



Occurrence Details

Occurrence Number: 105D 053

Occurrence Name: Whitehorse Copper

Occurrence Type: Hard-rock

Status: Deposit

Date printed: 6/14/2025 11:25:44 AM

General Information

Primary Commodities: copper, gold, molybdenum, silver

Secondary Commodities: magnetite

Aliases: War Eagle, Pueblo, Copper King, Carlisle, Grafters, Best Chance, Little Chief, Arctic Chief, Keewenaw, Cub,

Deposit Type(s): Skarn Cu

Location(s): 60°37'36" N - -135°3'20" W

NTS Mapsheet(s): 105D11

Location Comments: .5 Kilometres

Hand Samples Available: No

Last Reviewed:

Capsule

Work History

The Copper King deposit was discovered in 1897 and first staked in Jul/98 by Jack McIntyre. By 1900, most of the important deposits which form the Whitehorse Copper Belt had been discovered and staked (Dobrowolsky and Ingram (1993), p. 3) and the first small ore shipment was made that year. Mining continued at intervals for the next 20 years at seven different mines - Copper King, Carlisle, Pueblo, Valerie, Grafters, Arctic Chief and War Eagle - and some 14 7330 tonnes of cobbled ore were shipped at an average grade of about 4% copper, mostly from the Pueblo Mine in 1912-17, prior to a disastrous cave-in. Companies involved in this early work included Whitehorse Copper Company Ltd, Yukon Copper Company Ltd, British American Corporation Ltd, Yukon Pueblo Mining Company Ltd, Arctic Chief Copper Mines Company Ltd, Grafters Copper Mining Company Ltd and Atlas Mining Company Ltd. Between 1924 and 1929, Richmond Yukon Company Ltd and Richmond Consolidated Mining Company Ltd drilled 20 holes at the Pueblo deposit, worked underground on the Carlisle and shipped about 900 tonnes.

In 1947 Noranda Mines Ltd conducted linecutting, geophysical surveys and in 1948 drilled 2 holes in the Pueblo deposit, 3 holes (302 m) between the Verona and Arctic Chief deposits, 5 holes (435 m) in the Keewenaw deposit and 7 holes (471 m) in the Big Chief deposit. Yukon Mining Company Ltd conducted bulldozer trenching in 1952 at the Grafters and Valerie properties. In 1953, Hudson Bay Mining & Smelting drilled 10 holes (682 m) on the Cowley Creek deposit, optioned from J.A. Smith, J.A. Hanna and Per Johnson. This showing was later restaked as the Sue cl (75653) by D.J. MacIssac, who bulldozer trenched in 1961-62. Imperial Mines & Metals Ltd was formed in Sep/54 and began acquiring claims on the Copper Belt. In 1956, it conducted magnetometer surveys and drilled two properties. The name was changed in Mar/57 to New Imperial Mines Ltd and, by 1963 the company had acquired by staking, option or purchase, all the properties on the Copper Belt (including the Pueblo from Beadac Mines Ltd except the Spring Creek and Polar (see G.S.C. Paper 63-41).

Accelerated exploration from 1963 to 1965 outlined 5.0 million tonnes of open pit reserves in six separate deposits grading 1.2% Cu and a feasibility report in Nov/65 recommended an 1 800 tonne mill. Sumitomo Metal Mining Company Ltd provided senior financing for milling, which commenced in March/67. Additional financing to develop deep ore found in 1965 beneath the Little Chief pit was provided in Oct/69 by Hudson Bay Mining & Anglo American Corporation of Canada Ltd, which also entered a joint venture with the company in Aug/72, when it changed its name to Whitehorse Copper Mines Ltd, for exploration of the north half of the property.

Modern fringe staking by companies which did no significant work or which does not cover known showings (all in sheet 105D/11) include Ajax cl (98649) in Feb/66 by Ambassador Mining Developments Ltd; Joe cl (23667) in Feb/68 by Giltana Copper Corp Ltd; At cl (Y11916) in Feb/67 by Cree Lake Mining Ltd; and Tag cl (Y23331) in Jan/68 by Canzac Mines Ltd. Whitehorse Copper conducted substantial exploration between 1973 and 1982, including 188 holes (35 480 m) in the Little Chief, Cowley Park, Black Cub, War Eagle, Valerie, North Star, Arctic Chief, Pueblo, Empress of India, and Black Cub South deposits, a 4 500 tonne bulk sample from the Cowley Park South Zone, and IP, gravity and EM surveys. Holes were drilled as deep as 991 m.

Between Mar/67 and the end of 1982, Whitehorse Copper mined 10 247 936 tonnes of ore. Of this, 2 851 870 tonnes grading 1.06% Cu were mined from several open pits prior to Jun/71 and the remainder, 7 396 116 tonnes grading 1.50% Cu, from underground in the Little Chief deposit. Precious metal content averaged about 0.7 g/t Au and 13.0 g/t Ag. Total production, some 70% of which came from the Little Chief, was 123 145 041 kg Cu, 7062.4 kg Au and 85 577 kg Ag. The combined size of the open pit and underground portion of the Little Chief deposit totaled about 7.25 million tonnes averaging 1.5% Cu.

