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5000 miles, measured along the Macmillan and
rivers. Then extend for about 700 miles north
from Liard river almost to Parry's river. The
entire system has resulted from long continued, differ-
entiation acting on an uplifted, deformed area cov-
ered by a complicated group of irregular masses
of peaks rising to heights of between 4,500
and 6,000 feet above sea level.

East of Mount Selkirk, on Liard river, the mountains
in form, structure and colour from those to the west of
the point. The western portion of the system has been
subjected to long continued erosion, the ridges are wide
and forest covered slopes rising in easy curves, and the
mountain peaks are set well back from the valley bottoms. In
the eastern portion the mountains are evidently in a more
recent topographic stage, they are more massive and
steep, and the drainage channels are confined in narrow
ravines having steep, barren or partly wooded slopes of rock
avalanches.

The region lying west of the Mackenzie mountains
between the lower portions of Ross and Pelley rivers, is one of
comparatively low relief, the hills having a general elevation
of about 5,000 feet above sea level or of 2,000 feet above the
level of the principal rivers. The region is characterized
by long, gently sloping, irregular hills covered almost to
their summits with a thin growth of small spruce and balsam
and the main rivers and their chief tributaries occupy
extensive, well developed valleys. These valleys have fairly
level floors, often several miles in width, and contain many
small lakes and ponds, also extensive heaver meadows
and groves of good spruce. This type of country occupies a
belt extending southwesterly from the Pelley mountains, an
isolated, high group, to the Mackenzie mountains.

The high ranges of the Mackenzie mountains on their
eastern side along the Liard river, are succeeded, 50 miles
from the Mackenzie river, by a belt of foothills about 3,000
feet in height above sea level. Eastward the foothills decline
in height and finally terminate in a broken, wooded plain,
bordering the Mackenzie river, with an elevation of about
500 feet above sea level.

The western slopes of the Mackenzie mountains are the
gathering ground of numerous streams that flow into the
Pelley, Macmillan and Ross rivers, tributaries of the Yukon.
A small portion of the drainage of the western slopes, in the
area shown near the southern border of the map, falls into
Fraser river which joins the Liard, a tributary of the
Mackenzie. The drainage of the eastern slopes of the system
is received by the Mackenzie river. On the western slopes,
where the precipitation is heavy, the streams meander
through wide, well developed valleys having easy grades.
On the eastern side, where the precipitation is light, the
drainage channels are contracted and are confined in
narrow gullies with steep grades.

Sheldon lake is the largest of the lakes in the
region, it is a large lake but in high
lake in a basin. It may be reached
lake there is a stretch of 10 miles of swift water
about rapids past which goods are portaged
river may be descended by boat from Lethbridge
river mouth, preferably at high water but it is
impossible to take a boat about rapids.

(1906).

The rocks thought to be the oldest in the region
are regarded as pre-Tertiary, occur along the
Pelley river, in the southeastern corner.
They seem to be confined to this area and do not
the north, though they extend to the northwest on Liard.
While certain altered intrusives and volcanic
the rocks are mainly of sedimentary type
altered, having a crystalline texture and a
structure. Quartzite and schists of a dark grey
colour are the commonest varieties and all the
by quartz veins and streaks.

The Mackenzie mountains are made up
of various kinds of rocks, shales, slates, con-
glomerates, limestones, and dolomites
all of Tertiary age, ranging from Upper
Middle Tertiary. The greater part of the area
from the Pelley valley to Mount Selkirk on the
is made up of shales and slates, accompanied
and a highly indurated, hard rock referred
to as quartzite. The quartzite is of Upper
Tertiary age, and is supposed to be of the
shales of Ross river about 100 miles below
about, several miles wide, of sandstone, por-
phyritic, quartzite and limestone, crosses Pel-
ley river at Wolf canyon and extending in
direction, crosses Ross river at Fraser valley
million river near the forks. A band of similar
Stewart river at the Fawn mountains. They
supposed to be of later date than the quartzite
shales of Ross river and may be Silurian. The
accompanying slates and cherts, from the greater
of the high mountains of the Selkirk range, are
of the same material appearing about 20 feet
above the slates at State rapids on Pelley river. The
rocks, at various points, are intersected by num-
erous veins. A number of higher mountains
known to be composed of granite and doubtless
high peaks and mountain groups are there
raggedness to this cause.

The strata of the western portion of the
mountains here, though with many minor di-
rections of northwest strike and dip at various angles,
the northeast or southwest. As a whole, then
folded, but in places the fold is close. There
is faulting, and the repetition of similar bed-
ding distances, the same inclination, may be
turned folds.

127° 30' 127° 00' 126° 30' 126° 00'

RIVERS

SOURCES OF INFORMATION

Explorations and Geology by:

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- R. G. McConnell, 1881
- J. Keele, 1902, 1903
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Map compilation by:

- J. Keele, 1908

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