SAMPLE DATA SHEET CODING MANUAL 1981

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Telf: 01-208200

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CONTENTS

1. THE FIELD REPORT

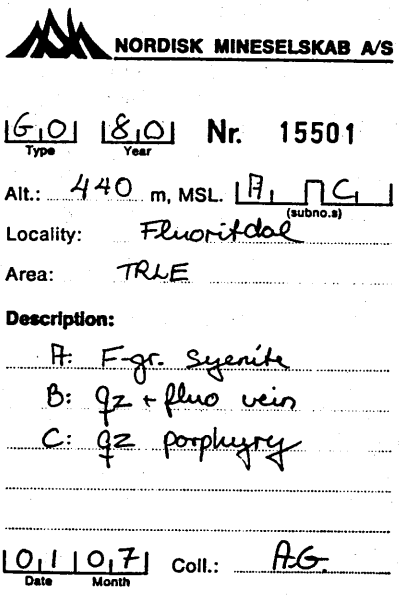
The field report should be delivered in 5 copies to NM as soon as possible after the field season. The report should preferably be written in english. Remember to include the following:

- Titlepage with informative title including location if possible, group number, author's name and date.
- List of contents.
- Very brief summary including: visited localities, the work done, the results, and recommendations.
- Introduction with purpose of field work, list of participants, distribution of time (travel, bad weather, etc.).
- If necessary, some short comments on logistics.
- Description of geology and mineralisation. Remember briefly to include former work and results.
- A section including discussion, conclusion, and recommendation.
- A short diary.
- A copy of the sample data sheets.
- List of analyses.
- References. In the text references should be given either as authors name and year, e.g. Haller (1971), or as NM group no., e.g. NM 9/71.
- Photos should be included in each copy, as photocopies normally are of very bad quality.
- When describing localities use: N, S, E, and W, not left or right. Use coordinates or fixed points in the terrain (mountain peaks, river mouths, sharp river bends etc.) and not camp site, former sample sites etc.
- Use tables and lists whenever possible.
- Both photos and drawings should be numbered as figs.

- Maps should always contain: Bar scale, N-arrow, drawer's name or initials, date, group no., and a title. On the map, discrimination between different sample types, (including different rock sample types, e.g. scree, outcropping, etc.) should be made. The legend must contain a list of the samples plotted on the map (e.g.8001507-13, 14-29). The original transparency for maps should be submitted to NM where they will be filed. If the map is bigger than A0-size, split it in two.

2. SAMPLING

Each sample should be given a number from the sample book. The complete sample number is given as year/group/registration no., e.g. 8015501.


NORDISK MINESELSKAB A/S

G 0 (Type) 8 0 (Year) Nr. 15501

Alt.: 440 m, MSL. A 1 (subno.s) C 1

Locality: Fluoritdal

Area: TRLE

Description:

A: F-gr. Syenite

B: Qz + fluo vein

C: Qz porphyry

0 1 (Date) 0 7 (Month) Coll.: A.G.

Use different sample books for different sample types (e.g. one book for rock samples and one for pan samples). The white page stays in the book, the yellow follows the sample, and the red one belongs to the geologist. Take the red copy out of the book in the evening in case of loss of the sample book.

Plot the sample location on a map, and indicate in the margin which samples are on the sheet.

Information about the samples must be coded on the data sheets according to the manual (section 3, below).

At the end of the season the sample books, an analysis request list, and one copy of the sample maps must be delivered to the project leader. The filled in data sheets and samples should be returned to Nyhavn when practicable during the season. After returning to Copenhagen the data sheets will be copied and sent to the geologist.

Participants in the Scheelite Project must submit a readable field diary at the end of the season. The field report should be delivered before December.

Participants of the other projects must deliver a field report as soon as possible after recieving the analytical data.

3. MANUAL FOR CODING THE DATA SHEETS

The data sheets 1a and 1b must be filled out in the field as soon as possible after taking the sample. Use sheet 1a for rocks (including grab, chips, channel, bulk, composite, profiles and drill core samples). Use sheet 1b for non-rock geochemical samples (pan concentrates, stream sediments, soil, water, and organic samples).

If no information is to be recorded in a column, leave it blank.

Do not write in the "Ident." columns in the field.

Columns 4-36 must always be filled in.

Codes can be either left or right adjusted, except *sub-numbers* which must be left adjusted.

Remember:

Ø = the figure zero
O = the letter O
1 = the figure one
I = the letter I
5 = the figure five
S = the letter S

Note 1. When possible, codes have been made to comprise the first letters of the term. e.g., amphibolite = AMP, laminated = LAM. A few standard abbreviations are used, e.g., clinopyroxene = CPX, chalcopyrite = CPY. If duality exists, one code has been arbitrarily defined, e.g., pyrite = PYR, pyrrhotite = PRR, black = BL, while blue = BU.

Note 2. The lists are open-ended, i.e., additional terms can be used after their codes have been defined and accepted by the project leader.

3.1. Data Sheet 1a - (rock samples)

SUB-COMPONENT

If the rock sample can be defined in 1 line, leave blank. If the rock sample has one or more *sub-components*, each of which requires a new line for description, columns 2 should be filled in with 1 for the main (first) sub-component, 2 for the second sub-component, etc..

