

Alex 9/3/73

Provisional Legend - Peace River Area

Map Symbol	Name	Parent Material and Landform	Significant Characteristics
Ab	ALBRIGHT Gray Solod	Dark gray loam and clay loam; variable mixture of lake and till deposits occurring on smooth gently and moderately sloping plains	Well to moderately well drained soils on convex slopes; lime carbonate and gypsum accumulation in subsoil
Ac	ALCAN Orthic Gray Luvisol	Grayish clay loam and clay deposits occurring on gently rolling and moderately sloping till plains	Moderately well drained, strongly acid soils on convex slopes; lime carbonates and gypsum at 6-10 feet.
Al	ALLUVIAL Regosols	Variable sandy and loamy recent alluvial deposits on islands and river terraces; often stony and gravelly; mainly level and gently sloping topography	Soil drainage is variable; flooding is common on lower terraces
Bk	BABCOCK Brunisolic Gray Luvisol	One to three feet of gravelly loamy sand overlying clay loam till occurring on irregular drumlinized topography	Well to moderately well drained soils; lime carbonates occur in the subsoil
Be	BEANY Brunisolic Gray Luvisol	Yellowish brown silty deposits overlying clay loam till; occurring on the steeply sloping sides of ridges	Well drained, moderately acid silty soils with compact subsoil
Bt	BEATTON Orthic Gray Luvisol	Grayish silty clay loam and clay lake deposits; occurring on gently sloping to irregular hummocky topography of broad valleys	Well drained, very strongly acid soils on convex slopes; compact subsoil
By	BERYL Bisequa Gray Luvisol	Thin loamy beach and shoreline deposits overlying silty clay loam; occurring in moderately to strongly sloping broad valleys	Moderately well drained, medium acid soils, very compact subsoil; lime carbonates below 16 in.
Bi	BICKFORD Typic Mesisol	Moderately well decomposed organic materials developed mainly from sedges but sometimes having an abundance of woody material	Mainly poorly drained depressions
Aw	BIG ARROW Orthic Regosol	Variable sandy and gravelly alluvial deposits on islands and river terraces; mainly level and gently sloping topography	Well to imperfectly drained acid soils; flooding is common on lower terraces
Bd	BOUNDARY Orthic Gray Luvisol	Dark gray compacted clay occurring on gently to moderately sloping areas of mixed till and shale	Moderately well drained, very strongly acid soils on convex slopes
Br	BRANHAM Orthic Eutic Brunisol	Brownish sandy and silty alluvial soils on intermediate terraces, occurring on gently sloping topography	Well drained soils calcareous at depths of less than 12 inches
Bu	BUICK Low Humic Eluviated Gleysol	Grayish clay loam and clay deposits occurring on gently rolling and moderately sloping till plains	Poorly drained very strongly acid soils occupying depressions and concave sites; loamy, often peaty surface soil overlying massive mottled clay subsoils.
Bh	BULLHEAD Orthic Regosol	Brown sandy deposits with sandstone fragments occurring on moderately and very steeply sloping, thinly glaciated mountain ridge tops	Rapidly drained neutral soils on sandstone bedrock
Bm	BULLMOOSE Orthic Regosol	Grayish brown loamy sand to loam over gravelly sand, occurring on nearly level to undulating recent alluvial deposits	Well to moderately well drained slightly acid soils underlain by gravels at 40 to 60 inches

