3	95.5
Sillimanite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Staurolite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Zircon	0.2	0.6	0.1	0.5	29.1	0.1	0.3	0.7	64.1	95.7
Silicate	0.9	11.6	0.4	0.1	44.9	18.3	3.6	16.9	0.2	96.9
Unclassified	15.9	13.3	0.2	2.2	28.2	8.7	0.1	5.6	1.3	75.6

Valuable heavy minerals								
Category	Ilmenite	Leucoxene	Rutile	Ti magnetite	Garnet	Zircon	Sillimanite	Total
wt %	49.46	15.50	10.29	5.73	16.36	2.66	0.00	100.00

Normalised average contents of the valuable Ti-containing minerals:				
Average content	Category			
	Ilmenite	Leucoxene	Rutile	Ti magnetite
TiO <sub>2</sub> wt%	54.2	78.3	95.5	31.4
Fe <sub>2</sub> O <sub>3</sub> wt%	39.4	9.1	1.2	52.1
MnO wt%	2.5	0.7	0.1	1.5
Cr <sub>2</sub> O <sub>3</sub> wt%	0.2	0.3	0.1	0.2
SiO <sub>2</sub> wt%	1.7	4.7	1.5	6.8
Al <sub>2</sub> O <sub>3</sub> wt%	1.1	5.2	1.1	3.8
MgO wt%	0.3	0.3	0.2	0.5
CaO wt%	0.3	1.0	0.1	3.4
ZrO <sub>2</sub> wt%	0.3	0.4	0.2	0.2
Total	100.0	100.0	100.0	100.0

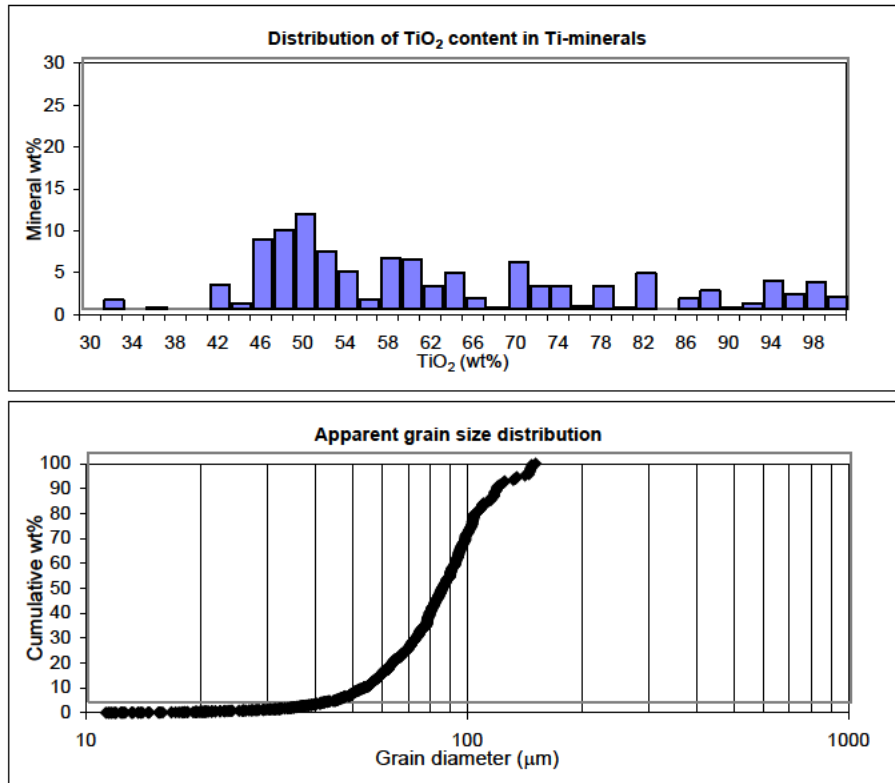
Weight percent on a mineral basis:		
Category	Heavy mineral	
	concentrate	Raw sand
Category	wt %	wt %
Ilmenite	16.80	0.73
Leucoxene	5.26	0.23
Rutile	3.49	0.15
Ti magnetite	1.95	0.08
Magnetite	0.00	0.00
Chromite	0.00	0.00
Pyrite	0.78	0.03
Phosphate	1.11	0.05
Monazite	0.00	0.00
Y-phosphate	0.21	0.01
Sphene	1.53	0.07
Garnet	5.56	0.24
Sillimanite	0.00	0.00
Staurolite	0.00	0.00
Zircon	0.90	0.04
Silicate	61.66	98.33
Unclassified	0.76	0.03
Total	100.00	100.00

Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals:	62.4
Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals excl. rutile:	57.6
Valuable heavy minerals in raw sand:	1.48



Sample Name: SK0006 9-24 m  
 Submitter: Dupont  
 Date: 8/31/00

Analyzed by: CCA  
 Acc. Voltage: 17kV

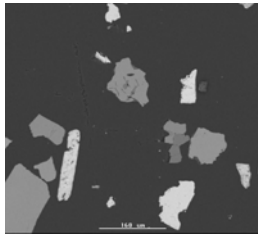


Average grain parameters						
Category	Aspect ratio	Circularity	Perimeter (mm)	Length (mm)	Total grains	
Ilmenite	1.7	2.1	277.5	112.8	86	
Leucoxene	1.5	2.6	370.2	157.4	19	
Rutile	1.8	2.3	294.8	120.9	15	
Ti magnetite	1.6	2.1	237.5	96.7	13	
Magnetite	0.0	0.0	0.0	0.0	0	
Chromite	0.0	0.0	0.0	0.0	0	
Pyrite	1.4	2.1	192.4	78.4	7	
Phosphate	1.4	1.7	423.9	158.0	2	
Monazite	0.0	0.0	0.0	0.0	0	
Y-phosphate	1.8	1.8	272.4	105.2	1	
Sphene	1.8	2.0	293.7	117.5	9	
Garnet	2.7	3.5	460.4	202.4	20	
Sillimanite	0.0	0.0	0.0	0.0	0	
Staurolite	0.0	0.0	0.0	0.0	0	
Zircon	1.5	1.8	218.4	81.9	6	
Silicate	1.7	2.4	316.2	132.3	460	
Unclassified	1.7	1.9	296.7	118.2	5	

**Geological Survey of Denmark and Greenland**

Thoravej 8, DK-2400 Copenhagen NV  
Ph: 45 38142000, Fax.: 38142050

Sample Name: SK0007 11-26 m  
Date: 30-08-00  
Submitter: Dupont  
Analyzed by: CCA  
Acc. Voltage: 17 kV  
Magnification: 160x  
Guard region: 90 µm  
Sieve: 100 µm<sup>2</sup>



Number of frames: 81

Number of valuable particles analyzed: 693

Heavy minerals in raw sand (%) 9.96

Average content	Category													
	limonite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	Monazite	phosphate	silimanite	staurolite
TiO <sub>2</sub> w/w	52.8	77.1	0.2	95.0	0.5	37.5	39.7	18.1	0.2	0.2	0.0	6.2	0.2	0.4
Fe <sub>2</sub> O <sub>3</sub> w/w	39.4	10.5	31.7	1.1	11.1	1.8	37.3	12.5	0.4	29.6	1.4	3.5	0.2	12.9
MnO w/w	2.1	0.7	0.2	0.2	0.3	0.4	1.4	0.3	0.1	3.1	0.0	0.0	0.0	0.8
Cr <sub>2</sub> O <sub>3</sub> w/w	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.2
SiO <sub>2</sub> w/w	1.9	7.0	1.9	1.0	46.2	29.1	13.8	18.5	29.7	37.9	6.8	2.7	43.1	36.6
Al <sub>2</sub> O <sub>3</sub> w/w	1.1	1.4	0.5	0.4	19.0	1.7	4.3	6.3	0.2	19.9	3.6	42.0	53.7	43.8
MgO w/w	0.3	0.2	0.2	0.1	2.7	0.1	0.4	1.4	0.1	3.0	0.4	0.0	0.0	1.5
CaO w/w	0.2	0.5	0.1	0.1	16.6	26.9	0.2	30.7	0.2	4.4	3.4	3.6	0.0	0.9
ZrO <sub>2</sub> w/w	0.2	0.5	0.2	0.1	0.2	0.2	0.6	65.4	0.2	0.0	0.0	0.0	0.6	0.0
Total	98.2	98.1	35.1	98.3	96.9	97.8	97.4	88.4	96.4	98.3	15.5	57.9	98.0	97.1

Normalised average contents of the valuable Ti containing minerals:

Average content	Category			
	limonite	leucoxene	rutile	other Ti ox
TiO <sub>2</sub> w/w	53.8	78.6	96.7	40.8
Fe <sub>2</sub> O <sub>3</sub> w/w	40.1	10.7	1.2	38.3
MnO w/w	2.2	0.7	0.2	1.5
Cr <sub>2</sub> O <sub>3</sub> w/w	0.1	0.1	0.1	0.1
SiO <sub>2</sub> w/w	1.9	7.2	1.0	14.1
Al <sub>2</sub> O <sub>3</sub> w/w	1.2	1.4	0.5	4.4
MgO w/w	0.3	0.2	0.1	0.4
CaO w/w	0.2	0.5	0.1	0.2
ZrO <sub>2</sub> w/w	0.2	0.5	0.1	0.2
Total	100.0	100.0	100.0	100.0

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals 59,1

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals excl. rutile 54,6

Weight percent on a mineral basis:

the heavy mineral concentrate

Category	w/w
limonite	20.94
leucoxene	3.36
pyrite	1.96
rutile	3.40
silicate	54.14
sphene	1.74
other Ti ox	4.54
unclassified	3.06
zircon	1.75
garnet	4.15
monazite	0.10
phosphate	0.44
silimanite	0.24
staurolite	0.16
Y phosphate	0.00
Total	100.00

the raw sand

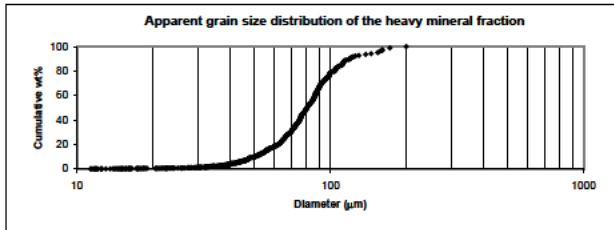
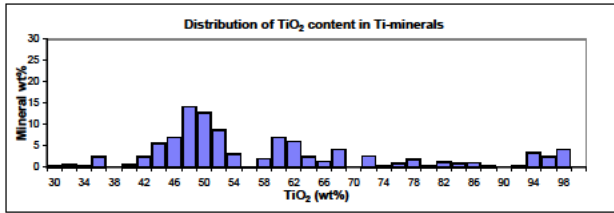
Category	w/w
limonite	2.09
leucoxene	0.33
pyrite	0.19
rutile	0.34
silicate	95.43
sphene	0.17
other Ti ox	0.45
unclassified	0.30
zircon	0.17
garnet	0.41
monazite	0.01
phosphate	0.04
silimanite	0.02
staurolite	0.02
Y phosphate	0.00
Total	100.00

the valuable heavy minerals

Category	w/w
limonite	54.57
leucoxene	8.75
rutile	8.85
other Ti ox	11.84
zircon	4.55
garnet	10.81
silimanite	0.63
Total	100.00

Valuable heavy minerals in raw sand 3,82

Sample Name: SE0007 11-36 m  
 Date: 30-08-00  
 Submitter: Diposit  
 Analysed by: CCA  
 Acc. Voltage: 17kV

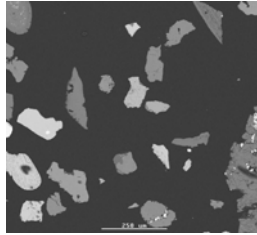


Average grain parameters	Category													
	ilmenite	leucoxene	pyrite	rutile	silicite	sphene	other Ti ox	unclassified	zircon	garnet	Monazite	phosphate	stibnite	staurolite
Aspect ratio	1,80	1,65	1,40	1,72	1,92	1,86	1,56	2,33	1,55	1,90	1,23	1,25	2,46	1,45
Circularity	2,18	2,15	2,54	2,05	2,65	2,22	2,15	2,98	1,93	2,31	1,70	2,18	2,79	1,74
Perimeter (µm)	272,86	286,49	373,44	243,82	309,02	337,63	302,20	474,92	239,45	295,96	187,27	441,87	458,16	290,07
Length (µm)	111,12	116,95	158,57	97,75	129,22	139,14	123,39	208,14	94,31	123,61	70,25	181,81	199,04	110,06
Total grains	121	18	5	21	451	9	19	10	12	23	1	1	1	1

**Geological Survey of Denmark and Greenland**

Thoravej 8, DK-2400 Copenhagen NV  
Ph: 45 38142000, Fax.: 38142050

Sample Name: SK0009 21-22 m  
Date: 01-09-00  
Submitter: Dupont  
Analyzed by: CCA  
Acc. Voltage: 17 kV  
Magnification: 100x  
Guard region: 180 µm  
Sieve: 100 µm<sup>2</sup>



Number of frames: 81

Number of valuable particles analyzed: 780

Heavy minerals in raw sand (%): 4.38

Average content	Category													
	limonite	leucoxene	pyrite	rutile	silicate	sphene	other ox	unclassified	zircon	garnet	Monazite	phosphate	sillimanite	staurolite
TiO <sub>2</sub> w/w	52.1	75.3	0.3	93.8	0.9	37.6	40.4	1.9	0.2	0.3	0.0	0.0	0.2	0.5
Fe <sub>2</sub> O <sub>3</sub> w/w	39.6	9.0	30.6	1.5	10.4	1.3	43.1	3.6	0.5	29.9	0.0	1.2	0.7	12.5
MnO w/w	2.3	0.6	0.1	0.2	0.4	0.2	2.1	0.6	0.2	1.8	0.0	0.1	0.1	0.2
Cr <sub>2</sub> O <sub>3</sub> w/w	0.1	0.3	0.1	0.1	0.2	0.0	0.2	0.2	0.1	0.1	0.0	0.2	0.3	0.0
SiO <sub>2</sub> w/w	2.0	4.8	2.6	1.0	46.9	29.2	5.9	5.0	29.7	37.7	3.4	1.5	42.8	35.1
Al <sub>2</sub> O <sub>3</sub> w/w	0.9	2.8	0.4	0.6	18.7	2.5	1.2	1.0	0.2	19.8	0.9	0.4	53.7	46.9
MgO w/w	0.3	0.4	0.1	0.2	2.7	0.1	0.5	0.4	0.1	4.1	0.4	0.1	0.0	1.7
CaO w/w	0.2	1.7	0.2	0.3	16.0	26.7	1.8	75.3	0.3	3.0	6.8	55.9	0.0	0.1
ZrO <sub>2</sub> w/w	0.2	0.3	0.3	0.4	0.2	0.3	0.2	3.2	63.3	0.3	0.0	0.0	0.0	0.6
Total	97.8	95.0	34.7	98.1	96.4	98.1	95.3	91.2	94.6	97.0	11.4	59.3	97.7	97.7

Normalised average contents of the valuable containing minerals:

Average content	Category			
	limonite	leucoxene	rutile	other ox
TiO <sub>2</sub> w/w	53.3	79.2	95.6	42.4
Fe <sub>2</sub> O <sub>3</sub> w/w	40.5	9.5	1.6	45.2
MnO w/w	2.3	0.6	0.2	2.2
Cr <sub>2</sub> O <sub>3</sub> w/w	0.1	0.3	0.1	0.2
SiO <sub>2</sub> w/w	2.0	5.0	1.0	6.1
Al <sub>2</sub> O <sub>3</sub> w/w	1.0	3.0	0.6	1.2
MgO w/w	0.3	0.4	0.2	0.5
CaO w/w	0.2	1.8	0.3	1.8
ZrO <sub>2</sub> w/w	0.2	0.3	0.4	0.2
Total	100.0	100.0	100.0	100.0

Average TiO<sub>2</sub> content of all the T O<sub>2</sub> minerals: 59,1

Average TiO<sub>2</sub> content of all the T O<sub>2</sub> minerals excl. rutile: 54,6

Weight percent on a mineral basis:

the heavy mineral concentrate

Category	w/w
limonite	19,78
leucoxene	2,10
pyrite	1,60
rutile	2,95
silicate	26,62
sphene	0,50
other Ti ox.	2,13
unclassified	33,92
zircon	2,94
garnet	6,75
monazite	0,11
phosphate	0,06
sillimanite	0,36
staurolite	0,17
Y phosphate	0,00
Total	100,00

the raw sand

Category	w/w
limonite	0,87
leucoxene	0,09
pyrite	0,07
rutile	0,13
silicate	96,79
sphene	0,02
other Ti ox.	0,05
unclassified	1,49
zircon	0,13
garnet	0,30
monazite	0,00
phosphate	0,00
sillimanite	0,02
staurolite	0,01
Y phosphate	0,00
Total	100,00

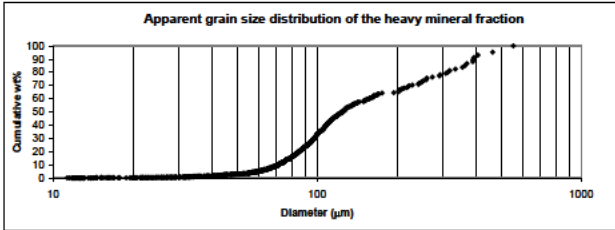
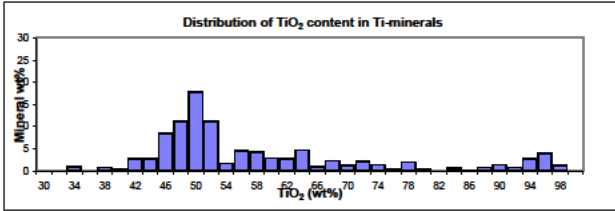
the valuable heavy minerals

Category	w/w
limonite	53,44
leucoxene	5,66
rutile	7,96
other Ti ox.	5,75
zircon	7,95
garnet	18,25
sillimanite	0,38
Total	100,00

Valuable heavy minerals in raw sand: 1,62

Comments: The high amount of unidentified material may be due to occurrence of calcite which is not a classified mineral category. Calcite has been observed in the specimen

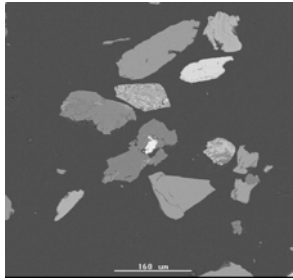
Sample Name: SE0009 21-22 m  
 Date: 01-09-00  
 Submitter: Diposit  
 Analysed by: CCA  
 Acc. Voltage: 17kV



Average grain parameters	Category													
	ilmenite	leucosane	pyrite	rutile	silicite	sphene	other loss	unobscured	zircon	garnet	Monazite	phosphate	zirconite	claurolite
Aspect ratio	1,70	1,69	1,56	1,84	1,84	1,55	1,76	2,40	1,46	1,81	1,69	1,90	1,51	1,78
Circularity	1,99	2,35	2,03	2,01	2,28	1,83	2,09	2,41	1,74	2,39	1,83	2,05	2,16	1,89
Perimeter (µm)	328,62	408,70	243,48	372,27	352,35	349,17	304,95	812,21	314,15	510,95	319,11	246,82	341,44	195,99
Length (µm)	131,05	170,80	99,29	148,59	145,32	132,97	123,55	344,69	117,34	221,10	123,85	99,61	141,77	78,03
Total grains	173	15	23	19	385	5	22	83	25	20	1	1	4	4



Sample Name SK0009 23:29 m  
 Date 29-08-00  
 Submitter Dupont  
 Analyzed by CCA  
 Acc. Voltage 17 kV  
 Magnification 160x  
 Guard region 90 µm  
 Sieve 100 µm<sup>2</sup>



Number of frames 64

Number of valuable particles analyzed 488

Heavy minerals in raw sand (%): 8,33

Average content	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	sillimanite	staurolite
TiO <sub>2</sub> w/w	54,2	76,7	0,1	92,5	0,7	38,7	35,4	15,9	0,2	0,2	0,5	0,5
Fe <sub>2</sub> O <sub>3</sub> w/w	38,3	8,6	30,9	2,3	11,3	0,7	41,6	20,3	0,8	23,3	1,0	14,6
MnO w/w	1,9	0,4	0,2	0,1	0,3	0,1	1,7	0,3	0,2	2,4	0,6	0,3
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,1	0,1	0,1	0,1	0,2	0,1	0,1	0,0	0,0	0,0
SiO <sub>2</sub> w/w	1,5	5,9	3,0	1,4	44,2	29,1	9,9	27,0	29,2	40,3	42,4	34,8
Al <sub>2</sub> O <sub>3</sub> w/w	0,9	3,9	1,1	0,9	20,6	1,8	3,4	17,2	0,3	21,3	53,3	46,6
MgO w/w	0,3	0,1	0,3	0,1	2,6	0,1	0,7	1,2	0,1	2,1	0,0	1,3
CaO w/w	0,2	1,0	0,3	0,3	17,1	27,1	3,5	5,4	0,4	5,4	0,3	0,0
ZrO <sub>2</sub> w/w	0,2	0,4	0,2	0,2	0,2	0,0	0,3	0,3	63,5	0,1	0,0	0,0
Total	97,7	97,2	36,1	97,9	97,1	97,8	96,8	87,7	94,9	95,1	97,9	98,1

Normalised average contents of the valuable Ti containing minerals:

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	55,4	79,0	94,5	36,6
Fe <sub>2</sub> O <sub>3</sub> w/w	39,2	8,8	2,3	42,9
MnO w/w	2,0	0,4	0,1	1,8
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,3	0,1	0,2
SiO <sub>2</sub> w/w	1,6	6,1	1,5	10,2
Al <sub>2</sub> O <sub>3</sub> w/w	0,9	4,0	0,9	3,5
MgO w/w	0,3	0,1	0,1	0,7
CaO w/w	0,2	1,0	0,3	3,6
ZrO <sub>2</sub> w/w	0,2	0,4	0,2	0,3
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals: 60,3

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile: 57,1

Weight percent on a mineral basis:

the heavy mineral concentrate	
Category	w/w
ilmenite	21,7
leucoxene	4,1
pyrite	0,3
rutile	2,7
silicate	59,1
sphene	1,0
otherTi-ox.	2,6
unclassified	1,8
zircon	3,3
garnet	2,7
monazite	0,0
phosphate	0,0
sillimanite	0,0
staurolite	0,7
Y-phosphate	0,0
Total	100,0

the raw sand	
Category	w/w
ilmenite	1,8
leucoxene	0,3
pyrite	0,0
rutile	0,2
silicate	96,6
sphene	0,1
otherTi-ox.	0,2
unclassified	0,1
zircon	0,3
garnet	0,2
monazite	0,0
phosphate	0,0
sillimanite	0,0
staurolite	0,1
Y-phosphate	0,0
Total	100,0

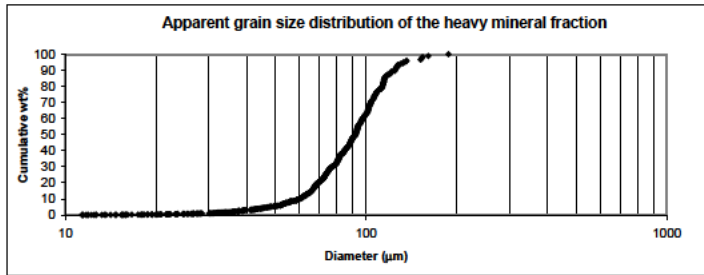
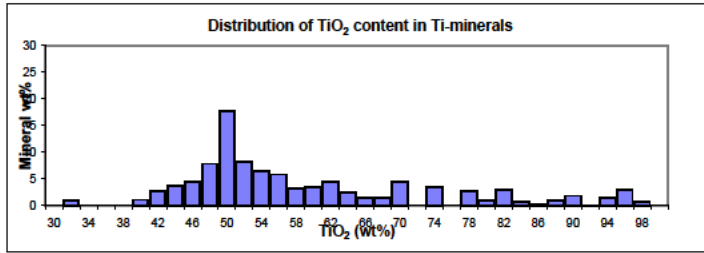
the valuable heavy minerals

Category	w/w
ilmenite	58,5
leucoxene	11,0
rutile	7,3
otherTi-ox.	7,1
zircon	8,8
garnet	7,2
sillimanite	0,0
Total	100,0

Valuable heavy minerals

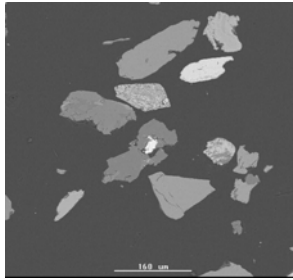
in raw sand: 3,09

Sample Name SK0009 23-29 m  
 Date 29-08-00  
 Submitter Dupont  
 Analyzed by CCA  
 Acc. Voltage 17kV



Average grain parameters	Category											
	ilmenite	leucoxene	pyrite	rutile	silicata	sphene	other Ti ox	unclassified	zircon	garnet	stibbanite	staurolite
Aspect ratio	1,8	1,7	1,5	1,6	1,7	1,3	1,6	1,8	1,8	2,5	2,3	1,7
Circularity	2,2	2,9	1,9	2,1	2,4	1,9	2,1	2,9	1,9	3,1	1,9	2,4
Perimeter (µm)	313,5	413,6	117,1	255,0	348,2	288,8	250,6	390,8	245,7	491,2	95,7	437,4
Length (µm)	128,1	178,8	47,2	103,6	145,4	114,4	101,2	172,9	95,2	212,0	37,5	183,8
Total grains	82	12	6	13	321	5	13	9	17	7	1	2

Sample Name SK0009 23:29 m  
 Date 29-08-00  
 Submitter Dupont  
 Analyzed by CCA  
 Acc. Voltage 17 kV  
 Magnification 160x  
 Guard region 90 µm  
 Sieve 100 µm<sup>2</sup>



Number of frames 64

Number of valuable particles analyzed 488

Heavy minerals in raw sand (%): 8,33

Average content	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	sillimanite	staurolite
TiO <sub>2</sub> w/w	54,2	76,7	0,1	92,5	0,7	38,7	35,4	15,9	0,2	0,2	0,5	0,5
Fe <sub>2</sub> O <sub>3</sub> w/w	38,3	8,6	30,9	2,3	11,3	0,7	41,6	20,3	0,8	23,3	1,0	14,6
MnO w/w	1,9	0,4	0,2	0,1	0,3	0,1	1,7	0,3	0,2	2,4	0,6	0,3
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,1	0,1	0,1	0,1	0,2	0,1	0,1	0,0	0,0	0,0
SiO <sub>2</sub> w/w	1,5	5,9	3,0	1,4	44,2	29,1	9,9	27,0	29,2	40,3	42,4	34,8
Al <sub>2</sub> O <sub>3</sub> w/w	0,9	3,9	1,1	0,9	20,6	1,8	3,4	17,2	0,3	21,3	53,3	46,6
MgO w/w	0,3	0,1	0,3	0,1	2,6	0,1	0,7	1,2	0,1	2,1	0,0	1,3
CaO w/w	0,2	1,0	0,3	0,3	17,1	27,1	3,5	5,4	0,4	5,4	0,3	0,0
ZrO <sub>2</sub> w/w	0,2	0,4	0,2	0,2	0,2	0,0	0,3	0,3	63,5	0,1	0,0	0,0
Total	97,7	97,2	36,1	97,9	97,1	97,8	96,8	87,7	94,9	95,1	97,9	98,1

Normalised average contents of the valuable Ti containing minerals:

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	55,4	79,0	94,5	36,6
Fe <sub>2</sub> O <sub>3</sub> w/w	39,2	8,8	2,3	42,9
MnO w/w	2,0	0,4	0,1	1,8
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,3	0,1	0,2
SiO <sub>2</sub> w/w	1,6	6,1	1,5	10,2
Al <sub>2</sub> O <sub>3</sub> w/w	0,9	4,0	0,9	3,5
MgO w/w	0,3	0,1	0,1	0,7
CaO w/w	0,2	1,0	0,3	3,6
ZrO <sub>2</sub> w/w	0,2	0,4	0,2	0,3
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals: 60,3

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile: 57,1

Weight percent on a mineral basis:

the heavy mineral concentrate	
Category	w/w
ilmenite	21,7
leucoxene	4,1
pyrite	0,3
rutile	2,7
silicate	59,1
sphene	1,0
otherTi-ox.	2,6
unclassified	1,8
zircon	3,3
garnet	2,7
monazite	0,0
phosphate	0,0
sillimanite	0,0
staurolite	0,7
Y-phosphate	0,0
Total	100,0

the raw sand	
Category	w/w
ilmenite	1,8
leucoxene	0,3
pyrite	0,0
rutile	0,2
silicate	96,6
sphene	0,1
otherTi-ox.	0,2
unclassified	0,1
zircon	0,3
garnet	0,2
monazite	0,0
phosphate	0,0
sillimanite	0,0
staurolite	0,1
Y-phosphate	0,0
Total	100,0

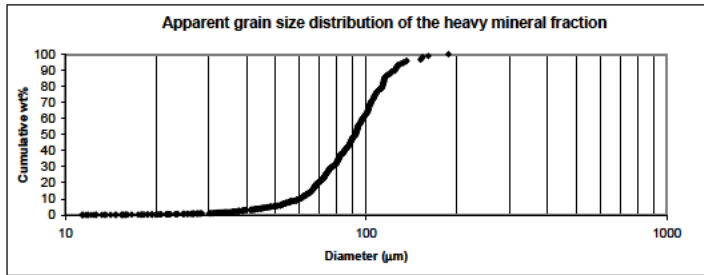
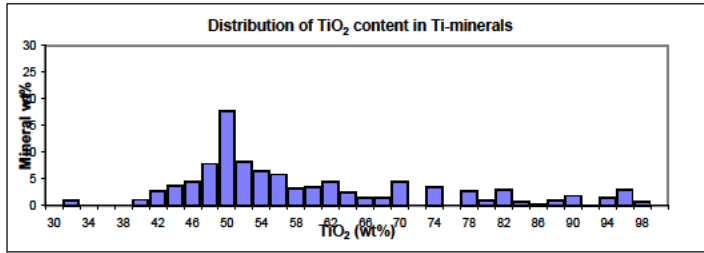
the valuable heavy minerals

Category	w/w
ilmenite	58,5
leucoxene	11,0
rutile	7,3
otherTi-ox.	7,1
zircon	8,8
garnet	7,2
sillimanite	0,0
Total	100,0

Valuable heavy minerals

in raw sand: 3,09

Sample Name SK0009 23-29 m  
 Date 29-08-00  
 Submitter Dupont  
 Analyzed by CCA  
 Acc. Voltage 17kV



Average grain parameters	Category											
	ilmenite	leucoxene	pyrite	rutile	silicata	sphene	other Ti ox	unclassified	zircon	garnet	stibiconite	staurolite
Aspect ratio	1,8	1,7	1,5	1,6	1,7	1,3	1,6	1,8	1,8	2,5	2,3	1,7
Circularity	2,2	2,9	1,9	2,1	2,4	1,9	2,1	2,9	1,9	3,1	1,9	2,4
Perimeter (µm)	313,5	413,6	117,1	255,0	348,2	288,8	250,6	390,8	245,7	491,2	95,7	437,4
Length (µm)	128,1	178,8	47,2	103,6	145,4	114,4	101,2	172,9	95,2	212,0	37,5	183,8
Total grains	82	12	6	13	321	5	13	9	17	7	1	2

**Geological Survey of Denmark and Greenland**

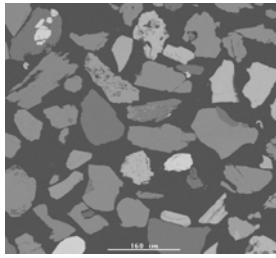
Thoravej 8, DK-2400 Copenhagen NV  
Ph: 45 38142000, Fax: 38142050

Sample Name: SK0010 21-24 m  
Date: 28-08-00  
Submitter: Dyrpout  
Analyzed by: CCA  
Acc. Voltage: 17 kV  
Magnification: 160x  
Guard region: 90 µm  
Sieve: 100 µm<sup>2</sup>

Number of frames: 81

Number of valuable particles analyzed: 460

Heavy minerals in raw sand (%): 10.55



Average content	Category												
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	phosphate	sillimanite	staurolite
TiO <sub>2</sub> w/w	52.8	75.6	0.3	94.7	1.1	35.4	41.1	9.6	0.3	0.1	0.0	0.0	0.0
Fe <sub>2</sub> O <sub>3</sub> w/w	38.5	11.9	30.3	1.3	11.3	1.7	38.6	15.7	0.8	26.6	1.2	0.5	13.9
MnO w/w	2.6	0.4	0.2	0.1	0.4	0.1	2.5	0.6	0.1	5.2	0.0	0.5	0.0
Cr <sub>2</sub> O <sub>3</sub> w/w	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1
SiO <sub>2</sub> w/w	2.3	5.9	2.8	0.6	48.4	30.5	10.8	16.1	30.0	38.0	1.9	40.9	32.8
Al <sub>2</sub> O <sub>3</sub> w/w	1.1	2.2	0.9	0.5	16.8	1.7	3.0	13.0	0.4	19.9	0.9	53.5	47.9
MgO w/w	0.3	0.3	0.2	0.1	3.1	0.2	0.2	1.6	0.1	3.4	0.1	0.0	1.5
CaO w/w	0.3	0.6	0.1	0.1	15.2	27.0	0.6	19.1	0.3	4.5	54.9	0.2	0.0
ZrO <sub>2</sub> w/w	0.2	0.3	0.4	0.3	0.2	0.2	0.2	7.9	63.5	0.2	0.8	1.0	1.1
Total	98.1	97.3	35.4	97.9	96.7	97.1	97.2	83.7	95.6	98.3	60.0	96.7	97.3

Normalised average contents of the valuable Ti containing minerals:

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	53.8	77.7	96.7	42.3
Fe <sub>2</sub> O <sub>3</sub> w/w	39.2	12.2	1.4	39.7
MnO w/w	2.6	0.4	0.1	2.6
Cr <sub>2</sub> O <sub>3</sub> w/w	0.1	0.2	0.1	0.2
SiO <sub>2</sub> w/w	2.3	6.0	0.7	11.1
Al <sub>2</sub> O <sub>3</sub> w/w	1.1	2.3	0.5	3.1
MgO w/w	0.3	0.3	0.1	0.2
CaO w/w	0.3	0.6	0.1	0.7
ZrO <sub>2</sub> w/w	0.2	0.3	0.3	0.2
Total	100.0	100.0	100.0	100.0

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals: 62.0

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals excl. rutile: 57.2

the heavy mineral concentrate

Category	w/w
ilmenite	21.59
leucoxene	5.28
pyrite	6.37
rutile	4.00
silicate	43.49
sphene	1.21
other Ti ox.	2.23
unclassified	4.85
zircon	7.13
garnet	2.78
monazite	0.90
phosphate	0.82
sillimanite	0.22
staurolite	0.03
Y phosphate	0.00
Total	100.00

Weight percent on a mineral basis:

Category	w/w
ilmenite	2.28
leucoxene	0.56
pyrite	0.67
rutile	0.42
silicate	94.04
sphene	0.13
other Ti ox.	0.23
unclassified	0.51
zircon	0.75
garnet	0.29
monazite	0.00
phosphate	0.09
sillimanite	0.02
staurolite	0.00
Y phosphate	0.00
Total	100.00

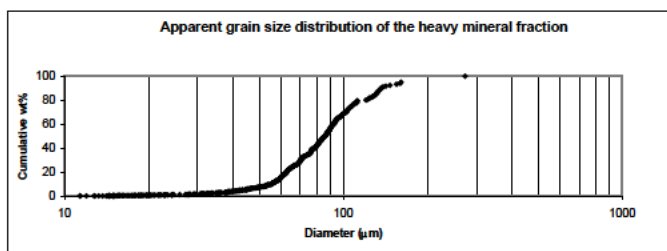
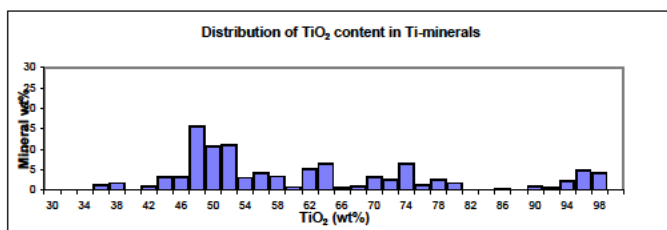
the valuable heavy minerals

Category	w/w
ilmenite	49.93
leucoxene	12.21
rutile	9.26
other Ti ox.	5.15
zircon	16.49
garnet	6.44
sillimanite	0.52
Total	100.00

Valuable heavy minerals in raw sand: 4.56

Sample Name: SK0010 21-24 m Date: 28-08-00

Submitter: Dipont  
 Analyzed by: CCA  
 Acc. Voltage: 15kV



Average grain parameters	Category												
	ilmenite	leucosane	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	gemet	phosphate	stibnite	staurolite
Aspect ratio	1.79	1.85	1.72	1.76	1.85	2.10	1.85	2.01	1.54	1.56	1.29	1.25	2.22
Circularity	2.18	2.23	3.31	2.10	2.46	2.51	2.58	4.05	2.00	2.10	1.42	2.21	2.89
Perimeter (µm)	294.84	347.84	428.04	246.72	312.54	263.89	289.30	551.05	283.17	244.82	417.45	338.83	131.57
Length (µm)	115.75	142.82	197.98	101.16	131.92	109.55	122.56	252.32	111.16	101.27	137.55	139.85	57.51
Total grains	84	15	13	18	254	8	10	15	26	14	1	1	1

**Geological Survey of Denmark and Greenland**

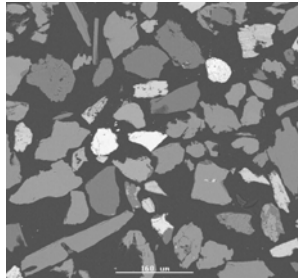
Thoravej 8, DK-2400 Copenhagen NV  
Ph +45 38142000, Fax. 38142050

Sample Name	SK0010 28-30m
Date	08-08-00
Submitter	Dupont
Analyzed by	CCA
Acc. Voltage	17 kV
Magnification	160x
Guard region	90 µm
Sieve	100 µm <sup>2</sup>

Number of frames

Number of valuable particles analyzed

Heavy minerals in raw sand (%):



Average content	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	phosphate	sillimanite
TiO <sub>2</sub> w/w	53,6	77,2	0,1	93,1	1,1	36,9	31,0	2,2	0,1	1,2	0,0	0,2
Fe <sub>2</sub> O <sub>3</sub> w/w	35,7	9,3	30,6	1,9	10,0	0,8	47,4	6,3	0,9	26,8	0,3	0,5
MnO w/w	2,2	0,5	0,2	0,1	0,3	0,3	1,2	0,1	0,2	3,1	0,0	0,0
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,3	0,1	0,3	0,2
SiO <sub>2</sub> w/w	4,0	5,2	2,8	1,6	48,9	30,4	10,7	7,1	29,4	38,3	0,7	43,0
Al <sub>2</sub> O <sub>3</sub> w/w	1,6	3,0	0,7	0,9	18,8	1,4	3,0	1,8	0,4	19,7	0,0	54,1
MgO w/w	0,3	0,4	0,5	0,1	2,3	0,0	1,8	0,7	0,1	2,8	0,0	0,0
CaO w/w	0,5	1,3	0,2	0,3	15,0	28,1	1,7	72,2	0,8	4,5	57,0	0,0
ZrO <sub>2</sub> w/w	0,2	0,4	0,2	0,2	0,2	0,0	0,2	1,8	64,2	0,4	1,5	0,0
Total	98,2	97,4	35,3	98,3	96,7	98,0	97,3	92,4	96,4	97,0	59,8	98,2

Normalised average contents of the valuable Ti containing minerals:

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	54,6	79,3	94,8	31,8
Fe <sub>2</sub> O <sub>3</sub> w/w	36,3	9,6	1,9	48,8
MnO w/w	2,2	0,5	0,1	1,3
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,1	0,1	0,2
SiO <sub>2</sub> w/w	4,1	5,3	1,6	11,0
Al <sub>2</sub> O <sub>3</sub> w/w	1,6	3,1	1,0	3,1
MgO w/w	0,3	0,4	0,1	1,9
CaO w/w	0,5	1,3	0,3	1,8
ZrO <sub>2</sub> w/w	0,3	0,4	0,2	0,3
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals excl. rutile:

Weight percent on a mineral basis:

the heavy mineral concentrate	
Category	w/w
ilmenite	7,57
leucoxene	4,27
pyrite	7,20
rutile	3,32
silicate	35,96
sphene	1,01
otherTi-ox.	4,24
unclassified	32,76
zircon	1,22
garnet	1,84
monazite	0,00
phosphate	0,33
sillimanite	0,27
staurolite	0,00
Y-phosphate	0,00
Total	100,00

the raw sand	
Category	w/w
ilmenite	0,33
leucoxene	0,19
pyrite	0,31
rutile	0,15
silicate	97,20
sphene	0,04
otherTi-ox.	0,19
unclassified	1,43
zircon	0,05
garnet	0,08
monazite	0,00
phosphate	0,01
sillimanite	0,01
staurolite	0,00
Y-phosphate	0,00
Total	100,00

the valuable heavy minerals	
Category	w/w
ilmenite	33,31
leucoxene	18,79
rutile	14,60
otherTi-ox.	18,66
zircon	5,36
garnet	8,10
sillimanite	1,17
Total	100,00

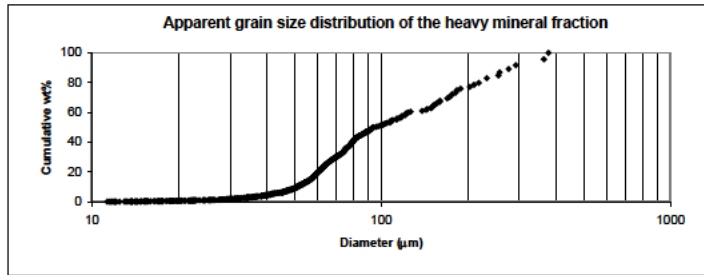
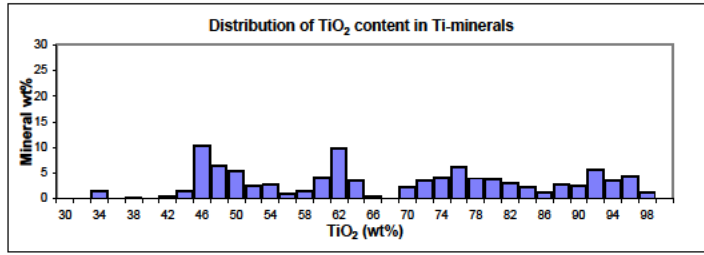
Valuable heavy minerals in raw sand:

Comments The high amount of unidentified material may be due to occurrence of calcite which is not a classified mineral category. Calcite has been observed in the specimen

Sample Name SK0010 28-30m

Date 08-08-00

Submitter Dupont  
 Analyzed by CCA  
 Acc. Voltage 17kV



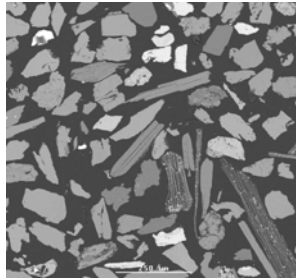
Average grain parameters	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	phosphate	stibnite
Aspect ratio	1,79	1,75	1,41	1,89	1,84	1,87	1,70	2,71	1,84	2,12	1,27	2,43
Circularity	2,27	2,86	2,23	2,33	2,77	2,43	2,93	3,87	1,88	2,87	1,56	3,32
Perimeter (µm)	245,34	300,72	285,43	224,79	285,65	267,43	378,68	937,04	256,32	233,43	300,85	347,26
Length (µm)	101,10	129,93	119,82	93,67	122,85	112,30	168,85	423,32	101,71	101,31	107,38	155,00
Total grains	50	24	22	23	339	8	11	35	6	16	1	2



**Geological Survey of Denmark and Greenland**

Thoravej 8, DK-2400 Copenhagen NV  
Ph +45 38142000, Fax. 38142050

Sample Name	SK0012 16-30
Date	06-09-00
Submitter	Dupont
Analyzed by	CCA
Acc. Voltage	17 kV
Magnification	100x
Guard region	120 µm
Sieve	100 µm <sup>2</sup>



Number of frames

Number of valuable particles analyzed

Heavy minerals in raw sand (%):

Average content	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	phosphate	sillimanite
TiO <sub>2</sub> w/w	53,2	78,7	0,3	93,1	0,7	36,6	24,9	12,8	0,1	1,8	0,1	0,2
Fe <sub>2</sub> O <sub>3</sub> w/w	34,9	8,2	30,2	0,7	11,1	0,9	47,8	13,5	0,9	23,6	0,5	0,7
MnO w/w	2,0	0,5	0,1	0,2	0,4	0,2	1,2	0,8	0,3	1,5	0,0	0,0
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,3	0,0	0,2	0,1	0,1	0,2	0,2	0,0	0,0	0,1	0,1
SiO <sub>2</sub> w/w	4,2	4,9	4,3	1,8	48,2	30,4	9,8	28,7	28,5	39,1	0,9	42,6
Al <sub>2</sub> O <sub>3</sub> w/w	1,2	2,4	1,1	0,9	17,6	1,6	4,2	7,4	0,4	20,6	0,1	53,3
MgO w/w	0,5	0,3	0,2	0,2	3,7	0,2	1,6	1,6	0,1	2,9	0,3	0,1
CaO w/w	0,5	1,0	0,1	0,2	14,0	27,8	3,2	15,7	1,1	3,4	56,5	0,0
ZrO <sub>2</sub> w/w	0,3	0,4	0,2	0,3	0,3	0,1	0,4	5,6	62,0	0,6	0,0	0,2
Total	97,1	96,6	36,6	97,6	96,1	97,9	93,4	86,5	93,3	93,5	58,4	97,3

**Normalised average contents of the valuable Ti containing minerals:**

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	54,8	81,5	95,4	26,6
Fe <sub>2</sub> O <sub>3</sub> w/w	36,0	8,5	0,7	51,2
MnO w/w	2,0	0,5	0,2	1,3
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,3	0,3	0,2
SiO <sub>2</sub> w/w	4,4	5,1	1,8	10,5
Al <sub>2</sub> O <sub>3</sub> w/w	1,2	2,5	0,9	4,5
MgO w/w	0,5	0,3	0,2	1,7
CaO w/w	0,5	1,0	0,2	3,4
ZrO <sub>2</sub> w/w	0,3	0,4	0,3	0,5
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile:

**Weight percent on a mineral basis:**

the heavy mineral concentrate

Category	w/w
ilmenite	9,75
leucoxene	7,05
pyrite	2,89
rutile	3,48
silicate	62,86
sphene	0,88
otherTi-ox.	5,24
unclassified	2,75
zircon	0,81
garnet	3,22
monazite	0,00
phosphate	0,70
sillimanite	0,36
staurolite	0,00
Y-phosphate	0,00
Total	100,00

the raw sand

Category	w/w
ilmenite	0,60
leucoxene	0,43
pyrite	0,18
rutile	0,21
silicate	97,71
sphene	0,05
otherTi-ox.	0,32
unclassified	0,17
zircon	0,05
garnet	0,20
monazite	0,00
phosphate	0,04
sillimanite	0,02
staurolite	0,00
Y-phosphate	0,00
Total	100,00

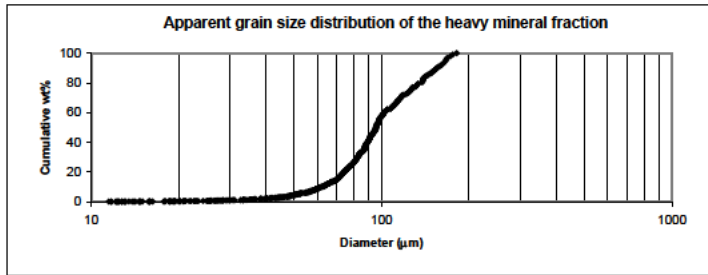
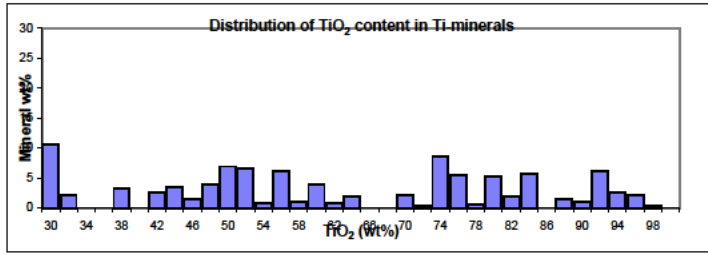
**the valuable heavy minerals**

Category	w/w
ilmenite	32,61
leucoxene	23,56
rutile	11,64
otherTi-ox.	17,51
zircon	2,72
garnet	10,76
sillimanite	1,21
Total	100,00

Valuable heavy minerals

in raw sand:

Sample Name SK0012 16-30  
 Date 06-09-00  
 Submitter Dupont  
 Analyzed by CCA  
 Acc. Voltage 17kV



Average grain parameters	Category											
	ilmenite	leucoxene	pyrite	rutile	silicates	sphene	other Ti ox	unclassified	zircon	garnet	phosphate	stillemanite
Aspect ratio	1,64	1,70	1,43	1,60	1,79	2,14	1,45	1,57	1,47	2,42	1,30	2,81
Circularity	2,05	2,33	2,54	2,25	2,43	2,04	3,06	2,56	1,70	3,08	1,71	2,67
Perimeter (µm)	304,35	389,82	429,14	347,78	367,53	309,06	451,12	396,45	244,19	377,23	348,30	372,93
Length (µm)	123,48	161,55	186,88	145,23	154,55	121,98	200,95	173,88	90,49	162,81	131,61	159,59
Total grains	45	21	7	12	362	4	15	15	5	14	2	2

Geological Survey of Denmark and Greenland

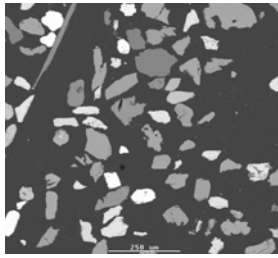
Thoravej 8, DK-2400 Copenhagen NV  
Ph: 45 38142000, Fax.: 38142050

Sample Name: SK0015 15-27  
Date: 58-9-2000  
Submitter: Dyrpout  
Analyzed by: CCA  
Acc. Voltage: 17 kV  
Magnification: 100x  
Guard region: 180 µm  
Sieve: 100 µm<sup>2</sup>

Number of frames: 81

Number of valuable particles analyzed: 1214

Heavy minerals in raw sand (%): 11.48



Average content	Category												
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	Monazite	sillimanite	staurolite
TiO <sub>2</sub> w/w	52.2	76.9	1.4	93.3	0.9	36.8	39.3	14.9	0.4	0.4	6.5	0.0	1.0
Fe <sub>2</sub> O <sub>3</sub> w/w	38.6	7.7	31.3	1.4	11.2	0.8	42.2	14.3	0.6	27.8	0.8	0.5	13.0
MnO w/w	2.3	0.5	0.1	0.1	0.4	0.4	2.1	0.7	0.2	4.1	0.0	0.0	0.9
Cr <sub>2</sub> O <sub>3</sub> w/w	0.1	0.1	0.0	0.2	0.1	0.2	0.1	2.9	0.1	0.1	0.0	0.0	0.5
SiO <sub>2</sub> w/w	2.5	5.9	1.7	1.6	46.2	29.5	8.8	26.0	29.5	37.8	14.1	43.4	31.8
Al <sub>2</sub> O <sub>3</sub> w/w	1.0	3.0	0.8	0.6	18.6	1.9	1.8	7.1	0.3	19.9	2.1	53.6	47.5
MgO w/w	0.3	0.2	0.2	0.2	3.1	0.2	0.4	2.3	0.1	3.0	0.1	0.0	1.6
CaO w/w	0.3	0.9	0.4	0.2	15.9	27.1	0.3	18.2	0.2	3.4	7.5	0.2	0.0
ZrO <sub>2</sub> w/w	0.3	0.7	0.2	0.2	0.2	0.3	1.1	6.5	63.8	0.4	2.0	0.0	1.0
Total	97.7	95.9	36.0	97.8	96.6	97.1	96.2	92.9	95.2	97.0	33.0	97.7	97.4

Normalised average contents of the valuable Ti containing minerals:

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	53.4	80.1	95.4	40.8
Fe <sub>2</sub> O <sub>3</sub> w/w	39.6	8.0	1.5	43.9
MnO w/w	2.4	0.5	0.1	2.2
Cr <sub>2</sub> O <sub>3</sub> w/w	0.1	0.2	0.2	0.1
SiO <sub>2</sub> w/w	2.6	6.1	1.6	9.1
Al <sub>2</sub> O <sub>3</sub> w/w	1.0	3.2	0.6	1.8
MgO w/w	0.3	0.2	0.2	0.4
CaO w/w	0.3	0.9	0.2	0.4
ZrO <sub>2</sub> w/w	0.3	0.7	0.2	1.2
Total	100.0	100.0	100.0	100.0

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals: 59.9

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals excl. rutile: 56.5

the heavy mineral concentrate

Category	w/w
ilmenite	21.85
leucoxene	4.66
pyrite	0.44
rutile	2.76
silicate	54.69
sphene	1.25
other Ti ox.	2.73
unclassified	4.25
zircon	4.87
garnet	1.83
monazite	0.49
phosphate	0.00
sillimanite	0.09
staurolite	0.02
Y phosphate	0.07
Total	100.00

Weight percent on a mineral basis:

the raw sand

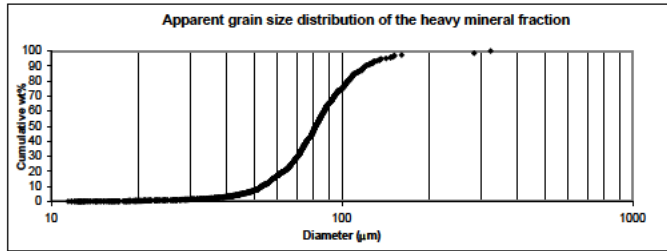
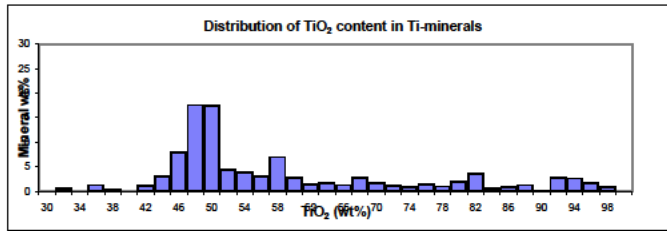
Category	w/w
ilmenite	2.51
leucoxene	0.53
pyrite	0.05
rutile	0.32
silicate	94.80
sphene	0.14
other Ti ox.	0.31
unclassified	0.49
zircon	0.56
garnet	0.21
monazite	0.06
phosphate	0.00
sillimanite	0.01
staurolite	0.00
Y phosphate	0.01
Total	100.00

the valuable heavy minerals

Category	w/w
ilmenite	56.32
leucoxene	12.01
rutile	7.13
other Ti ox.	7.04
zircon	12.55
garnet	4.72
sillimanite	0.24
Total	100.00

Valuable heavy minerals in raw sand: 4.45

Sample Name: SK0015-15-27  
 Date: 58-9-2000  
 Submitter: Dipept  
 Analyzed by: CCA  
 Acc. Voltage: 15kV



Average grain parameters	Category												
	ilmenite	leucosane	pyrite	rutile	albite	ephera	other Ti ox	unclassified	zircon	garnet	Monazite	sillimanite	staurolite
Aspect ratio	1.59	1.42	1.41	1.89	1.70	1.75	1.71	1.57	1.57	1.89	1.22	1.14	1.07
Circularity	2.05	1.84	2.28	1.90	2.17	1.87	2.25	2.33	1.71	2.08	2.10	1.59	1.72
Perimeter (µm)	272.02	283.47	207.47	235.55	305.68	284.17	277.75	418.75	259.07	257.78	357.23	294.15	141.33
Length (µm)	109.36	110.19	88.74	91.48	124.79	111.64	114.58	177.67	98.80	103.45	143.96	106.53	53.31
Total grains	223	38	8	31	774	13	29	28	44	22	3	1	1

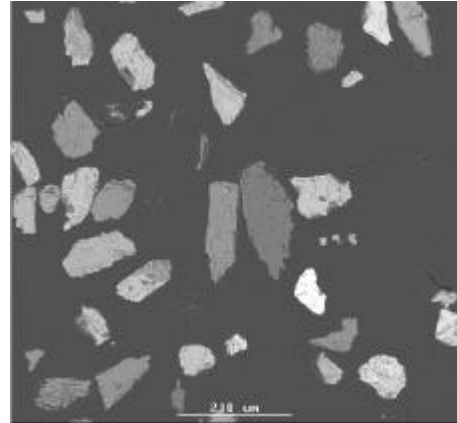


Geological Survey of Denmark and Greenland  
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 Ph.: +45 38142000, Fax: +45 38142050

GEUS

Sample Name:	SK15 18m
Date:	11/13/00
Submitter:	Dupont
Analyzed by:	CCA
Acc. Voltage	17 kV
Magnification	120x
Guard region	100 µm
Sieve	100 µm <sup>2</sup>

No. of analysed frames:	64
No. analysed of particles	946
Heavy minerals in raw sand (%):	13.82
comments:	



Category	Average content									
	TiO <sub>2</sub> wt%	Fe <sub>2</sub> O <sub>3</sub> wt%	MnO wt%	Cr <sub>2</sub> O <sub>3</sub> wt%	SiO <sub>2</sub> wt%	Al <sub>2</sub> O <sub>3</sub> wt%	MgO wt%	CaO wt%	ZrO <sub>2</sub> wt%	Total
Ilmenite	51.7	40.3	2.5	0.1	2.1	0.8	0.3	0.2	0.3	98.1
Leucoxene	78.3	8.2	0.6	0.2	7.4	2.1	0.1	0.4	0.4	97.6
Rutile	92.4	1.4	0.2	0.2	2.5	1.1	0.1	0.1	0.2	98.0
Ti magnetite	42.0	39.8	1.9	0.2	9.3	3.0	0.6	0.3	0.3	97.4
Magnetite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chromite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pyrite	1.5	32.5	0.1	0.1	2.0	0.8	0.3	0.1	0.1	37.5
Phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Monazite	0.0	4.1	0.0	0.0	15.0	4.9	0.9	2.5	4.9	32.4
Y-phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sphene	37.5	1.5	0.1	0.1	28.9	2.7	0.1	26.1	0.0	97.1
Garnet	0.3	27.2	4.4	0.1	38.2	20.2	3.0	3.0	0.3	96.6
Sillimanite	0.1	0.5	0.1	0.2	42.7	53.3	0.0	0.0	0.3	97.3
Staurolite	0.6	13.0	0.1	0.1	33.8	49.2	1.1	0.0	0.0	97.9
Zircon	0.2	0.6	0.2	0.1	29.6	0.2	0.1	0.3	63.6	95.0
Silicate	0.8	7.7	0.4	0.1	63.5	12.1	1.5	10.1	0.3	96.5
Unclassified	11.1	7.3	0.6	0.0	39.2	1.5	0.6	0.4	27.1	87.9

Valuable heavy minerals								
Category	Ilmenite	Leucoxene	Rutile	Ti magnetite	Garnet	Zircon	Sillimanite	Total
wt %	59.9	4.8	9.3	6.0	6.9	10.9	2.2	100.0

Normalised average contents of the valuable Ti-containing minerals:				
Average content	Category			
	Ilmenite	Leucoxene	Rutile	Ti magnetite
TiO <sub>2</sub> wt%	52.7	80.2	94.2	43.1
Fe <sub>2</sub> O <sub>3</sub> wt%	41.0	8.4	1.4	40.9
MnO wt%	2.5	0.6	0.2	2.0
Cr <sub>2</sub> O <sub>3</sub> wt%	0.1	0.2	0.2	0.2
SiO <sub>2</sub> wt%	2.1	7.5	2.5	9.6
Al <sub>2</sub> O <sub>3</sub> wt%	0.8	2.1	1.1	3.1
MgO wt%	0.3	0.1	0.1	0.7
CaO wt%	0.2	0.4	0.1	0.4
ZrO <sub>2</sub> wt%	0.3	0.4	0.2	0.3
Total	100.0	100.0	100.0	100.0

