C. Suite chart - Legend of soil mapping units arranged by parent materials and in genetic group sequences

WHAKA SUITE (S1)

(Calcareous mudstone)

GENETIC SOIL GROUP	SUBGROUP	Soil Symbol	Soil Name	Set No.
RECENT SOILS				
YELLOW-BROWN EARTHS & RELATED STEEPLAND SOILS	Weakly to moderately leached	WBH WB	Whaka cy l.	30
	Moderately to strongly leached	WRH WR	Whangaripo cy l.	34
		WReH WRe	Whangaripo cy	34
		OFH OF	Omahuta cy	31
	Strongly leached to weakly podzolised	RV RVe	Rockvale cy Rockvale cy w. cs. - struct. subsl	37 37
		MXH MX	Mount Rex cy	40
		WAH WA	Warkworth cy & s.cy l.	39a
		AYH AY	Awanui cy & s.cy	44b
		AYfH AYf	Awanui f.s.l. & s.cy	44b
PODZOLISED YELLOW-BROWN EARTHS	Weakly to moderately podzolised	MVH MV	Mahurangi f.s.l.	pt45
		OU	Oturu f.s.l.	pt45
	Moderately podzolised	HKfH HKf	Hukerenui f.s.l.	46c
PODZOLS		WKf	Wharekohe f.s.l.	47a
		WKfp	Wharekohe f.s.l.w.pan	47a

PUHOI SUITE (S2)

(Banded sandstone)

Soil Symbol	Soil Name	Set No.
ANS	Atuanui std ss. cy l.	117g
PBH PB	Puhoi cy l.	27
PBuH PBu	Puhoi l t br.cy l.	27
TMH TM	Taumata cy l.	31
WRH WR	Whangaripo cy l.	34
WReH WRe	Whangaripo cy	34
OFH OF	Omahuta cy	31
MXH MX	Mount Rex cy	40
WAH WA	Warkworth cy & s.cy l.	39a
AYH AY	Awanui cy & s.cy	44b
AYfH AYf	Awanui f.s.l. & s.cy	44b
MVH MV	Mahurangi f.s.l.	pt45
OU	Oturu f.s.l.	pt45
HKfH HKf	Hukerenui f.s.l.	46c
WKf	Wharekohe f.s.l.	47a
WKfp	Wharekohe f.s.l.w.pan	47a

OMANAIA SUITE (S3)

(Sandstone & mudstone complex)

Soil Symbol	Soil Name	Set No.
WNH WN	Whirinaki cy l.	30b, c
ONH ON	Omanaia cy l.	27d
ONe	Omanaia cy l.w. cs. -struct. subsl	27d
AEH AE	Autea cy l. & si. cy l.	31a,b
AEeH AEe	Autea cy	31a,b
KWH KW	Kapowairua cy & si. cy	pt 46b
YR	Wairiki cy l. & si. l.	38a
HWH HW	Hurewai f.s.l.	pt 46b

WAIOTIRA SUITE (S4)

(Massive sandstone)**

Soil Symbol	Soil Name	Set No.
WCS	White Cone std ss. s.cy l.	117g
YCgH	Waiotira grav.s.l.	27a
YCH YC	Waiotira cy l.	31a,b
YCrH YCr	Waiotira br.cy l.	31a
YCeH YCe	Waiotira cy	31c
RPH RP	Riponui cy & s.cy	44b
RPaH RPa	Riponui s.cy l. & s.l.	44b
PVH PV	Puketurua s.cy**	pt 45
PDH PD	Puketitoi s.l.	pt 45
PWH PW	Pukewaenga s.l.**	pt 45
HKaH HKa	Hukerenui s.l.	46c
WKaH WKa	Wharekohe s.l.	47a
WKap	Wharekohe s.l.w. pan	47a

OMU SUITE (S5)

(Claystone, mudstone, shale)

