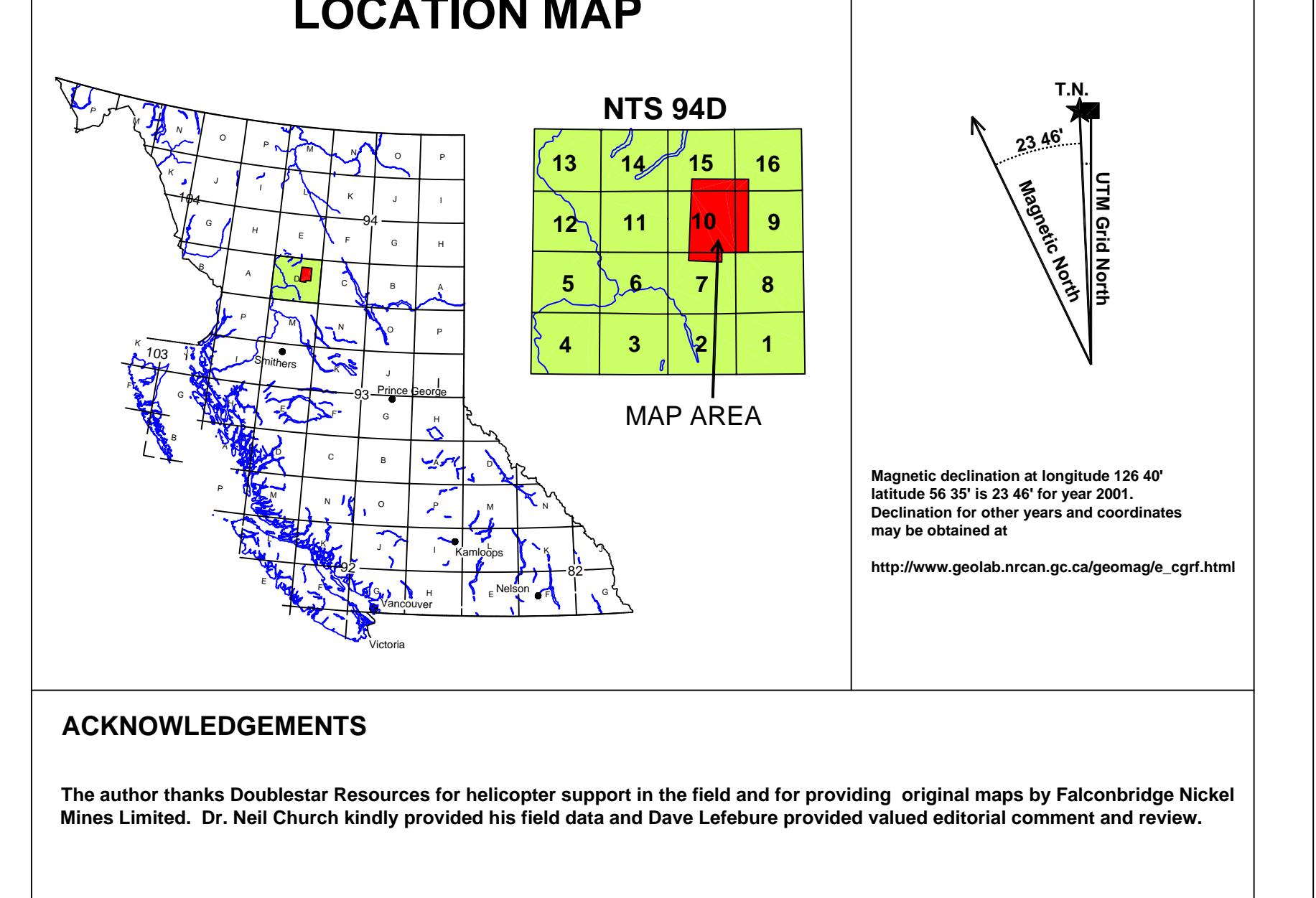


FOSSIL REFERENCES

- F 1 Halobia sp. (some preserved anterior ear)
Age: Upper Triassic (Tozer, 1974)
- F 2, F 3a, F 4 Halobia or Daonella sp. indet. (probably Halobia)
Age: Middle or Upper Triassic, probably Upper Triassic (Tozer, 1974)
- F 3 Halobia or Daonella sp. indet. (probably Halobia)
Age: Middle or Upper Triassic, probably Upper Triassic (Tozer, 1974)
- F 5 Limestone clasts containing reeflet fauna (corals, sponges, brachiopods, bryozoan fragments, probably from the Asitka Group)
Age: probably Lower Permian (Monger, 1973)
- F 6 Amioceraspis sp., Weyia sp.
Age: Lower Jurassic (Lower to Upper Sinemurian) (Tipper, 1974)