SAMPLE

- *Type*: As per list 1a
- *Sample numbers* and *sub-numbers*: Sample number is *year/group*/registration number (e.g. 8015001 or 8002015). The same number must be used for main component and possible sub-components. There are 2 columns for each sub-number (columns 13 and 14). Both letters and numbers may be used. Subnumbers must be left adjusted, (i.e., if only one character, use column 13). Use only one character if possible, (i.e. 8015507/1 and not 8015507/01).
- *Sampler*: the first 3 letters of the group leader's family name, unless otherwise specified.
- *Project*: As per list 3.

SITE

- *Sheet*: The code title of the 1:250.000 or 1:100.000 map sheet on which the sample is plotted.
- *Height*: The elevation of the sample site above sea level in metres.
- *Locality*: as per the map in the middle pages. (The boundaries are prominent topographic or geological features).

STRATIGRAPHY as per list 4.

- *Reliability*: as per list 2.

The stratigraphy codes are those used on the 1:250.000 geological maps of Haller (72°-76°N) or those of the 1:100.000 geological maps of GGU (70°-72°N).

Note 1. When using Haller codes, always replace small by capital letters. Hypens (-) must be omitted for both Haller and GGU codes.

Note 2. Also use CAPITAL letters when using GGU codes. GGU codes should be altered in the following cases:

a) single letter codes must be expanded by adding F (except pegmatite, P, which remains as P, Cambrian, C, which should be expanded to CA, and pelite, P, which should be expanded to PE.).

b) Greek letters must be replaced by the two first letters of their names in Roman script (e.g. α = AL, β = BE, etc. - see list 4). Note, however, that γ = GAM.

c) All GGU crystalline rock codes must end with the number of the region, e.g., for Charcot Land (region 1), Q1, SP1, GR1, etc.

d) A few extra stratigraphic codes have been introduced for the Devonian and Permian of Wegener Halvø, and for the Triassic.

ROCK DESCRIPTIONS

- *Structures*: as per list 5

- *Colour*: as per list 6, e.g., for "greenish grey" *min.* = green (GR) and *maj.* = grey (GY).
- *Grain size*: as per list 7
- *Qualifying minerals (and terms)*: as per list 8
- *Rock type*: as per list 9

  Note. The qualifying minerals column includes codes for qualifying terms, e.g., arenaceous, argillaceous, etc. The codes for qualifying minerals or terms are usually identical with the corresponding (if existing) rock type code - e.g., dolomitic and dolomite are both DOL, quartz and quartzitic are both QUA.

ORE DESCRIPTION
- *Ore Minerals*: as per list 10
- Ore Min., *Amount*: as per list 13
- *Ore Structures*: as per list 11
- *Alteration*: as per list 12

  Note 1. It is not necessary to fill in all 4 ore structures, but it is necessary - if filling in - that the structures 1, 2, 3, and 4 occupy fixed places in data sheet columns 65, 66, 67-68, and 69 respectively.

  Note 2. If an ore mineral is filled in, an ore structure should also be filled in.

The *Ident.* columns should not be used.

3.2. Data Sheet 1b - (sand/soil/water samples)

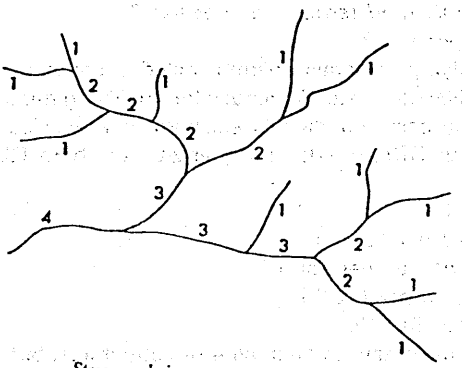
SAMPLE: as for sheet 1a except for a more detailed date, viz.
- *day*: from 01 to 31
- *month*: July = 7, August = 8 etc.

SITE as for sheet 1a

SOURCE ROCK STRATIGRAPHY
- *1* is the main source rock, *2* and *3* are subsidiary source rocks, with stratigraphy as per list 4.
- *Reliability*: as per list 2

STREAM CONDITIONS (at the sample site).

- *Stream Order*:



Stream-ordering system.

- *Flow Rate*: of water in the stream - list 14
- *Stream Bed*: the dominant bed material - list 14
- *Bed Sediment Size*: the dominant grain-size of the sediment in the stream bed - see list 14
- *Sorting in Bed*: degree of sorting of bed sediment - list 14
- *Staining* - list 14

SAMPLE DESCRIPTION

- *Sample Size:* for W-samples, *original* and *sieved*, the size in litre, which should be recorded in the field. (A decimal point occupies a column). For other samples, original and sieved, and for the *heavy mineral fraction* of W-samples, the size in grammes will be added in the laboratory after processing.
- *Heavy Minerals:* as per list 8 and 10.
  These can be noted if minerals of special interest can be recognized, e.g., scheelite, gold etc.
- *Grains Scheelite per 5 l* and *Ident.* columns will be filled out in the laboratory.

3.3. Data Sheet 1a. Examples

1. Scree sample 8007788 from Traill Ø East. Light grey, porphyritic fragmental rhyolite with veinlets of quartz and pyrite. Mn-staining. Tertiary age.

