MAP NO.	ASSESSMENT REPORT X	DOCUMENT NO.:	092027
	PROSPECTUS	MINING DISTRICT:	WHITEHORSE
	CONFIDENTIAL	TYPE OF WORK:	DIAMOND DRILLING
115 H 7	OPEN FILE	I.S.N. 134676	

REPORT FILED UNDER: Whitehorse Copper Mines Ltd

DATE PERFORMED: June 10-30, 1977 DATE FILED: July 28, 1977

LOCATION: LAT.: 61°16'N AREA: Aishihik-Hopkins Lake

LONG.: 136°55'W VALUE $:

CLAIM NAME & NO.: ACME 1-14 Y91516-Y91522

HOP 1-69 YA8968-YA18281

WORK DONE BY: D. Tenney

WORK DONE FOR: Whitehorse Copper Mines Ltd

DATE TO GOOD STANDING		REMARKS: #41 HOPKINS

REPORT ON HOP CLAIMS

AISHIHIK - 115-H-7

D. Tenney
July 28th, 1977

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Note: Some Mitsubishi work has been reinterpreted by geologists at Whitehorse Copper.

HOP CLAIMS

INTRODUCTION AND SUMMARY:

A group of 13 claims (Acme 1-7, 9-14) lying at Mile 33 of the Aishihik Lake road was optioned from Al (Scotty) Thom and his partner in 1976. Of particular interest on this property is a calc-silicate skarn zone containing disseminated and some high grade copper mineralisation which is exposed in the precipitous walls of a small creek (?Franklin Creek) about one mile east of Hopkins Lake. This mineralisation, comprising pyrrhotite and chalcopyrite with trace amounts of precious metals, is localised in a calc-silicate skarn at the base of a quartz-mica schist sequence, where the schist is in contact with underlying more calcareous rocks.The schist, skarn and sedimentary sequence as a whole dips E.N.E. at a low angle, generally around ten degrees or so.

A strongly magnetic acid intrusive (granodiorite?) containing traces of chalcopyrite and molybdenite lies about 2,000 feet to the north of the showing. Although not drilled, there is a magnetite skarn in limestone on the contact of this intrusive which contains low grade copper mineralisation in the form of chalcopyrite with minor amounts of bornite. The down dip extension of these two zones present a very favourable exploration target. (see 1"=400' geological plan: Fig 3)

LOCATION & ACCESS:

The 13 claim Acme group (Fig- 4) lies by road about 120 miles northwest of Whitehorse and can be reached via the Alaska Highway and the Aishihik Lake road. A four-wheel drive vehicle is necessary to gain access to the showing which lies a walking distance of about one mile from the road at the south end of Hopkins Lake. There is a suitable landing site for a helocopter cleared on the hillside about 200 feet in elevation above the showing.

PROPERTY:

The thirteen claims optioned by Whitehorse Copper Mines Limited from Al (Scotty) Thom and his partner form the Acme claim group:

Name of Claim	Grant No.
Acme- 1	Y-91516
Acme- 2	Y-63916
Acme- 3	Y-63917
Acme- 4	Y-63919
Acme- 5	Y-63918
Acme- 6	Y-75440
Acme- 7	Y-75441
Acme- 9	Y-91517
Acme- 10	Y-91518
Acme- 11	Y-91519
Acme- 12	Y-91520
Acme- 13	Y-91521
Acme- 14	Y-91522

A total of 69 "Hop" Claims were staked by Whitehorse Copper over and around the Acme group and they will be added to the property. Not all Acme group claims posts could be located on the ground.

Claim Name	Grant No.
Hop 1-2	YA 8968-8969
Hop 3-6	YA 8972-8975
Hop 7-8	YA 8970-8971
Hop 9-12	YA 8975-8979
Hop 13-14 Frs.	YA 8980-8981
Hop 15-28	YA 18014-18027
Hop 29-32	YA 18274-18277
Hop 33-37	YA 18034-18038
Hop 38-41	YA 18030-18033
Hop 42-63	YA 18039-18060
Hop 64-65	YA 18028-18029
Hop 66-69	YA 18278-18281

It should be noted that it may be possible to drop a limited number of these claims when more accurate locations for the claim posts of the Acme group are established.

Staking of the Hop claims was done using a "Topofill" chain, and should be reasonably accurate.

HISTORY OF PREVIOUS WORK:

This property was not diamond drilled until the drill programme of June 1977 by Whitehorse Copper when a total of eleven holes having an aggregate depth of 3,573 feet were completed (see Fig. 3- Plan of geology and diamond drilling). Prior to this time there has been limited surface exploration in the form of trenching, line cutting and probably geological mapping and magnetometer surveys. None of this work is known to be available. These showings are probably the "Giltana Lake" showings referred to by D.D. Cairns as being staked in 1907 (see Appendix I). A Japanese company, Mitsubishi, which owns the "ML" claims to the north of the Hop claims has carried out geological mapping on a scale of one inch to one thousand feet, (see Fig. 5) as well as extensive induced polarisation and geochemical surveys. The results of these surveys are available as assessment work at the Department of Indian Affairs and Northern Development. In addition Mitsubishi contracted out airborne E.M. magnetometer and radiometric surveys (Fig. 6) but the standard of both work and presentation is considered very poor.

a) Mitsubishi Geological Mapping (Scale 1"= 1000' Fig. 5)
This survey concentrated on disseminated chalcopyrite and molybdenite showings in the granite and incidentally covers the area of the Acme claims and the more northerly part of the Hop claim group. The different lithologies of the Yukon Group rocks are not differentiated but the main copper showing on the Acme group do appear on the map. The swarm of acid dykes striking in a northerly direction through this region is also well depicted.

b) Induced Polarisation Surveys (by Geoterrex):
The southerly limit of induced polarisation coverage is near the northern limit of the Hop claim group and doesn't reach as far south as any of the known copper showings on the Whitehorse Copper claims. The large quantity of magnetite disseminated in the granite is a major contributor to the chargeability peaks picked up by the Geoterrex survey. The The most southerly of these anomalous areas at 15+00 s, 48+50 W on the Mitsubishi grid certainly lies near the intrusive contact and may in fact represent skarn type mineralisation: Pier Morgaard, in his I.P. report, recommends drilling of this chargeability high. (see Appendix II) It in any case should be investigated further. (N.B. This anomaly lies in the projected contact zone recommended for further induced polarisation coverage under "recommendations".)

c) Geochemistry (see Fig. 7):
Soil samples were collected by Mitsubishi on lines 1,000 feet apart with a sample spacing of 500 feet and analysis for total extractable copper carried out on the sieved minus 80 mesh portion of the sample. There are some areas of broadly anomalous copper concentrations in the soil over the more westerly portion of the Acme claims group, and to the north of it, but absolute values, although obviously anomalous, are not particularly high. They range commonly up to 400 ppm copper. The overburden is largely of glacial and glaciofluvial origin and it is thought that most of the anomalous zones are of glacially transported origin, possibly with a source area around 70+00 S, 120+00 W on the Mitsubishi Geochemical survey map. It is possible that the source rock from which the anomalous overburden has been derived is now completely eroded away. However, before finally dismissing this area, some further geophysical and geochemical testing should be carried out.

AIRBORNE SURVEYS: (Waterton Aeronautics and Explorations Ltd.- see Fig. 6)

The airborne magnetic survey is of very poor quality as evidenced by anomalously high readings trending along flight lines. The area of generally higher magnetic readings correlates with the magnetic intrusive (granite) which is a prominent feature on the government airborne magnetic survey sheet 115-H-7. The method of recording results is also, in my opinion, very poor.

The radiometric survey obtained low order peaks over the granite but their significance is not known;they may represent 40K radiation. The electromagnetic survey does not seem to have detected any areas of notably conductive ground. Its reliability is not known, but must be suspected in view of the poor quality of the magnetic survey and the poor general presentation of results.

CURRENT WORK:

Whitehorse Copper became interested in the Acme claims when A. Hureau and E. Reid visited the property in 1976. A chip sample across a section of gossan 10 feet long assayed 4.59% copper with minor amounts of

gold and silver. A geological section was made along the creek from the showing in both directions (see long section= Fig. 1) Some similarities existed between this section and the Christmas Mine in Arizona (see Fig. 2 and Economic Geology Vol. 64, 1969. pp. 260- D.V. Perry: Skarn Genesis at the Christmas Mine, Gila County, Arizona.) It was decided to proceed to drilling the showing directly since the mineralisation was expected to be largely "blind" and covered by a considerable thickness of schist cap rock (and/or overburden). The contact controlling the location of the copper mineralisation was expected to be that of the acid intrusive with the limestone shown on the section (Fig. 1) vertically beneath the showing. The east intrusive contact was also thought to be a prime target although it was not very well-exposed. Any mineralisation on this contact would have been "blind" as a small outcrop of quartz-mica schist was exposed at surface and the limestone with which the main showing is associated would only be expected to occur under this schist layer at a depth of 100 feet or so. Drill hole TH-1 quickly indicated the Christmas mine comparison to be incorrect and subsequent drilling, particularly holes TH-2, TH-4, TH-6, TH-7, TH-8, and TH-9 indicated that the mineralisation was more or less confined to a particular horizon in the sedimentary sequence, cross-cutting intrusives notwithstanding. Some difficulty was occasioned in this drilling by the cross- cutting dyke complex indicated on section (Fig. 1) and on the geological plan of Mitsubishi (Fig. 5). Holes TH-3 and TH-10 were drilled entirely in dyke, and in TH-4 and TH-9 dykes were present in that part of the hole where mineralisation might also have been expected. The locations of drill holes are as follows, and 1"=40' sections are included with this report. (Fig. 8)