Map Symbol	Name	Parent Material and Landform	Significant Characteristics
Cw	CHOWADE Lithic Orthic Dystric Brunisol	Gravelly sandy deposits on undifferentiated till and colluvium over sedimentary and metamorphic bedrock occurring on steep mountain slopes	Rapidly drained medium acid soils occurring above timberline
Cy	CLAYHURST Degraded Eutric Brunisol	Grayish gravelly sandy loam and loam outwash and each deposits occurring on smooth and irregular terraces	Rapidly and well drained slightly acid soils
Co	CODESA Orthic Gray Luvisol	Thin loamy beach and shoreline deposits overlying clay loam, occurring mainly on smooth, gently to moderately sloping plains	Well drained medium acid soils on convex slopes; variable surface textures, often stony
Cn	CODNER Orthic Humic Gleysol	Variable silty beach and shoreline deposits occurring on level and gently sloping plains	Poorly drained slightly acid soils on level and concave sites; thick dark colored organic surface layers over mottled subsoil
Cg	COGOL Typic Mesisol (sphagmic phase)	Deep semi-decomposed organic materials occupying depressions and level sites	Fibrous moss deposits greater than 52 in. thick over mineral soil; strongly acid
Ct	COLT Orthic Humic Gleysol (peaty phase)	Dark gray loamy deposits over clay till, occurring on strongly sloping hillsides	Poorly drained neutral soils on concave sites near base of strong slopes
Dv	DAVIS Orthic Gray Luvisol	Grayish loamy alluvial deposits occurring on smooth topography and irregular mounds near major rivers	Well to moderately well drained neutral soils with accumulations of lime carbonate at 1 1/2-2 feet
Dm	DEMMITT Orthic Gray Luvisol	Grayish brown clay loam deposits occurring on gently sloping plains and on irregular steeply sloping ridges	Well to moderately well drained soils with lime accumulation at 3 feet
Dg	DOIG Solodic Dark Gray Luvisol	Grayish silty clay loam and clay lake deposits occurring on gently sloping to irregular hummocky topography	Well drained strongly acid soils on convex slopes; compact subsoil
Do	DONNELLY Orthic Gray Luvisol	Dark gray clay loam; variable mixture of lake and till deposits occurring on gentle lower slopes of till plains	Moderately well drained, strongly acid soils on convex slopes; compact subsoil; lime carbonates and gypsum below 30 in.
Dr	DRESSER Rego Humic Gleysol (peaty phase)	Dark gray stony loamy colluvium; occurring on moderately and strongly sloping topography	Poorly drained neutral soils with dark organic tops, occurring in toe slope sites
Eg	EAGLESHAM Terric Mesisol	Shallow semi-decomposed sedge peat deposits occupying depressions and level sites	Dark brown organic deposits less than 52 in. thick over mineral soil; strongly acid
Ep	ELEPHANT Lithic Orthic Eutric Brunisol	Grayish brown gravelly sandy materials occurring on moderately to steeply sloping colluvial deposits	Rapidly drained, slightly acid soils containing angular sandstone fragments; occurring below rock outcrops and at toe of colluvial slopes; low stability
ER	(Eroded phase)		
Es	ESHER Dark Gray Luvisol	Dark gray variable clayey mixture of lake and till deposits occurring on gentle lower slopes of till plains	Moderately well drained medium acid soils on convex slopes; dark colored surface and compact subsoil

Map Symbol	Name	Parent Material and Landform	Significant Characteristics
Fa	FALHER Orthic Dark Gray Luvisol	Dark gray clay lake deposits; stonefree; occurring on smooth, gently undulating plains	Moderately well drained medium acid soils on convex slopes; dark colored surface and compact subsoil
Fr	FARRELL Orthic Regosol	Brown silty deposits occurring on gently sloping glacio-fluvial terraces and valley trains <i>mountains</i>	Well drained, mildly alkaline soils; lime carbonates occur in the subsoil
Fe	FELLERS Brunisolic Gray Luvisol	Brown clay till deposits occurring on moderately and steeply sloping hill and plateau remnants	Well drained, slightly acid soils containing many sandstone and quartzite fragments
Go	GOOSE Orthic Humic Gleysol	Dark gray clay lake deposits occurring on gentle lower slopes of lake basins	Poorly drained medium acid soils on level and concave sites; peaty surface and compact massive subsoil
Gr	GRAHAM Cumulic Regosol	Gravelly sandy colluvial and till materials on steep to extremely steep mountain slopes	Well drained to moderately well drained acid soils
Gb	GROUND BIRCH Brunisolic Gray Luvisol	Grayish sandy alluvial and shallow- lake deposits; often underlain by gravel; occurring on irregular hummocky topography	Well drained slightly acid soils
Gw	GWILLIM Degraded Eutric Brunisol	Brownish sandy and gravelly outwash deposits on meltwater channel landscape; occurring on nearly level to strongly rolling topography	Rapidly drained slightly acid sandy soils
Hy	HALFWAY Orthic Regosol	Gray and white sandy occurring on nearly level topography of recent alluvial floodplain	Rapidly drained, neutral reaction, slightly calcareous subject to inundation
Hr	HART Terric Humisol	Black semi-decomposed organic underlain by sandy to loamy mineral deposits occurring on gently sloping topography and depressions	Very poorly drained, strongly acid, moss and forest litter, less than 52 inches deep in concave slope positions
Hz	HAZELMERE Orthic Gray Luvisol	Dark gray loam and clay loam; variable mixture of lake and till deposits occurring mainly on smooth gentle slopes	Moderately well drained soils; lime carbonates and gypsum in subsoil
Hs	HORSESHOE Degraded Dystric Brunisol	Brown sandy and angular gravelly deposits over undifferentiated till and colluvium occurring on steep and very steep slopes	Well drained strongly acid soils
Je	JEDNEY Lithic Orthic Gray Luvisol	One to four feet of grayish clay loam overlying sandstone and shale on moderately to strongly sloping till plains	Moderately well drained, strongly acid soils
Ju	JUDAH Dark Gray Luvisol	Brown silty clay lake deposits; stone-free; occurring mainly on irregular-shaped mounds near major rivers	Moderately well drained medium acid soils on concave slopes; dark colored surface; lime carbonate below 20 in.
Kt	KATHLEEN Orthic Gray Luvisol	Brown silty clay lake deposits; stone-free; occurring mainly on irregular-shaped mounds near major rivers	Moderately well drained medium acid soils on concave slopes; lime carbonates below 20 in.
Kz	KENZIE Terric Mesisol (sphagnum phase)	Brown semi-decomposed organic materials occurring in basin-like depressions or drainage channels	Very poorly drained, very acid fibrous moss deposits less than 52 inches thick over mineral soil