Soil Symbol	Soil Name	Set No.
TFH TF	Te Tio cy l.	30
OMH OM	Omu cy l.	30a
APH AP	Aponga cy	33,a
	Puroa si.l.	pt 130d
PUeH	Puroa cy l.	pt93a
TNH TN	Tanoa s.cy l.	31a
TNaH TNa	Tanoa s.l. & s.cy l.	31c
MAr	Mata br.cy	40
MA	Mata cy	40
OAH OA	Okaka cy & si.cy	38
PXH PX	Puwera cy	pt45
PPH	Pokapu grav.si.l.	44fH
YKH YK	Waikare si.l.	pt45
YKf	Waikare si.cy	45
OPH OP	Otaika s.l.	pt45
HKH HK	Hukerenui si.l.	46b
HKgH HKg	Hukerenui grav.si.l.	47c
WKH WK	Wharekohe si.l.	47
WKp	Wharekohe si.l.w. pan	47
WKf	Wharekohe si.l.w. br.subsl	47

PURUA SUITE (S6)

(Shattered sandstone)

Soil Symbol	Soil Name	Set No.
TLS	Tautoro std ss, cy l.	pt 130d
PU	Purua si.l.	31a
PUeH	Purua cy l.	pt93a
TNH TN	Tanoa s.cy l.	31a
TNaH TNa	Tanoa s.l. & s.cy l.	31c
OCH OC	Otangaroa cy & s.cy l.	46c

MARUA SUITE (S7)

(Greywacke & argillite)

Soil Symbol	Soil Name	Set No.
TRS	Te Ranga std ss,cy l. & st.cy l.	122b
TRuS	Te Ranga std ss, l t br.cy l. & st.cy l.	122b
MRrH MRr	Marua br.cy l.	35
MRH MR	Marua cy l.	35
MRuH MRu	Marua l t br.cy l.	35
RAH RA	Rangiora cy, cy l. & si.cy l.	41
RAfH RAf	Rangiora si.cy l.	41
HKrH HKr	Hukerenui si.l.w. yel . subsl	46b

OMAIKO SUITE (S8)

(Quartzite)

Soil Symbol	Soil Name	Set No.
TVt TV	Tikitohe grav.si.l.	35
TVH TVt	Tikitohe red. grav. si. l.	35
OVH OV	Omaiko grav.si.l.	44g
OVp	Omaiko grav.si.l.w. pan	44g

MAUNGAREI SUITE (S9)

(Dacite, rhyolite & granodiorite)

Soil Symbol	Soil Name	Set No.
PES	Parakiore std ss,st. cy l.	127
MEH ME	Maungarei cy	36
MEbH	Maungarei cy w. l a.b l d.	36
KUH	Kumurau s. l.	36
POS	Pukekaroro std ss, cy l.	127a
PFH PF	Piroa cy	pt45a
PMH PM	Pukenamu si. l.	pt45a
PR	Parahaki f.s. l. & si. l.	47b
PRp	Parahaki f.s. l. & si. l.w.pan	47b

WHAREORA SUITE (S10)

(Alluvium mainly from sedimentary rocks)

Soil Symbol	Soil Name	Set No.
WFa	Whakapara s.	1
WF	Whakapara si. l. & cy l.	1
WFm	Whakapara mot l.cy l.	2
WOa	Whareora s.	34d
WO	Whareora cy l.	34d
WU	Waipuna cy	40a
AB	Albany si. l.	pt73
KRa	Kara s. l.	47f
KRap	Kara s. l. w. pan	47f
KR	Kara si. l.	47f, pt47g
KRp	Kara si. l. w. pan	47f
KRy	Kara p.si. l.	pt47g
KRe	Kara cy	47f

PINAKI SUITE (S14)

(Sand)

GENETIC SOIL GROUP	SUBGROUP	Soil Symbol	Soil Name	Set No.
YELLOW-BROWN SANDS	Weakly weathered — Weakly to moderately leached	PNH PN	Pinaki s.	23a
		MDH MD	Marsden s.	23c
		WD	Whananaki s.	23b
	Weakly weathered — Strongly leached to podzolised	OE	Ohia s.	47e
		OEy	Ohia p.s.	47e
	Moderately weathered — Moderately to strongly leached	HOH HO	Houhora s.	24
		RLaH RLa	Red Hill s.	24a
		RLH RL	Red Hill s.l.	24a
		RLfH RLf	Red Hill s.cy l.	24c
PODZOLISED YELLOW-BROWN EARTHS	Weakly to moderately podzolised	TTH TT	Tangitiki s. l. & s.	44
GLEY SOILS	Podzolised	TEKm	Te Kopuru s.. wet phase	47e
PODZOLS		TX	Te Hapua f.s. l.	pt46b
		TXp	Te Hapua s.w.pan	pt46b
		TEK	Te Kopuru s.	47d
		TEKy	Te Kopuru p.s.	47e