HOLE #	N	E	ELEV.	AZ.	DIP	LENGTH (ft.)
1	10428.3	10033.5	3800	060°	-65°	707
			Traces chalcopyrite in calc-silicate skarn.			
2	10408.7	10149.3	3790.4	060	-60	253
			77.2 - 138.2' = 61.0 Ft. @ 1.94% Cu			
3	10480.8	10584.4	3789.9	240	-70	206
			all in dyke			
4	10748.4	10281.9	3890.0	060	-70	253
			184.9 - 214.2 = 29.4' @ 1.36% Cu			
5	10020.0	10076.1	3811.1	060	-80	152
			in overburden and ? fault			
6	10746.4	10802.8	3860.2	240	-80	320
			188.2 - 203.4 = 15.2' @ 1.72% Cu			
7	10750.8	11205.4	3879.6	240	-80	351
			301.3 - 320.6 - low grade			
8	10349.7	10822.8	3834.1	240	-80	318
			206.0 - 220.1 = 14.1' @ 1.27% Cu			
9	9932.8	10589.2	3844.1	240	-80	290
			210.2 - 213.3 = 3.1' @ 3.06% Cu			
10	9699.7	11342.1	3971.0	240	-80	106
			in dyke			
11	9721.1	11587.7	3999.0	240	-80	617
			in schist and dyke- did not reach skarn zone			
TOTAL:						3573.0'

This mineralisation, which occurs over an area of 1000 feet by 800 feet, comprises specks , blebs and sometimes patches of chalcopyrite in a calc-silicate skarn: there is no bornite. Pyrrhotite is also present

in large quantities and only in hole TH-7 was there any of magnetite skarn. Trace amounts of gold, silver, tungsten, germanium, and titanium are also associated with the copper mineralisation (See Appendix IV- spectrographic analyses.) The main skarn minerals, although identified only tentatively, include actinolite, diopside, tremolite and brown garnet, probably andradite. A red porphyroblastic garnet is present in some sections of quartz-mica schist (See Log TH-11) but this is thought to result from regional metamorphism.

A rapid regional reconnaissance confirmed the general geology of the region as shown by Mitsubishi, but left several questions regarding their detailed interpretation of the intrusive contact unanswered. (The preliminary 1"=4 mile geological map published by the Geological Survey of Canada shows no intrusive in this area.)

Our own geology plan, Figure 3, shows the intrusive contact as interpreted from outcrop on the hillside above Hopkins Lake, and from the 1"=1 mile government aeromagnetic survey sheet 115-H-7. A small area of local geology was mapped just north of the main showing. Drill hole locations, obtained by stadia survey, are also shown on this plan.

A magnetometer survey (Figure 9), using a proton total field magnetometer (Geometrics G-816 portable proton magnetometer) was done over the immediate vicinity of the drill holes in the hope that individual dykes could be detected, but such was not the case. However, it should be noted that the best intersections (in TH-2, 4, 6) lie in and around a local magnetic high which gets broader to the north nearer the main granite contact. This magnetic anomaly should be tested by drilling, every endeavour being made to avoid drilling in one of the numerous dykes known to cross the area.

CONCLUSIONS:

Gently dipping skarn zones containing copper mineralisation of economic interest have been detected in a calcareous section of the Yukon Group rocks east of Hopkins Lake. Work to date indicates that a large area of sediments, and more particularly sediments- intrusive contact remains to be tested. Since the skarn zones are conformable with the sedimentary bedding, which dips into the mountain side, the down dip portion of any mineralisation so far discovered on the Hop claims will get progressively deeper when followed eastwards in a down dip direction. The application of geophysics in this situation is consequently limited to those areas where it may be reasonably likely to get the depth penetration necessary to detect the mineralisation. This fact more or less precludes direct detection of the down dip portion of the zone drilled during 1977, unless the horizon is brought nearer surface by folding or faulting. There is, however, reason to believe that the limestones form discontinuous lenses in the schist sequence and that in fact, they may occur at any position in the stratigraphic succession. Some discontinuous lenses of limestone were noted on the hillside above Hopkins Lake, but lateral facies changes could only be inferred. If such facies changes should occur on a large scale, then limestone could be found in any part of the overburden covered areas of the property; consequently so too could copper mineralisation.

RECOMMENDATIONS:

1) Since the mineralisation intersected in hole TH-2 is in part massive sulphides, there is the possiblility that it constitutes an electromagnetic conduotor. This should be tested by one line of E.M. in the vicinity of drill holes TH-1, 2, and 3.(As suggested by G.R. Frazer)

2) Whether or not 1) shows a positive result, it is certain that a large orebody of pyrrhotite- chalcopyrite of the type in Hole TH-2 would produce an E.M. conductor. Consideration should be given to an airborne E.M. survey of the Hop claim and the whole of the adjacent granite intrusive (and two or three others to the north indicated on government aeromagnetic sheet 115-H-7: Fig. 10).

3) Lines should be cut for geological mapping, magnetometer surveys and induced polarisation.

4) Geological mapping should identify the intrusive contact, the structure of the meta-sediments, and the location of the main zones of copper mineralisation.

5) The magnetometer survey should attempt to define the intrusive contact under overburden and also detail the northward extension of the weak magnetic trend identified near holes TH-2,4, and 6. A secondary objective may be to detail magnetite skarns directly, but this has almost certainly been done already in any area of shallower overburden where it is likely to be successful.

6) Induced polarisation surveys should be carried out on lines at 500 foot intervals in the area around the showings and elsewhere on lines at 1000 foot intervals. A gradient array should be used for best depth penetration and fastest coverage. Any anomalies found can be detailed using other electrode configurations. (dipole-dipole). Expanders may provide useful information about overburden depths, and also may indicate "blind" mineralised horizons buried by schist or other cap rock.

7) Since the mineralisation we might expect to find is "blind", and does not outcrop (or sub-outcrop) at surface, geochemical soil sampling is not recommended on the Hop claim group, although it may be worthwhile in outside areas.

SUMMARY OF COSTS:

Line Cutting	14 miles @ $250/mi.	$ 3,500.00
Line Cutting (detail)	2 miles @ $250/mi.	500.00
Magnetometer survey	14 miles	1,000.00
Geological Mapping		2,000.00
E.M. Test Survey		500.00
I.P. Survey	14 miles @ $750/day	10,500.00
I.P. (detail)	5 days	3,750.00
Diamond drilling	1 hole @ 600' (test mag. high)	12,000.00
Diamond drilling	3 holes @ 1000' (test I.P. anomalies)	60,000.00
1 Cook		2,000.00
SUBTOTAL:		95,750.00

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Subtotal:	$ 95,750.00
Camp Costs (4-5 men, 1 month)	2,000.00
Assaying	1,000.00
Assessment applications	1,000.00
Option Payment	5,000.00
TOTAL:	$104,750.00

Airborne E.M.-Mag. surveys	500 line miles @$60	$30,000.00
Claim Staking, allow-		10,000.00
Follow-up work (4 men- 1 month)		10,000.00
TOTAL:		$50,000.00

The allowance of 3,000 feet for diamond drilling is possibly high but approximately one hole in four will probably be abandoned in dyke. If no induced polarisation anomalies are found, drill holes should be spotted in an array of three holes spread out along the intrusive contact and carried to a depth where they should intersect the down dip or on strike portions of the presently known mineralised horizons.

D. Tenney

D. Tenney
July 28, 1977

APPENDIX I:

H.S. Bostock, (1957) Yukon Territory, G.S.C. Memoir 284, pp.281-282.

THE GILLTANA LAKE CLAIMS:

Most of these claims were staked during the season of 1907, though a number were located during the last summer. They are located on both sides of Gilltana Lake, which lies some 15 miles in a north-westerly direction from Hutchi lake and village. Locally the claims are known both as the Gilltana Lake claims, and as the Hutchi copper.

The ore on the north-west side of the lake occurs at the contact between granite and limestone, and is in the form of narrow lenses of mineralized matter and quartz. The widest lens seen had a breadth of about 4 feet but as a rule, the bodies are only from 1 foot to 2 feet wide and have at present no economic value.

Across the lake the claims are chiefly located over the face of a hill rising about 1,200 feet above the water. The country rock is mainly mica schists, interbanded with which are some beds of quartzite and limestone, the latter generally being narrow - 3 to 4 feet wide, but sometimes as much as 50 feet thick. The strata strike about parallel with the lake and dip into the hill, so that the different bands of schist extend along the face of the hill, one above the other, maintaining an almost horizontal outcrop. In places these bands have become mineralized with magnetite, generally carrying copper minerals, chiefly chalcopyrite and malachite, and these constitute the ores bodies. The original schists show all degrees of mineralization and replacement, from portions entirely non-metalliferous to others now consisting of almost solid iron ore.

The best of these mineralized bands or zones average from 6 to 10 feet in width, although one was seen having a breadth of 20 feet and consisting of almost solid ore. The mineralized bands generally can be traced for 50 to 100 or even 200 feet, when the iron and copper minerals gradually disappear, or at times seem to be continued along other parallel bands. Three prominent, with other less important bands, were observed at different elevations on the face of the hill.

At the surface the copper minerals appear to have been leached out, but may be found re-deposited lower down. On the Helen claim, up Franklin creek, some open-cut work has been done, and there, in places, streaks of copper ore 1 foot to 3 feet thick were seen, included in wider bands that are much richer than observed elsewhere.

Apparently the ores are connected in origin with the intrusive granites found in the vicinity. The strata have been cut by dikes of light coloured hornblende andesites and dark fine-grained basalts, but these have had no visible effects on the ore deposits. The district is well worth prospecting and a number of the claims look very promising.

The following represent the results of assays of two samples from this district. No. 1 is a sample taken across the strike of one of the best looking bands which had a width of about 6 feet. No. 2 is a sample of one of the 3 foot streaks of copper ore on the Helen claim.

Gold, ounces per ton	Trace	Trace
Silver, ounces per ton	Trace	Trace
Copper, percentage	1.35	9.00

N.B. This heading written by D,D, Cairns should probably read "Hopkins Lake Claims". Gilltana is six miles to the south and no similar showings are known to occur there. (D.T.)

