GEOLOGICAL SURVEY OF CANADA — COMMISSION GÉOLOGIQUE DU CANADA

Natural Resources Canada — Ressources naturelles Canada

DESCRIPTIVE NOTES

Regional Overview

The Dawson map area is composed of three major physiographic divisions: the Southern Ogilvie Mountains to the north and northeast; the Klondike Plateau to the south and southwest; and the Tintina Trench, which separates the first two divisions. The mountains are composed mainly of Precambrian and Paleozoic sedimentary rocks which are locally intruded by Cretaceous porphyritic syenite (Green, 1972). Intrusions form two of the three highest peaks in the region and served as the main source areas for local glaciers and ice caps. As a result of glaciation, the Southern Ogilvie Mountains are deeply dissected by "U" shaped valleys which cut across the main divide with a dominant trend from southwest to northeast. The Klondike Plateau is part of the Yukon Plateaus (Matthews, 1986) and is mainly developed on quartzite and schist of the middle and upper Paleozoic Nasina Series and Klondike Schist (GSC, 1988). The Klondike Plateau is largely dissected by dendritic "V" shaped vallies which reflect its unglaciated state. Notable exceptions are Sixtymile River, which was glaciated prior to the last glaciation, and Fortymile River that features distal glaciofluvial terraces related to at least two glacial advances from the Yukon-Tanana Upland. The Tintina Trench is a graben of late Tertiary age developed along a Cretaceous - early Tertiary fault (Tempelman-Kluit, 1980). It is developed on unconsolidated to poorly consolidated Tertiary fluvial sand and gravel which include organic sediments with minor lignite.

Surficial deposits

Surficial deposits of this area can be divided into two major groups: I) colluvial deposits, which occupy approximately 70% of the area; and II) glacial deposits, which occupy about 25% of the area, primarily within the glaciated valleys of Southern Ogilvie Mountains and the Tintina Trench. The remaining 5% includes organic, alluvial and lacustrine deposits.

Colluvial deposits consist of diamicton, rubble, and organic-rich silt and sand derived from bedrock and surficial materials by a variety of slope processes. Colluvium forms a blanket or veneer on the Klondike Plateau with rare bedrock outcrops, while bedrock and colluvium veneer dominate the interfluve areas in Southern Ogilvie Mountains. In the southeast part of the Dawson area (Klondike goldfields), colluvial deposits commonly include organic-rich silt with massive ground ice. Slope complexes (Cx) occupy valley sides that may also include small alluvial fans, landslides and rock glaciers (in particular in cirques associated with modern glaciers and neoglacial moraines). Landslides (Cz) are very important in this region, particularly along the Tintina Trench were they cover about 35% of the total surface area. This total includes areas mapped as Me; moraine plains modified by landsliding. The Landslide category is usually included in the "slope deposits" category but because of the wide range of ages of this category it has been included in the Plio-Pleistocene undifferentiated. Apparently landsliding was common in pre-glacial time, as shown by tilted Tertiary sand and gravel unconformably overlain by glacial sediments east of Fifteenmile River (site 7). Post-glacial downcut associated with the diversion and incision of the Yukon River on the Klondike Plateau most likely triggered a new episode of landsliding following each period of glaciation, and continues today. Neotectonic movements may also be involved in landsliding.

Glacial deposits are grouped into three categories: glaciofluvial, morainal (till) and glaciolacustrine. These deposits are the products of at least five major glaciations in addition to neoglacial activity. Distinctly different degrees of preservation reflect ages from late Pliocene to late Pleistocene. The oldest deposits have been grouped as pre-Reid (pre-Illinoian), and includes three periods of glaciation. Reid deposits are of Illinoian age, whereas McConnell deposits relate to Late Wisconsinan glaciation. These formal names have been adopted because of their regional usage, in contrast with the terms "oldest, intermediate and last" used by Vernon and Hughes (1966) for the glaciations in the Ogilvie Mountains. Pre-Reid deposits (glaciofluvial gravels and morainal) are generally oxidized and have highly weathered clasts in comparison with the better preserved younger deposits. As well, the thickest paleosols are associated with the older deposits (app. 2 m thick, contrasting 90 cm for Reid and 10-15 cm for McConnell deposits). Glaciofluvial deposits include proglacial and ice-contact sediments. They are generally well stratified to massive, poorly to well sorted, sand and gravel. Morainal deposits (till) consist of a nonsorted silt, sand and clay matrix with abundant pebbles, cobbles, and boulders. They occur in a variety of different landforms, including plains, hills, hummocks and ridges. Glaciolacustrine deposits consist of silt and clay with minor sand, commonly overlain by a blanket or veneer of organic deposits. Though lacustrine deposits appear in only a few places in the map area, they are an important component of Cz and glacial deposits (Me, Ge) of the Tintina Trench.