After the mine closed, 3 holes (1171 m) were drilled at the Cowley Park, Black Cub, War Eagle & Best Chance deposits and near Rabbit's Foot Canyon, mainly exploring for gold-rich skarns. Part of the property was optioned in 1989 to Aurora Gold Ltd which performed linecutting and in 1990 drilled seven reverse circulation holes totaling 500 m and a mag and VLF survey in 1991. Other claims were allowed to lapse.

In 1990, W.B. Wallis restaked the Rabbit's Foot showing as Fox cl 1-16 (YB27111) and trenched in two areas east and west of the shafts. B. Scott staked Carl cl 1-4 (YB27182), Railway cl 1-4 (YB27186), and Big Four cl 1-2 (YB27190) in the Keewenaw-Black Cub area. R. Stack prospected on the Polar group. H. Larsen performed blast trenching in the Arctic Chief area in 1990 and 1991. H. Coyne restaked an area south of Arctic Chief as Thule cl 1-4 (YB35746) in Mar/91.

Between Jan and Mar/94 B. Scott staked FYDB cl 1-16 (YB46665) overtop of the tailing impoundment area of the Whitehorse Copper Mine. Scott sampled the tailings in Jun/94 and drilled 7 shallow auger holes (22.5 m) the following January. In Dec/95 Scott drilled 7 deeper auger holes (38.1 m) which penetrated through the tailings pile. In Aug/2001 B. Scott drilled 14 auger holes (108 m) in the middle of the tailings impoundment area.

Capsule Geology

The Whitehorse Copper (New Imperial) property encompasses the Whitehorse Copper Belt, which consists of 28 old mines and showings along a length of 32 km on the western margin of the Whitehorse Batholith. Most of these are skarn deposits which are found both in limy sections of the upper Triassic Lewes River Group and in mid-Cretaceous granodiorite. Many skarns are related to irregularities (embayments, etc) in the margin of the stock and mineralization sometimes extends as much as 150 m from the contact.

Most deposits are lenseoid or tabular with irregular edges, are mainly coincident with bedding, and usually dip steeper than 60 degrees, although some are irregular masses (Arctic Chief, Keewenaw) and others are flat-lying (Gem and Black Cub North). The best ore zones have a limestone hanging wall and a quartzite or silicate skarn footwall and appear to develop where limestone-quartzite contacts are within 90 m of, and parallel to, an intrusive margin. Two main types of skarn deposits are present: (a) Iron-rich, in which copper occurs with magnetite, serpentine, specularite, talc, chlorite and occasional pyrrhotite and pyrite, usually associated with relatively non-magnetic diorite and (b) Iron-poor (Silicate), which consist of a wide variety of contact minerals (garnet, diopside, wollastonite, tremolite, epidote, chlorite, calcite and quartz) and usually occur near strongly magnetic phases of diorite. Faulting, shearing

and dykes are more common in iron-rich than in silicate skarns.

Bornite and chalcopyrite are the main copper minerals, although chrysocolla, native copper, chalcocite and secondary minerals are present in small amounts, together with minor molybdenite, scheelite, tetrahedrite and valerite. The copper minerals occur as scattered grains, blebs, pods and stringers that clearly postdate the skarn minerals. Bornite predominates in the iron-rich skarns and is slightly more abundant than chalcopyrite in the silicate skarns. Chalcopyrite shows a tendency to be on the footwall or hanging wall of iron-rich skarns but is more evenly distributed through silicate skarn. Magnetite concentrates contain 0.01 to 0.06% gallium. Silver grade is proportional to copper grade but gold is more erratically distributed, being more abundant in the iron-rich skarn deposits.

Whitehorse Copper evaluated at least 12 zones grading between 0.71% and 1.84% Cu. The deep portion of the Little Chief deposit, which occurs in an iron-rich skarn, is the only one which graded over 2% Cu and exceeded 1.2 million tonnes in size. The Keewenaw and Reservoir Lake deposits somewhat resemble porphyry deposits in that the mineralization is related to fracture networks in hornblende granite and is accompanied by weak alteration. Unmined reserves at the Cowley Park deposit are 213 200 tonnes grading 2.46% Cu and 0.14% MoS₂. The 1987 drilling at Kodiak Cub intersected massive magnetite-serpentinite-bornite skarn that assayed 2.9% Cu, 4.46 g/t Au and 21.3 g/t Ag over 4.63 m.

In 1990, drilling by Aurora Gold near the old Grafter workings intersected 30.5 m of copper mineralization averaging 1.49% Cu, 0.38 g/t Au and 6.2 g/t Ag. The mineralization coincides with a north-trending IP anomaly. Trenching by B. Wallis near the Rabbit's Foot shafts exposed 6.1 m of coarse garnet-epidote skarn strongly mineralized with bornite and chalcopyrite. A chip sample from one of the trenches east of the shafts averaged 5.83% Cu over 0.9 m.

Scott staked the tailing impoundment areas in hopes of recovering economic quantities of magnetite and gold. A scoping study completed by Kilborn Ltd in 1984 estimated that the tailing impoundment areas host approximately 10 000 000 tonnes of tailings grading approximately 19% magnetite and a private report completed by Whitehorse Copper in 1985 estimated that the tailings contain approximately 1 500 kg of gold (or 0.15 g/t) (see introduction, Meinert, 1986). Six grab samples collected from the tailings in 1995 returned up to 0.45 g/t gold. The seven auger holes returned an average gold content of 0.24 g/t gold. The nine deeper holes drilled in Dec/95 targeted areas assumed to hold higher gold values. Gold assays ranged from 35 ppb to 827 ppb.

