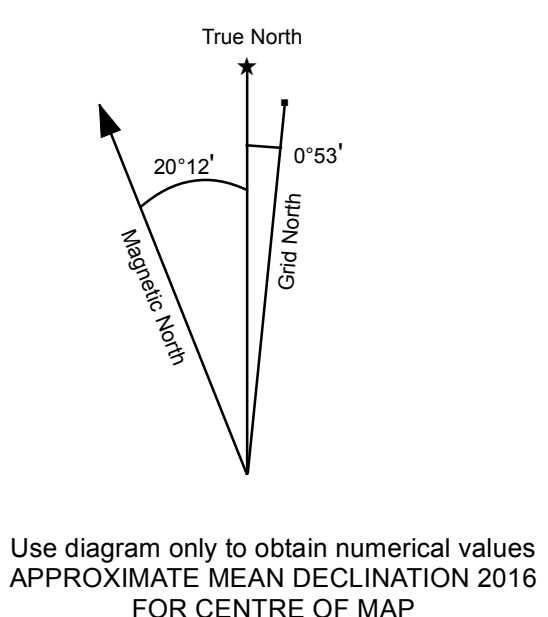
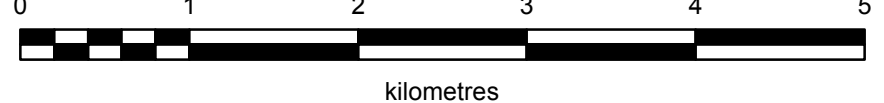


1:250 000-scale topographic base data produced by CENTRE FOR TOPOGRAPHIC INFORMATION, NATURAL RESOURCES CANADA
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 ONE THOUSAND METRE GRID
 Universal Transverse Mercator Projection
 North American Datum 1983
 Zone 7
 CONTOUR INTERVAL 100 FEET
 Elevations in metres above Mean Sea Level

**Stream Water pH
 Sheet 13 of 13**

SCALE 1:250 000



116C	116B	116A
PART OF 116B	DAWSON	LARSEN CREEK
115N	115O	115P
THIS MAP	THIS MAP	NOQUISTEN
115K	115J	115I
PART OF 115J	STEVENSON RIDGE	CARMACKS

INTRODUCTION

New geochemical data from re-analysis of archived stream sediment samples have been assessed using weighted sums modeling (WSM) and catchment basin analysis as described in the methodology report that accompanies this map (Mackie et al., 2015). In addition to a series of maps displaying WSM results, a catchment map of stream water pH has also been constructed.