APPENDIX II:

Geoterrex Ltd., Induced Polarisation Report, on "A.D." claims, Aishihik Lake, by Pier Norgaard, pp. 18-19.

In the southeast corner of the grid on claim AD-59 a low amplitude chargeability anomaly was noted on lines 12S and 15S between stations 40W and 50W. Some detailed work was carried out on line 15S across the zone using the 100 feet spaced three array. The source material which comes to within 50 feet of the surface at station 48+50W appears to be dipping towards the east. A concentration of polarizable material of 1% - 2% average by volume is indicated. An extensive geochemical anomaly located west and northwest of this zone and down slope from the I.P. anomaly could be related to the mineralization causing this anomaly. To check the I.P. anomaly source the following drill hole is suggested:

Collar at station 47W on line 15S and drill west along the line at an inclination of 45 degrees for a distance of about 200 feet.

The extensive geochemical anomaly just mentioned in relation with the previous zone appears to coincide with reconnaissance chargeability values in the order of 10.0 - 12.0 milliseconds in an area with background values of 5.0 - 6.0 milliseconds (see plate IV), but these values were obtained using a 200 feet dipole and a pole- dipole separation of 200 feet. The data obtained using the second reconnaissance spacing (a=200, n=2) shows a more uniform background of about 15.0 milliseconds with the result that there no longer is a distinct anomaly. Depth calculations carried out along the I.P. - geochem anomaly yield depths of cover of 70 feet- 120 feet and true chargeabilities of the underlying material of about 15.0 milliseconds which, in many rock types, is an normal response but which also could indicate polarizable material of a concentration of 0.5% - 1% average by volume.(or possibly a narrow band of "better" material. D.T.)

Whitehorse Copper Mines Ltd.

MINING DIVISION – WHITEHORSE
YUKON TERRITORY

PROPERTY Hop Claims - Aishihik 115-H-7 | Claim No. Hop 49 & Acme 12 | Strike 60 deg. E | Lat. 10428.3 N | Hole No. TH-1
Date June 30th, 19 77 | Section No. | Dip -65 deg. | Dep. 10033.5 E | Total Depth 707'
Logged By D. Tenney | Plan No. | Level Surface | Elev. 3860' | Page No. 1 of 9

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid Diop Garn Serp Qtz Sil Actino Tremo Chlo Crystalline Shearing Veins Fracturing Foliation Grain Size Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No	Width	Recov	%Cu	%Fe	Moly	Au/Ag	Insol
0.0	45.5	S	grey and brown quartz mica schist silicified in patches										
			weather and rusty - fair coring but moderate to strong										
			jointing; banding 60 deg. weathering ends @ 40'										
		===	11 - 15 strong jointing										
		9 aph	16.7 - 16.8 fine grained green ? diorite dykelet 3 - 6 MM										
			euhedral white feldspar phenocrysts - irregular contacts										
			at high angle (80 deg?) - healed contacts										
		2 ad	/S 16.2 - 16.7 moderately skarnified schist + green	cpy	2% Cu								
			diopside actinolite, heavy disseminated chalcopyrite-pyrrhotite	pyh	1%								
		cpy	18.4 - 18.6 silicified schist with disseminated chalcopyrite	cpy	1½%Cu								
			with pyrrhotite - minor actinolite	pyh	2%								
			Sample: 16.2 - 16.7			8171	.5	.5	3.53		.058	/.85	
			18.4 - 18.6			8172	.2	.2	2.82		.086	/.76	
		9 aph	19.3 - 19.5 grey white feldspar porphyry dyke 3 - 6 MM										
			euhedral white feldspar phenocrysts - healed contacts 65 deg.										
			contains trace specks chalcopyrite										
		cpy	29.3 - 32.5 silicified grey/cream schist	cpy	3/4%	8173	3.2	3.2	.27		.004	/.13	
			disseminated chalcopyrite minor pyrrhotite - trace	pyh	<1%								
			actinolite - traces malachite on joints										
		===	33.5 - 34.5 broken core										
		3/2 td	/S 42.5 - 44.5 pale to dark green skarnified schist +			8174	2.0	2.0	.27		.004	/.14	
			tremolite diopside actinolite? fine grained chalcopyrite	cpy	1%Cu								
			pyrrhotite pyrite	py/pyh									

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APPENDIX III
KEY WITH FIG IX (PACKET).

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Hole No. TH-1 Page No. 2 of 9

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
45.5	51.0	S	micaceous black and white schist ? graphitic										
		9a	48.3 - 48.6 v. fine grained light brown acid dyke 45 deg.										
51.0	53.2	3/2td	pale green tremolite diopside skarn minor actinolite - specks	cpy	< ¼%								
			pyrrhotite chalcopyrite good coring	pyh									
53.2	55.0	3/2g	red/brown massive garnet skarn - disseminated pyrite and	cpy	¼%								
			chalcopyrite - some actinolite good coring - sample 51 - 57'			8175	6.0	6.0	.05		.008	.08	
55.0	57.0	3/2dt	pale grey/green fibrous tremolite/actinolite skarn	py									
			disseminated pyrite specks chalcopyrite red mineral ? hematite	cpy	< ¼%								
			cuprite good coring										
57.0	60.4	9aff	grey white feldspar porphyry dyke 4 - 8 MM white euhedral										
			feldspar phenocrysts 60.2 - 60.4 chilled contact										
60.4	68.9	3/2at	grey, green, pale green actinolite diopside tremolite skarn	cpy	¼%Cu	8176	8.5	8.5	.25		.003	.13	60.4-68.9'
			disseminated pyrrhotite minor chalcopyrite good coring	pyh	1%								
			60.4 - 61.4 heavier sulphides	cpy	½%Cu								
68.9	79.5	9aff	coarse grained acid dyke with few very large (1 - 2 CM) white										
			zoned euhedral feldspar phenocrysts - quartz crystals										
			(4 MM) are rounded! contacts both fine grained										
			68.9 contact @ 15 deg										
79.5	87.1	3tda	pale green fibrous tremolite skarn + diopside actinolite										
			good coring										
87.1	89.0	3/2t	pale green tremolite skarn thin stringers pyrite, pyrrhotite	cpy	¼%Cu	8177	2.4	2.4	.83		.011	1.28	87.5-89.0'
			and few patches, with minor specks chalcopyrite, jointed core										
			minor red hematite with sulphides										
89.0	95.7	5	weakly banded grey marble minor patches and bands dark green										
			serpentine good coring - banding (= bedding?) 45 deg.										
95.7	97.0	3/2at	dark green and grey actinolite skarn + tremolite fine grained	cpy	½%								
			disseminated + minor stringers pyrite pyrrhotite										
			specks blebs chalcopyrite good coring										

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Hole No. TH-1 Page No. 3 of 9

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystolline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
97.0	119.1	S	silicified grey/brown quartz mica schist minor 1 MM pyrite stringers fair coring moderate jointing banding 50 deg.										
119.1	121.2	$3^t/5$	white tremolite marble - banding 40 deg.										
121.2	121.9	S	grey/brown schist disseminated pyrite/pyrrhotite in bands parallel to banding - one pyrite stringer										
121.9	125.8	$5/3^t$	white tremolite marble fine grained specks pyrrhotite	pyh	tr.								
125.8	131.0	S	grey green brown quartz/mica schist weakly skarnified with 1 - 3 CM bands of actinolite + fine grained pyrite good coring	py	1%								
131.0	147.9	9^a	fine grained very light dull green acid dyke - very uniform texture good coring - chilled pale green contacts @ 10 deg.										
147.9	157.6	S	grey and brown silicified schist (quartz mica) banding 50 deg. fair coring moderate jointing										
157.6	170.5	9^a	grey and white medium grained feldspar porphyry dyke 4 - 6 MM white feldspar phenocrysts good coring weak/moderate jointing 170.5 contact 20 deg. 157.6 contact 20 deg.										
170.5	190.8	$5/3^t$	white pale green limestone weak skarnification + tremolite minor (1%) brown schist layers, banding 80 deg.	py	tr.								
		$3/2^{dta}$	170.5 - 172.0 patches fine grained pyrrhotite + chalcopyrite minor actinolite serpentine, fair-good coring moderate jointing	cpy	½%								
		==	185 - 187 jointing										
190.8	191.9	9^b	fine grained dull green grey dykelet contacts @ 70 deg. and 50 deg.										
			sample 170.5 - 172.0			8178	1.5	1.5	.61			.009	/.21
191.9	196.5	$5/3^{ts}$	white limestone weak banding 30 deg. (bedding?) serpentine in blebs and veinlets (2%) good coring										
196.5	199.4	$3/2^{aq}$	green pale grey silicified and skarnified schist + actinolite white/grey quartz veinlets (11 bedding) brown garnet (1%) banding 60 deg. patches, blebs specks pyrrhotite - small blebs chalcopyrite	cpy	½%Cu								
			sample 196.5 - 199.4			8179	2.9	2.9	.24			.003	/.11

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Hole No. TH-1 Page No. 4 of 9