Map Symbol	Name	Parent Material and Landform	Significant Characteristics
Ky	KI YIAN Gleyed Orthic Regosol	Grayish brown sandy loam to loam over sandy deposits, occurring on level to depressional topography of floodplains	Poorly drained, slightly acid soils
Ko	KOBE Brunisolic Gray Luvisol	Loamy colluvial deposits over clay till with sandstone, shale, and quartzite pebbles, occurring on hummocky till plain and colluvial toe slopes.	Well drained medium acid sandy soils
La	LANDRY Black Solod	Dark gray clay loam and clay; variable mixture of lake and till deposits occurring on gentle lower slopes of till plains	Moderately well drained medium acid soils on convex slopes; compact subsoil; lime carbonates and gypsum below (20 in.)
Lp	LA PRISE Gleyed Gray Luvisol	Grayish brown silty clay and clay deposits on long, smooth, gentle slopes of lake basin; hummocky topography near drainage channels	Imperfectly drained, moderately acid soils with compact subsoil over weakly calcareous stratified deposits
Ly	LYNX *Brunisolic Gray Luvisol	Grayish brown silty alluvial deposits occurring on gently to steeply sloping irregular topography	Well drained neutral soils with calcareous subsoils
Mk	MEIKLE Orthic Gleysol	Gray gravelly sandy loam and loam deposits occurring on level to gently sloping till	Poorly drained, slightly acid soils on toe slopes; sandstone fragments common
Mc	MERRICK Orthic Humo Ferric Podzol	Grayish brown gravelly sandy and loamy glacial drift occurring on moderately to steeply sloping topography	Well to moderately well drained extremely acid soils, on lower mountain slopes and valley bottoms; occasionally stony
Mi	MILLIGAN Orthic Gray Luvisol	Yellowish brown silty clay lake deposits occurring on gently to moderately sloping plains	Moderately well drained soils on convex slopes; extremely acid subsoils
Mo	MOBERLY Brunisolic Gray Luvisol	Dark grayish brown gravelly loam occurring on moderately and steeply sloping till deposits	Well drained, moderately acid soils calcareous at depth
Mr	MOUNT ROBERT Gleyed Gray Luvisol	Dark grayish brown gravelly loam occurring on gently to moderately sloping till deposits	Imperfectly drained, neutral to slightly acid soils in toe slope positions; sandstone fragments common
Mu	MURDALE Gray Solod	Grayish clay loam and clay deposits occurring on gently to moderately sloping till plains	Well drained strongly acid soils on long smooth slopes; dark colored loamy surface soil overlying clay subsoil containing lime carbonates and gypsum
Ne	NEUMANN Degraded Eutric Brunisol	Dark gray sandy deposits occurring on nearly level to gently rolling outwash	Rapidly drained, moderately acid, moderately calcareous soils
Ng	NIG Rego Humic Gleysol	Dark gray clay deposits occurring on gentle lower slopes of lake basins	Poorly drained soils with dark surface and compact, massive subsoil
No	NOSE Degraded Dystric Brunisol	Dark gray stony and gravelly sandy materials, occurring on level to strongly rolling outwash deposits	Rapidly drained, moderately to strongly acid soils; rounded sandstone gravels and cobbles present
Oe	OETCA Cumulic Regosol	Dark brownish loamy deposits over sandy alluvium, occurring on nearly level to gently rolling river flood plains	Well drained, slightly alkaline soils, underlain by gravels at 30 to 60 inches