2. Moraine composite sample 8007789 of grey, brecciated siltstones with blebs of chalcopyrite and chalcocite mineralisation. Presumed Jurassic, but uncertain.

3. Outcropping 8007790/A. Jurassic, pinkish grey, conglomerate with clasts of uranium mineralized granite.

4. Outcropping 8007790/B, as above, but not mineralized. Poorly bedded.

5. Outcropping 8007790/C, as above, but with disseminated pyrite parallel to bedding. Rusty grey colour.

6. Stream boulder 8007791 of vein quartz and baryte, vugs partially infilled with galena and sphalerite. Uncertain Tertiary age.

3.4. Data Sheet 1b. Examples

7. Pan concentrate 8005432 from Lyells Land. Source rocks EBG 8. Stream is a steep 1st order gully. Original/sieved sample size 5/1.5 litre. Apparently no interesting heavy minerals.

8. Stream sediment 8002345 from Wegener Halvø. Source rocks Devonian Quensel Bjerg Formation, and some Permian Limestone-Dolomite Member. Stream is a 3rd order main river.

DATA SHEET Nº 1a (ROCK SAMPLES)

NORDISK MINESELSKAB A/S

CARD Nº	sub-comp.	SAMPLE number: type	year	gp.		sub-no.	sampler	project	SITE: sheet	height (m)	locality	STRATIGRAPHY	reliability	ROCK DESCRIPTION: structures 1	structures 2	colour min.	colour maj.	grain size	qualifying minerals 1	qualifying minerals 2	rock type	ORE DESCRIPTION: ore minerals	amount	minerals	amount	ore structures 1	2	3	4	alteration	Ident.
1A		GS	8⌀	⌀7	788		JEN	T	72⌀1	26⌀	TRLE	Y	1	POR	FRA	LI	GY	F	QUA		RHY									MN	
1A	1	GS	8⌀	⌀7	788		↓	↓	↓⌀↓	26⌀	↓	↓	↓	VES		RU	WH	H	QUA			PYR	M			D	V	JO			
1A		CH	↓	↓	789				⌀	5⌀		2123	2	BRE			GY	F			SIL	CPY	M	CHA	T	B					
1A		GO			79⌀	A			⌀	12⌀		↓	1			PI	↓	C			CON										
1A	1	↓			↓	A			⌀	↓			↓	CLA		RE		H			GRA	UTO	M			D					
1A						B			⌀					POB				C			CON										
1A						C			⌀							RU		C			CON	PYR	T			D		PR			
1A		GB	↓	↓	791		↓	↓	72⌀2	⌀	TRLW	QU	2	VUG			WH	C	VQZ	BAR		GAL	R	SPH	C	M	O		P		
1A									⌀																						
1A									⌀																						
1A									⌀																						
1A									⌀																						
1A									⌀																						
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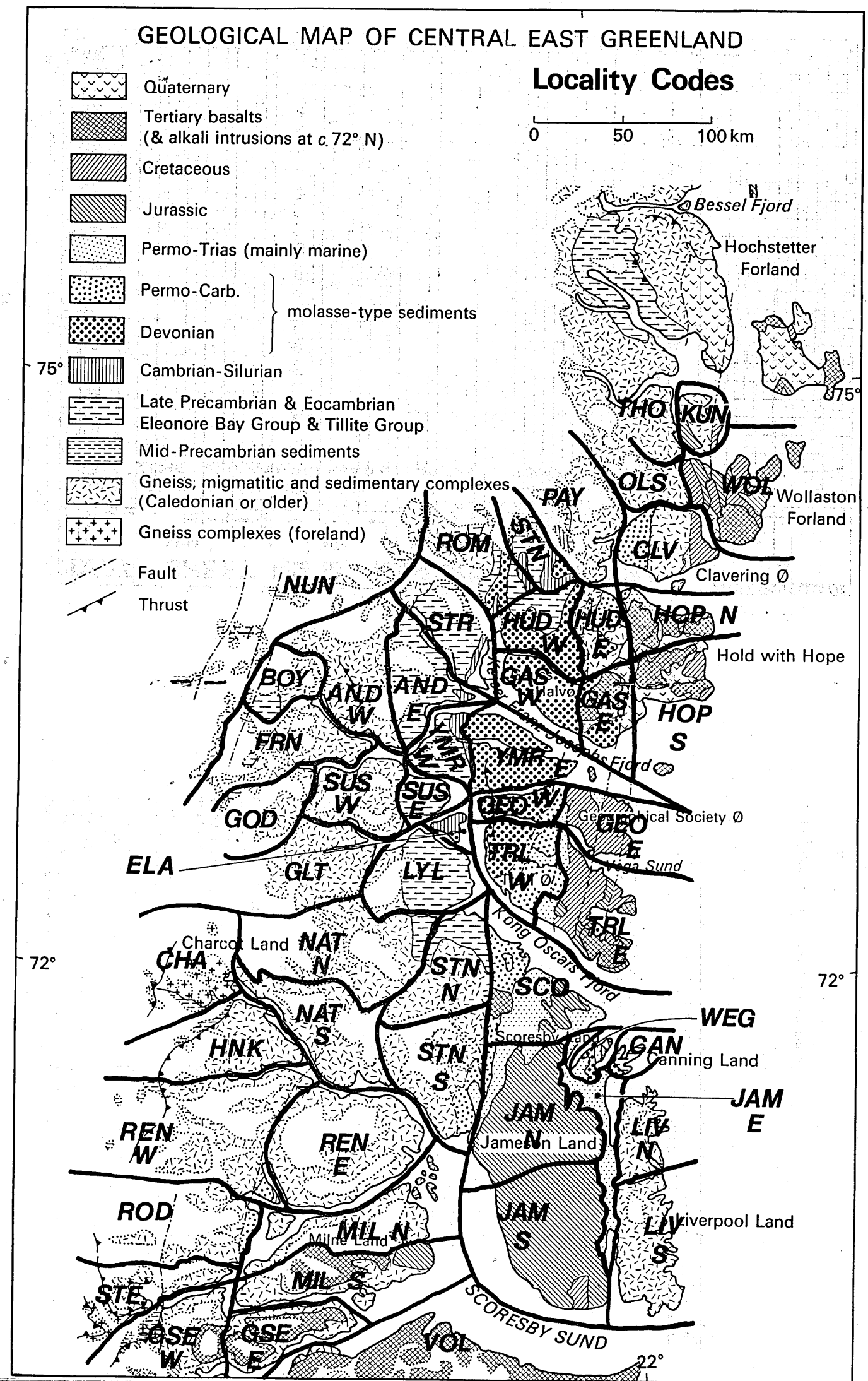
MAY 1st 1980