In the study area, older glaciations were generally more extensive than younger glacial events. The older glaciations reached the Tintina Trench from two different sources, the Cordilleran Ice Sheet (South Klondike and McQuesten Valleys) and the Ogilvie Mountains (from east to west; Brewery Creek; North Klondike River and its northern tributaries, Chandindu River and tributary, Fifteenmile River and Coal Creek). These source areas account for the mixed lithologies found in the three levels of pre-Reid glaciofluvial terraces mapped along the south part of the Tintina Trench (lower Klondike River). This is the only morphologic evidence for three pre-Reid glaciations in the study area, although stratigraphic evidence is found at several sites on the north side of the Tintina Trench (sites 3,4,5,6,7). On the north slope of the Ogilvie Mountains, pre-Reid moraines form blankets and veneers of highly colluviated material with occasional erratics and extend to the foothills and plains. They were deposited by piedmont glaciers. These piedmont glaciers seem to have reached as far north as the southern slopes of Mount Skookum Jim, about 25 km north of the Dawson map-area's boundary. In the study area, however, Reid-age deposits dominate the plains and cover most of the areas of pre-Reid deposits along the Tintina Trench. In some areas (e.g. Chandindu and Fifteenmile rivers) it appears that Reid glaciers reached almost to the limit of glaciation. McConnell glaciation was very restricted, and its deposits are found within short distances of their sources (maximum 25 km).

Stratigraphy

A preliminary correlation of deposits was done based on stratigraphic sections exposed at sites 1, 2, 3, 4, 5, 6, 7, along with paleomagnetic assessment and pollen analysis from site 3. A package of glacial sediments overlies Late Tertiary unconsolidated sand and gravel (Rs; sites 1, 3 and 7) of probable Plio-Pleistocene age (White, 1996; Morison and Hein, 1987). A normal -reverse -normal sequence was found for the glacial sediments, indicating a Gauss or Matuyama age for at least the first two glaciations to affect the area. The polarity signal as well as the high degree of clast weathering and oxidation of the three oldest glacial sediments distinguishes these deposits from the better preserved younger deposits. Because paleomagnetic assessment is preliminary, no polarity has been indicated in sections.

Glacial History

The pre-glacial landscape of the Yukon Territory and in particular the Klondike Plateau was very different than it is today. Drainage pattern analysis of central Yukon indicates that the Yukon River is an anomalous feature and is probably the result of glacial diversion. This idea of a southward flowing pre-glacial Yukon River was proposed by Tempelman-Kluit (1980). Pre-glacial drainage from Southern Ogilvie Mountains likely consisted of alluvial fans extending across the Tintina Trench area. This pattern was altered with the formation of the Tintina graben in late Pliocene.

Paleo-topographic reconstruction of the Yukon Plateau indicates that the Yukon River drains along the northeastern paleo-foothills of the upland. This anomaly starts near Fort Selkirk, where the river crosses a bedrock spur before continuing along the paleo-foothills to the northwest. The river is incised into the Klondike Plateau and crosses a paleo drainage divide between the Klondike and Fortymile rivers. Glaciation appears to be the only agent that could have determined the present-day course of the Yukon River. If this is correct it was the first glaciation, during which the Tintina Trench was occupied by glaciers, that diverted the river to the northwest and caused incision across the the higher and more resistant terrain of the Klondike Plateau. Floodplains cut in bedrock can be observed along this stretch of the river.