SAMPLING AND ANALYSIS PROGRAMS

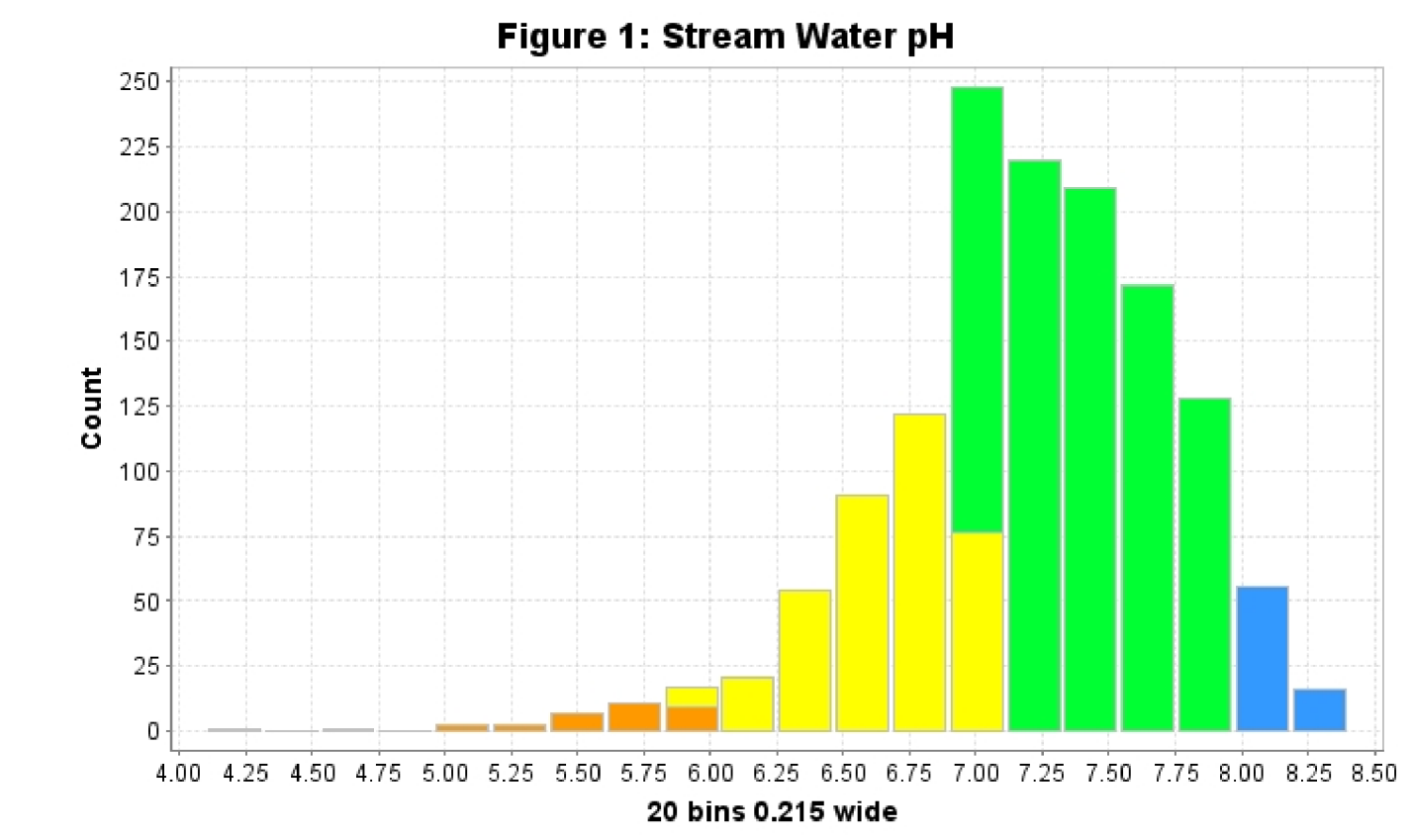
Stream sediment and water samples from the Stewart River area (NTS 1150 and part of 115N) were collected at a reconnaissance scale in 1986 as part of the Canada-Yukon Mineral Development Agreement (Friske et al., 2001). Field descriptions and initial geochemical data for 1392 sites were released in Geological Survey of Canada (GSC) Open File 1364 and Indian and Northern Affairs Canada, Exploration / Geological Services Division Open File 2001-13D. New geochemical data from the re-analysis of archive sample material were released in Yukon Geological Survey (YGS) Open File 2016-4 (Jackaman, 2016). The reader is referred to these reports for detailed descriptions of sampling techniques, analytical procedures and quality control measures.

MINERAL OCCURRENCES

A variety of types of base and precious-metal mineralization have been identified in the Stewart River Area as listed in Table 1 (Yukon MINFILE, 2016). The most significant deposits are classed as orogenic Au (Golden Saddle deposit and QV prospect), intrusion-related Au (Moosehorn deposit and Flume prospect), polymetallic Ag-Pb-Zn (Connaught and Lerner deposits), quartz-vein hosted Au (Lone Star and Violet deposits, and Eureka prospect) and Cu-Zn-Pb volcanogenic massive sulphide (Touleray prospect). The Casino Cu-Mo-Au porphyry and Coffee orogenic Au deposits occur in the adjacent map area to the south supporting the prospectivity of the region for these deposit types.

STREAM WATER pH

As indicated in Figure 1, the vast majority of streams sampled are near-neutral (median = 7.2). Regional trends in stream water pH are evident but do not appear to correspond to specific lithological map units. In general, moderately acidic waters (pH < 6) correspond with catchments that contain predominantly felsic intrusions or clastic sedimentary rocks. In most cases, samples with mineral occurrences in the corresponding catchment are not particularly acidic suggesting any response from oxidation of near-surface sulphides related to these occurrences has been diluted or neutralized and is indistinguishable from background variations. One possible exception to this is the Lucky Joe Cu-Au occurrence trend where moderately acidic stream waters are present.