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
199.4	218.3	$3^{t}/$	white pale grey/brown marble weakly skarnified strong banding										
			75 deg. ? once carbonated schist ?										
		==	202.0 - 202.5 broken core										
		$3/2^{atg}$	201.7 - 203.0 green actinolite skarn minor brown garnet	cpy	1%								
			+ tremolite - specks chalcopyrite - trace pyrite pyrrhotite										
			sample 201.7 - 203.0			8180	1.3	1.3	.04			.117/.10	
218.3	219.0	3^{ga}	brown and dull dark green garnet actinolite skarn good coring,										
			not mineralized										
219.0	231.7	$S/5/3^{agdt}$	banded schist (silicified) marble, 60 deg. moderately										
			skarnified + actinolite garnet (brown) tremolite diopside										
			good coring										
231.7	232.4	9^{a}	fine grained light grey/brown aplitic intrusive contacts										
			irregular ?45 deg. traces sulphides; healed contacts										
232.4	234.2	3^{aq}	pale green grey actinolite quartz skarn good coring										
234.2	278.5	9^{a}	pale to dark grey fine/medium grained dyke with light buff/pink	pyh									
			sections contains up to 5% disseminated pyrrhotite; fair to good	cpy	tr.								
			coring; dyke is at very low angle to core and shows considerable										
			alteration in places - also some small sections of wall rock are										
			present										
		3^{ag}	245.0 - 245.5 wedge of brown and green garnet actinolite skarn	cpy	tr.								
			in core - 2 specks chalcopyrite										
		$S/3^{a}$	248.3 - 248.9 altered silicified brown schist banding 70 deg. -	cpy	tr.								
			weakly skarnified + actinolite with pyrrhotite specks chalcopyrite										
			248.3 bleached dyke contact @ 40 deg.										
			248.9 dark grey chilled contact @ 25 deg.										
			251.0 1 MM fracture + pyrrhotite specks chalcopyrite										
			251 - 257 mixed altered and skarnified section of dyke and host	cpy	1%								

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Hole No. TH-1 Page No. 5 of 9

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
		9/3/2[aq]	rock + pyrrhotite + fine grained chalcopyrite										
			266 - 271 fine grained pyrrhotite (3%) + chalcopyrite in altered dyke	cpy	½%								
278.5	288.5	3[ta]/5	banded white grey green skarnified limestone and marble - banding 75 deg. good coring										
288.5	300.0	5/3[a]	brown and green skarnified and silicified schist + brown garnet (2%) actinolite (10%) specks pyrrhotite fair coring	pyh									
300.0	307.5	5/3[td]	mainly grey banded (60 deg.) limestone small sections tremolite (?diopside) skarn specks blebs minor patches pyrrhotite associated specks chalcopyrite good coring	pyh cpy	 tr.								
307.5	314.2	5/3[a]	grey brown green silicified and partly skarnified schist banding 70 deg.										
		==	310 - 311 jointing										
		S/2[a]/3	308.0 - 308.5 weakly skarnified schist heavy blebslpyrrhotite minor blebs chalcopyrite	cpy	3/4%	8181	.7	.7	.30			.020/.14	307.8-308.5
		S/2[a]/3	311.5 - 311.7 - " -	cpy	3/4%	8182	.6	.6	1.20			.022/.34	311.2-311.6
			314.2 - 314.9 irregular contact with feldspar porphyry dyke 5 deg	???									
314.2	332.0	9[a]	white grey feldspar porphyry dyke - mafic minerals altering to actinolite (and/or chlorite) good coring										
332.0	335.2	9[ab]	dull grey fine/medium grained intermediate dyke - specks pyrrhotite (disseminated and on joints) 3% associated specks chalcopyrite good coring	pyh cpy	 tr.Cu								
			332.0, 335.2 contacts somewhat irregular 10 deg.										

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Hole No TH-1 Page No 6 of 9

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystallins, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
335.2	342.2	S	grey/brown mica garnet quartz schist - garnets 1 CM porphyroblastic moderate jointing banding 50 deg.										
342.2	346.6	$3^t/5$	white tremolite marble - banding (silicified) 45 deg. good coring										
346.6	374.0	S/5/3^{ta}	silicified and weakly skarnified grey brown green schist with white/green bands tremolite marble (silicified and banded - 60 deg.) fair coring moderate jointing										
374.0	392.0	$3/2^{aqg}$	green and brown actinolite garnet skarn with long sections fine grained grey quartz; some banding not strong 60 deg. specks blebs patches bands pyrrhotite in actinolite/garnet rich sections + associated specks blebs chalcopyrite, good coring	cpy pyh	½%								
			samples 380 - 385			8183	5.0	5.0	.57			.016/.24	
			385 - 391			8184	6.0	6.0	.08			.003/.11	
392.0	398.2	S	strongly silicified grey schist banding 50 deg. - weakly skarnified in places										
			396 - 397 buff coloured alteration - green copper silicate	chrysocolla	tr.Cu								
398.2	417.2	3^t	mainly white/grey/pale green tremolite marble banding 65 deg. silicified in bands and sections										
		9^a	406 - 407 buff coloured fine grained acid dykelet - tapers out both ways in core										
		==	413.5 broken core										
417.2	418.5	$3/2^{aq}$	green and grey carbonated actinolite skarn blobs pyrrhotite associated specks chalcopyrite; weak banding 70 deg. good coring										
		==	417.5 joint mud gouge (minor) 2 CM										

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Hole No. TH-1 Page No. 7 of 9

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actinc, Trems, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
418.5	420.5	S	grey schist + mica quartz traces pyrrhotite chalcopyrite	cpy	tr.	8185	1.6	1.6	.07			/.10	417.3-418.9
420.5	422.0	≈	green and buff coloured talc rich shear zone fair to good coring										
			(carbonated) - no gouge 30 deg.										
			421.6 - 422 broken core										
422.0	443.5	S/5	grey and green quartz mica garnet (porphyroblastic) schist and										
			white pale green tremolite marble - silicified in places good										
			coring										
443.5	447.0	xx	hard quartzite breccia with pyrite (1%) and pyrrhotite (2%)										
			disseminations - matrix siliceous good coring										
447.0	481.0	S	brown and grey schist - silicified in places - weakly skarnified										
			+ actinolite fair coring										
		$3^1/5$	462 - 467 talc rich skarnified schist										
481.0	501.5	9^a	grey feldspar porphyry dyke - buff coloured alteration in places	py pyh									
			traces sulphides pyrite/pyrrhotites good coring contact 30 deg.	?cpy									
		==	487 - 491 jointing - minute trace chalcopyrite										
501.5	505.8	S	grey brown quartz mica schist good coring - banding traces	cpy	tr.								
			pyrrhotite + associated chalcopyrite	pyh									
505.8	516.4	3^a	green actinolite skarn - weakly banded in places minor brown	cpy	tr.								
			garnet (15%) minor specks chalcopyrite										
516.4	525.8	5	white limestone good coring - unbanded										
		9^b	509 - 510 fine/medium grained dull dark grey ?basic dyke 10 deg.										
525.8	532.5	$5/3^a/2$	white limestone (40%) with sections of green actinolite skarn	pyh cpy	½%								
			+ very heavy patches pyrrhotite + associated chalcopyrite										
			good coring - no banding										
			sample 525.8 - 532.5			8186	6.7	6.7	.32			.003/.17	
532.5	546.4	5	white very weakly zoned limestone - trace pyrrhotite										
			minor serpentine										

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YUKON TERRITORY

Hole No. TH-1 Page No. 8 of 9

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
546.4	546.5	3/2^{t}	grey tremolite skarn heavily carbonated fine grained massive pyrrhotite (30%) + associated chalcopyrite	cpy	½%								
546.5	547.3	9^{b}	fine grained dull dark green basic(?) dyke contacts chilled 20 deg.										
547.3	548.2	3/2st	green grey serpentine tremolite skarn specks blebs bands fine grained pyrrhotite (25%) + associated chalcopyrite good coring										
548.2	551.5	5/3^{t}	white limestone - minor tremolite - weak banding 70 deg.										
			sample 547.8 - 548.5			8187	1.2	1.2	.27		.005	.13	
551.5	552.2	3/2^{at}	green to dark green actinolite skarn minor tremolite and carbonate 5% pyrite specks chalcopyrite	cpy	¼%								
552.2	583.0	S	brown grey quartz mica schist - porphyroblastic quartz? eyes minor disseminated pyrrhotite-pyrite banding at high angle with much contorted bedding ? slump structures some micro fault fold structures good coring										
			581 - 582 white quartz veining with pyrite										
583.0	585.0	9	dark brown fine/medium grained dyke - cuts banding good coring										
			583.0 contact @ 10 deg.										
			585.0 contact @ 80 deg.										
585.0	652.0	S	brown and grey quartz mica schist silicified in places and weakly skarnified towards end - minor porphyroblastic 1 CM red garnet xtals banding more regular @ 70 deg. few small scale fold-fault structures fair/good coring moderate jointing										
652.0	658.5	3^{tqa}/S	white green pale green tremolite and actinolite skarn heavily silicified fair coring										
658.5	667.0	3/2^{a}/S	schist heavily skarnified in patches + actinolite - silicified banding 70 deg. - rusted zones 658 - 662	cpy	tr.								
			specks chalcopyrite 659.5 - 660.5	cpy	3/4%Cu								

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YUKON TERRITORY

Hole No. TH-1 Page No. 9 of 9

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Spid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
667.0	679.0	3/2aq	dark green and brown actinolite garnet skarn fine grained specks	cpy	1%								
			blebs patches pyrrhotite (5%) associated specks chalcopyrite good	pyh/py									
			coring minor pyrite										
			samples 659.5 - 660.5			8188	1.0	1.0	.21		.003/.18		
			667 - 672			8189	5.0	5.0	.05		.003/.09		
			672 - 677.2			8190	5.2	5.2	.09		.003/.11		
679.0	702.5	S/3aq	banded schist grey/green brown (70 deg.) with actinolite quartz										
			tremolite good coring										
			683 - 684 actinolite pyrrhotite (5%) associated specks	cpy	1%								
			chalcopyrite										
702.5	707.0	S	grey brown quartz mica schist minor 1CM red garnet porphyroblastic										
			banding 70 deg. good coring weak silicification and skarnification										
			Hole ends @ 707 feet										
			B.Q. core - split for assay										
			Caron Diamond Drilling										
			Bedrock setup - could be redeepened?										

090027

Whitehorse Copper Mines Ltd.