During the first glaciation of the central Yukon, Cordilleran and local glaciers coalesced and extended along the Tintina Trench (see limit of glaciation on map) as piedmont glaciers. The Grouse Mountain area marks the maximum western extent of Cordilleran ice. The ice moved between Moosehide and Klondike hills, diverting meltwater across the hills and establishing a permanent route for the Klondike River as an eastern tributary of the newly diverted Yukon River. Glaciers also caused westward drainage diversion of parts of Rock Creek and Chandindu River, and created a new drainage (Ballarat Creek) into a glacial lake impounded by Chandindu, Fifteenmile and Thane valley glaciers. The probable initial outlet of the lake was the lower Klondike meltwater channel, followed by the Chandindu-Fifteenmile-Yukon drainages. Another drainage diversion is found in the head-water of the southern-most tributary to Coal Creek, where part of Fifteenmile River was re-rerouted into Coal Creek. The subsequent pre-Reid glaciations seem to have had a similar pattern as the first glaciation, including the formation of glacial lakes. Reid glaciation, however, reached almost to the limit of glaciation of local glacier provenance, although Cordilleran ice did not reach the Tintina Trench at this time. The Fifteenmile valley glacier blocked the Yukon River and probably caused the formation of short-lived glacial lakes. McConnell Glaciation was very restricted and neoglacial moraines are present in cirques in the highest peaks of eastern Southern Ogilvie Mountains.

Economic Geology

A great variety of placer deposits are found in the Dawson area, including pre-glacial gravels (White Channel, Klondike Plateau), interglacial gravels (Midnight Dome, Dawson town site), alluvial plains (lower Klondike River) and colluvium (Moose Creek). Sedimentological study of a gravel terrace (site 2, mapped as outwash terrace) included a basal unit of interglacial gravels with a significant economic concentration of placer gold (Froese and Hein, 1996). Glacially derived outwash gravels overlying interglacial pay gravels are thick, crudely imbricate, containing large clasts, and sharply contrast with the gravel in the interglacial system. This raises the possibility of other outwash-high level terraces containing interglacial gravels with an economic concentration of placer gold in central Yukon (Froese, Msc. thesis in prep.).

Acknowledgments

This project was funded by the Canada-Yukon Economic Development Agreement. Special thanks are due to D.G. Froese for his assistance in the field and valuable stratigraphic information of sites 1, 2 and 10. Thanks are also extended to R. W. Barendregt, R. Enkin and J. Baker for providing paleomagnetic measurements of samples. Valuable information on pollen from site 3 was provided by J.M. White.

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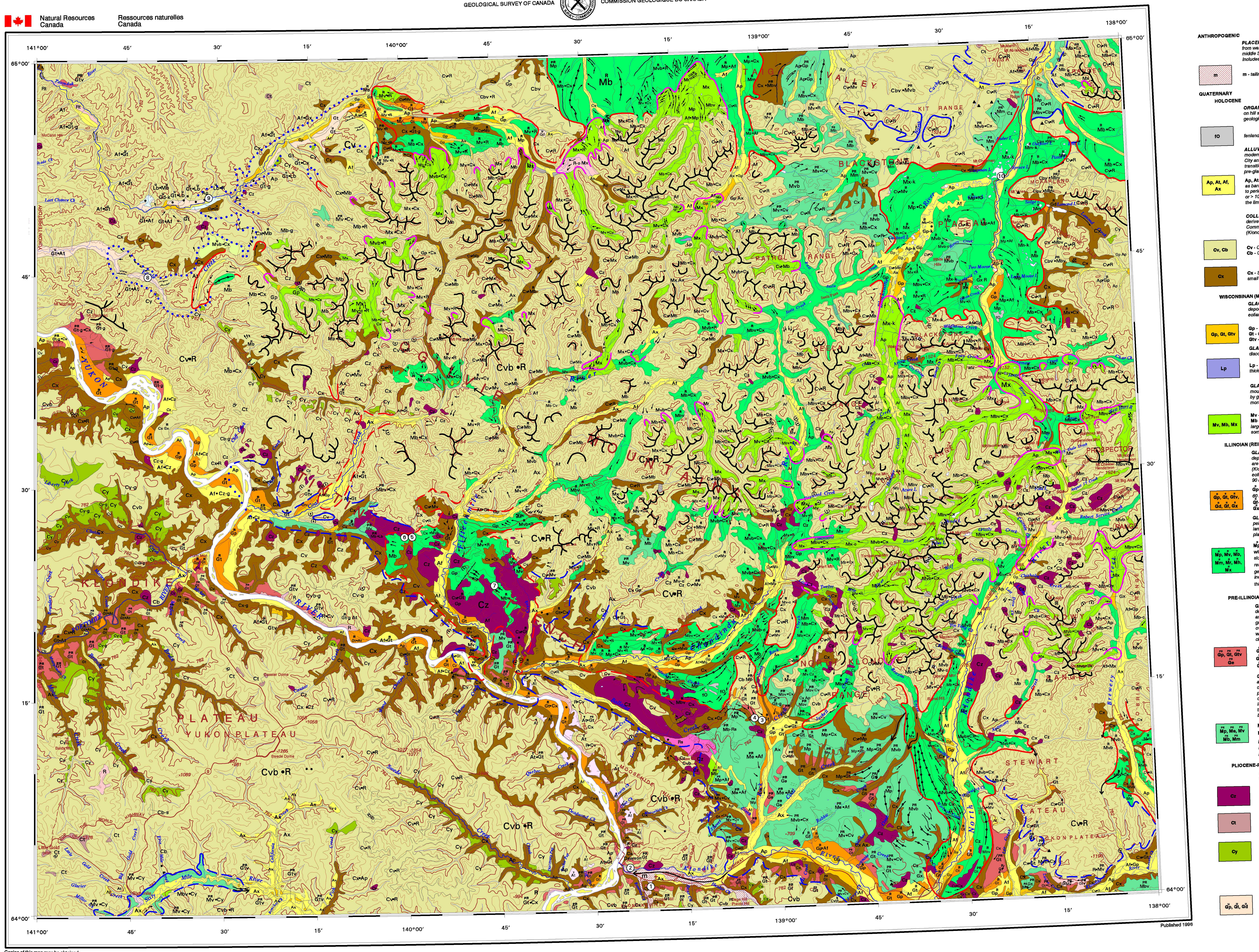