REFERENCES

Friske, P.W.B., Day, S.J.A. and McCurdy, M.W., 2001. Regional stream sediment and water geochemical reconnaissance data, western Yukon (NTS 115N and 115O). Geological Survey of Canada, Open File 1364 / Indian and Northern Affairs Canada, Exploration and Geological Services Division, Open File 2001-13(D).
 Jackaman, W., 2016. Regional Stream Sediment Geochemical Data, Stewart River area, Yukon (NTS 115N and 115O). Yukon Geological Survey, Open File 2016-4.
 Mackie, R., Arne, D. and Brown, O., 2015. Enhanced interpretation of regional stream sediment geochemistry from Yukon: catchment basin analysis and weighted sums modeling. Yukon Geological Survey, Open File Report 2015-10.
 Yukon MINFILE, 2015. Yukon MINFILE - A database of mineral occurrences. Yukon Geological Survey, www.data.geology.gov.yk.ca, accessed May 2015.

RECOMMENDED CITATION

MACKIE, R., ARNE, D. AND PENNIMPEDE, C., 2016. Stream water pH. In: Enhanced interpretation of stream sediment geochemical data for NTS map sheet 115N and 115O. Yukon Geological Survey, Open File 2016-30, scale 1:250 000, sheet 13 of 13.

Catchment basin polygons generated by the Yukon Geological Survey (J. O. Bruce).

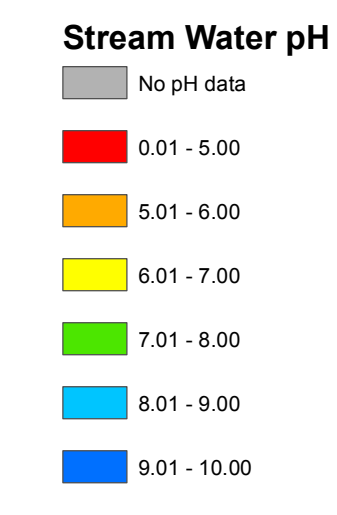
Any revisions or additional geological information known to the user would be welcomed by the Yukon Geological Survey.

Paper copies of this map and the accompanying report may be obtained from the Yukon Geological Survey, Energy, Mines and Resources, Government of Yukon, Room 102-300 Main St., Whitehorse, Yukon, Y1A 2B5. Ph: 867-667-3201, Email geology@gov.yk.ca.

A digital PDF (Portable Document File) file of this map may be downloaded free of charge from the Yukon Geological Survey website: http://www.geology.gov.yk.ca.

LEGEND

- Town
- Mineral Occurrence
- Road
- Contour
- River
- NTS map sheet
- Water Body
- Wetland
- Sample Location
- Catchment > 16km²



Yukon Geological Survey
 Energy, Mines and Resources
 Government of Yukon
 Open File 2016-30
Stream Water pH (NTS 115N & 115O)
Sheet 13 of 13
 by
 Rob Mackie, Dennis Arne,
 and Chris Pennimpe

Table 1: List of Mineral Occurrences for NTS map sheet 115N and 115O (Yukon MINFILE, 2015)