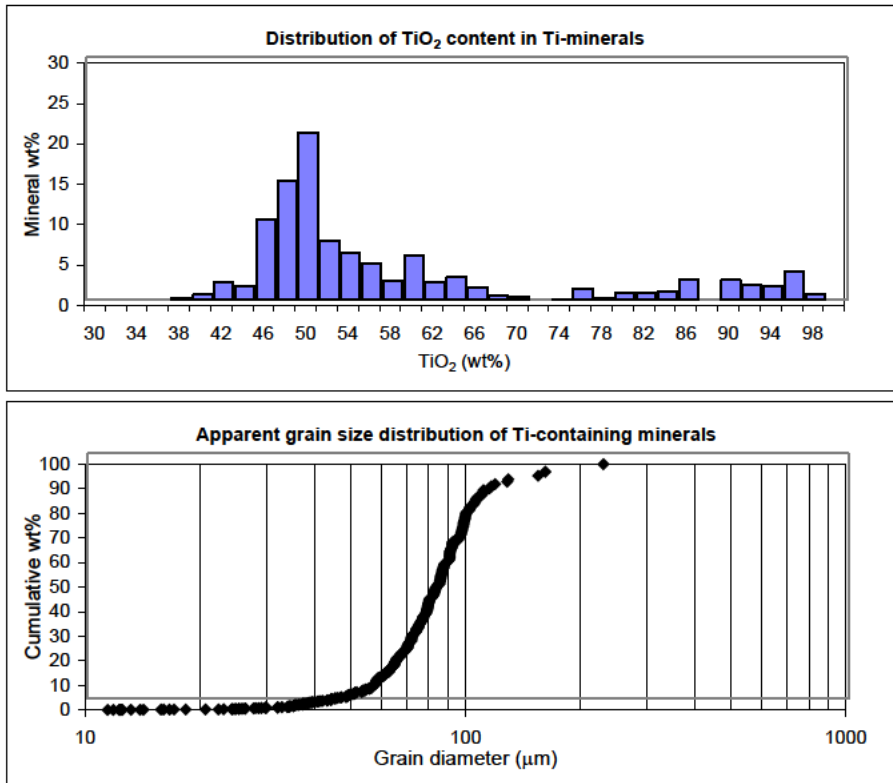
Weight percent on a mineral basis:		
Category	Heavy mineral	
	concentrate wt %	Raw sand wt %
Ilmenite	29.7	4.1
Leucoxene	2.4	0.3
Rutile	4.6	0.6
Ti magnetite	3.0	0.4
Magnetite	0.0	0.0
Chromite	0.0	0.0
Pyrite	2.1	0.3
Phosphate	0.0	0.0
Monazite	0.1	0.0
Y-phosphate	0.0	0.0
Sphene	0.3	0.0
Garnet	3.5	0.5
Sillimanite	1.1	0.2
Staurolite	0.1	0.0
Zircon	5.4	0.7
Silicate	46.6	92.6
Unclassified	1.2	0.2
Total	100.0	100.0

Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals:	58.5
Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals excl. rutile:	53.8
Valuable heavy minerals in raw sand:	6.87



Sample Name: **SK15 18m**  
 Submitter: **Dupont**  
 Date: **11/13/00**

Analyzed by: **CCA**  
 Acc. Voltage: **17kV**



Average grain parameters					
Category	Aspect ratio	Circularity	Perimeter (μm)	Length (μm)	Total grains
Ilmenite	1.8	2.1	307	125	252
Leucoxene	1.7	2.0	318	128	18
Rutile	1.7	2.2	329	135	33
Ti magnetite	1.7	2.4	334	142	23
Magnetite	0.0	0.0	0	0	0
Chromite	0.0	0.0	0	0	0
Pyrite	1.4	2.2	323	138	13
Phosphate	0.0	0.0	0	0	0
Monazite	1.4	1.9	289	113	1
Y-phosphate	0.0	0.0	0	0	0
Sphene	1.3	2.1	391	159	2
Garnet	1.9	2.5	347	145	31
Sillimanite	1.9	2.6	873	377	2
Staurolite	1.7	1.8	222	86	1
Zircon	1.4	1.8	281	108	47
Silicate	1.7	2.5	367	154	512
Unclassified	1.5	2.8	445	191	11

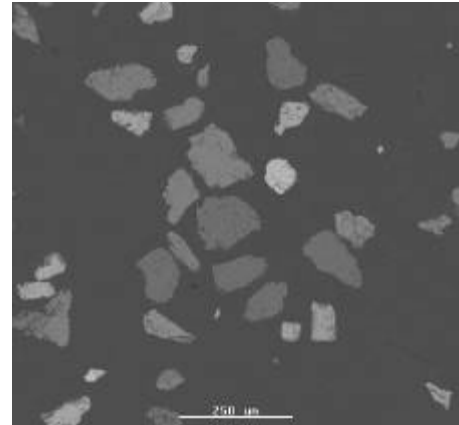


Geological Survey of Denmark and Greenland  
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GEUS

Sample Name:	SK0015 22m
Date:	11/22/00
Submitter:	Dupont
Analyzed by:	CCA
Acc. Voltage	17 kV
Magnification	100x
Guard region	100 μm
Sieve	100 μm <sup>2</sup>

No. of analysed frames:	45
No. analysed of particles	1251
Heavy minerals in raw sand (%):	22.74
comments:	



Category	Average content									
	TiO <sub>2</sub> wt%	Fe <sub>2</sub> O <sub>3</sub> wt%	MnO wt%	Cr <sub>2</sub> O <sub>3</sub> wt%	SiO <sub>2</sub> wt%	Al <sub>2</sub> O <sub>3</sub> wt%	MgO wt%	CaO wt%	ZrO <sub>2</sub> wt%	Total
Ilmenite	51.0	39.6	1.9	0.2	3.0	1.0	0.3	0.3	0.3	97.6
Leucoxene	75.5	10.0	0.5	0.3	5.1	3.0	0.3	0.8	0.6	96.1
Rutile	92.5	1.4	0.2	0.2	2.1	0.7	0.1	0.1	0.4	97.8
Ti magnetite	40.1	38.3	1.9	0.2	9.9	2.1	0.6	0.9	0.9	94.9
Magnetite	0.8	78.2	0.9	0.2	2.1	0.9	2.2	4.8	0.0	90.1
Chromite	0.6	21.2	1.3	52.1	1.4	14.4	5.3	0.1	0.2	96.5
Pyrite	1.3	33.9	0.2	0.1	2.8	0.6	0.1	0.3	0.1	39.4
Phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Monazite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Y-phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sphene	36.3	1.2	0.2	0.1	28.6	2.1	0.2	28.9	0.1	97.8
Garnet	0.4	28.5	3.3	0.1	37.2	19.4	2.5	4.4	0.4	96.2
Sillimanite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Staurolite	0.5	14.4	0.3	0.1	33.3	46.6	1.7	0.1	0.8	97.8
Zircon	0.4	0.8	0.1	0.2	29.7	0.2	0.2	0.3	63.8	95.6
Silicate	0.9	9.3	0.3	0.2	58.1	13.4	1.6	12.5	0.3	96.5
Unclassified	14.1	15.5	0.5	0.2	31.6	9.8	1.1	5.8	9.2	87.9

Valuable heavy minerals								
Category	Ilmenite	Leucoxene	Rutile	Ti magnetite	Garnet	Zircon	Sillimanite	Total
wt %	52.8	7.0	8.6	19.1	5.3	7.3	0.0	100.0

Normalised average contents of the valuable Ti-containing minerals:				
Average content	Category			
	Ilmenite	Leucoxene	Rutile	Ti magnetite
TiO <sub>2</sub> wt%	52.3	78.6	94.6	42.3
Fe <sub>2</sub> O <sub>3</sub> wt%	40.6	10.4	1.4	40.3
MnO wt%	2.0	0.5	0.2	2.0
Cr <sub>2</sub> O <sub>3</sub> wt%	0.2	0.3	0.2	0.2
SiO <sub>2</sub> wt%	3.1	5.3	2.1	10.5
Al <sub>2</sub> O <sub>3</sub> wt%	1.0	3.1	0.7	2.2
MgO wt%	0.3	0.3	0.1	0.7
CaO wt%	0.3	0.9	0.1	1.0
ZrO <sub>2</sub> wt%	0.3	0.6	0.4	0.9
Total	100.0	100.0	100.0	100.0

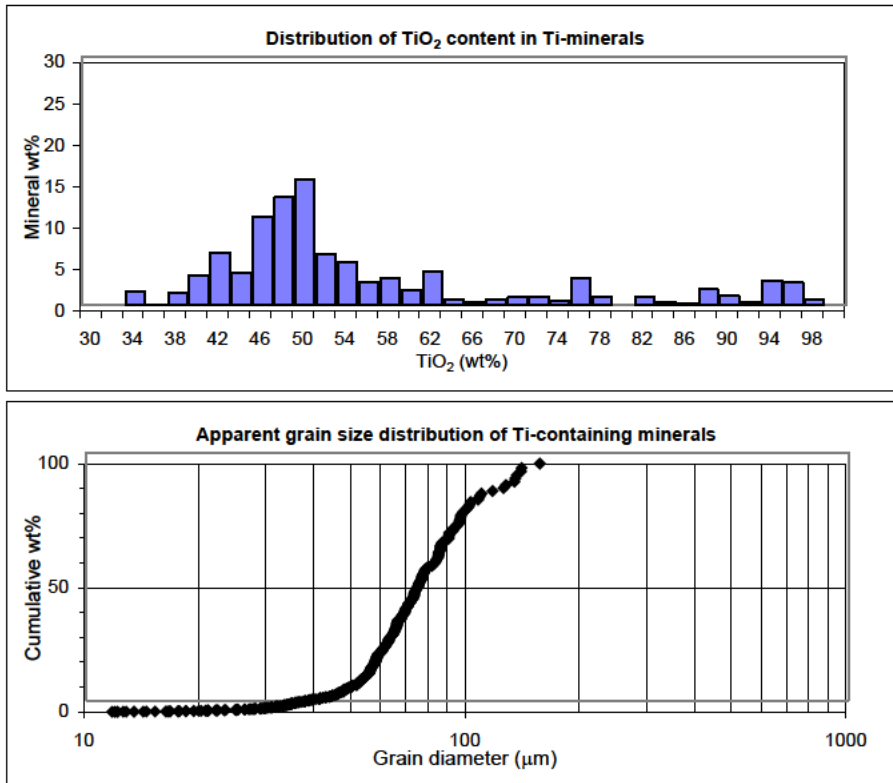
Weight percent on a mineral basis:		
Category	Heavy mineral	
	concentrate wt %	Raw sand wt %
Ilmenite	18.6	4.2
Leucoxene	2.5	0.6
Rutile	3.0	0.7
Ti magnetite	6.7	1.5
Magnetite	0.3	0.1
Chromite	0.1	0.0
Pyrite	0.7	0.2
Phosphate	0.0	0.0
Monazite	0.0	0.0
Y-phosphate	0.0	0.0
Sphene	0.8	0.2
Garnet	1.9	0.4
Sillimanite	0.0	0.0
Staurolite	0.2	0.0
Zircon	2.6	0.6
Silicate	58.7	90.6
Unclassified	4.0	0.9
Total	100.0	100.0

Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals:	56.4
Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals excl. rutile:	52.2
Valuable heavy minerals in raw sand:	8.03



Sample Name: SK0015 22m  
 Submitter: Dupont  
 Date: 11/22/00

Analyzed by: CCA  
 Acc. Voltage: 17kV



Average grain parameters						
Category	Aspect ratio	Circularity	Perimeter (μm)	Length (μm)	Area (μm <sup>2</sup> )	Total grains
Ilmenite	1.7	2.0	258	103	2980	229
Leucoxene	1.6	2.0	294	117	4112	22
Rutile	1.7	2.0	270	108	3226	31
Ti magnetite	1.7	2.4	329	141	4006	58
Magnetite	1.8	2.2	345	141	4463	2
Chromite	1.3	1.4	170	53	1693	1
Pyrite	1.4	1.8	207	82	2016	11
Phosphate	0.0	0.0	0	0	0	0
Monazite	0.0	0.0	0	0	0	0
Y-phosphate	0.0	0.0	0	0	0	0
Sphene	1.7	2.0	296	117	3779	10
Garnet	2.0	2.5	293	123	3081	25
Sillimanite	0.0	0.0	0	0	0	0
Staurolite	1.7	1.9	238	97	2987	3
Zircon	1.4	1.6	222	80	2762	33
Silicate	1.6	2.2	339	140	4711	775
Unclassified	1.5	2.3	341	146	4783	51



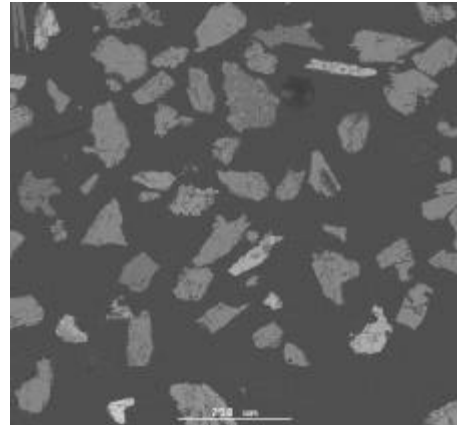


Geological Survey of Denmark and Greenland  
 Thoravej 8, DK-2400 Copenhagen NV  
 Ph.: +45 38142000, Fax: +45 38142050

GEUS

Sample Name:	SK0015 25m
Date:	11/22/00
Submitter:	Dupont
Analyzed by:	CCA
Acc. Voltage	17 kV
Magnification	100x
Guard region	100 µm
Sieve	100 µm <sup>2</sup>

No. of analysed frames:	37
No. analysed of particles	1219
Heavy minerals in raw sand (%):	7.91
comments:	



Category	Average content									
	TiO <sub>2</sub> wt%	Fe <sub>2</sub> O <sub>3</sub> wt%	MnO wt%	Cr <sub>2</sub> O <sub>3</sub> wt%	SiO <sub>2</sub> wt%	Al <sub>2</sub> O <sub>3</sub> wt%	MgO wt%	CaO wt%	ZrO <sub>2</sub> wt%	Total
Ilmenite	52.8	32.4	2.3	0.1	5.3	2.2	0.4	0.8	0.5	96.7
Leucoxene	75.8	8.4	0.8	0.3	5.4	3.0	0.4	1.0	0.6	95.8
Rutile	91.8	1.5	0.3	0.1	1.8	0.7	0.2	0.2	0.4	96.9
Ti magnetite	40.8	40.7	2.0	0.1	7.7	3.0	0.8	0.8	0.2	96.2
Magnetite	0.0	72.2	0.2	0.5	1.8	1.2	0.2	2.8	0.4	79.1
Chromite	0.1	27.9	0.8	38.0	1.4	21.2	6.8	0.4	0.4	97.0
Pyrite	1.1	33.6	0.3	0.1	3.0	0.9	0.3	0.1	0.1	39.5
Phosphate	0.2	0.0	0.1	0.0	0.8	0.3	0.0	57.6	0.6	59.7
Monazite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Y-phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sphene	38.3	0.8	0.4	0.1	27.9	1.6	0.2	28.1	0.3	97.8
Garnet	1.2	16.4	3.8	0.2	41.6	22.2	2.7	2.1	0.9	91.2
Sillimanite	0.0	0.7	0.2	0.0	43.3	54.3	0.2	0.1	0.0	98.9
Staurolite	1.0	15.6	0.1	0.1	32.4	48.4	1.0	0.1	0.0	98.7
Zircon	0.3	0.8	0.2	0.1	29.4	0.4	0.1	0.6	61.9	93.9
Silicate	0.8	12.8	0.4	0.2	44.2	17.6	3.6	16.2	0.3	96.1
Unclassified	10.5	13.7	0.5	0.5	25.3	8.2	2.1	12.0	9.0	81.8

Valuable heavy minerals								
Category	Ilmenite	Leucoxene	Rutile	Ti magnetite	Garnet	Zircon	Sillimanite	Total
wt %	45.1	12.1	10.8	15.8	12.5	3.4	0.3	100.0

Normalised average contents of the valuable Ti-containing minerals:				
Average content	Category			
	Ilmenite	Leucoxene	Rutile	Ti magnetite
TiO <sub>2</sub> wt%	54.5	79.1	94.7	42.4
Fe <sub>2</sub> O <sub>3</sub> wt%	33.5	8.8	1.5	42.4
MnO wt%	2.4	0.8	0.3	2.1
Cr <sub>2</sub> O <sub>3</sub> wt%	0.1	0.4	0.1	0.1
SiO <sub>2</sub> wt%	5.4	5.7	1.9	8.0
Al <sub>2</sub> O <sub>3</sub> wt%	2.3	3.2	0.7	3.1
MgO wt%	0.4	0.4	0.2	0.9
CaO wt%	0.8	1.0	0.2	0.9
ZrO <sub>2</sub> wt%	0.5	0.6	0.4	0.2
Total	100.0	100.0	100.0	100.0

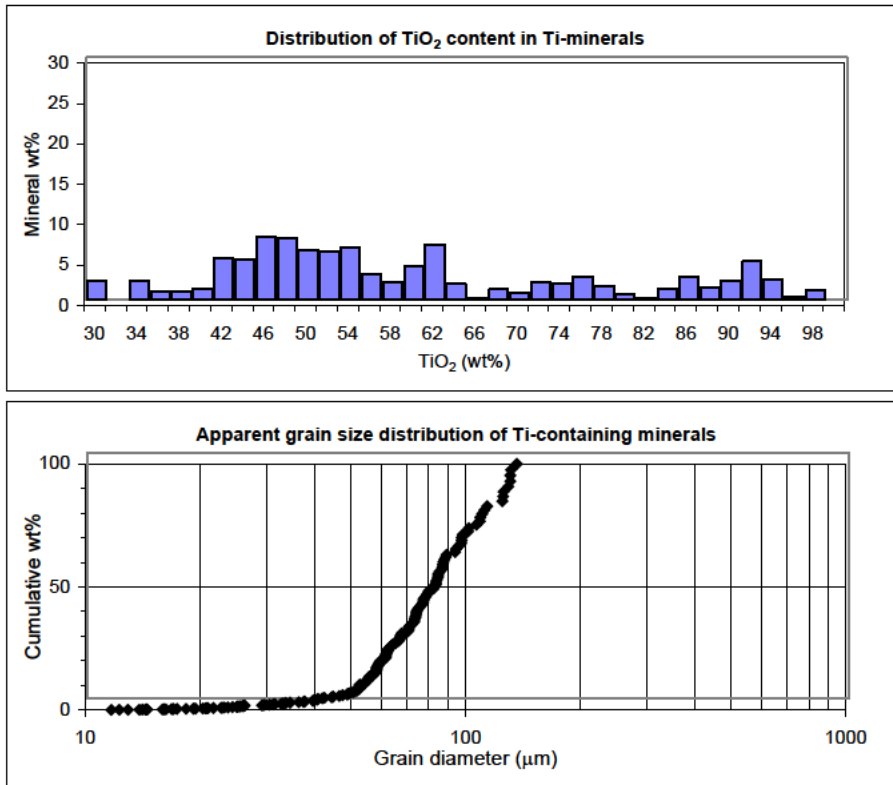
Weight percent on a mineral basis:		
Category	Heavy mineral	
	concentrate wt %	Raw sand wt %
Ilmenite	11.4	0.9
Leucoxene	3.1	0.2
Rutile	2.7	0.2
Ti magnetite	4.0	0.3
Magnetite	0.3	0.0
Chromite	0.2	0.0
Pyrite	0.5	0.0
Phosphate	0.2	0.0
Monazite	0.0	0.0
Y-phosphate	0.0	0.0
Sphene	0.8	0.1
Garnet	3.1	0.2
Sillimanite	0.1	0.0
Staurolite	0.2	0.0
Zircon	0.9	0.1
Silicate	68.6	97.5
Unclassified	4.0	0.3
Total	100.0	100.0

Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals:	61.0
Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals excl. rutile:	56.0
Valuable heavy minerals in raw sand:	1.99



Sample Name: SK0015 25m  
 Submitter: Dupont  
 Date: 11/22/00

Analyzed by: CCA  
 Acc. Voltage: 17kV



Average grain parameters						
Category	Aspect ratio	Circularity	Perimeter (μm)	Length (μm)	Area (μm <sup>2</sup> )	Total grains
Ilmenite	1.7	2.2	281	116	3232	107
Leucoxene	1.6	1.9	265	104	3578	26
Rutile	1.6	2.0	255	103	2971	25
Ti magnetite	2.0	2.7	399	173	5193	22
Magnetite	1.6	2.3	358	149	4533	2
Chromite	1.9	2.1	238	98	2679	2
Pyrite	1.5	1.7	147	55	1284	10
Phosphate	1.0	1.5	334	117	5835	1
Monazite	0.0	0.0	0	0	0	0
Y-phosphate	0.0	0.0	0	0	0	0
Sphene	1.8	2.0	262	104	3113	10
Garnet	2.6	2.9	318	137	3360	32
Sillimanite	1.3	1.5	224	78	2662	1
Staurolite	1.3	2.0	246	98	2482	3
Zircon	1.4	1.7	183	68	1790	14
Silicate	1.7	2.3	310	129	3880	915
Unclassified	1.6	2.6	342	150	4147	49

**Geological Survey of Denmark and Greenland**

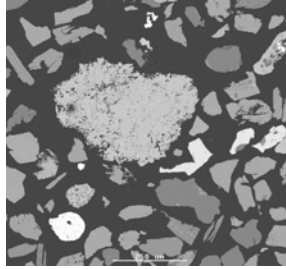
Thoravej 8, DK-2400 Copenhagen NV  
Ph +45 38142000, Fax. 38142050

Sample Name	SK0016 12-25
Date	05-09-00
Submitter	Dupont
Analyzed by	CCA
Acc. Voltage	17 kV
Magnification	100x
Guard region	180 µm
Sieve	100 µm <sup>2</sup>

Number of frames

Number of valuable particles analyzed

Heavy minerals in raw sand (%):



Average content	Category												
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	phosphate	sillimanite	staurolite
TiO <sub>2</sub> w/w	53,0	78,6	0,1	92,6	0,8	35,1	21,1	15,0	0,1	0,6	0,1	0,4	0,7
Fe <sub>2</sub> O <sub>3</sub> w/w	37,4	9,5	30,7	2,1	10,6	2,2	56,4	15,7	0,4	20,1	0,7	0,4	13,6
MnO w/w	1,9	1,0	0,1	0,2	0,3	0,0	1,3	0,5	0,0	2,2	0,1	0,2	0,4
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,1	0,2	0,1	0,0	0,2	2,6	0,3	0,2	0,1	0,2	0,3
SiO <sub>2</sub> w/w	3,3	2,9	3,7	1,4	48,9	31,5	7,0	22,5	30,1	41,6	0,8	42,5	33,5
Al <sub>2</sub> O <sub>3</sub> w/w	1,0	2,4	1,1	0,9	17,6	2,0	2,4	10,1	0,1	22,8	0,0	53,3	47,6
MgO w/w	0,4	0,4	0,3	0,2	3,5	0,3	1,9	1,6	0,2	2,5	0,1	0,0	2,6
CaO w/w	0,2	1,5	0,3	0,3	14,4	27,0	1,7	19,7	0,1	2,0	57,0	0,1	0,0
ZrO <sub>2</sub> w/w	0,3	0,5	0,2	0,2	0,2	0,6	0,3	3,0	64,3	0,2	0,4	0,7	0,0
Total	97,7	97,0	36,6	98,1	96,4	98,8	92,3	90,6	95,5	92,2	59,4	97,8	98,7

Normalised average contents of the valuable Ti containing minerals:

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	54,3	81,1	94,4	22,8
Fe <sub>2</sub> O <sub>3</sub> w/w	38,3	9,8	2,1	61,1
MnO w/w	2,0	1,0	0,2	1,4
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,2	0,2
SiO <sub>2</sub> w/w	3,4	3,0	1,4	7,6
Al <sub>2</sub> O <sub>3</sub> w/w	1,0	2,5	0,9	2,6
MgO w/w	0,4	0,4	0,2	2,0
CaO w/w	0,2	1,5	0,3	1,9
ZrO <sub>2</sub> w/w	0,3	0,5	0,2	0,4
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile:

Weight percent on a mineral basis:

the heavy mineral concentrate

Category	w/w
ilmenite	10,47
leucoxene	3,95
pyrite	1,56
rutile	1,64
silicate	69,53
sphene	0,36
otherTi-ox.	1,77
unclassified	5,04
zircon	0,72
garnet	3,48
monazite	0,00
phosphate	0,68
sillimanite	0,60
staurolite	0,19
Y-phosphate	0,00
Total	100,00

the raw sand

Category	w/w
ilmenite	0,52
leucoxene	0,20
pyrite	0,08
rutile	0,08
silicate	98,47
sphene	0,02
otherTi-ox.	0,09
unclassified	0,25
zircon	0,04
garnet	0,17
monazite	0,00
phosphate	0,03
sillimanite	0,03
staurolite	0,01
Y-phosphate	0,00
Total	100,00

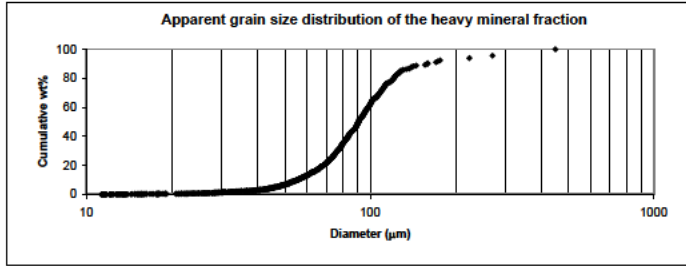
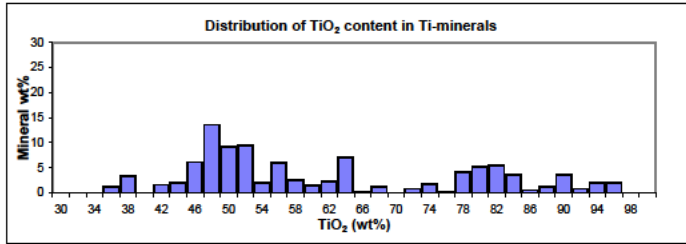
the valuable heavy minerals

Category	w/w
ilmenite	46,26
leucoxene	17,44
rutile	7,25
otherTi-ox.	7,84
zircon	3,20
garnet	15,39
sillimanite	2,63
Total	100,00

Valuable heavy minerals

in raw sand:

Sample Name	SK0016 12-25
Date	05-09-00
Submitter	Dupont
Analyzed by	CCA
Acc. Voltage	17kV

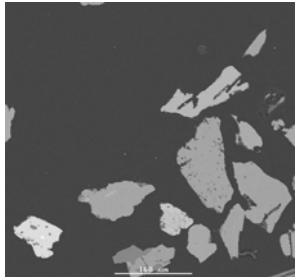


Average grain parameters	Category												
	limonite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	phosphate	stannite	staurolite
Aspect ratio	1,78	1,83	1,53	1,81	1,79	1,86	1,81	1,77	1,84	2,33	1,74	2,25	1,88
Circularity	2,13	2,23	2,31	2,05	2,27	1,58	2,00	2,49	1,90	3,40	2,40	2,64	2,52
Perimeter (µm)	277,52	323,21	288,10	258,87	319,03	203,83	200,81	448,02	232,42	498,45	444,70	382,75	384,37
Length (µm)	113,30	134,85	111,23	104,91	132,51	75,82	82,49	190,75	90,22	224,05	187,39	152,12	183,84
Total grains	68	19	10	11	575	4	18	21	5	13	2	4	1

**Geological Survey of Denmark and Greenland**

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Sample Name	SK0017 18-32
Date	05-09-00
Submitter	Dupont
Analyzed by	CCA
Acc. Voltage	17 kV
Magnification	160x
Guard region	90 µm
Sieve	100 µm <sup>2</sup>



Number of frames

Number of valuable particles analyzed

Heavy minerals in raw sand (%):

Average content	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	sillimanite	staurolite
TiO <sub>2</sub> w/w	52,7	76,3	1,3	93,9	0,8	36,1	37,0	9,5	0,3	0,2	0,1	0,7
Fe <sub>2</sub> O <sub>3</sub> w/w	38,2	9,4	31,0	1,4	11,7	1,1	32,4	13,4	0,6	31,2	0,9	13,2
MnO w/w	2,1	0,5	0,2	0,2	0,3	0,2	1,6	0,4	0,3	2,0	0,2	0,7
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,3	0,1	0,1	0,1	0,1	0,1	3,8	0,1	0,2	0,0	0,0
SiO <sub>2</sub> w/w	2,2	5,6	1,5	1,3	46,0	30,0	11,6	21,4	29,1	37,8	43,3	31,6
Al <sub>2</sub> O <sub>3</sub> w/w	1,4	2,4	0,5	0,5	18,3	2,3	4,8	13,8	0,4	20,2	53,5	49,4
MgO w/w	0,3	0,3	0,1	0,1	3,6	0,1	0,2	2,5	0,1	3,9	0,0	1,5
CaO w/w	0,4	1,1	0,1	0,3	15,6	27,8	2,4	1,2	0,6	3,0	0,1	0,0
ZrO <sub>2</sub> w/w	0,2	0,5	0,3	0,4	0,2	0,1	0,2	10,7	64,3	0,2	0,2	0,3
Total	97,7	96,3	35,2	98,2	96,6	97,7	90,3	76,8	95,7	98,7	98,4	97,5

**Normalised average contents of the valuable Ti containing minerals:**

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	54,0	79,2	95,6	41,0
Fe <sub>2</sub> O <sub>3</sub> w/w	39,1	9,7	1,4	35,9
MnO w/w	2,2	0,5	0,2	1,7
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,3	0,1	0,1
SiO <sub>2</sub> w/w	2,2	5,8	1,4	12,8
Al <sub>2</sub> O <sub>3</sub> w/w	1,5	2,5	0,5	5,3
MgO w/w	0,4	0,3	0,1	0,3
CaO w/w	0,4	1,2	0,3	2,7
ZrO <sub>2</sub> w/w	0,2	0,5	0,4	0,2
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile:

**Weight percent on a mineral basis:**

the heavy mineral concentrate

Category	w/w
ilmenite	16,57
leucoxene	5,97
pyrite	3,45
rutile	2,89
silicate	58,50
sphene	0,58
otherTi-ox.	4,91
unclassified	2,76
zircon	1,95
garnet	1,91
monazite	0,00
phosphate	0,00
sillimanite	0,39
staurolite	0,12
Y-phosphate	0,00
Total	100,00

the raw sand

Category	w/w
ilmenite	0,90
leucoxene	0,32
pyrite	0,19
rutile	0,16
silicate	97,75
sphene	0,03
otherTi-ox.	0,27
unclassified	0,15
zircon	0,11
garnet	0,10
monazite	0,00
phosphate	0,00
sillimanite	0,02
staurolite	0,01
Y-phosphate	0,00
Total	100,00

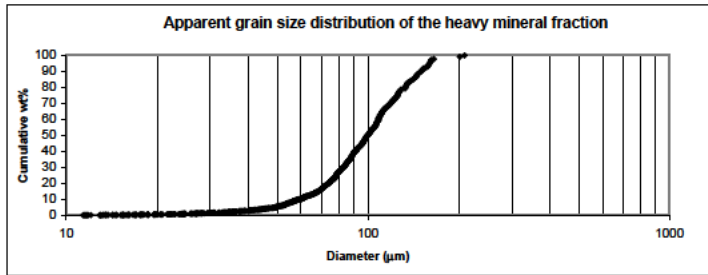
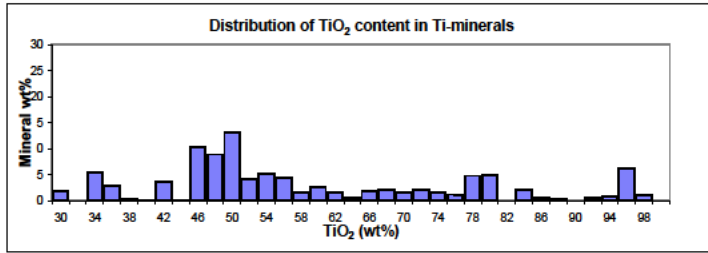
**the valuable heavy minerals**

Category	w/w
ilmenite	47,89
leucoxene	17,27
rutile	8,36
otherTi-ox.	14,19
zircon	5,63
garnet	5,52
sillimanite	1,14
Total	100,00

Valuable heavy minerals

in raw sand:

Sample Name SK0017 18-32  
 Date 05-09-00  
 Submitter Dupont  
 Analyzed by CCA  
 Acc. Voltage 17kV

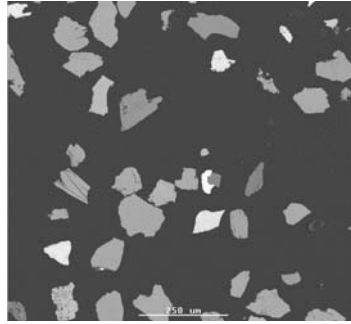


Average grain parameters	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti-ox	unclassified	zircon	garnet	silimanite	staurolite
Aspect ratio	1,73	1,76	1,44	2,01	1,71	1,97	1,96	1,89	1,50	1,53	1,82	1,13
Circularity	2,41	2,71	2,41	2,26	2,60	2,22	3,48	3,84	1,86	2,18	1,96	1,54
Perimeter (µm)	363,93	406,41	280,72	256,59	357,73	266,68	570,99	554,28	287,06	358,50	307,72	152,02
Length (µm)	153,68	178,02	120,96	106,42	152,21	111,14	257,96	254,11	109,41	148,25	122,40	54,30
Total grains	77	26	23	19	466	6	13	14	11	10	3	2

**Geological Survey of Denmark and Greenland**

Thoravej 8, DK-2400 Copenhagen NV  
Ph: +45 38142000, Fax : 38142050

Sample Name: SK0019 14-26  
Date: 06-09-00  
Submitter: Dupont  
Analyzed by: CCA  
Acc Voltage: 17 kV  
Magnification: 100x  
Guard region: 120 µm  
Sieve: 100 µm<sup>2</sup>



Number of frames: 26

Number of valuable particles analyzed: 530

Heavy minerals in raw sand (%): 4,56

Average content	Category									
	ilmenite	leucoxene	rutile	silicate	sphene	other Ti-ox	unclassified	zircon	garnet	sillimanite
TiO <sub>2</sub> w/w	52,6	79,2	92,3	0,8	36,8	37,5	14,1	0,2	0,2	0,5
Fe <sub>2</sub> O <sub>3</sub> w/w	37,8	7,9	1,7	11,7	1,5	46,1	9,2	0,4	26,9	0,0
MnO w/w	2,8	0,8	0,3	0,3	0,1	2,1	0,4	0,2	5,7	0,0
Cr <sub>2</sub> O <sub>3</sub> w/w	0,2	0,1	0,1	0,2	0,1	0,4	0,2	0,2	0,2	0,2
SiO <sub>2</sub> w/w	2,1	4,2	1,7	45,4	29,7	7,8	27,2	29,5	37,5	41,3
Al <sub>2</sub> O <sub>3</sub> w/w	0,9	2,2	1,0	18,0	2,0	1,7	16,5	0,2	19,6	53,5
MgO w/w	0,4	0,3	0,1	3,5	0,1	0,5	2,7	0,1	2,6	0,0
CaO w/w	0,4	1,2	0,3	16,5	27,3	0,2	5,9	0,2	4,9	0,1
ZrO <sub>2</sub> w/w	0,2	0,6	0,4	0,2	0,3	0,7	8,1	63,7	0,3	0,4
Total	97,4	96,6	97,8	96,7	97,9	96,8	84,4	94,6	97,9	96,1

**Normalised average contents of the valuable Ti-containing minerals:**

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti-ox.
TiO <sub>2</sub> w/w	54,0	82,0	94,3	38,7
Fe <sub>2</sub> O <sub>3</sub> w/w	38,8	8,2	1,8	47,6
MnO w/w	2,9	0,8	0,3	2,1
Cr <sub>2</sub> O <sub>3</sub> w/w	0,2	0,1	0,1	0,4
SiO <sub>2</sub> w/w	2,2	4,3	1,7	8,0
Al <sub>2</sub> O <sub>3</sub> w/w	1,0	2,3	1,0	1,7
MgO w/w	0,4	0,3	0,1	0,5
CaO w/w	0,4	1,3	0,3	0,2
ZrO <sub>2</sub> w/w	0,2	0,6	0,4	0,7
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals: 65,8

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals excl. rutile: 62,4

**Weight percent on a mineral basis**

**the heavy mineral concentrate**

Category	w/w
ilmenite	13,11
leucoxene	7,41
pyrite	0,00
rutile	2,60
silicate	67,07
sphene	0,99
other Ti-ox.	1,49
unclassified	2,35
zircon	1,55
garnet	3,20
monazite	0,00
phosphate	0,00
sillimanite	0,23
staurolite	0,00
Y-phosphate	0,00
Total	100,00

**the raw sand**

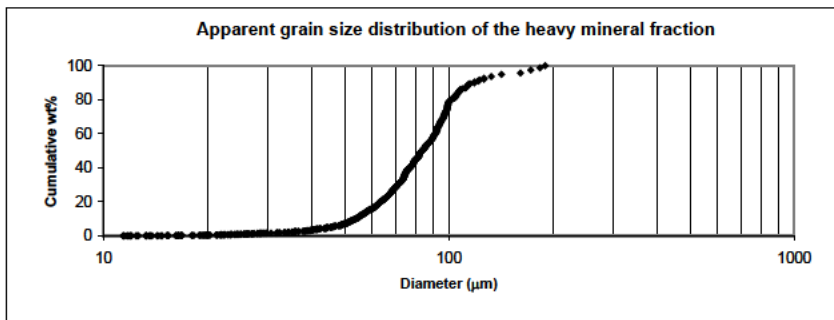
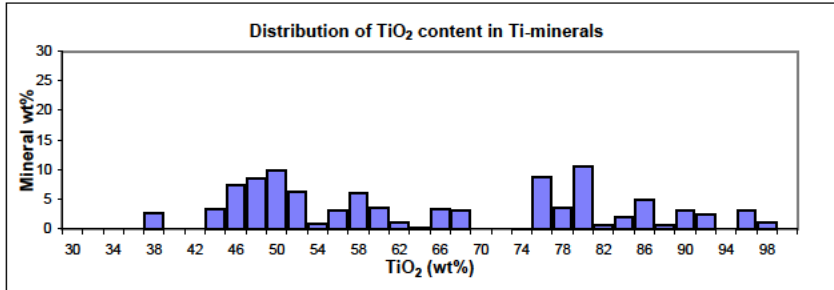
Category	w/w
ilmenite	0,60
leucoxene	0,34
pyrite	0,00
rutile	0,12
silicate	98,50
sphene	0,05
other Ti-ox.	0,07
unclassified	0,11
zircon	0,07
garnet	0,15
monazite	0,00
phosphate	0,00
sillimanite	0,01
staurolite	0,00
Y-phosphate	0,00
Total	100,00

**the valuable heavy minerals**

Category	w/w
ilmenite	44,30
leucoxene	25,05
rutile	8,78
other Ti-ox.	5,03
zircon	5,23
garnet	10,83
sillimanite	0,79
Total	100,00

Valuable heavy minerals in raw sand: 1,35

Sample Name: SK0019 14-26  
 Date: 06-09-00  
 Submitter: Dupont  
 Analyzed by: CCA  
 Acc Voltage: 17kV



Average grain parameters	Category									
	ilmenite	leucoxene	rutile	silicate	sphene	other Ti-ox	unclassified	zircon	garnet	sillimanite
Aspect ratio	1,73	1,52	1,74	1,69	1,82	1,58	1,87	1,48	1,90	1,49
Circularity	2,04	2,07	1,85	2,12	2,46	1,72	2,07	1,60	2,33	2,10
Perimeter (µm)	268,65	320,98	251,55	292,76	348,19	207,43	243,16	247,69	308,66	335,87
Length (µm)	107,46	129,50	94,58	118,85	145,20	79,57	101,21	89,53	126,06	136,62
Total grains	54	19	10	398	4	8	17	6	13	1



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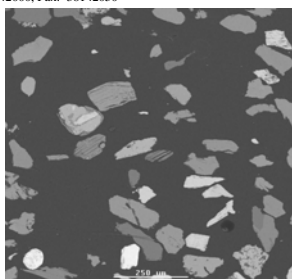
Thoravej 8, DK-2400 Copenhagen NV  
Ph +45 38142000, Fax. 38142050

Sample Name	SK0021 15-29
Date	07-09-00
Submitter	Dupont
Analyzed by	CCA
Acc. Voltage	17 kV
Magnification	100x
Guard region	120 µm
Sieve	100 µm <sup>2</sup>

Number of frames

Number of valuable particles analyzed

Heavy minerals in raw sand (%):



Average content	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	sillimanite	staurolite
TiO <sub>2</sub> w/w	52,4	76,4	0,2	92,2	1,0	36,1	37,9	12,8	0,3	0,4	0,1	0,5
Fe <sub>2</sub> O <sub>3</sub> w/w	38,1	9,5	31,5	1,8	12,3	1,2	42,7	13,1	0,6	24,6	1,0	14,6
MnO w/w	2,0	0,6	0,1	0,1	0,4	0,2	1,5	0,5	0,2	4,0	0,1	0,5
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,0	0,1	0,1	0,1	0,1	0,2	0,1	0,1	0,0	0,1
SiO <sub>2</sub> w/w	2,8	4,9	2,9	1,7	44,1	30,1	9,4	26,3	29,4	39,4	43,2	32,0
Al <sub>2</sub> O <sub>3</sub> w/w	1,2	3,0	1,0	0,8	18,7	2,2	2,7	16,0	0,2	20,8	54,1	47,8
MgO w/w	0,3	0,3	0,4	0,1	3,5	0,1	0,8	2,6	0,1	3,2	0,0	2,0
CaO w/w	0,3	1,2	0,3	0,2	16,4	27,5	1,2	8,4	0,3	3,3	0,3	0,0
ZrO <sub>2</sub> w/w	0,3	0,8	0,6	0,4	0,2	0,2	0,7	7,3	63,7	0,3	0,7	0,1
Total	97,5	97,0	37,1	97,6	96,7	97,7	97,0	87,3	94,8	96,0	99,4	97,7

Normalised average contents of the valuable Ti containing minerals:

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	53,7	78,8	94,5	39,1
Fe <sub>2</sub> O <sub>3</sub> w/w	39,1	9,8	1,9	44,0
MnO w/w	2,1	0,6	0,1	1,6
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,2	0,1
SiO <sub>2</sub> w/w	2,9	5,0	1,7	9,7
Al <sub>2</sub> O <sub>3</sub> w/w	1,2	3,1	0,8	2,8
MgO w/w	0,3	0,4	0,1	0,8
CaO w/w	0,3	1,3	0,2	1,3
ZrO <sub>2</sub> w/w	0,3	0,8	0,4	0,7
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals:

Average TiO<sub>2</sub> content of all the TiO<sub>2</sub> minerals excl. rutile:

Weight percent on a mineral basis:

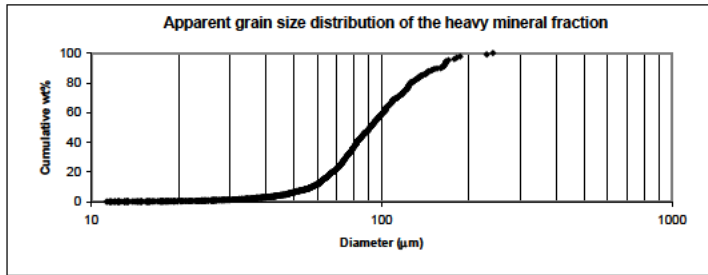
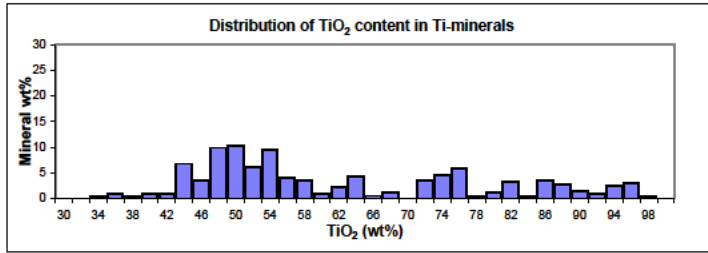
the heavy mineral concentrate	
Category	w/w
ilmenite	18,22
leucoxene	6,81
pyrite	6,10
rutile	4,50
silicate	49,34
sphene	0,47
otherTi-ox.	4,11
unclassified	4,59
zircon	3,85
garnet	1,81
monazite	0,00
phosphate	0,00
sillimanite	0,17
staurolite	0,22
Y-phosphate	0,00
Total	100,00

the raw sand	
Category	w/w
ilmenite	1,73
leucoxene	0,65
pyrite	0,58
rutile	0,43
silicate	95,18
sphene	0,04
otherTi-ox.	0,39
unclassified	0,44
zircon	0,37
garnet	0,15
monazite	0,00
phosphate	0,00
sillimanite	0,02
staurolite	0,02
Y-phosphate	0,00
Total	100,00

the valuable heavy minerals	
Category	w/w
ilmenite	46,39
leucoxene	17,33
rutile	11,47
otherTi-ox.	10,46
zircon	9,81
garnet	4,10
sillimanite	0,44
Total	100,00

Valuable heavy minerals in raw sand:

Sample Name	SK0021 15-29
Date	07-09-00
Submitter	Dupont
Analyzed by	CCA
Acc. Voltage	17kV



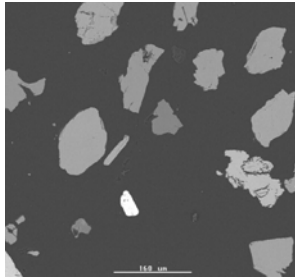
Average grain parameters	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	sillimanite	staurolite
Aspect ratio	1,78	1,59	1,41	1,58	1,72	1,68	1,86	1,62	1,46	1,90	1,55	1,51
Circularity	2,16	2,32	2,85	2,19	2,21	1,90	2,52	2,87	1,58	2,10	1,73	1,91
Perimeter (µm)	288,05	421,71	508,58	317,42	321,76	292,19	350,60	448,35	229,27	249,87	290,11	323,11
Length (µm)	117,44	174,32	226,85	130,76	132,76	118,16	149,07	198,03	80,96	102,23	109,88	126,88
Total grains	169	32	19	33	631	5	30	38	41	21	2	2

Sample Name SK0022 12-25 m  
 Date 31-08-00  
 Submitter Dupont  
 Analyzed by CCA  
 Acc. Voltage 17 kV  
 Magnification 160x  
 Guard region 90 µm  
 Sieve 100 µm<sup>2</sup>

Number of frames 81

Number of valuable particles analyzed 463

Heavy minerals in raw sand (%): 4,75



Average content	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	phosphate	staurolite
TiO <sub>2</sub> w/w	52,7	77,4	3,3	90,7	0,4	35,9	38,0	5,9	0,4	0,1	0,0	0,5
Fe <sub>2</sub> O <sub>3</sub> w/w	38,3	4,2	30,0	2,3	11,5	1,1	46,6	14,5	0,4	28,5	2,6	16,2
MnO w/w	2,2	0,1	0,5	0,2	0,4	0,4	2,6	0,3	0,2	3,1	0,0	0,0
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,3	0,1	0,1	0,1	0,1	0,0	1,8	0,0	0,1	0,0	0,1
SiO <sub>2</sub> w/w	2,7	9,0	0,8	2,4	44,7	29,6	5,8	14,7	29,8	38,1	0,0	31,4
Al <sub>2</sub> O <sub>3</sub> w/w	1,1	3,3	0,4	0,9	19,3	2,4	2,9	16,6	0,2	19,6	47,1	49,1
MgO w/w	0,4	0,3	0,1	0,2	3,0	0,1	0,9	4,3	0,1	3,3	0,2	1,0
CaO w/w	0,4	1,0	0,3	0,3	17,5	28,1	0,9	24,2	0,1	5,1	6,8	0,0
ZrO <sub>2</sub> w/w	0,2	0,4	0,4	0,5	0,2	0,0	0,2	13,2	63,1	0,3	0,0	0,3
Total	98,1	96,1	35,9	97,7	97,0	97,7	97,9	95,5	94,4	98,2	56,8	98,6

Normalised average contents of the valuable Ti containing minerals:

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	53,8	80,5	92,9	38,8
Fe <sub>2</sub> O <sub>3</sub> w/w	39,0	4,4	2,4	47,5
MnO w/w	2,2	0,1	0,2	2,6
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,3	0,1	0,0
SiO <sub>2</sub> w/w	2,7	9,4	2,4	6,0
Al <sub>2</sub> O <sub>3</sub> w/w	1,1	3,4	1,0	2,9
MgO w/w	0,4	0,3	0,2	0,9
CaO w/w	0,4	1,1	0,3	1,0
ZrO <sub>2</sub> w/w	0,2	0,5	0,6	0,2
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals: 63,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile: 55,8

Weight percent on a mineral basis:

the heavy mineral concentrate	
Category	w/w
ilmenite	16,08
leucoxene	3,13
pyrite	0,66
rutile	5,22
silicate	60,51
sphene	1,95
otherTi-ox.	2,63
unclassified	2,91
zircon	1,87
garnet	3,69
monazite	0,00
phosphate	0,59
sillimanite	0,00
staurolite	0,76
Y-phosphate	0,00
Total	100,00

the raw sand	
Category	w/w
ilmenite	0,76
leucoxene	0,15
pyrite	0,03
rutile	0,25
silicate	98,12
sphene	0,09
otherTi-ox.	0,12
unclassified	0,14
zircon	0,09
garnet	0,18
monazite	0,00
phosphate	0,03
sillimanite	0,00
staurolite	0,04
Y-phosphate	0,00
Total	100,00

the valuable heavy minerals

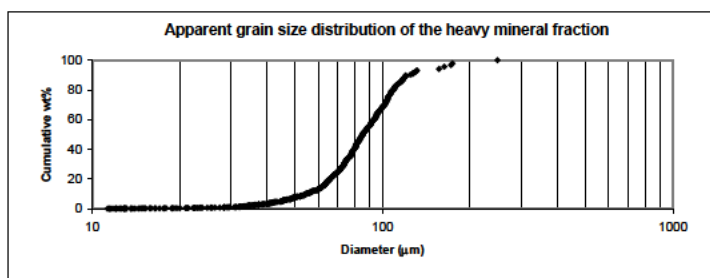
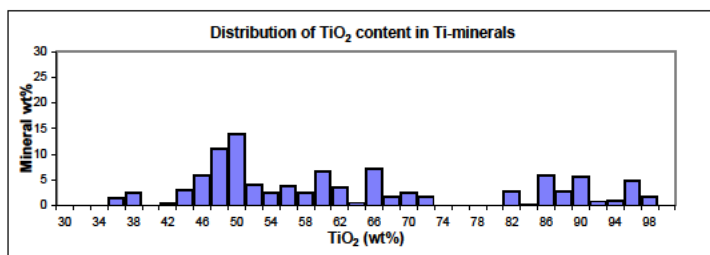
Category	w/w
ilmenite	49,29
leucoxene	9,60
rutile	16,01
otherTi-ox.	8,05
zircon	5,74
garnet	11,31
sillimanite	0,00
Total	100,00

Valuable heavy minerals

in raw sand: 1,55

Sample Name **SK0022 12-25 m** Date **31-08-00**

Submitter **Dupont**  
 Analyzed by **CCA**  
 Acc. Voltage **17kV**



Average grain parameters	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	phosphate	staurolite
Aspect ratio	1,92	1,57	1,34	1,55	1,76	1,74	1,85	1,83	1,43	2,03	1,50	2,05
Circularity	2,31	2,16	1,82	2,28	2,46	1,88	3,00	3,16	1,72	2,41	2,14	2,84
Perimeter (µm)	299,93	318,95	133,98	312,73	325,11	381,74	336,41	609,92	240,77	290,09	304,94	455,99
Length (µm)	123,85	131,88	52,79	128,35	136,44	149,21	146,10	297,12	88,77	121,77	124,78	197,75
Total grains	58	9	7	15	327	5	9	4	8	17	2	2

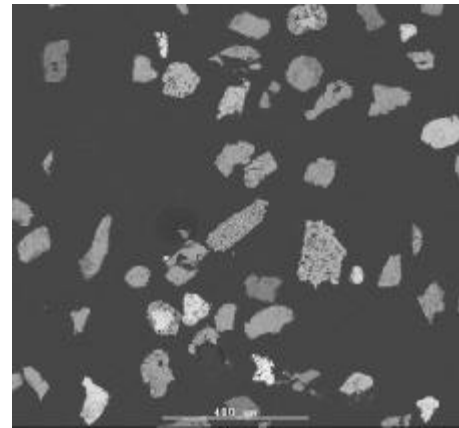


Geological Survey of Denmark and Greenland  
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 Ph.: +45 38142000, Fax: +45 38142050

GEUS

Sample Name:	SK29 14-22m
Date:	11/15/00
Submitter:	Dupont
Analyzed by:	CCA
Acc. Voltage	17 kV
Magnification	80x
Guard region	120 μm
Sieve	100 μm <sup>2</sup>

No. of analysed frames:	30
No. analysed of particles	1060
Heavy minerals in raw sand (%)	10.41
comments:	In some areas the grains are very close to each other



Category	Average content									
	TiO <sub>2</sub> wt%	Fe <sub>2</sub> O <sub>3</sub> wt%	MnO wt%	Cr <sub>2</sub> O <sub>3</sub> wt%	SiO <sub>2</sub> wt%	Al <sub>2</sub> O <sub>3</sub> wt%	MgO wt%	CaO wt%	ZrO <sub>2</sub> wt%	Total
Ilmenite	51.8	39.4	2.1	0.1	2.7	1.1	0.4	0.2	0.3	98.0
Leucoxene	76.0	10.5	0.6	0.2	4.4	3.3	0.3	0.5	0.6	96.5
Rutile	91.9	1.5	0.1	0.1	2.4	1.2	0.1	0.1	0.4	97.8
Ti magnetite	41.1	39.3	2.4	0.1	9.4	2.2	0.8	0.6	0.7	96.7
Magnetite	0.3	67.9	0.6	0.2	10.6	5.7	1.4	4.2	0.4	91.5
Chromite	0.3	28.3	0.0	56.2	0.5	7.2	5.6	0.7	0.0	98.8
Pyrite	0.2	32.3	0.2	0.2	3.3	1.5	0.7	0.2	0.3	38.9
Phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Monazite	0.0	3.7	0.0	0.0	7.7	3.1	1.3	0.7	1.4	17.9
Y-phosphate	1.3	3.0	0.0	0.0	0.8	0.8	0.3	0.6	0.0	6.8
Sphene	38.8	1.2	0.1	0.2	28.8	1.6	0.1	26.9	0.1	97.6
Garnet	0.7	27.3	3.0	0.2	37.5	20.1	3.0	2.9	0.3	95.0
Sillimanite	0.4	1.4	0.2	0.1	42.4	53.5	0.1	0.0	0.2	98.1
Staurolite	0.8	14.5	0.5	0.2	33.7	45.5	1.7	0.0	0.0	96.9
Zircon	0.2	0.9	0.2	0.1	29.5	0.4	0.1	0.3	63.3	95.1
Silicate	1.0	12.7	0.4	0.2	43.8	18.5	2.9	16.7	0.2	96.3
Unclassified	5.5	21.8	0.7	0.5	23.6	6.3	2.9	7.0	3.9	72.2

Valuable heavy minerals								
Category	Ilmenite	Leucoxene	Rutile	Ti magnetite	Garnet	Zircon	Sillimanite	Total
wt %	47.7	14.0	7.7	8.5	11.3	9.9	0.8	100.0

Normalised average contents of the valuable Ti-containing minerals:				
Average content	Category			
	Ilmenite	Leucoxene	Rutile	Ti magnetite
TiO <sub>2</sub> wt%	52.9	78.8	93.9	42.5
Fe <sub>2</sub> O <sub>3</sub> wt%	40.2	10.9	1.6	40.7
MnO wt%	2.1	0.6	0.1	2.5
Cr <sub>2</sub> O <sub>3</sub> wt%	0.1	0.3	0.1	0.1
SiO <sub>2</sub> wt%	2.7	4.6	2.5	9.8
Al <sub>2</sub> O <sub>3</sub> wt%	1.1	3.5	1.2	2.3
MgO wt%	0.4	0.3	0.1	0.8
CaO wt%	0.2	0.5	0.1	0.6
ZrO <sub>2</sub> wt%	0.3	0.6	0.4	0.7
Total	100.0	100.0	100.0	100.0

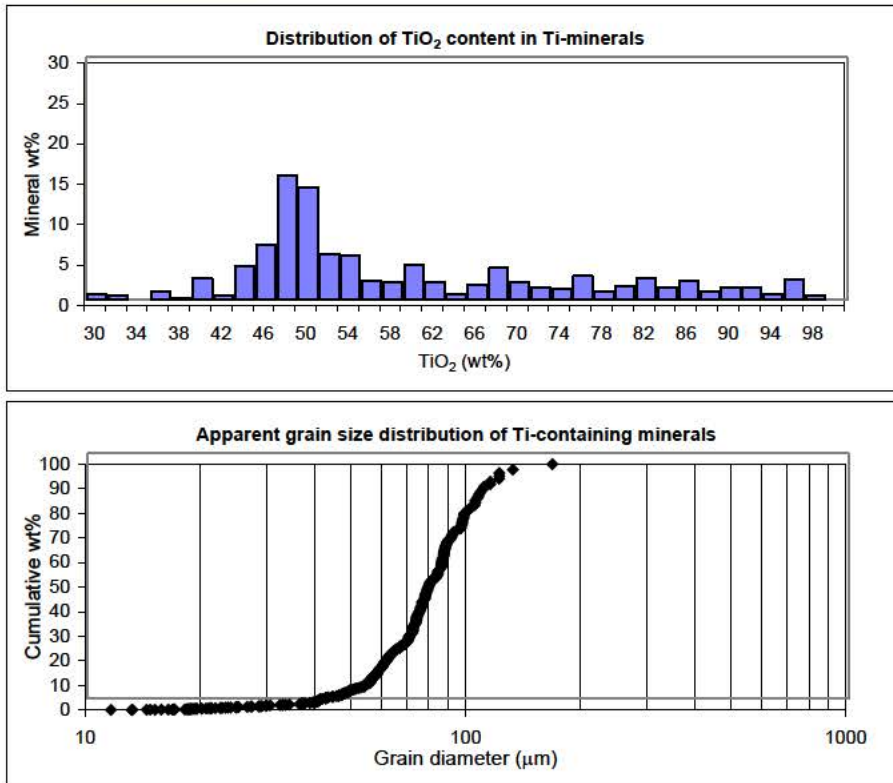
Weight percent on a mineral basis:		
Category	Heavy mineral	
	concentrate wt %	Raw sand wt %
Ilmenite	19.3	2.0
Leucoxene	5.7	0.6
Rutile	3.1	0.3
Ti magnetite	3.4	0.4
Magnetite	0.7	0.1
Chromite	0.2	0.0
Pyrite	1.6	0.2
Phosphate	0.0	0.0
Monazite	0.1	0.0
Y-phosphate	0.1	0.0
Sphene	0.5	0.1
Garnet	4.6	0.5
Sillimanite	0.3	0.0
Staurolite	0.2	0.0
Zircon	4.0	0.4
Silicate	53.2	95.1
Unclassified	2.9	0.3
Total	100.0	100.0

Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals:	60.4
Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals excl. rutile:	56.8
Valuable heavy minerals in raw sand:	4.21



Sample Name: SK29 14-22m  
 Submitter: Dupont  
 Date: 11/15/00

Analyzed by: CCA  
 Acc. Voltage: 17kV



Average grain parameters					
Category	Aspect ratio	Circularity	Perimeter (μm)	Length (μm)	Total grains
Ilmenite	1.7	2.0	271	108	186
Leucoxene	1.6	2.2	401	165	28
Rutile	1.6	1.8	244	94	29
Ti magnetite	1.7	2.1	270	111	34
Magnetite	1.4	1.8	160	66	13
Chromite	1.2	1.5	297	105	1
Pyrite	1.4	1.9	248	105	13
Phosphate	0.0	0.0	0	0	0
Monazite	1.3	1.7	176	68	2
Y-phosphate	1.2	2.0	272	109	1
Sphene	2.2	2.2	289	118	7
Garnet	2.0	2.2	367	151	26
Sillimanite	2.5	2.6	403	174	3
Staurolite	1.4	1.9	264	106	2
Zircon	1.4	1.6	251	91	37
Silicate	1.7	2.2	328	136	646
Unclassified	1.7	2.5	343	150	32

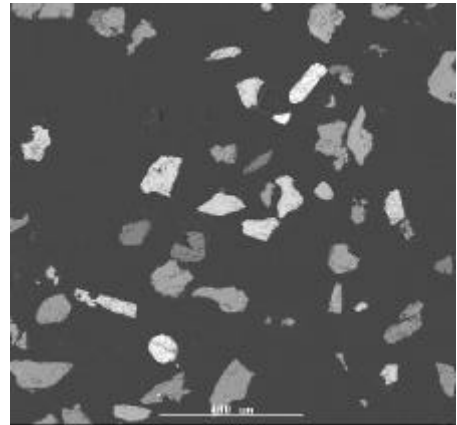


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GEUS

Sample Name:	SK30 18-24
Date:	11/15/00
Submitter:	Dupont
Analyzed by:	CCA
Acc. Voltage	17 kV
Magnification	80x
Guard region	120 μm
Sieve	100 μm <sup>2</sup>