DATA SHEET Nº 1b *(SAND/SOIL/WATER SAMPLES)*

NORDISK MINESELSKAB A/S

	CARD Nº	SAMPLE number type	year	gp.	sub-no.	day	month	sampler	project	SITE sheet	height (m)	locality	SOURCE ROCK STRATIGRAPHY 1	2	3	STREAM COND. reliability	order	flow	bed	size	sort.	staining	SAMPLE DESCRIPTION sample size original	sieved	heavy min. fraction	heavy minerals 1	2	grains scheelite per 5 l	Ident.
	1	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	73	80
	1B	W	86	Ø5	432		Ø5	7	HAN	W	72	Ø2		6Ø	LY	L			8				11	DS	GP	N5		1.5									
	1B	S	8	Ø2	345		Ø9	7	HAN	J	71	Ø1	N	1ØØ	WE	G			QF	FK	1		13	RH	GF	F											
	1B										Ø																										
	1B										Ø																										
5	1B										Ø																										
	1B										Ø																										
	1B										Ø																										
	1B										Ø																										
	1B										Ø																										
10	1B										Ø																										
	1B										Ø																										
	1B										Ø																										
	1B										Ø																										
	1B										Ø																										
15	1B										Ø																										
	1B										Ø																										
	1B										Ø																										
	1B										Ø																										
	1B										Ø																										
20	1B										Ø																										
	1B										Ø																										
	1B										Ø																										
	1B										Ø																										
	1B										Ø																										
25	1B										Ø																										


GEOLOGICAL MAP OF CENTRAL EAST GREENLAND
Locality Codes
0 50 100 km
Quaternary
Tertiary basalts (& alkali intrusions at c. 72° N)
Cretaceous
Jurassic
Permo-Trias (mainly marine)
Permo-Carb.
Devonian
molasse-type sediments
Cambrian-Silurian
Late Precambrian & Eocambrian Eleonore Bay Group & Tillite Group
Mid-Precambrian sediments
Gneiss, migmatitic and sedimentary complexes (Caledonian or older)
Gneiss complexes (foreland)
Fault
Thrust
Bessel Fjord
Hochstetter Forland
Wollaston Forland
Clavering Ø
Hold with Hope
Geographical Society Ø
Charcot Land
Scoresby Land
Canning Land
Jameson Land
Liverpool Land
Milne Land
Kong Oscars Fjord
Scoresby Sund
THO
KUN
OLS
WOL
PAY
STN
ROM
CLV
NUN
STR
HUD W
HUD E
HOP N
HOP S
BOY
AND W
AND E
GAS W
GAS E
FRN
YMP W
YMP E
SUS W
SUS E
GOD
GEO W
GEO E
ELA
GLT
LYL
TRL W
TRL E
CHA
NAT N
NAT S
STN N
STN S
SCO
WEG
GAN
HNK
JAM N
JAM S
JAM E
LIV N
LIV S
REN W
REN E
ROD
MIL N
MIL S
STE
GSE W
GSE E
VOL
75°
72°
22°

4. SAMPLE DATA SHEET CODING LISTS

LIST 1a SAMPLE TYPES

The term boulder should be used for water transported float (often reworked moraine). Moraine is ice transported. Scree (talus) has virtually fallen down from the outcropping rocks of the mountains above.

rock (outcr., boulder, scree, moraine)	GO, GB, GS, GM
rock, unconsolidated (sand and fragments etc)	GU
grab (outcr., boulder, scree, moraine)	RO, RB, RS, RM
chip	CP
channel	CN
bulk	BU
composite (outcr., boulder, scree, moraine)	CO, CB, CS, CM
profile	PR
lithogeochemical profile	LP
drill core	DC