The majority of holes drilled in 2001 reached 9.1 m in depth which is the approximate limit of the drill employed. An average hole consisted of between 3.6 to 4.2 metres of fine dry grey sand, followed by up to 0.6 metres of wet grey clay, followed by fine wet grey sand to the end of hole. Fourteen composite samples returned an average gold content of 0.204 g/t gold (slightly higher than that reported by Whitehorse Copper) and 17.9% magnetite slightly lower than Kilborn's 1984 estimate.

References

AURORA GOLD LTD, Dec/90. Assessment Report #092887 by L.W. Carlyle.

DOBROWOLSKY, H., AND INGRAM, R., 1993. A History of the Whitehorse Copper Belt. Indian and Northern Affairs Canada, Yukon Region, Open File 1993-1.

DUKE, N.A. and HODDER, R.W., 1974. Preliminary Report on Geological Control to Ore Distribution in the Whitehorse Copper Belt, Yukon Territory, filed as Assessment Report *#062018.

GEOLOGICAL SURVEY OF CANADA, Paper 63-41.

HILKER, R.G., 1967. The Whitehorse Copper Belt. Western Miner, Jul/67, p. 37.

HUDSON BAY EXPLORATION AND DEVELOPMENT COMPANY LTD, Mar/86. Assessment Report *#091789 by G. Bidwell.

HUDSON BAY EXPLORATION AND DEVELOPMENT COMPANY LTD, Mar/86. Assessment Report *#092042 by G. Bidwell.

HUDSON BAY MINING AND SMELTING COMPANY LTD, Mar/87. Assessment Report *#091937 by G. Bidwell.

McCONNELL, R.G., 1927. The Whitehorse Copper Belt. Geological Survey of Canada, Summary Report, Publication 1050, Part A, p. 16-18.

MEINERT, L.D., 1986. Gold in skarns of the Whitehorse Copper Belt, southern Yukon. In: Yukon Geology, Vol. 1. Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 19-43.

MINERAL INDUSTRY REPORT, 1971-72, p. 48-51; 1973, p. 74-77; 1974, p. 142-143; 1975, p. 99-101; 1976, p. 150-152; 1978, p. 35-36.

NEW IMPERIAL MINES LTD, 1964. Assessment Report *#091123 by A. Parker.

NEW IMPERIAL MINES LTD, 1965. Assessment Report *#062226 by L.F. Wright, A.C. Skerl, J.A.C. Ross and T. Swanson.

NEW IMPERIAL MINES LTD, 1966. Assessment Report *#062227 by A.T. Jordan.

NEW IMPERIAL MINES LTD, Jun/67. Assessment Report *#092558 by R. Hilker.

NEW IMPERIAL MINES LTD, 1967. Assessment Report *#018884 by R. Hilker.

NEW IMPERIAL MINES LTD, Nov/68. Assessment Report *#091116 by R.G. McCandless.

NEW IMPERIAL MINES LTD, 1969. Assessment Report *#062228 by H.H. Cox.

NORTHERN MINER, 19,26 Nov/90; 3,26 Dec/90.

SCOTT, B., Jan/95. Assessment Report #093323 by B. Scott.

SCOTT, B., Jan/96. Assessment Report #093360 by B. Scott.

SCOTT, B., Jun/2002. Assessment Report #094306 by B. Scott.

TENNEY, D., 1981. The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-80). DIAND, Bulletin 1.

TENTH COMMONWEALTH MINING & METALLURGICAL CONGRESS, Sep/74. Guide Book, Article D, 17 p.

VANCOUVER STOCK EXCHANGE, 14 Nov/90. Open File.

WALLIS, W.B., Jan/91. Assessment Report *#092922 by W.B. Wallis.

WATSON, P.H., 1984. The Whitehorse Copper Belt (105D/11): A Compilation. 1:250 000 scale map and marginal notes. DIAND, Open File 1984-1.

WHITEHORSE COPPER MINES LTD, 1970. Assessment Report *#060894 by D. Tenney.

WHITEHORSE COPPER MINES LTD, 1971. Assessment Report *#060896 by D. Tenney.

WHITEHORSE COPPER MINES LTD, 1973. Assessment Report *#060525 by V.V. Jutronich and D. Tenney.

WHITEHORSE COPPER MINES LTD, 1973. Assessment Report *#060940 by R.A. Hureau.

WHITEHORSE COPPER MINES LTD, 1973. Assessment Report *#061172 by T.R.B. Dundas, D. Tenney and J.E. Wyder.

WHITEHORSE COPPER MINES LTD, Feb/74. Assessment Report *#092025 by D. Tenney.

WHITEHORSE COPPER MINES LTD, Dec/75. Assessment Report *#091124 by A. Hureau.

WHITEHORSE COPPER MINES LTD, Nov/77. Assessment Report *#091125 by A. Hureau.

WHITEHORSE COPPER MINES LTD, 1977. Assessment Report *#091229 by A. Hureau.

WHITEHORSE COPPER MINES LTD, Jan/80. Assessment Report *#091126 by A. Hureau.

WHITEHORSE COPPER MINES LTD, 1980. Assessment Report *#090823 by unknown.

WHITEHORSE COPPER MINES LTD, 1987. Exploration proposal by A. Hureau.

WHITEHORSE COPPER MINES LTD, Jun/81. Assessment Report *#090834 by A. Hureau.