TE KIE SUITE (S16)

(Shattered dolerites, breccias & tuffs)

GENETIC SOIL GROUP	SUBGROUP	Soil Symbol	Soil Name	Set No.
RECENT SOILS				
BROWN GRANULAR LOAMS & CLAYS & RELATED STEEPLAND SOILS	Weakly to moderately leached	TES	Te Kie std ss, st. cy l.	130
		TEuS	Te Kie std ss, l t br.st.cy l.	130
		TErS	Te Kie std ss, red. cy l.	130
		TUH TU	Takitu grav.cy l.	87b
		TKwH	Tokawhero st. cy	pt93a
		AKH AK	Awapuku cy l.	87
		C5H C5	Haunga cx*	pt92,a
	Moderately to strongly leached	YNH YN	Waimatenui cy	89,a
		MNH MN	Mangonui cy	89,a
		C8	Onetai cx*	pt93
		C9H C9	Waimamaku b l d.cx*	pt93
	Strongly to very strongly leached	RUrH RUr	Rangiuru red.br.cy	90,H,
		RUH RU	Rangiuru cy	91H
		AW	Awarua cy	90b
PODZOLISED BROWN GRANULAR CLAYS	Moderately to strongly podzolised	TP	Tinopai s. l. & s.cy	91

HUIA SUITE (S17)

(Andesitic agglomerates & breccias)

Soil Symbol	Soil Name	Set No.
HAS	Huia std ss, st.cy & st.si. l.	130
HAlS	Huia std ss,st.si. l.	130
HUH HU	Hunoke st. cy l.	87b
BMH BM	Bream cy l.	87
PTH	Parataiko si.l.	88dH
DVH DV	Dome Valley cy	93c,d
PAH PA	Parau cy l.	88b
YTH YT	Waitakere cy	88
CWH CW	Cornwallis cy	88b
HI	Hihi cy	pt90
HIg	Hihi grav.cy	pt90

KATUI SUITE (S18)

(Andesitic flows etc.)

Soil Symbol	Soil Name	Set No.
KTH KT	Katui cy l.	87b
YPH YP	Waipoua cy	88dH
WTH WT	Whatoro cy	89b
TO	Tutamoe fr.cy	89d
AR	Aranga cy	90a

KOHUMARU SUITE (S19)

(Alluvium mainly from doleritic & andesitic rocks)

Soil Symbol	Soil Name	Set No.
MF	Mangakahia si.l. & cy l.	1
MFm	Mangakahia mot l. cy l.	2
KM	Kohumaru cy	88c
KMm	Kohumaru mot l.cy	88c
PCr	Pakotai br.cy	90c
PC	Pakotai cy	90c
PCm	Pakotai dk gr.cy	90c
PCy	Pakotai p.cy l.	90c
PL	Parakao f.s. l.	pt90c

KIRIPAKA SUITE (S23)

(Basalt flows ± ash)