Map Symbol	Name	Parent Material and Landform	Significant Characteristics
Os	OSBORN Gleyed Orthic Gray Luvisol	Dark gray variable mixture of lake and till deposits occurring on gentle lower slopes of till plains	Imperfectly drained strongly acid soils on convex slopes
Po	PINTO Bisequa Gray Luvisol	Shallow grayish brown sandy outwash over loam; occurring on level to gently rolling till or lake deposits	Moderately well drained, moderately acid soils, slightly calcareous at depth
Pt	PORTAGE MOUNTAIN Degraded Eutric Brunisol	Brown, sandy outwash deposits on moderately to steeply sloping terraces	Well drained sandy soils with thin bands of loam and clay over weakly calcareous sands
Pr	PRESTVILLE Orthic Gleysol (peaty phase)	Grayish loamy lacustrine deposits over clay; occurring on level and depressional sites	Poorly drained soils with a thin peaty surface over a compact calcareous subsoil
Ro	ROSELAND Orthic Dark Gray	Grayish silty clay loam and clay lake deposits occurring on gently sloping to irregular hummocky topography of broad valleys	Moderately well drained medium acid soils on convex slopes; dark surface and compact subsoil containing gypsum at two feet
RB	ROUGH BROKEN LAND	A land type that includes irregular steep side slopes, rock outcrops, dissected terraces and abandoned channels along stream courses; mainly undifferentiated Regosol soils	
Sh	SHEARERDALE Lithic Degraded Brunisol	One to four feet of brown clay loam and loam overlying sandstone on irregular, steeply sloping uplands, escarpments, and valley slopes	Well drained, medium acid soils with sandy surface and a clay loam subsoil
St	SKEETER Brunisolic Gray Luvisol	Dark gray sandy glacial fluvial deposits on gently undulating to hilly topography	Rapidly drained, moderately acid reddish yellow to brown colored soil, strongly calcareous at depth
Sn	SNIPE Low Humic Eluviated Gleysol	Grayish brown loamy and clayey till deposits occurring on gentle slopes of till plain	Poorly drained strongly acid soils on level and depressional sites; compact massive subsoil, slightly calcareous
So	STOTT Degraded Dystric Brunisol	Brown, loamy undifferentiated till and colluvium occurring at the base of steep mountain slopes	Well drained, medium acid soils
Ty	TAYLOR Rego Black	Clay loam deposits on colluvial-alluvial intermediate terraces; gently to moderately sloping topography	Well drained slightly acid soils, with dark colored surface horizons
To	TOAD Brunisolic Gray Luvisol	Brownish, silty deposits occurring on gently and moderately sloping glacio-fluvial terraces and outwash plains	Well drained moderately acid soils with a compact calcareous clayey subsoil
Tb	TREMBLAY Lithic Degraded Dystric	Grayish brown gravelly sandy to loamy deposits, occurring on moderately to very steeply sloping loose till	Well drained, very strongly acid soils; many sandstone fragments; sandstone bedrock at 10 to 30 in.
Tk	TUSKOOLA Degraded Eutric Brunisol	Dark grayish brown, loamy, gravelly deposits, occurring on irregular steeply to very steeply sloping till	Well drained, strongly acid soils, neutral at depth; sandstone fragments common
Tw	TWIDWELL Degraded Eutric Brunisol	Brown, gravelly sandy loam on calcareous morainal gravels occurring on level and gently sloping terraces and kettled outwash plain	Rapidly drained, slightly acid soils

Map Symbol	Name	Parent Material and Landform	Significant Characteristics
Wa	WARGEN Brunisolic Gray Luvisol	Brown sandy loam and loam glacio-fluvial deposits over till on hummocky topography	Well drained, moderately acid soils on weakly calcareous loamy deposits overlying clay <i>at</i> 36 in.
Wd	WIDMARK Degraded Eutric Brunisolic	Very dark grayish brown loamy to clayey lake deposits occurring on nearly level to gently sloping lake basins	Well to moderately well drained, slightly acid soils, moderately calcareous stratified subsoil
Wo	WONOWON Gleyed Orthic Gray Luvisol	Grayish clay loam and clay deposits occurring on gently and moderately sloping till plains	Imperfectly drained, strongly acid soils on nearly level topography; acid; lime carbonates and gypsum may occur at 6-10 feet

