LEGEND

Mount Edziza and northern plateau	Ice Peak, Armadillo Peak and central plateau	Spectrum Range and plateau south of Raspberry Pass

SURFICIAL DEPOSITS

QUATERNARY
HOLOCENE

Fluvial deposits

60 — *Stream gravel, outwash, braided channel deposits*

59 — *Floodplain lake deposits; silt, sand and fine gravel*

Glacial deposits

58 — *Alpine moraine; terminal and lateral moraines within trimlines of existing glaciers*

57a 57b — *Ice stagnation deposits; (a) kame and kettle terrain, (b) esker complex*

Talus and landslide deposits

56 — *Active and recently active landslides, rock falls, rock glaciers, and rotational slumps*

55 — *Active talus cones*

54 — *Periglacial landslide and fan deposits*

Undivided colluvium

61 — *Felsenmeer, till, glacial and fluvial outwash, solifluction deposits*

— Mostly conformable, locally disconformable —

BIG RAVEN FORMATION (34-53)
Desolation lava field
Williams Cone, Eve Cone: *plagioclase-phyric hawaiite; (a) pyroclastic cone, (b) lava flows, (c) air-fall tephra*

41a 41b — Moraine Cone: *plagioclase-olivine-phyric alkali olivine basalt and hawaiite; (a) pyroclastic cone, (b) lava flows*

40a 40b — Sidas Cone(2nd stage),Twin Cone: *plagioclase-olivine-phyric alkali olivine basalt and hawaiite; (a) pyroclastic cone, (b) lava flows*

39a 39b — Sidas Cone (1st stage): *plagioclase-olivine-phyric alkali olivine basalt and hawaiite; (a) pyroclastic cone, (b) lava flows*

38a 38b — Triplex Cones: *plagioclase-olivine-phyric alkali olivine basalt; (a) bombs, agglutinated spatter, (b) blocky lava flows*

37a 37b 37c — Sleet Cone, Storm Cone: *plagioclase-olivine-phyric alkali olivine basalt,minor picrite; (a) pyroclastic cone, (b) lava flows, (c) tuff-breccia*

Klastline Valley centres
36a 36b — Ashwell Cone: *plagioclase-olivine-pyroxene-phyric alkali olivine basalt and hawaiite; (a) nested pyroclastic cones, (b) lava flows*

East Slope centres
35a 35b — *Cinder Cliff: plagioclase-olivine-phyric basalt; (a) pillow lava, tuff-breccia, and intercalated gravel, (b) thin staggy lava flows*

34a 34b — Icefall Cone, Ridge Cone: *plagioclase-olivine-phyric alkali olivine basalt; (a) bombs and agglutinate,(b) lava flows*

SHEEP TRACK MEMBER
48 — *Unconsolidated comendlitic trachyte pumice*

47a 47b — Snowshoe lava field (SI)
"The Saucer", SR-9: *plagioclase-olivine-pyroxene-phyric hawaiite; (a) subaerial pyroclastic cone, (b) lava flows*

46a 46b — Cocoa Crater, SR-11: *plagioclase-olivine-pyroxene-phyric hawaiite; (a) subaerial pyroclastic cone, (b) lava flows*

45a 45b — Coffee Crater, SR-4, SR-5, SR-6, SR-8: *plagioclase-olivine-pyroxene-phyric alkali olivine basalt; minor hawaiite; (a) subaerial pyroclastic cones and subaqueous tuff-rings, (b) lava flows*

44a 44b — Tannena Cone, SR-2, SR-3: *plagioclase-pyroxene-olivine-phyric alkali olivine basalt; (a) tuff-breccia, pillow breccia, (b) pillow lava*

43a 43b — Wallout Creek and Mess Creek centres
Alkali olivine basalt; (a) bombs, agglutinated spatter, (b) lava flows

Mesa Lake lava field (ML)
The Ash pit: *plagioclase-pyroxene-olivine-phyric hawaiite; (a) pyroclastic cone, (b) lava flows, (c) air-fall tephra*

52a 52b — ML-1: *plagioclase-pyroxene-olivine-phyric alkali olivine basalt; (a) bombs and agglutinate, (b) lava flow*

51a 51b — ML-2: *plagioclase-pyroxene-olivine-phyric alkali olivine basalt; (a) bombs and agglutinate, (b) lava flow*

Arctic Lake Plateau
50a 50b — Nahta Cone: *plagioclase-olivine-phyric hawaiite; (a) pyroclastic cone, and air-fall tephra, (b) lava flow*

49a 49b — *Other postglacial centres: plagioclase-olivine-phyric hawaiite; (a) pyroclastic cone, (b) lava flow*