Soil Symbol	Soil Name	Set No.
KBH KB	Kiripaka b l d.si. l.	95
KBb	Kiripaka b l d.si. l., l a.b l d.	95
KBe	Kiripaka b l d. si. l.w.comp.subs l	95
KBeb	Kiripaka b l d.si l.w.comp.subs l , l a.b l d.	95
OW	Ohaeawai si. l.	95
OWb	Ohaeawai sh.b l d. si. l.	95a
WG	Whatitiri cy l.	95b
WP	Whakapai cy l.	95f
WPe	Whakapai fr.cy	95f
YOH YO	Waiotu fr.cy	96,H 96aH
YOb	Waiotu fr.cy w. l a. b l d.	96
MCH MC	Matarau fr.cy	96,a
MCb	Matarau fr.cy w. l a. b l d.	96
TG	Tikipunga fr.cy	96
KE	Kerikeri fr.cy	96a
KEb	Kerikeri fr.cy w. l a. b l d.	96a
RT	Ruatangata fr.cy	96
RTb	Ruatangata fr.cy w. l a.b l d.	96
PG	Pungaere g.av.fr. cy	96
ODH OD	Otaha cy	pt97b
ODg	Otaha grav.cy l.	pt97b
TA	Taraire grav. fr. cy	97
OKu	Okaihau grav.fr. cy w.d l br. subsl	97a
OK	Okaihau grav. fr. cy	97a
OKg	Okaihau v.grav. fr.cy	97a

ARAPOHUE SUITE (S11)

(Limestone)

Soil Symbol	Soil Name	Set No.
AUH AU	Arapohue cy	7
AUd	Arapohue deep cy	7
MTH MT	Motatau cy	7a

MAUNGATUROTO SUITE (S12)

(Limestone & mudstone complex)

Soil Symbol	Soil Name	Set No.
MO	Maungaturoto cy	pt7b
DF	Dairy Flat cy	pt7c

KONOTI SUITE (S13)

(Sandstone, mudstone & limestone complex)

Soil Symbol	Soil Name	Set No.
KNH KN	Konoti cy l.	7b
KNrH KNr	Konoti cy	7b

PAPAKAURI SUITE (S20)

Soil Symbol	Soil Name	Set No.
PKH PK	Papakauri si.l.	95,H
PKeH PKe	Papakauri cy l.	95,H
MUH MU	Maunu si. l.	95
MUb	Maunu b l d.si. l.	95
WM	Waimate North cy l.	95e
ATH AT	Apotu fr.cy	96

MANGANESE SUITE (S21)

Soil Symbol	Soil Name	Set No.
MZH MZ	Manganese si. l.	35

MAUNGAKOHATU SUITE (S22)

(Augite porphyry & greywacke)

Soil Symbol	Soil Name	Set No.
MGH MG	Maungakohatu fr.cy	93b

WAITEMATA SUITE (S15)

(Volcanic ash, airfall & rewashed, mainly rhyolitic)

GENETIC SOIL GROUP	SUBGROUP	Soil Symbol	Soil Name	Set No.
YELLOW-BROWN LOAMS BROWN GRANULAR LOAMS	Moderately to strongly leached	OL OLm	Otao si. l. Otao mot l. si. l.	72a, pt73
		HV	Hobsonville cy l.	pt73
PODZOLISED YELLOW-BROWN LOAMS	Weakly podzolised	WE	Waitemata si. l.	pt73
		WEm	Waitemata si. l., wet phase	pt73
PODZOLISED YELLOW-BROWN EARTHS	Moderately podzolised	CV	Coatesville si. l.	pt73
PODZOLS		WK l	Wharekohe f.s. l., ash var.	47a
		WK l p	Wharekohe f.s. l.w.pan, ash var.	47a

WAIPAPA SUITE (S26)

(Terrace alluvium mainly from basaltic rocks)

GENETIC SOIL GROUP	SUBGROUP	Soil Symbol	Soil Name	Set No.
GLEY SOILS	Slightly saline	KO	Kamo cy l.	101b
		KOr	Kamo red. cy l.	101f
		KOl	Kamo si. l.	101f
		KOy	Kamo p.si. l.	101f
		YF	Waipapa cy	101f
	Podzolised			

KAIPARA SUITE (S27)

(Estuarine clays, sands & alluvium)

Soil Symbol	Soil Name	Set No.
TCa	Takahiwai s.	111c
TC	Takahiwai cy	111c
TCy	Takahiwai p.cy. l.	111c
TCya	Takahiwai p.s.	111c
TZ	Tawharanui s.	101
TZy	Tawharanui p.s.	101a
KP	Kaipara cy & p cy l.	101
KPy	Kaipara p.cy l.	101a
KA	Kaitaia cy l.	101b
KAy	Kaitaia p.cy l.	101c