Number	Name	Type	Status	Commodities
115N 111	MT PART	Unknown	Anomaly	Gold
115N 123	BEDROCK	Ven Au-Quartz	Showing	Copper, Gold, Silver
115N 125	BEYER	Skarn Cu	Showing	Copper
115N 163	TRIS	Skarn Cu	Showing	Gold
115O 014	BLACK FOX	Ven Polymetallic Ag-Pb-Zn-Au	Showing	Gold, Lead, Silver
115O 025	BLACK HILLS	Ven Polymetallic Ag-Pb-Zn-Au	Showing	Copper, Molybdenum
115O 031	CARLEFF	Plutonic Related Au	Prospect	Arsenic, Copper, Gold, Lead
115O 038	TIENAN	Ven Au-Quartz	Showing	Gold
115O 040	POCKERING	Ven Au-Quartz	Prospect	Gold
115O 047	NEVAN	Ultramafic-hosted asbestos	Showing	Asbestos
115O 048	NEVOP	Ven Au-Quartz	Unknown	Gold
115O 048	WOOD	Skarn Cu	Showing	Copper
115O 051	LUCKY JOE	Unknown	Drifted Prospect	Copper, Gold, Silver, Lead, Zinc, Molybdenum
115O 052	BISMARCK	Ven Au-Quartz	Anomaly	Gold, Palladium, Platinum
115O 053	FRYBEE	Ven Polymetallic Ag-Pb-Zn-Au	Drifted Prospect	Gold, Silver, Lead
115O 054	MCKINNON	Plutonic Related Au	Drifted Prospect	Gold
115O 055	RAVEN	Volcanogenic Massive Sulphide (VMS) Kurukto Cu-Pb-Zn	Showing	Copper, Silver, Gold
115O 056	WINDMILL	Ven Au-Quartz	Showing	Gold
115O 061	PAVNA	Ven Au-Quartz	Prospect	Gold
115O 064	PORTLAND	Ven Au-Quartz	Prospect	Gold, Silver, Zinc, Lead
115O 065	DOMINION	Ven Au-Quartz	Showing	Gold, Lead
115O 066	LLOYD	Ven Au-Quartz	Prospect	Copper, Lead, Gold
115O 067	HUNKER DOME	Ven Au-Quartz	Prospect	Gold, Silver
115O 068	MITCHELL	Ven Au-Quartz	Drifted Prospect	Copper, Lead, Zinc, Gold, Silver, Antimony
115O 069	FRITCH	Skarn Cu	Showing	Gold, Silver
115O 070	SUM	Ven Cu-Ag-Quartz	Prospect	Copper, Silver
115O 071	BOX CAR	Ven Polymetallic Ag-Pb-Zn-Au	Prospect	Copper, Zinc, Gold, Lead, Silver
115O 072	LONE STAR	Plutonic Related Au	Past Producer	Gold, Silver
115O 073	WILEY	Ven Au-Quartz	Past Producer	Gold, Copper, Barite, Lead, Silver
115O 074	LEOTA	Ven Polymetallic Ag-Pb-Zn-Au	Anomaly	Zinc
115O 075	SKOKUMJIM	Orogenic Au	Drifted Prospect	Gold, Copper, Molybdenum, Barium, Antimony
115O 077	BUCKLAND	Ven Au-Quartz	Drifted Prospect	Gold, Silver
115O 078	JEN	Unknown	Anomaly	Copper, Molybdenum, Silver, Lead
115O 079	CORP	Ven Polymetallic Ag-Pb-Zn-Au	Anomaly	Gold, Silver, Lead
115O 081	SESTAK	Ven Barite-Fluorite	Showing	Fluorite
115O 082	CHURCHILL	Unknown	Anomaly	Copper, Zinc, Gold, Lead
115O 084	CHURSHANK	Coal	Unknown	Coal
115O 086	MCKINLEY	Porphyry Cu-Mo-Au	Showing	Copper
115O 088	TRILBY	Plutonic Related Au	Showing	Gold, Arsenic
115O 089	TORONTO	Unknown	Showing	Gold
115O 090	WALDLEIGH	Ultramafic Mafic Gabbro Cu-Ni-PGE	Unknown	Gold, Platinum
115O 092	GRANVILLE	Unknown	Unknown	Gold, Silver
115O 093	LARKIN	Ven Au-Quartz	Anomaly	Gold
115O 095	GLEESON	Skarn W	Anomaly	Antimony
115N 021	AREL	Porphyry Cu-Mo-Au	Anomaly	Arsenic, Silver, Copper, Gold
115N 022	ARON	Unknown	Anomaly	Barium, Gold
115N 024	MOOSEHORN	Ven Au-Quartz	Past Producer	Gold, Arsenic, Copper, Zinc, Mercury, Molybdenum, Silver, Antimony, Lead