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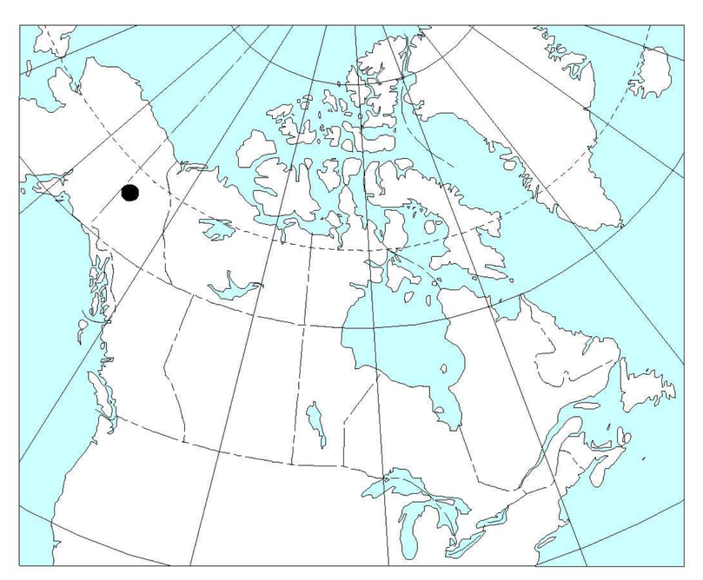

INDEX MAP

YUKON GEOLOGY PROGRAM

Canada

SURFICIAL GEOLOGY

DAWSON

YUKON TERRITORY

Scale 1:250 000

Kilometres 5 0 5 10 15 Kilométres

Transverse MercatorProjection - North American Datum 1983

144°	141°	138°	136°
66° USA	116G & 116F	116 H	66°
USA	116B & 116C	116 A	
63° USA	115O & 115N	115 P	63°
144°	141°	138°	136°

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OPEN FILE 3288

DOSSIER PUBLIC 3288

LEGEND

ANTHROPOGENIC

PLACER MINE TAILINGS: mostly sorted gravel, cobble and grit; occurring as ridges derived from washed ore of lower Klondike River and its southern tributaries of the Klondike Plateau and middle Sixtymile River. Occupy former alluvial plain and are separated by small perched ponds. Includes minor areas of open pit mining.

m — **m** - tailings, consisting of gravel and grit, up to 7 m thick.

QUATERNARY

HOLOCENE

ORGANIC DEPOSITS: peat and muck; occurring as flat to gently sloping plains or as a blanket on hill sides; overlie lacustrine, morainic and colluvial sediments but rarely form a dominant geologic unit. Permafrost is commonly present within 1 m of the surface.

fO — fenland - consisting of woody sedge peat, <2 m thick;

ALLUVIAL DEPOSITS: coarse sand and gravel with minor silt and fine sand in association with modern drainages. Floodplains along the middle reaches of the Yukon River between Dawson City and the Alaska border are cut into bedrock. Alluvial terraces along Fortymile River are transitional from glaciofluvial terraces of probable Illinoian (Reid) age. It includes **Ax** unit of pre-glacial origin, ie. Sixty Mile River Valley.