MINING DIVISION - WHITEHORSE
YUKON TERRITORY

PROPERTY Hop Claims Aishihik 115H7	Claim No.	Strike 60 deg.(-E)	Lat. 10408.7 N	Hole No. TH-2
Date July 7th, 19 77	Section No.	Dip -60 deg.	Dep. 10149.3 E	Total Depth 253'
Logged By D. Tenney	Plan No.	Level Surface	Elev. 3850.4'	Page No. 1 of 5

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid Diop Garn Serp Qtz Sil Actino Tremo Chlo Crystalline Shearing Veins Fracturing Foliation Grain Size Texture
0.0	72.0	S	brown (grey green) mica quartz schist banding 45 deg.
			silicified in places - minor dark green bands of actinolite
			skarnification - fair to good coring moderate to strong
			jointing - minor rust on joints but core not strongly
			weathered
		--	0 - 14 jointing
		--	24 - 25 jointing
		--	50 - 51 weak jointing
			57 - 72 more siliceous banding 55 deg.

MINERALIZATION TYPE	%	ASSAY DATA Sample No	Width	Recov	%Cu	%Fe	Moly	Au/Ag	Insol

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WHITEHORSE COPPER MINES LTD.
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YUKON TERRITORY

Hole No TH-2 Page No 2 of 5

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
72.0	78.0	S	Schist - banded (45-60 deg.) grey brown quartz mica schist fair coring moderate jointing										
		--	76 - 77 jointing										
			73.5 - 74.0 quartz rich zone + disseminated chalcopyrite 50-60 deg.	cpy	1½%								
			77.2 - 78.0 quartz rich zone + fine grained pyrite/pyrrhotite	cpy	3/4%								
		--	78.0 broken core (small fault)										
78.0	78.5	S	black contorted ?graphitic schist										
78.5	90.4	2^{ad}	green to dark green partly banded actinolite diopside skarn minor white/grey tremolite - banding 45 deg. + - irregular specks blebs patches chalcopyrite + pyrrhotite	cpy pyh mag	1½%								
			82.3 - 82.5 grey schist with black 1 CM porphyroblasts ?cordierite - but soft										
			88 - 90.4 minor magnetite	magnetite	5%								
90.4	93.2	3^{ts}	white pale green tremolite serpentine marble - hard good coring 93.2 contact @ 45 deg.										
93.2	94.9	3^{ts}	white, pale green grey, tremolite skarn minor dark green serpentine - 94.9 contact @ 60 deg.										
94.9	104.2	2^{adM}	green to dark green actinolite diopside skarn with patches magnetite - heavy chalcopyrite and pyrrhotite good coring	cpy	4%								
104.2	105.8	3^{t}	white pale green weakly banded tremolite skarn good coring minor serpentine										
105.8	111.8	2^{dMa}	green actinolite diopside skarn heavy disseminated magnetite chalcopyrite pyrrhotite	cpy	1½%								

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Hole No TH-2 Page No 3 of 5

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
111.8	114.4	2^a	dark green fine grained actinolite skarn +? diopside magnetite from 111 - 111.8 - disseminated chalcopyrite - also fracture infillings	cpy	1%								
114.4	115.6	3^t	white tremolite skarn - fractured minor patches chalcopyrite nearer end trace pyrrhotite good coring	cpy	½%								
115.6	119.	3^{ats^M}	dull green to black actinolite tremolite serpentine magnetite (3%) skarn; patches and disseminated chalcopyrite pyrrhotite	cpy	3/4%								
		~	116.6 3" broken core + ½" mud shear 30 deg.										
119.1	126.8	$3/1^s$	dark green and black serpentine magnetite skarn (magnetite 25%) banding local @ 45 deg. - fine grained chalcopyrite	cpy	½%								
126.8	128.0	3^{td}	white pale green tremolite skarn - minor serpentine trace chalcopyrite	cpy	tr.								
128.0	132.4	2^a	green actinolite skarn irregular specks blebs chalcopyrite + pyrrhotite - some pyrite as stringer	cpy	2%								
132.4	138.2	S	pale green skarnified schist - strongly banded 60 deg. + actinolite tremolite disseminated fine grained chalcopyrite	cpy	1%								
			135.2 - 137.3 heavy chalcopyrite - minor pyrrhotite	cpy									

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Hole No. TH-2 Page No. 4 of 5

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
142.0	149.1	S	grey brown quartz mica schist banding 55 deg. good coring										
149.1	151.8	3/2^{fa}	white grey green tremolite actinolite skarn minor serpentine - strongly silicified in places - one patch white limestone - disseminated fine grained pyrrhotite and associated chalcopyrite good coring	cpy	¼%								
			sample 149.1 - 151.8			8191	2.7	2.7	.18		.002	/.12	
151.8	156.7	5	white/grey limestone banding 45 deg. blebs stringers dark green serpentine (2%) 155.7 - 156.7 patches green skarn minor pyrrhotite specks chalcopyrite good coring										
156.7	197.5	S	grey/brown quartz mica schist - silicified and skarnified in bands - banding 60 deg. - minor ½-1 CM porphyryblastic red garnets										
		3/2^{gd}	159.2 - 159.7 green and brown garnet diopside skarn specks chalcopyrite pyrrhotite	cpy	<¼%								
			167.7 - 168.6 pale green actinolite skarn minor brown garnet +? diopside										
			182 - 182.5 strongly silicified 5% pyrrhotite										
		==	186.5 - 187.5 broken core										
197.5	221.0	5	white limestone few grey/green bands (60 deg.) with serpentine good coring										
221.0	226.0	3/2^{atd}	pale to dark green tremolite diopside actinolite skarn fine grained pyrrhotite and associated chalcopyrite in patches	cpy pyh	¼								
			224 - 225.5			8192	1.5	1.5	.46		.004	/.22	
226.0	253.0	3^{t}/5	white grey partly silicified tremolite marble banding 60 deg. good coring										
		3/2adg	230.7 - 232.0 brown and green garnet actinolite diopside skarn specks chalcopyrite good coring specks blebs bands pyrrhotite (5%)	cpy	¼%								

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Hole No. TH-2 Page No. 5 of 5

FOOTAGE From	FOOTAGE To	ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	%W (Not WO_3)
		Hole ends @ 253 feet										
		B.Q. core split for assay										
		Caron Diamond Drilling										
		Samples: 72.2 - 77.2			8027	5.0	5.0	.18			.002/.06	.038
		77.2 - 82.2			8028	5.0	5.0	1.75			.043/.88	.130
		82.2 - 87.2			8029	5.0	5.0	2.30			.016/.52	.016
		87.2 - 90.4			8030	3.2	3.2	3.46			.040/.80	.038
		90.4 - 94.9			8031	4.5	4.5	.09			<.002/.09	<.010
		94.9 - 99.9			8032	5.0	5.0	5.66			.052/1.02	<.010
		99.9 - 104.2			8033	4.3	4.3	5.37			.054/1.05	0.032
		104.2 - 105.8			8034	1.6	1.6	.02			.002/.08	<.010
		105.8 - 111.8			8035	6.0	6.0	1.27			.009/.31	<.010
		111.8 - 114.4			8036	2.6	2.6	.87			.009/.34	<.010
		114.4 - 119.1			8037	4.7	4.7	1.42			.007/.30	<.010
		119.1 - 123.1			8038	4.0	4.0	.24			.041/.10	<.010
		123.1 - 126.8			8039	3.7	3.7	.14			.030/.08	<.010
		126.8 - 128.0			8040	1.2	1.2	.25			.002/.17	<.010
		128.0 - 132.4			8041	4.4	4.4	1.72			.013/.14	.010
		132.4 - 135.2			8042	2.8	2.8	.66			.015/.21	.010
		135.2 - 138.2			8043	3.0	3.0	2.44			.044/.66	.025

092027

Whitehorse Copper Mines Ltd.

MINING DIVISION – WHITEHORSE
YUKON TERRITORY

PROPERTY Hop Claims - Aishihik - 115H7	Claim No. Acme 12	Strike 240 deg W.	Lat. 10480.8 N	Hole No. TH-3
Date June 15th, 19 77	Section No.	Dip	Dep. 10584.4 E	Total Depth 205½'
Logged By D. Tenney	Plan No.	Level Surface	Elev. 3849.9'	Page No. 1 of 1

FOOTAGE			ROCK CLASSIFICATION Epid Diop Garn Serp Qtz Sil Actino Tremo Chlo Crystalline Shearing Veins Fracturing Foliation Grain Size Texture	MINERALIZATION		ASSAY DATA							
From	To			TYPE	%	Sample No	Width	Recov	%Cu	%Fe	Moly	Au/Ag	Insol
0.0	32.0	ob	sand gravel boulders from 30 feet										
32.0	205.5	9^ah^	light grey feldspar porphyry dyke 2 - 5 MM white subrounded										
			feldspar phenocrysts fair to good coring moderate jointing										
		==	47 - 55 well jointed										
		--	62 - 63 well jointed										
			68 - 69 , 89 - 90 alteration (bleaching) zones with										
			1 - 2% pyrite										
			108.5 1/8" pyrite stringer 40 deg.										
			107.0 traces fine grained pyrrhotite - speck chaloopyrite										
			146.5 - 157.0 finer grained dark grey section										
			142 - 146.5 bleached + fine grained pyrrhotite										
			146.5 contact @ 45 deg.										
			Hole ends @ 205.5'										
			B.Q. core										
			Caron Diamond Drilling										

020027

Whitehorse Copper Mines Ltd.