115N 028	LADIE	Porphyry Cu-Mo-Au	Showing	Copper, Molybdenum
115N 027	SANTA	Ven Polymetallic Ag-Pb-Zn-Au	Showing	Lead, Tin, Silver
115N 029	ANTHONY	Coal	Showing	Coal
115N 029	PAX	Porphyry Cu-Mo-Au	Anomaly	Copper, Molybdenum
115N 030	BLAKE	Unknown	Anomaly	Antimony
115N 030	LEARNER	Ven Polymetallic Ag-Pb-Zn-Au	Past Producer	Gold, Lead, Silver
115N 041	PER	Ven Polymetallic Ag-Pb-Zn-Au	Drifted Prospect	Arsenic, Copper, Silver, Zinc, Lead
115N 042	BUTLER	Porphyry Cu-Mo-Au	Drifted Prospect	Gold, Arsenic
115N 043	FIFTY	Skarn Cu	Anomaly	Copper
115N 043	PROSPECT	Unknown	Anomaly	Copper
115N 048	JOVE	Uranium	Drifted Prospect	Uranium
115N 100	BURNS	Volcanogenic Massive Sulphide (VMS) Kurukto Cu-Pb-Zn	Anomaly	Copper, Zinc, Lead
115N 108	SON	Uranium	Anomaly	Uranium
115N 110	FLUME	Porphyry related Au	Prospect	Arsenic, Gold
115O 087	THIRTEEN	Ven Au-Quartz	Anomaly	Arsenic, Gold
115O 106	HAWKINSON	Ven Au-Quartz	Unknown	Copper, Silver, Lead
115O 113	BRONSON	Volcanogenic Massive Sulphide (VMS) Kurukto Cu-Pb-Zn	Anomaly	Copper, Lead, Manganese, Chromium, Gold, Copper, Nickel, Palladium
115O 118	PHROXENE	Ultramafic Mafic Podiform Chromite	Anomaly	Platinum
115O 117	BLANCHE	Unknown	Unknown	Gold
115O 118	ARMENIUS	Ven Au-Quartz	Prospect	Gold, Silver
115O 121	ASBESTOS BLUFF	Ultramafic-hosted asbestos	Showing	Asbestos
115O 124	HOBBS	Ven Au-Quartz	Showing	Copper, Silver
115O 127	LINDOW	Ven Au-Quartz	Showing	Arsenic, Gold, Silver
115O 128	GEO FRO	Ven Au-Quartz	Showing	Copper, Zinc, Lead
115O 129	SCHRAMM	Unknown	Showing	Gold
115O 130	GRANT	Ven Au-Quartz	Showing	Gold
115O 131	GILLEN	Unknown	Showing	Gold
115O 132	DEVINE	Ven Au-Quartz	Prospect	Copper, Silver, Gold
115O 133	SULPHUR	Unknown	Drifted Prospect	Silver, Gold
115O 134	CARDON	Ven Au-Quartz	Drifted Prospect	Gold, Silver
115O 135	SULA	Unknown	Drifted Prospect	Silver, Gold
115O 136	GATSBY	Unknown	Drifted Prospect	Silver
115O 137	DOM	Unknown	Prospect	Gold, Silver, Tin
115O 138	COWAN	Unknown	Prospect	Barium, Gold, Silver
115O 139	HAIN	Ven Au-Quartz	Drifted Prospect	Silver, Gold
115O 140	BRADY	Unknown	Drifted Prospect	Gold
115O 141	CONDRALES	Volcanogenic Massive Sulphide (VMS) Kurukto Cu-Pb-Zn	Showing	Copper, Zinc, Lead
115O 144	VICTORIA	Plutonic Related Au	Drifted Prospect	Gold, Lead, Arsenic
115O 147	PARSELL	Ven Au-Quartz	Showing	Gold
115O 148	ROBEY	Ven Au-Quartz	Drifted Prospect	Gold
115O 149	ROACH	Ven Au-Quartz	Showing	Gold
115O 150	ROCKNER	Ven Au-Quartz	Drifted Prospect	Gold
115O 151	JANNOVA	Ven Cu-Ag-Quartz	Showing	Gold
115O 150	HOT	Unknown	Anomaly	Lead, Silver
115O 160	HEN	Unknown	Anomaly	Arsenic, Gold
115O 164	MATIGAN	Ultramafic Mafic Alaskan-type Pts-Cu-Rh#r	Prospect	Gold, Palladium, Platinum
115O 062	BIRMINGHAM	Unknown	Unknown	Unknown
115O 060	GOLDEN ROD	Unknown	Unknown	Unknown
115O 017	JACK	Unknown	Anomaly	Unknown
115O 125	MEIBA	Unknown	Anomaly	Unknown
115N 025	MLBURN	Unknown	Anomaly	Unknown