LIST 1b. SAMPLE TYPES

pan samples, panned scree, panned moraine	W, WS, WM
stream sediment, scree fines, moraine fines	S, SS, SM
soil	SO
water	WA
organic	OR

LIST 2. RELIABILITY

good	1, default value
suspect	2
poor	3

LIST 3. PROJECT

reconnaissance	R
Bredehorn	B
copper	C
lead-zinc	P
uranium	U
scheelite	W
molybdenum	M
arsenic-gold	A
niobium	N
zirconium (REE)	Z
kyanite	K
hydrocarbon (coal)	H
Jameson Land	J
EBG	E
Q 16	Q
Tertiaty intrusives	T

LIST 4 STRATIGRAPHY

sedimentary rocks

	GGU codes, 70-72°N		Haller codes, 72-76°N	
Quarternary				27
Tertiary				26
Cretaceous	Hesteelv Fm. (H)	HF	Upper Cretaceous	25
	Muslingeelv Mem.	H2	Lower Cretaceous	24
	Crinoid Bjerg Mem.	H1	Cretaceous (undif.)(24-25)	2425
	Harz Fjeld Fm. (Hz)	HZ		
Jurassic	Raukelv Fm. (R)	RF		
	Fynselv Mem.	R3		
	Salix Dal Mem.	R2		
	Sjællandselv Mem.	R1		
			Upper Jurassic	23
	Harselv Fm. (Ha)	HA	Middle Jurassic	22
			Lower Jurassic	21
	Olympen Fm. (O)	OF	U-M Jurassic (22-23)	2223
			Jurassic (undif.)(21-23)	2123
	Kronen Fm. (Kr)	KR		
	Kap Leslie Mem.	KR4		
	Marine Siltstone	KR3		
	Aldinger Elv Mem.	KR2		
	Marine Siltstone	KR1		
	Charcot Bugt Ss.Fm.(C)	CF		
	Vardekløft Fm. (V)	VF		
	Fossilbjerget Mem.	V3		
	Pelion Mem.	V2		
	Sorthat Mem.	V1		
	Neill Klinter Fm. (N)	NF		
	Ostreaelv Mem.	N3		
	Gulehorn Mem.	N2		
	Rævekløft Mem.	N1		
	Kap Stewart Fm. (K)	KF		
Triassic	Fleming Fjord Fm. (F)	FF		
	Ørsted Dal Mem.	F3		
	Malmros Klint Mem.	F2	Upper Triassic	20
	Edderfugldal Mem.	F1	Middle Triassic	19
	Pingel Dal Beds	PB	Lower Triassic	18
	Sporfjeld Beds	SB	Triassic (undif.)(18-20)	1820
	Gipsdal Fm. (G)	GF		
	Kap Seaforth Mem.	G2		
	Solfaldsdal Mem.	G1		
	Gråklint Beds	GB		
	Pingodal Fm. (P)	PF		
	Sydkronen Mem.	P4		
	Paradigmabjerg Mem.	P3		
	Rødstaken Mem.	P2		
	Klitdal Mem.	P1		
	Wordie Creek Fm. (W)	WF		

	GGU codes, 70-72°N		Haller codes, 72-76°N	
Upper Permian	Foldvik Creek Fm. (Fk)	FK	Upper Permian	17
	Clastic Mem.	FK5		
	Martinia Limestone Mem.	FK4		
	Gypsum Mem.	FK3		
	Posidonia Shale Mem.	FK2		
	Limestone-Dolomite Mem.	FK1		
	Conglomerate Mem.	FK0		
Lower Permian-Carboniferous	undifferentiated (C-P)	CP	Permian (undif.) (16-17)	1617
			Lower Permian	16
	Rødeø Conglomerate			
	Cross-bedded sst.assoc.	CP4		
	Gypsiferous sst.assoc.	CP3	Upper (middle) Carboniferous	15
	Silty sst.assoc.	CP2	Carboniferous (undif.)(1415)	1415
	Conglomerate assoc.	CP1		
Upper Devonian	Quensel Bjerg Fm. (Q)	QF	Upper Devonian	
	unspecified (Pz)	PZ	Mt. Celcius series (13c)	13C
			Kap Graah series (13b)	13B
Middle Devonian	Vimmelskaftet Fm. (Vi)	VI	Kap kolthoff series (13a)	13A
	Red & green banded silt M.	VI3		
	Grey sst. Mem.	VI2	Middle Devonian	12
	Red silstone Mem.	VI1	U-M Devonian (undif.)(12-13)	1213
	W. Hesteskoen Congl. Fm.	WH	M. Devonian (metamorphosed)	12M
	S. Hesteskoen sst. Fm.	SH		
	Basisdal Conglom. Fm.(Ba)	BA		
Devonian	undif., (Wegener Halvø).	VQ		
Ordovician				11
Cambrian	(Є)	CA		10
Eocambrian	Tillite Group (T)	TF1		9
Precambrian (EBG)	Limest.-dol. series(18-19)	L2	limestone-dolomite series	8
	Limest.-dol. series(14-17)	L1		
	Multicoloured ser. (11-13)	M2	multicoloured series	7
	Multicoloured ser. (7-10)	M1		
	Quartzite series (Qz)	QZ	upper quartzite series	6
			lower quartzite series	5
	Blk.shales with Qtzite (A)	AF	argillaceous-arenaceous ser.	4
			calc-argillaceous series(4a)	4A
			arenaceous series	3
			phyllite series (3b)	3B
			Mysterie quartzites (3a)	3A
			Basal Series (calc.bed.Gp.)	2
			Basal Ser.(psammitic bed Gp.)	1
			slightly metamorphosed EBG	5M, 4M, etc.