Ap, At, Af, Ax — **Ap, At** - alluvial plain and terraces; coarse sand and gravel with minor silt and fine sand occurring as bars, overbank floodplain and low terrace sediments, 0-12 m thick; floodplain deposits subject to periodic floods. **Af** - alluvial fan; mainly gravel, locally with lenses of mudflow deposits, up to or > 10 m thick. In the Ogilvie Mountains they form extensive areas of coalescent fans beyond the limit of McConnell Glaciation. **Ax** - complexes of **Ap, At** and **Af** undivided.

COLLUVIAL AND SHEETWASH DEPOSITS: diamicton, rubble, and organic-rich silt and sand derived from bedrock and surficial materials by a variety of colluvial and sheetwash processes. Commonly organic-rich silt with massive ground ice in the southeast part of the Dawson area (Klondike goldfields).

Cv, Cb — **Cv** - Colluvium veneer that conforms to bedrock topography, 1-2 m thick; **Cb** - Colluvium blanket that conforms to bedrock topography, >3 m thick;

Cx — **Cx** - Slope complex consisting of two or more of **Cv, Cb** and **Af** undivided. This unit may include small landslides and rock glaciers.

WISCONSINAN (McCONNELL) GLACIATION

GLACIOFLUVIAL DEPOSITS: well stratified to massive; poorly to well sorted; sand and gravel; deposited as proglacial or ice contact sediments by glacial meltwater; locally with a veneer of eolian silt or sand.

Gp, Gt, Gtv — **Gp** - Glaciofluvial flat to gently sloping plain, 2-8 m thick; **Gt** - Glaciofluvial terrace, >15 m thick; **Gtv** - Glaciofluvial terrace veneer, <2 m thick.

GLACIOLACUSTRINE DEPOSITS: silt and clay with minor sand, commonly overlain by a discontinuous blanket or veneer of organic deposits.

Lp — **Lp** - thick sediments occurring as a flat to gently sloping plain; no exposures available, estimated thickness 10 m.

GLACIAL DEPOSITS (till): unsorted silt, sand, and clay with some gravel and boulders; till of mountainous areas has abundant pebbles, cobbles, and boulders in silty sand matrix; deposited by glacier ice and occurring in a variety of different landforms (plains, hummocks and rolling moraine surfaces). It may include neoglacial moraines.

Mv, Mb, Mx — **Mv** - veneer of till with slopes conforming to underlying bedrock topography, 0-2 m thick; **Mb** - gently to moderately sloping plain controlled by bedrock, 3-6 m thick. **Mx** - Moraine complex: largely hummocky, ridged, and hilly till associated with ice contact sediments. Also includes some **Mv** and **Mb** units, undifferentiated.

ILLINOIAN (REID) GLACIATION

GLACIOFLUVIAL DEPOSITS: well stratified to massive; poorly to well sorted; sand and gravel; deposited as proglacial or ice contact sediments by glacial meltwater. Distal proglacial sediments are common along the Yukon River. These deposits are sometimes interbedded with debris flow (Klondike and Fortymile rivers) and jokulhaup deposits (Yukon River) locally with a veneer of eolian silt or sand. Where exposed, Reid deposits are capped by a brown-red paleosol of about 90 cm thickness.

Gp, Gt, Gtv, Gd, Gf, Gx (R) — **Gp** (R) - glaciofluvial plain; flat to gently sloping plain, 2 - 12 m thick; **Gt** (R) - overlying a terrace, up to 60 m thick. **Gtv** (R) - glaciofluvial terrace veneer, <2 m thick; **Gd** (R) - glaciofluvial delta, up to 15 m thick; **Gf** (R) - glaciofluvial fan; flat to gently sloping fan <15 m thick; **Gx** (R) - glaciofluvial complex, plains and ridges (eskers) undifferentiated, <20 m thick.

GLACIAL DEPOSITS: unsorted silt, sand, and clay commonly (diamicton) oxidized with abundant pebbles, cobbles, and boulders; deposited by glacier ice and occurring in a variety of different landforms. Large percentage of clasts are striated and have weathering rinds. Extensive glacial plains with sporadic low amplitude moraine ridges are found along lower North Klondike River.