WHITEHORSE COPPER MINES LTD, 1981. Assessment Report #092763 by A. Hureau.

WHITEHORSE COPPER MINES LTD, 1982. Assessment Report *#091394 by A. Hureau.

WHITEHORSE COPPER MINES LTD, Dec/88. Assessment Report *#092606 by R. Stroshein

WHITEHORSE STAR, 12 Dec/89.

YUKON EXPLORATION AND GEOLOGY, 1981, p. 115; 1982, p. 112-113.

YUKON MINING AND EXPLORATION OVERVIEW, 1988, p.22.

YUKON EXPLORATION 1985-86; p. 197; 1987, p. 128-129.

Work History

Date	Work Type	Comment
12/31/2001	Drilling	Fourteen holes, 108 m. Drilled 14 in tailings impoundment area.
12/31/1995	Drilling	Scott drilled 7 shallow auger holes in January and 7 deeper auger holes in December.
12/31/1994	Geochemistry	Scott sampled mine tailings.
12/31/1991	Drilling	Ten holes, 500 m.
12/31/1982	Ground Geophysics	Also gravity and EM surveys.
12/31/1967	Development, Surface	
12/31/1965	Studies	
12/31/1964	Studies	
12/31/1963	Studies	Accelerated exploration on six deposits outlining a 5.0 MT reserve.
12/31/1962	Trenching	
12/31/1961	Trenching	
12/31/1953	Drilling	Ten holes, 682 m. Cowley Creek deposit.
12/31/1952	Trenching	On Grafta and Valerie deposits.
12/31/1948	Drilling	Number of holes drilled: 17 Amount of work done: 1208 METRES Drilling on the Pueblo, Verona, Arctic Chief, Keewenaw, and Big Chief claims.
12/31/1948	Ground Geophysics	
12/31/1920	Development, Underground	Mined 14,7330 Tonnes. Represents production from 1901 to 1920. Average grade 4% copper.
12/31/1900	Development, Underground	First ore shipment.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
094265	2001	Trenching and Geology on the Margaret 1,Dorothy 2 and Betty 3 Claims	Rock - Geochemistry, Detailed Bedrock Mapping - Geology, Backhoe - Trenching		
060525	1973	[Proposed Surface Drill Programs on the Little Chief-Big Chief-Valerie Properties]	Research/Summarize - Pre-existing Data		
062018	1973	Preliminary Report on Geological Control to Ore Distribution in the Whitehorse Copper Belt	Reverse Circulation - Drilling, Bedrock Mapping - Geology, Petrographic - Lab Work/Physical Studies	665	5555
062227	1966	An Evaluation of the New imperial Mines Ltd.	Feasibility - Studies		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC005254	Correspondence Re: Aeromagnetic anomalies near Whitehorse		Property File Collection	Miscellaneous Company Documents
ARMC005258	A geological bet between Lewes River Mines Ltd. and New Imperial Mines Ltd. - Prince claims		Property File Collection	News Release
ARMC005265	Cordilleran roundup notes - Skarns 2 p.m. potential - Whitehorse Copper belt		Property File Collection	Miscellaneous Company Documents
ARMC005266	Geophysics map of Best Chance claims		Property File Collection	Geophysical Map
ARMC005267	Report on some new prospects in the Whitehorse copper belt		Property File Collection	Report
ARMC005268	Sketch maps - Whitehorse Copper belt		Property File Collection	Geoscience Map (General)
ARMC005269	Telex Rw: Imperial Mines' copper showing		Property File Collection	Miscellaneous Company Documents
ARMC005270	Sketch map - J. McCall claim groups		Property File Collection	Geoscience Map (General)
ARMC005271	Correspondence Re: Whitehorse Copper Belt		Property File Collection	Miscellaneous Company Documents
ARMC006920	Summary report - Copper Cliff		Property File Collection	Report
ARMC006921	Geology map - Copper Cliff		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC005353	Map 49-1962 - Geology - Whitehorse Copper Belt		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC004797	Map showing Valerie, Big Chief, Little Chief		Property File Collection	Geoscience Map (General)
ARMC004798	Map of geology - Little Chief		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC004799	Correspondence Re: North Star drilling		Property File Collection	Miscellaneous Company Documents
ARMC004800	Geology map - North Star		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC004801	General geology map - North Star and Little Chief		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC004802	Summary report and recommendations - North Star area		Property File Collection	Report
ARMC004803	Simmons group - Quartz mineral claims		Property File Collection	Report
ARMC004804	Map - Diagram to illustrate North Star drill program		Property File Collection	Geoscience Map (General)
ARMC004805	Map of Valerie, Arctic Chief, and War Eagle		Property File Collection	Geoscience Map (General)
ARMC004806	General geology map - North Star and Little Chief		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC004807	Geology and DDH plan map - North Star		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC004808	Geology geology map - North Star and Little Chief		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC004815	Report - Pueblo exploration		Property File Collection	Report
ARMC004816	Summary Re: Pueblo area		Property File Collection	Miscellaneous Company Documents
ARMC004817	Long section map - Pueblo mine		Property File Collection	Geoscience Map (General)