Additional map symbols

Al 1	ALLUVIAL (relatively mild climate)		
Al 2	ALLUVIAL (relatively cold climate)		
GB	Gravel bar	Coarse lateral accretion exposed along river channel during period of low flow	Completely inundated during stages of freshet; devoid of vegetation for most of the year
Hs 1	HORSESHOE		
Hs 2	HORSESHOE - shallow (lithic) phase	<i>analogous to CHOWADE</i>	
Mo 1	MOBERLY		
Mo 2	MOBERLY - shallow (lithic) phase		
Pt 1	PORTAGE MOUNTAIN		
Pt 2	PORTAGE MOUNTAIN - shallow (lithic) phase	<i>(ELEPHANT)</i>	
Pt 3	PORTAGE MOUNTAIN - TWIDWELL	<i>analogous to GWILLAM</i>	
R or RO	Rockland	The land surface is characterized by exposure of consolidated rock outcrop with less than 4 in. of unconsolidated mantling material. Associated with lithic soils and severe topography.	
SO 1	STOTT		
SO 2	STOTT - shallow (lithic) phase		
st =	stony phase		
Tk 1	TUSKOOLA		
Tk 2	TUSKOOLA - TREMBLAY		
TS	Variable sized rock fragments and other soil material accumulated on steep slopes and at the foot of cliffs; little or no soil development.		

Landforms

Alluvial fan: fan-shaped deposit of alluvium laid down by a stream where it emerges from an upland into less steeply sloping terrain.

Plain: area of level or nearly level land.

Plateau: a high plain usually cut by deep valleys.

Terrace: a nearly level, usually narrow, plain bordering a river or lake; a number of river terraces may occur at different levels.

Geologic Materials

Alluvium: materials such as clay, silt, sand, and gravel deposited by modern rivers and streams.

Colluvium: a heterogeneous mixture of materials that as a result of gravitational action has moved down a slope and settled at its base.

Glacial drift: all rock material carried by glacier ice and glacial meltwater, or rafted by icebergs; includes till, stratified drift, and scattered rock fragments.

Glacial till: unsorted and unstratified materials deposited by glacial ice.

Lacustrine deposit: material deposited in lake water and later exposed either by lowering the water level or by uplifting of the land; the range in texture is from sands to clays.

Outwash: sediments washed out by flowing water beyond the glacier and laid down as stratified drift in thin foreal beds; the particle size may vary from boulders to silt.

Soil Drainage

The soil drainage classes are defined in terms of (i) actual moisture content in excess of field moisture capacity, and (ii) the extent of the period during which such excess water is present in the plant-root zone.

It is recognized that permeability, level of groundwater, and seepage are factors affecting moisture status. However, because these are not easily observed or measured in the field, they cannot be used generally as criteria of moisture status.

- 1) Rapidly drained - The soil moisture content seldom exceeds field capacity in any horizon except immediately after water additions.
- 2) Well drained - The soil moisture content does not normally exceed field capacity in any horizon (except possibly the C) for a significant part of the year.
- 3) Moderately well drained - The soil moisture in excess of field capacity remains for a small but significant period of the year.
- 4) Imperfectly drained - The soil moisture in excess of field capacity remains in subsurface horizons for moderately long periods during the year.
- 5) Poorly drained - The soil moisture in excess of field capacity remains in all horizons for a large part of the year.
- 6) Very poorly drained - Free water remains at or within 30 cm (12 in.) of the surface most of the year.

NOTE: The moisture status may be the result of high groundwater level, low permeability, or seepage.