Mp, Mv, Mb, Mm, Mr, Mh, Mx (R) — **Mp** (R) - moraine plain; till occurring as flat to gently sloping plain, >20 m thick; **Mv** (R) - veneer of till with slopes conforming to underlying bedrock topography, < 3 m thick; **Mb** (R) - gently to moderately sloping plain controlled by bedrock, >3 m thick. **Mm** (R) - broad hummocks or low hills with 10 - 20 m relief, <20 m thick. **Mr** (R) - ridged moraine, individual to compound, either straight or sinuous ridges; generally coarse till (20-50% pebbles); 15 to 60 m high, <60 m thick; **Mh** (R) - hummocky moraine, individual and coalescent hummocks, locally hummocks have a high gravel content; up to > 15 m thick. **Mx** (R) - Glacial deposit complex, largely hummocky, ridged, and hilly till, undifferentiated.

PRE-ILLINOIAN (REID) GLACIATIONS UNDIFFERENTIATED (including Pliocene)

GLACIOFLUVIAL DEPOSITS: well stratified to massive; poorly to well sorted; sand and gravel; deposited as proglacial or ice contact sediments by glacial meltwater; distal proglacial sediments are common along the lower Klondike, Yukon and Fortymile rivers. Within the Tintina Trench, gravels interbedded with massive diamicton and glaciolacustrine sediments occur with a thickness over 100 m. Where the paleosol has not been truncated by later processes brown-red paleosol with clay skins on clasts can be observed. Paleosol thickness is about 1.8 m. Highly weathered clasts are common. Locally with a veneer of eolian silt, sand and/or organic silt (muck)

Gp, Gt, Gtv, Ge (PR) — **Gp** (PR) - flat to gently sloping plain, 2-15 m thick; **Gt** - underlying a terrace, up to 100 m thick. **Gtv** (PR) - glaciofluvial terrace veneer, <2 m thick; **Ge** (PR) - flat to gently irregular glaciofluvial plain highly modified by landsliding.

GLACIAL DEPOSITS (till): unsorted silt, sand, and clay with some coarser clasts; till has abundant pebbles, cobbles, and boulders in silty sand matrix; deposited by glacier ice and occurring in a variety of different landforms. Deposits are usually oxidized, and contain high percentage of weathered clasts. Exposures along north side of Tintina Trench include blocks of the underlying unconsolidated Tertiary deposits. These deposits have been highly modified by landsliding, particularly between Ballarat Creek and North Klondike River where rolling terrain is the remnant of a moraine plain (**Me**). Along the north slope of the Ogilvie Mountains they form blankets and veneers of highly colluviated deposits with occasional erratics.

Mp, Me, Mv, Mb, Mm (PR) — **Mp** (PR) - moraine plain; till occurring as flat to gently sloping plain 3-20 m thick; **Me** (PR) - flat to gently irregular till plain highly modified by landsliding, glaciofluvial and fluvial processes; approximately 20 m thick; **Mv** (PR) - veneer of till with slopes conforming to underlying bedrock topography, 0-2 m thick; **Mb** (PR) - gently to moderately sloping plain controlled by bedrock, 3-6 m thick. **Mm** (PR) - broad hummocks or low hills with 10-20 m relief, <20 m thick.

PLIOCENE-PLEISTOCENE UNDIFFERENTIATED

LANDSLIDES, PEDIMENTS AND CRYOPLANATION TERRACES: diamicton and rubble derived from bedrock and surficial materials by gravity, sheetwash, soilcreep and frost action.

Cz — **Cz** - landslide deposits: rubble and/or diamicton occurring as stepped or fan-shaped deposits; mainly rotational slump failures; 10 to 100 > 100 m thick. Covers extensive areas in the Tintina Trench where deposits are derived from unconsolidated Tertiary and Quaternary deposits (eg: Ballarat Creek, > 110 km²). Small percentage of landslides occurs in bedrock.

Ct — **Ct** - cryoplanation terrace deposits: colluvial rubble occurring as a 1-3 m thick mantle on a step or bench in a mountain slope and on interfluves. Found on the hill tops of the unglaciated part of the Klondike Plateau and on divides that were not affected by the last glaciation, usually along the west and north part of the southern Ogilvie Mountains.

Cy — **Cy** - Pediment: rubble occurring along valley sides on gently sloping erosion surfaces that conform to bedrock topography; < 3 m thick. Commonly found on the unglaciated parts of the Klondike Plateau and reflect Pliocene to early Pleistocene slope evolution associated with regional denudation. Often overlain by thick loess > 3m, ie. Swede Creek.

GLACIOFLUVIAL DEPOSITS: well stratified to massive; poorly to well sorted sand and gravel, commonly covered by at least 2 m of peat; deposited as proglacial or ice contact sediments by glacial meltwater. These distal proglacial deposits are located along the South Tatonduk River and lower Coal Creek.