ARMC0048 18	Exploration composite map - 200' level - Pueblo area		Property File Collection	Geoscience Map (General)
ARMC0048 19	Correspondence Re: Pueblo area drilling		Property File Collection	Miscellaneous Company Documents
ARMC0048 20	Document from James White		Property File Collection	Report
ARMC0048 21	Map of Best Chance/Grafter		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC0048 22	Sketch map of Graftier mine		Property File Collection	Geoscience Map (General)
ARMC0048 23	Map - North grid - Best Chance		Property File Collection	Geoscience Map (General)
ARMC0048 24	Notes on exploration possibilities		Property File Collection	Miscellaneous Company Documents
ARMC0048 25	Correspondence Re: Arctic Chief exploration		Property File Collection	Miscellaneous Company Documents
ARMC0048 26	Properties in the central part of the belt - Arctic Chief		Property File Collection	Report
ARMC0048 27	General geology map - Arctic Chief and Best Chance		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC0048 28	Map sections - 9850 and 9250 - Arctic Chief and Little Chief		Property File Collection	Geoscience Map (General)
ARMC0048 29	Map of mineral claims - Arctic Chief		Property File Collection	Geoscience Map (General)
ARMC0047 62	The Whitehorse Copper Belt: Fall 1997 limited geophysical assessment report		Property File Collection	Report
ARMC0047 85	Survey map - Kopper King grid		Property File Collection	Geoscience Map (General)
ARMC0048 10	Plan map - North Star		Property File Collection	Geoscience Map (General)
ARMC0048 11	Summary report - North Star		Property File Collection	Report
ARMC0048 12	Report - Possible reserves - North Star		Property File Collection	Report
ARMC0048 13	Correspondence Re: The North Star mineralized skarn zone		Property File Collection	Miscellaneous Company Documents
ARMC0048 14	Interpreted geology map - 200' level - 2455 elev. - Pueblo mine		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC0047 63	Map of the Whitehorse Copper Belt - Geophysical data 1 - 1981 airborne EM anomaly occurrence map 1 - 1975 Geoterrex IP survey overlay		Property File Collection	Geophysical Map
ARMC0047 64	Map of the Whitehorse Copper Belt - Geophysical data 1 - 1981 airborne EM anomaly occurrence map 2		Property File Collection	Geophysical Map
ARMC0047 65	Report on Whitehorse copper mines - Future exploration - 1973 onwards		Property File Collection	Report
ARMC0047 66	Correspondence Re: Exploration possibilities - Whitehorse Copper Belt		Property File Collection	Miscellaneous Company Documents
ARMC0047 67	Correspondence Re: Whitehorse copper exploration programme 1978		Property File Collection	Miscellaneous Company Documents
ARMC0047 68	Correspondence Re: Proposed project to identify the dolomite/batholith contact areas in the copper belt		Property File Collection	Miscellaneous Company Documents
ARMC0047 69	Report on evaluation of exploration targets in the Whitehorse Copper Belt, Yukon		Property File Collection	Report
ARMC0047 70	Correspondence Re: Brief exploration summary for 1979 - Whitehorse Copper Belt		Property File Collection	Miscellaneous Company Documents
ARMC0047 71	Summary of August 31, 1980 and proposals for completion of 1980 exploration program - Whitehorse Copper Belt		Property File Collection	Report
ARMC0047 72	Summary of remaining exploration target areas - Whitehorse copper mines		Property File Collection	Report
ARMC0047 73	Summary - Whitehorse Copper Mines		Property File Collection	Report
ARMC0047 74	Progress report - Whitehorse Copper Mines Limited		Property File Collection	Report
ARMC0047 75	Correspondence Re: Proposed diamond drilling - WCM		Property File Collection	Miscellaneous Company Documents
ARMC0047 76	Progress Report - Whitehorse Copper Mines Limited		Property File Collection	Report
ARMC0047 77	Maps of claim blocks and report - Whitehorse Copper Belt		Property File Collection	Geoscience Map (General)