MINING DIVISION – WHITEHORSE
YUKON TERRITORY

CORE LAMPED - LITTLE OR NO FLUORESCENCE

PROPERTY	Hop Claims - Aishihik 115H7	Claim No.	Acme 1 + Hop 49	Strike	60 deg.E	Lat.	10748.4 N	Hole No.	TH-4
Date	June 8th, 19 77	Section No.		Dip	-70 deg. E	Dep.	10281.9 E	Total Depth	253'
Logged By	D. Tenney	Plan No.		Level	Surface	Elev.	3950.0'	Page No.	1 of 4

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid Diop Garn Serp Qtz Sil Actino Tremo Chlo Crystalline Shearing Veins Fracturing Foliation Grain Size Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No	Width	Recov	%Cu	%Fe	Moly	Au/Ag	Insol
0.0	11.5	9^{a}	pale grey green feldspar porphyry dyke 3 - 5 MM white										
			eu/subhedral feldspar phenocrysts good coring except										
		≈	10 - 12 weathered well jointed to broken small fault										
11.5	119.5		Schist - brown grey quartz mica schist - some lighter	pyh	tr.								
			silicified sections; also some narrow green sections are										
			skarnified + actinolite diopside? moderate (to strong)										
			jointing mainly good coring banding 45 deg. weak rusting										
		--	12.5 - 14 , 19 - 21, 38 - 40.5, 57 - 58, 70 - 73, 110 - 112										
			jointed and broken core										
		9^{ab}	19.8 - 20.5 fine grained dark green feldspar porphyry dyke	let 10°									
			50.5 "S" fold in schistosity										
		$3/2^{ad}$	26.5 - 26.8 green skarn + actinolite diopside minor	cpy	1%								
			pyrrhotite - traces fine grained chalcopyrite + pyrite										
			99 - 102 strongly silicified										
119.5	176.7	9^{a}	medium grained feldspar porphyry dyke white/dull grey 5%										
			mafics good coring										
			119.5 - 127 and 157 - 176.7 finer grained porphyritic										
			chilled margins - contacts graditional dark grey/green										
			176.6 4 CM bleached v. fine grained contact 60 deg.										

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WHITEHORSE COPPER MINES LTD.
P.O. BOX 4280
YUKON TERRITORY

Hole No TH-4 Page No 2 of 4

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
176.7	177.2	$\overline{xv}$	Schist - micaceous ?graphitic black and rusty - very broken										
177.2	178.4	9^{a}	dull grey medium/coarse grained feldspar porphyry dyke fair coring										
178.4	180.1		Schist/skarn strongly silicified schist (banding 60 deg.)										
			becoming skarnified 1 - 2 CM rounded black blebs ?cordierite										
		--	178.8 - 179.0 broken										
180.1	182.0		skarnified schist - becoming completely skarnified + actinolite	cpy	½%								
			tremolite ?diopside - fine grained chalcopyrite good coring										
182.0	184.9	1^{as}	black green magnetite (60%) serpentine talc actinolite skarn good										
			coring - specks blebs patches chalcopyrite pyrrhotite										
		--	182.5 - 182.7 broken (mainly silicified schist)										
184.9	190.6	2^{a}	dark green actinolite skarn (felted masses) very heavy specks	cpy	5%								
			irregular blebs chalcopyrite minor (3%) pyrrhotite good coring										
190.6	194.0	2^{at}	dark green, green pale grey actinolite tremolite skarn - specks	cpy/pyh	1½%								
			blebs chalcopyrite + pyrrhotite (3%) good coring										
194.0	211.1	$3/2^{at}$	grey green dark green fine grained actinolite skarn minor	cpy	3/4%								
			tremolite, serpentine magnetite (trace), heavy pyrrhotite in										
			places (1%) good coring										
		1^{sl}	210.5 - 210.9 magnetite serpentine talc skarn + chalcopyrite	cpy	1½%								

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YUKON TERRITORY

Hole No TH-4 Page No 3 of 4

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
211.1	214.3		skarnified schist - remnant banding @ 70 deg. in green/white skarnified schist + actinolite ?diopside specks blebs chalcopyrite + pyrrhotite 2% good coring	cpy	1½%								
214.3	217.0		skarnified schist - weakly skarnified white pale green schist banding 70 deg. + actinolite specks chalcopyrite + pyrrhotite good coring	cpy	½%								
217.0	223.6		Schist - brown quartz mica schist fair/good coring moderate jointing (70 deg.)										
223.6	239.3	9[a]	white/grey feldspar porphyry dyke - several 2 CM white subrounded feldspar phenocrysts good coring 223.6 - 225; 238.3 - 239.3; darker green finer grained chilled margins (porphyritic) 239.3 regular chilled contact 70 deg. 223.6 irregular chilled contact high angle cuts schistosity										
239.3	253.0		Schist - banded (70 - 80 deg.) grey/brown quartz mica schist good coring moderate jointing										
			Hole ends @ 253' B.Q. core split for assay										
			Caron Diamond Drilling										

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P.O. BOX 4230
YUKON TERRITORY

Hole No. TH-4 Page No. 4 of 4

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
			Samples: 180.1 - 182.0			8113	1.9	1.8	.53			.004/.17	
			182.0 - 184.9			8114	2.9	2.5	.59			.005/.18	
			184.9 - 190.6			8115	5.7	5.5	3.56			.052/.43	
			190.6 - 194.0			8116	3.4	3.4	1.03			.011/.28	
			194.0 - 199.0			8117	5.0	5.0	.49			.005/.11	
			199.0 - 204.0			8118	5.0	5.0	.54			.012/.17	
			204.0 - 209.0			8119	5.0	5.0	1.14			.023/.29	
			209.0 - 214.3			8120	5.3	5.3	1.02			.017/.27	
			214.3 - 217.0			8121	2.7	2.7	.07			.0017/.06	

220260

Whitehorse Copper Mines Ltd.

MINING DIVISION - WHITEHORSE
YUKON TERRITORY

PROPERTY Hop Claims Aishihik Lake 115H7
Date June 15th, 19 77
Logged By D. Tenney

Claim No. Acme 12 & Hop 14 Fr.
Section No.
Plan No.

Strike 60 deg. E
Dip -80 deg.
Level Surface

Lat. 10020.0 N
Dep. 10076.1 E
Elev. 3871.1'

Hole No. TH-5
Total Depth 152'
Page No. 1 of 1

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid Diop Garn Serp Qtz Sil Actino Tremo Chlo Crystalline Shearing Veins Fracturing Foliation Grain Size Texture
0.0	15.0	ob	overburden no recovery
15.0	152.0	ob	small and long pieces core interspersed with sections
			gravelly mud-rock types are mixed schist; porphyry dyke;
			white + black granite limestone (1 piece @ 146')
			This is probably all overburden with pebbles and boulders
			Hole stopped @ 152'

MINERALIZATION		ASSAY DATA							
TYPE	%	Sample No	Width	Recov	%Cu	%Fe	Moly	Au/Ag	Insol

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Whitehorse Copper Mines Ltd.

MINING DIVISION - WHITEHORSE
YUKON TERRITORY

PROPERTY Hop Claims Aishihik 115H7	Claim No.	Strike 240 deg. W	Lat. 10746.4 N
Date June 10th, 19 77	Section No.	Dip -80 deg.	Dep. 10802.8 E
Logged By D. Tenney	Plan No.	Level Surface	Elev. 3920.2'

Hole No. TH-6
Total Depth 320'
Page No. 1 of 7

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid Diop Garn Serp Qtz Sil Actino Tremo Chlo Crystalline Shearing Veins Fracturing Foliation Grain Size Texture	MINERALIZATION TYPE	%	ASSAY DATA Sample No	Width	Recov	%Cu	%Fe	Moly	Au/Ag	Insol
0.0	7.0	ob	overburden										
7.0	172.0		Schist - brown grey quartz mica schist minor green sections										
			with actinolite? probably regional skarnification banding										
			60 - 80 deg. some at irregular angles - coring mainly good										
			moderate jointing - few silicified zones										
		--	0 - 27 weathered and rusty - strong jointing										
			11.5 - 12.5 white quartz alteration										
		S/3[a]	28.0 - 38.7 weakly to strongly skarnified schists +	cpy	tr.								
			actinolite minor fine grained pyrrhotite - speck chalco-										
			pyrite - current? bedding @ 28'										
		9[b]	38.7 - 41.1 fine/medium grained dark green grey basic										
			dyke - large 2 - 4 MM grey feldspar xtals (subangular)										
			good coring - contacts chilled 70 - 80 deg.										
		S/3[aq]	43 - 46 pale grey and green skarnification + quartz	cpy	tr.								
			actinolite - fine grained pyrite/pyrrhotite (1%) specks										
			chalcopyrite banding mainly destroyed										
			73.5 - 73.7 green actinolite-rich section 4% fine grained										
			pyrrhotite										
			81 - 88 silicified and weakly skarnified + actinolite	cpy									
			82 - 82.6 3% fine grained pyrrhotite + chalcopyrite	cpy	½%								
			95 - 95.5 similar to above - traces chalcopyrite	cpy	tr.								
			114 - 117 heavy silicification										

22020
22021

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YUKON TERRITORY

Hole No. TH-6 Page No. 2 of 7

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Cryztalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
			132 - 133 weak pale green skarn formation + actinolite	cpy	tr.								
			tremolite 4% fine grained pyrrhotite traces chalcopyrite										
			135 - 136 as above										
			159 - 162 pale grey silicified weakly skarnified section + quartz										
			?tremolite - metaquartzite?										
			160.9 2 MM heavy disseminated fine grained chalcopyrite minor	cpy									
			pyrrhotite										
			120 - 172 good coring										