Gp, Gt, Gd (U) — **Gp** (U) - flat to gently sloping plain, 2- 30 m thick; **Gt** (U) - overlying a terrace, up to 20 m thick. **Gd** (U) - glaciofluvial delta, up to 15 m thick;

GLACIOLACUSTRINE DEPOSITS: silt and clay with minor sand, commonly overlain by a discontinuous blanket or veneer of organic deposits; usually affected by retrogressive thaw flow slides and rotational slumping. Restricted areas of glaciolacustrine deposits occur in association with moraine blankets and plains of Illinoian (Reid) and Late Wisconsinan (McConnell) age. Extensive areas were covered with glaciolacustrine sediments (8 m thick maximum exposure) during pre-Reid glaciations along the Tintina Trench and have been reworked by landsliding.

Lp, Lb (U) — **Lp** (U) - thick sediments occurring as a flat to gently sloping plain, > 10 m thick. **Lb** (U) - blanket conforming to local topography up to 7 m thick.

GLACIAL DEPOSITS: unsorted silt, sand and clay with some gravel and boulders. Interpreted on the basis of surface expresion due to lack of exposure and thick organic cover. Occurring as till blanket in South Tatonduk River and a eastern tributary to Eagle Creek.

Mb, Mv (U) — **Mb** (U) - gently to moderately sloping plain controlled by bedrock, 3-6 m thick. **Mv** (U) - Till veneer with slopes conforming to underlying bedrock topography, 0-2 m thick.

PRE-PLIO-PLEISTOCENE

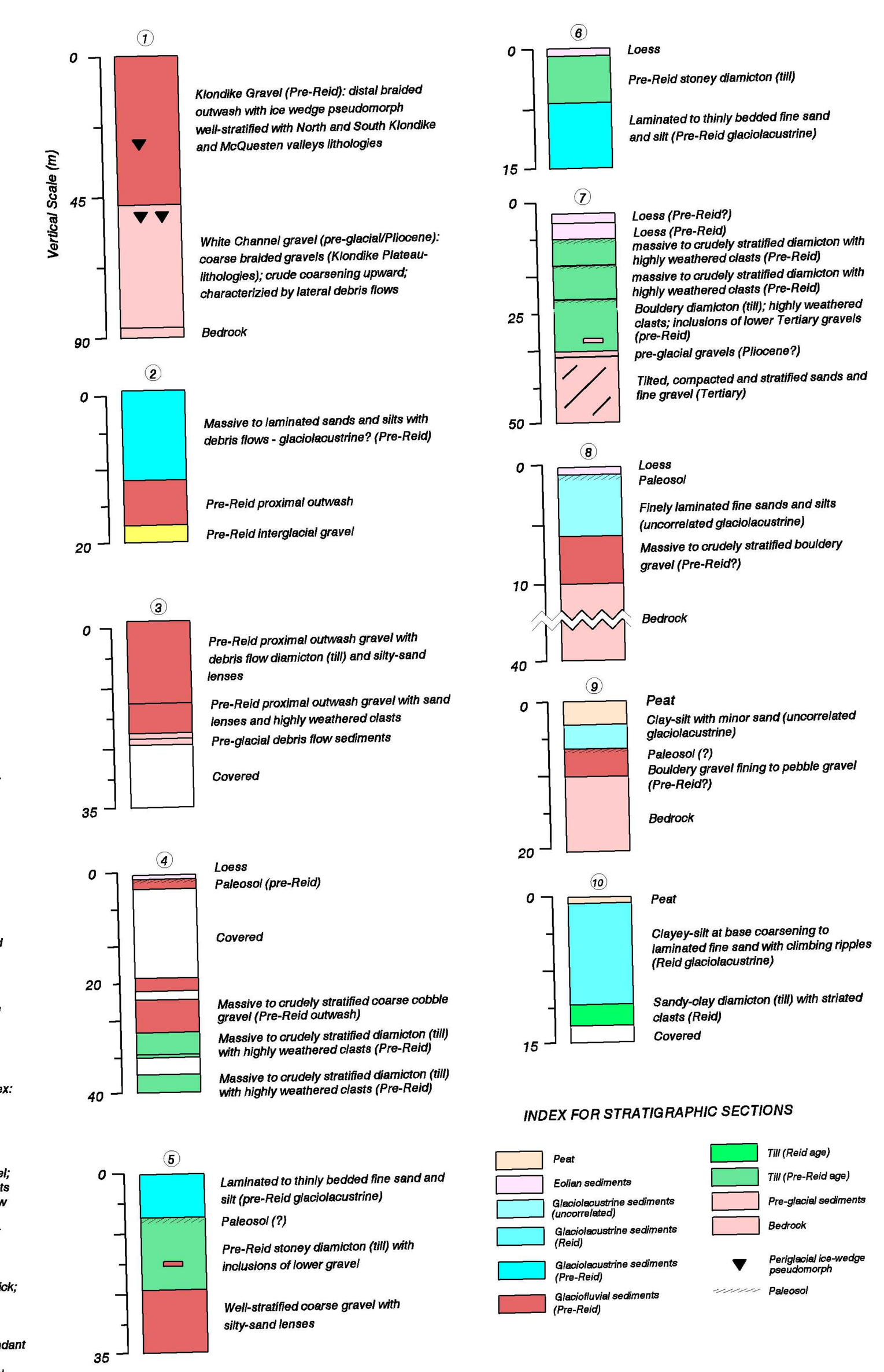
BEDROCK: Tertiary sand and gravel exposed on landslides scarps along the Tintina Trench; Devonian quartzite in Klondike Plateau; rocks of mountainous areas range from volcanic, quartzite, chert, argillite, dolomite, limestone, shale, diorite, granodiorite and gabbro of Precambrian to Cretaceous age.