No. of analysed frames:	31
No. analysed of particles	1175
Heavy minerals in raw sand (%)	15.54
comments:	



Category	Average content									
	TiO <sub>2</sub> wt%	Fe <sub>2</sub> O <sub>3</sub> wt%	MnO wt%	Cr <sub>2</sub> O <sub>3</sub> wt%	SiO <sub>2</sub> wt%	Al <sub>2</sub> O <sub>3</sub> wt%	MgO wt%	CaO wt%	ZrO <sub>2</sub> wt%	Total
Ilmenite	51.9	39.6	2.2	0.1	2.6	0.8	0.2	0.2	0.3	97.9
Leucoxene	77.5	10.6	0.6	0.3	2.7	2.2	0.4	0.8	1.3	96.3
Rutile	93.1	1.3	0.2	0.2	1.7	0.7	0.1	0.2	0.2	97.7
Ti magnetite	41.3	40.7	1.8	0.2	10.0	1.3	0.4	0.4	0.4	96.5
Magnetite	0.7	77.1	0.7	0.4	4.6	2.0	2.8	6.2	1.3	95.7
Chromite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pyrite	0.6	32.6	0.1	0.1	3.6	0.9	0.3	0.1	0.2	38.3
Phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Monazite	0.0	2.0	0.0	0.0	4.0	1.7	0.7	1.4	3.2	13.1
Y-phosphate	0.4	4.2	0.0	0.0	4.4	2.9	0.1	0.0	2.4	14.3
Sphene	38.1	1.6	0.2	0.1	27.8	2.2	0.1	27.2	0.1	97.4
Garnet	0.4	26.0	2.4	0.1	36.5	19.6	4.0	3.9	2.2	95.1
Sillimanite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Staurolite	1.1	15.2	0.2	0.3	31.7	46.8	1.8	0.2	0.2	97.5
Zircon	0.3	0.6	0.2	0.2	29.6	0.1	0.1	0.2	63.6	95.0
Silicate	0.7	10.8	0.3	0.2	50.1	16.5	2.5	14.8	0.3	96.2
Unclassified	9.9	16.9	1.0	0.3	26.9	6.5	1.9	2.0	14.5	79.9

Valuable heavy minerals								
Category	Ilmenite	Leucoxene	Rutile	Ti magnetite	Garnet	Zircon	Sillimanite	Total
wt %	57.3	6.8	10.4	8.3	3.5	13.5	0.0	100.0

Normalised average contents of the valuable Ti-containing minerals:				
Average content	Category			
	Ilmenite	Leucoxene	Rutile	Ti magnetite
TiO <sub>2</sub> wt%	53.0	80.5	95.3	42.8
Fe <sub>2</sub> O <sub>3</sub> wt%	40.5	11.0	1.4	42.2
MnO wt%	2.2	0.6	0.2	1.9
Cr <sub>2</sub> O <sub>3</sub> wt%	0.1	0.3	0.2	0.2
SiO <sub>2</sub> wt%	2.6	2.8	1.7	10.4
Al <sub>2</sub> O <sub>3</sub> wt%	0.8	2.3	0.7	1.4
MgO wt%	0.2	0.4	0.1	0.4
CaO wt%	0.2	0.8	0.2	0.4
ZrO <sub>2</sub> wt%	0.3	1.4	0.2	0.4
Total	100.0	100.0	100.0	100.0

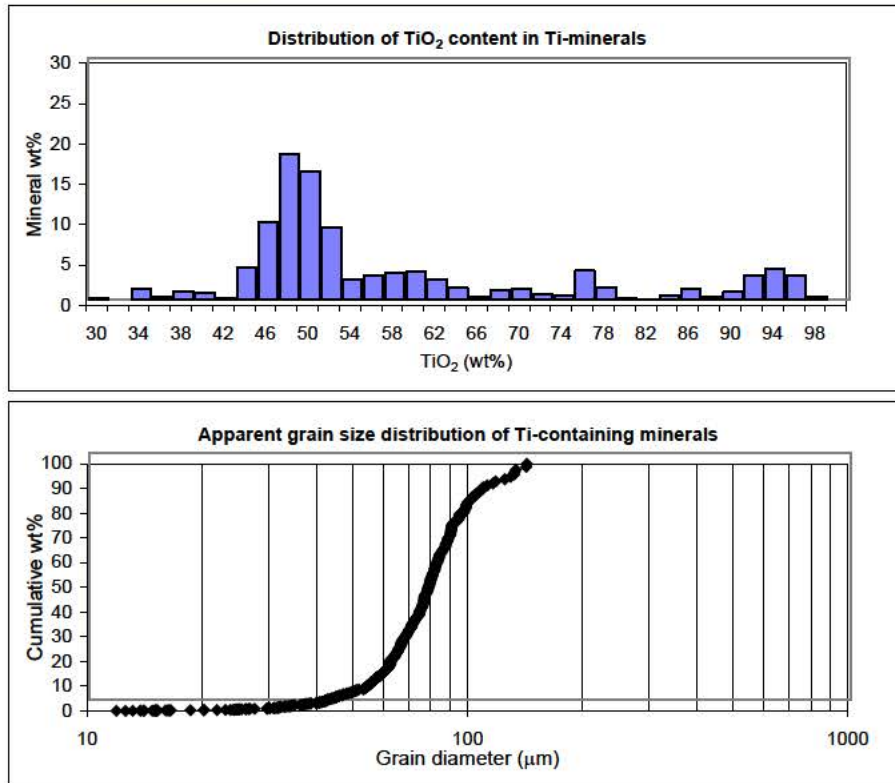
Weight percent on a mineral basis:		
Category	Heavy mineral	
	concentrate wt %	Raw sand wt %
Ilmenite	26.1	4.1
Leucoxene	3.1	0.5
Rutile	4.7	0.7
Ti magnetite	3.8	0.6
Magnetite	0.3	0.0
Chromite	0.0	0.0
Pyrite	4.2	0.7
Phosphate	0.0	0.0
Monazite	0.1	0.0
Y-phosphate	0.2	0.0
Sphene	0.2	0.0
Garnet	1.6	0.3
Sillimanite	0.0	0.0
Staurolite	0.1	0.0
Zircon	6.1	1.0
Silicate	45.3	91.5
Unclassified	3.9	0.6
Total	100.0	100.0

Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals:	59.6
Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals excl. rutile:	54.4
Valuable heavy minerals in raw sand:	7.07



Sample Name: **SK30 18-24**  
 Submitter: **Dupont**  
 Date: **11/15/00**

Analyzed by: **CCA**  
 Acc. Voltage: **17kV**



Average grain parameters					
Category	Aspect ratio	Circularity	Perimeter (μm)	Length (μm)	Total grains
Ilmenite	1.7	2.0	286	114	267
Leucoxene	1.8	2.2	347	145	23
Rutile	1.8	2.2	287	117	48
Ti magnetite	1.6	2.0	270	109	40
Magnetite	1.4	1.5	188	65	4
Chromite	0.0	0.0	0	0	0
Pyrite	1.5	2.1	432	178	16
Phosphate	0.0	0.0	0	0	0
Monazite	1.9	2.4	215	91	3
Y-phosphate	2.0	1.8	437	169	1
Sphene	2.0	2.3	231	97	5
Garnet	2.6	3.0	407	176	14
Sillimanite	0.0	0.0	0	0	0
Staurolite	1.8	2.1	200	81	3
Zircon	1.6	1.7	256	96	67
Silicate	1.7	2.2	326	135	647
Unclassified	1.5	2.7	417	186	37

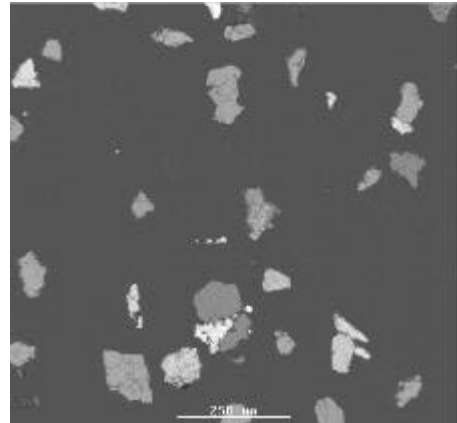




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GEUS

Sample Name:	SK30 25-32m	No. of analysed frames:	36
Date:	11/16/00	No. analysed of particles	697
Submitter:	Dupont	Heavy minerals in raw sand (%)	9.25
Analyzed by:	CCA	comments:	
Acc. Voltage	17 kV		
Magnification	100x		
Guard region	100 µm		
Sieve	100 µm <sup>2</sup>		



Category	Average content									
	TiO <sub>2</sub> wt%	Fe <sub>2</sub> O <sub>3</sub> wt%	MnO wt%	Cr <sub>2</sub> O <sub>3</sub> wt%	SiO <sub>2</sub> wt%	Al <sub>2</sub> O <sub>3</sub> wt%	MgO wt%	CaO wt%	ZrO <sub>2</sub> wt%	Total
Ilmenite	52.7	37.1	2.1	0.1	2.8	1.1	0.4	0.3	0.4	97.1
Leucoxene	74.1	12.0	0.4	0.5	4.5	2.7	0.4	0.9	0.4	95.9
Rutile	92.8	1.4	0.2	0.1	1.6	0.8	0.1	0.2	0.3	97.6
Ti magnetite	40.9	42.0	1.4	0.3	6.8	3.5	0.6	0.1	0.2	95.8
Magnetite	0.1	72.1	1.7	0.2	1.0	0.3	0.5	4.1	0.0	80.0
Chromite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pyrite	0.1	32.3	0.1	0.1	1.9	0.7	0.2	0.1	0.4	36.0
Phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Monazite	0.0	0.0	0.0	0.0	5.0	1.9	1.6	2.7	3.1	14.3
Y-phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sphene	36.7	0.9	0.2	0.2	29.0	1.6	0.1	27.6	0.2	96.5
Garnet	0.9	25.1	2.5	0.2	38.4	20.1	3.9	2.7	0.2	94.0
Sillimanite	0.2	1.8	0.3	0.3	41.9	53.5	0.0	0.2	0.0	98.2
Staurolite	0.3	16.4	0.1	0.0	31.3	48.5	1.6	0.8	0.0	99.0
Zircon	0.3	0.9	0.2	0.1	28.8	0.3	0.2	0.7	63.2	94.7
Silicate	0.7	11.6	0.4	0.2	47.7	16.6	2.9	15.5	0.3	96.0
Unclassified	7.8	8.6	0.5	0.4	23.5	5.4	1.2	39.3	1.2	87.8

Valuable heavy minerals								
Category	Ilmenite	Leucoxene	Rutile	Ti magnetite	Garnet	Zircon	Sillimanite	Total
wt %	47.1	15.5	15.7	9.1	6.0	6.4	0.3	100.0

Normalised average contents of the valuable Ti-containing minerals:				
Average content	Category			
	Ilmenite	Leucoxene	Rutile	Ti magnetite
TiO <sub>2</sub> wt%	54.2	77.2	95.1	42.7
Fe <sub>2</sub> O <sub>3</sub> wt%	38.2	12.5	1.5	43.9
MnO wt%	2.2	0.4	0.2	1.5
Cr <sub>2</sub> O <sub>3</sub> wt%	0.2	0.5	0.1	0.3
SiO <sub>2</sub> wt%	2.9	4.7	1.7	7.1
Al <sub>2</sub> O <sub>3</sub> wt%	1.2	2.9	0.8	3.6
MgO wt%	0.4	0.4	0.1	0.7
CaO wt%	0.3	1.0	0.2	0.1
ZrO <sub>2</sub> wt%	0.4	0.5	0.4	0.2
Total	100.0	100.0	100.0	100.0

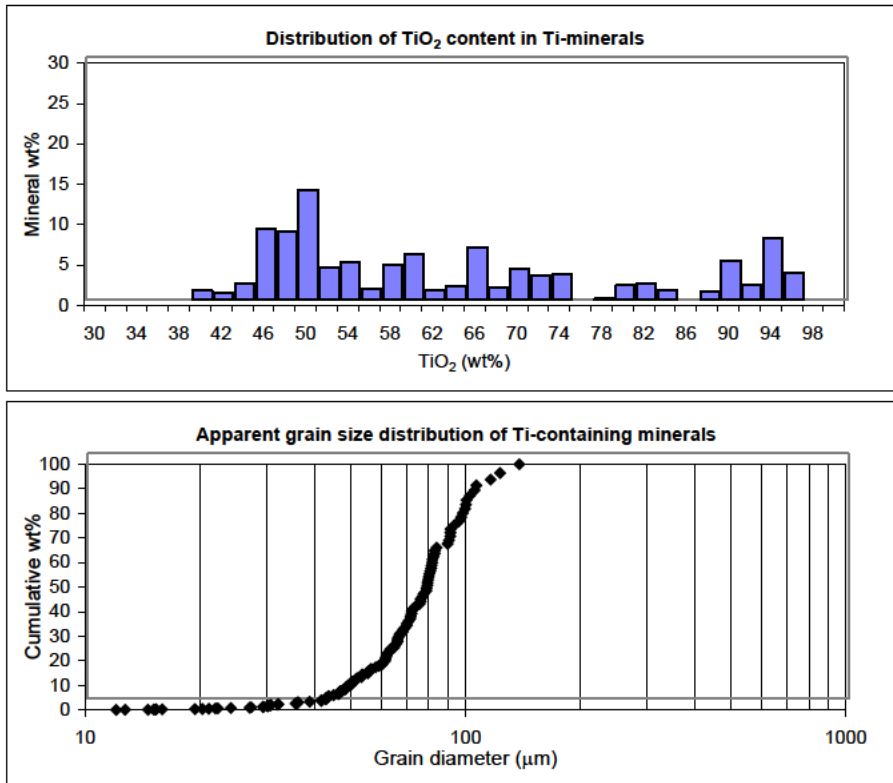
Weight percent on a mineral basis:		
Category	Heavy mineral	
	concentrate wt %	Raw sand wt %
Ilmenite	12.0	1.1
Leucoxene	3.9	0.4
Rutile	4.0	0.4
Ti magnetite	2.3	0.2
Magnetite	0.2	0.0
Chromite	0.0	0.0
Pyrite	1.1	0.1
Phosphate	0.0	0.0
Monazite	0.5	0.0
Y-phosphate	0.0	0.0
Sphene	0.9	0.1
Garnet	1.5	0.1
Sillimanite	0.1	0.0
Staurolite	0.1	0.0
Zircon	1.6	0.1
Silicate	64.2	96.7
Unclassified	7.6	0.7
Total	100.0	100.0

Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals:	64.5
Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals excl. rutile:	57.7
Valuable heavy minerals in raw sand:	2.35



Sample Name: SK30 25-32m  
 Submitter: Dupont  
 Date: 11/16/00

Analyzed by: CCA  
 Acc. Voltage: 17kV



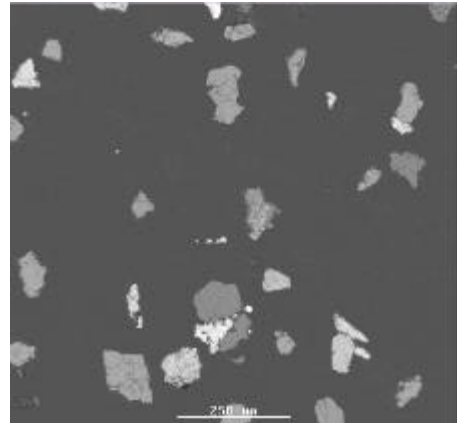
Average grain parameters					
Category	Aspect ratio	Circularity	Perimeter (μm)	Length (μm)	Total grains
Ilmenite	1.6	1.9	260	103	77
Leucoxene	1.5	1.8	281	108	19
Rutile	1.9	2.1	286	115	21
Ti magnetite	1.6	2.4	315	134	12
Magnetite	1.3	2.0	308	123	1
Chromite	0.0	0.0	0	0	0
Pyrite	1.5	1.8	185	74	11
Phosphate	0.0	0.0	0	0	0
Monazite	1.6	1.8	317	123	2
Y-phosphate	0.0	0.0	0	0	0
Sphene	2.0	2.2	309	126	6
Garnet	2.0	2.9	329	144	11
Sillimanite	1.5	2.0	223	89	1
Staurolite	2.4	3.0	341	150	1
Zircon	1.5	1.6	223	81	12
Silicate	1.7	2.2	310	127	505
Unclassified	2.1	2.6	534	231	18



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GEUS

Sample Name:	SK30 25-32m	No. of analysed frames:	36
Date:	11/16/00	No. analysed of particles	697
Submitter:	Dupont	Heavy minerals in raw sand (%)	9.25
Analyzed by:	CCA	comments:	
Acc. Voltage	17 kV		
Magnification	100x		
Guard region	100 µm		
Sieve	100 µm <sup>2</sup>		



Category	Average content									
	TiO <sub>2</sub> wt%	Fe <sub>2</sub> O <sub>3</sub> wt%	MnO wt%	Cr <sub>2</sub> O <sub>3</sub> wt%	SiO <sub>2</sub> wt%	Al <sub>2</sub> O <sub>3</sub> wt%	MgO wt%	CaO wt%	ZrO <sub>2</sub> wt%	Total
Ilmenite	52.7	37.1	2.1	0.1	2.8	1.1	0.4	0.3	0.4	97.1
Leucoxene	74.1	12.0	0.4	0.5	4.5	2.7	0.4	0.9	0.4	95.9
Rutile	92.8	1.4	0.2	0.1	1.6	0.8	0.1	0.2	0.3	97.6
Ti magnetite	40.9	42.0	1.4	0.3	6.8	3.5	0.6	0.1	0.2	95.8
Magnetite	0.1	72.1	1.7	0.2	1.0	0.3	0.5	4.1	0.0	80.0
Chromite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pyrite	0.1	32.3	0.1	0.1	1.9	0.7	0.2	0.1	0.4	36.0
Phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Monazite	0.0	0.0	0.0	0.0	5.0	1.9	1.6	2.7	3.1	14.3
Y-phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sphene	36.7	0.9	0.2	0.2	29.0	1.6	0.1	27.6	0.2	96.5
Garnet	0.9	25.1	2.5	0.2	38.4	20.1	3.9	2.7	0.2	94.0
Sillimanite	0.2	1.8	0.3	0.3	41.9	53.5	0.0	0.2	0.0	98.2
Staurolite	0.3	16.4	0.1	0.0	31.3	48.5	1.6	0.8	0.0	99.0
Zircon	0.3	0.9	0.2	0.1	28.8	0.3	0.2	0.7	63.2	94.7
Silicate	0.7	11.6	0.4	0.2	47.7	16.6	2.9	15.5	0.3	96.0
Unclassified	7.8	8.6	0.5	0.4	23.5	5.4	1.2	39.3	1.2	87.8

Valuable heavy minerals								
Category	Ilmenite	Leucoxene	Rutile	Ti magnetite	Garnet	Zircon	Sillimanite	Total
wt %	47.1	15.5	15.7	9.1	6.0	6.4	0.3	100.0

Normalised average contents of the valuable Ti-containing minerals:				
Average content	Category			
	Ilmenite	Leucoxene	Rutile	Ti magnetite
TiO <sub>2</sub> wt%	54.2	77.2	95.1	42.7
Fe <sub>2</sub> O <sub>3</sub> wt%	38.2	12.5	1.5	43.9
MnO wt%	2.2	0.4	0.2	1.5
Cr <sub>2</sub> O <sub>3</sub> wt%	0.2	0.5	0.1	0.3
SiO <sub>2</sub> wt%	2.9	4.7	1.7	7.1
Al <sub>2</sub> O <sub>3</sub> wt%	1.2	2.9	0.8	3.6
MgO wt%	0.4	0.4	0.1	0.7
CaO wt%	0.3	1.0	0.2	0.1
ZrO <sub>2</sub> wt%	0.4	0.5	0.4	0.2
Total	100.0	100.0	100.0	100.0

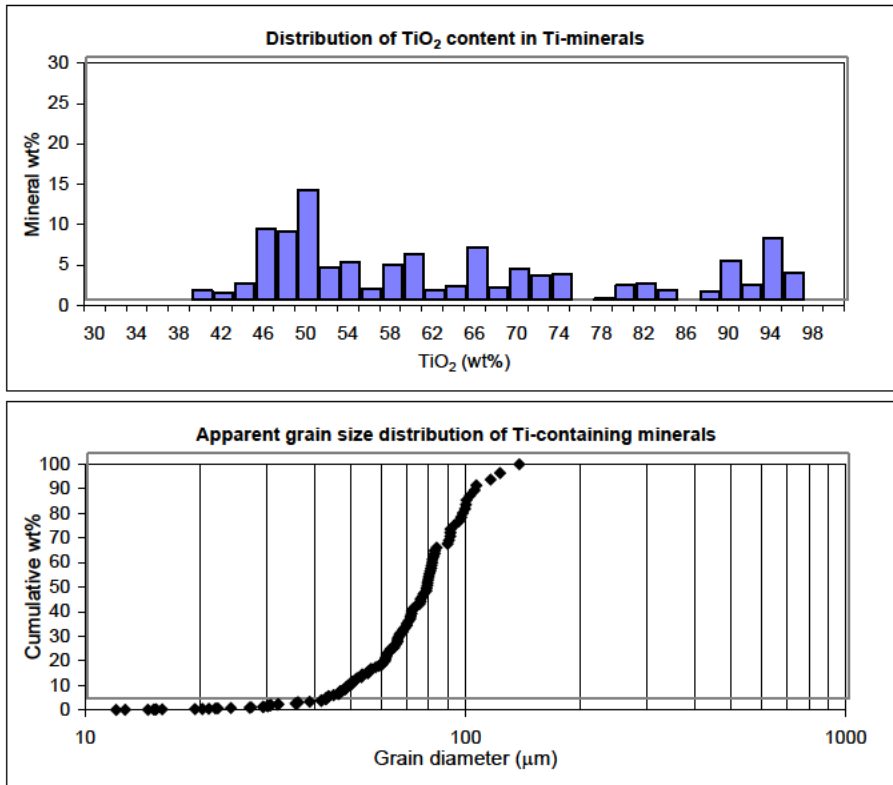
Weight percent on a mineral basis:		
Category	Heavy mineral	
	concentrate wt %	Raw sand wt %
Ilmenite	12.0	1.1
Leucoxene	3.9	0.4
Rutile	4.0	0.4
Ti magnetite	2.3	0.2
Magnetite	0.2	0.0
Chromite	0.0	0.0
Pyrite	1.1	0.1
Phosphate	0.0	0.0
Monazite	0.5	0.0
Y-phosphate	0.0	0.0
Sphene	0.9	0.1
Garnet	1.5	0.1
Sillimanite	0.1	0.0
Staurolite	0.1	0.0
Zircon	1.6	0.1
Silicate	64.2	96.7
Unclassified	7.6	0.7
Total	100.0	100.0

Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals:	64.5
Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals excl. rutile:	57.7
Valuable heavy minerals in raw sand:	2.35



Sample Name: SK30 25-32m  
 Submitter: Dupont  
 Date: 11/16/00

Analyzed by: CCA  
 Acc. Voltage: 17kV



Average grain parameters					
Category	Aspect ratio	Circularity	Perimeter (μm)	Length (μm)	Total grains
Ilmenite	1.6	1.9	260	103	77
Leucoxene	1.5	1.8	281	108	19
Rutile	1.9	2.1	286	115	21
Ti magnetite	1.6	2.4	315	134	12
Magnetite	1.3	2.0	308	123	1
Chromite	0.0	0.0	0	0	0
Pyrite	1.5	1.8	185	74	11
Phosphate	0.0	0.0	0	0	0
Monazite	1.6	1.8	317	123	2
Y-phosphate	0.0	0.0	0	0	0
Sphene	2.0	2.2	309	126	6
Garnet	2.0	2.9	329	144	11
Sillimanite	1.5	2.0	223	89	1
Staurolite	2.4	3.0	341	150	1
Zircon	1.5	1.6	223	81	12
Silicate	1.7	2.2	310	127	505
Unclassified	2.1	2.6	534	231	18

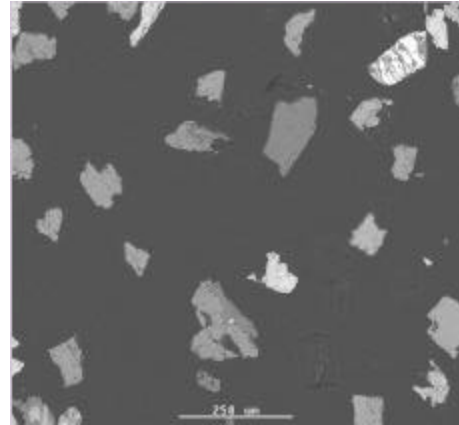


Geological Survey of Denmark and Greenland  
 Thoravej 8, DK-2400 Copenhagen NV  
 Ph.: +45 38142000, Fax: +45 38142050

GEUS

Sample Name:	SK33 14-22m
Date:	11/16/00
Submitter:	Dupont
Analyzed by:	CCA
Acc. Voltage	17 kV
Magnification	100x
Guard region	100 µm
Sieve	100 µm <sup>2</sup>

No. of analysed frames:	32
No. analysed of particles	807
Heavy minerals in raw sand (%):	10.02
comments:	



Category	Average content									
	TiO <sub>2</sub> wt%	Fe <sub>2</sub> O <sub>3</sub> wt%	MnO wt%	Cr <sub>2</sub> O <sub>3</sub> wt%	SiO <sub>2</sub> wt%	Al <sub>2</sub> O <sub>3</sub> wt%	MgO wt%	CaO wt%	ZrO <sub>2</sub> wt%	Total
Ilmenite	52.0	38.2	2.3	0.1	2.7	1.0	0.3	0.3	0.6	97.6
Leucoxene	77.0	10.4	0.6	0.1	3.7	2.4	0.2	1.0	0.6	96.0
Rutile	92.4	1.4	0.2	0.2	2.3	0.8	0.1	0.1	0.3	97.7
Ti magnetite	39.8	39.2	2.4	0.2	9.0	3.2	0.8	1.0	0.6	96.3
Magnetite	0.0	75.4	1.4	0.2	2.0	0.5	6.7	7.3	0.0	93.5
Chromite	3.5	40.5	0.6	30.9	0.3	19.0	2.9	0.1	0.6	98.4
Pyrite	1.4	32.6	0.1	0.1	2.4	0.7	0.1	0.1	0.2	37.7
Phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Monazite	0.0	0.0	0.0	0.0	4.2	0.5	0.0	3.1	0.0	7.8
Y-phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sphene	38.2	0.6	0.4	0.0	29.3	1.5	0.2	27.7	0.0	98.1
Garnet	0.6	24.0	3.1	0.2	39.5	21.1	3.0	2.8	0.5	94.7
Sillimanite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Staurolite	0.8	16.8	0.1	0.0	30.0	49.0	1.8	0.0	0.0	98.5
Zircon	0.4	1.0	0.3	0.1	28.8	0.2	0.1	0.5	64.2	95.5
Silicate	1.0	12.1	0.4	0.2	46.4	17.1	3.1	15.6	0.3	96.2
Unclassified	8.0	19.5	2.5	0.3	34.1	9.2	2.6	4.2	3.4	83.7

Valuable heavy minerals								
Category	Ilmenite	Leucoxene	Rutile	Ti magnetite	Garnet	Zircon	Sillimanite	Total
wt %	54.7	15.1	4.6	11.0	7.4	7.1	0.0	100.0

Normalised average contents of the valuable Ti-containing minerals:				
Average content	Category			
	Ilmenite	Leucoxene	Rutile	Ti magnetite
TiO <sub>2</sub> wt%	53.3	80.3	94.5	41.3
Fe <sub>2</sub> O <sub>3</sub> wt%	39.2	10.8	1.4	40.7
MnO wt%	2.4	0.6	0.2	2.5
Cr <sub>2</sub> O <sub>3</sub> wt%	0.1	0.1	0.2	0.2
SiO <sub>2</sub> wt%	2.7	3.9	2.3	9.3
Al <sub>2</sub> O <sub>3</sub> wt%	1.1	2.5	0.8	3.4
MgO wt%	0.3	0.2	0.1	0.9
CaO wt%	0.3	1.0	0.1	1.1
ZrO <sub>2</sub> wt%	0.6	0.6	0.3	0.7
Total	100.0	100.0	100.0	100.0

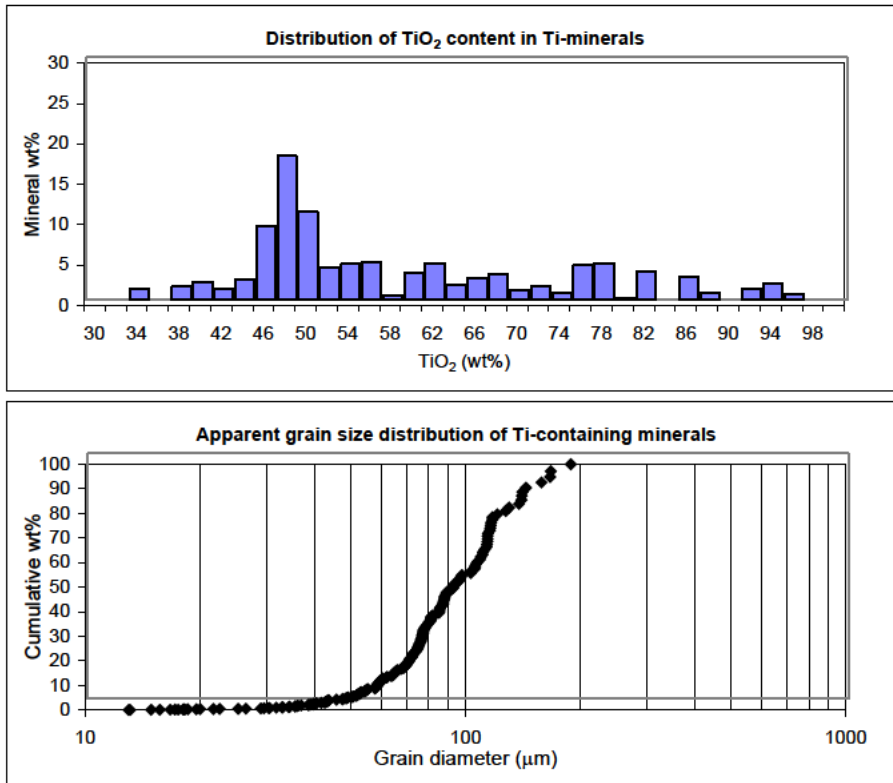
Weight percent on a mineral basis:		
Category	Heavy mineral	
	concentrate wt %	Raw sand wt %
Ilmenite	21.9	2.2
Leucoxene	6.1	0.6
Rutile	1.9	0.2
Ti magnetite	4.4	0.4
Magnetite	0.5	0.1
Chromite	0.2	0.0
Pyrite	1.1	0.1
Phosphate	0.0	0.0
Monazite	0.1	0.0
Y-phosphate	0.0	0.0
Sphene	0.7	0.1
Garnet	3.0	0.3
Sillimanite	0.0	0.0
Staurolite	0.1	0.0
Zircon	2.8	0.3
Silicate	55.8	95.6
Unclassified	1.4	0.1
Total	100.0	100.0

Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals:	58.8
Average TiO <sub>2</sub> content of all the TiO <sub>2</sub> minerals excl. rutile:	56.7
Valuable heavy minerals in raw sand:	4.01



Sample Name: SK33 14-22m  
 Submitter: Dupont  
 Date: 11/16/00

Analyzed by: CCA  
 Acc. Voltage: 17kV



Average grain parameters					
Category	Aspect ratio	Circularity	Perimeter (μm)	Length (μm)	Total grains
Ilmenite	1.7	2.1	329	134	137
Leucoxene	1.5	2.2	434	180	22
Rutile	1.6	2.0	253	102	16
Ti magnetite	1.9	2.5	356	153	25
Magnetite	1.6	2.1	413	168	2
Chromite	1.4	1.7	313	116	1
Pyrite	1.7	2.3	364	152	5
Phosphate	0.0	0.0	0	0	0
Monazite	1.2	1.5	213	76	1
Y-phosphate	0.0	0.0	0	0	0
Sphene	1.7	2.4	345	144	6
Garnet	2.0	2.8	484	212	13
Sillimanite	0.0	0.0	0	0	0
Staurolite	1.4	2.0	352	142	1
Zircon	1.4	2.0	309	122	17
Silicate	1.6	2.3	353	147	537
Unclassified	1.7	2.2	237	101	24

**Geological Survey of Denmark and Greenland**

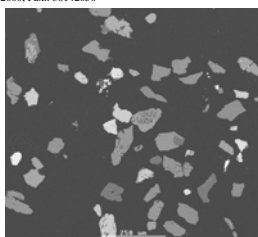
Thoravej 8, DK-2400 Copenhagen NV  
Ph: 45 38142000, Fax.: 38142050

Sample Name:	SK0035 14-18
Date:	07-09-00
Submitter:	Dupont
Analyzed by:	CCA
Acc. Voltage:	17 kV
Magnification:	100x
Guard region:	120 µm
Sieve:	100 µm <sup>2</sup>

Number of frames: 27

Number of valuable particles analyzed: 750

Heavy minerals in raw sand (%) 2,78



Average content	Category													
	limonite	leucoxene	pyrite	rutile	silicate	sphene	other	l ox	unc assified	zircon	garnet	Monazite	sillimanite	staurolite
TiO <sub>2</sub> w/w	52,2	75,6	0,1	92,6	0,8	37,0	23,7	6,7	0,3	0,5	0,0	0,0	0,9	0,7
Fe <sub>2</sub> O <sub>3</sub> w/w	38,4	9,0	31,1	1,5	11,5	0,9	59,7	21,0	0,6	28,2	5,4	1,3	12,9	1,6
MnO w/w	2,2	0,4	0,1	0,2	0,3	0,1	1,6	0,2	0,1	3,0	0,0	0,0	0,5	0,0
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,1	0,2	0,1	0,1	0,2	0,1	0,1	0,1	0,0	0,2	0,1	0,0
SiO <sub>2</sub> w/w	2,9	5,4	1,2	1,7	47,7	30,3	6,3	24,3	29,2	37,5	20,5	42,5	34,8	0,3
Al <sub>2</sub> O <sub>3</sub> w/w	1,2	3,4	0,4	1,2	17,0	1,8	2,9	5,6	0,3	19,8	9,5	53,6	46,5	1,4
MgO w/w	0,3	0,4	0,1	0,2	3,9	0,1	1,1	1,5	0,1	3,4	0,6	0,1	1,6	0,0
CaO w/w	0,3	1,5	0,1	0,1	15,0	27,8	1,4	14,0	0,4	4,1	9,0	0,0	0,0	0,4
ZrO <sub>2</sub> w/w	0,3	0,4	0,2	0,2	0,2	0,0	0,3	9,8	64,2	0,3	0,0	0,1	0,5	4,9
Total	98,0	96,3	33,4	97,9	96,7	98,2	97,1	83,1	95,4	96,9	45,0	97,8	97,8	9,4

Normalised average contents of the valuable containing minerals:

Average content	Category			
	limonite	leucoxene	rutile	other l ox
TiO <sub>2</sub> w/w	53,3	78,5	94,5	24,4
Fe <sub>2</sub> O <sub>3</sub> w/w	39,1	9,3	1,5	61,5
MnO w/w	2,3	0,4	0,2	1,7
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,2	0,2	0,2
SiO <sub>2</sub> w/w	3,0	5,6	1,7	6,5
Al <sub>2</sub> O <sub>3</sub> w/w	1,2	3,5	1,2	3,0
MgO w/w	0,3	0,4	0,2	1,1
CaO w/w	0,3	1,6	0,1	1,5
ZrO <sub>2</sub> w/w	0,3	0,5	0,2	0,3
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals 55,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile 50,7

Weight percent on a mineral basis:

the heavy mineral concentrate	
Category	w/w
limonite	20,40
leucoxene	4,85
pyrite	6,82
rutile	3,53
silicate	45,42
sphene	0,47
otherTi ox.	7,05
unclassified	2,43
zircon	4,50
garnet	2,53
monazite	0,57
phosphate	0,00
sillimanite	0,39
staurolite	0,87
Y phosphate	0,13
Total	100,00

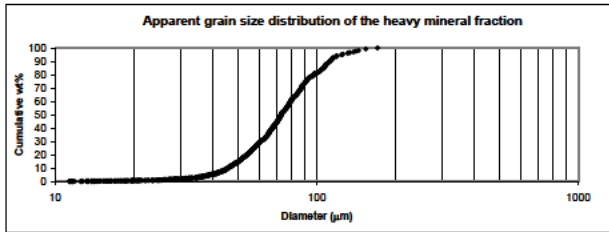
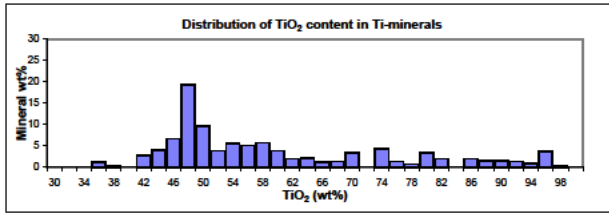
the raw sand	
Category	w/w
limonite	0,57
leucoxene	0,13
pyrite	0,19
rutile	0,10
silicate	98,48
sphene	0,01
otherTi ox.	0,20
unclassified	0,07
zircon	0,13
garnet	0,07
monazite	0,02
phosphate	0,00
sillimanite	0,01
staurolite	0,02
Y phosphate	0,00
Total	100,00

the valuable heavy minerals

Category	w/w
limonite	47,12
leucoxene	11,21
rutile	8,15
otherTi ox.	16,38
zircon	10,40
garnet	5,85
sillimanite	0,90
Total	100,00

Valuable heavy minerals in raw sand 1,20

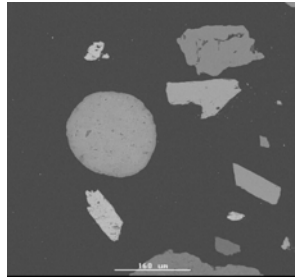
Sample Name: SE0035 14-18  
 Date: 07-09-00  
 Submitter: Diposit  
 Analysed by: CCA  
 Acc. Voltage: 17kV



Average grain parameters	Category													
	ilmenite	leucosane	pyrite	rutile	silicite	sphene	other	1 ox	unclassified	zircon	garnet	Monazite	silimanite	clausenite
Aspect ratio	1,62	1,66	1,38	1,69	1,68	2,31	1,62	1,50	1,44	1,91	1,24	1,37	1,90	1,38
Circularity	1,90	1,85	1,92	1,82	1,95	2,16	1,91	3,04	1,53	2,00	4,08	2,06	2,13	1,52
Perimeter (µm)	247,04	222,70	192,38	218,26	263,98	227,56	251,91	428,23	213,50	223,58	671,80	341,95	389,95	193,84
Length (µm)	96,81	87,19	76,22	82,97	104,54	93,54	97,92	185,03	73,04	89,01	307,25	137,98	159,29	67,97
Total grains	122	32	58	24	400	5	38	13	29	22	1	2	3	1



Sample Name SK0035 19:21 m  
 Date 28-08-00  
 Submitter Dupont  
 Analyzed by CCA  
 Acc. Voltage 17 kV  
 Magnification 160x  
 Guard region 90 µm  
 Sieve 100 µm<sup>2</sup>



Number of frames 64

Number of valuable particles analyzed 406

Heavy minerals in raw sand (%): 4,24

Average content	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti ox	unclassified	zircon	garnet	Monazite	sillimanite
TiO <sub>2</sub> w/w	52,4	74,9	0,2	93,4	0,8	36,0	21,5	2,7	0,2	2,8	0,0	0,2
Fe <sub>2</sub> O <sub>3</sub> w/w	40,4	8,4	31,3	1,9	13,4	1,0	61,2	28,1	0,9	28,3	3,4	0,0
MnO w/w	2,2	0,7	0,2	0,4	0,4	0,1	1,2	0,3	0,2	5,2	0,0	0,0
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,4	0,1	0,0	0,1	0,0	0,1	2,3	0,1	0,1	0,0	0,2
SiO <sub>2</sub> w/w	1,9	3,9	1,3	1,2	45,3	30,4	9,1	20,4	29,3	37,0	3,3	43,2
Al <sub>2</sub> O <sub>3</sub> w/w	0,6	5,3	0,4	0,6	17,5	1,6	1,7	5,8	0,1	19,2	0,6	53,4
MgO w/w	0,2	0,2	0,1	0,1	4,4	0,1	0,3	1,2	0,1	2,8	0,4	0,0
CaO w/w	0,2	2,2	0,5	0,2	14,1	28,2	1,4	17,9	0,3	2,2	1,3	0,3
ZrO <sub>2</sub> w/w	0,2	0,6	0,2	0,3	0,2	0,2	0,8	5,6	64,4	0,2	5,9	0,9
Total	98,3	96,6	34,3	98,1	96,2	97,7	97,2	84,4	95,7	97,9	14,9	98,2

Normalised average contents of the valuable Ti containing minerals:

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	53,3	77,5	95,2	22,1
Fe <sub>2</sub> O <sub>3</sub> w/w	41,1	8,7	1,9	63,0
MnO w/w	2,2	0,7	0,4	1,2
Cr <sub>2</sub> O <sub>3</sub> w/w	0,1	0,4	0,0	0,1
SiO <sub>2</sub> w/w	2,0	4,0	1,2	9,4
Al <sub>2</sub> O <sub>3</sub> w/w	0,6	5,5	0,6	1,7
MgO w/w	0,2	0,3	0,1	0,3
CaO w/w	0,2	2,3	0,2	1,4
ZrO <sub>2</sub> w/w	0,3	0,7	0,3	0,8
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals: 57,1

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile: 50,8

Weight percent on a mineral basis:

the heavy mineral concentrate	
Category	w/w
ilmenite	15,09
leucoxene	4,29
pyrite	15,59
rutile	4,07
silicate	37,37
sphene	0,91
otherTi-ox.	5,25
unclassified	10,15
zircon	4,30
garnet	2,66
monazite	0,09
phosphate	0,00
sillimanite	0,23
staurolite	0,00
Y-phosphate	0,00
Total	100,00

the raw sand	
Category	w/w
ilmenite	0,64
leucoxene	0,18
pyrite	0,66
rutile	0,17
silicate	97,34
sphene	0,04
otherTi-ox.	0,22
unclassified	0,43
zircon	0,18
garnet	0,11
monazite	0,00
phosphate	0,00
sillimanite	0,01
staurolite	0,00
Y-phosphate	0,00
Total	100,00

the valuable heavy minerals

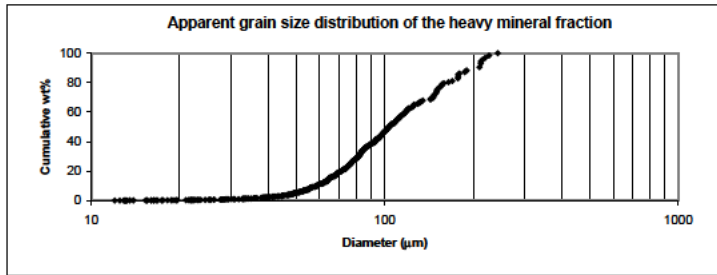
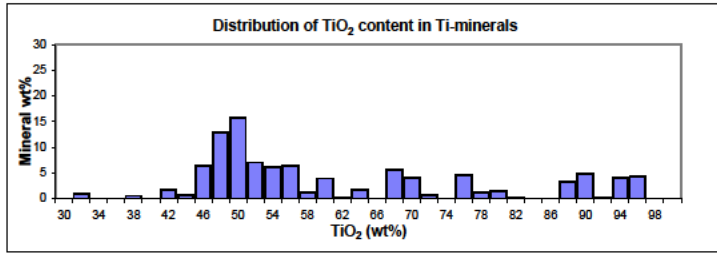
Category	w/w
ilmenite	42,05
leucoxene	11,95
rutile	11,35
otherTi-ox.	14,63
zircon	11,99
garnet	7,41
sillimanite	0,63
Total	100,00

Valuable heavy minerals

in raw sand: 1,52

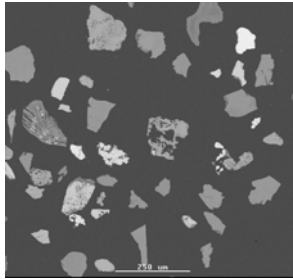
Sample Name **SK0035 19-21 m** Date **28-08-00**

Submitter **Dupont**  
 Analyzed by **CCA**  
 Acc. Voltage **17kV**



Average grain parameters	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	sphene	other Ti-ox	unclassified	zircon	garnet	Monazite	sillimanite
Aspect ratio	1,73	1,85	1,47	1,81	1,80	1,73	1,84	1,84	1,59	1,78	2,08	1,33
Circularity	2,12	2,67	2,31	2,14	2,35	1,94	2,30	2,42	2,31	2,39	1,84	1,94
Perimeter (µm)	298,46	432,11	338,09	326,00	349,58	296,86	354,62	573,36	402,08	389,98	178,88	355,33
Length (µm)	120,79	188,91	143,23	132,19	148,04	117,95	148,04	236,37	165,31	162,58	69,43	140,94
Total grains	66	11	42	13	212	5	15	19	12	9	1	1

Sample Name SK0035 22-32  
 Date 07-09-00  
 Submitter Dupont  
 Analyzed by CCA  
 Acc. Voltage 17 kV  
 Magnification 100x  
 Guard region 180 µm  
 Sieve 100 µm<sup>2</sup>



Number of frames 54

Number of valuable particles analyzed 464

Heavy minerals in raw sand (%): 4.06

Average content	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	other Ti ox	unclassified	zircon	garnet	Monazite	sillimanite	staurolite
TiO <sub>2</sub> w/w	52,4	78,0	0,2	93,1	1,1	35,2	4,9	0,2	1,8	0,0	0,0	0,9
Fe <sub>2</sub> O <sub>3</sub> w/w	38,3	8,8	30,6	2,3	12,3	46,9	23,8	0,7	25,5	13,5	0,9	12,6
MnO w/w	2,2	0,3	0,2	0,2	0,3	2,6	0,3	0,2	3,9	0,0	0,0	0,1
Cr <sub>2</sub> O <sub>3</sub> w/w	0,2	0,3	0,1	0,2	0,2	0,1	2,9	0,1	0,2	0,0	0,2	0,2
SiO <sub>2</sub> w/w	3,2	3,1	2,3	0,9	46,6	8,5	18,7	29,6	38,2	1,2	42,9	33,5
Al <sub>2</sub> O <sub>3</sub> w/w	0,9	2,8	0,6	0,5	18,2	2,1	5,5	0,2	20,4	0,0	53,9	48,3
MgO w/w	0,3	0,2	0,1	0,1	2,9	0,4	1,7	0,2	2,2	0,5	0,1	1,2
CaO w/w	0,3	1,9	0,6	0,1	14,1	0,9	28,4	0,3	3,4	1,8	0,1	0,0
ZrO <sub>2</sub> w/w	0,3	0,9	0,3	0,6	0,3	0,4	0,3	63,5	0,4	2,2	0,2	0,6
Total	98,0	96,1	34,9	97,8	96,1	97,1	86,6	95,0	95,9	19,1	98,3	97,3

Normalised average contents of the valuable Ti containing minerals:

Average content	Category			
	ilmenite	leucoxene	rutile	other Ti ox.
TiO <sub>2</sub> w/w	53,5	81,1	95,1	36,3
Fe <sub>2</sub> O <sub>3</sub> w/w	39,0	9,1	2,3	48,3
MnO w/w	2,3	0,3	0,2	2,7
Cr <sub>2</sub> O <sub>3</sub> w/w	0,2	0,3	0,2	0,1
SiO <sub>2</sub> w/w	3,2	3,2	0,9	8,7
Al <sub>2</sub> O <sub>3</sub> w/w	0,9	2,9	0,5	2,2
MgO w/w	0,3	0,2	0,1	0,4
CaO w/w	0,3	1,9	0,1	0,9
ZrO <sub>2</sub> w/w	0,3	0,9	0,6	0,4
Total	100,0	100,0	100,0	100,0

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals: 55,4

Average TiO<sub>2</sub> content of all the

TiO<sub>2</sub> minerals excl. rutile: 52,6

Weight percent on a mineral basis:

the heavy mineral concentrate	
Category	w/w
ilmenite	12,47
leucoxene	1,53
pyrite	13,76
rutile	1,23
silicate	38,37
sphene	0,00
otherTi-ox.	3,40
unclassified	24,16
zircon	2,83
garnet	1,38
monazite	0,29
phosphate	0,00
sillimanite	0,41
staurolite	0,15
Y-phosphate	0,00
Total	100,00

the raw sand	
Category	w/w
ilmenite	0,51
leucoxene	0,06
pyrite	0,56
rutile	0,05
silicate	97,50
sphene	0,00
otherTi-ox.	0,14
unclassified	0,98
zircon	0,11
garnet	0,06
monazite	0,01
phosphate	0,00
sillimanite	0,02
staurolite	0,01
Y-phosphate	0,00
Total	100,00

the valuable heavy minerals

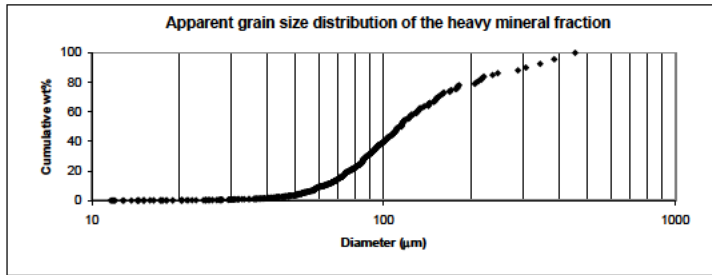
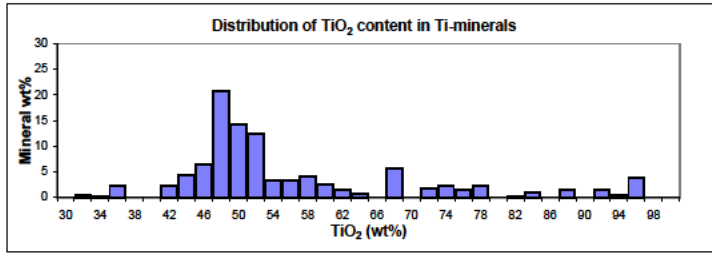
Category	w/w
ilmenite	53,64
leucoxene	6,60
rutile	5,27
otherTi-ox.	14,64
zircon	12,15
garnet	5,94
sillimanite	1,77
Total	100,00

Valuable heavy minerals

in raw sand: 0,94

Comments The high amount of unidentified material may due to occurrence of calcite which is not a classified mineral category. Calcite has been observed in the specimen.

Sample Name SK0035 22-32  
 Date 07-09-00  
 Submitter Dupont  
 Analyzed by CCA  
 Acc. Voltage 17kV



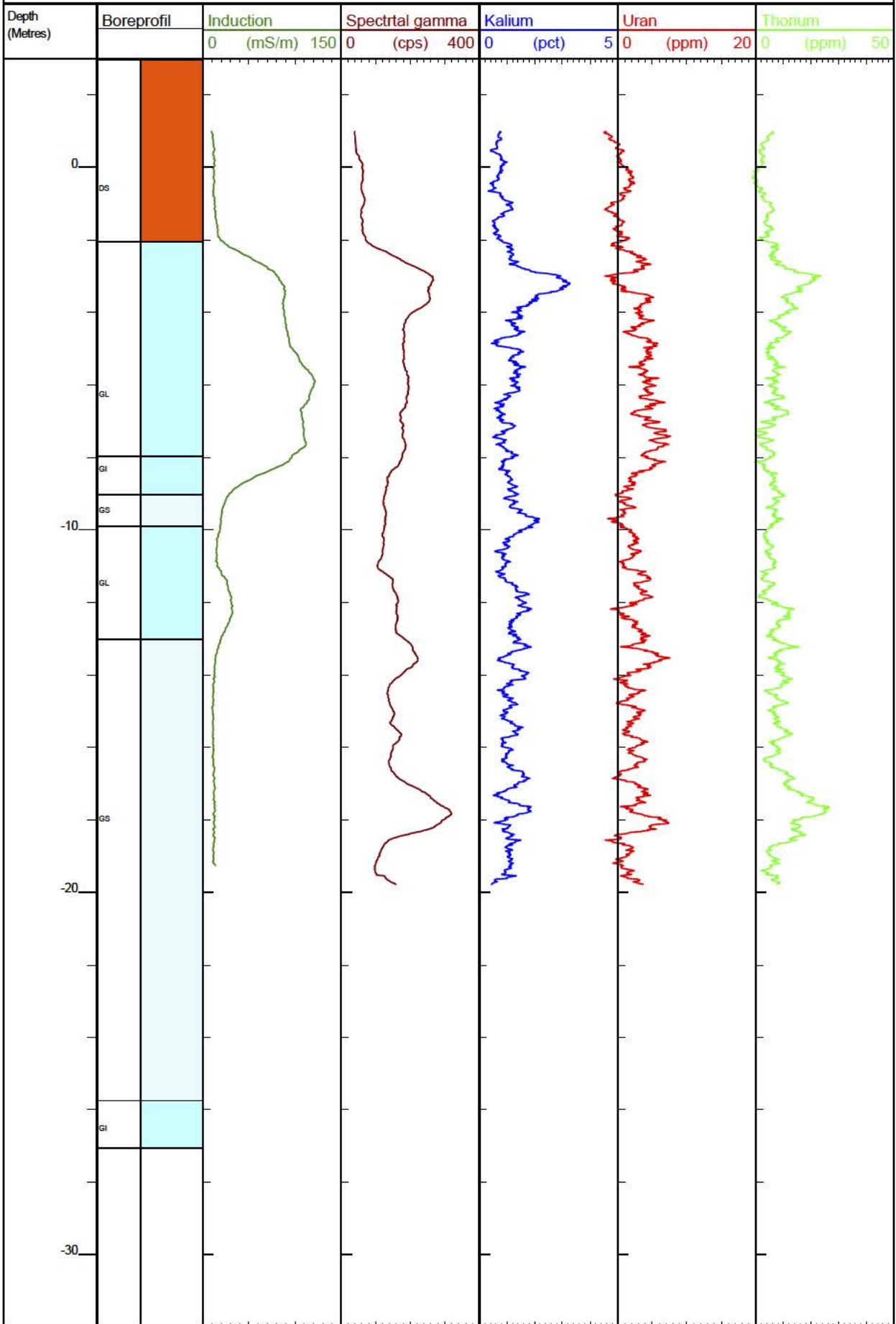
Average grain parameters	Category											
	ilmenite	leucoxene	pyrite	rutile	silicate	other Ti ox	unclassified	zircon	garnet	Monazite	stibnite	staurolite
Aspect ratio	1,84	1,20	1,48	1,87	1,87	1,67	2,04	1,49	1,79	1,19	1,20	1,25
Circularity	1,99	1,85	2,29	1,74	2,01	1,98	2,48	1,80	1,96	1,78	1,87	1,97
Perimeter (µm)	297,25	303,00	360,83	232,92	348,90	302,07	706,64	308,90	252,82	362,15	384,02	223,34
Length (µm)	117,82	116,03	151,46	87,48	139,13	120,96	296,98	116,77	100,80	138,71	149,56	89,10
Total grains	69	8	49	9	243	17	39	13	12	1	2	2

## **4 Geophysical logs**

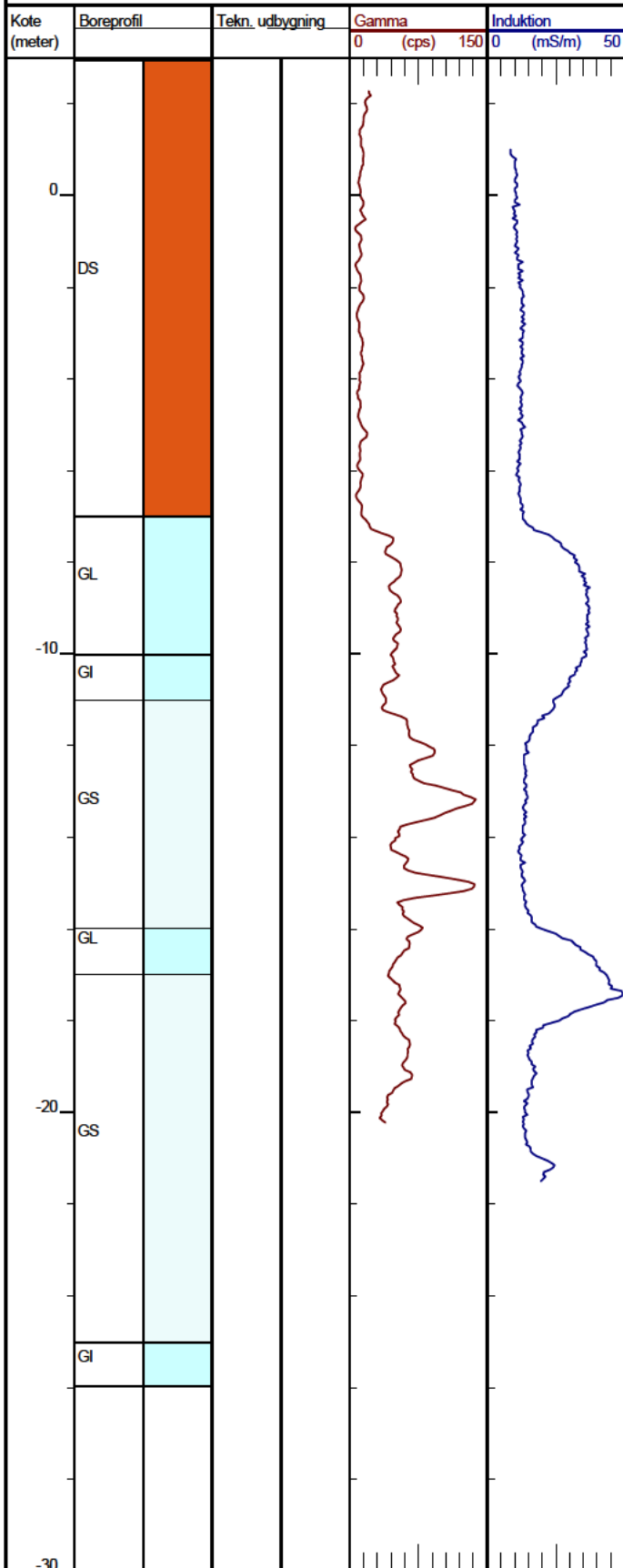
Well Name: 93.892

Location: Knudegaardsvej 6, Skern SK 99/1

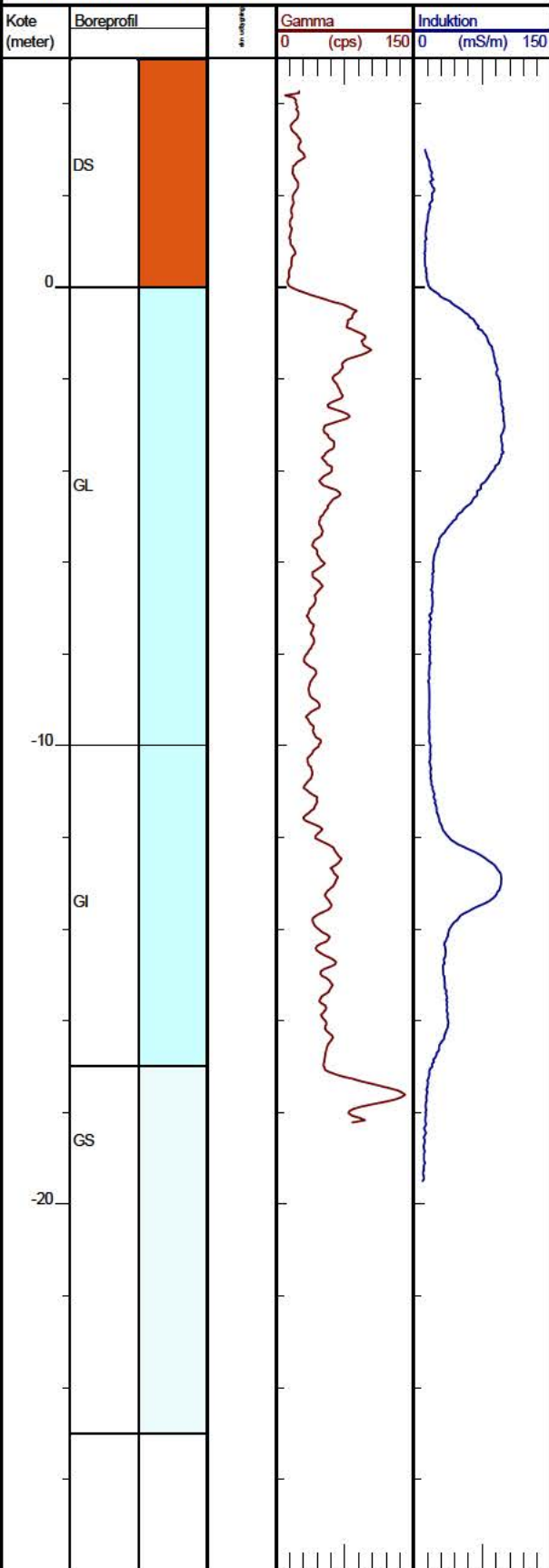
Elevation: 3 Reference: terræn



Well Name: 93.894  
 Location: Knudegårdsvej 6, sk 99/3, Skjern  
 Elevation: 3 Reference: Terræn