— Disconformity —

PLEISTOCENE
KLASTLINE FORMATION
North slope of Mount Edziza
30a 30b — *Olivine-pyroxene-plagioclase-phyric alkali olivine basalt; (a) pyroclastic breccia, agglutinate, tuff-breccia, (b) lava flows, minor pillow lava (both (a) and (b) include lenses of fluvial gravel and glacial deposits)*

KAKIDDI FORMATION (31, 32)
Tennaya-Sorcery Creek area
32a 32b — *Aphyric trachyte, minor tristanite; (a) coarse, loosely agglutinated pumice, (b) intravalley lava flows*

Central Plateau
Punch Cone: *trachyte, comendlitic trachyte, minor tristanite, (a) agglutinated spatter and breccia, (b) neck and lava flow*
31a 31b

ARCTIC LAKE FORMATION
Arctic Plateau
33a 33b — *Olivine-plagioclase-microphyric alkali olivine basalt; (a) bombs, agglutinate, minor tuff-breccia and pillow breccia, (b) subaerial lava flows, minor pillow lava (both (a) and (b) include lenses of fluvial gravel and glacial deposits)*

— Mostly conformable, locally disconformable —

EDZIZA FORMATION (26-29)
Mount Edziza and satellitic domes
29a 29b — *Aphyric and slightly potassium feldspar-phyric trachyte and comendlitic trachyte; (a) pyroclastic breccia, lahar and ash flow deposits, (b) lava flows and endogenous domes*

28 — *Aphyric trachyte; lava lakes ponded in summit crater*

27 — *Hydrothermally altered vent breccia in central conduit*

Subvolcanic intrusions
26a 26b — *Aphyric and vitreous trachyte; (a) dykes, (b) cupolas*

— Conformable contact —

PILLOW RIDGE FORMATION (24, 25)
Pillow Ridge, Tsekone Ridge (PR) (TR)
25a 25b — *Plagioclase-pyroxene-olivine-phyric alkali olivine basalt (PR) and hawaiite (TR); (a) tuff-breccia, pillow breccia, (b) pillow lava, minor subaerial lava flows*

24 — *Feeder dykes*

— ? Conformable contact — — Disconformity —

ICE PEAK FORMATION (19-23)
UPPER ASSEMBLAGE
Ice Peak and flanking shield
23 — *Aphyric to highly porphyritic alkali olivine basalt, trachybasalt tristanite, mugearite, benmoreite and trachyte; lava flows, domes and pyroclastic breccia, locally intercalated with fluvial and glacial deposits*

Satellitic centres
22a 22b — The Neck, Ornostay and Koosick centres: tristanite, trachyte, comendlitic trachyte; *(a) pyroclastic breccia and agglutinate, (b) lava flows and necks*

Subordinate centres
21a 21b 21c — *Cache Hill and Camp Hill shields: plagioclase-pyroxene-olivine-phyric alkali olivine basalt and hawaiite, intercalated fluvial gravel; (a) bombs and agglutinate, (b) subaerial lava flows, (c) tuff-breccia and pillow lava*

LOWER ASSEMBLAGE
Ice Peak and flanking shield
20a 20b — *Plagioclase-pyroxene-phyric alkali olivine basalt and hawaiite, minor tristanite, trachybasalt and mugearite; (a) ice-contact deposits, sideromelane tuff-breccia, pillow lava and pillow breccia, (b) subaerial lava flows and pyroclastic breccia*

Subvolcanic intrusions (correlation unknown)
19a 19b — *(a) Trachyte, (b) diabase*

CENOZOIC

— Disconformity (glaciation and fluvial erosion) —

PYRAMID FORMATION (16-18)
18a 18b — *Aphyric to microporphyritic comendlite, comendlitic trachyte and pantellerite, minor obsidian; (a) lacustrine tuff and pyroclastic breccia, lahar deposits, till and glacial-fluvial gravel, (b) lava flows and domes*

17 — *Pyramid dome: coarsely porphyritic sanidine trachyte; exogenous dome*

16 — *Basalt flows and breccia, basal pyroclastic surge deposit of trachytic pumice and lithic clasts, intercalated fluvial gravel*

TERTIARY
PLIOCENE

— Disconformity —

SPECTRUM FORMATION (13-15)
KITSU MEMBER
15 — *Plagioclase-olivine-microphyric alkali olivine basalt, intercalated fluvial gravel and paleosols*

Main Lava dome
14a 14b — *Aphyric, vitreous and locally microporphyritic comendlite, pantellerite, and pantelleritic trachyte; (a) domes, lava flows, minor breccia and ash flow deposits, (b) hydrothermally altered vent breccia*