igneous rocks

	GGU codes, 70-72° N		Haller codes, 72-76° N	
Cretaceous-Tertiary	nepheline syenite (Ψ)	PS	nepheline syenite	U
	syenodiorite-monzonite (α)	AL	syenite	V
	alkali syenite (σ)	SI	monzonite (m)	M
	alkali granite (ε)	EP	granite	W
	gabbro & pyroxenite (δ1)	DE1	pyroxenite, gabbro, diorite	X
	porphyries & breccia (τ)	TA	extrusives, pyroclastics	Y
	basalt (β)	BE	basalt	Z
	dolerite dykes & sills (δ)	DE	basalt and pyroclastics	YZ
	basic stocks (Tert.?)(δ 5)	DE5	intrusive rhyolite	RH
	basic dykes (age?) (ω)	OM	intrusive breccie	BX
	acid dykes (age?) (γ) including hydrotherm.veins	GAM	quartz veins (q)	QU
Devonian	K.Wardlaw granite (ggi)	GGI7	granite	R
	rhyodac.,dacite,rhyolite (rh)	RH	rhyolite	S
	tuff (-sediments) (vo)	VO	basalt	T
			granite-rhyolite (R-S)	RS
Late Caledonian & older	pegmatite & quartz veins	P	lamprophyre	Q
			pegmatite,aplite,quartz veins	P
			post tectonic granite	O
			syn-tectonic granites	N
			granite (syn-post) (N-O)	NO

crystalline rocks

	Haller codes, 72-76° N
quartzitic schists, gneiss	L
bedded quartzite to gneiss	K
mica schist, biotite gneiss	J
marble, calcareous mica schist, gneiss	H
amphibolite (Ga)	GA
peridotite (Gp)	GP
amphibolite-peridotite (Ga-p)	GAP
green schist (Gs)	GS
amphibolite-greenschist (Ga-s)	GAS
migmatite gneiss	F
K-feldspar augen gneiss	E
porphyritic granodiorite	D
synorogenic granite (ultrametamorphic rocks)	C
schist-granite-pegmatite basement (J-O-P)	JOP
schist granite basement (J-O)	JO

crystalline rocks (continued) GGU codes, 70-72°N

	1 Charcot Land	2 Paul Stern Land	3 Krummedal sequence	4 Basement (inner fjord)	5 Migmatite zone	6 E. Milne Land	7 Liverpool Land
quartzite (q)	Q1	Q2	Q3		Q5	Q6	
semi-pelite (sp)	SP1						
mica schist (ms)	MS1		MS3	MS4		MS6	MS7
carbonate-marble (c)	C1	C2	C3	C4	C5	C6	C7
green (chlorite) schist (vs)	VS1	VS2		VS4			
tillite (t)	TF1						
pelite, Pelitic schist (p)	PE1	PE2					
mica schist with q'ite interbands (msq)			MSQ3			MSQ6	
q'ite with interbedded ms (qms)			QMS3				
mica schist gneiss (mgn)			MGN3				
amphibolite (a)	A1	A2	A3	A4	A5		A7
basic extrusives (ae)	AE1						
hnbl. gabbro, amphibolite (ai)	AI1			AI4			
monzonite (mg)					MG5	MG6	
intermediate intrusive (di)					DI5		
ultrabasite (ub)			UB3	UB4	UB5		UB7
siliceous gneiss (qgn)		QGN2	QGN3	QGN4	QGN5		QGN7
gneiss (gn)	GN1			GN4	GN5		GN7
granodioritic gneiss (agn)							AGN7
granitic gneiss (ggn)				GGN4			GGN7
gneissic migmatite (gnm)					GNM5	GNM6	GNM7
granitic migmatite (gm)					GM5	GM6	
basic gneiss (bgn)							BGN7
granite (g)	GR1		G3	G4	G5		G7
augen granite (g5a)					G5A		
granodiorite (ag)					AG5		AG7
granite (intrusive) (gi)			GI3		GI5	GI6	GI7
syenite (sgi)					SGI5	SGI6	
granite (s.s) (ggi)	GGI1				GGI5	GGI6	GGI7
granodiorite (intrusive) (agi)					AGI5	AGI6	
quartz diorite (tgi)					TGI5		TGI7
quartz monzonite (mgi)						MGI6	MGI7