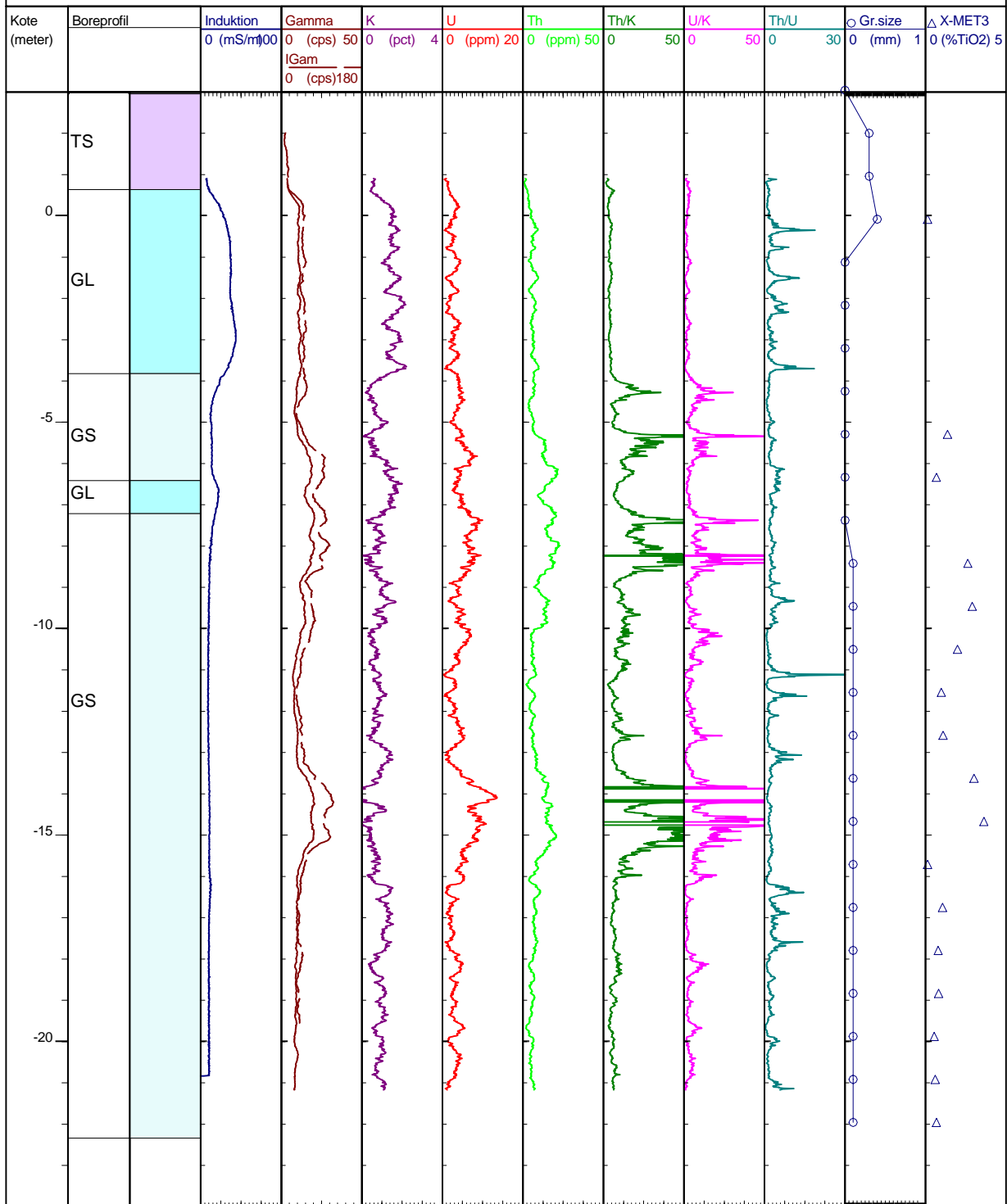


Well Name: 93.895  
 Location: Hølletvej, Sdr. Vognbjerg, sk 99/4  
 Elevation: 5 Reference: Terræn

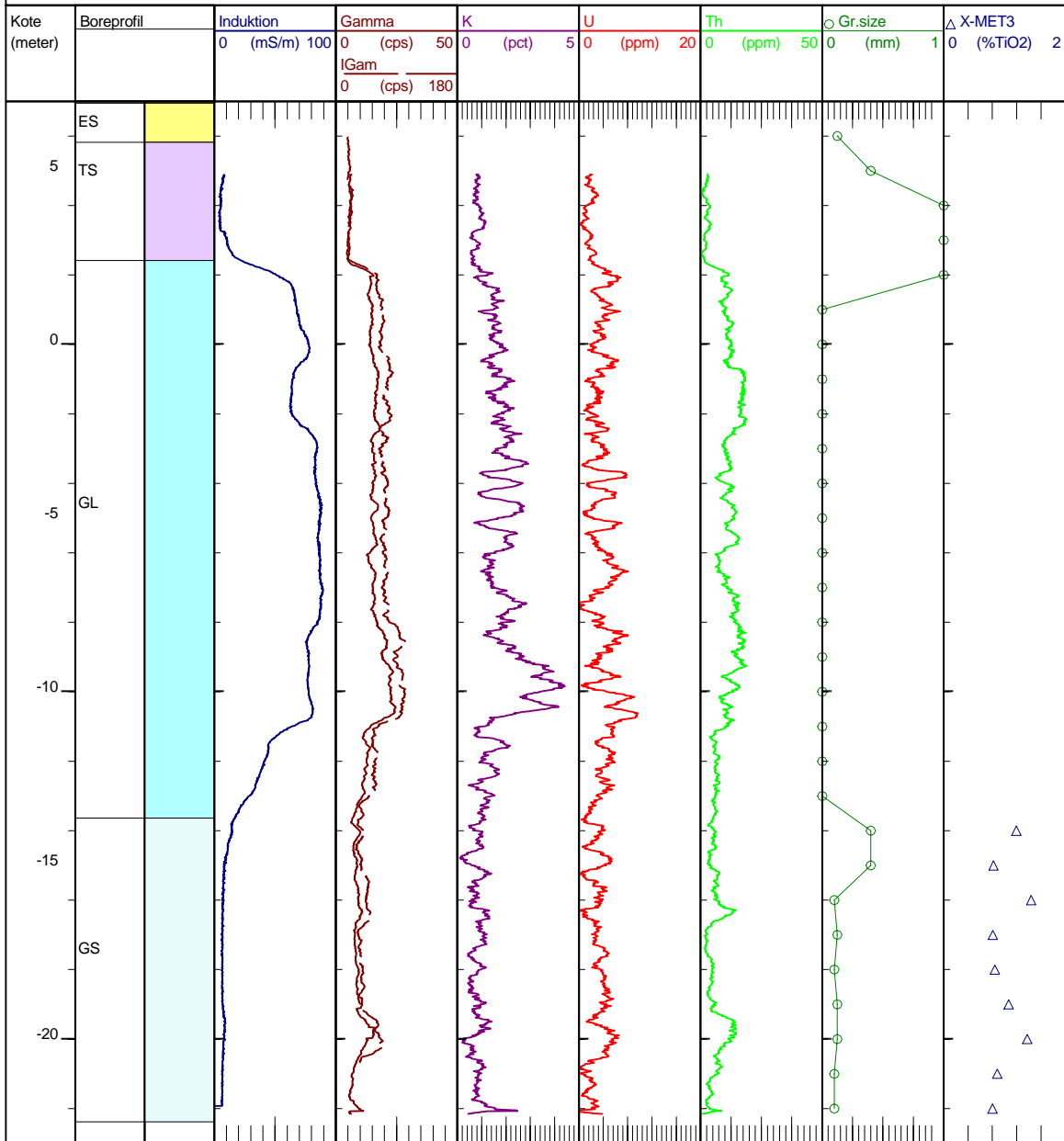




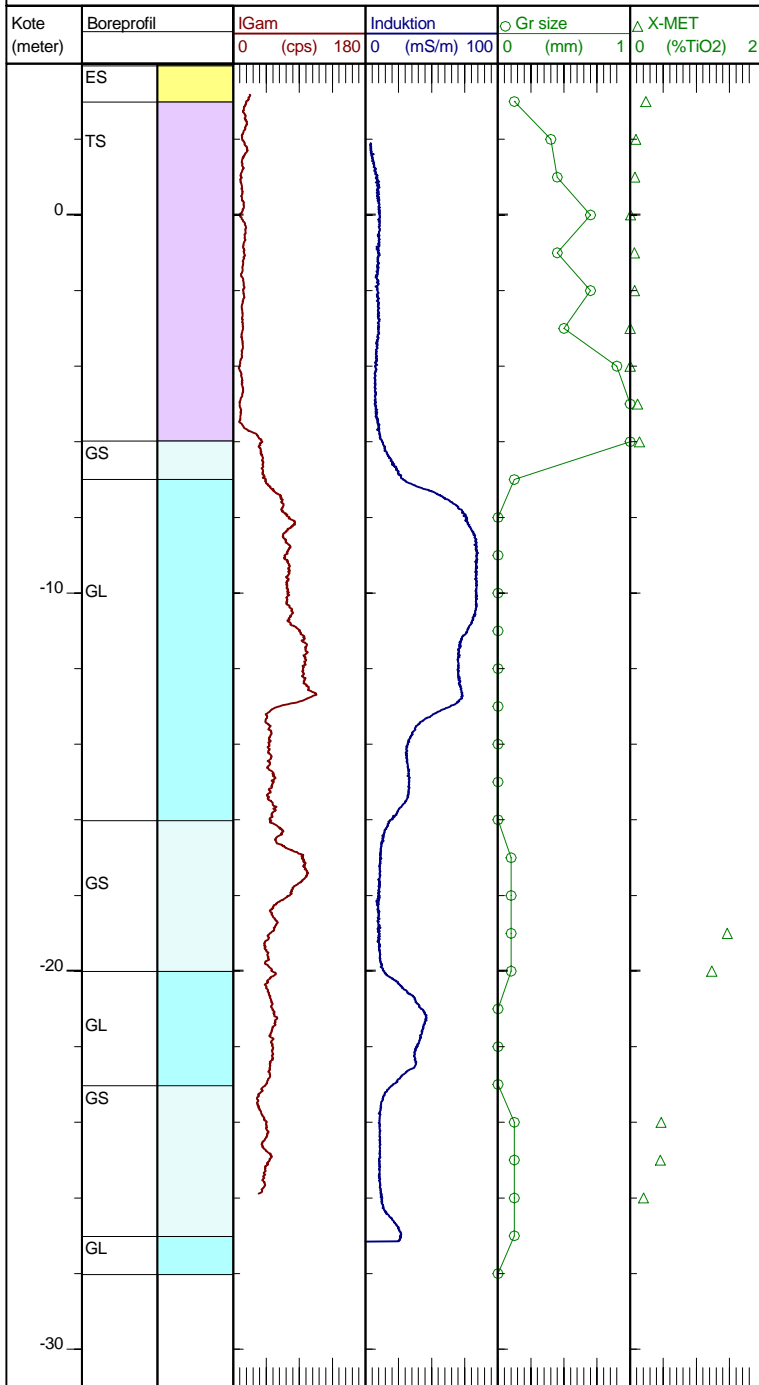
Well Name: 93.943  
 Location: Skjern-Stauning, sk00.07  
 Elevation: 3 Reference: Terræn



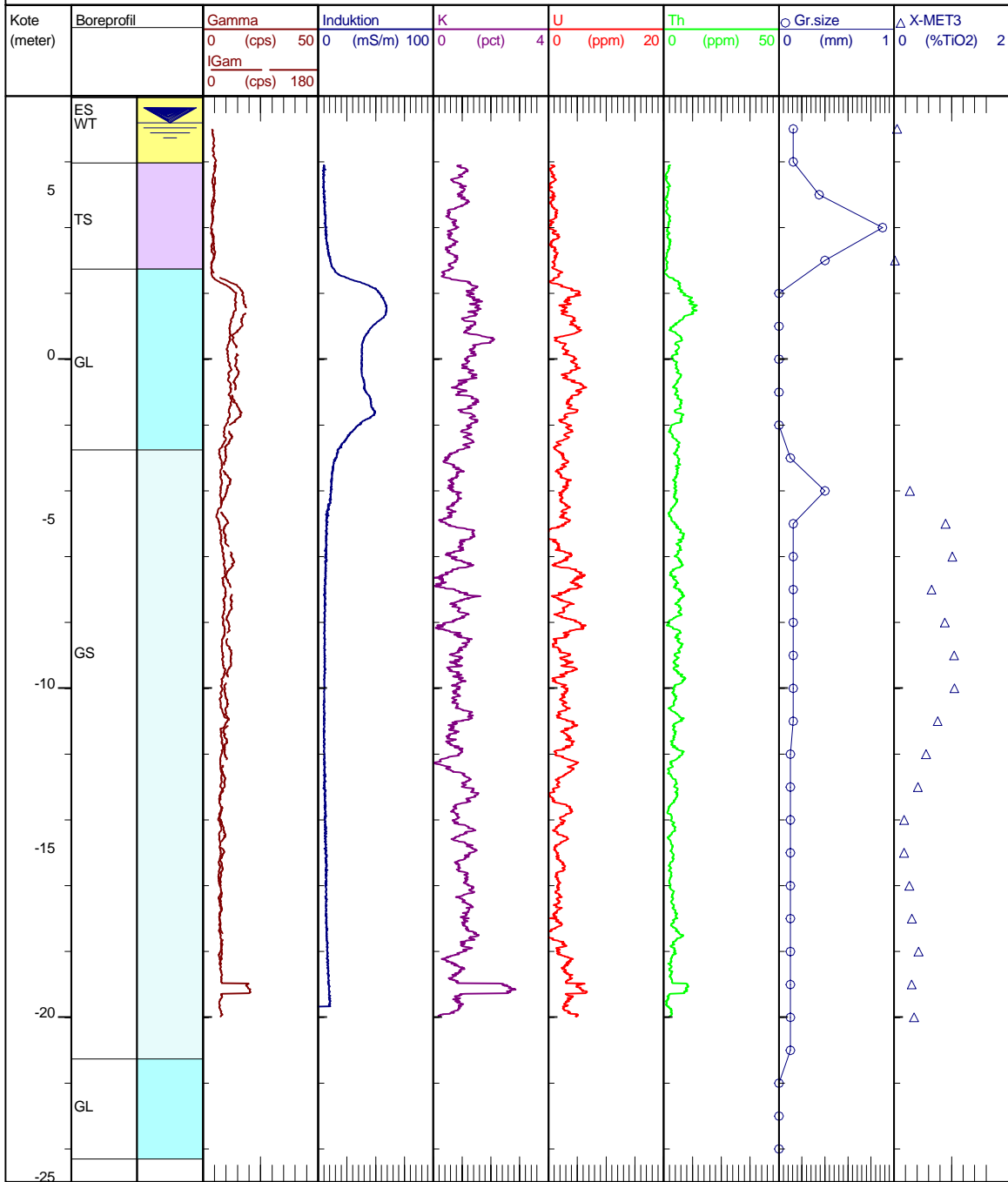
Well Name: 93.945  
 Location: Sønder Vongbjerg, SK00.09  
 Elevation: 7 Reference: Terræn



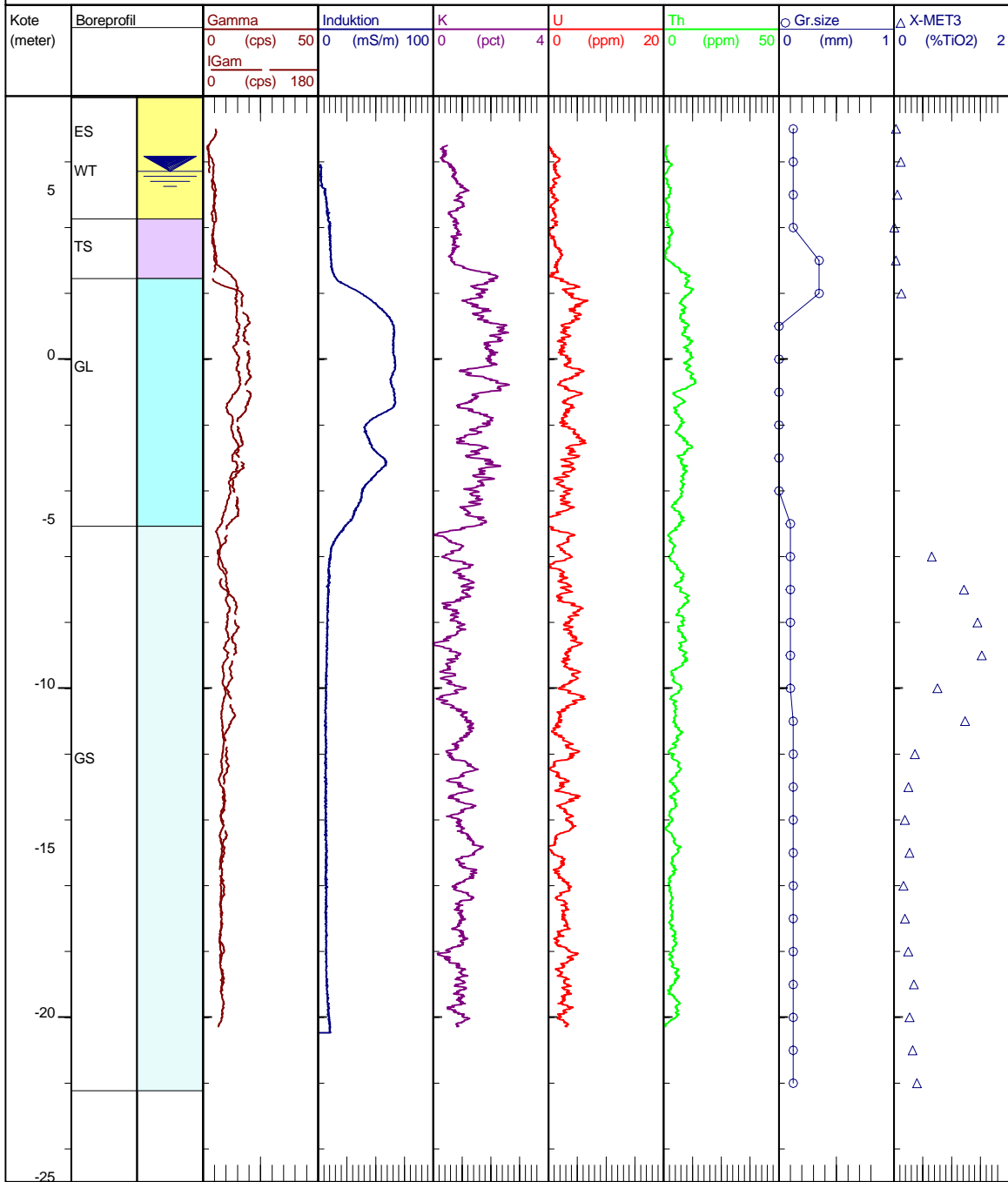
Well Name: 93.946  
 Location: Langkær, SK00.10  
 Elevation: 4 Reference: Terræn



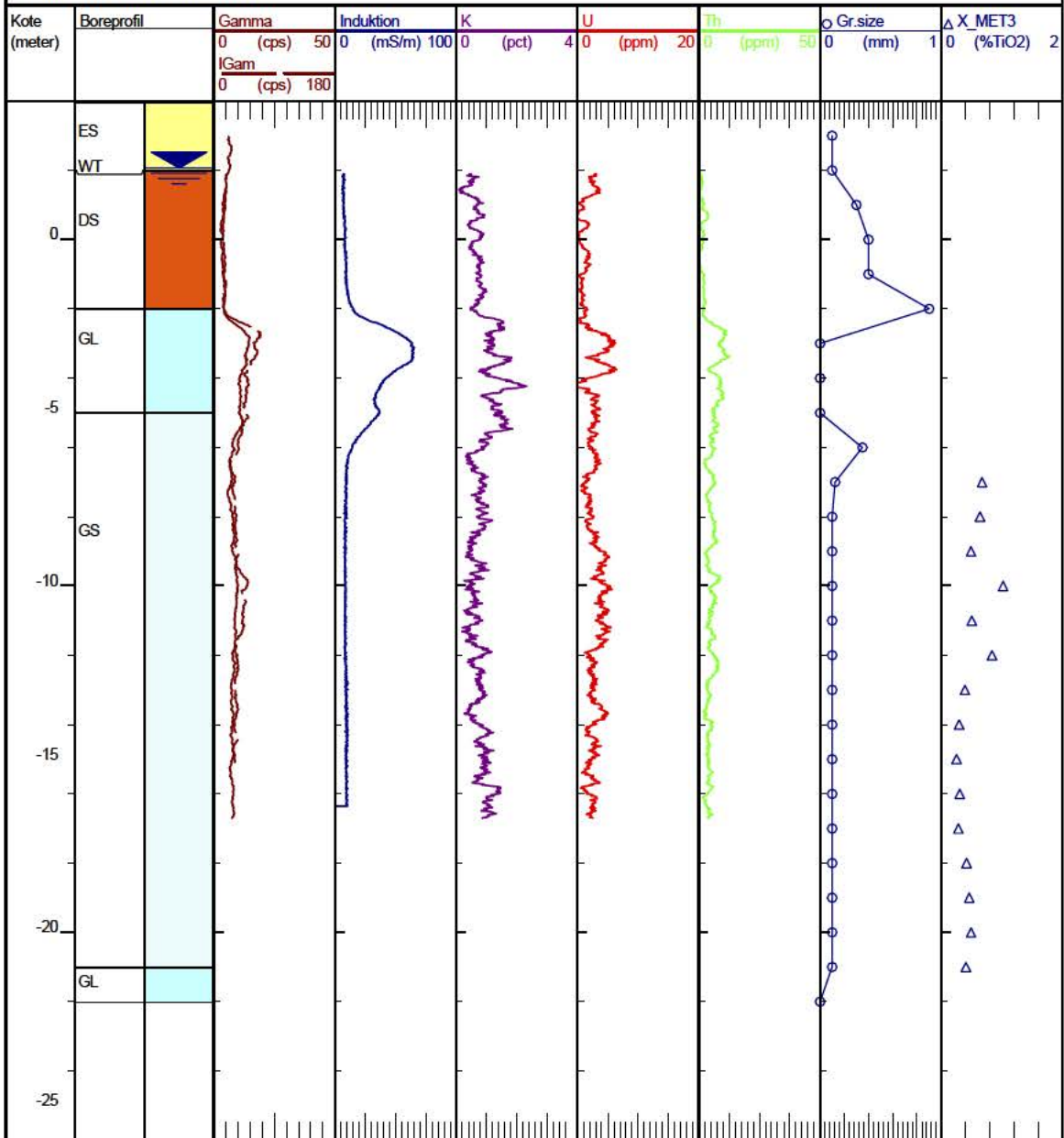
Well Name: 93.947  
 Location: Sønder Vongbjerg, SK00.11  
 Elevation: 8 Reference: Terræn



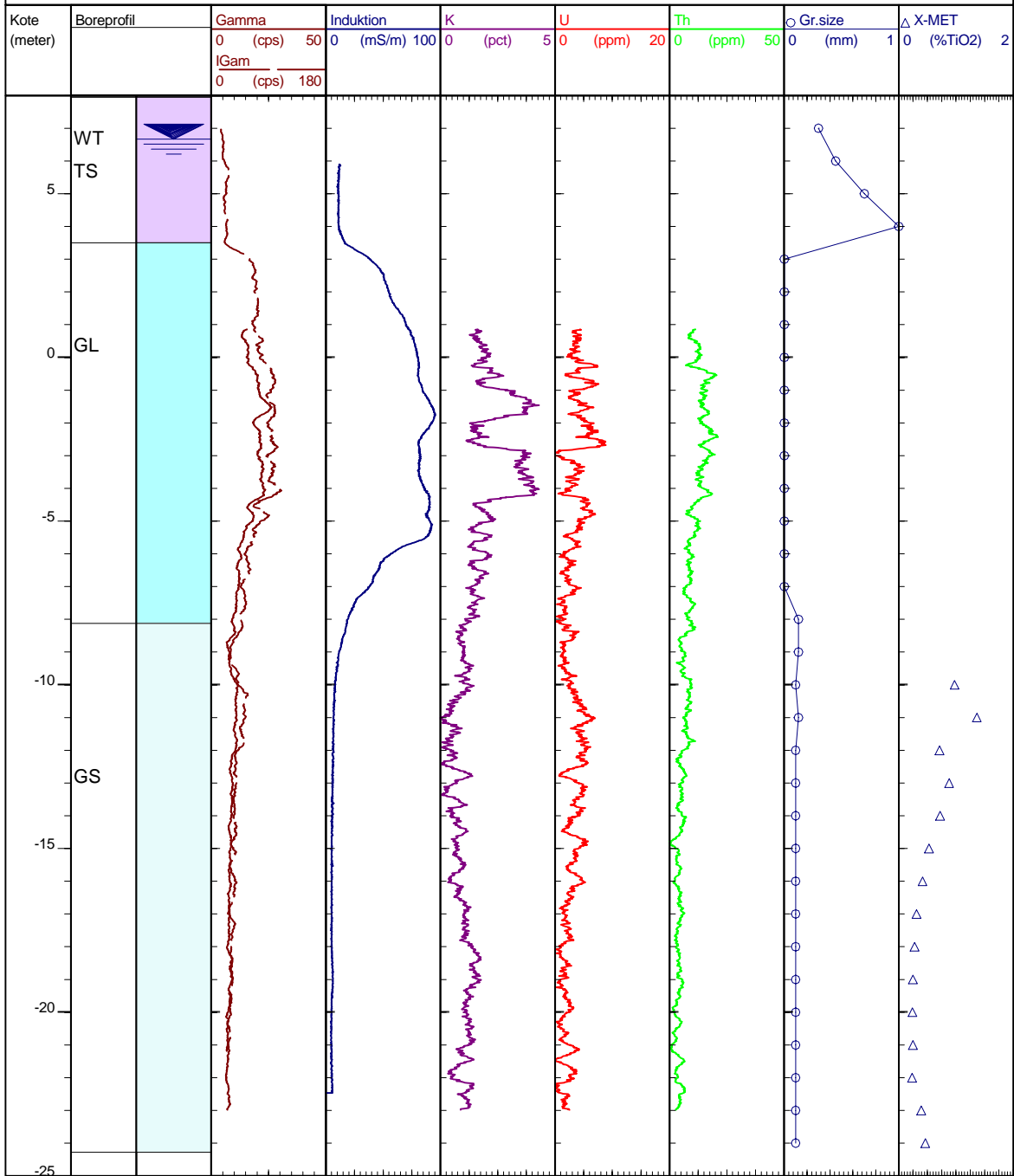
Well Name: 93.948  
 Location: Sønder Vongbjerg, SK00.12  
 Elevation: 8 Reference: Terræn



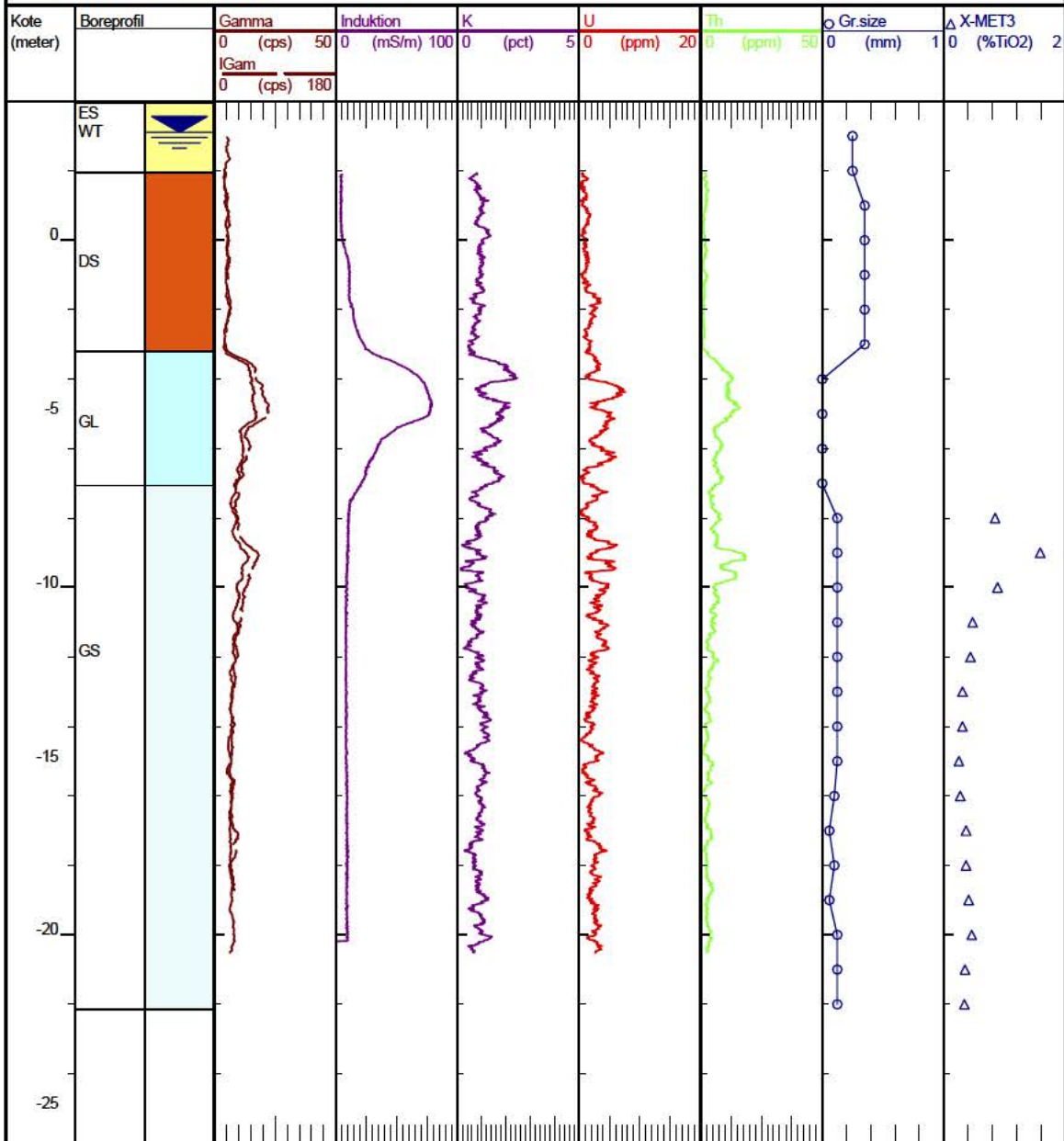
Well Name: 93.952  
 Location: Andrup, SK00.16  
 Elevation: 4 Reference: Terræn



Well Name: 93.953  
 Location: Sønder Vongbjerg, SK00.17  
 Elevation: 8 Reference: Terræn

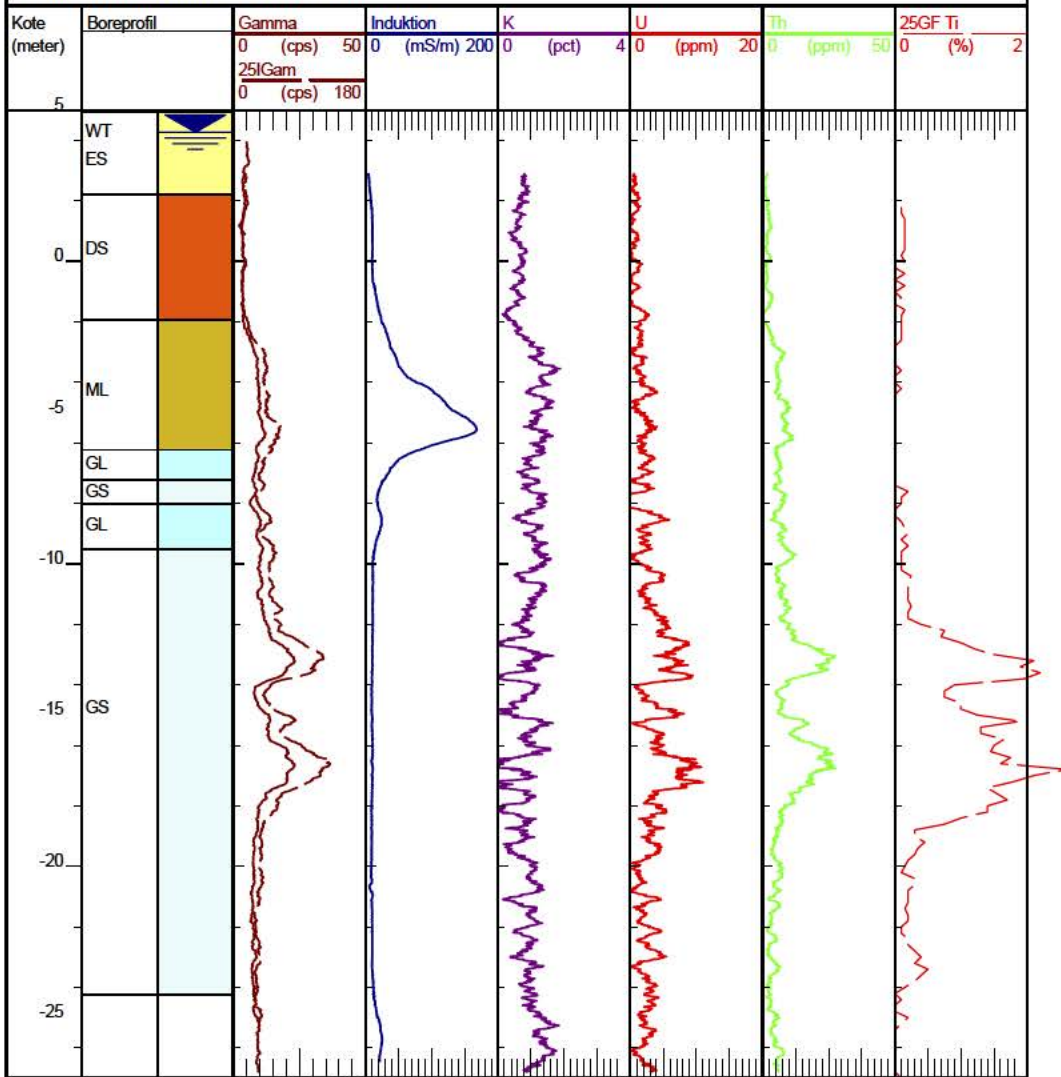


Well Name: 93.958  
 Location: Gestenge, SK00.22  
 Elevation: 4 Reference: Terræn

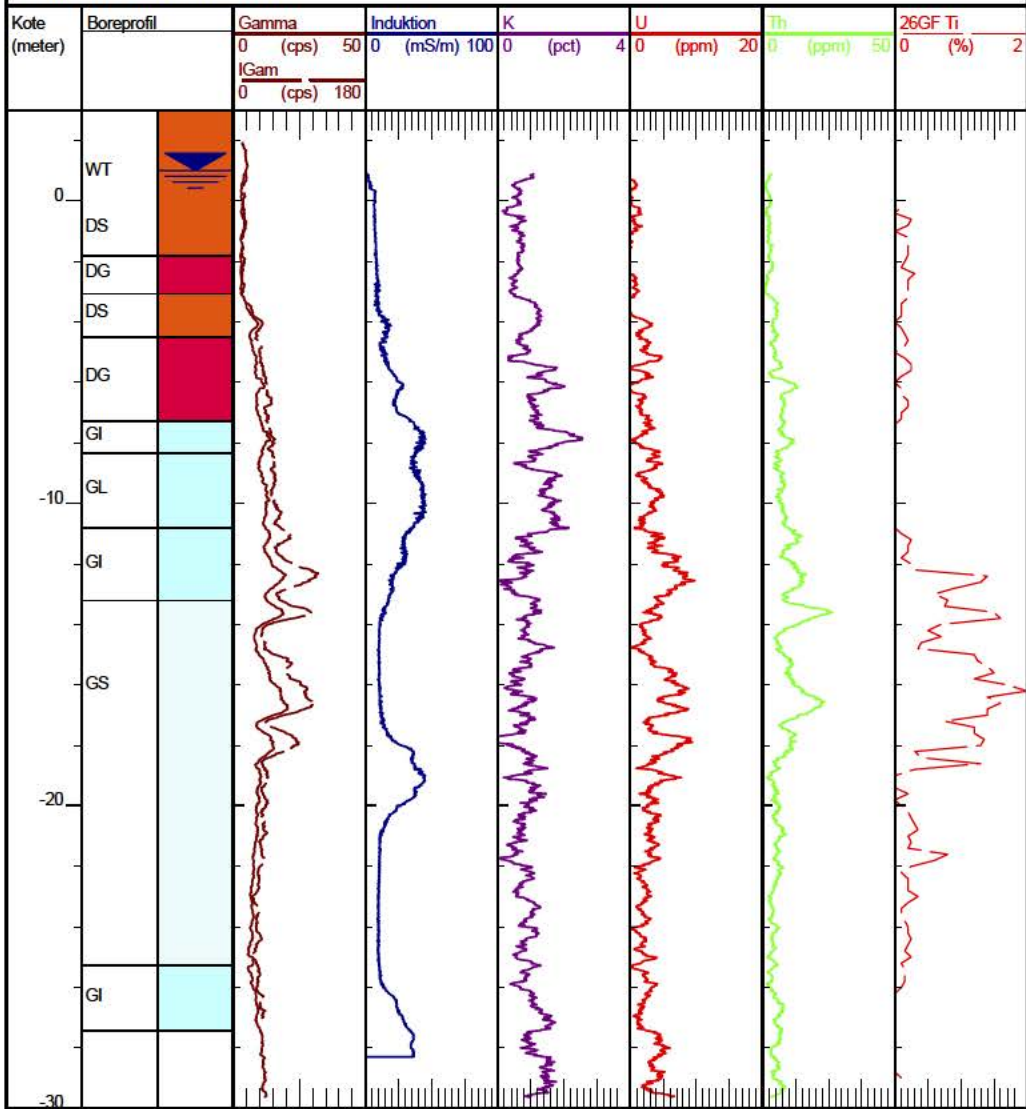




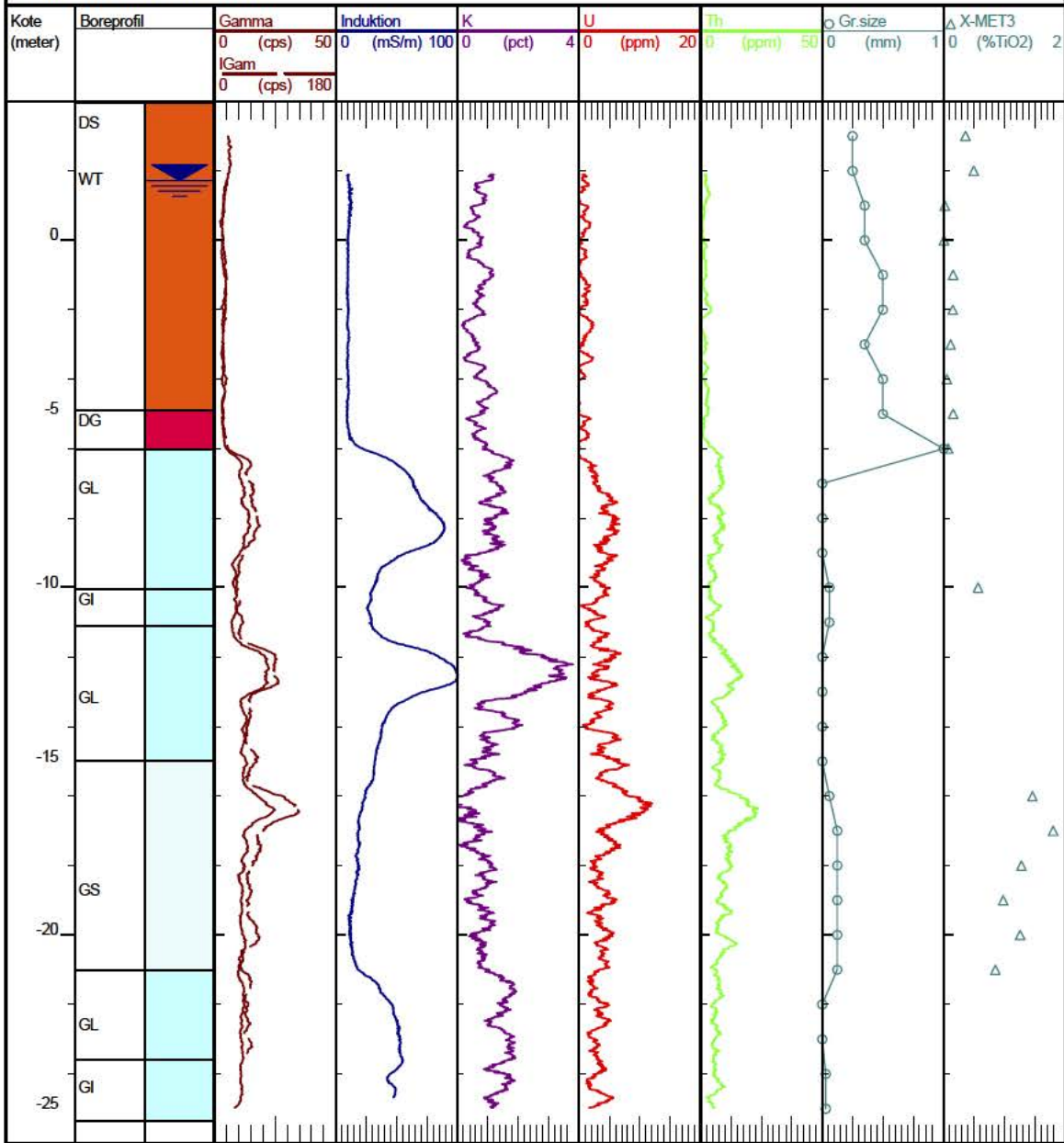
Well Name: 93.961  
 Location: Andrup, SK00.25L  
 Elevation: 5 Reference: Ground Surface



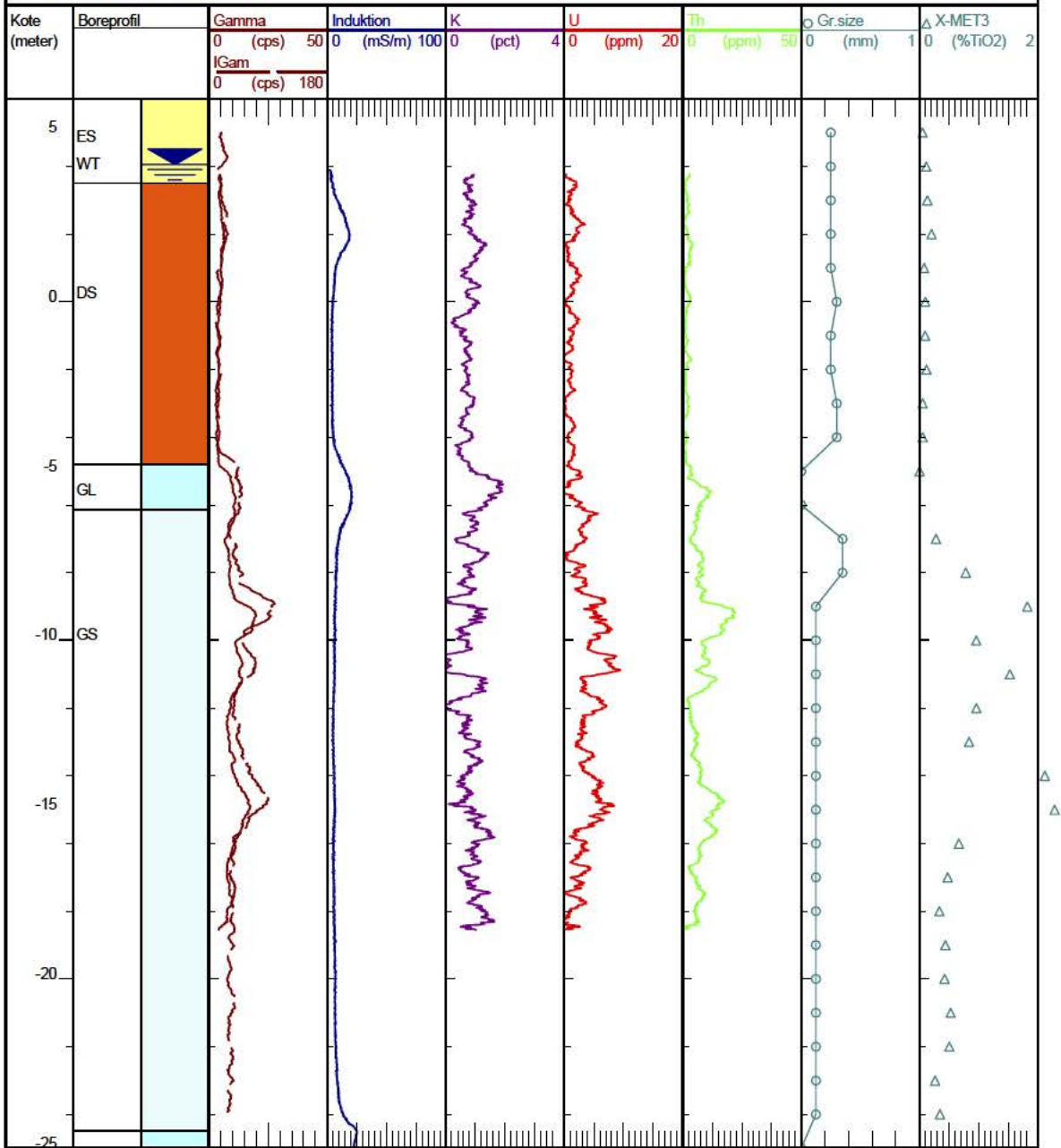
Well Name: 93.962  
 Location: Ganer, SK00.26L  
 Elevation: 3 Reference: Terræn



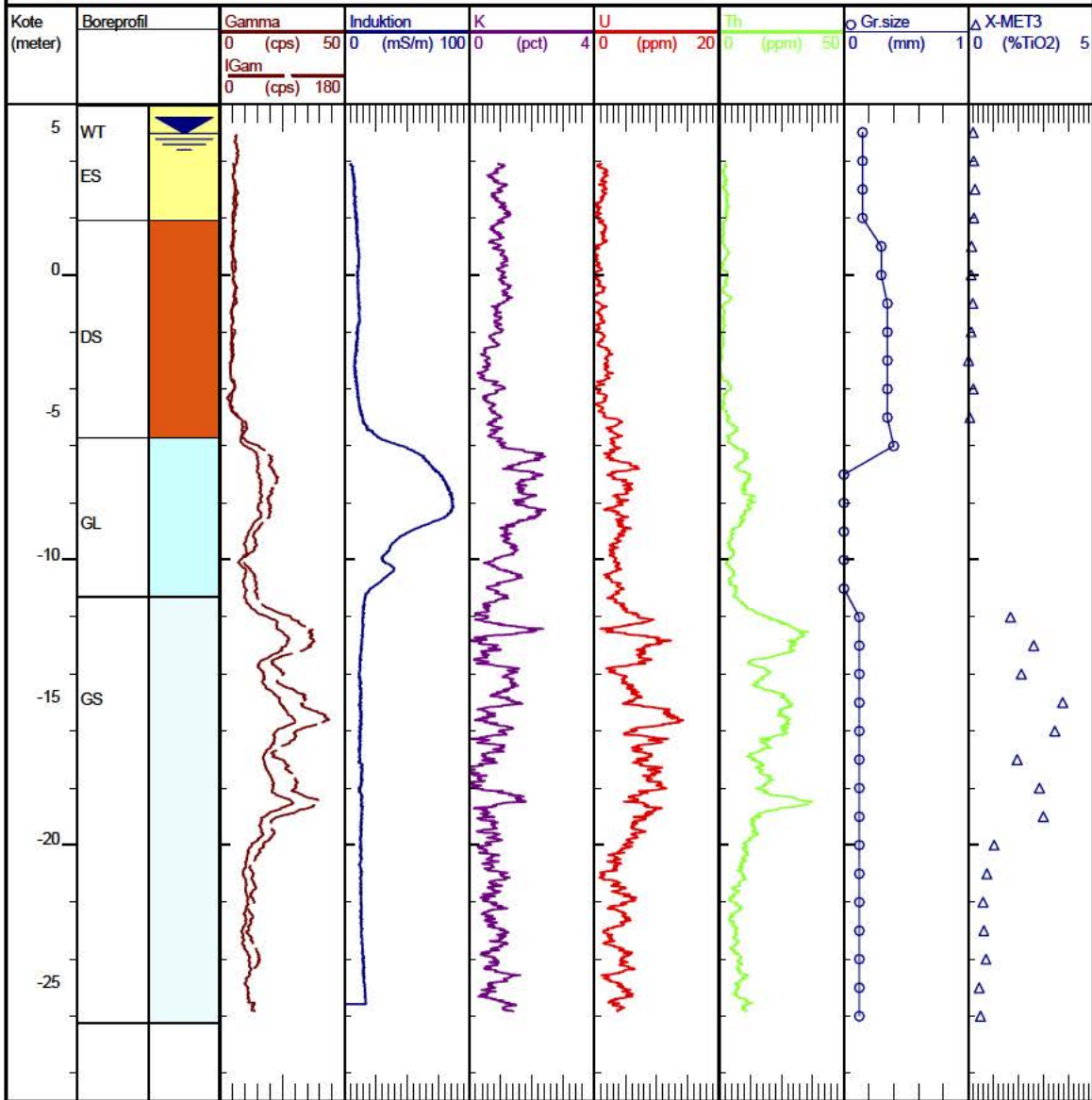
Well Name: 93.963  
 Location: Langkær, SK00.27  
 Elevation: 4 Reference: Terræn



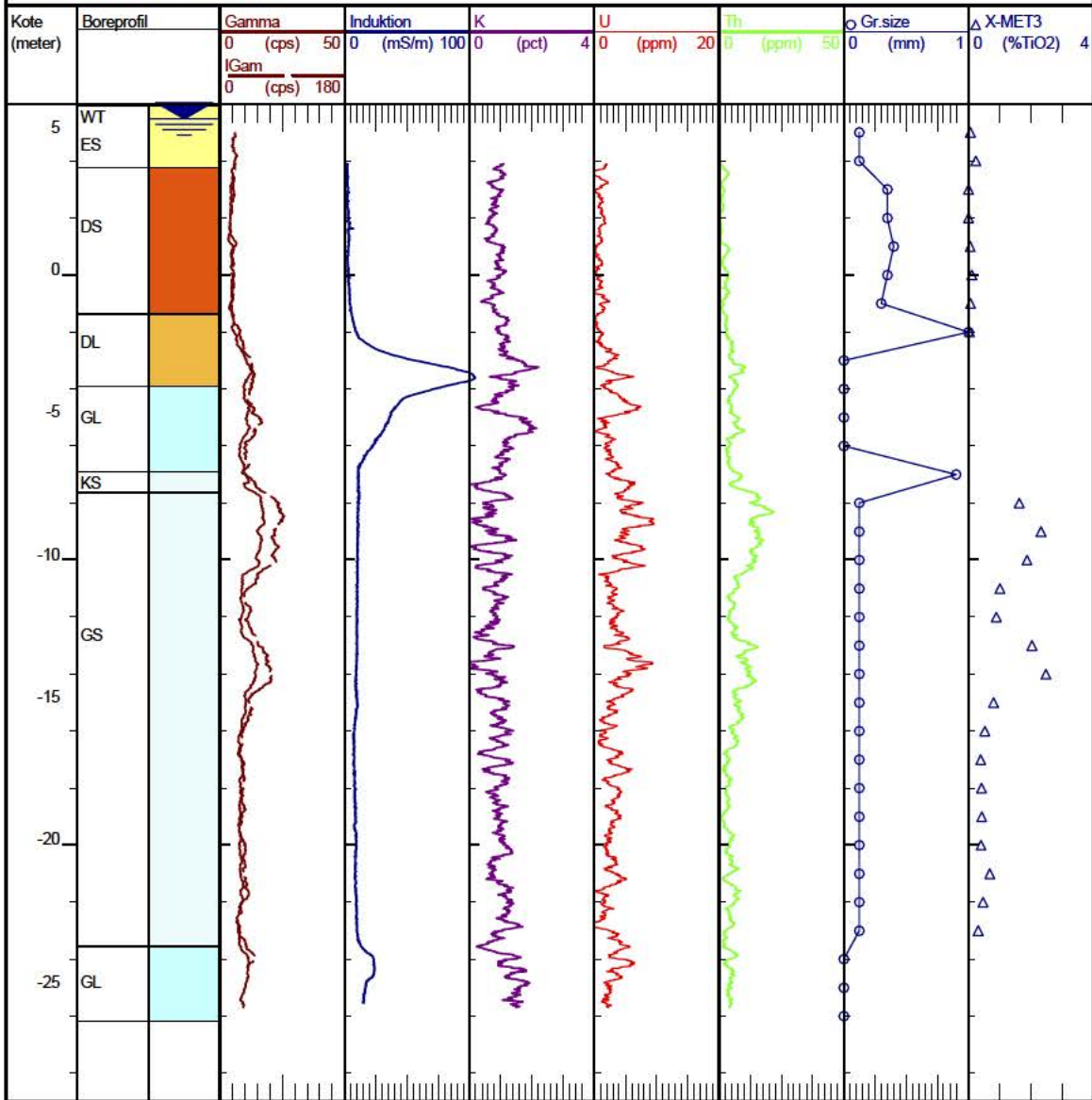
Well Name: 93.965  
 Location: Stauning plantage, SK00.29  
 Elevation: 6 Reference: Terræn



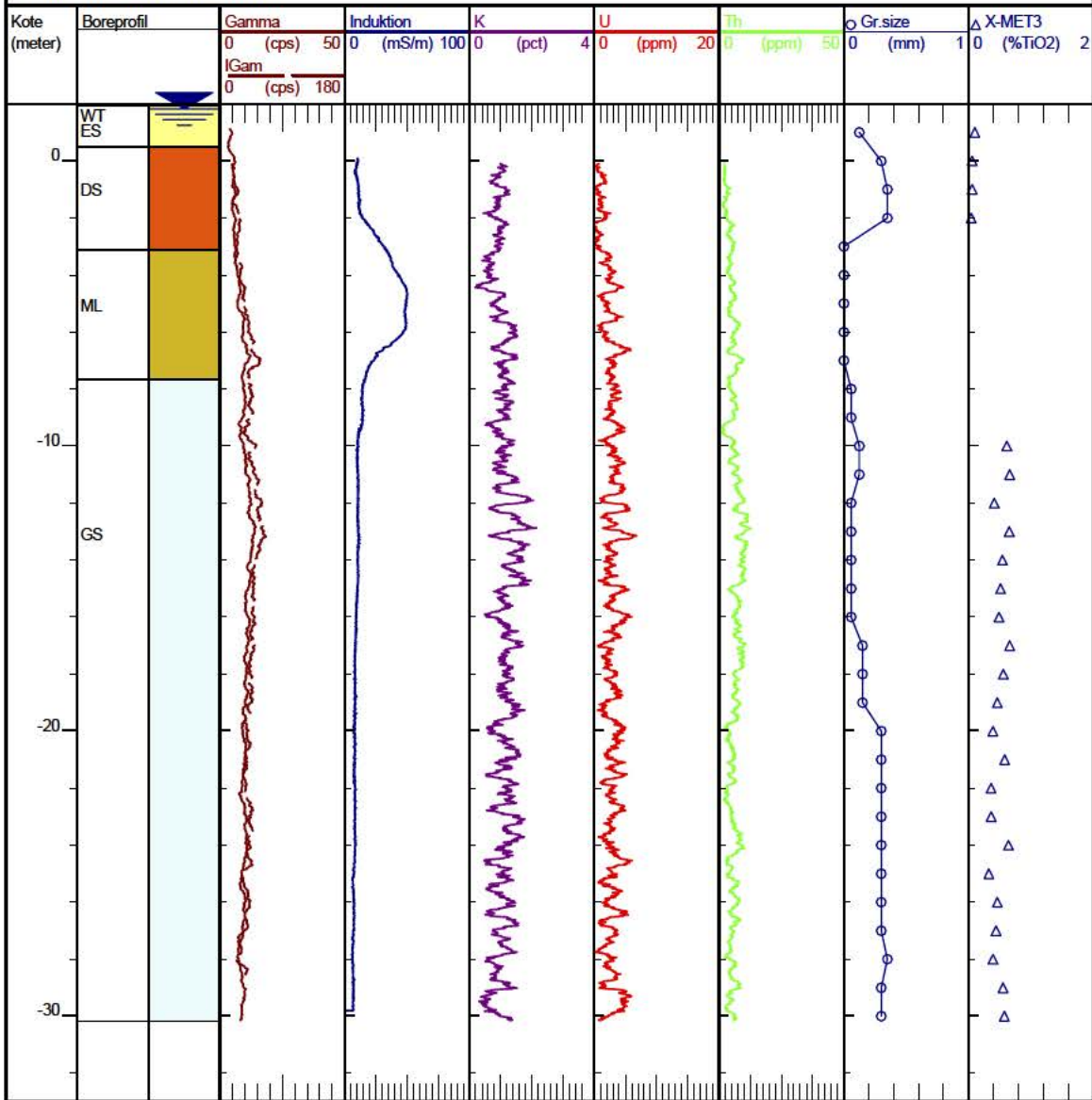
Well Name: 93.966  
 Location: Mejlbj, SK00.30  
 Elevation: 6 Reference: Terræn



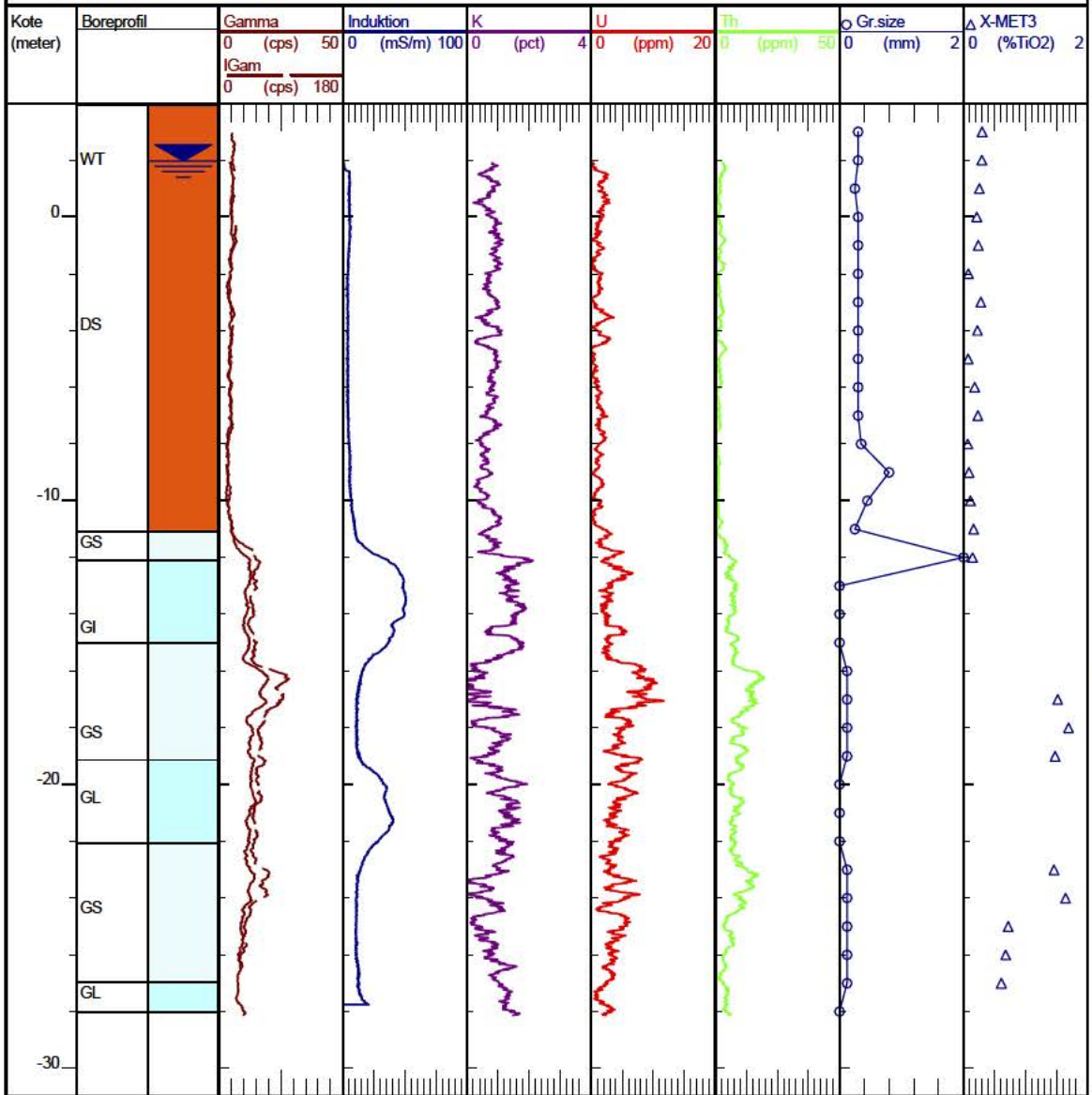
Well Name: 93.969  
 Location: Stauning plantage, SK00.33  
 Elevation: 6 Reference: Terræn