At (T) — **At** (T) - Alluvial terraces; coarse gravel and sand with minor silt occurring as high terraces (up to 70 m thick) along the Yukon River. These deposits correspond to the south flowing paleo Yukon River.

R, Rt — **R** - primarily prominent ridges, escarpments, and hills. **Rt** - bedrock terrace (South Tatonduk River)

Rs — **Rs** - unconsolidated Tertiary sand and gravel.

STRATIGRAPHIC SECTIONS



Geological boundary (defined, approximate)
Glacial limit of McConnell Glaciation (defined, approximate)
Glacial limit of Reid Glaciation (defined, approximate)
Glacial limit of pre-Reid Glaciations undifferentiated (defined, approximate, estimated)
Cirque
Glacial erratic
Moraine ridge
Esker
Glacial meltwater channel (major, minor)
Filled channel or buried valley
Canyon
Rock glacier and area of rock glaciers
Cryoplanation terrace
Landslide (mainly rotational slides; may include other forms of mass wasting such as rock slides, retrogressive-thaw flow slides and debris flows)
Fault (neotectonic)
Tension joint
Pingo
Stratigraphic locations

PREFIXES, COMBINED MAPS UNIT, AND MODIFYING PROCESSES

Combined map units are used where, for reasons of scale, two units cannot be delineated individually. There are two different forms of combined unit designators: 1) Where the two units are from the same genetic group, the second upper case letter representing the genetic category of the subordinate unit is dropped (e.g., alluvial plain and terrace undifferentiated becomes **Apt**). In some cases, where the combined unit has characteristics different from the two individual units, the combined unit is described in the legend (e.g. **Gtv** - thick and thin till). 2) Where the map unit designator is composed of different genetic categories, the dominant unit (>50 %) is followed by a dot and then the second unit which makes up 20-50% of the map area (**Mp•Cx**).

Three special designators are used to indicate the former or current activity of modifying processes: thermokarst activity (**k**), gulling (**g**), and channelling (**c**). These are added to the end of the map unit of the map unit designator and separated from it by a dash (e.g., **Mv-c•R**).

The age of glacial deposits are designated as follows: with no superscript - McConnell Glaciation, **e.g., Mp** ; Reid Glaciation, e.g., **Mp** (R) ; pre-Reid glaciations, **Mp** (PR); uncorrelated, **Mp** (U).

Geology by A. Duk-Rodkin (1995-96)

Geological digitization and cartography by: S.J. Hinds, Geodynamics Consulting

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Base map at the same scale published by the Surveys and Mapping Branch in 1991

Copies of the topographical edition of this map may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, Ontario, K1A 0E9

Mean magnetic declination 1990, 30°45′ E, decreasing 11.3′ annually. Readings vary from 30° 17′ E at centre of west edge to 31° 15′ E at centre of east edge of the map

Elevations in metres above mean sea level

Recommended citation:
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1996: Surficial geology, Dawson, Yukon Territory; Geological Survey of Canada. Open File 3288, scale 1:250,000