ARMC0047 78	Correspondence Re: City of Whitehorse - Geophysical data evaluation		Property File Collection	Miscellaneous Company Documents
ARMC0047 79	Sketch maps of Cowley Park area		Property File Collection	Geoscience Map (General)
ARMC0047 80	Map of McLean Lake - Area development scheme - Study boundary		Property File Collection	Geoscience Map (General)
ARMC0047 81	Tables - Whitehorse Copper Belt		Property File Collection	Miscellaneous Company Documents
ARMC0047 82	Stratigraphic correlations of Lower Paleozoic strata across northern Yukon Territory		Property File Collection	Geoscience Map (General)
ARMC0047 83	Correspondence Re: Copper King - Carlisle Drilling		Property File Collection	Miscellaneous Company Documents
ARMC0047 86	Summary of Whitehorse area deposits		Property File Collection	Report
ARMC0047 87	Maps of War Eagle area		Property File Collection	Geoscience Map (General)
ARMC0047 88	Report on induced polarization survey in the Whitehorse area		Property File Collection	Report
ARMC0047 89	Maps of War Eagle area		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC0047 90	Preliminary proposal for the Middle Chief pit surface - diamond drilling		Property File Collection	Report
ARMC0047 91	Summary and map - Valerie		Property File Collection	Report
ARMC0047 92	Exploration composite map - Middle-Big Chief		Property File Collection	Geoscience Map (General)
ARMC0047 93	Exploration composite map - Little Chief		Property File Collection	Geoscience Map (General)
ARMC0047 94	Map of Middle Chief and Little Chief ore zones		Property File Collection	Geoscience Map (General)
ARMC0047 96	Map of Little Chief to Big Chief - DDH BC 1 to 6 drilled		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC0048 35	Correspondence Re: Gem open pit - current status		Property File Collection	Miscellaneous Company Documents
ARMC0048 36	Map of Gem claims		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC0048 37	Report - Black Cub exploration drilling		Property File Collection	Report
ARMC0048 38	Longitudinal section map - Gem and Brown Cub		Property File Collection	Geoscience Map (General)
ARMC0048 39	Geology map - Gem-Keewenaw		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC0048 40	Map showing chargeability contours - 4 m/sec, 20 ppm contour - Gem and Keewenaw		Property File Collection	Geophysical Map
ARMC0048 41	Geology and geophysics map - Chargeability milliseconds - Gem and Keewenaw		Property File Collection	Geophysical Map
ARMC0048 42	Map showing Tavern Lake		Property File Collection	Geoscience Map (General)
ARMC0048 43	DDH locations map - Bear Cub area		Property File Collection	Geoscience Map (General)
ARMC0048 56	Claims location map - Prince and Snell		Property File Collection	Geoscience Map (General)
ARMC0048 57	Correspondence RE: Magnetite and gold potential in tailings at Grey Mountain		Property File Collection	Miscellaneous Company Documents
ARMC0048 82	Resistivity map - 200' spacing - Best Chance		Property File Collection	Geophysical Map
ARMC0048 83	Magnetic survey map - I.P. chargeability - Best Chance		Property File Collection	Geophysical Map
ARMC0048 84	Magnetic survey map - IP survey chargeability - 400' separation - Best Chance		Property File Collection	Geophysical Map
ARMC0048 85	Magnetic survey map - Detail IP (chargeability) 100' separation - Anomaly 'A' - War Eagle grid		Property File Collection	Geophysical Map
ARMC0048 86	Magnetic survey map - I.P. chargeability contours from 1970 survey - Anomaly 'B' - Pueblo grid		Property File Collection	Geophysical Map
ARMC0048 87	Magnetic survey map - Whitehorse Copper Mines		Property File Collection	Geophysical Map
ARMC0048	WCB summary table - Whitehorse Copper Mines		Property File	Miscellaneous Company

88	WCB summary table - Whitehorse Copper Mines		Collection	Documents
ARMC004889	Notes on composite data for specific area		Property File Collection	Miscellaneous Company Documents
ARMC004890	Notes on field visit - Black Cub area		Property File Collection	Miscellaneous Company Documents
ARMC004891	Area map - Whitehorse Copper Belt		Property File Collection	Geoscience Map (General)
ARMC004892	Induced polarisation report on the Grafter and Best Chance deposit - Whitehorse Copper Belt		Property File Collection	Report
ARMC004893	Magnetic survey map - sheet 460N/610E - Big, Middle & Little Chief and Valerie claims		Property File Collection	Geophysical Map
ARMC004894	Induced polarization survey map - Best Chance		Property File Collection	Geophysical Map
ARMC005248	Report - Start-up of mine and mill at New Imperial Mines Ltd.		Property File Collection	Report
ARMC005250	Report - The Whitehorse Copper Belt		Property File Collection	Report
ARMC005252	Correspondence Re: Powellite discovery - Whitehorse Copper Belt		Property File Collection	Miscellaneous Company Documents
ARMC004904	Table showing MINFILE occurrences - Whitehorse Copper		Property File Collection	Miscellaneous Company Documents
ARMC004905	Maps of HBED copper claims		Property File Collection	Geoscience Map (General)
ARMC004906	Re: Data on War Eagle to the North Star occurrences		Property File Collection	Miscellaneous Company Documents
ARMC004895	A report on an induced polarization survey - Whitehorse Copper Mines		Property File Collection	Report
ARMC004897	Report on induced polarization and resistivity survey for New Imperial Mines Limited - Whitehorse Copper		Property File Collection	Report
ARMC004898	Report on Whitehorse CSA		Property File Collection	Report
ARMC004899	The N.I.M. coordinate system - a new reference coordinate system for the Whitehorse Copper Belt		Property File Collection	Report
ARMC004900	Correspondence Re: City of Whitehorse - Mineral resource assessment		Property File Collection	Miscellaneous Company Documents
ARMC004901	Table showing tracts of proposed exploration - Whitehorse Copper		Property File Collection	Miscellaneous Company Documents
ARMC004902	Table showing deposits or claims, mineral types and notes - Whitehorse Copper		Property File Collection	Miscellaneous Company Documents
ARMC004903	WCB summary table - Whitehorse Copper Mines		Property File Collection	Miscellaneous Company Documents
ARMC005015	Mineral potential map - City of Whitehorse		Property File Collection	Geoscience Map (General)
ARMC005025	Correspondence Re: Mineral potential study of the City of Whitehorse		Property File Collection	Miscellaneous Company Documents
ARMC005026	Correspondence Re: City of Whitehorse - Mineral potential study		Property File Collection	Miscellaneous Company Documents
ARMC004858	Report on potential for gold exploration - Whitehorse Copper Belt		Property File Collection	Report
ARMC004859	Notes on Geophysics IP reports		Property File Collection	Miscellaneous Company Documents
ARMC004860	Notes on potential for Au		Property File Collection	Miscellaneous Company Documents
ARMC004861	Summary report - Pueblo mine		Property File Collection	Report
ARMC004862	Report - The Copper Chief		Property File Collection	Report
ARMC004863	Correspondence Re: Whitehorse Copper Mines Ltd.		Property File Collection	Miscellaneous Company Documents
ARMC004864	Preliminary report on the geological control to ore distribution in the Whitehorse Copper Belt, Yukon Territory		Property File Collection	Report
ARMC004865	Report - The application and applicability of geochemical prospecting techniques to Whitehorse Copper Belt		Property File Collection	Report
ARMC004866	Re: Figures from the geoscience forum poster exhibit		Property File Collection	Miscellaneous Company Documents
ARMC004867	Interpretation of AC53-613', AC-343', AC52-177', AC50-454', AC52-635' -		Property File Collection	Miscellaneous Company Documents