KAIKINO SUITE (S28)

(Lake - sorted alluvial sands)

Soil Symbol	Soil Name	Set No.
KK	Kaikino s.	47e

WAIPU SUITE (S29)

(Terrace alluvium from sedimentary rocks)

Soil Symbol	Soil Name	Set No.
YUa	Waipu s.	101d
YUay	Waipu p.s.	101e
YU	Waipu cy	101d
YUy	Waipu p.si. l. & p.cy	101e
YA	Wairua cy	102

RUAKAKA SUITE (S24)

(Peat & sand)

Soil Symbol	Soil Name	Set No.
OT	One Tree Point p.s.	109b
PZ	Parore p.s. l.	109
RK	Ruakaka p.s. l.	108b, 109, 109a
RKu	Ruakaka f.s.p.	
RKd	Ruakaka l.p.	
RKv	Ruakaka p.si. l.	
RKJ	Ruakaka p.f.s. l.	

OTONGA SUITE (S25)

(Peat & some alluvium)

Soil Symbol	Soil Name	Set No.
OG	Otonga p.cy l.	107b
OGd	Otonga l.p.	110
OGv	Otonga p.si. l.	pt73
OR	Otakairangi p.cy l.	110a
ORd	Otakairangi l.p.	

ABBREVIATIONS

b l d.	boulders. bouldery.	mot l.	mottled
br.	brown (-ish)	p.	peat (-y)
comp.	compact	pt	part
cs.	coarse	red.	reddish
cx	complex	s.	sand (-y)
cy	clay	sh.	shallow
dk	dark	si.	silt (-y)
d l	dull	ss	soils
fr.	friable	st.	stony
gr.	grey	std	steepland
grav.	gravelly	struct.	structured
l.	loam (-y)	subsl	subsoil
la.	large	v.	very
lt	light	var.	variant
		w.	with
		yel.	yellow

* The soil set numbers are those of NZ Soil Bureau Bulletin 5 (Soils of North Island, 1954) with which each soil is correlated; where numbers are underlined the correlation is uncertain. Where numbers are prefixed by "pt" (part) the soil in some cases has been subdivided in this presentation from a more complex unit in previous legends while in others the areas have been resurveyed (e.g. the large area of 46b Hukerenui silt loam near North Cape is now subdivided into various combinations of Kapowairua, Hurewai and Te Hapua soils, so 46b is given as their correlative).

** Most of the suites in this chart are what may be termed "coarse suites" that include a considerable range of parent materials which could be further separated into finer (purer) suites for detailed studies. For example, in Waiotira suite (S4) Puketurua and Pukewaenga soils are commonly formed from glauconitic sandstone (greensandstone). However, geological and pedological complexity and the scale of mapping have resulted in map units which cannot delineate occurrences of narrowly defined rock and soil types accurately.

\+ For Haunga complex (C5), Onetai complex (C8) and Waimamaku bouldery complex (C9) the dominant series of each is in Te Kie suite (S16) while other series as yet unnamed are in S17, 18, 2(Haunga), S18, 5(Onetai) and S18, 5(Waimamaku). Kaimaro clays (KC, KC') in Kaimaro suite of earlier legends have been changed to Waimatenui-Omu complex (YN-OM, YNH-OMH). Waimatenui clay being a member of Te Kie suite (S16) and Omu clay loam of Omu suite (S5).

These legends and suite chart have been compiled by the staff of New Zealand Soil Bureau, DSIR, 1978-1982.

A general account of the soils of Northland is given in "Soils of Northland" by H.S. Gibbs, published as a chapter in "National Resources Survey Part III - Northland Region" by the Town and Country Planning Branch, Ministry of Works and Development, 1964. Copies of the text of this chapter can be obtained from the Director, Soil Bureau, D.S.I.R., Private Bag, Lower Hutt.

More detailed information on individual soils is available from Soil Bureau at the above address or from Soil Bureau District Offices at Auckland (C/- Mt Albert Research Centre) or Hamilton (C/- Ruakura Agricultural Research Centre).