115N 040	CONNAUGHT	Ven Polymetallic Ag-Pb-Zn-Au	Past Producer	Gold, Lead, Silver
115O 044	ENCHANTMENT	Plutonic Related Au	Showing	Copper, Gold
115O 011	TEACHERS SHOWING	Plutonic Related Au	Prospect	Antimony, Gold, Arsenic
115O 057	ELEREA	Ven Au-Quartz	Anomaly	Silver, Gold, Arsenic
115O 060	BURNHAM	Unknown	Unknown	Unknown
115O 150	FRISCO	Unknown	Unknown	Unknown
115N 026	HOLYE	Unknown	Unknown	Unknown
115N 162	PEAK	Volcanogenic Massive Sulphide (VMS) Kurukto Cu-Pb-Zn	Showing	Unknown
115O 095	COOPER	Ven Au-Quartz	Unknown	Unknown
115O 153	CONNA	Unknown	Unknown	Unknown
115N 157	TYR	Unknown	Unknown	Unknown
115O 161	REDFORD	Volcanogenic Massive Sulphide (VMS) Kurukto Cu-Pb-Zn	Showing	Unknown
115O 165	GOLDEN SADDLE	Orogenic Au	Deposit	Gold, Silver
115O 166	ARC DEPOSIT	Orogenic Au	Deposit	Gold, Silver
115O 167	LUR	Unknown	Anomaly	Gold, Zinc, Lead
115O 168	HENDERSON	Unknown	Anomaly	Copper, Gold
115O 098	SCOTCH	Unknown	Unknown	Unknown
115O 015	AGATE	Ven Au-Quartz	Anomaly	Gold
115O 169	THISTLE MOUNTAIN	Unknown	Showing	Gold
115O 020	ROCKNER	Unknown	Showing	Gold
115N 037	MAG	Unknown	Unknown	Unknown
115O 045	MONTI CHRISTO	Unknown	Unknown	Unknown
115N 154	BINGHAM	Plutonic Related Au	Unknown	Unknown
115O 007	THREE SISTERS	Unknown	Unknown	Unknown
115N 105	HECTOR	Unknown	Unknown	Unknown
115O 012	RYANS SHOWING	Ven Au-Quartz	Drifted Prospect	Gold, Silver, Copper, Zinc
115O 017	SMITHSON	Unknown	Anomaly	Arsenic, Gold
115O 172	BERG	Unknown	Anomaly	Gold
115O 173	KODIAK GOLD	Plutonic Related Au	Anomaly	Antimony, Gold, Arsenic, Nickel
115O 145	BILLY SKY	Unknown	Unknown	Unknown
115N 102	RECE	Unknown	Unknown	Unknown
115O 013	MCKINNON	Porphyry related Au	Drifted Prospect	Gold, Silver, Antimony
115O 174	CONNAUGHT	Volcanogenic Related Au	Drifted Prospect	Gold, Silver, Antimony
115O 175	GOLD CAP	Unknown	Anomaly	Gold, Arsenic
115O 176	Touleray	Volcanogenic Sulphide - type not determined	Drifted Prospect	Copper, Silver, Gold, Zinc
115O 177	Burn Run	Unknown	Drifted Prospect	Gold, Barium, Copper, Arsenic
115O 178	BIG ALEX	Orogenic Au	Anomaly	Gold, Antimony, Molybdenum
115O 028	CONNAUGHT	Unknown	Unknown	Unknown
115N 103	DEEP	Unknown	Unknown	Unknown
115O 099	JANENE	Unknown	Anomaly	Unknown
115O 019	WOLVERINE LEDGE	Unknown	Unknown	Unknown
115O 094	QV	Ven Au-Quartz	Deposit	Gold, Silver, Barium, Barium, Tellurium, Mercury, Molybdenum, Lead
115O 034	COMET	Unknown	Unknown	Unknown
115O 009	BURAN	Unknown	Unknown	Unknown
115O 091	BERAC	Unknown	Unknown	Unknown
115N 115	THE	Ven Au-Quartz	Unknown	Unknown
115N 051	BLAKESTAD	Ven Au-Quartz	Showing	Unknown
115O 126	ALL GOLD	Ven Au-Quartz	Showing	Unknown
115O 018	PEARSON	Unknown	Unknown	Unknown
115O 023	GOLDRE	Unknown	Unknown	Unknown
115O 120	ENVOULDSEN	Ultramafic Mafic Gabbro Cu-Ni-PGE	Unknown	Unknown
115O 010	TRÉVA	Ven Cu-Ag-Quartz	Anomaly	Unknown
115O 150	PLATE	Unknown	Unknown	Unknown
115O 080	HILKER	Unknown	Unknown	Unknown