ARMC004868	Correspondence Re: War Eagle deposit	Property File Collection	Miscellaneous Company Documents
ARMC004869	Correspondence Re: Sulphur isotope analyses on the Arctic Chief samples	Property File Collection	Miscellaneous Company Documents
ARMC004870	Summary Re: Vallerite	Property File Collection	Miscellaneous Company Documents
ARMC004871	Mineral assessment - City of Whitehorse	Property File Collection	Report
ARMC004872	Report on Cu Fe (Au Ag) deposits	Property File Collection	Report
ARMC004873	Report - Gold in skarns of the Whitehorse Copper Belt, Yukon Territory, Canada	Property File Collection	Report
ARMC004874	Exploration proposal report - Whitehorse Copper Mines	Property File Collection	Report
ARMC004875	Report - War Eagle and progressing to the southernmost Carcross bad claims	Property File Collection	Report
ARMC004876	Magnetic survey map - I.P. chargeability - North Star grid	Property File Collection	Geophysical Map
ARMC004877	Magnetic survey map - I.P. chargeability - North Star grid	Property File Collection	Geophysical Map
ARMC004878	Magnetic survey map - I.P. mag & geology - Line 128N - War Eagle and North Star	Property File Collection	Geophysical Map
ARMC004879	Magnetic survey map - I.P. chargeability - War Eagle grid	Property File Collection	Geophysical Map
ARMC004880	Report on magnetic data - Compilation, analysis and interpretation - Best Chance grid	Property File Collection	Report
ARMC004881	Resistivity contour plan map - Whitehorse Copper Mines	Property File Collection	Geophysical Map
ARMC004830	General geology map - Arctic Chief and Best Chance	Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC004831	Map sections - 9850 N looking north and 9250 looking north of Arctic Chief and Little Chief	Property File Collection	Geoscience Map (General)
ARMC004809	Cross section maps - North Star - Figure 7	Property File Collection	Geoscience Map (General)
ARMC004832	Vertical longitudinal section map - looking east - Arctic Chief	Property File Collection	Geoscience Map (General)
ARMC004833	Outcrop geology map - Arctic Chief	Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC008766	Fig. 2- Geological map - General area showing relationship to Tintina Fault & Unit "3" rocks - Gem group 1-16	Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC008767	Fig. 3 - Geology map - Gem group 1-16	Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC008768	Figure 28 - Geochemical and geology map - Area 7	Property File Collection	Geochemical Map
ARMC008769	Figure 30 - Geochemical map - Grid #2 - Area #7	Property File Collection	Geochemical Map
ARMC008770	Correspondence Re: Visit to Yukon Revenue Mines' Gem claims to examine diamond drill core	Property File Collection	Miscellaneous Company Documents
ARMC008771	Map - GEM claim group	Property File Collection	Geoscience Map (General)
ARMC008772	Re: Diamond drill hole log - GEM Group - GEM 6	Property File Collection	Miscellaneous Company Documents
ARMC008773	Correspondence Re: GEM property - Ross River area	Property File Collection	Miscellaneous Company Documents
ARMC008774	Report on the GEM group - Ross River area	Property File Collection	Report
ARMC008775	Report on initial prospecting - GEM and B.B. claim groups - Selwyn Basin - Ross River area	Property File Collection	Report
ARMC008776	Report on the GEM property of Yukon Revenue Mines Ltd., Yukon Territory	Property File Collection	Report
ARMC008777	Correspondence Re: Review of Yukon Revenue's diamond drilling - Reports on the GEM claims	Property File Collection	Miscellaneous Company Documents
ARMC008778	Notes - Telephone enquiry to Harry Fromme & recent diamond drilling on GEM - Yukon Revenue - GEM claims	Property File Collection	Miscellaneous Company Documents
ARMC008780	Correspondence Re: Visit to R.A. Granger's office in Whitehorse, to discuss the GEM claims	Property File Collection	Miscellaneous Company Documents
ARMC013524	Property report and correspondence - Topazzio claims	Property File Collection	Report

ARMC014219	Map of Whitehorse area with field notations		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC014223	Drillhole location map - Pueblo area		Property File Collection	Geoscience Map (General)
ARMC014222	Claim map with grid - Valerie-North Star		Property File Collection	Geoscience Map (General)
ARMC014221	Claim map - North Star-Arctic Chief		Property File Collection	Geoscience Map (General)
ARMC014220	Claim map - Whitehorse Copper Belt		Property File Collection	Geoscience Map (General)