ROCK DESCRIPTION

LIST 5
Structures

bedded	BED	homogenous	HOM
poorly bedded	POB	massive	MAS
metre bedded	MEB	porphyritic	POR
dm bedded	DMB	banded	BAN
cm bedded	CMB	porphyroblastic	PHB
laminated	LAM	augen	AUG
fissile	FIS	agmatitic	AGM
interbedded	INB	paleosome	PAL
poorly sorted	POS	neosome	NEO
well sorted	WES	spherolitic	SPH
graded bedding	GRA	flow banded	FLO
current bedded	CUB	ignimbritic	IGN
cross bedded	CRB	pillow	PIL
flaser bedded	FLA	pyroclastic	PCL
zebra structure	ZEB	fibrous	FIB
bioturbation	BIO	spotted	SPO
ripple marks	RIP	miarolitic	MIA
mud cracks	MUD	matrix	MAT
load structures	LST	groundmass	GRM
slump structures	SLU	myrmekitic	MYR
porous	POO	drusy	DRU
oolitic	OOL	phenocrysts	PHE
concretionary	COC	euhedral	EUH
clast	CLA	subhedral	SUB
vuggy	VUG	anhedral	ANH
interformat-ional brecciated	IBR	unconformity	UNC
botryoidal	BOT	disconformity	DSC
stromatolitic	STR	concordant	CON
trace fossils	TRF	discordant	DIS
heavy mine-ral horizon	HMH	contact	CNT
stylolite	STY	parallel	PAR
		stockwork	STO
		crosscutting	CRO
vein	VEN		
veinlets	VES	jointed	JOI
veined	VEI	cleaved	CLE
dyke	DYK	liniated	LIN
sill	SIL	foliated	FOL
sheet	SHE	schistose	SCH
lens	LEN	gneissose	GNE
pod	POD	folded	FLD
relict	REL	contorted	COT
inclusion	INC	brecciated	BRE
schlieren	SHL	breccia filling	BRF
xenolith	XEN	cavity	CAV
flooding	FOO	faulted	FAU
wall rock	WAL	mylonitised	MYL
(with) fragments	FRG	sheared	SHR
fragment	FRM	thrusted	THR
		slickensides	SLI
		fractured	FRA

LIST 6
Colours

leucocratic	LE
mesocratic	MS
melanocratic	ME
beige	BE
black	BL
brown	BR
buff	BF
blue	BU
cream	CR
green	GR
grey	GY
mauve	MA
orange	OR
pink	PI
purple	PU
red	RE
white	WH
yellow	YE
light	LI
dark	DA
rusty	RU
mottled	MO
varicoloured	VA

LIST 7
Grain Size

coarse, > 5mm	C
medium, 1-5 mm	M
fine, < 1 mm	F

LIST 8
Qualifying minerals
and/or terms

actinolite	ACT
amphibole	AMP
anhydrite	ANH
anorthite	ANO
apatite	APA
asbestos	ASB
baryte	BAR
beryl	BER
biotite	BIO
bitumen	BTU
calcite	CAL
celestite	CEL
chlorite	CHL
clinopyroxene	CPX
coal	COL
cordierite	COR
corundum	COU
diopside	DOP
dolomite	DOM
epidote	EPI
feldspar	FEL
fluorite	FLU
garnet	GAR
glauconite	GLU
gypsum	GYP
halite	HAL
hornblende	HBL
idocrase	IDO
jasper	JAS
K-feldspar	KFE
kyanite	KYA
limonite	LIM
lepidolite	LEP
mafics, undefi.	MAF
magnesite	MGS
two (2) mica	TMI
mica	MIC
muscovite	MUS
nepheline	NEP
olivine	OLI
orthopyroxene	OPX
phlogophite	PHL
plagioclase	PLA
quartz	QUA
rutile	RUT
scapolite	SCA
sericite	SER
serpentine	SEP
siderite	SID
sillimanite	SIM
sodalite	SOD
sphene	SPE
staurolite	STA
talc	TAL
topaz	TOP
tourmaline	TOU
tremolite	TRE
vesuvianite	IDO
wollastonite	WOL
zoisite	ZOI

arenaceous	ARE
argillaceous	ARG
argilla-ceous schlieren	ASC
augen	AUG
bituminous	BIT
calc silicates	CAS
calcareous	CAC
calcareous incl.	CAI
carbonaceous	CAR
cherty	CHE
clay galls	CLA
conglomeratic	CON
contact metamor.	COM
dolomitic	DOL
earthy	EAR
feruginous	FER
fossiliferous	FOS
glass (volc.)	GLA
granitic	GRA
hybrid	HYB
meta-	MET
migmatitic	MIG
organic	ORG
ortho-	ORT
para-	PAR
pegmatitic	PEG
plant fossil	PLF
phosphatic	PHO
qtzo-feldspatic	QSF
rusty	RUS
sandy	SAN
siliceous	SIC
silty	SIL
syenitic	SYN
volcanic	VOL
vein aplite	VAP
vein baryte	VBA
vein calcite	VCA
vein dolerite	VDO
vein dolomite	VDL
vein fluorite	VFL
vein granite	VGR
vein pegmatite	VPE
vein quartz	VQZ
vein syenite	VSY
vein silica	VSI
vein trachyte	VTR