Well Name: 93.971  
 Location: Gestenge, SK00.35  
 Elevation: 2 Reference: Terræn



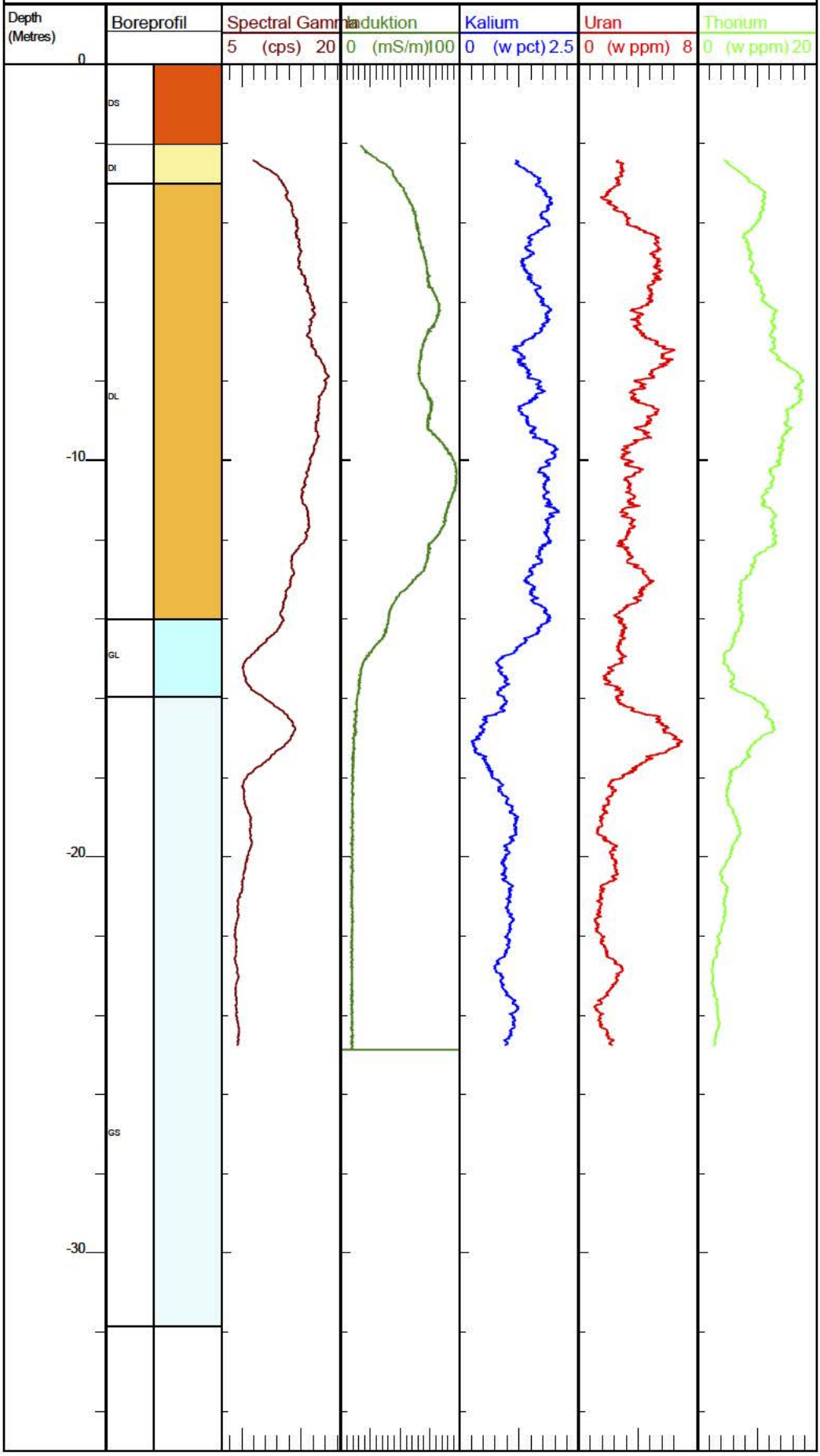
Well Name: 93.973  
 Location: Østerby, SK00.37  
 Elevation: 4 Reference: Terræn



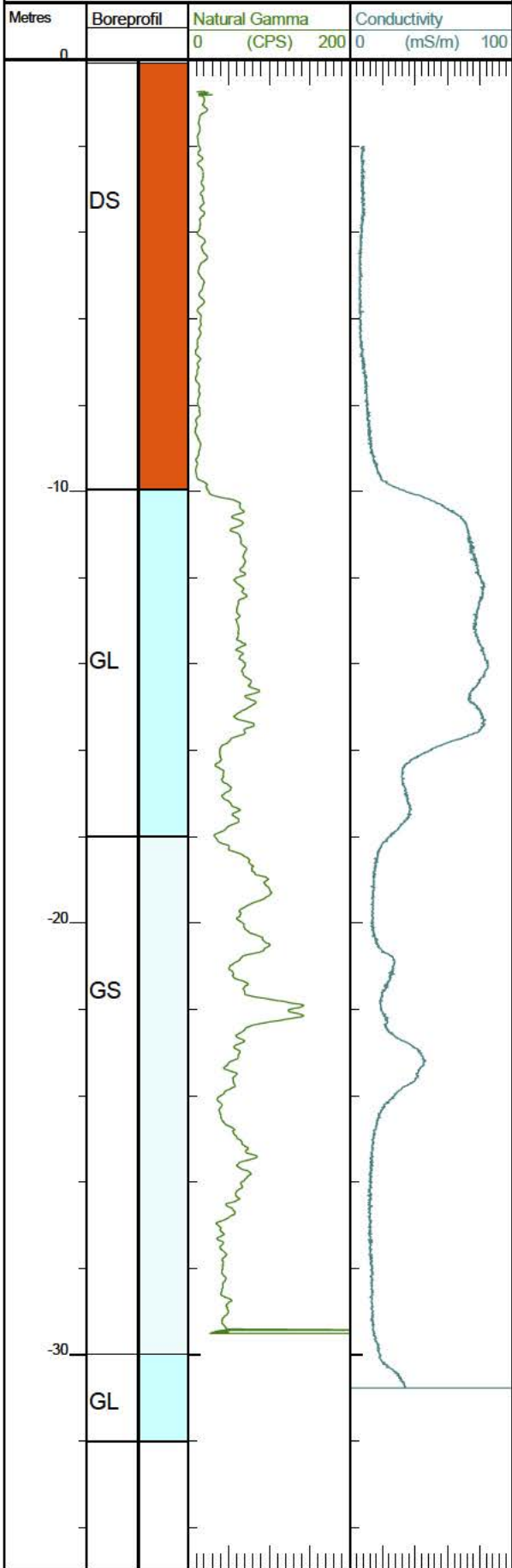




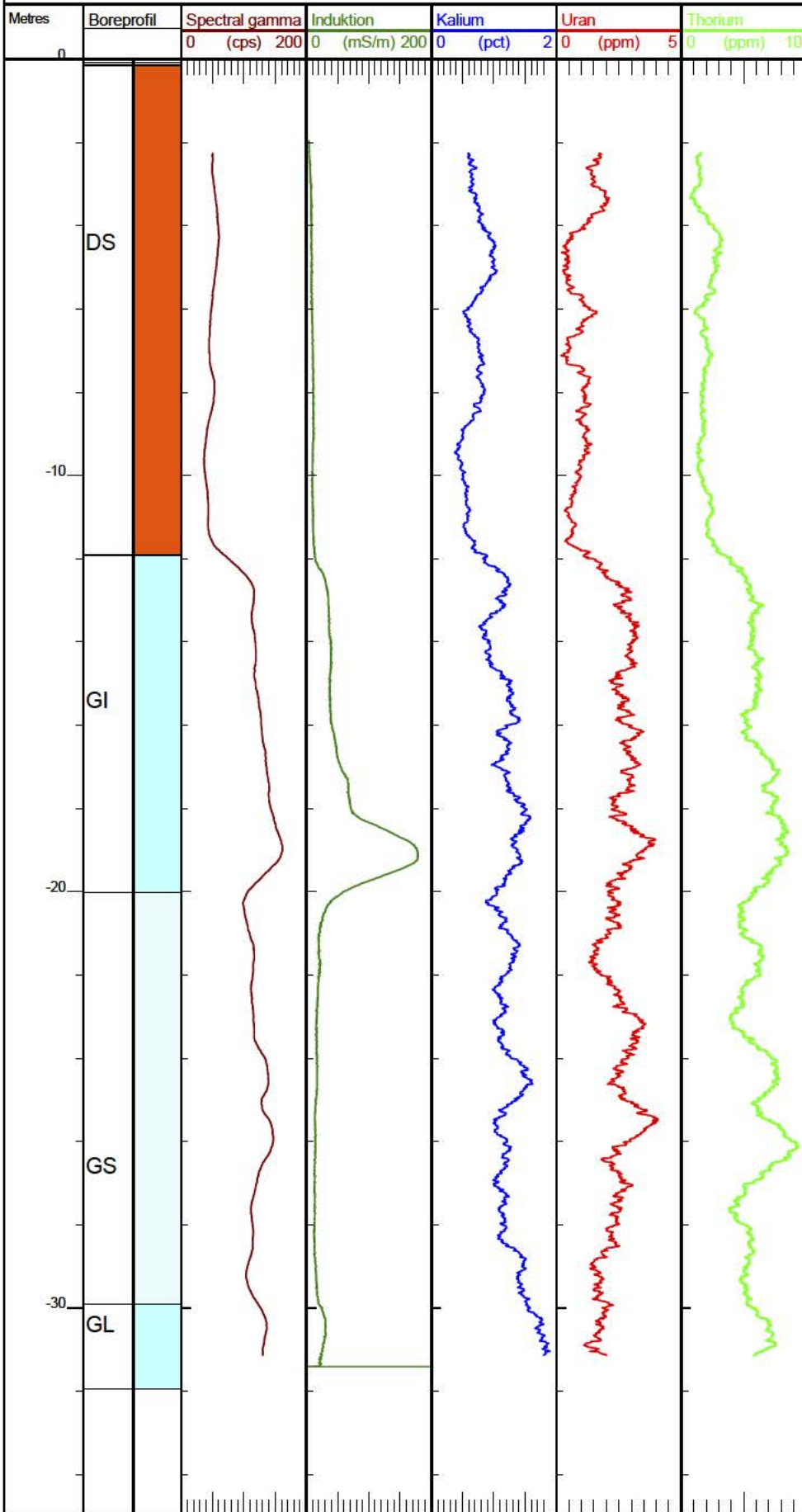
Well Name: 93.1022  
 Location: Skern , S 55  
 Elevation: 0 Reference: Terræn



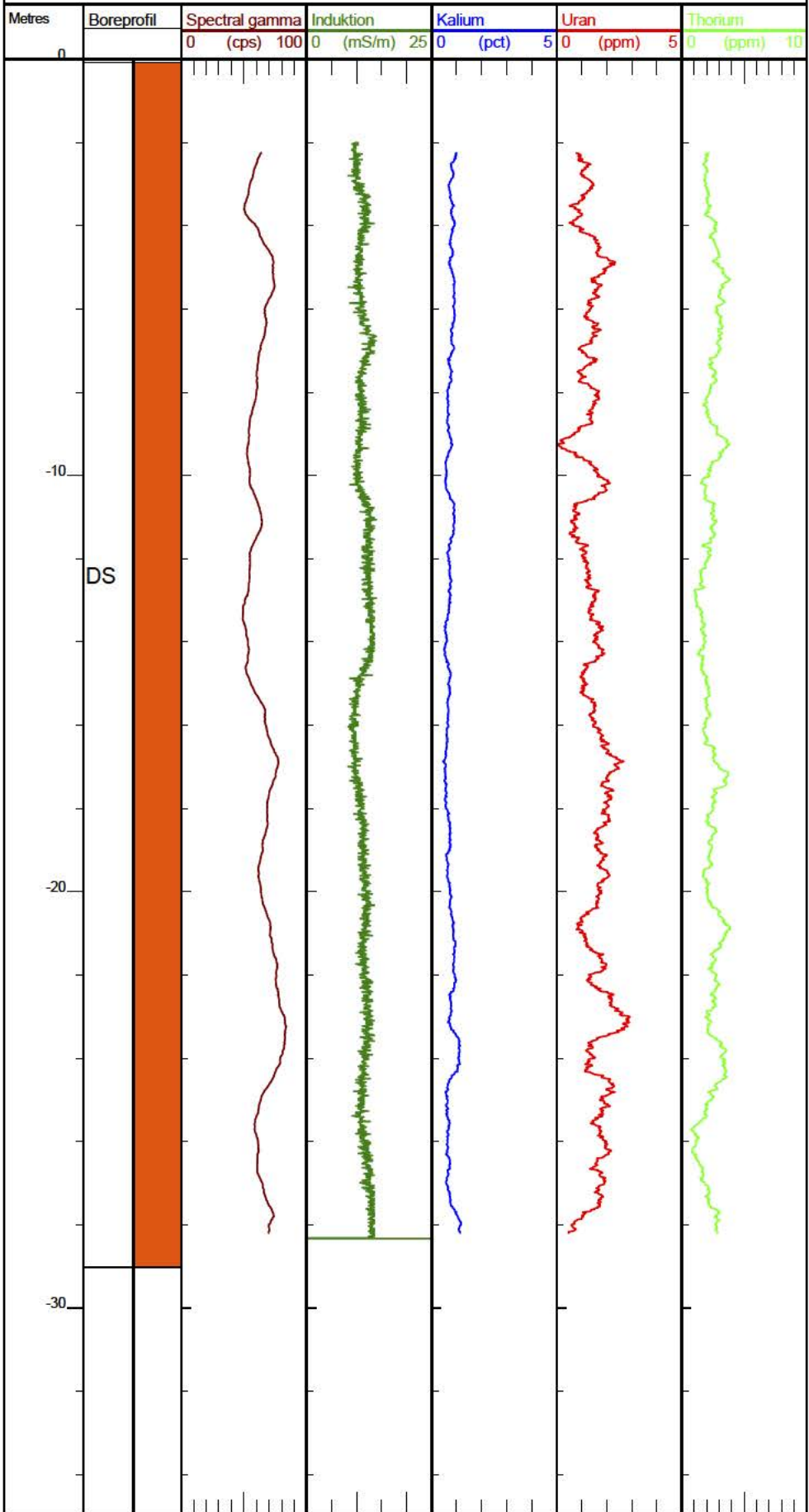
Well Name: 93.1024  
Location: Skern , S 57  
Reference: Terræn



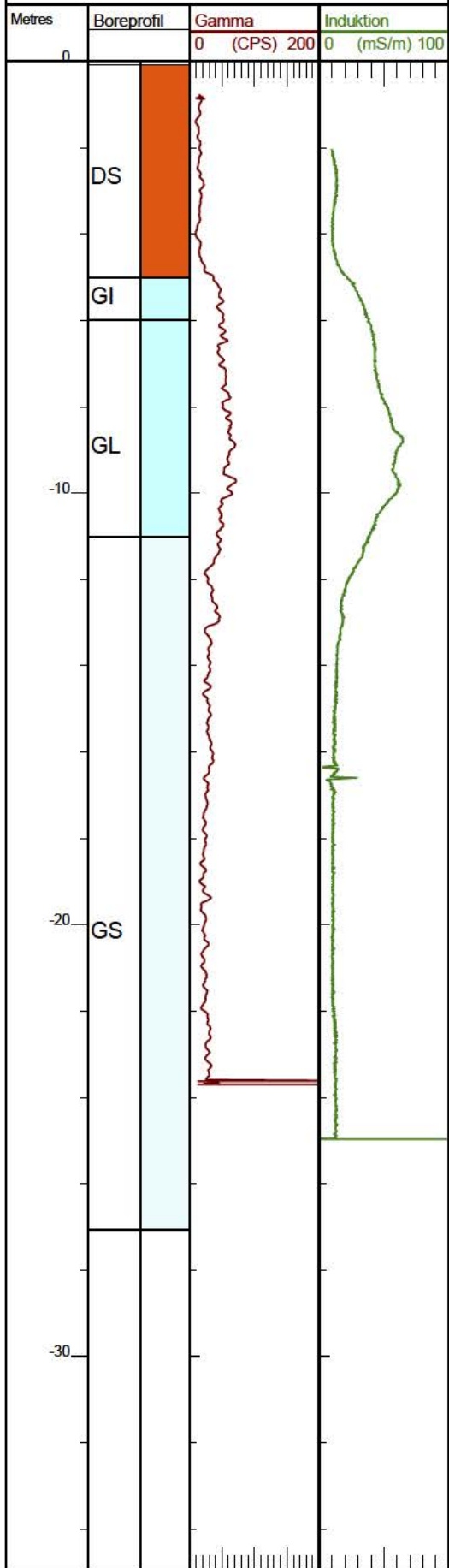
Well Name: 93.1028  
Location: Skern , S 61  
Reference: terræn



Well Name: 93.1030  
Location: Skern , S 64  
Reference: Terræn



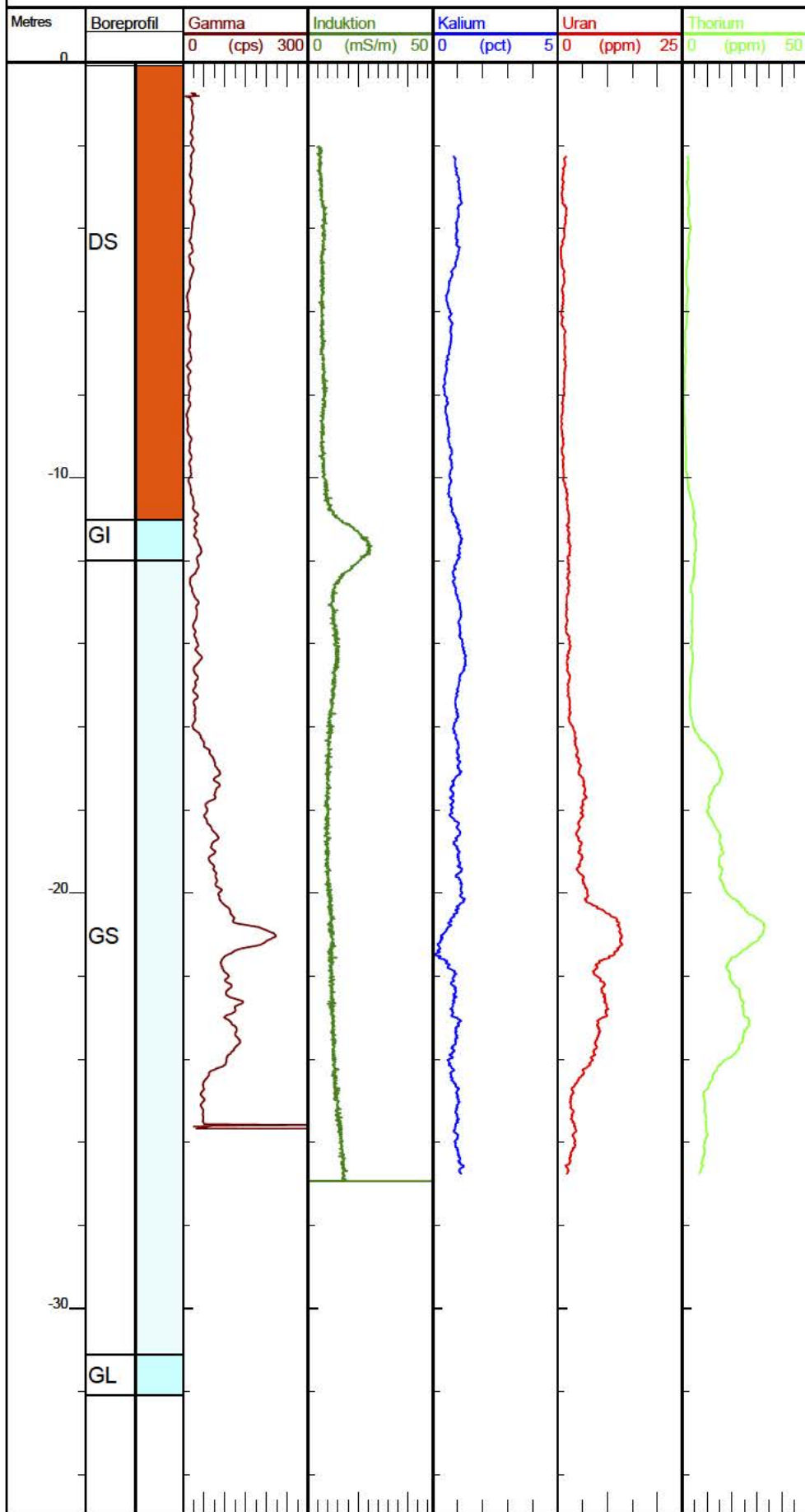
Well Name: 93.1035  
Location: Skern , S 70  
Reference: Terræn



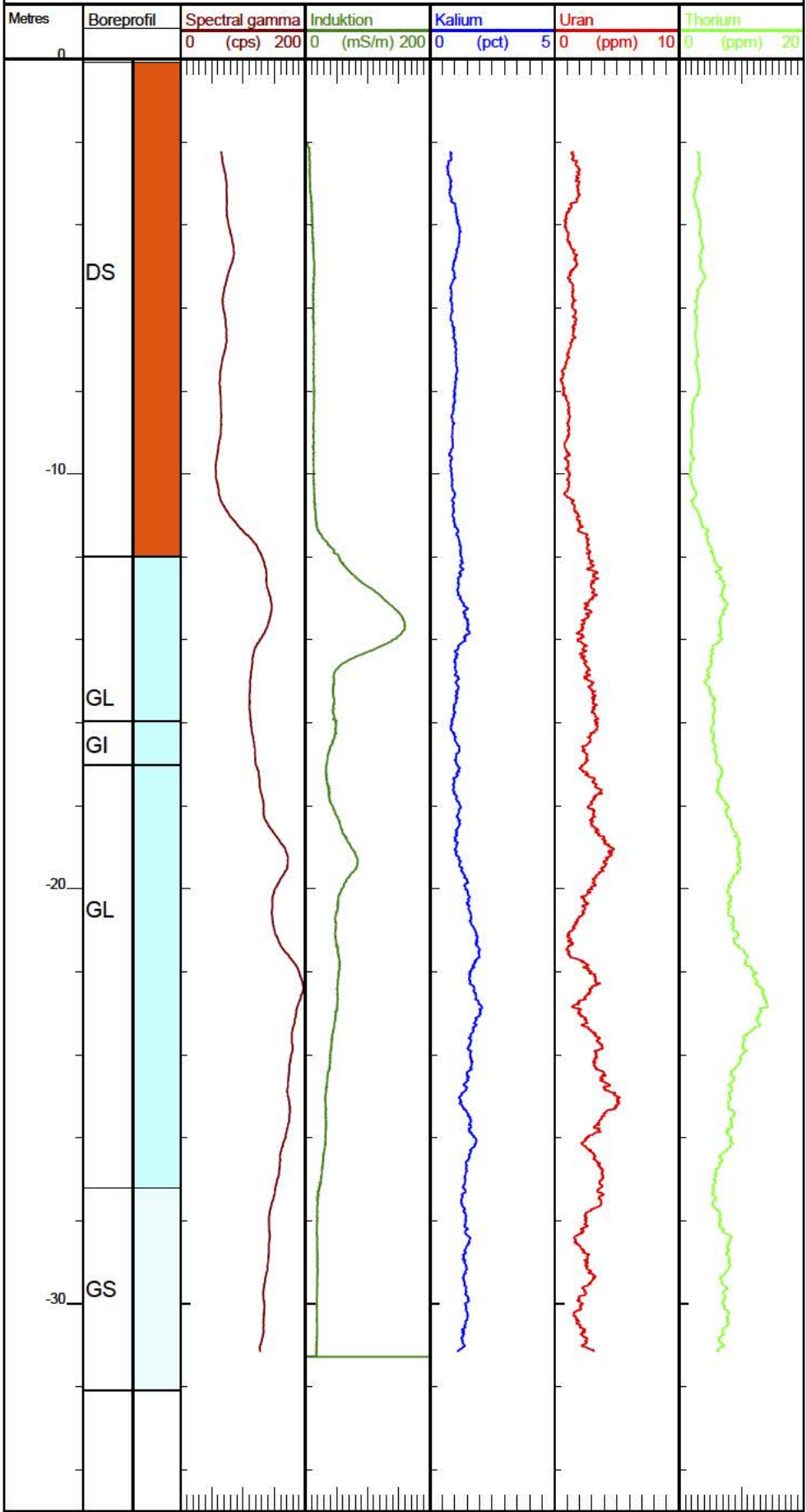
Well Name: 93-1038

Location: Skern, S 74

Reference: Terræn

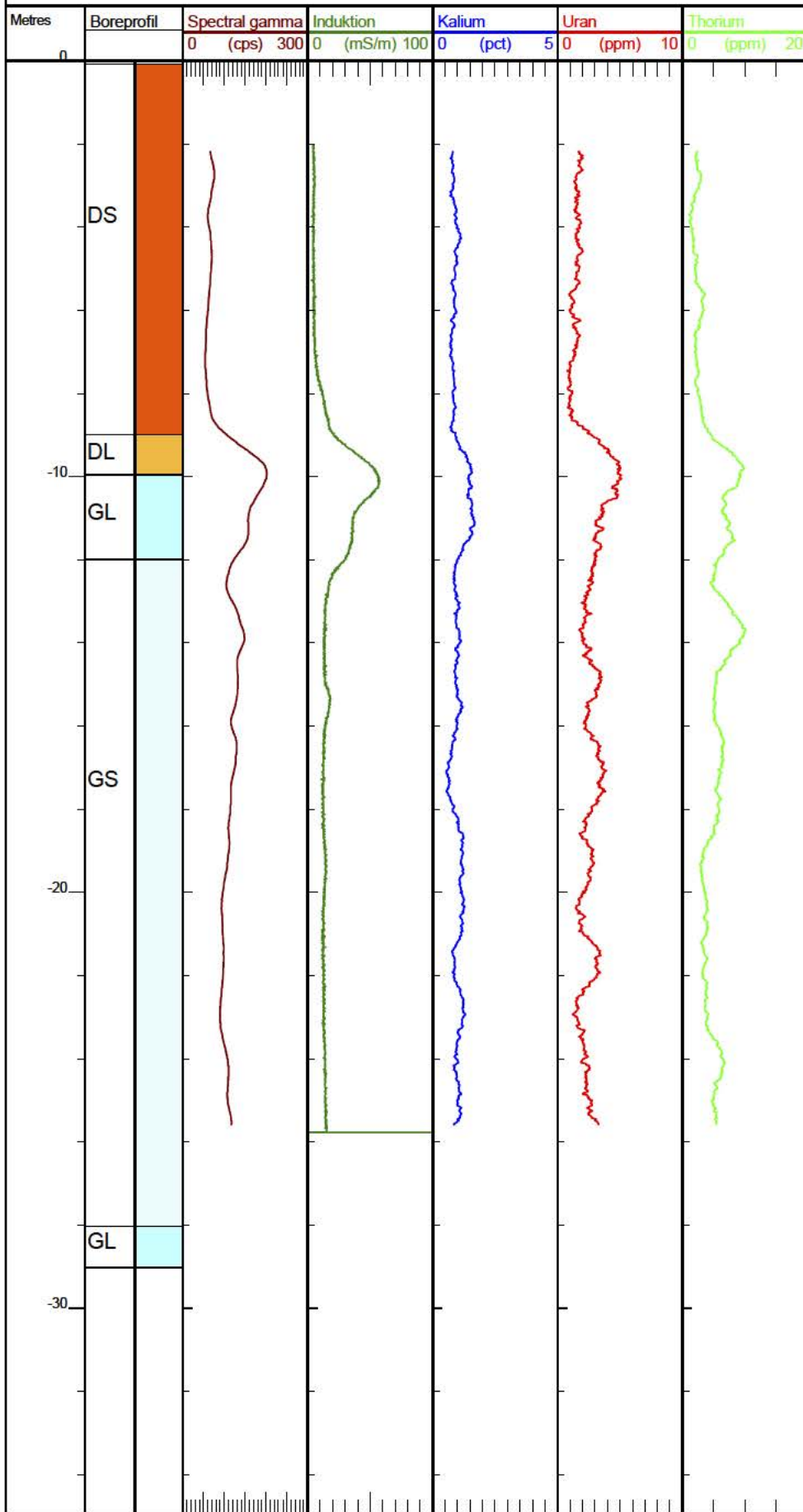


Well Name: 93.1046  
Location: Skern S 82  
Elevation: 0 Reference: Terræn

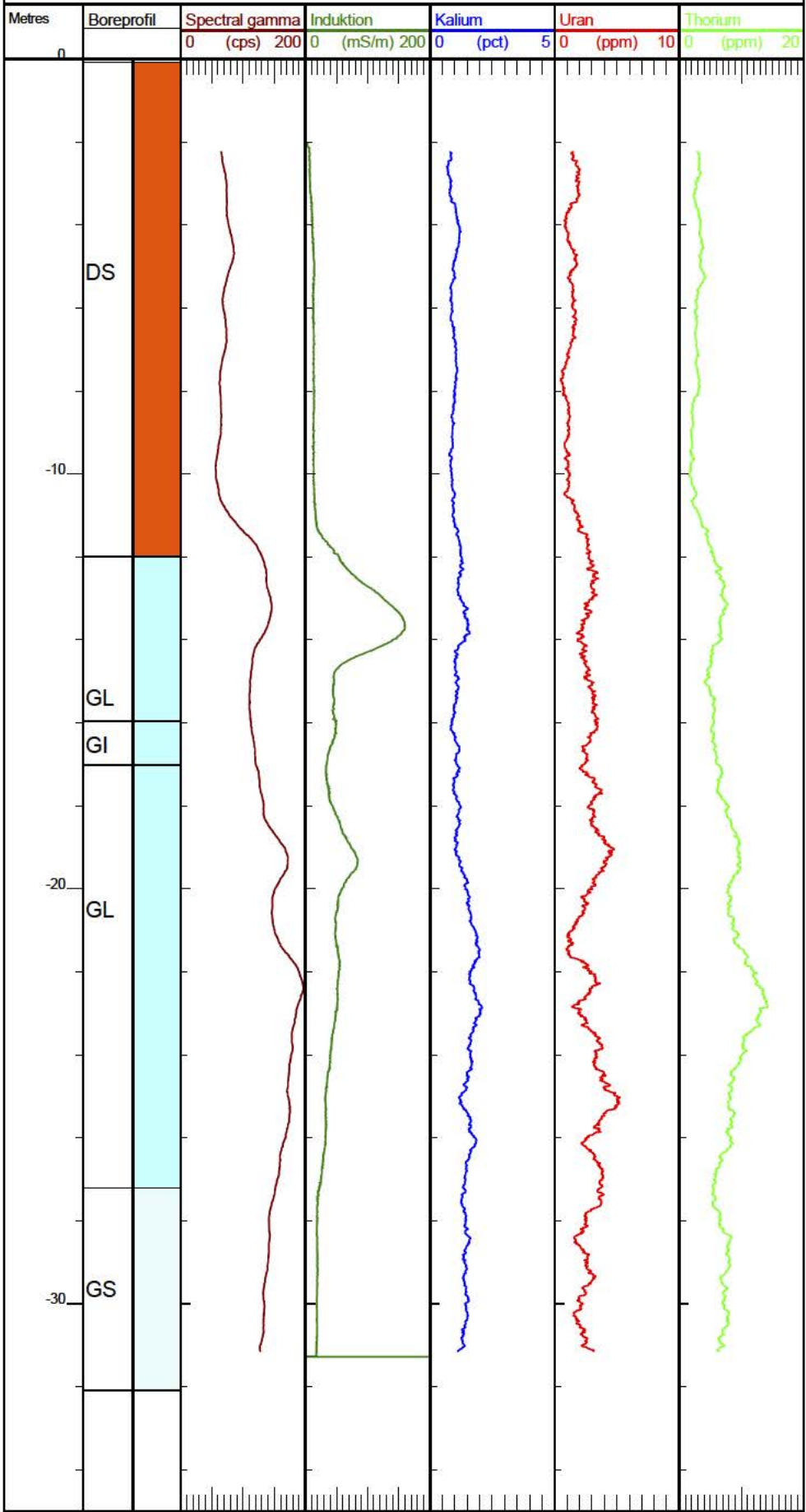




Well Name: 93.1047  
Location: Skern , S 83  
Reference: Terræn



Well Name: 93.1046  
Location: Skern S 82  
Elevation: 0 Reference: Terræn



## 5 Fusion XRF

## Fusion XRF major elements

Sample_ID	Date	SiO2 wt%	TiO2 wt%	Al2O3 wt%	Fe2O3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	Na2O wt%	K2O wt%	P2O5 wt%	Volat wt%	Sum major wt%	Sum minor ppm	Total
SK00.15.15	21-jul-00	86,58	1,30	3,85	2,40	0,00	0,05	0,25	0,94	0,49	1,44	0,04	1,13	98,46	2568	98,71
SK00.15.16	21-jul-00	86,65	1,12	3,87	2,14	0,00	0,04	0,24	1,05	0,51	1,49	0,04	1,12	98,26	2191	98,48
SK00.15.17	21-jul-00	86,26	2,04	3,88	2,54	0,00	0,08	0,28	1,09	0,43	1,36	0,04	0,74	98,73	3371	99,06
SK00.15.18	21-jul-00	83,17	3,45	3,89	3,41	0,00	0,13	0,26	1,32	0,37	1,21	0,04	0,63	97,89	5542	98,44
SK00.15.19	21-jul-00	82,15	3,92	4,07	4,10	0,00	0,15	0,32	1,61	0,33	1,07	0,04	0,49	98,25	5566	98,81
SK00.15.20	21-jul-00	86,26	1,80	3,90	2,31	0,00	0,07	0,32	1,27	0,39	1,18	0,04	0,65	98,19	2322	98,42
SK00.15.21	21-jul-00	82,45	2,95	4,25	3,84	0,00	0,12	0,41	1,71	0,37	1,07	0,05	0,82	98,03	4026	98,43
SK00.15.22	21-jul-00	78,51	4,25	4,79	5,20	0,00	0,17	0,52	2,47	0,33	0,89	0,07	0,79	97,98	6250	98,61
SK00.15.23	21-jul-00	83,95	2,17	4,28	3,27	0,00	0,09	0,46	1,91	0,37	1,01	0,05	0,77	98,32	2825	98,60
SK00.15.24	21-jul-00	86,67	1,18	3,90	2,17	0,00	0,05	0,41	1,31	0,40	1,16	0,04	0,83	98,12	1454	98,27
SK00.15.25	21-jul-00	87,37	1,14	3,68	2,01	0,00	0,05	0,40	1,21	0,41	1,11	0,04	0,76	98,16	1315	98,30
SK00.15.26	21-jul-00	88,42	0,86	3,37	1,54	0,00	0,03	0,32	0,91	0,42	1,14	0,03	0,69	97,73	1052	97,83
SK00.15.27	21-jul-00	89,66	0,76	3,37	1,33	0,00	0,03	0,26	0,72	0,42	1,22	0,03	0,70	98,50	1056	98,60
SK00.15.28	21-jul-00	88,80	0,94	3,09	1,22	0,00	0,03	0,24	1,52	0,39	1,07	0,03	1,13	98,45	1263	98,58
SK00.15.29	21-jul-00	86,86	0,67	3,71	1,27	0,00	0,02	0,30	1,99	0,46	1,41	0,04	1,83	98,56	1206	98,68
SK99_1-17	12-aug-99	83,06	3,00	4,25	3,88	0,00	0,13	0,41	2,18	0,29	0,80	0,05	0,71	98,76	3829	99,14
SK99_1-18	12-aug-99	85,39	3,07	3,12	3,32	0,00	0,13	0,20	1,07	0,27	1,03	0,04	0,46	98,10	6963	98,80
SK99_1-19	12-aug-99	90,17	1,21	2,94	1,56	0,00	0,05	0,18	0,91	0,29	1,05	0,02	0,32	98,70	1766	98,88
SK99_1-20	12-aug-99	88,27	1,62	3,59	2,08	0,00	0,07	0,35	1,42	0,33	0,96	0,04	0,46	99,19	2229	99,41
SK99_1-21	12-aug-99	83,69	3,19	4,30	3,91	0,00	0,14	0,40	2,23	0,27	0,80	0,05	0,62	99,59	4281	100,02
SK99_1-22	12-aug-99	86,59	2,14	3,78	2,91	0,00	0,10	0,35	1,97	0,28	0,76	0,04	0,50	99,41	2855	99,70
SK99_1-23	12-aug-99	90,69	0,95	3,12	1,60	0,00	0,05	0,26	1,11	0,35	0,98	0,03	0,48	99,60	1445	99,75
SK99_1-24	12-aug-99	91,06	0,96	3,16	1,58	0,00	0,04	0,27	1,14	0,34	0,98	0,02	0,50	100,05	1195	100,17
SK99_1-25	12-aug-99	91,00	0,70	2,80	1,33	0,00	0,03	0,19	0,93	0,34	0,96	0,03	0,48	98,78	1053	98,89
SK99_1-26	12-aug-99	91,47	0,49	2,69	1,00	0,00	0,02	0,19	0,69	0,37	1,03	0,02	0,66	98,62	847	98,71

## Fusion XRF minor elements

Sample_ID	Date	V ppm	Cr ppm	Ni ppm	Cu ppm	Zn ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm	Nb ppm	Mo ppm	Sn ppm	Ba ppm	La ppm	Ce ppm	Sum minor ppm	Sum major wt%	Total
SK00.15.15	21-jul-00	35	60	0	8	22	21	155	8	1819	2	0	0	371	40	27	2568	98,46	98,71
SK00.15.16	21-jul-00	33	56	0	8	20	20	158	3	1496	1	0	0	336	60	0	2191	98,26	98,48
SK00.15.17	21-jul-00	40	87	0	10	30	23	167	24	2618	16	0	0	307	49	0	3371	98,73	99,06
SK00.15.18	21-jul-00	62	107	0	9	38	20	182	52	4586	25	0	0	284	102	75	5542	97,89	98,44
SK00.15.19	21-jul-00	67	183	3	9	36	25	208	68	4503	51	0	0	260	121	32	5566	98,25	98,81
SK00.15.20	21-jul-00	44	56	0	7	27	7	164	8	1668	7	0	0	269	65	0	2322	98,19	98,42
SK00.15.21	21-jul-00	62	92	0	9	36	17	200	47	3176	25	0	0	310	52	0	4026	98,03	98,43
SK00.15.22	21-jul-00	95	137	8	9	53	32	266	105	5025	63	0	0	242	144	71	6250	97,98	98,61
SK00.15.23	21-jul-00	67	82	0	6	28	19	215	40	2042	25	0	0	162	77	62	2825	98,32	98,60
SK00.15.24	21-jul-00	31	52	0	5	21	7	164	0	787	0	0	0	272	49	66	1454	98,12	98,27
SK00.15.25	21-jul-00	38	45	0	4	21	5	157	0	727	0	0	0	197	58	63	1315	98,16	98,30
SK00.15.26	21-jul-00	30	37	0	4	20	0	135	0	528	0	0	0	205	42	51	1052	97,73	97,83
SK00.15.27	21-jul-00	31	33	0	3	17	9	130	0	499	0	0	0	284	20	30	1056	98,50	98,60
SK00.15.28	21-jul-00	29	44	0	3	15	4	169	0	713	0	0	0	210	76	0	1263	98,45	98,58
SK00.15.29	21-jul-00	24	42	0	4	18	21	172	0	541	0	0	0	332	52	0	1206	98,56	98,68
SK99_1-17	12-aug-99	81	99	0	13	9	0	192	18	3111	0	0	0	132	143	31	3829	98,76	99,14
SK99_1-18	12-aug-99	57	105	0	10	12	0	123	18	6277	0	0	0	239	59	63	6963	98,10	98,80
SK99_1-19	12-aug-99	37	68	0	4	0	0	110	0	1251	0	0	0	227	69	0	1766	98,70	98,88
SK99_1-20	12-aug-99	68	81	0	5	96	0	164	0	1502	0	0	0	216	97	0	2229	99,19	99,41
SK99_1-21	12-aug-99	83	172	0	14	14	0	203	26	3471	2	0	0	156	112	28	4281	99,59	100,02
SK99_1-22	12-aug-99	73	101	0	6	1	0	181	4	2309	0	0	0	114	66	0	2855	99,41	99,70
SK99_1-23	12-aug-99	42	56	0	5	0	0	130	0	899	0	0	0	183	130	0	1445	99,60	99,75
SK99_1-24	12-aug-99	39	47	0	5	0	0	122	0	779	0	0	0	165	38	0	1195	100,05	100,17
SK99_1-25	12-aug-99	39	79	0	5	89	0	121	0	395	0	0	0	148	177	0	1053	98,78	98,89
SK99_1-26	12-aug-99	42	55	0	7	87	0	109	0	242	0	0	0	226	79	0	847	98,62	98,71

## 6 XRF on pellets

Sample	Total Fe as Fe2O3 wt%	TiO2 wt%	MgO wt%	Na2O wt%	P2O5 wt%	K2O wt%	CaO wt%	MnO wt%	SiO2 wt%	Al2O3 wt%	Sum (major+minor)
SK00.07 9	3.56	1.98	0.72	0.36	0.03	1.49	1.25	0.06	84.79	3.54	98.14
SK00.07 11	3.25	2.83	0.69	0.38	0.04	1.51	1.50	0.07	83.23	4.00	97.96
SK00.07 12	3.09	2.85	0.80	0.30	0.03	1.42	1.52	0.07	85.74	3.83	99.93
SK00.07 13	3.46	3.18	0.71	0.31	0.03	1.25	1.59	0.09	86.09	3.41	100.44
SK00.07 17	4.15	3.90	1.00	0.35	0.05	1.17	2.31	0.12	82.41	3.97	99.85
SK00.07 18	5.00	4.90	1.34	0.29	0.07	1.09	2.84	0.13	78.04	4.28	98.45
SK00.07 19	4.82	2.31	1.48	0.26	0.09	1.20	3.19	0.11	78.74	3.55	96.00
SK00.10 21	3.81	3.04	0.87	0.37	0.04	1.27	1.36	0.08	83.77	3.82	98.88
SK00.10 22	3.93	3.21	0.88	0.38	0.04	1.27	2.08	0.08	84.05	3.69	100.10
SK00.12 17	3.51	2.42	0.99	0.37	0.04	1.42	2.26	0.06	83.22	4.33	98.82
SK00.18 19	4.23	4.29	0.99	0.35	0.04	1.40	1.94	0.11	79.63	4.45	98.06
SK00.21 15	2.94	1.97	0.95	0.45	0.04	1.62	2.33	0.06	83.00	4.11	97.83
SK00.21 17	2.89	2.74	0.87	0.51	0.03	1.82	1.39	0.06	82.10	5.26	98.03
SK00.21 18	4.30	4.53	0.77	0.29	0.04	1.45	1.85	0.11	82.74	4.28	100.91
SK00.21 20	4.17	3.54	1.03	0.38	0.05	1.38	2.04	0.10	81.39	4.39	98.83
SK00.21 21	5.39	4.83	1.04	0.27	0.06	1.18	2.66	0.13	80.46	4.21	100.80
SK00.21 22	5.09	4.73	1.13	0.37	0.05	1.32	2.45	0.12	80.84	4.47	101.09
SK00.22 13	3.53	3.10	0.97	0.34	0.05	1.37	2.34	0.09	83.20	4.24	99.48
SK00.27 21	3.35	2.71	0.97	0.52	0.04	1.30	2.68	0.07	81.38	3.80	97.23
SK00.28 27	2.95	2.34	0.89	0.57	0.04	1.45	1.80	0.07	83.63	4.26	98.32
SK00.29 15	4.02	2.79	0.81	0.39	0.04	1.53	1.20	0.08	83.72	3.72	98.77
SK00.29 17	2.65	2.39	0.80	0.41	0.03	1.66	1.27	0.06	84.15	4.21	97.89
SK00.29 20	3.93	3.35	1.19	0.40	0.05	1.53	1.98	0.09	80.96	4.76	98.57
SK00.29 21	4.35	3.35	1.09	0.31	0.06	1.47	2.13	0.09	80.07	4.60	97.84
SK00.30 18	3.88	2.61	0.81	0.37	0.04	1.37	1.27	0.07	81.43	3.86	96.20
SK00.30 19	4.09	3.41	0.78	0.31	0.04	1.44	1.35	0.09	82.49	4.00	98.56

Sample	Total Fe as Fe2O3 wt%	TiO2 wt%	MgO wt%	Na2O wt%	P2O5 wt%	K2O wt%	CaO wt%	MnO wt%	SiO2 wt%	Al2O3 wt%	Sum (major+minor)
SK00.30 20	3.22	2.88	0.94	0.36	0.03	1.49	1.30	0.08	84.37	4.05	99.15
SK00.30 21	4.10	4.71	0.87	0.33	0.03	1.36	1.49	0.12	82.29	3.99	99.98
SK00.30 22	4.48	4.74	1.03	0.40	0.04	1.30	1.60	0.12	80.10	4.09	98.56
SK00.30 23	6.23	2.70	1.12	0.43	0.09	1.51	2.03	0.11	78.73	4.22	97.48
SK00.30 24	4.66	4.47	0.96	0.30	0.06	1.29	2.04	0.12	80.28	4.21	98.96
SK00.30 25	4.86	4.49	1.29	0.31	0.07	1.26	6.11	0.12	75.44	4.32	98.79
SK00.33 14	3.07	2.37	0.77	0.40	0.04	1.64	2.04	0.06	83.34	4.04	98.13
SK00.33 15	2.89	2.93	0.72	0.38	0.03	1.34	1.52	0.08	85.47	3.68	99.37
SK00.33 16	2.38	2.25	0.60	0.29	0.02	1.28	1.48	0.05	85.30	3.27	97.19
SK00.33 19	3.36	2.45	0.90	0.43	0.04	1.28	1.83	0.07	79.42	3.97	94.00
SK00.33 20	4.11	3.30	1.09	0.39	0.05	1.47	2.25	0.11	81.48	4.59	99.11
SK00.36 17	3.92	3.05	1.06	0.31	0.05	1.38	1.56	0.08	79.20	4.51	95.66
SK00.36 18	4.12	3.63	0.93	0.36	0.04	1.30	2.61	0.10	79.19	3.70	96.52
SK00.36 19	3.37	2.47	0.86	0.44	0.05	1.60	3.04	0.07	80.19	4.33	96.71
SK00.36 24	3.46	2.55	1.25	0.42	0.05	1.43	2.17	0.07	80.60	5.17	97.47
SK00.37 20	3.76	3.26	0.87	0.39	0.04	1.33	2.06	0.08	83.18	3.81	99.37
SK00.37 21	3.04	2.78	0.82	0.34	0.04	1.10	1.83	0.07	81.99	3.39	95.84
SK00.37 22	2.82	2.27	0.81	0.43	0.04	1.47	2.03	0.06	81.63	4.20	96.04
SK00.37 28	3.34	2.36	0.90	0.37	0.06	1.35	2.83	0.06	80.37	4.44	96.37
SK01.41 19	3.33	3.49	0.66	0.43	0.03	1.69	1.61	0.09	84.65	4.39	100.74
SK01.42 13	3.43	2.69	0.90	0.48	0.04	1.47	1.35	0.08	82.81	4.13	97.80
SK01.42 14	3.85	2.87	0.88	0.43	0.05	1.46	1.57	0.09	82.57	4.16	98.37
SK01.42 15	3.65	3.01	0.93	0.45	0.04	1.42	1.54	0.08	83.64	4.05	99.22
SK01.42 18	3.92	4.69	0.83	0.36	0.05	1.30	1.57	0.12	81.41	4.21	99.07
SK01.42 19	4.85	6.02	0.85	0.34	0.03	1.24	2.21	0.14	81.68	3.97	102.12
SK01.42 20	3.98	3.64	0.88	0.32	0.05	1.32	4.34	0.09	77.25	4.40	96.74
SK01.43 18	3.44	4.37	0.79	0.34	0.02	1.51	1.48	0.11	83.16	4.00	99.72
SK01.43 19	3.60	2.98	1.25	0.30	0.05	1.58	1.95	0.07	78.86	6.48	97.43



Sample	Total Fe as Fe2O3 wt%	TiO2 wt%	MgO wt%	Na2O wt%	P2O5 wt%	K2O wt%	CaO wt%	MnO wt%	SiO2 wt%	Al2O3 wt%	Sum (major+minor)
SK01.44 12	2.72	3.01	0.84	0.27	0.04	1.12	8.10	0.06	77.95	3.15	97.73
SK01.44 13	2.96	3.09	0.68	0.29	0.02	1.33	1.48	0.10	87.28	3.49	101.05
SK01.45 18	4.14	2.65	0.70	0.41	0.04	1.47	1.67	0.08	82.13	4.28	97.96
SK01.45 19	4.23	2.75	0.91	0.46	0.05	1.55	1.67	0.07	82.39	4.53	98.95
SK01.45 20	3.86	2.40	0.93	0.47	0.05	1.56	1.47	0.08	83.33	4.73	99.16
SK01.45 21	3.72	2.63	0.90	0.37	0.05	1.50	1.94	0.08	81.99	4.50	97.97
SK01.46 22	3.43	2.72	1.05	0.47	0.04	1.49	1.61	0.05	77.06	4.71	93.05
SK01.46 23	3.04	2.27	0.89	0.48	0.04	1.51	1.40	0.07	85.77	4.23	100.00
SK01.46 24	3.81	3.05	0.95	0.53	0.04	1.52	1.91	0.08	82.00	4.37	98.61
SK01.47 16	4.42	4.38	0.96	0.38	0.04	1.31	1.86	0.11	81.85	3.94	100.00
SK01.47 17	4.79	4.03	0.84	0.33	0.04	1.32	1.98	0.11	80.06	3.82	97.85
SK01.47 18	2.22	1.71	0.78	0.57	0.03	1.39	1.49	0.06	87.27	3.77	99.48
SK01.47 20	4.95	6.30	0.89	0.41	0.04	1.22	3.12	0.15	78.83	3.80	100.54
SK01.47 23	2.78	2.18	0.91	0.47	0.05	1.23	2.09	0.06	85.32	3.72	99.08
SK01.48 23	4.37	3.75	0.88	0.41	0.04	1.29	1.47	0.10	81.11	3.81	97.87
SK01.48 24	3.85	3.72	0.98	0.32	0.03	1.21	1.58	0.09	83.01	3.54	98.92
SK01.50 26	5.25	2.17	1.54	0.35	0.05	2.08	1.23	0.07	72.69	7.95	93.73
SK01.50 27	3.14	3.00	0.80	0.41	0.03	1.37	1.50	0.09	86.75	3.95	101.38
SK01.50 29	2.89	2.70	0.86	0.33	0.03	1.35	1.46	0.07	84.92	3.93	98.83
SK01.51 21	5.17	4.53	0.94	0.34	0.04	1.33	1.77	0.11	80.76	3.88	99.67
SK01.51 22	3.39	2.66	0.93	0.39	0.03	1.50	1.52	0.06	84.17	3.99	99.02
SK01.51 23	4.99	2.92	1.37	0.23	0.06	1.83	1.71	0.07	67.16	7.27	88.00
SK01.51 25	4.76	5.80	1.13	0.23	0.06	1.43	8.60	0.13	66.59	5.43	94.98
SK01.51 28	3.52	2.05	1.02	0.39	0.05	1.40	2.57	0.07	80.87	4.51	96.70
SK01.52 15	3.50	3.21	0.88	0.34	0.04	1.40	2.67	0.08	80.56	3.76	96.94
SK01.52 16	3.51	2.93	0.77	0.29	0.03	1.38	1.25	0.08	82.11	3.67	96.53
SK01.52 17	2.72	2.60	0.72	0.36	0.03	1.50	1.55	0.06	84.16	3.95	97.91
SK01.52 18	2.63	2.43	0.76	0.34	0.02	1.33	1.37	0.05	80.14	3.84	93.19

Sample	Total Fe as Fe2O3 wt%	TiO2 wt%	MgO wt%	Na2O wt%	P2O5 wt%	K2O wt%	CaO wt%	MnO wt%	SiO2 wt%	Al2O3 wt%	Sum (major+minor)
SK01.52 22	5.55	4.90	1.12	0.19	0.06	1.00	2.55	0.12	77.56	3.95	97.51
SK01.52 23	5.03	2.57	1.17	0.34	0.06	1.30	2.12	0.09	80.14	4.06	97.12
SK01.53 21	5.50	1.64	2.02	0.15	0.07	2.87	2.07	0.05	60.25	12.56	87.50
SK01.53 22	3.45	2.73	0.80	0.36	0.04	1.55	1.23	0.06	82.45	4.51	97.62
SK01.53 23	3.96	3.15	0.99	0.35	0.04	1.46	1.32	0.09	81.71	4.28	97.88
SK01.53 24	3.88	3.14	0.94	0.36	0.04	1.39	1.50	0.08	82.51	3.85	98.09
SK01.54 20	3.53	3.35	0.85	0.27	0.07	1.27	5.22	0.08	79.41	3.34	97.86
SK01.54 21	2.80	2.64	0.89	0.34	0.02	1.32	1.63	0.07	84.34	3.64	98.01
SK01.54 25	3.80	3.12	0.94	0.39	0.06	1.33	2.12	0.09	80.74	4.37	97.25
SK01.54 26	3.41	2.24	0.76	0.29	0.05	1.12	1.93	0.08	84.34	3.66	98.12
SK01.55 17	4.02	3.51	0.86	0.31	0.05	1.43	2.21	0.10	83.06	4.36	100.21
SK01.57 19	3.88	3.10	0.92	0.47	0.04	1.53	1.68	0.08	82.20	4.37	98.83
SK01.57 20	3.25	2.76	0.84	0.47	0.04	1.50	1.53	0.07	84.31	4.15	99.29
SK01.60 13	3.09	2.77	0.70	0.49	0.04	1.46	1.42	0.07	85.38	3.94	99.79
SK01.60 14	4.09	4.05	1.01	0.33	0.04	1.34	1.83	0.10	82.03	4.16	99.55
SK01.60 15	3.76	3.38	0.86	0.41	0.04	1.42	1.94	0.09	82.47	4.08	98.84
SK01.60 17	3.97	2.32	1.65	0.29	0.07	2.06	3.73	0.07	70.67	8.11	93.26
SK01.60 20	3.96	2.42	0.77	0.28	0.03	1.43	1.20	0.07	81.70	3.99	96.23
SK01.65 18	4.75	2.18	0.89	0.32	0.04	1.46	1.29	0.06	77.91	4.20	93.53
SK01.65 19	3.38	3.02	0.79	0.38	0.04	1.39	1.29	0.08	81.05	4.09	95.98
SK01.65 20	3.72	2.85	1.47	0.29	0.06	1.85	1.93	0.07	71.16	7.77	91.56
SK01.65 22	4.88	6.22	1.56	0.30	0.07	1.69	7.44	0.11	65.44	6.68	95.30
SK01.66 21	5.01	4.08	1.09	0.34	0.06	1.25	2.65	0.12	79.96	4.34	99.32
SK01.66 22	4.08	2.52	1.03	0.42	0.06	1.40	2.20	0.09	83.37	4.38	99.77
SK01.71 14	2.58	1.97	1.03	0.16	0.07	0.95	9.00	0.05	75.07	2.68	93.77
SK01.72 15	4.16	3.74	0.87	0.41	0.04	1.54	1.97	0.10	81.93	4.16	99.55
SK01.72 16	3.45	1.97	0.84	0.46	0.04	1.84	1.36	0.07	83.18	4.64	98.12
SK01.72 17	3.18	3.37	0.80	0.54	0.03	1.78	1.49	0.10	83.40	4.65	99.74

Sample	Total Fe as Fe2O3 wt%	TiO2 wt%	MgO wt%	Na2O wt%	P2O5 wt%	K2O wt%	CaO wt%	MnO wt%	SiO2 wt%	Al2O3 wt%	Sum (major+minor)
SK01.72 18	4.42	4.23	0.85	0.33	0.05	1.60	1.62	0.12	81.78	4.27	99.81
SK01.72 19	3.91	2.32	1.09	0.40	0.05	1.60	1.63	0.08	82.20	4.55	98.06
SK01.72 20	4.07	3.63	1.02	0.42	0.05	1.45	1.84	0.11	82.12	4.40	99.50
SK01.72 21	6.01	5.73	1.26	0.27	0.07	1.25	2.89	0.16	77.82	4.54	100.58
SK01.72 22	3.99	2.34	1.19	0.41	0.07	1.43	2.32	0.08	80.02	4.45	96.53
SK01.74 18	3.87	2.57	0.47	0.35	0.03	1.27	1.01	0.07	81.60	3.54	95.29
SK01.74 19	2.92	3.00	0.59	0.27	0.03	1.25	1.23	0.07	84.06	3.71	97.60
SK01.74 20	2.48	2.30	0.44	0.38	0.02	1.29	0.89	0.05	82.08	3.51	93.83
SK01.74 21	4.73	6.23	0.69	0.26	0.04	1.15	1.72	0.14	21.88	-0.08	37.76
SK01.74 22	4.06	4.67	0.83	0.30	0.04	1.28	1.74	0.12	81.92	4.09	99.66
SK01.74 23	4.20	4.29	0.87	0.30	0.05	1.14	1.87	0.10	81.31	3.93	98.61
SK01.74 24	3.97	3.97	0.98	0.31	0.06	1.04	2.01	0.10	80.15	3.95	97.11
SK01.74 25	3.01	2.14	0.91	0.38	0.05	1.31	1.80	0.06	81.93	4.13	95.95
SK01.75 20	4.17	2.98	1.02	0.34	0.05	1.79	1.26	0.08	75.05	6.75	93.99
SK01.75 21	3.61	3.34	0.89	0.24	0.04	1.33	1.31	0.08	82.84	3.88	98.06
SK01.75 22	2.56	1.76	0.63	0.40	0.04	1.40	1.07	0.04	86.17	3.76	98.04
SK01.75 26	3.41	2.30	1.12	0.34	0.06	1.41	2.11	0.05	77.09	5.66	93.81
SK01.77 10	3.70	3.08	0.91	0.31	0.04	1.23	2.98	0.09	81.75	3.57	97.93
SK01.77 11	3.37	2.54	1.04	0.39	0.04	1.36	1.74	0.09	84.47	3.99	99.24
SK01.83 17	3.19	2.18	0.74	0.44	0.04	1.65	1.70	0.07	83.80	4.69	98.70
SK00.05 17	0.59	0.30	0.20	0.69	0.01	1.29	0.39	0.02	92.40	3.05	99.01
SK00.05 19	1.07	0.69	0.46	0.81	0.02	1.79	0.82	0.03	85.41	4.65	95.88
SK00.05 20	0.59	0.13	0.29	0.84	0.02	1.15	0.27	0.01	93.23	3.18	99.76
SK00.05 23	0.44	0.11	0.30	0.52	0.01	0.77	0.25	0.02	97.09	2.08	101.64
SK00.05 24	0.44	0.09	0.20	0.41	0.01	0.70	0.37	0.02	94.58	1.72	98.59