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YUKON TERRITORY

NO FLUORESCENCE

Hole No TH-6 Page No 3 of 7

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
172.2	188.2	S	Schist - grey brown banded quartz mica schist banding 90°	cpy	tr.								
			good coring moderate jointing in minor sections - specks chalco-										
			pyrite										
			183 - 188.2 mainly strongly silicified specks chalcopyrite	cpy	tr.								
188.2	189.4	1/2^{ts}	pale grey and black tremolite (large blades xtals) + serpen-	cpy	2½%								
			tine magnetite (5%) skarn - very heavy fine grained pyrrhotite										
			(25%) specks blebs 1 MM stringer(s) chalcopyrite										
189.4	190.8	3/2^{t}	pale grey tremolite (90%) skarn felted xtal masses blebs	cpy	1¼ - 2%								
			2 - 4 MM magnetite (2%) specks chalcopyrite trace pyrrhotite -										
			N.B. - chalcopyrite is with pale green skarn mineral ? diopside										
			not in the tremolite good coring										
190.8	203.4	1^{sl}	dark green to black magnetite (60%) serpentine/talc skarn minor	cpy	1¼ - 2%								
			pyrrhotite - minor patches light grey tremolite good coring										
203.4	217.0	3/2/1^{tds}	mixed magnetite and silicate skarn (tremolite quartz acti-	cpy	¾%								
			nolite) magnetite (30%) is in patches and coarse grained blebs -										
			specks + minor blebs chalcopyrite										
			core ground @ 208.9; 210.1; 212.0 good coring!										
			212 - 217 broken core 3.5' lost - Fault	ASSAY SEPARATELY!									
			broken core is mainly pale green actinolite skarn with blebs										
			chalcopyrite; last 2" is high grade + pyrrhotite 217 - grinding										
217.0	219.1	9^{a}	pale grey feldspar porphyry dyke (lwr contact) 40° good coring										
219.1	230.2	3/2da	pale green unbanded actinolite diopside skarn		½%								
			very minor patches magnetite serpentine specks and blebs	cpy	½%								
			chalcopyrite - good coring										
		9^{b}	196.7 - 197.0 fine grained chilled dark green grey basic dyke	cpy	½%								
			fine grained chalcopyrite - upper contact @ 45°										
		9^{a}	238.5 - 238.8 fine grained pale grey feldspar sill contacts										
			@ 80°										

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RO, [illegible] M.E.O
YUKON TERRITORY

Hole No TH-6 Page No 4 of 7

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
230.2	244.5		skarnified schist - weakly to strongly skarnified green schist	cpy	½%								
			banded throughout @ 80 deg.+ actinolite - disseminated										
			chalcopyrite good coring										
			235.5 - 245.0 fine grained chalcopyrite	cpy	1%								
244.5	247.3	3/2	ats pale green actniolite tremolite skarn fine grained	cpy									
			chalcopyrite and pyrrhotite - minor sections dark green										
			serpentine good coring										
			samples 183.2 - 188.2			8101	5.0	5.0	.08				
			188.2 - 193			8102	4.8	4.8	2.50				
			193 - 198			8103	5.0	5.0	.88				
			198 - 203.4			8104	5.4	5.4	1.82				
			203.4 - 208			8105	4.6	4.6	.78				
			208 - 212			8106	4.0	4.0	.08				
			212 - 217			8107	5.0	1.5*	.90				
			219.1 - 225			8108	5.9	5.9	.32				
			225 - 230			8109	5.0	5.0	1.44				
			230 - 235			8110	5.0	5.0	.22				

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P.O. BOX 4280
YUKON TERRITORY

Hole No TH-6 Page No 5 of 7

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
			235 - 240			8111	5.0	5.0	.62				
			240 - 245			8112	5.0	5.0	.88				

42090

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YUKON TERRITORY

Hole No. TH-6 Page No. 6 of 7

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
247.3	248.0	3^{sM}	green to dark green serpentinous skarn										
248.0	255.6	9^{afv}	pale grey/green feldspar porphyry dyke 3 - 6 MM euhedral/subhedral feldspar phenocrysts fair coring										
255.6	261.1	3^{tad}	pale green fgr tremolite actinolite skarn minor pyrrhotite fair coring										
261.1	262.8	$3/2/1^{ds}$	pale green diopside actinolite skarn + section of black serpentine magnetite pyrrhotite - strong chalcopyrite (262.1 - 262.7)	cpy	½%								
262.8	265.1	3^{adt}	pale green actinolite tremolite diopside skarn - 1% vugs										
265.1	269.0	$3/2^{adt}$	pale green to dark green and grey actinolite tremolite diopside skarn fine grained pyrrhotite (1%) and chalcopyrite (especially 267.5 - 269.0)	cpy	3/4%								
269.0	279.5	3^{atd}	pale grey green actinolite tremolite diopside? skarn weak remnant banding in places @ 70 deg. - specks pyrrhotite and chalcopyrite good coring trace brown garnet	cpy	tr.								
279.5	282.7	2^{a}	dark green actinolite skarn specks + blebs disseminated chalcopyrite + pyrite/pyrrhotite (4%) good coring	cpy	1%								
282.7	295.0	3^{agq}	moderately banded green/brown and grey skarn + actinolite brown garnet and grey zones + quartz weak disseminated chalcopyrite + pyrrhotite (2%) in actinolite layers	cpy	¼%								

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P.O. BOX 5339
YUKON TERRITORY

Hole No TH-6 Page No 7 of 7

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
295.0	301.3	3 aggq	as above- minor pyrrhotite only - good coring										
301.3	315.5	3/2 dg	rich dark green actinolite skarn blebs garnet (2%) brown minor ?serpentine fine grained and blebs pyrrhotite chalcopyrite (heaviest 314 - 315.5) fair/good coring	cpy	½%								
315.5	320.0	3 q	silicified schist specks pyrrhotite and chalcopyrite good coring	cpy	tr.								
			samples 255.5 - 260			8134	4.5	4.5	NIL				
			260 - 265			8135	5.0	5.0	.22				
			265 - 270			8136	5.0	5.0	.26				
			270 - 275			8137	5.0	5.0	.02				
			275 - 280			8138	5.0	5.0	.06				
			280 - 285			8139	5.0	5.0	.44				
			285 - 290			8140	5.0	5.0	.04				
			290 - 295			8141	5.0	5.0	.02				
			295 - 300			8142	5.0	5.0	.02				
			300 - 305			8143	5.0	5.0	.01				
			305 - 310			8144	5.0	5.0	.04				
			310 - 315			8145	5.0	5.0	.34				
			315 - 320			8146	5.0	5.0	.06				

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Whitehorse Copper Mines Ltd.

MINING DIVISION - WHITEHORSE
YUKON TERRITORY

TRACES FLUORESCENCE WITH U/V LAMP

PROPERTY	Hop Claims - Aishihik Lake 115H7	Claim No.	Acme 13	Strike	240 deg. W	Lat.	10750.8 N	Hole No.	TH-7
Date	June 9th, 19 77	Section No.		Dip	-80 deg. W.	Dep.	11205.4 E	Total Depth	351'
Logged By	D. Tenney	Plan No.		Level	Surface	Elev.	3939.6'	Page No.	1 of 4

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid Diop Garn Serp Qtz Sil Actino Tremo Chlo Crystalline Shearing Veins Fracturing Foliation Grain Size Texture	MINERALIZATION TYPE	%	Sample No	Width	Recov	ASSAY DATA %Cu	%Fe	Moly	Au/Ag	Insol
0.0	39.0	ob	sand and gravel										
39.0	54.0	ob	boulders, dyke, mafic diorite, granodiorite										
54.0	120.3	9^a	medium grained light grey/white feldspar porphyry ?dyke										
			2 MM - 1.5 CM white subhedral feldspar phenocrysts moderate										
			strong jointing fair to poor coring, most of core is										
			ironstained (weakly weathered) some rounded quartz "grains"										
			traces v. fine sulphides	py/pyh?									
		≈	54 - 71 v. broken core										
		= =	71 - 85 jointed core										
			115 - 121 jointed core										
120.3	177.7		Schist - brown, pale green + grey mica quartz schist with										
			banding 70 - 80 deg. fair to good coring mainly moderate										
			jointing										
		≈	121 - 123 broken core with fault gouge 45 deg.?										
		--	124 - 130 jointing										
		--	144 - 146 jointing										
		9^b	165.4 - 165.9 fine grained dull dark green chilled dykelet										
			good coring										
			166.5 - 167 weakly skarnified speck chalcopyrite + actinolite										

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BC [illegible]
YUKON TERRITORY

Hole No TH-7 Page No 2 of 4

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
177.7	184.5	9b	dull dark grey medium to fine grained basic dyke good coring - fine grained pyrite	py	2%								
184.5	187.2	9ab	medium fine grained buff coloured feldspathic dyke minor ? fine grained pyrite	py	1%								
			187.2 chilled contact @ 40 deg.										
			177.7 irregular chilled dark grey/black contact 70 deg.										
187.2	266.0		Schist brown green grey schist as above - some weakly silicified and skarnified sections banding 80 deg. fair/good coring moderate jointing	pyh	tr.								
			189.3 - 190.0 weakly skarnified feldspar rich section + actinolite fine grained chalcopyrite minor pyrrhotite	cpy	3/4%								
			208 - 210.3 brown alteration zone pyrrhotite minor pyrite										
			213.0 - 213.9 weakly skarnified + actinolite pyh. cpy (fine gr.)	cpy	¼%								
			214.5 - 215.0 - " -	cpy	tr.								
		3/2ads	223.6 - 224.4 dull pale green actinolite diopside serpentine skarn 4% pyrrhotite minor fine grained chalcopyrite good coring	cpy	½%								
			236 - 237 as above, 1% pyrrhotite trace chalcopyrite	cpy	tr.								
			261 - 266 heavy (near 100%) mica, banded + contorted										
		--	263 - 264 broken										
266.0	270.0		breccia dull grey light brown siliceous breccia - cemented; good coring; minor fine grained pyrrhotite	pyh	1%								
270.0	271.8		silicified and weakly skarnified schist										
271.8	276.4	3ads	pale green actinolite diopside serpentine skarn buff coloured carbonate patches minor py/pyh - trace cpy	cpy	tr.								