Resource/Reserve									
Year	Zone	Type	Commodity	Grade	Tonnage	Amount	Reported Amount	43-101 Compliant	Cut-off
1984	WHITEHORSE COPPER - BEST CHANCE (UNDERGROUND)	Historical Estimate	copper	.71 %	447,000		No	No	Unknown
Deposit never mined due to low grade. All tonnages figure came from Watson's 1984 map. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1984	WHITEHORSE COPPER - KEEWENAW (OPEN PIT)	Historical Estimate	copper	1.06 %	202,000		No	No	Unknown
All tonnage figures came from Watson's 1984 map. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1984	WHITEHORSE COPPER - BLACK CUB SOUTH (OPEN PIT)	Historical Estimate	copper	1.25 %	20,000		No	No	Unknown
Remaining Reserves. All tonnage figures came from Watson's 1984 map. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1984	WHITEHORSE COPPER - BLACK CUB SOUTH (OPEN PIT)	Historical Estimate	molybdenum	.008 %	20,000		No	No	Unknown
Remaining Reserves. All tonnage figures came from Watson's 1984 map. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1984	WHITEHORSE COPPER - BLACK CUB NORTH (OPEN PIT)	Historical Estimate	copper	.82 %	156,000		No	No	Unknown
Deposit never mined due to low grade. This tonnage figure came from Tenney's 1981 Bulletin. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1984	WHITEHORSE COPPER - BEST CHANCE (UNDERGROUND)	Historical Estimate	gold	.03 g/t	447,000		No	No	Unknown
Deposit never mined due to low grade. All tonnages figure came from Watson's 1984 map. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1984	WHITEHORSE COPPER - BLACK CUB SOUTH (OPEN PIT)	Historical Estimate	gold	.24 g/t	20,000		No	No	Unknown
Remaining Reserves. All tonnage figures came from Watson's 1984 map. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1984	WHITEHORSE COPPER - BLACK CUB SOUTH (OPEN PIT)	Historical Estimate	silver	12.34 g/t	20,000		No	No	Unknown
Remaining Reserves. All tonnage figures came from Watson's 1984 map. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1971	WHITEHORSE COPPER - GEM (OPEN PIT)	Historical Estimate	copper	1.01 %	625,000		No	No	Unknown
Deposit never mined due to low grade. This tonnage figure came from Tenney's 1981 Bulletin. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1971	WHITEHORSE COPPER - COWLEY PARK O.P. (OPEN PIT)	Historical Estimate	copper	.9 %	668,000		No	No	Unknown
Deposit never mined due to low grade. All tonnage figures came from Watson's 1984 map. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1971	WHITEHORSE COPPER - COWLEY PARK U.G. (UNDERGROUND)	Historical Estimate	molybdenum	.066 %	884,000		No	No	Unknown
Deposit never mined due to low grade. All tonnage figures came from Watson's 1984 map. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1971	WHITEHORSE COPPER - COWLEY PARK U.G. (UNDERGROUND)	Historical Estimate	copper	1.04 %	884,000		No	No	Unknown
Deposit never mined due to low grade. All tonnage figures came from Watson's 1984 map. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1971	WHITEHORSE COPPER - COWLEY PARK U.G. (UNDERGROUND)	Historical Estimate	gold	.21 g/t	884,000		No	No	Unknown
Deposit never mined due to low grade. All tonnage figures came from Watson's 1984 map. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1971	WHITEHORSE COPPER - COWLEY PARK U.G. (UNDERGROUND)	Historical Estimate	silver	3.77 g/t	884,000		No	No	Unknown
Deposit never mined due to low grade. All tonnage figures came from Watson's 1984 map. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									
1970	WHITEHORSE COPPER - KODIAK CUB (OPEN PIT)	Historical Estimate	copper	1.18 %	57,000		No	No	Unknown
All tonnage figures came from Watson's 1984 map. Individual Mineral Industry Reports and Yukon Exploration volumes usually provide similar data for a particular deposit.; The Whitehorse Copper Belt - A compilation. By P.H. Watson. Open file 1984-1. Also The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980). By D. Tenney. EGSD Bulletin 1.									

--

Production			
Date	Commodity	Amount	Comment
12/30/1982	Cu	123145041 kilograms	March 1967 to end of 1982. 70% of production was from Little Chief
12/30/1982	Au	7062.40 kilograms	March 1967 to end of 1982. 70% of production was from Little Chief
12/1/1982	Ag	85577 kilograms	March 1967 to end of 1982. 70% of production was from Little Chief

Drill core at YGS core library					
Number	Property	Year Drilled	Core Size	Photos	Data
87-GR-24	Grafter	1987	NQ	14	2
87-KC-21	Kodiak Cub	1987	NQ	15	2
AC-1	Arctic Chief	1976	BQ	4	0
AC-38	Arctic Chief	1976	BQ	18	0
ACH-1	Arctic Chief	1976	BQ	0	3
ACH-2	Arctic Chief	1976	BQ	2	2
ACH-3	Arctic Chief	1976	BQ	2	0
ACH-4	Arctic Chief	1976	BQ	2	0
ACH-5	Arctic Chief	1976	BQ	2	0
ACH-6	Arctic Chief	1976	BQ	2	0
137	Big Thing	1967	BQ	0	2
138	Big Thing	1967	BQ	0	2
140	Big Thing	1967	BQ	0	2
150	Big Thing	1967	BQ	0	2
151	Big Thing	1967	BQ	0	2
187	Big Thing	1967	BQ	0	2
U-177	Big Thing	1967	BQ	0	2