Sample	V ppm	Cr ppm	Ce ppm	Nd ppm	La ppm	Sc ppm	Co ppm	Ba ppm	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Zn ppm	Ni ppm	Cu ppm	Th ppm	Pb ppm	Ga ppm	U ppm
SK00.07 9	49	86	57	25	25	6	42	272	25	2762	37	92	33	22	6	2	14	8	6	35
SK00.07 11	53	70	73	32	25	7	19	209	32	3637	54	101	31	24	5	4	15	8	6	55
SK00.07 12	59	91	48	24	16	8	51	207	35	2042	39	121	29	27	8	5	11	9	5	45
SK00.07 13	66	84	53	26	19	9	55	178	39	2196	42	124	26	35	7	5	10	6	4	63
SK00.07 17	72	108	77	36	26	11	29	131	47	3325	66	169	23	38	7	7	15	10	8	108
SK00.07 18	81	107	86	40	30	14	20	105	54	3531	74	200	20	38	7	3	16	12	7	121
SK00.07 19	65	65	45	23	17	9	12	156	29	1651	42	143	24	25	7	4	9	8	5	45
SK00.10 21	63	89	70	31	25	9	25	173	36	3533	58	111	27	27	6	-1	15	8	5	68
SK00.10 22	67	128	85	39	29	10	35	177	42	3783	59	127	27	39	6	6	17	10	6	100
SK00.12 17	85	84	44	22	20	14	30	227	32	1206	37	159	31	29	8	7	9	8	8	46
SK00.18 19	67	114	97	44	31	10	16	135	45	5422	73	121	27	32	6	0	21	10	5	101
SK00.21 15	54	66	56	25	23	8	24	270	25	2726	38	116	36	25	7	4	12	9	7	41
SK00.21 17	58	115	46	21	16	10	21	246	33	2639	40	107	39	24	6	2	10	7	5	41
SK00.21 18	67	121	76	34	24	10	27	156	53	4402	71	132	29	46	6	7	19	11	8	139
SK00.21 20	67	100	62	29	22	10	20	145	42	2818	55	146	28	33	7	5	14	8	6	79
SK00.21 21	84	124	96	44	32	13	29	115	59	4567	84	184	23	45	7	3	20	10	8	163
SK00.21 22	76	121	88	42	28	11	23	136	53	4094	76	166	25	50	6	6	18	11	8	163
SK00.22 13	83	108	55	27	18	13	26	179	37	1603	43	167	27	39	8	11	9	9	8	71
SK00.27 21	55	91	78	34	27	8	31	173	34	3307	55	124	26	24	6	6	15	7	5	56
SK00.28 27	57	88	59	27	26	9	28	232	31	2376	42	120	31	25	7	6	12	7	7	46
SK00.29 15	46	80	77	34	24	6	56	181	34	3736	49	92	32	36	7	4	19	8	7	75
SK00.29 17	55	63	47	23	18	8	18	247	28	1775	33	98	32	34	7	10	9	7	7	49
SK00.29 20	74	116	66	33	23	12	31	201	40	2211	51	160	32	34	7	8	12	11	9	75
SK00.29 21	63	96	52	25	18	10	32	149	40	2155	50	166	29	35	9	6	10	9	10	75
SK00.30 18	53	81	78	36	25	7	71	193	31	4071	52	100	31	24	8	1	18	10	5	54
SK00.30 19	51	91	75	32	26	7	35	162	38	4655	59	106	32	30	7	5	20	11	6	75

Sample	V ppm	Cr ppm	Ce ppm	Nd ppm	La ppm	Sc ppm	Co ppm	Ba ppm	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Zn ppm	Ni ppm	Cu ppm	Th ppm	Pb ppm	Ga ppm	U ppm
SK00.30 20	55	122	62	28	22	9	58	207	36	3278	49	100	31	36	7	6	13	7	5	74
SK00.30 21	58	119	89	37	27	8	35	142	49	5927	76	111	27	35	5	3	23	10	7	116
SK00.30 22	60	119	82	36	28	9	35	139	51	5488	78	117	28	32	6	1	21	10	5	108
SK00.30 23	51	70	49	22	18	8	16	163	32	2206	41	124	30	38	7	8	12	10	5	68
SK00.30 24	65	132	81	38	28	11	22	128	52	4654	76	146	26	44	6	6	21	12	7	144
SK00.30 25	69	121	86	40	28	12	11	117	51	3921	72	246	24	45	7	7	19	12	10	138
SK00.33 14	58	98	68	29	25	7	22	262	26	2795	37	105	34	18	4	0	14	7	5	29
SK00.33 15	52	92	65	27	21	8	60	176	33	2644	40	101	27	25	6	2	10	5	5	43
SK00.33 16	50	75	37	15	18	7	32	205	26	1942	35	97	26	31	6	6	10	8	5	46
SK00.33 19	69	101	45	21	17	12	33	215	34	1558	40	149	30	30	8	6	8	6	7	53
SK00.33 20	63	75	53	24	19	10	38	165	40	1855	48	182	31	48	8	10	13	14	11	100
SK00.36 17	57	162	80	35	23	8	17	180	37	4370	61	107	29	34	11	3	18	9	5	90
SK00.36 18	51	90	79	35	26	9	17	138	42	4574	69	141	27	37	5	5	19	8	6	109
SK00.36 19	60	78	55	26	22	9	19	245	29	2172	38	142	31	32	6	4	9	8	5	53
SK00.36 24	64	110	63	29	24	11	20	187	34	2024	46	140	30	35	10	9	11	9	7	70
SK00.37 20	57	126	98	43	30	9	24	174	39	4993	66	136	27	32	6	5	18	9	6	92
SK00.37 21	54	91	71	31	26	7	9	144	32	3729	56	116	23	20	5	2	15	6	3	48
SK00.37 22	54	93	48	23	22	8	19	230	28	2081	35	119	31	27	7	5	11	9	6	42
SK00.37 28	62	90	60	28	26	13	16	213	31	2002	41	164	28	29	7	5	11	9	6	51
SK01.41 19	61	105	70	31	25	9	19	228	43	2834	49	122	33	41	6	11	14	11	9	87
SK01.42 13	54	100	73	34	26	8	34	209	32	3247	52	103	31	23	6	2	15	8	7	52
SK01.42 14	59	106	78	37	27	10	26	211	34	3512	53	106	31	26	5	2	16	8	7	60
SK01.42 15	60	88	70	31	26	9	38	191	36	3202	50	106	28	33	5	7	14	7	7	71
SK01.42 18	75	126	95	44	29	11	29	174	52	5233	71	118	26	48	8	8	18	8	7	147
SK01.42 19	70	136	104	45	31	10	22	124	64	6515	94	140	24	46	5	4	26	11	9	185
SK01.42 20	64	117	85	38	29	10	11	164	40	3752	60	174	25	42	7	8	16	8	7	107
SK01.43 18	66	130	82	37	25	10	28	206	46	4016	60	122	29	38	6	9	17	11	9	99
SK01.43 19	70	121	57	28	19	10	38	180	35	2294	41	125	34	32	11	5	11	8	7	57

Sample	V ppm	Cr ppm	Ce ppm	Nd ppm	La ppm	Sc ppm	Co ppm	Ba ppm	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Zn ppm	Ni ppm	Cu ppm	Th ppm	Pb ppm	Ga ppm	U ppm
SK01.44 12	57	184	91	41	28	7	14	142	36	3674	56	298	21	32	5	6	18	9	6	76
SK01.44 13	55	86	61	29	19	8	38	190	36	2496	43	108	27	24	5	4	12	8	6	45
SK01.45 18	46	86	54	25	18	7	19	165	33	3186	50	112	32	24	6	2	15	10	5	52
SK01.45 19	51	84	58	27	19	8	18	168	34	2812	50	115	32	32	7	2	14	10	6	67
SK01.45 20	73	87	56	26	22	10	28	246	31	1947	40	113	33	39	8	7	11	11	7	67
SK01.45 21	66	171	56	25	21	10	21	203	34	2054	42	125	33	39	9	8	11	9	6	69
SK01.46 22	54	120	76	35	27	9	21	200	32	3355	53	109	35	26	7	6	16	10	6	59
SK01.46 23	58	70	52	24	22	8	28	239	30	2402	42	103	30	27	5	5	11	8	6	48
SK01.46 24	63	92	69	28	24	9	28	206	36	2590	46	122	30	36	8	8	13	11	6	70
SK01.47 16	59	105	105	46	35	9	24	145	49	6393	85	120	26	41	6	4	26	12	6	150
SK01.47 17	59	114	73	33	23	8	20	143	45	4492	63	127	27	40	6	8	19	12	9	108
SK01.47 18	44	59	37	17	14	7	35	227	24	1267	27	97	29	15	5	1	7	6	3	17
SK01.47 20	70	172	118	52	36	12	25	117	67	6996	101	161	23	44	4	4	28	11	8	193
SK01.47 23	57	78	53	24	21	10	38	201	30	1998	43	131	27	20	8	0	10	6	6	38
SK01.48 23	55	90	84	37	26	7	25	141	44	5460	71	116	27	38	7	1	24	11	6	116
SK01.48 24	63	130	103	47	33	9	39	156	43	4875	69	117	26	32	7	2	21	10	6	96
SK01.50 26	63	75	53	26	23	10	23	235	27	2625	41	111	50	35	14	6	14	9	7	62
SK01.50 27	57	104	61	28	20	9	35	192	39	2570	45	120	28	34	7	6	14	9	7	67
SK01.50 29	56	78	52	25	19	8	26	189	33	2061	36	110	28	23	6	6	9	7	6	35
SK01.51 21	61	124	113	51	37	10	33	135	49	6891	91	117	26	49	6	6	28	11	7	191
SK01.51 22	53	80	65	30	23	8	25	204	32	2932	43	107	32	19	6	0	15	9	6	36
SK01.51 23	59	104	57	26	21	7	20	165	35	3007	46	107	40	36	12	3	13	10	8	70
SK01.51 25	73	168	122	57	41	11	8	116	59	6597	88	326	25	61	7	10	26	12	10	230
SK01.51 28	63	79	50	28	23	10	17	225	29	1614	38	143	29	34	7	5	10	9	7	56
SK01.52 15	55	101	90	38	29	10	20	187	34	4289	59	131	27	23	5	4	18	10	5	60
SK01.52 16	55	109	83	37	28	8	27	193	34	4046	54	101	30	31	6	6	17	11	5	72
SK01.52 17	53	75	48	22	17	8	30	207	33	1798	40	120	31	31	8	7	10	10	4	53
SK01.52 18	58	82	53	25	22	8	26	220	33	1858	36	115	31	35	7	7	10	8	8	54

Sample	V ppm	Cr ppm	Ce ppm	Nd ppm	La ppm	Sc ppm	Co ppm	Ba ppm	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Zn ppm	Ni ppm	Cu ppm	Th ppm	Pb ppm	Ga ppm	U ppm
SK01.52 22	75	146	88	42	27	13	19	98	59	4006	77	194	21	47	8	5	21	15	9	156
SK01.52 23	53	83	49	22	18	9	19	135	34	1659	42	152	26	31	8	4	9	7	7	56
SK01.53 21	115	97	57	27	29	13	19	253	25	1948	36	124	86	59	28	8	13	15	14	91
SK01.53 22	52	91	63	31	22	9	12	208	33	3654	52	103	34	29	6	5	16	9	6	64
SK01.53 23	61	108	83	39	28	10	36	195	38	4371	59	106	31	34	7	6	18	10	8	85
SK01.53 24	62	115	76	33	24	10	24	190	37	3394	55	115	29	27	5	5	16	8	7	64
SK01.54 20	59	124	93	39	33	7	15	154	36	3595	53	204	25	37	6	15	19	7	6	83
SK01.54 21	50	75	57	29	17	8	21	183	33	2315	37	111	28	26	6	5	11	7	7	41
SK01.54 25	70	135	72	33	22	12	29	174	38	1933	51	160	26	37	8	6	12	11	9	82
SK01.54 26	72	86	56	26	21	12	86	195	32	1504	42	159	26	33	9	8	8	8	8	59
SK01.55 17	61	84	56	27	19	10	27	159	41	2174	49	160	28	29	7	0	12	8	7	62
SK01.57 19	59	93	96	42	35	7	20	214	37	4648	67	107	31	27	5	2	22	9	7	77
SK01.57 20	55	78	63	27	23	7	23	203	32	2955	47	105	30	32	5	5	13	8	6	65
SK01.60 13	52	99	75	32	27	8	20	200	35	3592	55	105	29	32	5	5	16	8	7	75
SK01.60 14	58	118	88	42	30	8	13	140	46	4686	67	122	26	45	5	8	21	11	9	130
SK01.60 15	66	116	78	33	25	9	28	191	39	2990	51	126	28	40	6	3	14	9	8	87
SK01.60 17	79	94	61	28	27	12	10	277	29	2286	35	142	44	37	14	11	11	9	8	56
SK01.60 20	58	74	65	29	23	7	80	240	29	2937	44	95	33	31	7	8	13	9	7	58
SK01.65 18	48	72	65	28	25	7	63	195	29	3382	49	101	35	35	9	8	17	12	6	75
SK01.65 19	56	94	88	37	30	9	30	191	34	3910	49	103	31	34	6	6	16	8	7	71
SK01.65 20	70	120	57	27	19	9	10	200	31	3000	43	109	41	28	11	4	10	8	6	51
SK01.65 22	80	160	124	56	37	13	7	130	62	7503	95	309	31	52	8	7	27	12	9	214
SK01.66 21	71	126	69	33	22	13	25	132	51	3051	64	193	27	48	9	7	14	11	10	132
SK01.66 22	51	77	43	23	17	10	19	160	32	1511	41	157	28	39	9	8	8	7	10	69
SK01.71 14	54	81	48	21	20	6	8	140	23	1302	26	346	20	22	6	6	8	6	5	24
SK01.72 15	48	102	89	39	30	8	17	159	39	5286	66	120	31	29	5	2	23	9	5	83
SK01.72 16	51	77	49	21	20	7	26	307	25	1750	30	100	38	27	6	7	9	8	7	36
SK01.72 17	56	88	71	31	24	8	15	233	37	3093	50	113	34	32	8	10	15	10	5	70

Sample	V ppm	Cr ppm	Ce ppm	Nd ppm	La ppm	Sc ppm	Co ppm	Ba ppm	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Zn ppm	Ni ppm	Cu ppm	Th ppm	Pb ppm	Ga ppm	U ppm
SK01.72 18	55	101	78	34	25	9	20	175	47	4520	66	120	33	36	6	2	17	8	7	102
SK01.72 19	63	76	49	21	19	9	12	253	26	1518	33	117	31	30	7	6	8	7	7	42
SK01.72 20	56	86	67	30	23	9	12	156	43	3130	58	144	30	39	7	10	14	9	7	98
SK01.72 21	79	140	98	48	30	14	12	105	62	4700	86	192	23	48	8	3	22	13	10	176
SK01.72 22	73	85	52	25	21	13	11	228	32	1352	39	159	30	33	8	8	9	9	8	56
SK01.74 18	53	101	85	37	30	7	198	183	33	4050	54	91	31	26	11	2	18	8	5	61
SK01.74 19	57	108	70	32	23	7	30	181	35	3603	52	97	27	25	7	3	14	7	6	57
SK01.74 20	49	73	59	27	25	7	37	227	29	3225	43	86	34	24	6	7	12	5	6	45
SK01.74 21	73	199	132	60	38	10	29	113	68	8682	108	120	22	48	4	2	33	13	10	225
SK01.74 22	65	118	87	39	29	10	48	140	52	4964	72	130	25	44	6	6	19	9	7	137
SK01.74 23	62	104	76	34	26	9	29	116	49	4573	72	136	23	37	6	4	19	10	8	116
SK01.74 24	78	128	102	47	34	14	28	142	50	4635	76	154	24	35	6	3	19	11	8	113
SK01.74 25	66	73	53	26	21	11	21	230	30	1477	39	139	30	29	7	8	9	10	7	49
SK01.75 20	59	100	64	28	21	9	29	174	34	4114	53	103	40	29	9	2	16	11	6	65
SK01.75 21	61	99	80	37	26	10	31	187	38	4310	62	108	29	30	7	1	17	9	6	80
SK01.75 22	44	56	37	18	16	7	52	236	25	1606	29	93	31	15	6	2	8	7	4	18
SK01.75 26	71	73	50	23	23	11	12	203	30	1616	41	142	30	23	10	4	11	11	7	40
SK01.77 10	63	85	59	28	21	10	13	157	35	2051	43	150	25	29	6	3	12	7	7	55
SK01.77 11	61	80	53	28	18	10	51	194	32	1321	36	141	29	35	8	6	8	8	7	54
SK01.83 17	66	67	36	18	16	10	20	273	28	1078	33	143	36	22	8	5	7	7	7	31
SK00.05 17	12	23	16	8	9	1	67	229	7	293	7	53	36	3	6	2	2	2	3	1
SK00.05 19	24	36	29	14	14	4	20	310	11	629	14	74	42	13	7	6	4	5	4	8
SK00.05 20	9	13	17	8	10	0	61	214	5	99	8	41	35	5	5	4	5	3	4	2
SK00.05 23	8	20	7	4	3	2	58	150	4	89	3	31	21	7	7	5	3	2	3	1
SK00.05 24	8	19	2	1	4	1	68	129	2	65	3	31	21	-3	6	2	3	2	1	0



## **7 DTU Uffe Korsbech**

**CONFIDENTIAL**

**Version 1**

**Capture gamma logs and SNG-logs  
from Skjern and Vorslunde**  
*- and Ti minerals exploration*

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## Preface

This report describes some evaluations of Spectral Natural Gamma-ray logs (SNG-logs) and (neutron) capture gamma logs run in four shallow boreholes in the western part of Jylland in June 2000. The logs were run by Geofyzika (Brno) (SNG and capture), the Technical University of Denmark (DTU) (SNG), and the Geological Survey of Denmark and Greenland (GEUS) (SNG and other logs).

The evaluations described in this report have been performed by the author (UK at DTU) who carries the full responsibility for the quality of the evaluations and the conclusions. This report is not based on any contract between DTU and other partners. Data in this report are confident at present and cannot be distributed without agreement of both GEUS and DTU.

There have been several goals for the evaluations.

a. GEUS has been interested in carrying out an "inter-calibration" of the SNG-probes. There have earlier been some problems with the GEUS SNG-probe. It was expected that a new calibration - carried out some months before the logging in western Jylland - would remedy this problem. Having SNG-logs with three different probes run in the same boreholes within a few days would form the ideal basis for an "inter-calibration".

b. Since 1990 DTU has many times observed deposits of heavy minerals sand at 50 m to 200 m depths when performing SNG-logging in boreholes in the southern part of Jylland. But a careful examination of the identified deposits has never been carried out and, therefore, it has not been possible to evaluate correlations between Th + U and the mineralogy or presence of "major" elements in the heavy minerals sand. The logging in western Jylland opened for this possibility.

c. Long time ago (20-22 years) DTU worked with (neutron) capture gamma borehole probes. The work was terminated mainly due to two reasons:

1. There was no obvious need for a capture probe in Denmark.

2. The stability of detector and analyser was at that time not sufficient for a reliable interpretation of the "low intensity" capture signals in typical Danish boreholes.

Today the situation is different with respect to system stability; furthermore, new data processing methods for gamma spectra have evolved. But even today the need for a capture probe in Denmark is low; and DTU have no plan for a resumption of the earlier work on capture gamma probes.

d. In 1997 a new technique for processing large sets of gamma spectra was presented by a Ph.D. student at DTU. Since then this technique has been used within several fields of gamma spectrum processing. Examples are airborne Th, U, and K mapping by gamma-ray spectrometry, SNG borehole logging and mapping of low level contamination. In principle the processing of capture gamma spectra also will benefit from the method. By including the method in the processing the (statistical) noise of a log will be very much reduced without introducing smoothing of the signals. Furthermore one will/may also be able to observe borehole geometry variations and spectrum drift is quantified i.e. it also functions as a quality control of the whole set of spectra.

It was planned (by DTU) to carry out a processing with the new method of the capture gamma spectra recorded by Geofyzika. However, due to the present data format of the spectra and the limited number of spectra from each borehole the task would be significant larger than was originally anticipated.

## Tentative conclusions

Some tentative conclusions from the evaluations (SNG and capture gamma) are:

I. Due to a varying borehole geometry (outside the casing) the SNG-logs based on "multi window processing" or "unit spectra decomposition" will not give accurate results for concentrations of Th, U, and K.

II. The three windows method used by DTU for the SNG-logging interpretation is less influenced by (minor) borehole geometry variations. It is assumed that the calculated Th and K concentrations are close to the "true values". It may also be the case for U; but radon leakage sometimes introduces errors. The calculated U concentrations for the heavy minerals sand layers may be OK also. Radon leakage from heavy minerals in general is minor - and stagnant water outside the casing also reduces the radon problem<sup>1</sup>.

III. The Geofyzika neutron capture probe seems to be able to measure Ti at concentrations from ½% and upwards - and perhaps also at lower concentrations. This conclusion is based on an examination of the measured spectra that - when at least ½% Ti is present - contain significant "fingerprints" of Ti. Furthermore, for the boreholes measured there have not been observed other elements that seriously could blur the Ti signal. Finally the measurements indicate a rather stable energy calibration of the probe. However, a far from ideal borehole geometry seemingly has introduced uncertainties/errors in the interpretation of the measured spectra. (The borehole diameter outside the casing probably has varied with depth.) Logging in an open borehole with a side-wall capture probe may give results less dependent on borehole geometry.

IV. In one borehole (SK25) there is close correlation between the Th concentration of the SNG-log (DTU) and the Ti concentration of samples measured by GEUS. (10 ppm Th equivalent to 1% Ti.) In other boreholes (V90L and V91L) the correlation is less obvious. This may be due to the non-existence of a correlation between Th and Ti in the heavy minerals at Vorslunde - or it may be due to too few samples, and/or to some depth misalignment. For the fourth borehole (SK26) no sample measurements results have been available for a comparison. By comparing with sample measurements from a nearby borehole (some 10 m distance) - and performing a depth alignment - there is a (less clear) correlation with 8 ppm Th corresponding to 1% Ti

V. Therefore, for the Skjern area a calibrated SNG-probe probably is able to "measure" the Ti concentrations. This conclusion is based on the observed relation between Ti and Th concentrations namely that within the heavy minerals sand deposits there may be a fixed relation with 1% Ti corresponding to 8-10 ppm Th. The heavy minerals sand deposits are easily identified from the Th/K ratio curve of the SNG-log. A laboratory measurement (at DTU or elsewhere) of the Th contents of samples that have been examined for Ti content will tell if there is a constant relation between Th and Ti. (This has not yet been carried out.)

VI. At present the SNG probes of GEUS and Geofyzika seemingly give less reliable SNG-logs. An interpretation of SNG-spectra based on a "multi windows me-

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<sup>1</sup> The SNG-probe used by DTU was built in 1982 and has worked without problems since. The calibration is stable; on several occasions samples from the borehole have been measured in the laboratory (4 samples in 2000). Agreement has in general been found within a factor 0.9 to 1.1 for Th and K whereas the agreement for U is not as good - probably due to a different radon leakage in borehole and laboratory.

thod" or a "unit spectra method" may be unreliable in a varying, partly unknown borehole geometry. The "three windows method" used for the DTU SNG-probe is less influenced by (minor) borehole geometry variations. (Photons of energy below 1.3 MeV are not included in the spectrum interpretation.)

This report is a draft edition report on the logging results from the boreholes SK25L, SK26L, V90L and V91L. It is expected that further data processing will be carried out. In some other boreholes the fourth window of the DTU SNG-probe has been included in the data processing aiming at extracting some information on borehole geometry variations. It may perhaps be possible to perform similar calculations for the SKxx boreholes. The low count rates of the Vxx logs prevent the use of the method there.

A NASVD processing of the capture gamma-spectra may be attempted. However, a major "first time investment" probably is needed for the data format conversion and for selecting the best method for using the few spectra available for each borehole.

Feedback and comments "from the outside" on the topics discussed in the present edition will be taken into account in a revised edition.

## 1. Andrupengvej SK25L at Skjern

The SNG-log for SK25L run by DTU is shown in Figure B.1 of Appendix B. (The figure originates from Ref. 1.) The SNG-log indicates "clean" Quarz Sand, Clay, and Sand with varying concentrations of Heavy Minerals. In the same borehole Geofyzika has run a capture-gamma log, and it has been of interest to compare the two logs<sup>2</sup>. (Readers not familiar with capture gamma spectra should at first read Appendix A of this report. In Appendix D the "volume of measurement" is discussed.)

GEUS has analysed (X-met) a number of samples from a "neighbour borehole" (SK15 very close to SK25L). The results from the sample measurements have been "interpreted" in two different ways. Only the results for calibration Mod 3 is discussed here.

In Figure 1.1 are shown:

Titanium capture gamma log run by Geofyzika in SK25L. (Units % Ti)

Sample measurements performed by GEUS (samples from SK15) (Units % Ti)

Th-curve from the SNG-log run by DTU in SK25L. (Units "10 ppm Th")

The SNG-log of Figure 1.1 is the second log run by DTU in SK25L. It was run in order to demonstrate the reproducibility of the log results. The first log - run 1-2 hours earlier - covers the whole borehole from the surface to 31 m

Figure B.1 tells that the logs show very similar distributions of Th, U and K.

The depth scale for the Geofyzika log seemingly differs almost 1 m from the depth scale for the DTU log. (The DTU SNG-log has its zero level when the center of the detector crystal is at the surface of the ground.)

One notices that all three measurements show peaks of concentrations at 17-19 m and at 21-23 m. The peak values the Geofyzika capture log fit very well with the GEUS sample measurements. Above and below the peaks the capture log indicate Ti concentrations that are about 3 times lower than the GEUS samples.

The Th concentrations of the DTU SNG-log (from Figure B.1) has been scaled down a factor 10 in order to obtain an easier comparison with the Ti results. It is seen - somewhat surprising - that the (reduced) Th curve fits very well with the GEUS sample measurements; both at the peaks and above and below the peaks.

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<sup>2</sup> Geofyzika has also run a Spectral Natural Gamma-ray log in the SK25 borehole. The concentrations of Th, U, and K for this log differ from those obtained by the DTU logging.

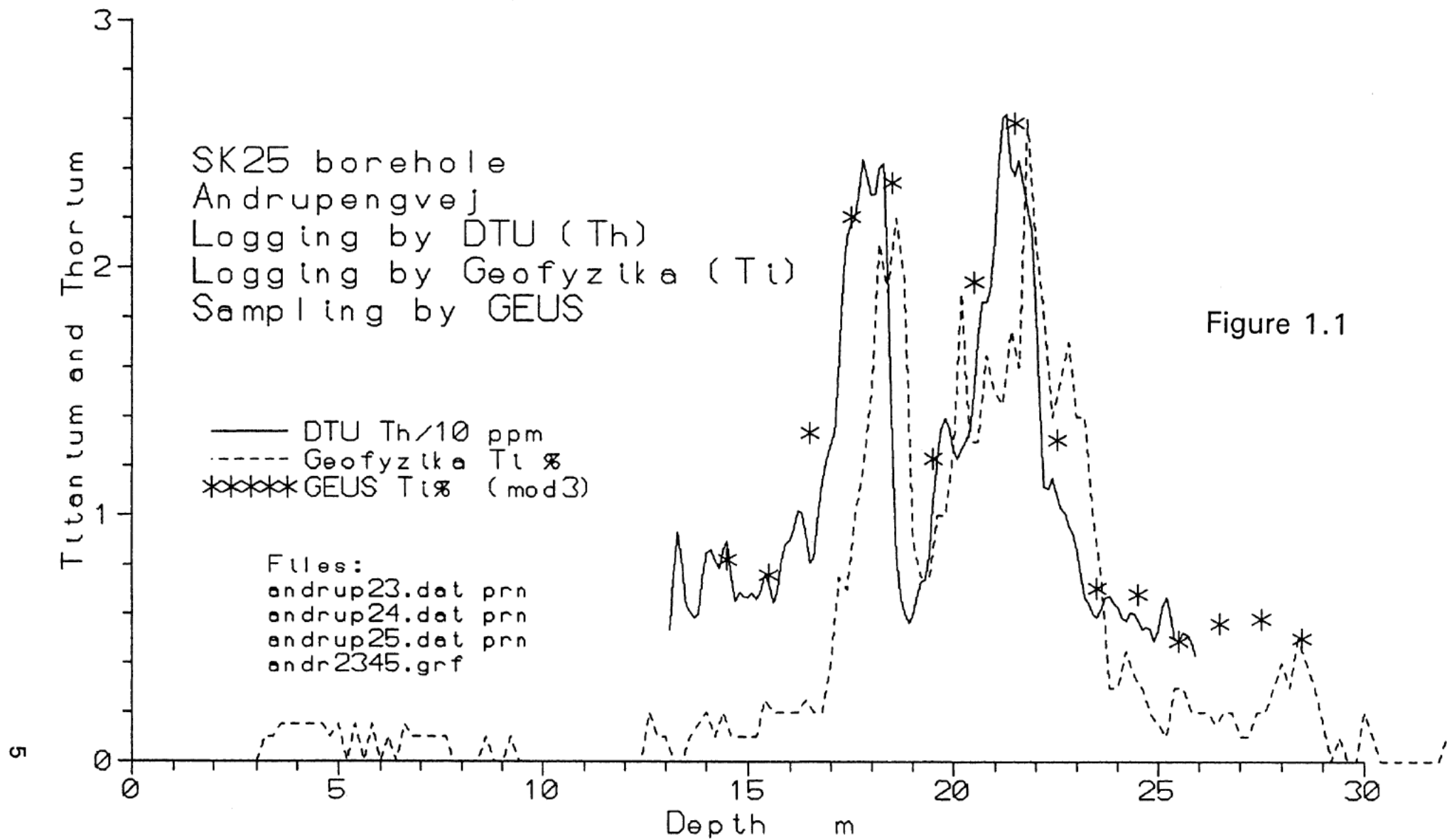


Figure 1.1



[The author of this report is not able to explain the differences between the GEUS sample results and the capture log results outside the peaks. But from basic measuring principles the following possibilities could be put forth:

The calibration of the capture gamma probe may be in error. The zero level or a stripping factor may be too large. This would influence low level concentrations of Ti more than the higher concentrations.

Above and below the peaks the borehole diameter outside the casing may be larger than assumed. This would influence the range of the neutron flux and therefore also the capture intensity. The Th signal of the SNG-probe is not strongly influenced by 2-4 cm additional water outside the casing. (Four cm of water attenuates the Th-signal 20-25%.)

The calibration of the GEUS measurements may be in error. Assume for example that the element XX influences (positively) the titanium result. Further assume that element XX is strongly correlated with thorium. This could explain the correlation between the Th curve and the GEUS sample results.

It is of course also possible that there is a true correlation between Ti and Th. Laboratory measurements of samples for Th and Ti may answer the question.]

## 2. Ganer SK26L and SK5 at Skjern.

The SNG-log (DTU) of borehole SK25L can be seen in Figure B.2. It shows (from the surface and downwards) Sand, Sand with Gravel, Heavy Minerals Sand (14.5 m to 21 m) and Sand. (A log based on the SNG-probe used for this borehole cannot discern between sand with gravel and clayey sand. Additional information, therefore, has been included.)

Figure 2.1 shows the Geofyzika capture Ti-log together with the GEUS sample Ti measurements from the neighbouring SK5 borehole (at 10 m distance from SK26L). Furthermore, a "scaled Th log" for the DTU SNG-probe is shown. (The "unit" is 10 ppm Th.) Probably there is a 0.5 m depth misalignment between the Geofyzika log and the DTU log (also observed for the other boreholes). After a depth adjustment the two logs - Ti and reduced Th - are very alike within the heavy minerals sand from 14.5 m to 21 m. Outside (below and above) the heavy minerals sand the Ti signal of the Geofyzika log is close to zero whereas the reduced Th log shows some signal here. At the upper part of the borehole the levels of both Ti and Th are low.

Knowing that there is sand with gravel at 6 m to 14 m one might conclude that this deposit contains no Ti - whereas it contains some Thorium (as does Danish gravel in general). However, the samples from the nearby borehole SK5 tell that some Ti is measured by GEUS in a sample from 8-9 m depth i.e. above the heavy minerals sand. There is also a "disagreement" below the heavy minerals sand. At 25 m to 29 m the samples (from SK5) contains about 1% Ti whereas the capture gamma log indicates some 0.2% Ti.

A core scanning for borehole SK5 (DGU Report 1998/45) indicates that the Th- and U-bearing heavy minerals are found between 15 m and 24 m here. Yet the samples from 26-29 m also contain 1% Ti.

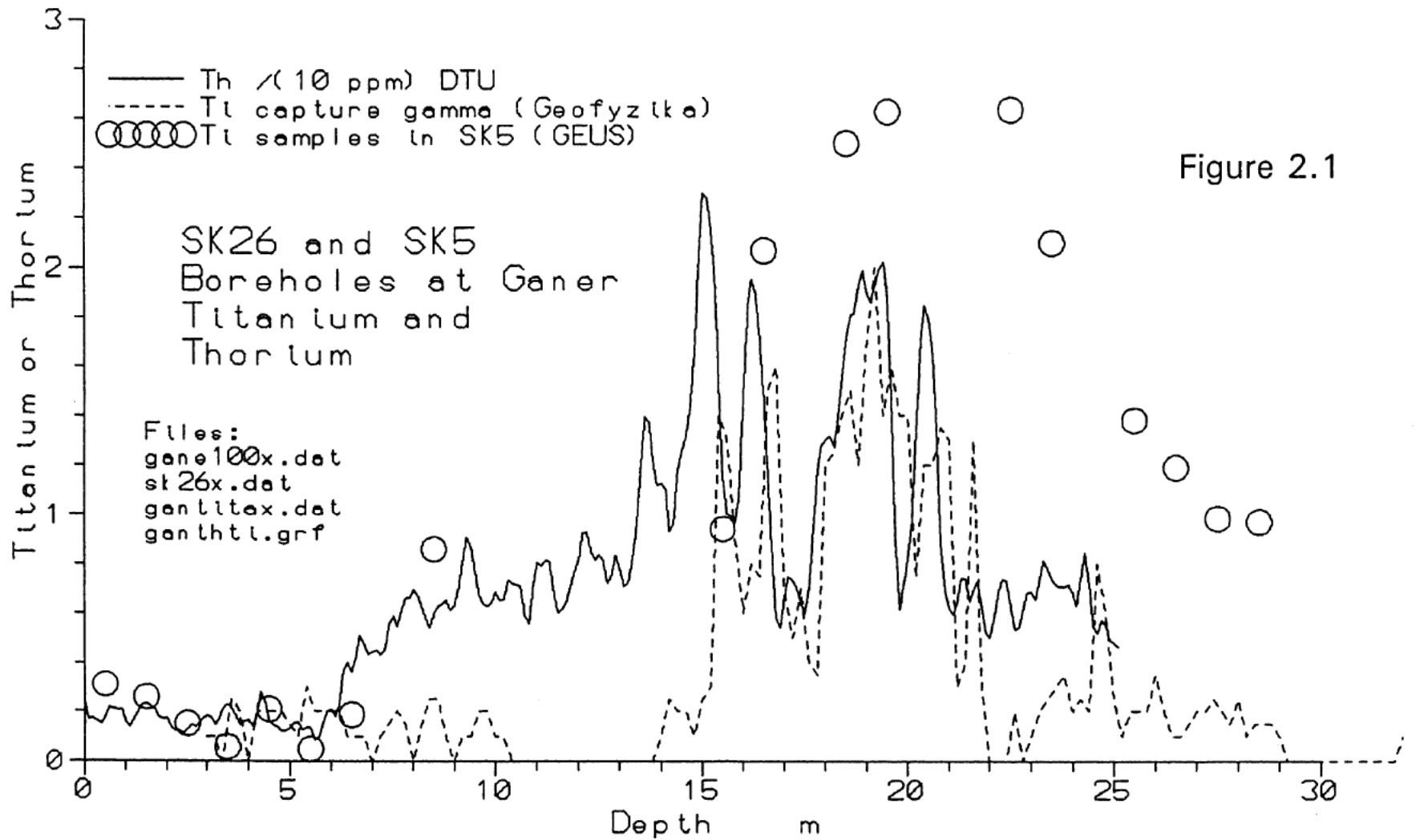


Figure 2.1

### 3. Vorslunde V90L borehole.

The whole SNG-log run by DTU is shown in Figur B.3 of Appendix B. (Copied from Ref. 1). The interpretation gives a layer of sand with some K down to 4 m; then follows very clean quartz sand (very low levels of both Th, U and K) to 12 m. Next follows a layer of clay, and below that is seen a layer with enhanced levels of heavy minerals. Below this layer is observed clean quartz sand.

The potassium curve (K-log) of the DTU SNG-log is shown in Figure 3.1 together with the Geofyzika K-log. The logs show almost the same K-peak (at the clay - layer) - but elsewhere the Geofyzika log in general indicate no K whereas the DTU log just indicate a low level (0.15% - 0.2%) below 2 m. The reason for showing the two K-curves is that it is easy to extract K information from a log and, therefore, the K-logs can be used for a depth adjustment of the DTU log with the Geofyzika logs. One notices that the DTU log is displaced some 0.6 m upwards compared to the Geofyzika log. (The zero level for the DTU logging corresponds to having the detector centre at the surface of the surrounding terrain whereas Geofyzika defines the zero at the upper part of the casing.)

Figure 3.2 shows (for the same borehole) the DTU Th-log together with the Th-log and the Ti-log run by Geofyzika. Also shown are some sample Ti determinations performed by GEUS.

The concentrations of the Th-logs of Geofyzika and DTU differ significantly. The interpretation of the results from the DTU probe is based on the simple three windows method that is rather robust against (minor) variations in the borehole geometry. The processing used for the Geofyzika log is the unit spectra method that often is more sensitive to variations in borehole geometry especially if the "decomposition" into unit spectra includes the low energy part of the spectra. This may be the cause for getting no Th (less than 0.2 ppm) for a large depth interval.

Both the Geofyzika Th-log and the DTU Th-log show two significant peaks at about 13 m and 15 m. (There is a difference between the depths similar to that for the K-logs.) The upper Th-peak is due to clay (indicated by the K-log) whereas the lower peak is due to heavy minerals.

There is some correlation between the Ti-log and the Th-log. However, it is far from perfect. The correlation between the GEUS sample measurements and the logs is neither not ideal. Is it possible to combine the results in some way?

GEUS samples and DTU Th-log:

There are only two samples from the enhanced heavy minerals layer at 13 m to 15 m. This makes any comparison uncertain. However, if one assumes that there is a constant Ti/Th ratio for the V90L borehole outside the clay (12-13 m) then a ratio with 2 ppm Th corresponding 1% Ti would give an acceptable-agreement between the measurements of GEUS and DTU.

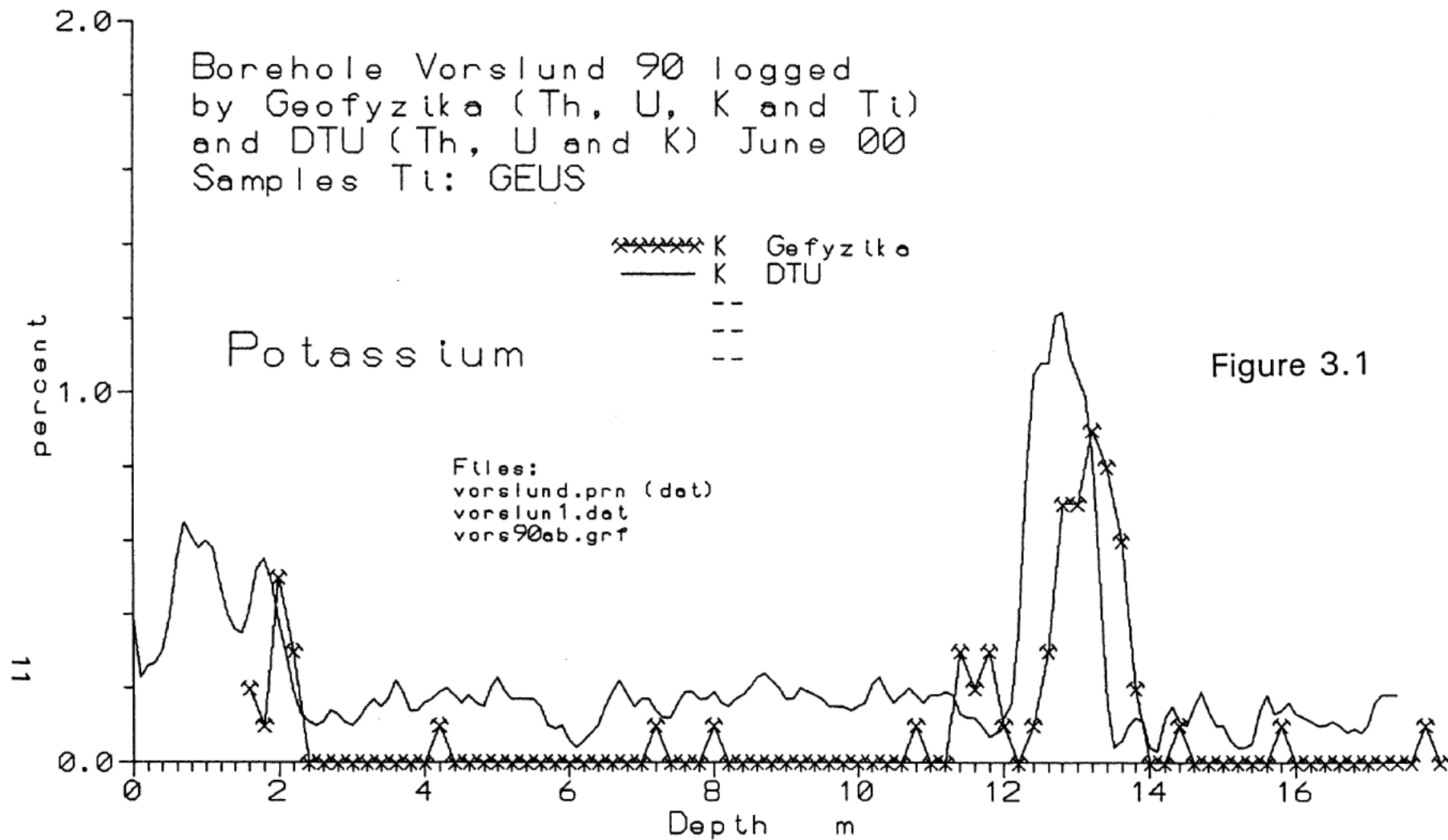
GEUS samples and Geofyzika Ti-log.

At the Ti-peak (at 14-15 m) an adjustment of the Ti-log a factor 1.5 or 2.0 upwards would give an agreement here. But a similar adjustment between 7 m and 12 m would increase the difference there. Therefore, the differences may partly be caused by borehole diameter variation outside the casing.

Geofyzika Th-log and DTU Th-log (+ K-logs).

Both logs indicate the presence of a layer of clay and a layer with enhanced concentrations of heavy minerals. The scaling, however, is an order of magnitude different. A borehole diameter significant larger than that assumed for the log calculations may be part of an explanation. The three windows method

used by DTU probably is influenced less by diameter variations than is a "unit spectra method" or similar. But it is difficult to understand that "formation excavation" during borehole drilling should be similar in size (diameter) for a layer of clay and for a layer of heavy minerals sand. Therefore, no obvious explanation is at hand.



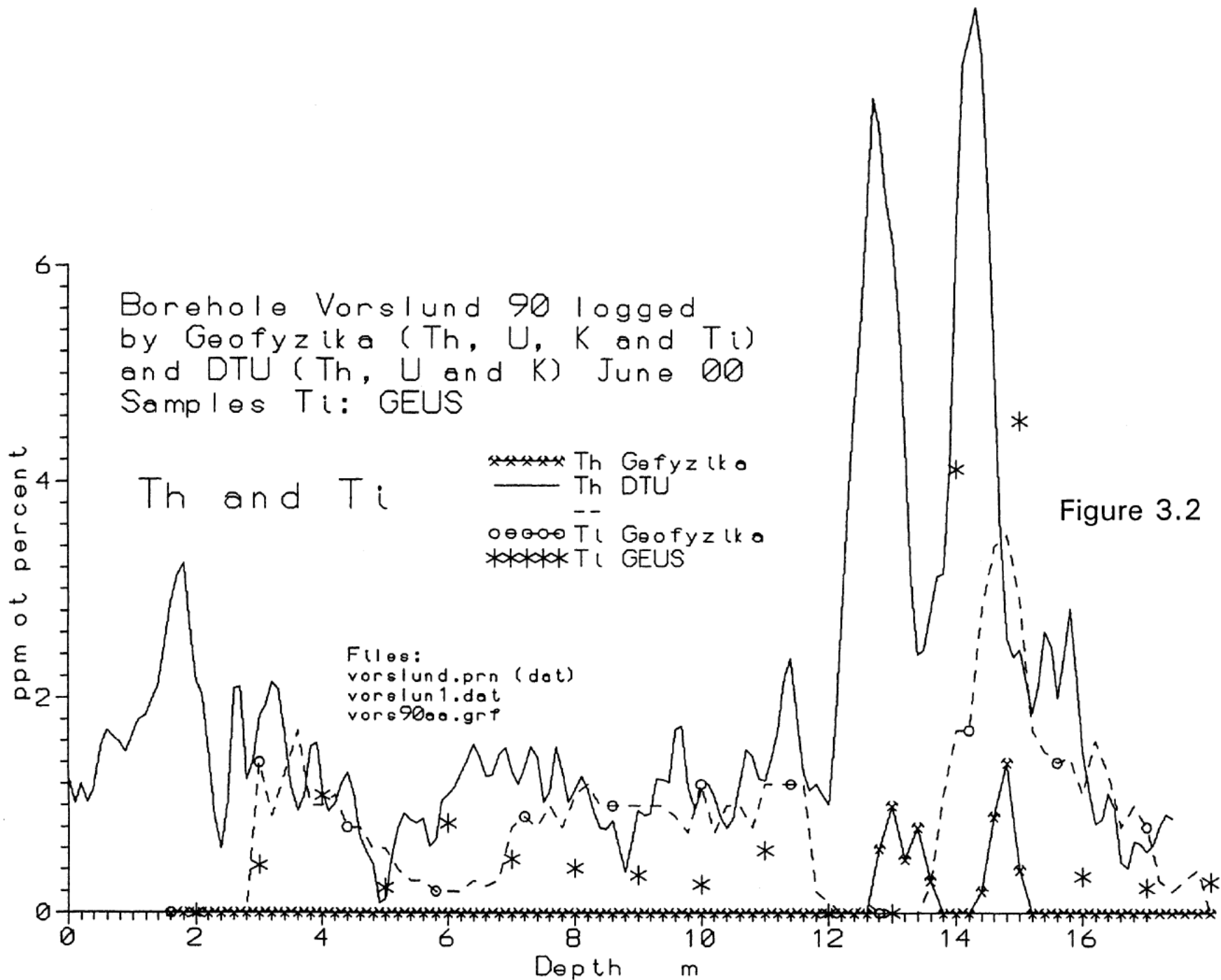


Figure 3.2

#### 4. Vorslunde V91L borehole.

The SNG-log (DTU) of borehole V91L is shown in Figure B.4. Most of the logged interval shows pure quartz sand with a low concentration of both Th, U, and K. At 13-14 m a layer of clay is seen. Here the potassium concentration "peaks" at 0.7% whereas the "neighbouring" borehole V90L reaches 1.0% K in the clay. Also the Th and U concentrations are lower in the clay at V91L than at V90L. There may be a real difference between the clay compositions (a lower content of clay minerals) but an unnoticed larger borehole diameter in the clay layer of V91L may also be the cause. Below the clay (from 13.8 m of the SNG-log) is observed heavy minerals. The concentrations of Th and U peak at 15.8 m. The peak values for Th (3.5 ppm) and U (1.1 ppm) are, however, very low compared to Th and U concentrations in other Danish deposits of heavy minerals sand. There may also be a layer with a somewhat enhanced concentration of heavy minerals just above the sand - indicated by both Th/K and U/K ratios.

Figure 4.1 shows the K-logs for the borehole - DTU and Geofyzika. One observes that the K-peaks of the clay are displaced some 0.6 m indicating a different zero-depth for the two logs. The figure also shows the Ti distribution based on the capture gamma-log from Geofyzika. One notices that there is no Ti in the clay layer (as expected). The Ti-log indicates that some Ti is present at all depths from 3 m - except in the clay. The peak concentration (2.7%) is found at 16.2 m.

In Figure 4.2 are shown the logs for Th (Geofyzika and DTU) together with the Ti-log. The Th-log of Geofyzika has a "tiny" peak at 13.6 m i.e. in the clay layer. Outside the clay no Th is recorded. The Th-log of DTU indicates a low level of Th everywhere with peaks in the clay and at the Ti peak of the Geofyzika log (0.6 m depth scale difference should be taken into account). The Th-peaks of the DTU log and the Geofyzika log differ an order of magnitude - just as observed in V90L borehole.

Another Th peak (exceeding the statistical noise) is seen at 10.0 m to 10.4 m. The K-log (Figure 4.1 or B.4) indicates no clay here. Therefore, the peak is due to heavy minerals. Just above and just below the clay similar peaks are seen. However, they just exceed a little the statistical noise level.



Borehole Vorslund 91 logged  
by Geofyzika (Th, U, K and Ti)  
and DTU (Th, U and K) June 00

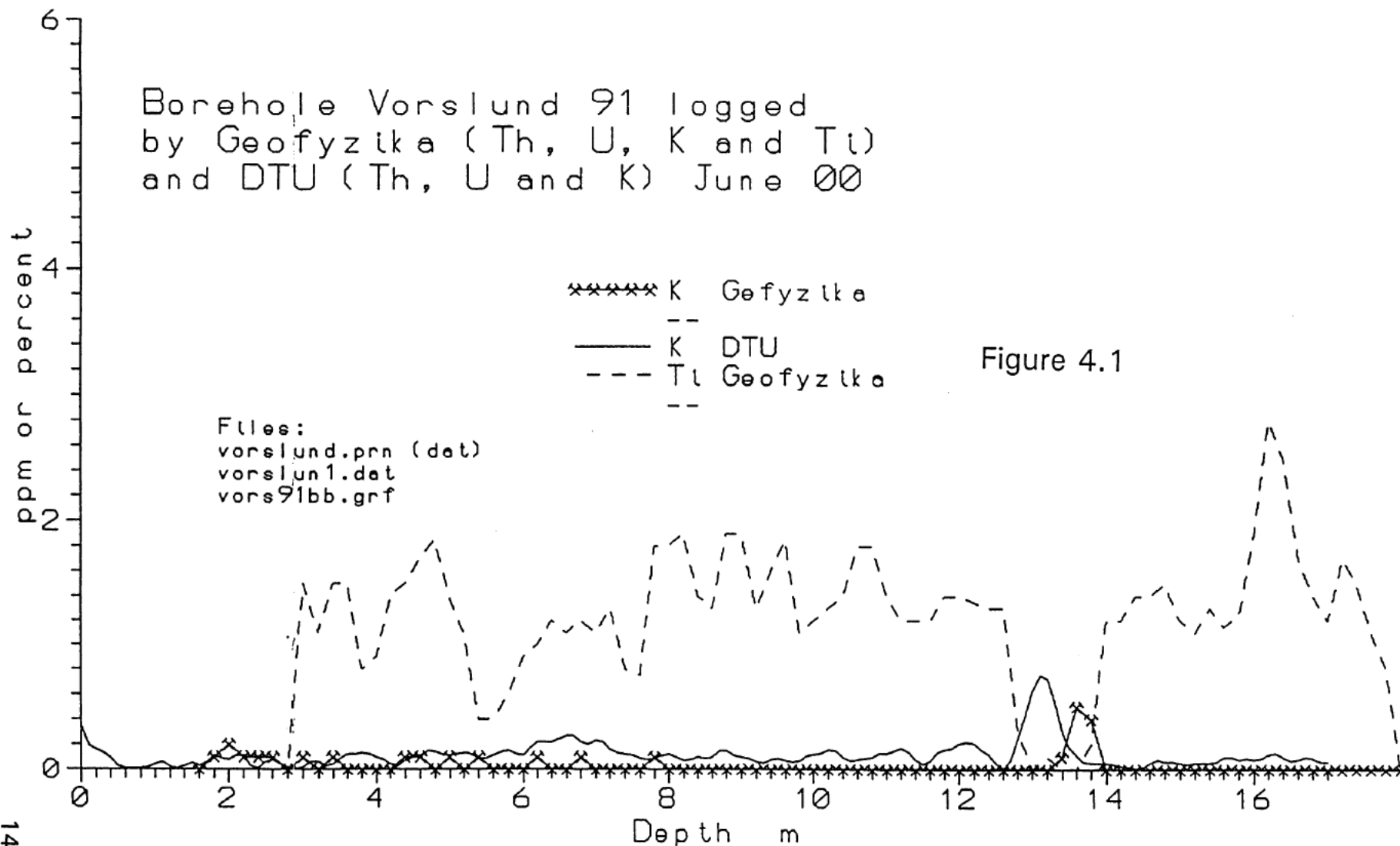
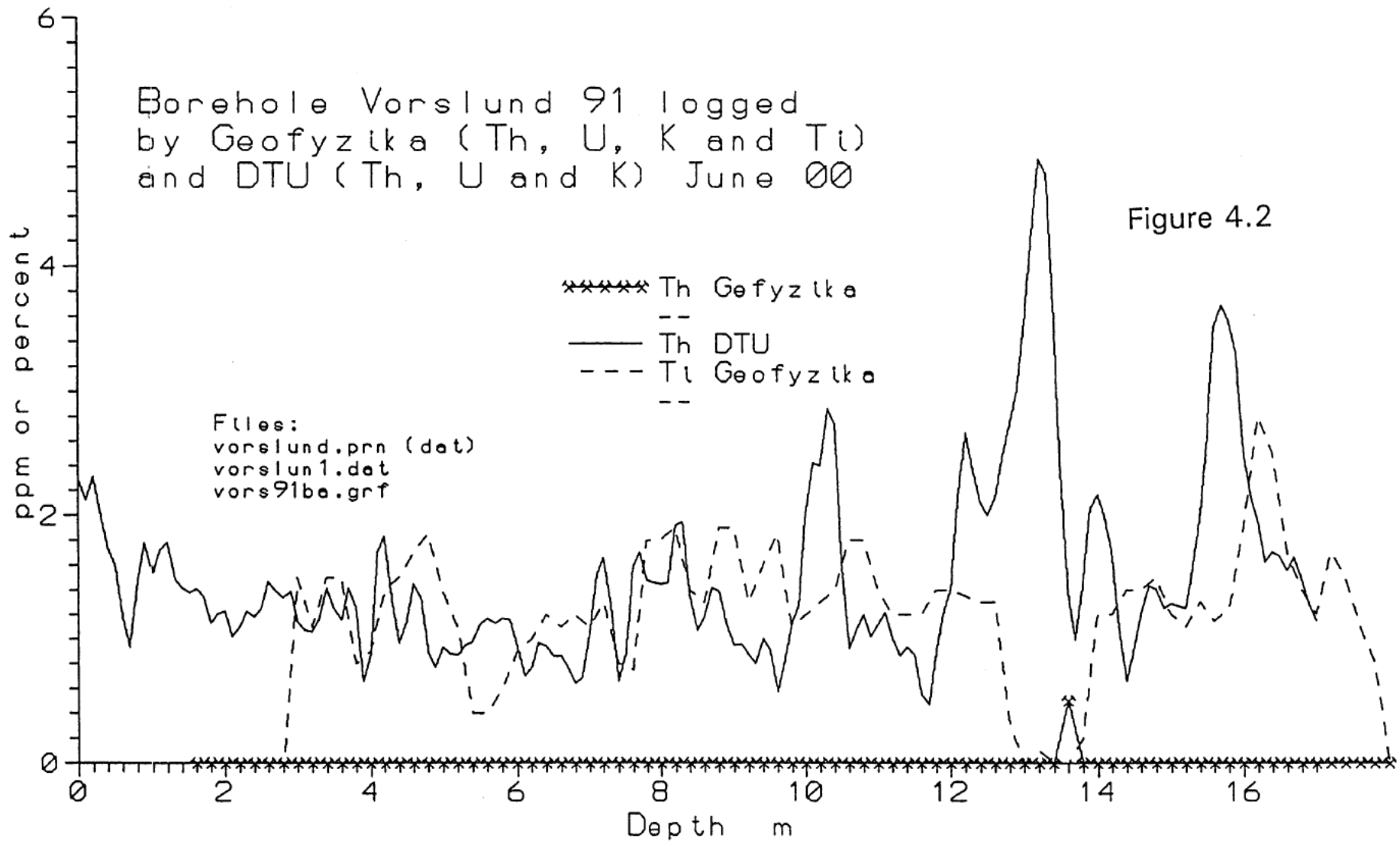


Figure 4.1

Borehole Vorslund 91 logged  
by Geofyzika (Th, U, K and Ti)  
and DTU (Th, U and K) June 00

Figure 4.2



## **5. NASVD on capture spectra. Transfer of a spectrum processing method from airborne gamma-ray spectrometry to borehole spectra. (Not carried out yet.)**

*This section has been included in the report in order to point out that capture gamma spectra may be processed (and recorded) in a way that ensures faster and better results than obtained in the SK- and V-boreholes.*

In 1997 a new powerful method for processing a set of many gamma spectra was introduced by Hovgaard (Ref. 2 and 3). Originally it was developed for processing airborne gamma-ray spectrometry data. Here one often has several thousand "low quality" spectra from a survey from which one has to extract information on the radioactive nuclides in and on the overflowed ground. The method - Noise Adjusted Singular Value Decomposition (NASVD) - first extracts from the whole set of spectra a number (3-10) of basic spectra termed spectral components which - by suitable linear combinations - can be used for a "reconstruction" of the measured spectra. The reconstructed spectra, however, in general contain much less (statistical) noise than the measured spectra.

A short and simplified explanation of the method is that the large set of spectra in reality contains a limited amount of spectral information - there is a lot of similarities between the spectra. Those similarities are extracted as parts of the spectral components. By being based on a large number of spectra the spectral components only contain minor amounts of statistical noise. The reconstruction is some - suitable least squares fit of linear combinations of the spectral components to the measured spectra. By having only a little statistical noise in the spectral components, the reconstructed spectra also contain minor amounts of statistical noise.

The method can be used for all gamma-ray spectra. Minthy (Ref. 4) has used it for an improvement of uranium mapping; DTU has used it for SNG-logging in boreholes (Ref. 5 & 6) and for airborne gamma-ray spectrometry (Ref. 7). One also may extract information on spectra from specific nuclides (Ref. 8). The method can be used without having on beforehand any information on detector type, nuclides present and the measuring geometry. The NASVD method in its basic form simply replaces the noisy measured spectra with low-noise reconstructed spectra.

When the spectra have been reconstructed they are processed with standard methods - for example a three or four windows method. Taken together in just one step, the NASVD + the simple windows method is called the "short-cut method". Compared with a "unit spectra decomposition" (with known unit spectra) the short-cut method also uses all spectral information but it avoids the errors due to a varying measuring geometry that influences the low energy part of the spectra in a different way than the high energy part. The short-cut method also is more robust towards spectrum drift than is the standard unit spectra method.

It is obvious that the NASVD method (or the short-cut method) would be very useful for a post processing of capture gamma spectra similar to those recorded at Skjern and Vorslunde. The present capture gamma spectra recorded by Geofyzika at Skjern and Vorslunde, however, are stored in a format that cannot be handled by the existing software. (A reformatting is possible but may be complicated/time consuming.) Furthermore, each of the logs include too few single spectra - especially the Vorslunde logs. (A winch driven log with recording of 10 s spectra would be much better for NASVD processing and a faster logging.)