- F 7 Halobia sp. (species with wavy ribs, but none show anterior margin)
Age: Upper Triassic (Tozer, 1974)
- F 8 Fragments of large Halobia or Daonella sp. (none show anterior margin)
Age: Middle or Upper Triassic, probably Upper Triassic (Tozer, 1974)
- F 9, F 10 Halobia or Daonella sp. (probably Halobia)
Age: Middle or Upper Triassic, probably Upper Triassic (Tipper, 1974)
- F 10, F 12 Halobia or Daonella sp.
Age: Middle or Upper Triassic (Tipper, 1974)
- F 13 Condont Epigondwella sp. cf. triangularis (Budurov 1972)
Age: Late Triassic Early Norian (Orchard, 2001)
Report No. MUO-2001-4, G.S.C. locality 00-IG-ALE-7-3

LOCATION MAP



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Geological Survey Branch
Open File Map 2001-18

GEOLOGY OF THE SOUTHERN McCONNELL RANGE AND SUSTUT RIVER AREAS, BRITISH COLUMBIA

parts of NTS 94D/3, 7, 9, 10, 15, 16
compiled by Andrew Legun
SCALE 1:50 000

Incorporates field work by Andrew Legun and Brian Untereiner in 1997 and Andrew Legun and Brent Carbo in 2000.

LEGEND

VOLCANIC AND SEDIMENTARY ROCKS

LATE CRETACEOUS SUSTUT GROUP

LKs Basal quartz-bearing conglomerates, red and green mudstones, coal overlain by pebbly chert sandstones, grey mudstones.

MIDDLE TO LATE JURASSIC BOWSER LAKE GROUP

LJB Conglomeratic sandstone, siltstone, carbonaceous claystone, coal, minor volcanics.

EARLY JURASSIC

HAZLETON GROUP NILKITKWA FORMATION

EJN Argillite, siltstone, tuff, minor limestone, local volcanic rocks.

TELKWA FORMATION

EJt Undifferentiated sequence of subaerial andesitic to dacite flows, welded tuffs, fine tuffaceous sediments. Rare down-cut channel form. Consists to Bear Lake facies of Tipper and Richards (1976) and the Two Lake member of Church (1974).

EJt3 Red tuffs, lapilli tuffs, and massive greenish to reddish andesitic with intervolcanic sediments. Subvolcanic.

EJt2 Pale feldspar porphyry breccia interbedded with and overlying red feldspar sandstone, mudstones, thin maroon rubby lavas, crystal tuffs. Rapid facies changes between subhorizontal conglomeratic clast to matrix support, includes chert and fossiliferous limestone of Asitka Group origin. Also occurs as lenses higher in sequence.

LATE TRIASSIC TAKLA GROUP MOOSEVALE FORMATION

L>M Undifferentiated breccias, slope re-sedimented volcanoclastics, and minor marine sediment. Probably includes slump masses of subaerial origin.

L>M2 Conglomerate and sandstone, may be alluvial fan, interdigitates with 4.

L>M3 Upper semi-stratified (reworked) breccia and lahar conglomerate. Shallow marine to subaerial. Monomictic breccia with embayed clasts may be peneplagiatic.

L>M4 Middle sandy unit with mudcracks? bivalve Halobia, npg-clasts of red siltstone. Includes waterlain ash flows with soft sediment slump features.

L>M5 Chaotic lithic tuff and submarine slide breccia with occasional graded/stabilized lenses of pebbly grit and sandstone (with npg's) interpreted as proximal turbidites.

L>M6 Basal marine siltstone band in Sustut River area. A mappable basal sand lens is probably its equivalent in the southern McConnell Range.

UPPER SAVAGE MOUNTAIN FORMATION

L>S Lithic tuff aprons, possibly associated with vent breccia north of Johanson Creek.

L>S2 Andesitic bladed feldspar porphyry. Pillowed flows and breccia in Mt. Dewar area. Crystal sheet flows, locally reddened with breccia tops north of Johanson Creek.

L>S3 Submarine pillow basalt flows (only west of Moosevale valley).

L>S4 Basalt porphyry, brecciated to massive.

DEWAR FORMATION

L>D Volcanic crystal turbiditic sandstone, siltstone, mudstone.

EARLY PERMIAN ASITKA GROUP

EPA Cherry mudstone, felsic to mafic volcanics, limestone and shale.

INTRUSIVE ROCKS

EARLY JURASSIC

EJB Black Lake Intrusive Suite
Calc-alkaline granodiorite to diorite to monzonogranite phases in composite stocks and batholith bodies.

EJD Monzonodiorite and Dacite Porphyries of Day Suite.