LIST 9
Rock Types

agglomerate	AGG
amphibolite	AMP
anorthosite	ANO
aplite	APL
arenite	ARE
argillite	ARG
arkose	ARK
basalt	BAS
breccia	BRE

carbonatite	CAR
carbonate	CAB
chert	CHE
coal	COL
conglomerate	CON
clay	CLA
diorite	DIO
dolerite	DOE
dolomite	DOL
eclogite	ECL
evaporite	EVA
gabbro	GAB
gneiss	GNE
gossan	GOS
granite	GRA
granodiorite	GRD
granophyre	GPY
granulite	GRN
greenschist	GSC
greenstone	GST
greisen	GEI
greywacke	GRE
gritstone	GRT
hornblendite	HBL
hornfels	HOR
hydrotherm. vein	HYD
ignimbrite	IGN
kimberlite	KIM
lamprophyre	LAM
limestone	LIM
latite	LAT
mafic	MAF
marble	MAR
migmatite	MIG
monzonite	MON
mudstone	MUD
mylonite	MYL
norite	NOR
pegmatite	PEG
pelite	PEL
phosphate	PHO
phyllite	PHY
porphyry	POR
quartzite	QUA
rhyolite	RHY
sandstone	SAN
semipelite	SPE
serpentinite	SEP
schist	SCH
shale	SHA
skarn	SKA
siltstone	SIL
slate	SLA
syenite	SYE
tillite	TIL
trachyte	TRA
tuff	TUF
ultrabasic	ULT
ultramafic	ULT
vein quartz	VQZ

ORE DESCRIPTION

LIST 10
Ore Minerals

arsenopyrite	APY
azurite	AZU
bismuthinite	BIS
bornite	BOR
cassiterite	CAS
chalcocite-digenite	CHA
chalcopyrite	CPY
chromite	CHR
cinnobar	CIN
copper, native	COP
covelline	COV
cuprite	CUP
fahlore	FAH
fucksite	FUC
galena	GAL
goethite	GOE
gold	GOL
graphite	GRA
hematite	HEM
hydrozincite	HYD
ilmenite	ILM
magnetite	MAG
malachite	MAL
molybdenite	MOL
molybdic ocher	MOO
monazite	MON
pentlandite	PEN
platinium	PLA
pyrite	PYR
pyrrhotite	PRR
scheelite	SCH
silver	SIL
sphalerite	SPH
stibnite	STI
wolframite	WOL
zircon	ZIR

Mn-oxides	MNO
U, Th oxides	UTO
sulphosalts (complex sulphides)	SUL
mixed sulphides (Fe sulphides together with base metal sulph.)	MIX
chalcopyrite + pyrite	CHP
Cu, Pb, Zn sulphides, (mixed)	CPZ
Pb, Zn sulphides (mixed)	PZS
Cu arsenide, oxide, sulphide	CUA, CUO, CUS
cobalt arsenide, oxide, sulphide	COA, COO, COS
Fe arsenide, oxide, sulphide	FEA, FEO, FES
Ni arsenide, oxide, sulphide	NIA, NIO, NIS
rare earth minerals (& Nb, Ta)	REM

LIST 11

ore structures

structure 1 (column 65 on data sheet)		structure 2 (column 66)		structure 3 cols. 67-68)		structure 4 (degree of space filling) (column 69)	
massive	M	mineral	M	concordant	CO	>98% filled (compact)	C
blebs	B	veinlets	V	discordant	DI	98-95% (good)	G
disseminated	D	open space	O	parallel	PA	<95% (poor)	P
vein	V	symmetrical	S	stockwork	ST		
coating	C	asymmetrical	A	joint	JO		
		disseminated	D	fault	FA		
		blebs	B	breccia	BR		
				solution cavity	SC		
				cement	CE		

LIST 12
Wall Rock Alteration

K-feldspar alt.	KF
silicified	SI
sericitised	SE
argillised	AR
kaolinised	KA
bleached	BL
propylitised	PR
epidotised	EP
chloritised	CH
albitised	AL
pyritised	PY
rust	RU
Mn-staining	MN
greisen	GR
skarn	SK
dolomitised	DO
barytised	BA
pinking	PI
darkened	DA
weathered	WE
hyd. alt. unsp.	HY
hyd. sec. mineral	HM

LIST 13
Ore Minerals, Amount

Trace (<1% vol)	T
Minor (1-5%)	M
Common (5-10%)	C
Abundant (>10%)	A

LIST 14

stream conditions

flow rate		stream bed		bed sediment size		sorting in bed		staining	
dry	D	moraine	M	clay	C	good	G	none	N
stagnant	S	alluvium	A	sand	S	fair	F	Fe	F
flowing	F	scree	S	gravel-pebbles	G	poor	P	Mn	M
rapid flow	R	bedrock	B					organic	O
active glacier	G								

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TILFØJELSER OG RETTELSER
for
NM CODING MANUAL 1981

RETTELSER

LIST 8, QUALIFYING MINERALS, side 21:
SYN = syenitic rettes til SYE

NYE KODER

LIST 4, STRATIGRAPY, side 17:
Quartsite series undifferentiated 56
(indsættes mellem kode 5 og kode 6 i 2. spalte)

LIST 5, STRUCTURES, side 20
Pebbledyke PEB
Crenulate CRE
Boxwork BOX

LIST 8, QUALIFYING MINERALS, side 21
Aplitc APL
Basic BAS

LIST 9, ROCK TYPES, side 21
Felsite FEL
Vein baryte VBA

LIST 10, ORE MINERALS, side 22
Marcasite MAR