#### References:

1. "SNG-logs at Skjern and Vorslunde - and heavy minerals exploration". Uffe Korsbech. Report, BHR-89, IAU, DTU, July 2000 (revised October 2000)
2. "A new processing technique for airborne gamma-ray data. In: Proceedings Sixth Topical Meeting on Emergency Preparedness and Response, April 22-25, 1997, ANS, San Francisco, USA.
3. "Airborne gamma-ray spectrometry. Statistical analysis of airborne gamma-ray spectra". Ph. D. thesis, Department of Automation, Technical University of Denmark, 1997.
4. "Improved NASVD smoothing of airborne gamma-ray spectra". B. Minty and P. McFadden. *Exploration Geophysics* 29, 516-523. 1998.
5. "SNG-logs ved Skjern. Udvidet analyse af loggedata for detektion af tungmineraller". Uffe Korsbech, Jesper Petersen og Helle Karina Aage. Report BHR-87. IAU, DTU. December 1998.
6. "Reducing Statistical Noise for Spectral Natural Gamma-ray Logs". Nordic Petroleum Technology Series. Uffe Korsbech and Helle Karina Aage. (Accepted for publication 2000.)
7. "Analysis of airborne and airborne gamma-ray spectra from Gävle". Helle Karine Aage. IT-NT-55. IAU, DTU, November 2000 (in press).
8. "A new technique for processing airborne gamma ray spectrometry data for mapping low level contamination". Helle Karine Aage, Uffe Korsbech, Kim Bargholz and Jens Hovgard. *Applied Radiation and Isotopes* 51 (1999), pp. 651-662.
9. *Reactor Handbook*. Vol. III. Part B. Chapter 8. Sources of Neutrons and Gamma Rays. Everitt P. Blizard and Lorraine S. Abbott. Interscience Publishers. 1962.

a:sng1capt.ure

## Appendix A:

### Typical capture (gamma) spectra. Basic theory and examples

When a neutron source is placed in a water filled borehole the fast neutrons emitted by the source is quickly slowed down to thermal energies - mainly due to collisions with the hydrogen nuclei of the water in the borehole and in the formation water. (Hydrogen bound in organic matters also contribute to the slowing down of the fast neutrons.) The "dry matter" of the formation ( $\text{SiO}_2$ ,  $\text{CaCO}_3$ ,  $\text{Al}_2\text{O}_3$  etc.) only contribute a little to the slowing down - but the "dry matter" contributes to the "keeping the neutrons close to the source" and, therefore, also is of some importance for the intensity (flux/fluence rate) of the thermal neutrons close to the source. However, water is far the most important factor influencing the fluence rate of thermal neutrons close to the source-detector couple.

When the neutrons have been slowed down to thermal energies they "diffuse" around for some milliseconds before they are captured by the atomic nuclei. Different nuclides have different "power" (capture cross sections) for absorption of thermal neutrons. Hydrogen has a "medium size" capture cross section (0.3 barn); but due to the presence of many hydrogen atoms, a large fraction of the thermal neutrons are captured in hydrogen nuclei.

In a "geological environment" a lot of  $\text{SiO}_2$  often also is present. Oxygen hardly absorbs any thermal neutrons but Si does. Iron absorbs (per atom) better than Si, and Ti and especially Mn are even better absorbers. A few other elements also - contribute to the absorption of thermal neutrons in a general "geological environment".

When an atomic nucleus - for example a hydrogen nucleus - has absorbed a neutron, the new nucleus is in an unstable condition; it has a surplus of energy that immediately is emitted as one or several gamma photons. Those "capture gamma photons" have energies that are characteristic for the absorber. Hydrogen, for example, emits photon of just 2.23 MeV energy. Titanium emits a mixture of gamma photons with different energies; most have energies at 6.41 MeV and 6.76 MeV - and at 1.38 MeV. Therefore, if one measures (with a suitable gamma detector) the energies of the gamma-ray photon fluence in a borehole one gets "fingerprints" of the atoms present in and around the borehole. If the detector + source (a capture gamma probe) is calibrated for the actual borehole geometry one gets information on the amount (concentration) of the neutron absorbing elements in the surrounding formation. Therefore, a capture gamma probe can be used for measuring the concentration of for example Ti in deposits of heavy minerals; and this is what has been done by Geofyzika in boreholes at Skjern and Vorslunde.

Figure A.1 shows "typical" capture spectra measured with the Geofyzika capture probe. (From different depths of the SK25 borehole.) The spectra (processed by DTU) have been taken from depths where the SNG-log indicates Sand, Clay, and Heavy Minerals Sand respectively. About channel 90-92 (corresponding to 3.1 MeV) there is a shift of curve level. This is an "artifact" introduced when the data have been stored. The counts of all channels lower than channel 90 should be multiplied by 16 if quantitative count rate information should be extracted from the lower channel numbers<sup>1</sup>. (The "switch over" channel number may vary a little from spectrum to spectrum.)

The curves of Figure A.1 have a number of "peaks" indicating the presence of

---

<sup>1</sup> This information has been deduced from the data files themselves; the information does not come from Geofyzika that has not been asked on that.

atoms that emit strong capture gamma signals. In Figure A.2 similar spectra are shown. Here they are selected in order to get "extreme" spectra that point out the characteristics of Quarz Sand, Clay (from SK25) and Heavy Minerals Sand. In addition a spectrum termed "Water?" has been included. It originates from a depth (12 m) in or below a layer of clay where there may be a caving into the borehole-wall (some material may have been lost). Therefore, a rather large amount of water exists outside the casing (as well as inside the casing).

The "peaks" of the spectra are due to (see Figure A.3 and A.4 that are expanded versions of Figure A.2):

**Fe:** At channel 227 is seen a peak of varying intensity in all spectra. It is caused by Fe in the surrounding formation - and probably also by some Fe in the construction material for the probe itself. (One generally avoids using Fe as a material for a capture gamma probe; but often minor amounts of Fe cannot be avoided.) The capture gamma photons from Fe have the energies (and yields) listed in Appendix C.

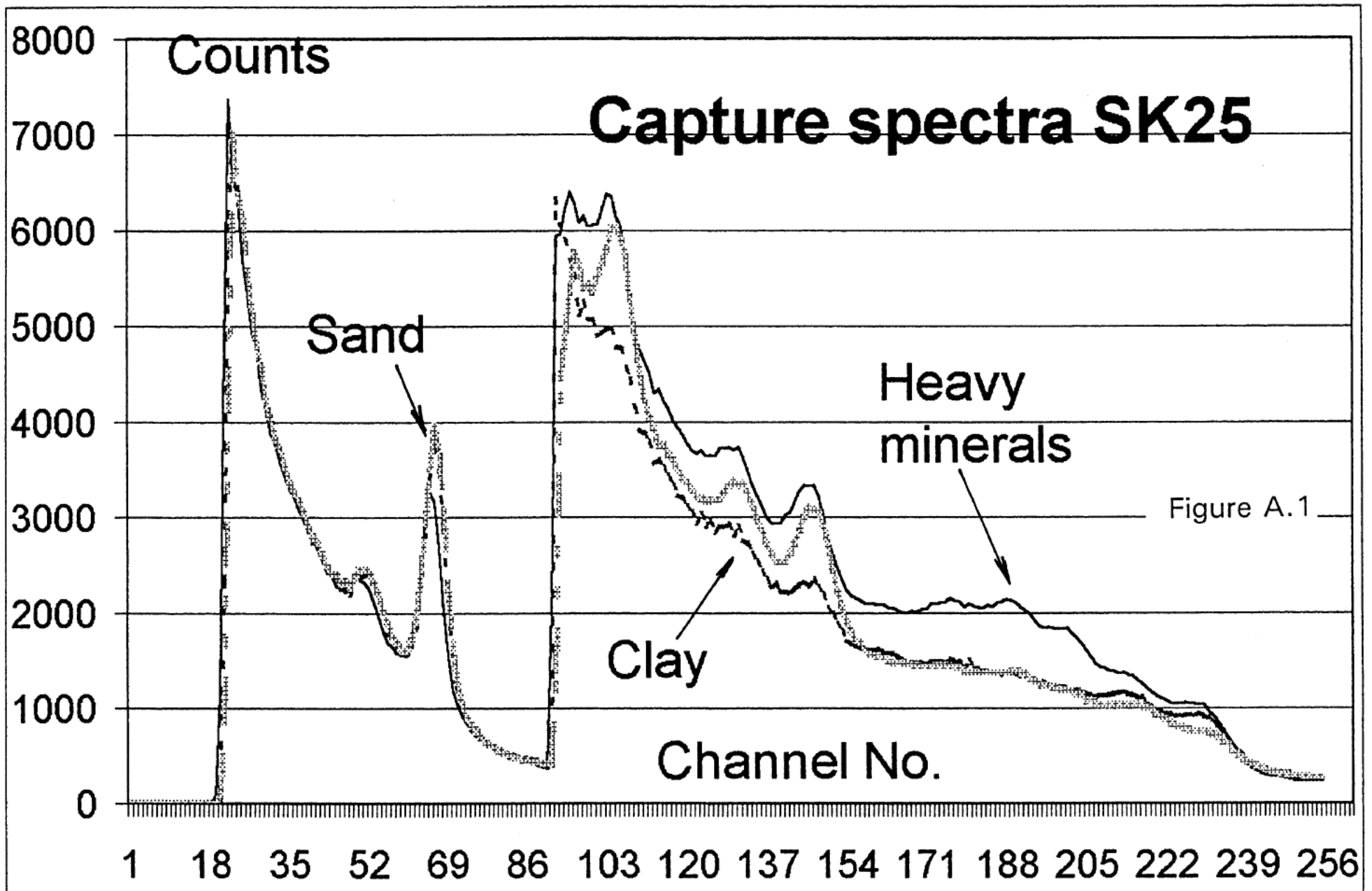
The Fe peak just mentioned corresponds to all photon energy being absorbed in the detector (BGO), and it is termed a "full energy peak". Capture gamma photons also cause "single escape peaks", and in principle double escape peaks too. But double escape peaks can hardly be observed with the detector used. Single escape peaks are for all capture photons found at 0.511 MeV (= 15 channels) below the full energy peaks - i.e. for Fe the single escape peak is found at channel 212.

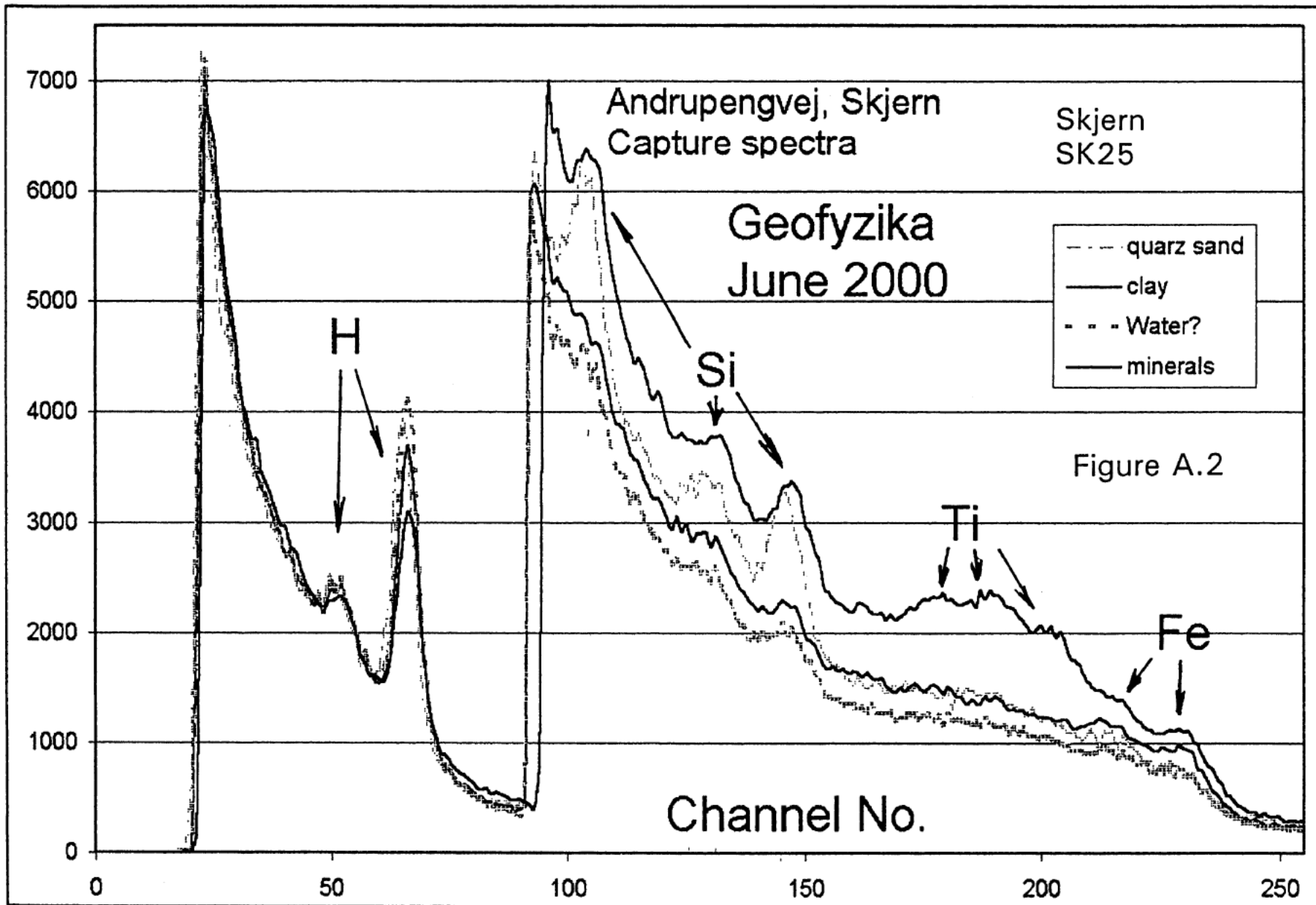
**Ti:** Here capture gamma photons of energies from 6.41 MeV to 6.75 MeV are emitted. One notices that the Heavy Minerals spectrum exhibit a group of peaks between channel No. 175 and channel No. 200 just corresponding to the energies for Ti plus the single escape peaks. The spectrum for "Water?" has no Ti signal and the Clay spectrum neither not. The Quarz Sand may have a tiny amount of Ti signal corresponding to minor amounts of heavy minerals found together with the quartz sand.

**Si:** Silicon has several capture gamma photon energies *inter alia* two "strong" lines at 3.54 MeV and 4.93 MeV. Besides that there are low yield photons of several other energies. The strong Si lines are observed at the channels Nos. 104 and 146 with a single escape peak at channel No. 131. (The single escape peak to be found at channel No. 90 cannot be observed due to the switch-over of the count scale just at channel No. 90.) One notices - as expected - that the Si signal is strongest in the Quarz Sand, and it is easily recognised in the heavy minerals sand, whereas Clay and "Water?" have much weaker peaks.

**H:** (see Figure A.3) : The presence of water (and organic matter) is seen from the full energy peak of hydrogen at channel 65 (2.23 MeV) and the somewhat smaller single escape peak at channel 50 (1.72 MeV). One notices that the curve for "Water?" has the highest H-signal (although the peak "rests" on the lowest spectrum background level). The Heavy Minerals sand exhibit the smallest H-peak - although this peak rests on the highest spectrum background. There is the same amount of water inside the borehole for all spectra; and the porosity of the heavy minerals sand don't differ much from the porosity of the quartz sand. The "deficit" in H-signals in the heavy minerals sand therefore is due to the strong absorption of neutrons in some of the elements of the heavy minerals for example Ti, Mn and Fe.

In Figure A.5 are shown "pure" capture spectra for Si, Fe and Ti. They are based on a detector different from that used by Geofyzika. Therefore the single escape peaks are not observed. They originate from Ref. 9







Andrupengvej, Skjern  
Capture spectra

Geofyzika  
June 2000

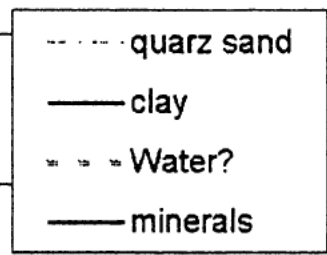
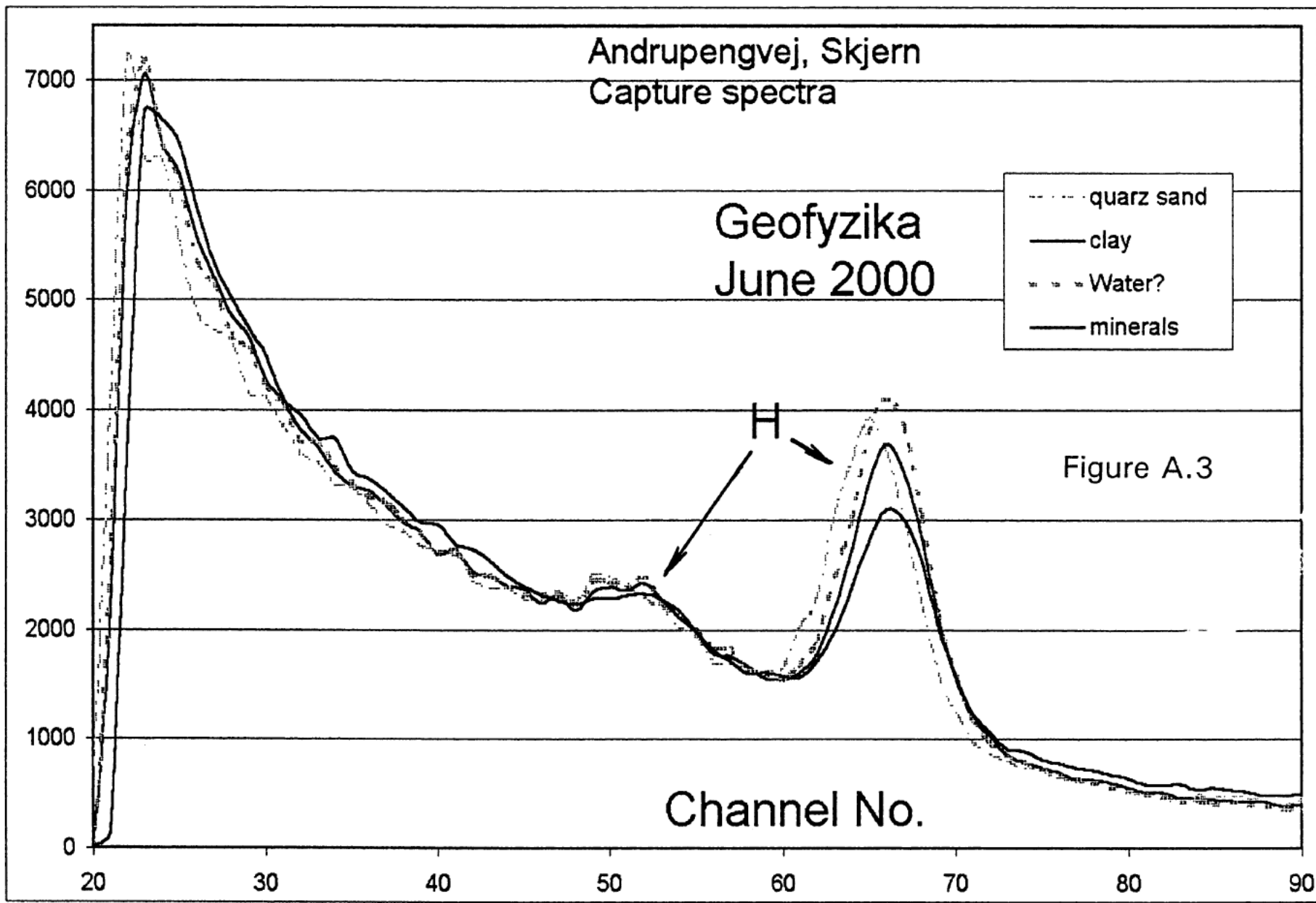
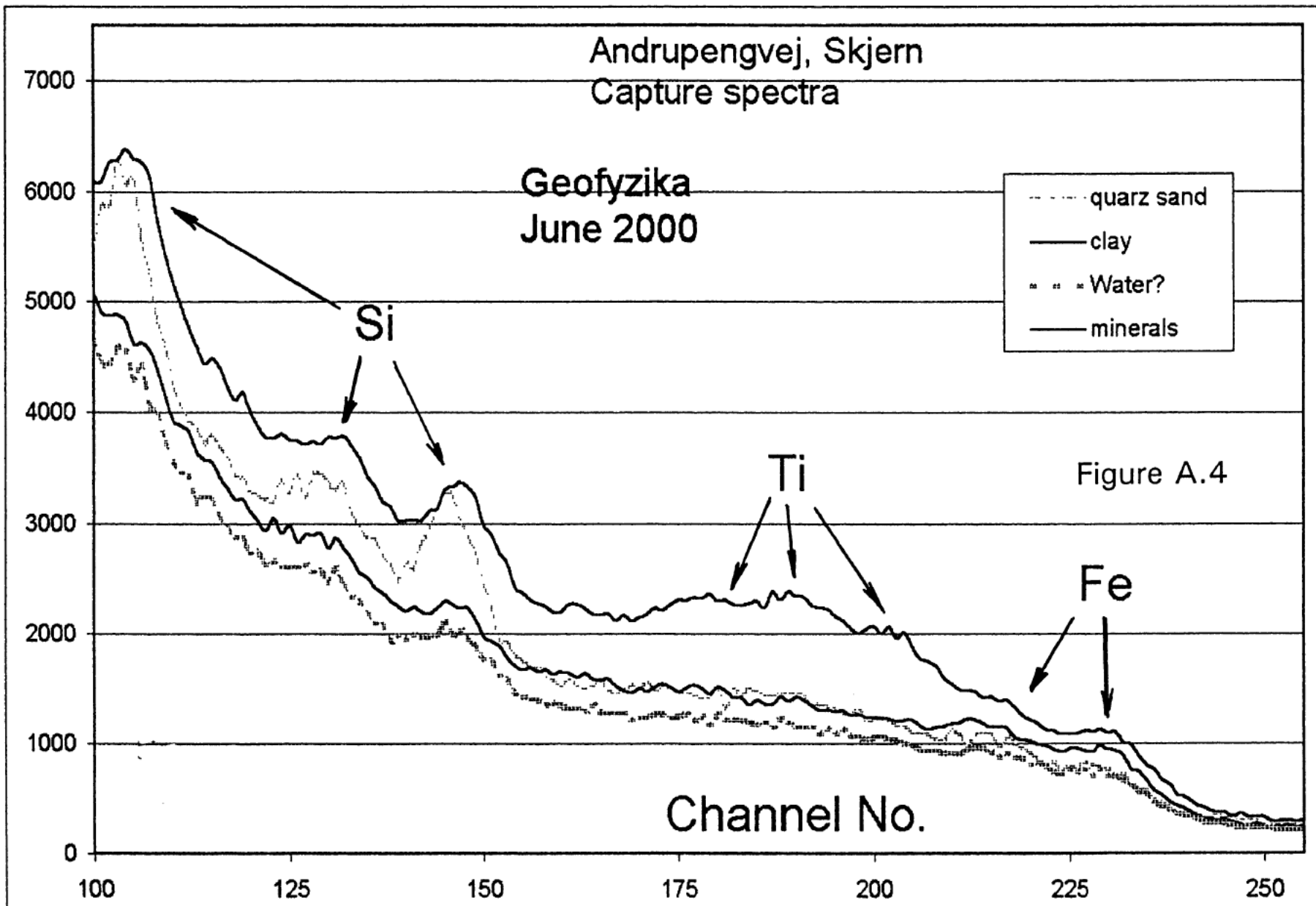


Figure A.3



Channel No.



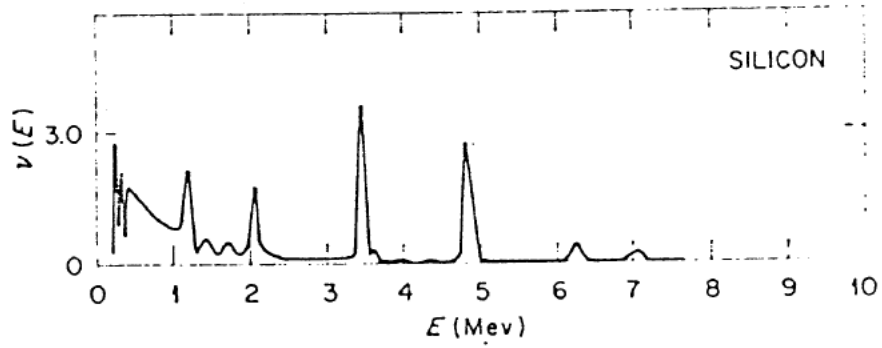


Fig. 8B.2. Capture-gamma-ray spectrum,  $\nu(E)$  vs.  $E$ , for silicon.

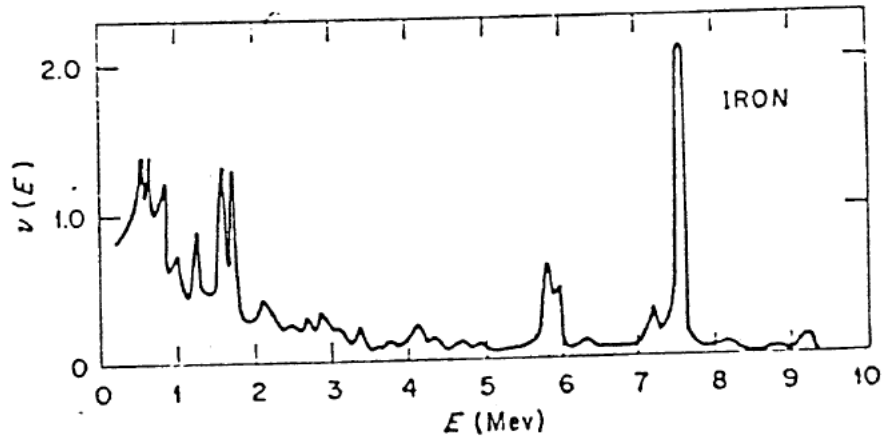


Fig. 8B.11. Capture-gamma-ray spectrum,  $\nu(E)$  vs.  $E$ , for iron.

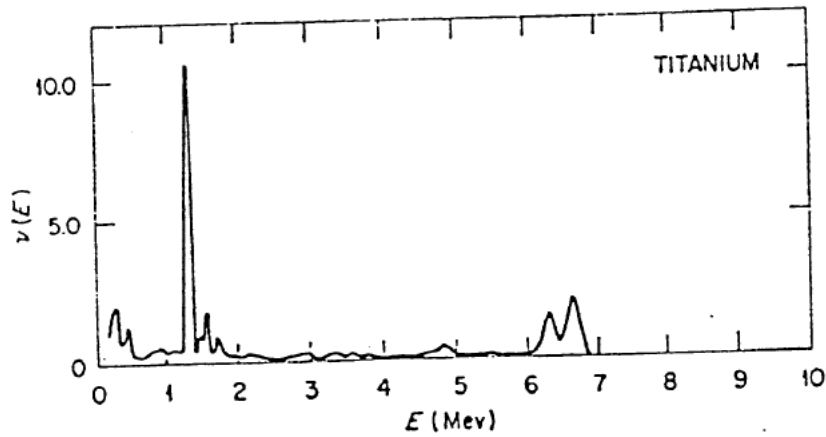


Fig. 8B.7. Capture-gamma-ray spectrum,  $\nu(E)$  vs.  $E$ , for titanium.

Figure A.5

# SNG-log for Andrup 26. 6. 2000

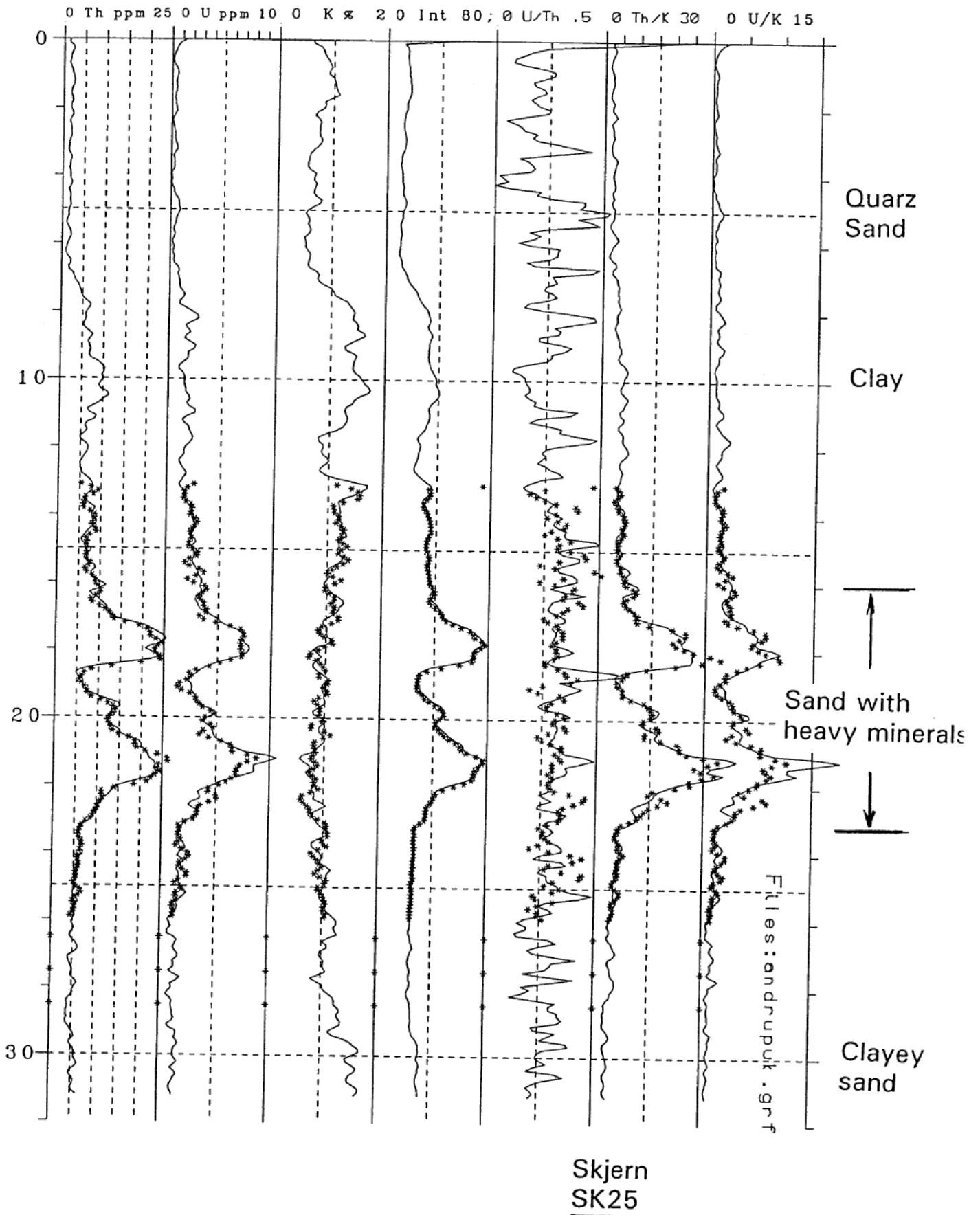


Figure B.1

# SNG-log for GANER 27.6.2000

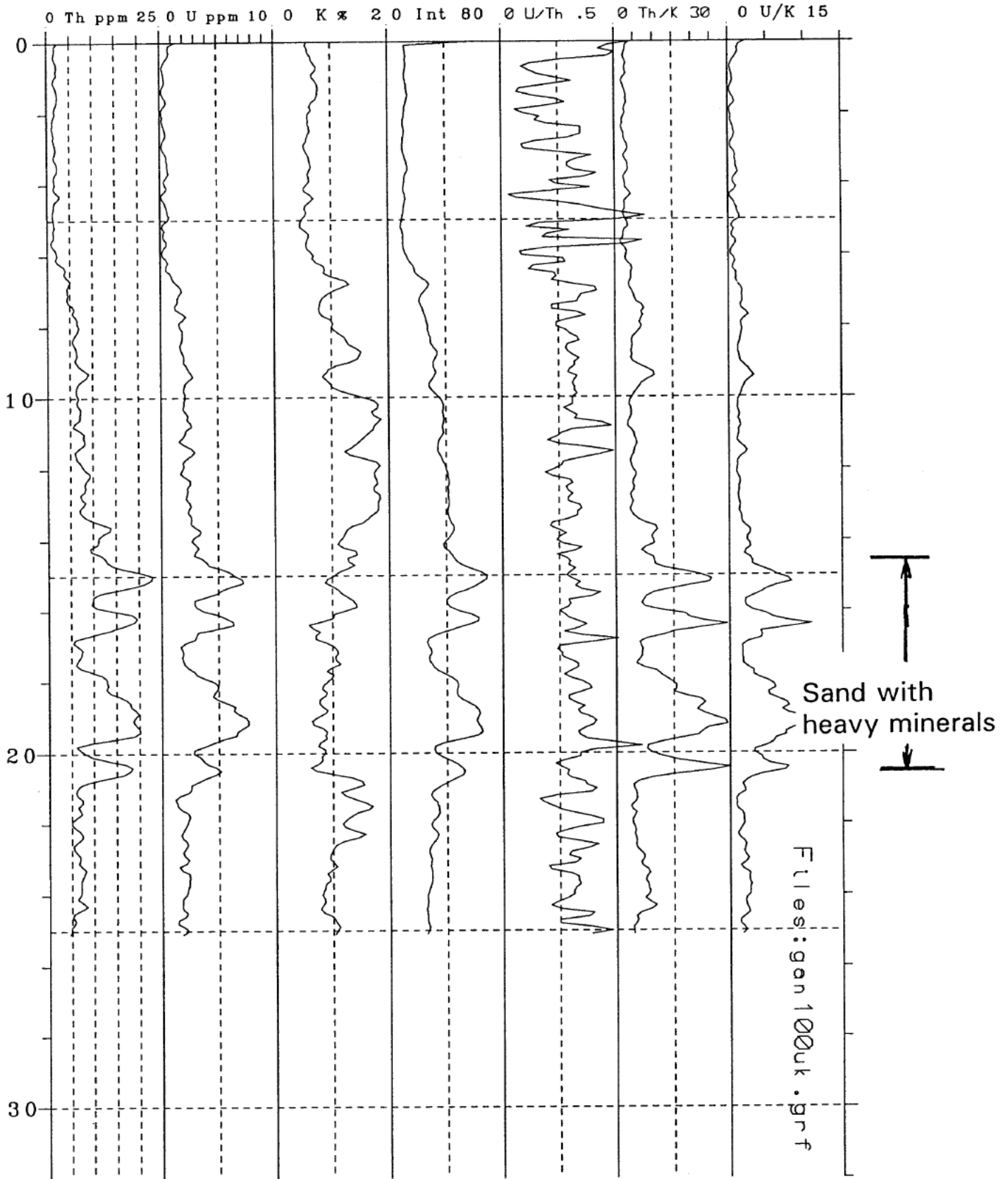
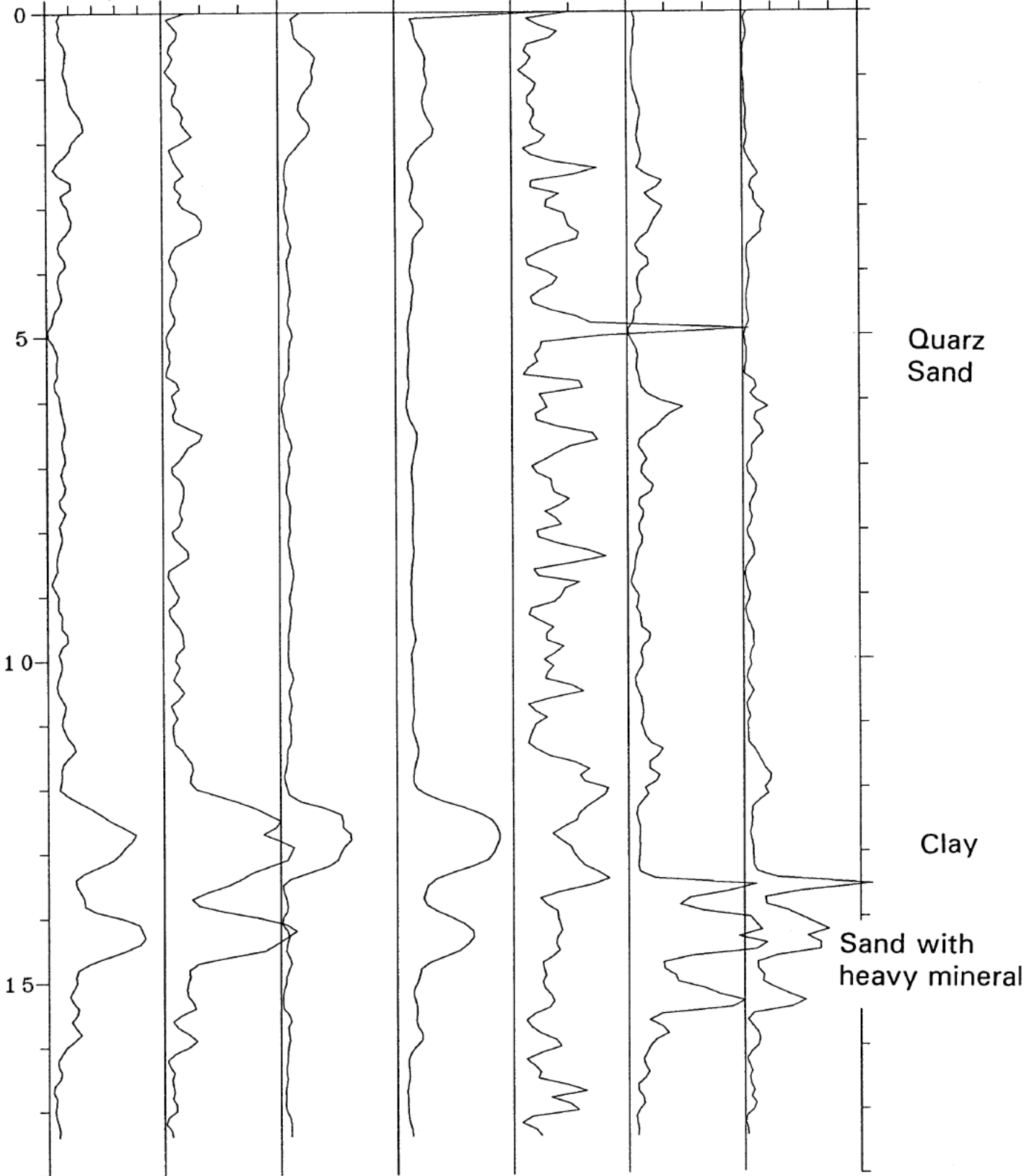


Figure B.2

SMG-1 o g    Vorslunde V90L    27. 6. 2000

0 Th ppm 10 0 U ppm 3    0 K % 20 Int 40    Ø U/Th 1    Ø Th/K 60    0 U/K 40



Vorslunde  
V90L

Figure B.3 27

SNG-log      Vorslunde V91L      27.6.2000

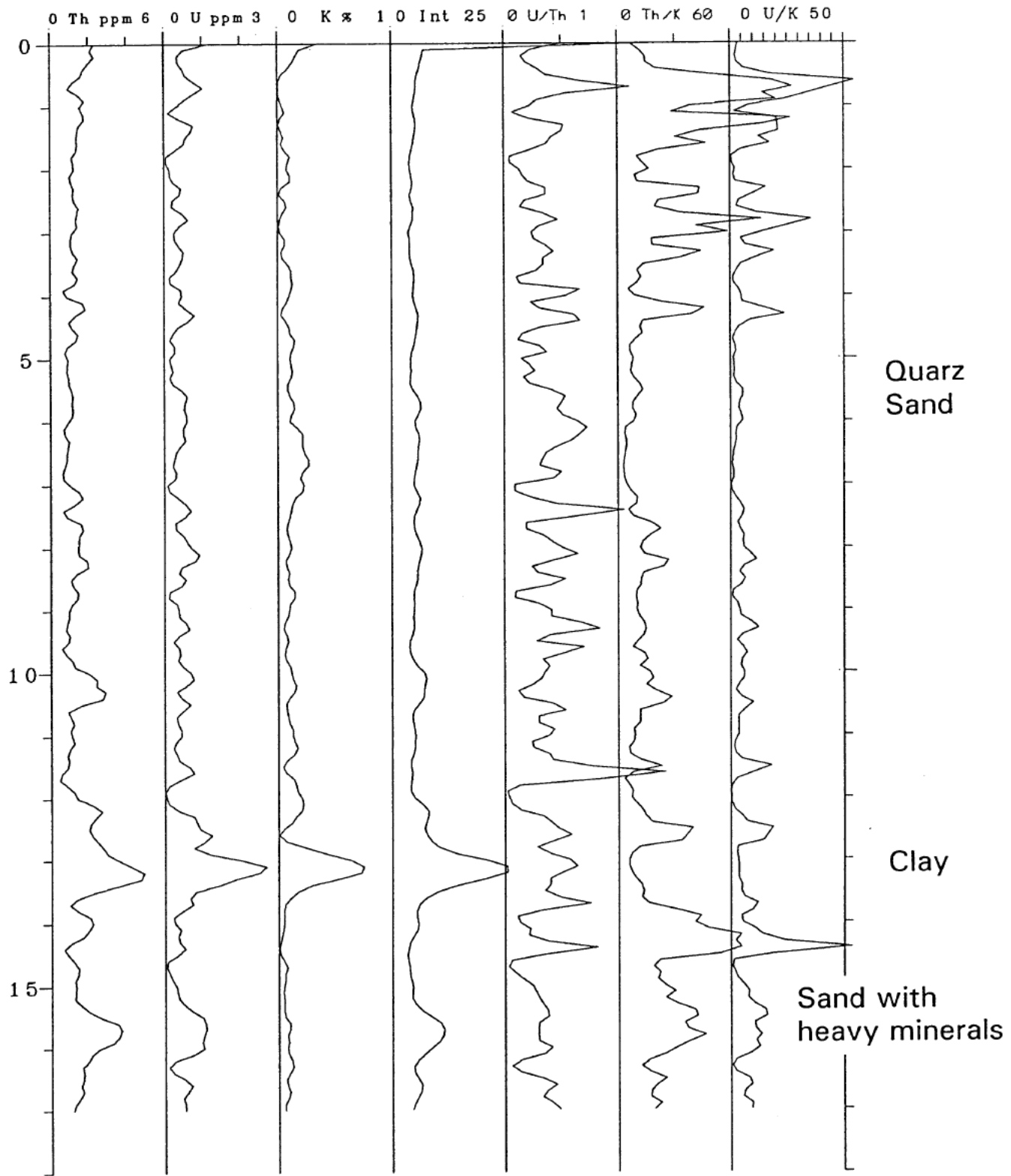


Figure B.4

## Appendix C.

### Capture energies and energy calibration

In the table below are listed the energies of the capture photons together with the yield (probability for emission after absorption of a neutron). Also shown are the channel numbers (from Geofyzika spectra) corresponding to the photon energies.

Element	Energy (MeV)	Yield	Channel No.
Hydrogen	2.23	1.00	65
Silicon	1.28	0.16	
	2.65	0.11	
	2.10	0.13	
	3.54	0.60	104
	4.20	0.10	
	4.93	0.75	146
	6.40	0.11	
Iron	c. 1.68	0.16	From 1.53 MeV to 1.80 MeV
	c. 5.96	0.12	5.91 and 6.02 MeV
	7.64	0.29	227
Nickel	9.00	0.26	
	8.53	0.11	
Titanium	1.38	0.87	
	6.41	0.29	190
	6.55	0.06	
	6.75	0.41	200

The difference between a full energy peak and its associated single escape peak is 511 keV corresponding to 15 channels.

Figure C.1 shows the energy calibration for the Geofyzika capture probe used at Skjern and Vorslunde.



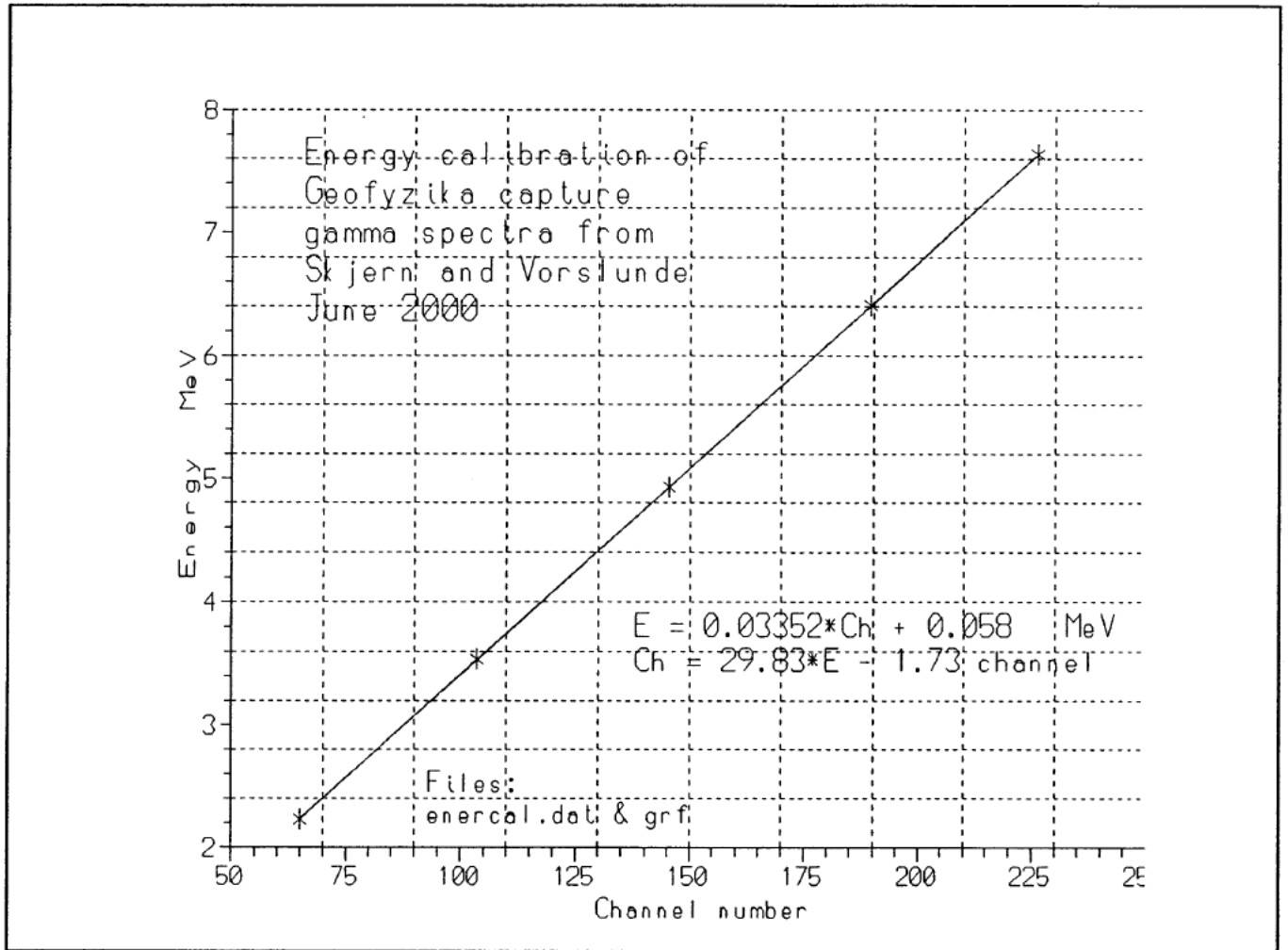


Figure C.1

## Appendix D: Volume of measurement and centre of probe for SNG-probes and capture gamma probes

In principle a SNG-probe measures the gamma signal from a very large volume-around the detector. A photon emitted by an atom 1 m from the detector may be measured; but the probability for this to happen is extremely small. Therefore, one often defines a "volume of measurement" by calculations - under ideal circumstances - the spherical volume from where 90% (or 95%) of the detector signal in a large homogeneous formation will originate. For Th measurements based solely on the 2615 keV gamma photons this sphere has a radius of 25-30 cm (or 30 to 35cm). For U (with 1765 keV) and K (with 1462 keV) the radii are some 5 cm smaller. The numbers given here are for "normal formations" with densities around 2.0 to 2.2 g/cm<sup>3</sup> including formation water. The only parameter of significant importance is the mass attenuation coefficient for the formation in question.

The material close to the detector has far the greatest importance. For a "30 cm sphere" as described above the innermost 15 cm (radius) material contributes with some 70% of the total signal.

SNG probes utilising the whole gamma (detector) spectrum in the calculations has a smaller "volume of measurement" for the low energy part of the spectrum. (The mean free path for gamma photons of lower energy is smaller than for higher gamma energies.) The "full spectrum probes" also detect photons farther away than the 25 cm to 35 cm mentioned above for the three windows probes. But this additional signal is due to photons that have Compton scattered (and have lost some energy) during their path from source to detector. The information "contained" in those photons don't discern between Th, U and K. The only information is on the total level of gamma-ray intensity.

The "measuring volume" for a capture gamma probe depends both on the slowing down length for the fast neutrons and on the energy of the capture photons. The capture photons - with energies from 4 MeV to 6 MeV - have ranges that are at least twice as long as those for natural gamma rays. But the slowing down of neutrons occurs over a much smaller volume and, therefore, the volume of measurement for a capture probe is not much different from that of a SNG-probe. The volume is not a sphere for the capture probe - even not in the ideal case with a narrow borehole and a homogeneous formation. The volume is an "elongated sphere" (an oval as the vertical cross section) covering both source and detector.

The centre of a SNG-probe is the centre of the detector. For a capture gamma probe the centre is "midway" between neutron source and detector.

## 8 GF Instruments

**GF Instruments, s.r.o.**  
**Ječná 29a, 621 00 Brno, Czech Republic**

**Report on borehole measurements of Ti, K, U, Th  
concentrations using spectral analysis of the gamma-ray  
from neutron capture and from natural radioisotopes.**

**Skjern and Vorslunde Areas, Denmark.**

**Client: Geological Survey of Denmark and Greenland, Christian Knudsen  
Thoravej 8, DK-2400 Copenhagen NV**

**Authors: Vít Gregor .....**  
**Bohumil Pícha .....**

**Brno, 17/07/00**

## **1. Introduction**

Borehole logging was performed according to the order of Geological Survey of Denmark and Greenland and under scientific and technical conduction by Christian Knudsen and Christian Abildtrup. The objective of borehole logging was as follows:

- to measure the titanium concentration in prepared boreholes using the method of the spectral analysis of the gamma-ray coming from neutron capture in titanium atoms nuclei
- to measure the concentrations of the natural radioactive elements K, U, Th with the help of gamma-ray spectrometry

The measured results should serve for the comparison with the laboratory analysis of drill core samples and finally be used for the precise evaluation of the thickness and Ti enrichment of the layers.

The measurements in the boreholes No. SK 00.25, SK 00.26, V 90L and V 91L were performed between June 26 and July 1, 2000.

Processing, interpretation and reporting was finished on July 14, 2000.

## **2. Techniques**

### **2.1. Ti Analyzer**

The determination of the Ti content was performed using the LSCA-1 borehole gamma spectrometer by GF Instruments, Ltd.. This instrument is equipped with BGO scintillation unit of the 2x2" size and with fast pulse analyzer for the spectral analysis of high energy gamma-rays coming from the neutron capture.

The  $^{252}\text{Cf}$  neutron source with the activity of 71 MBq was used for irradiation of the rock under study. The measuring time of one point was 3 minutes. The measurement was begun starting the 3 m depth in which the wells were already filled with water.

The effective range of investigation of the probe is about 0.5 m from the probe axis.

The method of the evaluation of the spectra is based on a long experience of GF Instruments, Ltd. with the direct measurement of the concentrations of S, Si, Ti, Fe, Cl and other chemical

elements in natural materials. The measured values were matched to the results from high volume Ti standards of GF Instruments, Ltd.

## 2.2. Natural Gamma – ray Spectrometer

The concentrations of K, U, Th were determined with the help of the new multipurpose geophysical Gamma-ray spectrometer GRS-2000 by GF Instruments, Ltd.. This instrument was used in borehole assembly using the NaI(Tl) scintillation unit of the 2x2" size.

The measuring time of one point was 3 minutes

The used method of the spectral analysis is based on the statistic principle of the evaluation - fitting from the unit spectra of the analysed elements.

The instrument calibration was done on the Czech K, U, Th standards.

For more details see the instrument leaflets enclosed as appendices.

## 3. Results

### 3.1. Borehole Location and Technical Parameters

The location of the measured boreholes is shown on the map (fig.1).

Their coordinates are given in the following table:

<b>Boreholes location</b>				
Borehole	Co-ordinates UTM			
	X [m]	Y [m]	Z ground [m]	Top of casing above ground [m]
SK 00.25L	6203914	461648	5	0.2
SK 00.26L	6200174	466042	3	0.2
V 90L	6190006	507656	58	0.2
V 91L	6199339	508417	59	0.3

UTM is zone 32, wgs is 84.

Borehole technical parameters:

Drillhole	160 mm drill bit diameter
Casing	125 mm outer diameter
Casing thickness	5 mm
Casing material	high density polyethylene (PEH)

### 3.2. Result Tables and Logs

Reached results are described for each borehole separately.

Each table contains the following columns:

Depth [m]– the depth of the measurement in metres measured from the top end of the casing tube (the height of the top end of the casing tube above the surrounding surface for each borehole is shown in the above introduced table)

Total – the total dose rate measured in nano grays per hour

K [ %]– the concentration of potassium in %

eU [ ppm]– the concentration of the uranium equivalent in ppm

eTh [ppm ]– the concentration of the thorium equivalent in ppm

Th/K – the ratio of Th and K concentrations in  $10^4$  units

Th/U – the ratio of Th and U concentrations

Ti[ %] – the concentration of titanium in weight %

Si<sub>Qualitative</sub> – the approximate measure of the occurrence of the silicon given in three levels

1 – low (below 5%), 2 – medium (about 10%), 3 – high (above 20%)

Fe<sub>Qualitative</sub> – the approximate measure of the occurrence of the iron given in three levels

1 – low (below 1%), 2 – medium (about 5%), 3 – high (above 10%)

Each graph contains logs for Ti concentrations, Si and Fe estimates and K, eU and eTh concentrations (their ratios).

#### **Borehole SK 00.25 (fig. 2, table1)**

We can distinguish following depth intervals having different Ti concentration and different geology:

- a) The main anomaly of Ti concentration (0.3% to 2.6%) is found in the depth interval from 17.0 to 24.6 m. High Ti content is accompanied with high concentrations of U, Th. The content of Si is medium or high. Fe content is medium or high as well. The layer is enriched with heavy minerals with titanium. It is possible to see a good correlation of Ti concentration and U, Th ones in the part C of the figure but the concentrations of U, Th (and especially the ratios Th/K and Th/U) are near the zero level at the positions around 19.4 m while the concentrations of Ti remain still significant there.
- b) The small Ti concentration anomaly (0.3% to 0.5%) is in the depth from 27.8 to 28.8 m.
- c) Very low Ti concentrations (< 0,1%) accompanied with expressive decreasing of Si content were found from the depth from 9.4 to 12.4 m. The Quartz sand is probably substituted with organic mass (with high C content) there.
- d) The increase of K, U, Th contents starting the depth of 8.0 m and deeper is caused by crossing from relatively pure Si sands to layers containing clay minerals (probably an indication of the Quaternary and Miocene sediments contact). The K concentration is practically steady in this depth interval and does not follow the U and Th increase in the Ti anomaly.

#### **Borehole SK 00.26 (fig. 3, table2)**

Watching the results from SK 00.26 in figure 3 we can see the very similar situation to the above described borehole.

There are again three specific anomalies along the borehole:

- a) Fair Ti concentration anomaly (0.3% to 2.0%) is in the depth from 15.4 to 21.8 m. This anomaly is coupled again with anomalies of U, Th concentrations and Th/K, T/U ratios as well but the course of their correlation with the Ti contents is only approximate. The concentration of Si is high there. This layer is enriched with heavy minerals having significant Ti concentration. Qualitative Fe concentration is on the medium and high level there.
- b) Subtle Ti anomaly (0.6% to 0.8%) lays in the depth interval 24.6 up to 24.8 m. There are high Si contents and low Fe contents there.



- c) Very low Ti concentration (< 0.1%) is in the depth from 10.4 to 13.8 m. There is decreased Si content and medium Fe content there. The presence of organic mass is estimated in this depth interval.
- e) The increase of K, U, Th contents starting the depth 8.0 m could indicate the contact of Quaternary and Miocene sediments.

#### **Borehole V 90L (fig. 4, table3)**

Following depth intervals were distinguished:

- a) The layer rich for Ti (0.3% to 1.7 %) was found near the surface already - in the depths from 3.0 m to 5.4 m. The concentration of Si is high. Fe content is low. Concentration of K, U, Th is extremely low so ratios Th/K and T/U was not possible to calculate. These features show to the presence of pure quartz sand with ilmenite and other Ti minerals. Content of Fe minerals is low.
- b) Another wide Ti anomaly (0.3 to 1.2) lies in the depth interval from 6.6 to 11.6 m. The matrix and accompanying conditions are close to the previous item.
- c) The highest Ti concentration (0.3% to 3.5 %) is in the depth from 13.8 to 17.0 m. This anomaly is accompanied with an U and Th concentration increase only in a negligible measure. The content of Si is high and the content of Fe is low or medium similarly to the above described two layers.
- d) The layer between 11.8 m and 13.6 m indicates a very significant decrease of Si content showing the presence of organic mass (C occurrence). Some small presence of clay minerals according to the increase of U and Th concentrations there is estimated as well.

#### **Borehole V 91L (fig. 5, table 4)**

- a) Ti high concentration (0.4% to 1.9 %) starts near the surface and continues up to the depth 12.8 m. Other accompanying features are: high Si concentration, low or medium Fe and extremely low K, U, Th. All these facts mean fair enrichment of the pure quartz sand with ilmenite and others Ti minerals with low Fe content.
- b) The highest Ti concentration is found from the depth 14.0 m to the end of the borehole. Accompanying features are the same as above but Fe concentration is very small.

- c) The layer practically without Ti and only with medium Si content lies in the depth interval from 12.8 m to 13.8 m. This situation shows the presence of organic mass containing C with some clay minerals.

## **Conclusions**

Four prepared boreholes at Skjern and Vorskunde areas were explored using the borehole gamma-spectrometry to determine the Ti concentrations and accompanying conditions.

The enclosed logs show the distribution of the Ti concentration and K, U, Th concentrations (and their ratios respectively). Those curves are matched with the semi-qualitative information about Si and Fe presence. The detailed commentary of the results is given in the chapter 3.

Both two boreholes at the Skjern area shows very close geological conditions and chemical composition. Two boreholes situated near Vorskunde are very similar to each other as well.

The mutual differences of both groups of boreholes are very significant:

- The Ti concentration at Vorskunde is significant practically along all the borehole except the depth interval 11.8 – 13.6 m (V 90L) and 12.8 – 13.8 m (V 91L) while the Skjern boreholes show only one significant anomaly between 17.0 and 24.6 m (S 25.00) and between 15.1 and 24.8 m (S 26.00).
- The correlation of Ti concentration with U, Th concentrations at Vorskunde was found to be negligible. This correlation was found to be important (but not quite reliable) at Skjern.
- An extremely high Ti concentration of 3.5% was measured in V 90L borehole at the depth of 14.8 m.
- The rock matrix at Vorskunde consists of pure quartz sand mostly while the presence of clay minerals in the rock matrix at Skjern is typical starting the 8 m depths.
- The Ti layer at Skjern contains significantly higher content of Fe than Ti layer at Vorskunde.
- According to the found high U, Th concentration the Ti layer at Skjern shows more complicated mineralogical composition and probably a higher content of additional chemical elements than at Vorskunde.

- A zone with low contents of Ti and Si of about 2 m thickness was found in each explored borehole which shows an important change of the matrix composition (the presence of the organic mass).

All the above introduced findings are based only on the interpretations of our borehole measurements. No other geological description was available at this stage.

The testing measurement was performed with the use of portable instrument assembly. In the case of routine investigations the winch accessory will be used. Similarly the calculation of the Ti concentrations will be included directly in the measuring software to have the results already on the measuring place.

In the case of a need it is possible to evaluate the Si (and Fe possibly) concentration as well - similarly to Ti. For accurate evaluation of Fe content we recommend to use the magnetic borehole logging (magnetic susceptibility measurement).

Alternatively to the measurement in the water-filled boreholes the measurement of the Ti concentrations in dry boreholes is possible as well. If a borehole is dry only partially the depths around the water level have to be omitted in the range of about  $\pm 40$  cm.