EJg "Fir" gabbro. Small plug west of Day bearing augite, chlorite and magnetite grains in fine lithia matrix of plagioclase.

EJQ "Gyr" Rhyolite (Quartz Eye) Porphyry.

LATE TRIASSIC

L>B Augite porphyry, large equant augite phenocrysts, 1 to 2 cm in size.

L>Bpp Subvolcanic dacitic to andesitic porphyry intrusions of unknown age.

MENARD COMPLEX

L>MCd Leuco to melanocratic gabbro and banded hornblende diorite with zones of magnetite-rich rock, minor dikes of diorite.

Takla basalt with sills of gabbro, lath porphyry (late with chilled margins) and pyroxenite.

L>MCb Orange weathering gabbro, consisting of subequal proportions of plagioclase and clinopyroxene, and variably enriched in magnetite (5-15%). Accessory minerals include ilmenite, trace olivine, biotite.

L>MC2 Clinopyroxene and magnetite-rich gabbro. Includes bands of pyroxenite in gabbro and masses of gabbro in pyroxenite.

L>MC1 Grey to greenish clinopyroxenite +/- olivine. Medium to coarse grained to locally pegmatitic.

GEOLOGIC CONTACT (APPROXIMATE, ASSUMED)

SIGNIFICANT UNCONFORMITY

FAULT (APPROXIMATE)

BEDDING

LIMIT OF OUTCROP

FOSSIL LOCALE AND REFERENCE

MINFILE OCCURRENCE

SURFACE TRACE OF MINERALIZED ZONE AT SUSTUT

LIMIT OF MAPPING

SUSTUT/THUMB PARK BOUNDARY

LIST OF MINERAL OCCURRENCES

MINFILE	NAME	CO	STATUS	UTM EAST	UTM NORTH	NTSMAP
094 004	D.S.	CU	Prospect	656359	628583	04AD09W
094 005	MARMOT	AU	CU AG MO	647384	629293	04D15E
094 006	DAY	CU	Showing	655952	627192	04D09W
094 007	BORNITE	AG	Showing	657502	628576	04D09W
094 008	A.BORNITE	CU	Showing	641062	627542	04D10E
094 009	DEWAR PEAK	CU	Showing	634901	628201	04D10W
094 010	MOOSEVALE	CU	Showing	635494	628231	04D10W
094 011	NIKOS	MO	Showing	634923	628425	04D10W
094 012	MENARD PASS	MO CU	Showing	648956	628738	04D10E
094 013	CHALCOCITE	AG	Showing	640300	627550	04D10E
094 014	SUSTUT	CU	Developed Prospected	642898	627812	04D10E
094 015	DAY	AU MO ZN	Showing	634415	628344	04D07W
094 016	MONTEITH	CU	Showing	621225	628299	04D03E
094 017	WHITE LIGHT	ZN	Showing	654477	628072	04D07E
094 018	PLUTO	CU AG PB	Showing	647357	628189	04D07E
094 019	BIRCH	CU PB	Showing	634896	628494	04D10W
094 020	ROY	CU	Showing	632155	628267	04D10W
094 021	BO	AG	Showing	637852	628491	04D10W
094 022	WILLOW	CU	Showing	646768	627059	04D10E
094 023	BARN	CU	Showing	638937	628748	04D10W
094 024	NIKOS	CU	Showing	656357	629148	04D10W
094 025	DAY	MO	Showing	655950	627180	04D09W
094 026	CARLOS	CU AG	Showing	637148	627332	04D10W
094 027	ARD	CU	Showing	651213	629183	04D09W
094 028	ASITKA 21	CU	Showing	657820	627590	04D09W
094 029	ASITKA 20	CU	Showing	650907	627591	04D09W
094 030	ASITKA 19	CU	Showing	659002	627581	04D09W
094 031	ASITKA 25	MO CU	Showing	657353	627134	04D09W
094 032	BOB	CU	Showing	657131	627438	04D09W
094 033	DAY	CU	Showing	657439	627223	04D10E
094 034	ASITKA 10	AU MO	Showing	657171	627180	04D09W
094 035	COPPER KING	CU AG AU	Showing	654930	628546	04D09W
094 036	GENI	CU	Showing	655029	628274	04D09W
094 037	GEN	CU	Showing	657870	627520	04D09W
094 038	INDUSTRIAL	CU	Showing	658865	628181	04D09W
094 039	MIGHTLY	CU	Showing	654400	627098	04D20W
094 040	JANET	CU	Showing	642398	627223	04D10E
094 041	ASITKA 10	CU AU ZN	Showing	633310	628503	04D10W
094 042	ASITKA 11	CU	Showing	637947	628240	04D09W