TERMINOLOGY FOR DESCRIBING SOILS AND LANDSCAPES

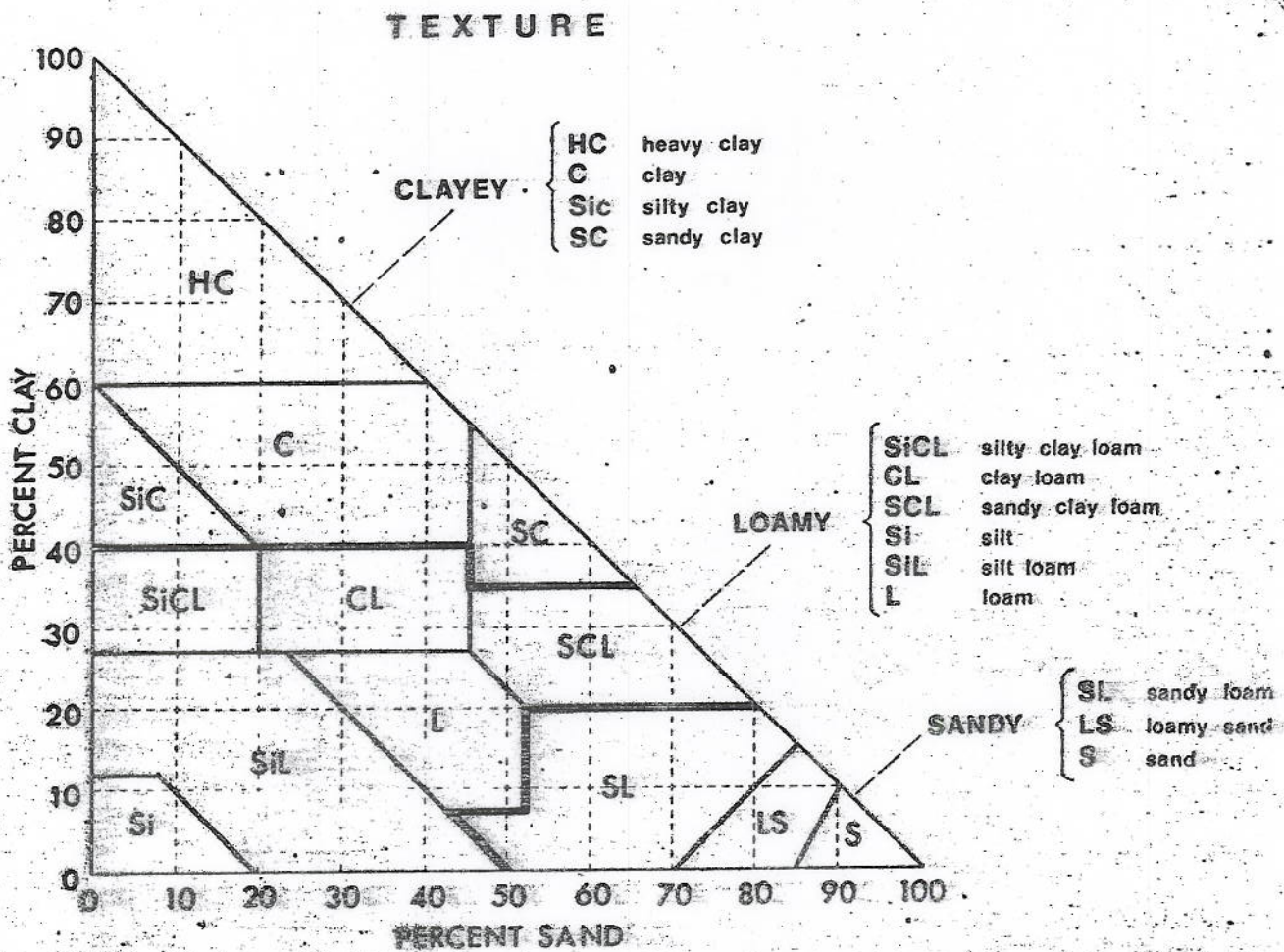


Fig. 32. Soil textural classes. Percentages of clay and sand in the main textural classes of soils; the remainder of each class is silt.

LAND SURFACE TERMINOLOGY

LAND FORMS AND TOPOGRAPHIC CLASSES

The following are the topographic classes and symbols:

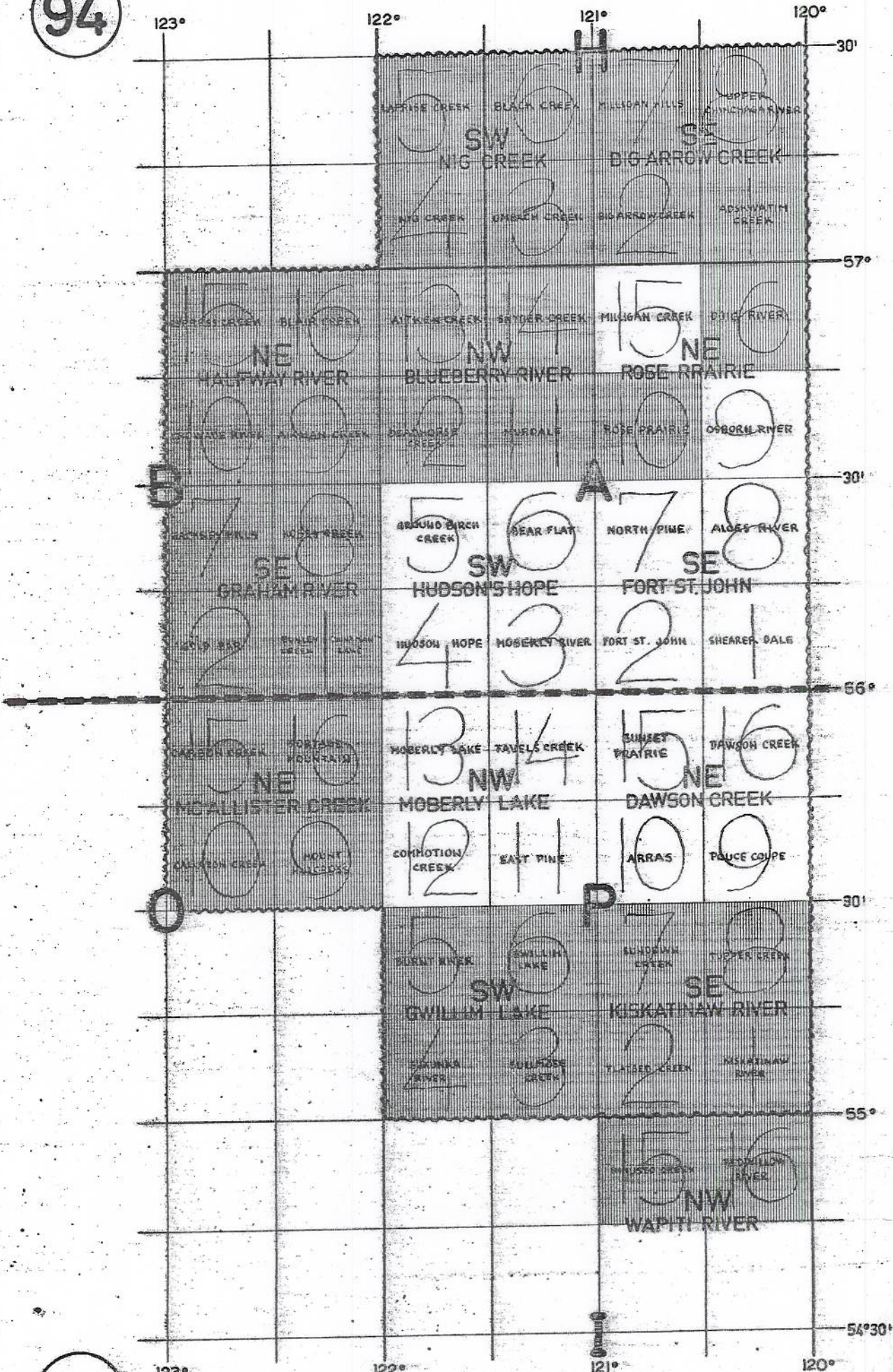
<i>Simple topography</i>		<i>Complex topography</i>		<i>Slope</i>
<i>Single slopes</i>		<i>Multiple slopes</i>		<i>%</i>
<i>(regular surface)</i>		<i>(irregular surface)</i>		
A	depressional to level	a	nearly level	0 to 0.5
B	very gently sloping	b	gently undulating	0.5+ to 2
C	gently sloping	c	undulating	2+ to 5
D	moderately sloping	d	gently rolling	5+ to 9
E	strongly sloping	e	moderately rolling	9+ to 15
F	steeply sloping	f	strongly rolling	15+ to 30
G	very steeply sloping	g	hilly	30+ to 60
H	extremely sloping	h	very hilly	over 60

Soil Reaction

	pH
Very strongly acid	4.5 - 5.0
Strongly acid	5.1 - 5.5
Medium acid	5.6 - 6.0
Slightly acid	6.1 - 6.5
Neutral	6.6 - 7.3
Mildly alkaline	7.4 - 7.8
Moderately alkaline	7.9 - 8.4

PEACE RIVER AREA

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