## Borehole SK 00.25

Depth [m]	Total [nGy]	K [%]	eU [ppm]	eTh [ppm]	Th/K*10E <sup>4</sup>	Th/U	Ti [%]	Si <sub>Qualitative</sub>	Fe <sub>Qualitative</sub>
1,6	14,1	0,4	0,0	0,0	0,0				
1,8	11,5	0,6	0,0	0,0	0,0				
2,0	20,1	0,4	0,0	0,0	0,0				
2,2	14,0	0,3	0,1	0,0	0,0				
2,4	18,2	0,5	0,0	0,0	0,0				
2,6	16,7	0,4	0,0	0,0	0,0				
2,8	0,0	0,3	0,0	0,0	0,0				
3,0	11,1	0,3	0,0	0,0	0,0		0	3	1
3,2	8,1	0,3	0,0	0,0	0,0		0,1	3	1
3,4	6,9	0,3	0,0	0,0	0,0		0,1	3	1
3,6	1,5	0,3	0,0	0,0	0,0		0,15	3	1
3,8	0,0	0,3	0,0	0,0	0,0		0,15	3	2
4,0	3,4	0,3	0,0	0,0	0,0		0,15	3	2
4,2	1,7	0,2	0,0	0,0	0,0		0,15	3	2
4,4	19,9	0,3	0,0	0,0	0,0		0,15	3	2
4,6	2,1	0,3	0,0	0,0	0,0		0,15	3	2
4,8	12,5	0,2	0,0	0,0	0,0		0,1	3	2
5,0	7,0	0,3	0,0	0,0	0,0		0,15	3	2
5,2	10,6	0,4	0,1	0,0	0,0		0	3	2
5,4	10,5	0,3	0,0	0,0	0,0		0,15	3	2
5,6	9,4	0,3	0,0	0,0	0,0		0	3	1
5,8	8,7	0,2	0,0	0,0	0,0		0,15	3	1
6,0	11,4	0,2	0,0	0,0	0,0		0	3	2
6,2	2,6	0,3	0,1	0,0	0,0		0,1	3	1
6,4	2,4	0,3	0,0	0,0	0,0		0	3	2
6,6	5,7	0,2	0,0	0,0	0,0		0,15	3	2
6,8	3,2	0,3	0,0	0,0	0,0		0,1	3	1
7,0	0,0	0,3	0,0	0,0	0,0		0,1	3	2
7,2	13,7	0,5	0,0	0,0	0,0		0,1	3	1
7,4	9,5	0,3	0,6	0,0	0,0	0,00	0,1	3	2
7,6	20,5	0,4	0,5	0,0	0,0	0,00	0,1	3	2
7,8	25,5	0,6	0,4	0,1	0,2	0,25	0	2	2
8,0	36,1	0,7	0,7	0,8	1,1	1,14	0	2	2
8,2	30,9	0,8	1,5	0,5	0,6	0,33	0	2	3
8,4	46,4	1,0	0,9	0,6	0,6	0,67	0	2	3
8,6	48,3	0,9	1,4	0,5	0,6	0,36	0,1	2	2
8,8	45,8	0,7	1,1	0,8	1,1	0,73	0	2	2
9,0	46,7	1,1	0,5	1,2	1,1	2,40	0	2	2
9,2	49,3	1,1	1,3	0,5	0,5	0,38	0,1	2	2
9,4	43,3	0,8	1,9	0,3	0,4	0,16	0	2	3
9,6	48,3	0,9	1,9	0,7	0,8	0,37	0	1	2
9,8	41,9	0,9	0,9	1,0	1,1	1,11	0	1	2
10,0	40,5	0,9	1,8	0,9	1,0	0,50	0	1	2
10,2	48,7	0,9	2,8	0,7	0,8	0,25	0	1	2
10,4	57,7	1,1	1,1	2,3	2,1	2,09	0	1	2
10,6	59,1	1,0	1,4	2,1	2,1	1,50	0	1	2
10,8	57,2	0,8	2,4	1,4	1,8	0,58	0	1	2
11,0	51,1	0,9	1,2	2,4	2,7	2,00	0	1	2
11,2	39,2	0,8	2,1	0,6	0,8	0,29	0	1	2
11,4	46,9	0,8	2,1	0,6	0,8	0,29	0	1	2
11,6	36,4	0,7	1,6	1,0	1,4	0,63	0	1	2
11,8	50,6	0,7	2,1	0,5	0,7	0,24	0	1	1
12,0	40,4	0,5	1,0	0,9	1,8	0,90	0	1	1

## Borehole SK 00.25

Depth [m]	Total [nGy]	K [%]	eU [ppm]	eTh [ppm]	Th/K*10E <sup>4</sup>	Th/U	Ti [%]	Si <sub>Qualitative</sub>	Fe <sub>Qualitative</sub>
12,2	30,8	0,4	1,3	0,3	0,8	0,23	0	1	2
12,4	29,8	0,5	2,1	0,0	0,0	0,00	0	2	2
12,6	39,4	0,3	2,2	0,0	0,0	0,00	0,2	2	2
12,8	27,0	0,5	1,2	0,5	1,0	0,42	0,1	3	2
13,0	30,8	0,6	0,8	0,2	0,3	0,25	0,1	3	2
13,2	31,1	0,6	1,0	0,2	0,3	0,20	0	2	2
13,4	39,0	0,7	1,5	0,9	1,3	0,60	0	2	2
13,6	47,7	0,6	2,9	0,4	0,7	0,14	0,1	3	2
13,8	46,6	1,0	2,9	0,5	0,5	0,17	0,15	2	2
14,0	30,0	0,6	1,8	0,4	0,7	0,22	0,2	2	2
14,2	39,7	0,8	1,8	0,3	0,4	0,17	0,1	2	2
14,4	57,2	0,9	2,3	0,9	1,0	0,39	0,2	2	2
14,6	51,0	0,5	2,9	1,5	3,0	0,52	0,1	2	2
14,8	55,8	0,8	3,0	1,5	1,9	0,50	0,1	2	2
15,0	45,0	0,8	2,0	1,5	1,9	0,75	0,1	3	2
15,2	47,7	0,8	1,7	0,8	1,0	0,47	0,1	3	2
15,4	50,7	0,6	3,1	0,5	0,8	0,16	0,25	3	2
15,6	47,4	0,6	2,1	1,5	2,5	0,71	0,2	3	2
15,8	44,1	0,8	1,5	1,0	1,3	0,67	0,2	3	1
16,0	47,9	0,8	2,6	0,7	0,9	0,27	0,2	3	2
16,2	51,7	0,5	2,4	1,7	3,4	0,71	0,2	3	1
16,4	55,0	0,6	3,2	1,7	2,8	0,53	0,25	3	2
16,6	55,8	0,6	3,8	0,8	1,3	0,21	0,2	3	2
16,8	47,6	0,7	3,0	1,0	1,4	0,33	0,2	3	2
17,0	57,0	0,7	3,0	2,4	3,4	0,80	0,4	2	2
17,2	61,8	0,6	4,0	2,9	4,8	0,73	0,75	2	2
17,4	64,5	0,8	4,0	3,3	4,1	0,83	0,7	2	2
17,6	80,9	0,7	5,0	4,3	6,1	0,86	1	2	2
17,8	117,1	0,2	9,5	6,3	31,5	0,66	1,2	3	3
18,0	124,1	0,5	8,8	7,6	15,2	0,86	1,5	2	3
18,2	134,9	0,7	7,9	10,8	15,4	1,37	2,1	2	2
18,4	117,4	0,7	6,7	11,2	16,0	1,67	1,9	2	2
18,6	119,3	0,5	9,0	7,1	14,2	0,79	2,2	2	3
18,8	107,4	0,4	8,6	7,7	19,3	0,90	1,95	2	2
19,0	54,1	0,5	3,9	1,3	2,6	0,33	0,9	3	2
19,2	45,1	0,5	2,7	0,0	0,0	0,00	0,75	3	2
19,4	42,8	0,5	2,2	0,5	1,0	0,23	0,75	3	2
19,6	31,5	0,6	1,3	1,0	1,7	0,77	1	3	2
19,8	43,8	0,4	2,3	0,9	2,3	0,39	1	3	3
20,0	64,7	0,5	3,6	2,7	5,4	0,75	1,25	3	2
20,2	74,1	0,5	5,5	3,7	7,4	0,67	1,9	2	3
20,4	78,1	0,6	5,6	2,9	4,8	0,52	1,3	2	2
20,6	59,2	0,5	4,4	2,6	5,2	0,59	1,3	2	3
20,8	69,2	0,6	4,0	3,3	5,5	0,83	1,65	3	3
21,0	83,2	0,5	6,3	3,8	7,6	0,60	1,5	2	2
21,2	106,7	0,7	5,3	7,6	10,9	1,43	1,45	3	2
21,4	113,6	0,6	7,1	8,3	13,8	1,17	1,75	2	2
21,6	133,2	0,2	10,6	9,7	48,5	0,92	1,6	3	2
21,8	129,1	0,5	7,4	11,0	22,0	1,49	2,6	3	3
22,0	123,9	0,5	8,1	9,3	18,6	1,15	2,1	2	3
22,2	130,8	0,5	8,3	11,7	23,4	1,41	1,8	3	2
22,4	96,6	0,3	7,5	5,8	19,3	0,77	1,4	3	3
22,6	67,2	0,5	3,8	3,5	7,0	0,92	1,55	3	3

## Borehole SK 00.25

Depth [m]	Total [nGy]	K [%]	eU [ppm]	eTh [ppm]	Th/K*10E <sup>4</sup>	Th/U	Ti [%]	Si <sub>Qualitative</sub>	Fe <sub>Qualitative</sub>
22,8	66,5	0,3	5,4	2,8	9,3	0,52	1,7	3	3
23,0	63,1	0,5	2,7	2,2	4,4	0,81	1,4	3	2
23,2	63,3	0,6	2,5	2,4	4,0	0,96	1,4	3	2
23,4	54,2	0,5	3,1	0,7	1,4	0,23	1	2	3
23,6	46,4	0,5	2,4	1,2	2,4	0,50	0,75	3	2
23,8	33,5	0,7	1,3	0,0	0,0	0,00	0,3	3	2
24,0	28,3	0,6	1,5	0,2	0,3	0,13	0,3	3	2
24,2	36,5	0,6	1,8	0,6	1,0	0,33	0,45	3	2
24,4	36,2	0,5	2,0	0,0	0,0	0,00	0,35	3	2
24,6	29,7	0,5	1,6	0,4	0,8	0,25	0,3	3	2
24,8	33,8	0,6	1,6	0,2	0,3	0,13	0,2	3	2
25,0	25,5	0,6	0,9	0,3	0,5	0,33	0,15	3	2
25,2	36,8	0,6	1,4	0,1	0,2	0,07	0,1	3	2
25,4	32,8	0,5	1,2	0,4	0,8	0,33	0,3	3	2
25,6	32,5	0,5	1,2	0,4	0,8	0,33	0,3	3	3
25,8	25,0	0,6	0,8	0,2	0,3	0,25	0,2	3	3
26,0	36,9	0,8	0,7	0,1	0,1	0,14	0,2	3	1
26,2	29,5	0,6	1,3	0,0	0,0	0,00	0,2	3	2
26,4	35,6	0,6	1,2	0,0	0,0	0,00	0,15	3	2
26,6	29,4	0,8	0,3	0,2	0,3	0,67	0,2	3	1
26,8	28,4	0,6	0,8	0,0	0,0	0,00	0,2	3	2
27,0	27,7	0,5	1,1	0,1	0,2	0,09	0,1	3	2
27,2	32,4	0,6	0,9	0,1	0,2	0,11	0,1	3	1
27,4	30,3	0,7	0,8	0,0	0,0	0,00	0,2	3	2
27,6	28,2	0,5	1,3	0,2	0,4	0,15	0,2	3	1
27,8	26,8	0,5	0,8	0,3	0,6	0,38	0,3	3	2
28,0	23,5	0,5	1,4	0,2	0,4	0,14	0,4	3	2
28,2	34,2	0,5	0,7	0,7	1,4	1,00	0,3	3	2
28,4	34,0	0,5	1,4	0,6	1,2	0,43	0,5	3	2
28,6	34,1	0,5	1,1	0,0	0,0	0,00	0,4	3	2
28,8	34,9	0,7	1,3	0,0	0,0	0,00	0,3	3	2
29,0	34,2	0,9	0,9	0,0	0,0	0,00	0,15	3	1
29,2	36,4	0,8	0,8	0,0	0,0	0,00	0	3	2
29,4	36,5	0,7	1,2	0,0	0,0	0,00	0,1	3	2
29,6	40,7	0,8	0,9	0,0	0,0	0,00	0	3	2
29,8	37,7	0,8	0,5	0,2	0,3	0,40	0	3	2
30,0	35,4	0,8	1,2	0,3	0,4	0,25	0,2	3	1
30,2	43,3	1,0	1,4	0,0	0,0	0,00	0,1	3	2
30,4	44,6	0,9	1,2	0,2	0,2	0,17	0	3	2
30,6	43,0	1,1	0,8	0,7	0,6	0,88	0	3	1
30,8	43,9	0,8	1,7	0,5	0,6	0,29	0	2	2
31,0	46,7	0,9	1,9	0,0	0,0	0,00	0	3	1
31,2	48,9	0,9	1,5	0,0	0,0	0,00	0	3	1
31,4	42,1	0,9	1,1	0,0	0,0	0,00	0	3	1
31,6	44,8	0,7	1,5	0,3	0,4	0,20	0	3	1
31,8	37,3	1,0	0,6	0,7	0,7	1,17	0	2	1
32,0	51,9	1,0	2,1	0,5	0,5	0,24	0,1	3	1

Table 2. Log of Ti, Th, U, Si concentrations in the borehole SK 00.26

Borehole SK 00.26									
Depth [m]	Total [nGy]	K [%]	eU [ppm]	eTh [ppm]	Th/K*10E <sup>4</sup>	Th/U	Ti [%]	Si Qualitative	Fe Qualitative
1,6	0,0	0,6	0,0	0,0	0				
1,8	3,4	0,5	0,2	0,0	0				
2,0	10,0	0,4	0,0	0,0	0				
2,2	8,2	0,4	0,0	0,0	0				
2,4	15,3	0,4	0,0	0,0	0				
2,6	10,9	0,3	0,0	0,0	0				
2,8	11,4	0,2	0,0	0,0	0				
3,0	14,1	0,4	0,0	0,0	0		0,1	3	1
3,2	7,8	0,3	0,0	0,0	0		0,1	3	1
3,4	15,6	0,4	0,0	0,0	0		0	3	1
3,6	17,0	0,3	0,1	0,0	0	0,00	0,25	3	1
3,8	21,5	0,4	0,3	0,0	0	0,00	0,2	3	2
4,0	15,7	0,3	0,0	0,0	0		0	3	1
4,2	8,7	0,4	0,0	0,0	0		0,2	3	2
4,4	12,3	0,4	0,0	0,0	0		0,2	3	1
4,6	8,0	0,3	0,0	0,0	0		0,2	3	2
4,8	9,2	0,3	0,2	0,0	0	0,00	0,2	3	1
5,0	7,5	0,3	0,0	0,0	0		0,15	3	1
5,2	12,2	0,2	0,1	0,0	0	0,00	0,1	3	2
5,4	7,3	0,2	0,0	0,0	0		0,3	3	1
5,6	6,6	0,3	0,0	0,0	0		0,2	3	1
5,8	11,6	0,3	0,0	0,0	0		0,2	3	2
6,0	10,8	0,3	0,0	0,0	0		0,2	3	1
6,2	6,2	0,3	0,0	0,0	0		0,2	3	1
6,4	11,0	0,3	0,0	0,0	0		0,1	3	2
6,6	14,3	0,5	0,2	0,0	0	0,00	0,1	3	2
6,8	22,8	0,4	0,5	0,0	0	0,00	0,1	3	1
7,0	35,8	0,9	0,8	0,1	0,111111	0,13	0	3	2
7,2	40,5	0,9	1,4	0,0	0	0,00	0,1	2	2
7,4	37,5	0,7	0,9	0,4	0,571429	0,44	0,15	3	1
7,6	29,0	0,3	2,2	0,0	0	0,00	0,2	3	1
7,8	26,6	0,4	1,6	0,0	0	0,00	0,15	3	2
8,0	35,7	0,4	2,4	0,0	0	0,00	0	3	2
8,2	35,5	0,7	1,6	0,4	0,571429	0,25	0,15	3	2
8,4	35,5	0,7	1,3	0,7	1	0,54	0,25	3	2
8,6	38,6	0,7	1,9	0,6	0,857143	0,32	0,25	3	1
8,8	44,5	0,8	1,4	0,7	0,875	0,50	0,1	2	2
9,0	48,4	1,0	1,1	0,8	0,8	0,73	0	2	1
9,2	52,9	1,0	1,6	1,5	1,5	0,94	0,1	2	1
9,4	48,4	0,9	2,3	0,6	0,666667	0,26	0,1	3	1
9,6	46,6	0,6	2,6	1,2	2	0,46	0,2	3	2
9,8	48,2	0,5	2,9	1,0	2	0,34	0,2	2	2
10,0	44,4	0,5	2,4	0,8	1,6	0,33	0,1	3	1
10,2	42,6	0,6	1,9	0,8	1,333333	0,42	0,1	2	1
10,4	49,5	0,9	1,9	0,5	0,555556	0,26	0	2	1
10,6	62,1	1,2	3,0	0,9	0,75	0,30	0	2	2
10,8	60,3	1,3	1,1	1,5	1,153846	1,36	0	2	1
11,0	64,8	1,1	1,9	0,8	0,727273	0,42	0	2	2
11,2	60,7	1,1	2,4	0,8	0,727273	0,33	0	2	2
11,4	56,4	1,1	2,2	0,7	0,636364	0,32	0	2	1
11,6	53,2	0,8	3,0	0,8	1	0,27	0	2	1
11,8	50,5	0,9	1,7	1,6	1,777778	0,94	0	2	2
12,0	60,3	0,8	2,3	1,0	1,25	0,43	0	2	1

Table 2. Log of Ti, Th, U, Si concentrations in the borehole SK 00.26

Borehole SK 00.26									
Depth [m]	Total [nGy]	K [%]	eU [ppm]	eTh [ppm]	Th/K*10E <sup>4</sup>	Th/U	Ti [%]	Si Qualitative	Fe Qualitative
12,2	56,5	1,1	2,1	0,9	0,818182	0,43	0	2	1
12,4	62,9	1,1	2,7	0,7	0,636364	0,26	0	2	1
12,6	62,5	1,1	2,6	1,6	1,454545	0,62	0	2	2
12,8	62,6	1,1	1,8	1,6	1,454545	0,89	0	2	2
13,0	63,7	1,2	2,0	1,2	1	0,60	0	2	1
13,2	59,3	1,2	2,0	1,4	1,166667	0,70	0	2	2
13,4	65,1	1,2	1,8	1,1	0,916667	0,61	0	2	2
13,6	57,4	1,3	2,6	1,4	1,076923	0,54	0	2	1
13,8	71,8	0,9	3,1	1,8	2	0,58	0	2	2
14,0	70,3	0,9	3,4	3,0	3,333333	0,88	0,1	2	2
14,2	77,1	0,7	4,9	3,3	4,714286	0,67	0,25	2	2
14,4	65,7	0,9	3,2	3,4	3,777778	1,06	0,2	3	2
14,6	61,7	0,8	2,9	1,6	2	0,55	0,2	3	1
14,8	69,2	0,9	3,5	1,5	1,666667	0,43	0,1	2	2
15,0	72,3	0,8	3,3	3,2	4	0,97	0,25	2	1
15,2	78,8	0,9	3,7	5,7	6,333333	1,54	0,3	3	2
15,4	125,9	0,6	6,0	10,6	17,66667	1,77	1,4	3	3
15,6	119,7	0,3	7,4	9,9	33	1,34	1,3	3	1
15,8	102,6	0,7	7,0	3,8	5,428571	0,54	0,9	3	2
16,0	66,4	0,8	4,5	1,9	2,375	0,42	0,6	3	3
16,2	62,9	0,9	2,0	2,6	2,888889	1,30	0,8	3	2
16,4	70,9	0,7	3,5	2,2	3,142857	0,63	0,75	2	3
16,6	101,3	0,6	7,2	6,9	11,5	0,96	1,5	3	2
16,8	103,6	0,5	7,1	8,2	16,4	1,15	1,6	2	2
17,0	61,9	0,6	4,2	2,9	4,833333	0,69	0,7	3	1
17,2	46,5	0,4	3,5	0,1	0,25	0,03	0,5	3	2
17,4	39,7	0,5	1,8	0,9	1,8	0,50	0,7	3	1
17,6	46,4	0,8	1,3	1,0	1,25	0,77	0,4	3	2
17,8	41,4	0,7	1,6	1,0	1,428571	0,63	0,35	3	2
18,0	54,2	0,6	2,0	0,3	0,5	0,15	1,2	3	2
18,2	61,8	0,6	3,3	1,2	2	0,36	1,25	2	2
18,4	65,7	0,6	4,4	3,2	5,333333	0,73	1,4	2	3
18,6	87,7	0,8	3,6	4,7	5,875	1,31	1,5	3	2
18,8	77,2	0,5	4,2	3,6	7,2	0,86	1,2	3	3
19,0	87,4	0,5	7,8	3,2	6,4	0,41	1,7	3	2
19,2	101,5	0,8	5,5	6,5	8,125	1,18	2	2	3
19,4	105,0	0,4	7,4	7,2	18	0,97	1,4	2	3
19,6	94,9	0,5	6,3	8,8	17,6	1,40	1,6	3	3
19,8	106,1	0,6	7,2	9,4	15,66667	1,31	1,4	2	2
20,0	113,8	0,6	6,6	8,2	13,66667	1,24	1,4	3	2
20,2	51,5	0,4	3,5	1,8	4,5	0,51	0,75	3	2
20,4	55,3	0,4	3,8	0,2	0,5	0,05	1,2	3	3
20,6	62,9	0,5	4,1	1,5	3	0,37	1,2	3	2
20,8	79,2	0,4	4,6	5,5	13,75	1,20	1,35	3	2
21,0	94,9	0,5	4,9	6,9	13,8	1,41	1,3	3	2
21,2	79,9	0,9	5,1	2,4	2,666667	0,47	0,3	2	2
21,4	61,6	0,9	2,6	0,8	0,888889	0,31	0,4	2	3
21,6	38,6	0,6	2,3	0,0	0	0,00	1,3	3	1
21,8	43,3	0,8	1,3	0,8	1	0,62	0,3	2	2
22,0	53,7	1,0	1,3	1,8	1,8	1,38	0	3	2
22,2	55,3	1,1	1,9	1,4	1,272727	0,74	0	2	1
22,4	46,6	0,9	1,5	0,1	0,111111	0,07	0	2	2
22,6	49,7	0,8	1,4	0,7	0,875	0,50	0,2	2	2



Borehole SK 00.26									
Depth [m]	Total [nGy]	K [%]	eU [ppm]	eTh [ppm]	Th/K*10E <sup>4</sup>	Th/U	Ti [%]	Si Qualitative	Fe Qualitative
22,8	52,3	1,0	1,5	0,9	0,9	0,60	0	2	2
23,0	39,5	1,0	1,0	0,8	0,8	0,80	0,1	3	2
23,2	39,4	0,7	1,3	0,7	1	0,54	0,2	3	1
23,4	40,3	0,5	2,5	0,2	0,4	0,08	0,25	3	2
23,6	33,6	0,6	1,9	0,8	1,333333	0,42	0,3	3	2
23,8	38,0	0,4	2,2	1,1	2,75	0,50	0,35	3	1
24,0	51,5	0,6	2,2	0,6	1	0,27	0,2	3	1
24,2	46,4	0,6	2,2	0,4	0,666667	0,18	0,25	3	1
24,4	32,6	0,4	2,5	0,6	1,5	0,24	0,2	3	2
24,6	36,9	0,6	1,4	0,4	0,666667	0,29	0,8	3	1
24,8	38,3	0,5	1,2	1,0	2	0,83	0,6	3	2
25,0	40,9	0,6	1,1	0,3	0,5	0,27	0,25	3	2
25,2	36,8	0,5	0,8	0,0	0	0,00	0,1	3	1
25,4	39,8	0,6	1,0	0,4	0,666667	0,40	0,2	2	2
25,6	34,1	0,7	1,1	0,1	0,142857	0,09	0,2	3	2
25,8	37,7	0,6	1,4	0,0	0	0,00	0,2	2	2
26,0	31,3	0,7	0,5	0,0	0	0,00	0,35	3	2
26,2	27,2	0,7	0,5	0,0	0	0,00	0,2	3	1
26,4	37,0	0,7	1,0	0,0	0	0,00	0,1	2	1
26,6	34,6	0,8	0,6	0,0	0	0,00	0,1	3	2
26,8	37,1	0,7	0,3	0,0	0	0,00	0,15	2	2
27,0	27,1	0,7	1,2	0,0	0	0,00	0,2	2	1
27,2	33,8	0,8	0,8	0,1	0,125	0,13	0,2	3	2
27,4	31,1	0,6	0,6	0,0	0	0,00	0,25	2	2
27,6	35,8	0,6	1,5	0,0	0	0,00	0,2	2	1
27,8	25,9	0,5	0,2	0,0	0	0,00	0,15	3	2
28,0	24,7	0,5	0,4	0,0	0	0,00	0,25	3	2
28,2	31,0	0,7	0,1	0,0	0	0,00	0,1	3	1
28,4	22,8	0,7	0,1	0,0	0	0,00	0,15	3	1
28,6	35,6	0,8	0,4	0,0	0	0,00	0,15	3	2
28,8	31,1	0,7	0,6	0,0	0	0,00	0,15	3	2
29,0	36,0	0,7	1,0	0,0	0	0,00	0,1	2	1
29,2	43,9	0,5	2,2	0,0	0	0,00	0	3	2
29,4	45,4	0,9	0,9	0,2	0,222222	0,22	0	2	1
29,6	43,0	1,0	1,3	0,7	0,7	0,54	0	2	2
29,8	40,3	0,9	1,4	0,0	0	0,00	0	2	2
30,0	44,2	1,0	0,7	0,1	0,1	0,14	0	3	1
30,2	41,4	1,0	0,2	0,8	0,8	4,00	0	2	1
30,4	51,5	1,0	0,9	0,4	0,4	0,44	0	2	2
30,6	44,4	1,1	0,8	0,7	0,636364	0,88	0	2	2
30,8	48,0	1,1	1,8	0,6	0,545455	0,33	0	2	1
31,0	57,7	1,0	2,0	0,2	0,2	0,10	0	2	2
31,2	53,6	0,8	2,5	0,5	0,625	0,20	0	2	2
31,4	53,8	1,1	1,2	1,2	1,090909	1,00	0	2	2
31,6	53,0	1,3	1,4	0,6	0,461538	0,43	0	2	2
31,8	56,1	1,1	2,1	0,8	0,727273	0,38	0	2	2
32,0	55,3	1,2	2,2	1,0	0,833333	0,45	0,1	2	2

V 90L									
Depth [m]	Total [nGy/h]	K [%]	eU [ppm]	eTh [ppm]	Th/K*10 <sup>4</sup>	Th/U	Ti [%]	Si Qualitative	Fe Qualitative
1,6	8	0,2	0,2	0	0	0			
1,8	0	0,1	0,6	0	0	0			
2	13,9	0,5	0	0	0				
2,2	15,3	0,3	0,1	0	0	0			
2,4	0	0	0,2	0		0			
2,6	5,9	0	0	0					
2,8	5,3	0	0	0					
3	0	0	0	0			1,4	3	2
3,2	10,3	0	0	0			0,9	3	1
3,4	0	0	0,3	0		0	1,3	3	1
3,6	12,3	0	0,4	0		0	1,7	3	1
3,8	0,4	0	0	0			1	3	1
4	4,9	0	0	0			1	3	1
4,2	0	0,1	0	0			1,1	3	1
4,4	0	0	0	0			0,8	3	1
4,6	0	0	0	0			0,8	3	2
4,8	6	0	0	0			0,6	3	2
5	0	0	0	0			0,6	3	1
5,2	0	0	0	0			0,4	3	2
5,4	0	0	0	0			0,3	3	2
5,6	0,6	0	0	0			0,3	3	1
5,8	0	0	0	0			0,2	3	1
6	0	0	0	0			0,2	3	1
6,2	0	0	0	0			0,2	3	2
6,4	1,5	0	0	0			0,3	3	2
6,6	0	0	0	0			0,25	3	2
6,8	0,9	0	0,1	0		0	0,3	3	1
7	2	0	0	0			0,8	3	1
7,2	0	0,1	0	0			0,9	3	1
7,4	0	0	0	0			0,8	3	1
7,6	0	0	0	0			1	3	2
7,8	0,7	0	0	0			0,8	3	2
8	5,7	0,1	0	0			1,1	3	1
8,2	1,6	0	0	0			1,2	3	2
8,4	0	0	0	0			1	3	1
8,6	0	0	0	0			1	3	2
8,8	2,9	0	0	0			1	3	2
9	5,1	0	0	0			1	3	2
9,2	0	0	0	0			1	3	1
9,4	0	0	0	0			1	3	2
9,6	0	0	0	0			0,9	3	2
9,8	5,2	0	0	0			0,75	3	1
10	3,1	0	0	0			1,2	3	2
10,2	0	0	0	0			0,75	3	1
10,4	0	0	0	0			1	3	1
10,6	0	0	0	0			1	3	2
10,8	0	0,1	0	0			0,8	3	2
11	3,1	0	0	0			1,2	3	2
11,2	0	0	0	0			1,2	3	2
11,4	17,9	0,3	1,6	0		0	1,2	3	1
11,6	8,8	0,2	1,3	0		0	1,2	3	1
11,8	13,8	0,3	1,5	0		0	0,2	2	2
12	7,4	0,1	1,4	0		0	0,1	2	1

V 90L									
Depth [m]	total [nGy/h]	K [%]	eU [ppm]	eTh [ppm]	Th/K*10 <sup>4</sup>	Th/U	Ti [%]	Si Qualitative	Fe Qualitative
12,2	11,9	0	1,2	0		0	0	2	1
12,4	5,8	0,1	0,9	0		0	0	2	1
12,6	17,2	0,3	1,1	0		0	0,1	2	2
12,8	43,5	0,7	3,4	0,6			0	2	1
13	54,7	0,7	3,4	1			0	2	2
13,2	63,2	0,9	3,6	0,5			0	2	1
13,4	53,4	0,8	3,4	0,8			0	2	2
13,6	46,1	0,6	2,9	0,3			0,25	3	2
13,8	28,6	0,2	1,9	0		0	1,1	3	2
14	13,7	0	0,9	0		0	1,7	3	2
14,2	10,2	0	0,9	0		0	1,7	3	2
14,4	19,3	0,1	1,4	0,2		0,142857	2,8	3	2
14,6	37,5	0	5,1	0,9		0,176471	3,4	3	2
14,8	36,4	0	3,2	1,4		0,4375	3,5	3	2
15	25,3	0	2,3	0,4		0,173913	2,9	3	2
15,2	6,8	0	0,4	0		0	1,7	3	1
15,4	0	0	0,3	0		0	1,5	3	2
15,6	3,6	0	0,1	0		0	1,4	3	2
15,8	5,7	0,1	0	0			1,45	3	1
16	1,8	0	0,1	0		0	1,1	3	2
16,2	0,6	0	0,2	0		0	1,6	3	1
16,4	0	0	0	0			1,3	3	2
16,6	0	0	0	0			0,8	3	2
16,8	6,3	0	0	0			1	3	1
17	2,4	0	0	0			0,8	3	2
17,2	0	0	0	0			0,3	3	2
17,4	6	0	0	0			0,2	3	2
17,6	0	0	0	0			0,3	3	2
17,8	0	0,1	0	0			0,4	3	1
18	4,3	0	0	0					

Table 4. Log of Ti, Th, U, K concentrations in the borehole V 91L

V 91L							
Depth [m]	total [nGy/h]	K [%]	eU [ppm]	eTh [ppm]	Ti [%]	Si concentration	Fe concentration
1,6	7	0	1,7	0			
1,8	8,4	0,1	1,7	0			
2	0	0,2	1,2	0			
2,2	0	0,1	0,9	0			
2,4	2,3	0,1	1,2	0			
2,6	7,9	0,1	0,7	0			
2,8	8	0	1	0			
3	8	0,1	0,6	0	1,5	3	2
3,2	12,1	0	0,6	0	1,1	3	2
3,4	8,1	0,1	0	0	1,5	3	2
3,6	7,4	0	0,3	0	1,5	3	2
3,8	0	0	0,1	0	0,8	3	1
4	5,3	0	0,2	0	0,9	3	1
4,2	1,3	0	0,2	0	1,4	3	1
4,4	0,1	0,1	0	0	1,5	3	2
4,6	4,2	0,1	0,1	0	1,7	3	1
4,8	6,3	0	0,3	0	1,85	3	2
5	11	0,1	0	0	1,4	3	2
5,2	3,3	0	0,1	0	1,1	3	1
5,4	0	0,1	0	0	0,4	3	2
5,6	7,9	0	0	0	0,4	3	2
5,8	2,7	0	0	0	0,6	3	1
6	1,4	0	0,1	0	0,9	3	2
6,2	3,8	0,1	0	0	1	3	1
6,4	0,7	0	0	0	1,2	3	1
6,6	0	0	0	0	1,1	3	1
6,8	7,9	0,1	0	0	1,2	3	1
7	1,8	0	0	0	1,1	3	2
7,2	4,6	0	0	0	1,3	3	1
7,4	0,9	0	0	0	0,8	3	2
7,6	9	0	0	0	0,75	3	2
7,8	0,3	0,1	0	0	1,8	3	1
8	0	0	0	0	1,8	3	2
8,2	0	0	0	0	1,9	3	2
8,4	3,5	0	0,5	0	1,4	3	1
8,6	4,7	0	0,2	0	1,3	3	1
8,8	4	0	0,3	0	1,9	3	2
9	0	0	0	0	1,9	3	2
9,2	0	0	0	0	1,3	3	2
9,4	5,9	0	0	0	1,6	3	2
9,6	0,7	0	0	0	1,85	3	2
9,8	1,3	0	0	0	1,1	3	2
10	0	0	0	0	1,2	3	1
10,2	4,9	0	0	0	1,3	3	2
10,4	0	0	0,3	0	1,4	3	2
10,6	1,5	0	0	0	1,8	3	1
10,8	0	0	0	0	1,8	3	2
11	8,4	0	0,1	0	1,4	3	1
11,2	8,4	0	0,1	0	1,2	3	2
11,4	0	0	0	0	1,2	3	2
11,6	0	0	0	0	1,2	3	1
11,8	0	0	0	0	1,4	3	1
12	0	0	0	0	1,4	3	1

V 91L							
Depth [m]	total [nGy/h]	K [%]	eU [ppm]	eTh [ppm]	Ti [%]	Si concentration	Fe concentration
12,2	0	0	0	0	1,35	3	2
12,4	0	0	0	0	1,3	3	1
12,6	0	0	0	0	1,3	3	2
12,8	16,4	0	0,3	0	0,3	2	1
13	0	0	0,5	0	0	2	1
13,2	11	0	0,2	0	0,1	2	2
13,4	13,1	0,1	0,3	0	0	2	1
13,6	35,1	0,5	1	0,5	0	2	2
13,8	40,9	0,4	2,5	0	0,2	2	2
14	12	0	1,2	0	1,2	3	1
14,2	0,5	0	0,2	0	1,2	3	1
14,4					1,4	3	2
14,6					1,4	3	1
14,8					1,5	3	2
15					1,2	3	1
15,2					1,1	3	1
15,4					1,3	3	1
15,6					1,15	3	1
15,8					1,25	3	1
16					1,9	3	1
16,2					2,8	3	1
16,4					2,5	3	1
16,6					1,7	3	1
16,8					1,4	3	2
17					1,2	3	2
17,2	0	0	0	0	1,7	3	1
17,4	0	0	0	0	1,5	3	2
17,6	3,7	0	0,2	0	1,1	3	2
17,8	0	0	0	0	0,8	3	2

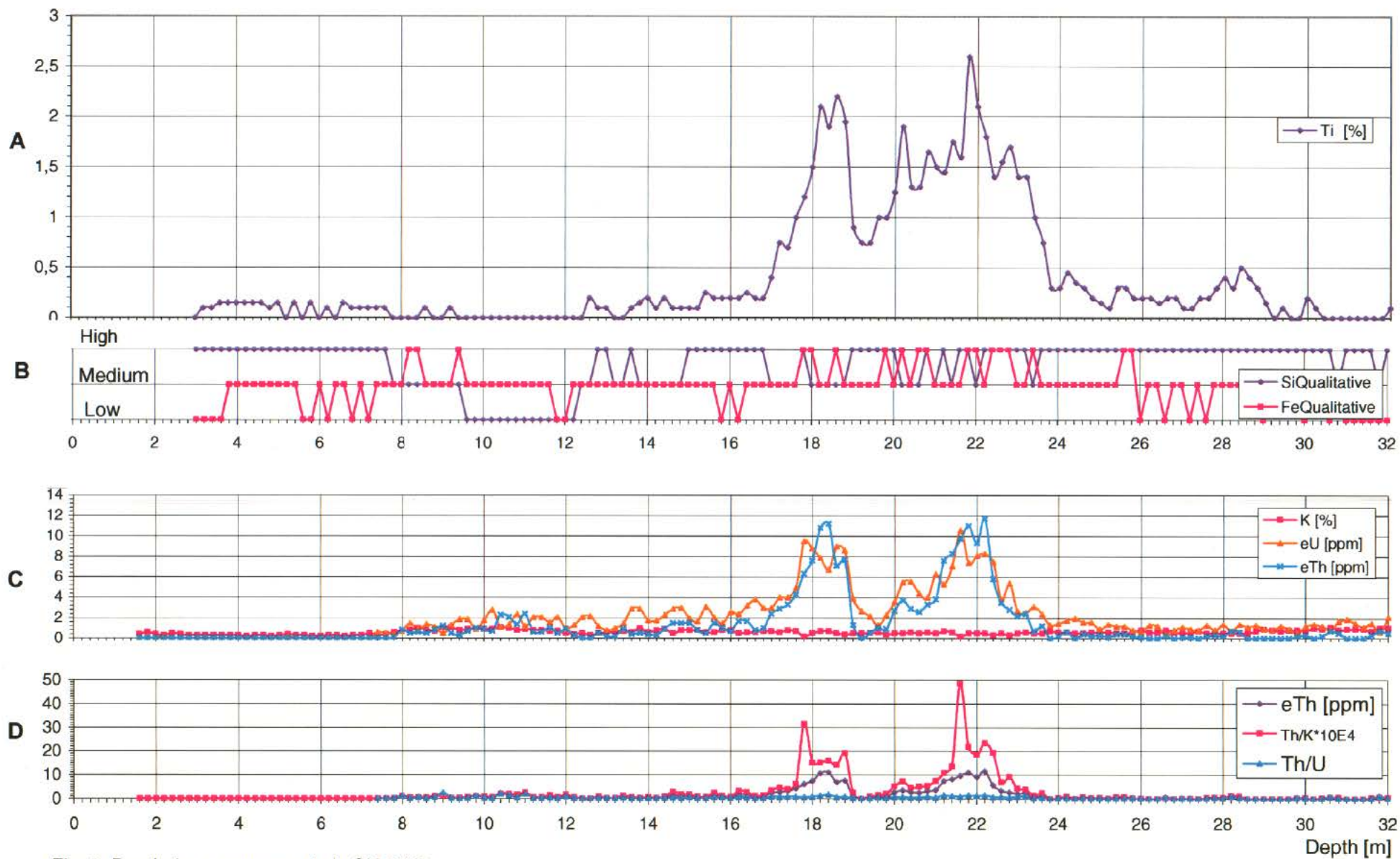


Fig. 2. Borehole measurements in SK 00.25.

A - Log of Ti concentration measured with LSCA -1 and neutron source.

B - Log of Fe, Si qualitative concentrations.

C - Log of K, U, Th concentrations measured with GRS-2000.

D - Log of Th/K Th/U ratios.

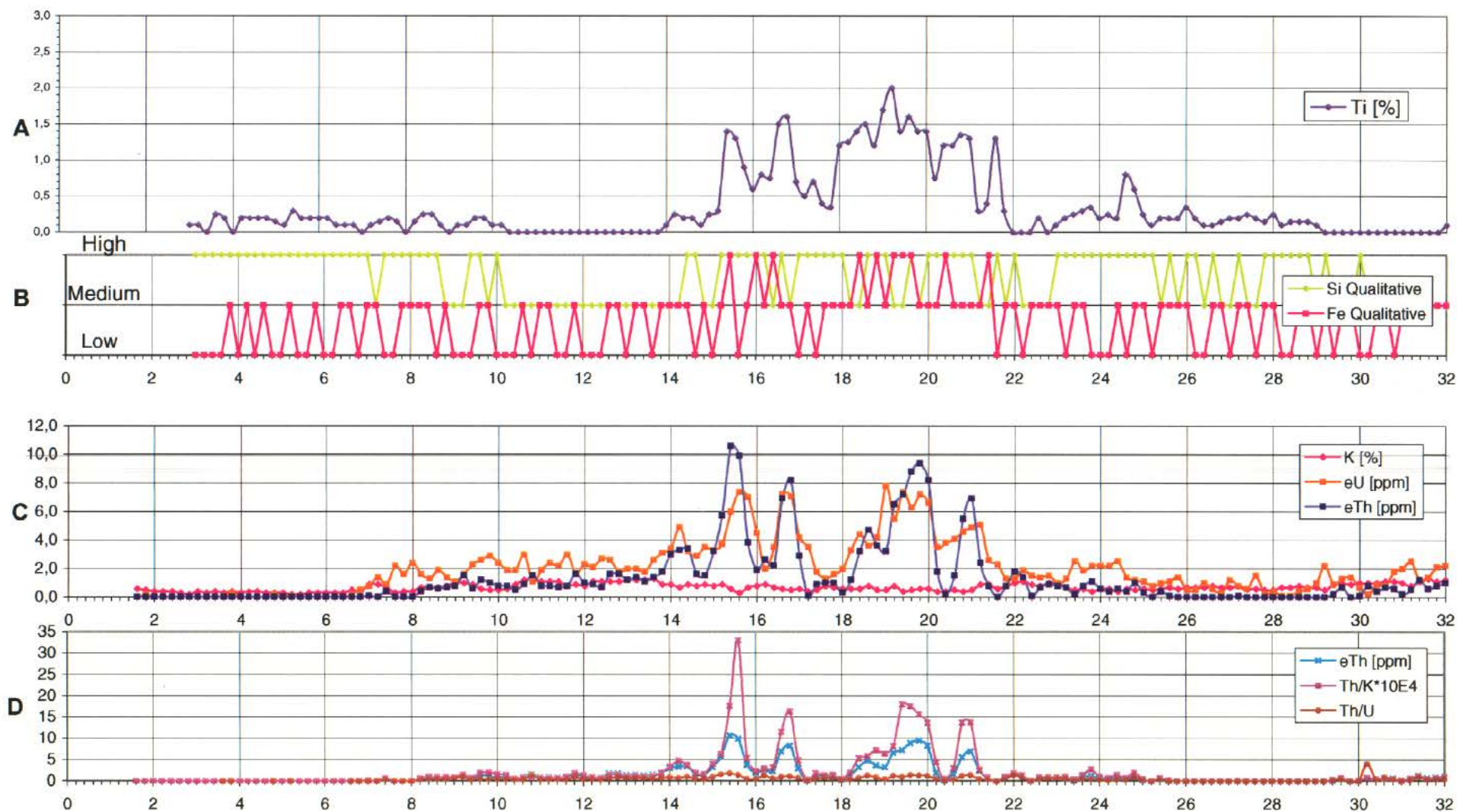


Fig.3. Borehole measurements in SK 00.26.

A - Log of Ti concentration measured with LSCA-1 and neutron source.

B - Log of Fe, Si qualitative concentrations.

C - Log of K, U, Th concentrations measured with GRS-2000.

D - Log of Th/K, Th/U ratios

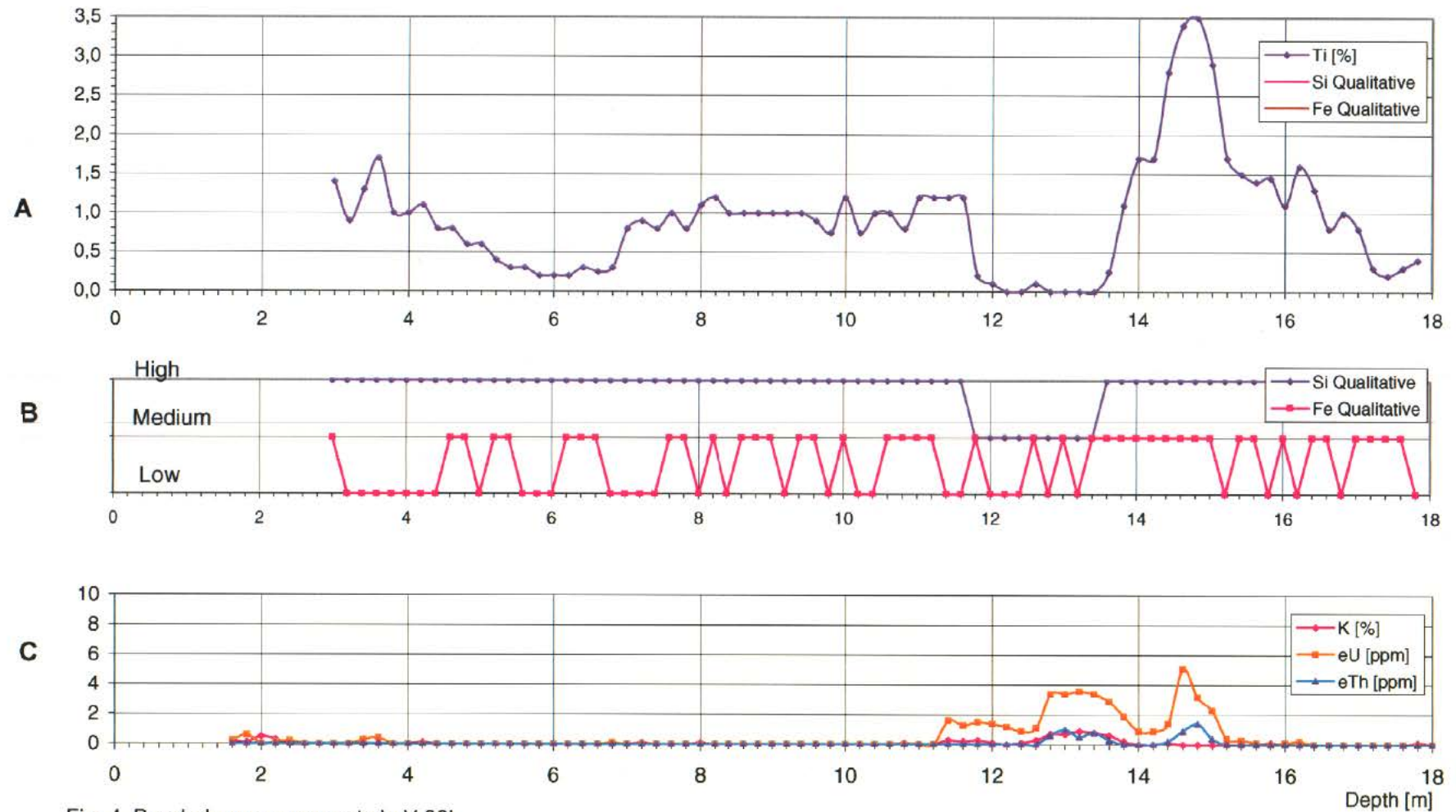


Fig. 4. Borehole measurements in V 90L.

A - Log of Ti concentration measured with LSCA-1 and neutron source.

B - Log of Fe, Si qualitative concentrations.

C - Log of K, U, Th concentrations measured with GRS-2000. U, Th content are extremely low because of the pure quartz sand.



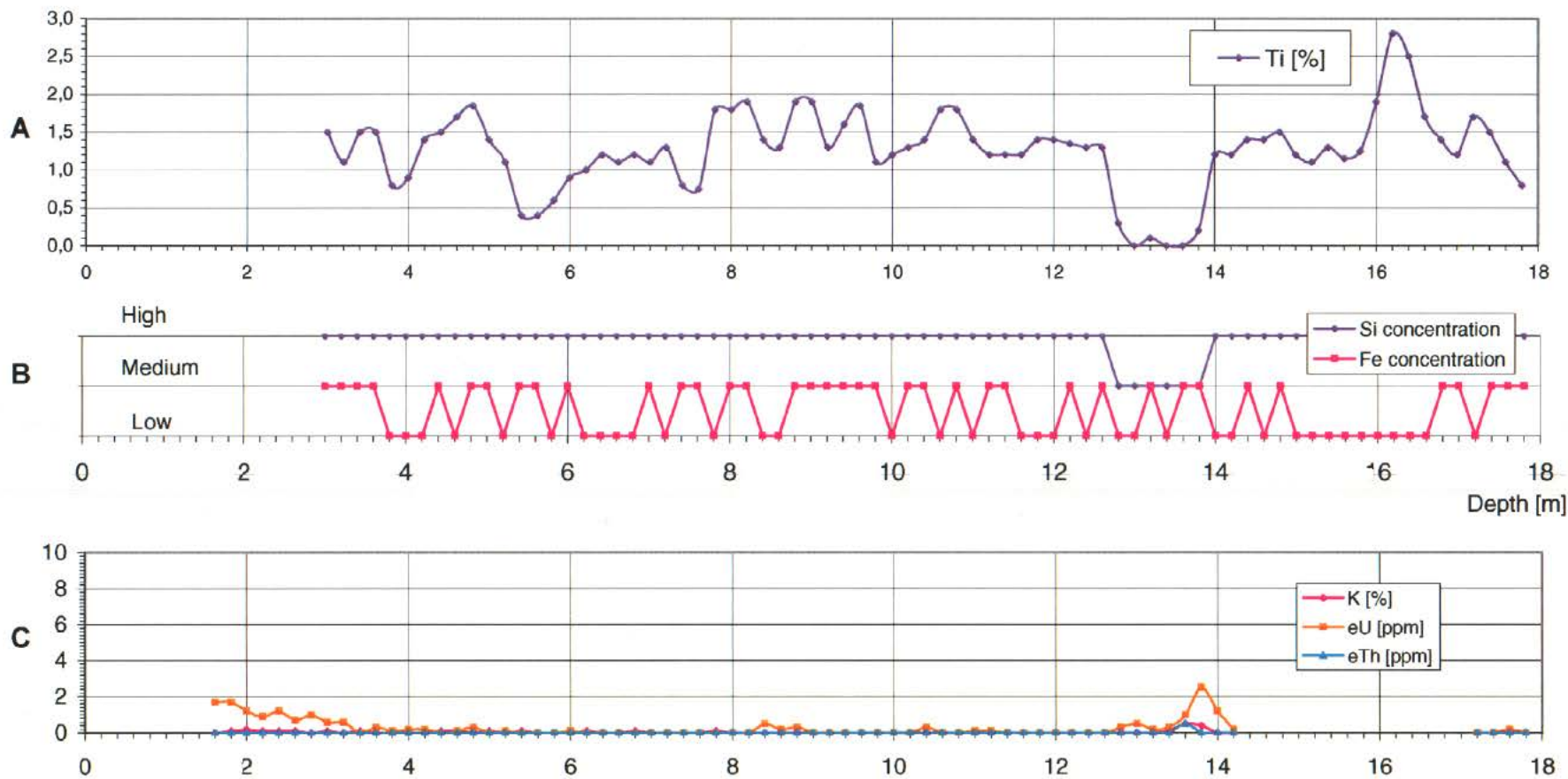


Fig.5. Borehole measurements in V 91L.

A - Log of Ti concentration measured with LSCA -1 and neutron source.

B - Log of Fe, Si qualitative concentrations.

C - Log of K, U, Th concentrations measured with GRS-2000.

## **9 Gravel percentages**

BOREHOLE	BAGNO	Gravel pct
SK01.40	1	1
SK01.40	2	3
SK01.40	3	10
SK01.40	4	52
SK01.40	5	15
SK01.40	6	5
SK01.40	7	34
SK01.41	1	2
SK01.41	2	1
SK01.41	3	8
SK01.41	4	25
SK01.41	5	15
SK01.41	6	3
SK01.41	7	6
SK01.41	8	17
SK01.41	9	21
SK01.42	1	1
SK01.42	2	0
SK01.42	3	9
SK01.42	4	14
SK01.42	5	3
SK01.42	6	1
SK01.42	7	29
SK01.42	8	11
SK01.42	9	9
SK01.43	1	4
SK01.43	2	6
SK01.43	3	3
SK01.43	4	7
SK01.43	5	5
SK01.43	6	2
SK01.43	7	9
SK01.43	8	20
SK01.43	9	1
SK01.43	10	56
SK01.44	2	7
SK01.44	3	7
SK01.44	4	1
SK01.44	5	0
SK01.44	6	1
SK01.44	7	26
SK01.45	2	10
SK01.45	3	5
SK01.45	4	4
SK01.45	5	10
SK01.45	6	7
SK01.45	7	36
SK01.45	8	59
SK01.46	1	1
SK01.46	2	3
SK01.46	3	6
SK01.46	4	5
SK01.46	5	23
SK01.46	6	5
SK01.46	7	10

BOREHOLE	BAGNO	Gravel pct
SK01.46	8	2
SK01.46	9	4
SK01.47	1	5
SK01.47	2	1
SK01.47	3	8
SK01.47	4	14
SK01.47	5	4
SK01.47	6	19
SK01.47	7	4
SK01.47	8	3
SK01.47	9	20
SK01.47	10	21
SK01.47	11	16
SK01.48	6	2
SK01.48	7	18
SK01.48	8	6
SK01.48	9	7
SK01.48	10	3
SK01.48	11	5
SK01.48	12	2
SK01.48	13	3
SK01.49	1	1
SK01.49	2	2
SK01.49	3	9
SK01.49	4	11
SK01.49	5	7
SK01.50	3	5
SK01.50	4	10
SK01.50	5	4
SK01.50	6	2
SK01.51	3	3
SK01.51	4	6
SK01.51	5	
SK01.51	6	14
SK01.51	7	15
SK01.51	8	21
SK01.51	9	6
SK01.51	10	10
SK01.51	11	28
SK01.51	12	59
SK01.51	13	44
SK01.52	3	5
SK01.52	4	14
SK01.52	5	13
SK01.53	5	5
SK01.53	6	4
SK01.53	7	2
SK01.53	8	1
SK01.53	9	2
SK01.53	10	3
SK01.53	11	20
SK01.53	12	17
SK01.53	13	18
SK01.54	6	7
SK01.54	7	18

BOREHOLE	BAGNO	Gravel pct
SK01.54	8	16
Sk01.57	2	2
Sk01.57	3	1
Sk01.57	4	12
Sk01.57	5	10
Sk01.57	6	11
Sk01.57	7	9
Sk01.57	8	2
Sk01.57	9	2
Sk01.57	10	16
SK01.58	4	1
SK01.58	5	4
SK01.58	6	12
SK01.58	7	#DIVISION/0!
SK01.58	8	#DIVISION/0!
SK01.58	9	#DIVISION/0!
SK01.58	10	#DIVISION/0!
SK01.58	11	6
SK01.58	12	5
SK01.58	13	39
SK01.58	14	22
SK01.58	15	45
SK01.58	16	60
SK01.58	17	#VÆRDI!
SK01.58	18	#DIVISION/0!
SK01.58	19	#DIVISION/0!
SK01.58	20	#DIVISION/0!
SK01.58	21	#DIVISION/0!
SK01.58	22	#DIVISION/0!
SK01.58	23	#DIVISION/0!
SK01.58	24	#DIVISION/0!
SK01.58	25	#DIVISION/0!
SK01.58	26	#DIVISION/0!
SK01.59	4	1
SK01.59	5	2
SK01.59	6	#DIVISION/0!
SK01.59	7	#DIVISION/0!
SK01.59	8	#DIVISION/0!
SK01.59	9	#DIVISION/0!
SK01.59	10	#DIVISION/0!
SK01.59	11	#DIVISION/0!
SK01.59	12	#DIVISION/0!
SK01.59	13	#DIVISION/0!
SK01.59	14	#DIVISION/0!
SK01.59	15	11
SK01.59	16	16
SK01.59	17	16
SK01.59	18	14
SK01.59	19	30
SK01.59	20	21
SK01.59	21	9
SK01.59	22	13
SK01.59	23	7
SK01.59	24	19
SK01.59	25	8

BOREHOLE	BAGNO	Gravel pct
SK01.59	26	11
SK01.59	27	15
SK01.59	28	22
SK01.59	29	9
SK01.59	30	5
SK01.60	1	4
SK01.60	2	1
SK01.60	3	4
SK01.60	4	3
SK01.60	5	8
SK01.60	6	11
SK01.60	7	30
SK01.60	8	30
Sk01.61	1	0
Sk01.61	7	4
Sk01.61	8	0
Sk01.61	9	3
Sk01.61	10	4
Sk01.61	11	34
Sk01.61	12	55
Sk01.64	2	2
Sk01.64	3	0
Sk01.64	4	3
Sk01.64	5	35
Sk01.64	6	25
Sk01.64	7	19
Sk01.64	8	14
Sk01.64	9	5
Sk01.64	10	8
Sk01.64	11	8
Sk01.64	12	3
Sk01.64	13	3
Sk01.64	14	#DIVISION/0!
Sk01.64	15	#VÆRDI!
Sk01.64	16	58
Sk01.64	17	56
Sk01.64	18	33
Sk01.64	19	19
Sk01.64	20	6
Sk01.64	21	#VÆRDI!
Sk01.64	22	6
Sk01.64	23	2
Sk01.64	24	1
Sk01.64	25	4
Sk01.64	26	4
Sk01.64	27	#DIVISION/0!
Sk01.64	28	0
SK01.66	1	1
SK01.66	2	0
SK01.66	3	0
SK01.66	4	1
SK01.66	5	0
SK01.66	6	5
SK01.66	7	14
SK01.66	8	3

BOREHOLE	BAGNO	Gravel pct
SK01.66	9	5
SK01.66	17	39
SK01.66	18	48
SK01.67	1	0
SK01.67	2	0
SK01.67	3	1
SK01.67	4	1
SK01.67	5	0
SK01.67	6	9
SK01.67	7	18
SK01.67	8	21
SK01.67	9	25
SK01.67	16	#VÆRDI!
SK01.67	17	73
SK01.67	18	61
SK01.67	19	1
SK01.67	20	0
SK01.67	21	0
SK01.67	22	0
SK01.67	23	0
SK01.67	24	0
SK01.67	25	0
SK01.67	26	0
SK01.67	27	43
Sk01.68	3	1
Sk01.68	4	4
Sk01.68	5	4
Sk01.70	3	4
Sk01.70	4	4
Sk01.70	5	11
Sk01.70	11	10
Sk01.70	13	8
Sk01.70	14	31
SK01.71	1	1
SK01.71	2	1
SK01.71	3	2
SK01.71	4	1
SK01.71	5	9
SK01.71	6	20
SK01.72	1	1
SK01.72	2	1
SK01.72	3	0
SK01.72	4	1
SK01.72	5	9
SK01.72	6	3
SK01.72	7	2
SK01.72	8	8
Sk01.74	11	39
Sk01.74	13	44
Sk01.74	15	14
Sk01.75	2	0
Sk01.75	3	0
Sk01.75	4	0
Sk01.75	5	0
Sk01.75	6	0

BOREHOLE	BAGNO	Gravel pct
Sk01.75	7	0
Sk01.75	8	0
Sk01.75	9	0
Sk01.75	10	20
Sk01.76	1	5
Sk01.76	2	4
Sk01.76	3	3
Sk01.76	4	10
SK01.77	1	0
SK01.77	1	#DIVISION/0!
SK01.77	2	2
SK01.77	2	0
SK01.77	3	1
SK01.77	3	1
SK01.77	4	2
SK01.77	4	1
SK01.77	5	7
SK01.77	5	0
SK01.77	6	#VÆRDI!
SK01.77	6	1
SK01.77	7	0
SK01.77	8	9
SK01.77	9	2
SK01.77	10	8
SK01.78	1	2
SK01.78	2	0
SK01.78	3	1
SK01.78	4	3
SK01.79	1	6
SK01.79	2	3
SK01.79	3	8
SK01.79	4	4
SK01.79	5	
SK01.79	6	2
SK01.79	7	0
SK01.80	2	0
SK01.80	3	0
SK01.80	4	8
SK01.80	5	1
SK01.80	6	5
SK01.80	7	7
SK01.80	8	2
SK01.80	9	1
SK01.80	10	0
SK01.80	11	0
SK01.80	12	0
SK01.80	13	0
SK01.80	14	0
SK01.80	15	#VÆRDI!
SK01.80	16	0
SK01.80	17	2
SK01.80	18	#VÆRDI!
SK01.80	19	#VÆRDI!
SK01.80	20	6
SK01.80	21	25



BOREHOLE	BAGNO	Gravel pct
SK01.80	22	3
SK01.80	23	0
SK01.80	24	0
SK01.80	25	0
SK01.80	26	0
Sk01.81	1	0
Sk01.81	2	0
Sk01.81	3	0
Sk01.81	4	0
Sk01.81	5	0
Sk01.81	6	0
Sk01.81	7	1
Sk01.81	8	2
Sk01.81	9	16
Sk01.82	11	6
Sk01.82	12	50
Sk01.83	13	9
Sk01.83	14	13
SK01.84	1	0
SK01.84	2	0
SK01.84	3	6
SK01.84	4	26
SK01.84	5	24