Subvolcanic intrusions
13 — *Medium grained soda granite*

— Disconformity —

NIDO FORMATION (9-12)
TENCHEN MEMBER (north of Raspberry Pass)
Gamma peak piles
11a 11b 11c — *Upper unit: (a) subaerial lava flows of aphyric to highly plagioclase-olivine-pyroxene-phyric alkali olivine basalt, (b) subaqueous, ice-contact facies, sideromelane tuff-breccia, pillow lava, (c) gabbro intrusion*

10 — *Lower unit: aphyric alkali olivine basalt, minor coarsely plagioclase-phyric hawaiite, subaerial lava flows, flow breccia and agglutinate*

Alpha peak, Beta peak and satellitic piles
9a 9b 9c — *Aphyric to microporphyritic alkali olivine basalt, minor coarsely plagioclase-phyric hawaiite; (a) breccia and agglutinate, (b) subaerial lava flows and flow breccia, (c) ice-contact facies, tuff-breccia, pillow lava, pillow breccia and intercalated gravel*

KOUNUGU MEMBER (south of Raspberry Pass)
Swarm peak, Exile peak, Vanished Peak and Lost peak piles
12a 12b — *Aphyric to microporphyritic alkali olivine basalt, minor plagioclase-phyric hawaiite and olivine-phyric picrite; (a) subaerial flows, flow breccia and agglutinate, (b) subaqueous facies, tuff-breccia,pillow lava*

— Disconformity —

MIOCENE
ARMADILLO FORMATION (5-8)
Felsic facies
8a 8b — *Potassium feldspar-phyric, aphyric to vitreous comendlite and alkali-rich trachyte; (a) pumice, ash flows, sand and tuff, (b) lava flows and domes*

Proximal deposits
7 — Armadillo caldera, Cartoona Ridge, IGC Dome: *hydrothermally altered vent and intra-caldera breccia*

Subvolcanic intrusions
6a 6b — Armadillo caldera: *(a) soda granite, (b) gabbro (may be younger)*

Basaltic facies
6 — *Aphyric alkali olivine basalt, minor sparsely porphyritic hawaiite; subaerial lava flows, flow breccia and agglutinate (locally interstratified with distal rocks of the "Sallc facies")*

— Conformable contact —

LITTLE ISKUT FORMATION (2-4)
Upper, subaerial facies
4 — *Trachybasalt, lava flows and flow breccia*

Lower, subaqueous facies
3 — *"Crackle breccia", hydrothermally altered and quenched highly fractured trachybasalt*

Subvolcanic structures
2 — *Conduit zone; fumerolically altered explosion breccia, dyke complex*

— Disconformity — — Conformable contact —

1 — *RASPBERRY FORMATION*
Aphyric alkali olivine basalt, minor plagioclase-phyric hawaiite and mugearite; subaerial lava flows, flow breccia and agglutinate; locally includes pillow lava, tuff-breccia and intercalated gravel deposits

— Unconformity —

EOCENE
SLOKO GROUP (C-E)
Volcanic rocks
E — *Rhyolite, dacite and andesite pyroclastic breccia, epiclastic breccia, debris flow and landslide deposits; minor lava flows*

D — *Porphyritic biotite andesite; lava domes, flows and (?) sills*

Intrusive rocks
C — Elwyn Creek Pluton: *biotite-hornblende leucogranite*

— Conformable contact —

CRETACEOUS AND PALEOCENE
SUSTUT GROUP
S — *Chert-pebble conglomerate, quartzose sandstone, arkose, siltstone, carbonaceous shale and minor coal*

— Unconformity —

PALEOZOIC AND MESOZOIC

UNDIVIDED BASEMENT ROCKS
Aa Ab — *Mesozoic and Paleozoic rocks; (a) sedimentary, volcanic, and metamorphic rocks, (b) granitic rocks*

Geological boundary ..... *Debris flow* .....
Fault (defined, assumed) ..... *Hot spring deposit (small, large)* .....
Landslide scarp (defined, assumed) ..... *Intraformational gravel bed (small, large)* .....
Dyke ..... *Intraformational tephra* .....

Geology by J.G. Souther, 1965-1969, 1972, 1973, 1976

Geological cartography by M. Sigouin, Geological Survey of Canada

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

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Magnetic declination 1988, 27°7.6' East decreasing 16.4' annually

Elevations in feet above mean sea level

Geographical names subject to revision

MAP 1623A
SHEET 1 OF 2
GEOLOGY

MOUNT EDZIZA VOLCANIC COMPLEX

BRITISH COLUMBIA

Scale 1:50 000 - Échelle 1/50 000

Kilometres 0 1 2 3 4 Kilomètres

Universal Transverse Mercator Projection
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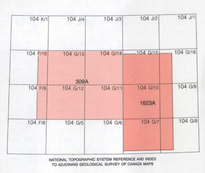

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