092027

WHITEHORSE COPPER MINES LTD.
P.O. BOX 4220
YUKON TERRITORY

Hole No. TH-7 Page No. 3 of 4

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
276.4	283.0	$3^{s}/5$	green serpentine magnetite zones in buff marble - serpentine contains moderate pyrrhotite and specks chalcopyrite fair coring	cpy	¼%								
283.0	285.8	$3^{s}/1$	dark green and black magnetite (75%) serpentine skarn + pyrrhotite minor pyrite and specks chalcopyrite good coring	cpy	½%								
285.8	286.3	9^{b}	fine grained green/dark green basic dyke contacts @ 75 deg.										
286.3	286.5	3^{sM}	black + green magnetite serpentine skarn minor pyrrhotite										
286.5	289.0	$3/2^{td}$	white/pale green/grey tremolite diopside skarn fine grained pyrrhotite specks chalcopyrite 287.3 - 289.0	cpy	¼%								
289.0	301.3	5	white marble - minor pale green serpentine stringers										
301.3	320.6	$3/2^{at}$	dark green and pale grey actinolite tremolite skarn disseminated	py/pyh	1%								
			pyrite pyrrhotite traces chalcopyrite good coring	cpy	tr.								
		5	314.2 - 316 white marble good coring										
320.6	334.5		Schist grey brown quartz mica schist banding 80 deg.										
		≈	331 - 334.5 jointing broken										
334.5	338.0	5	white marble weak banding good coring 60 deg.										
338.0	349.5		Schist as above banding 80 deg. good coring moderate jointing										
349.5	351.0	5	white marble good coring										
			Hole ends @ 351'										

120021

WHITEHORSE COPPER MINES LTD.
P.O. BOX 4220
YUKON TERRITORY

Hole No. TH-7 Page No. 4 of 4

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Enid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
			samples 301.3 - 308			8122	6.7	6.7	.14			.002/.11	
			308 - 314.2			8123	6.2	6.2	.04			.008/.10	
			314.2 - 320.6			8124	6.4	6.4	.32			.003/.11	

092603

Whitehorse Copper Mines Ltd.

MINING DIVISION - WHITEHORSE
YUKON TERRITORY

PROPERTY Hop Claims - Aishihik 115H7	Claim No. Acme 12	Strike 240 deg. W.	Lat. 10349.7 N	Hole No. TH-8
Date June 13th, 19 77	Section No.	Dip -80 deg.	Dep. 10822.8 E	Total Depth 318'
Logged By D. Tenney	Plan No.	Level Surface	Elev. 3894.1'	Page No. 1 of 3

FOOTAGE From	To		ROCK CLASSIFICATION Epid Diop Garn Serp Qtz Sil Actino Tremo Chlo Crystalline Shearing Veins Fracturing Foliation Grain Size Texture	MINERALIZATION TYPE	%	ASSAY DATA Sample No	Width	Recov	%Cu	%Fe	Moly	Au/Ag	Insol
0.0	38.0	ob	sand and gravel - overburden										
38.0	62.4	ob	mixed boulders - granite (fine grained grey) porphyry dyke										
			black? amphibolite, and grey basic dyke minor schist										
			(silicified)										
62.4	174.0	S	Schist - brown and grey mica-quartz schist banding 80 deg.										
			weakly silicified and skarnified (green + ?actinolite) in										
			sections fair to good coring moderate jointing - minor										
			rusty joints										
		==	62.4 - 88 moderate to strong jointing										
			77 - 77.2 actinolite + fine grained pyrrhotite	pyh	2%								
			93 - 94 " + ?trace chalcopyrite	pyh	2%								
			106.0 " " "	pyh/cpy	tr.Cu								
			113 - 115 " " "	cpy	tr.Cu								
			143.5 - 143.6 " " "	cpy	tr.Cu								
			147 - 147.4 " " "	cpy	tr.Cu								
			148.3 - 148.4 " " "	cpy	tr.Cu								
			166.5 silicification - white quartz trace pyh-cpy	cpy	tr.Cu								

WHITEHORSE COPPER MINES LTD.
P.O. BOX 4220
YUKON TERRITORY

Hole No TH-8 Page No 2 of 3

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
174.0	190.0	S	Schist - brown and grey schist mica quartz - banding 80 deg. fair coring moderate jointing weakly silicified in places										
190.0	199.5	3^{fa}	white green feldspar, actinolite tremolite skarn - remnant banding good coring 1% pyrite minor pyrrhotite	py									
199.5	206.1	$3/2^{adt}$	white grey pale green actinolite tremolite diopside? skarn specks blebs pyrrhotite and chalcopyrite	cpy	½%								
206.1	220.1	$2/1^{tda}$	mainly silicate skarn + tremolite actinolite ?diopside specks and blebs of pyrrhotite and chalcopyrite magnetite 206 - 207.5; 210.8 - 212.4; 213 - 215.1; 218.7 - 219.0 good coring heavy chalcopyrite @ 210.5, 215.5, 219, 220	cpy	1½%								
			samples 199.5 - 206.0			8125	6.5	6.3	.22		.003	1.12	
			206.0 - 211			8126	5.0	5.0	1.54		.015	1.34	
			211 - 216			8127	5.0	5.0	1.15		.036	1.30	
			216 - 220.1			8128	4.1	4.1	1.10		.013	1.28	
			220.1 - 227.3			8129	7.2	7.2	0.23		.007	1.11	
220.1	231.2	$3^{d}/2$	pale green uniform texture diopside? skarn specks pyrrhotite chalcopyrite to 227.3 good coring + tremolite	cpy	< ½%								
231.2	233.6	9^{a}	pale grey porphyry (feldspar) dyke ?silicified fair coring - moderate jointing contacts 85 deg.										
233.6	239.0	$3^{tda}/2$	pale grey and green tremolite actinolite ?diopside skarn weak remnant banding 80 deg. disseminated chalcopyrite traces fluorescent schectite	cpy WO_3(tr.)	¼%								

WHITEHORSE COPPER MINES LTD.
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YUKON TERRITORY

LAMPED 170 - 270

Hole No TH-8 . age No 3 of 3

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
239.0	270.0	S	Schist - banded (80 deg.) quartz mica schist - silicified and	py	tr.								
			skarnified in patches - traces pyrite										
		5	258.8 - 264 white marble; traces banding 75 deg.										
270.0	279.2	S	grey brown green weakly to strongly skarnified schist; fair										
			coring, some jointing										
279.2	280.5	9 aav	grey green feldspar porphyry dyke - contacts 80 deg.										
280.5	286.5	S	Schist grey, green and brown silicified and skarnified schist;	py/pyh									
			minor pyrite pyrrhotite										
		--	282 - 283.5 jointing										
286.5	318.0	5	marble white (grey green) marble, weakly banded towards end 80 deg.										
			tremolite - good coring										
			Samples 227.3 - 231.2			8130	3.9	3.9	.04				
			233.6 - 238.6 tungsten			8131	5.0	5.0	.06				
			194.5 - 199.5			8132	5.0	5.0	.02				
			189.5 - 194.5			8133	5.0	5.0	.06				

082-021

Whitehorse Copper Mines Ltd.

MINING DIVISION – WHITEHORSE
YUKON TERRITORY

PROPERTY A.C. Thom- Aishihik	Claim No. Acme 12 & Hop 13 Fr.	Strike 240° (W)	Lat. 9932.8 N	Hole No. TH-9
Date June 29 19 77	Section No.	Dip -80	Dep. 10589.2 E	Total Depth 290
Logged By A. Hureau	Plan No.	Level surface	Elev. 3894.1 E	Page No. 1

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid Diop Garn Serp Qtz Sil Actino Tremo Chlo Crystalline Shearing Veins Fracturing Foliation Grain Size Texture
0	36	ob	
36	36.5		rubble - boulders
36	37.8	7	granite, cream-coloured euhedral feldspar to 1 cm. with inter stital quartz (20% & hornblende 15%) Probably boulder
37.8	57.6	9b	dark grey basic dyke locally anhedral grains (2 mm) white feldspar in grey ground mass, also black anhedral - subhedral grains chlorite ? to 2 mm. core leached and broken 40' - 50', 3' lost 40 - 51 numerous Ca filled fracts. to 3 mm.

MINERALIZATION TYPE	%	ASSAY DATA Sample No	Width	Recov	%Cu	%Fe	Moly	Au/Ag	Insol

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WHITEHORSE COPPER MINES LTD.
P.O. BOX 4280
YUKON TERRITORY

Hole No TH-9 Page No 2

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
57.6	73.5	Sch	schist, quartz muscovite bnds. highly silicified										
			bnding generally 80° core very broken, heavy py on fracts.	py	<1%								
			71 - 72										
73.5	78	9b	basic dyke as above lower contact along core										
			heavy py in sch 77 - 77.5	py									
78	83	sch	quartz muscovite schist as above bnding 75 - 80°										
83	92.5	9b	basic dyke, blebs of py in fine-grained phase from 85' - 87'										
92.5	99	sch	quartz muscovite schist minor biotite, & black amphibole	py	±%								
			py & occasional speck cp on fracts	cp	tr								
99	125.5	9b"	basic porphyritic dyke larger (to 4mm) xnocrysts than										
			above phase. Core very broken at 117. (lower contact measured)										

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WHITEHORSE COPPER MINES LTD.
P.O. BOX 4230
YUKON TERRITORY

Hole No TH-9 Page No 3

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actinc, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
99	125.5	9b$^{\pi}$	from 130' tag, (10' 122 to 130)										
125.5	128.8	sch	silicified schist py on fracts rare bleb	py									
128.8	132.5	9b$^{\pi}$	basic dyke as above. locally dissem fg py										
132.5	142.3	sch	highly silicified schist bnding 80^{0} where visible, core highly fractd, serpentinized on fracts, py in irreg fracts 139 - 140, occ. spec py throughout.										
		2	137.2 - 138 partly serpentinized zone with disseminated cp & py	cp	1.5%	Cu							
142.3	150	9b	dark grey basic dyke xnocrysts mainly chloritized										
150	163	sch/5/3	schist- marble contact zone carbonated, silicified quartz-mica schist, bnding 80 - 90^{0}										
163	169	3+/5	pale grey marble traces cp @ 164 - 165 3" gouge @ 168'										

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YUKON TERRITORY

Hole No TH-9 Page No 4

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
169	180	9	Carbonated dyke hole probably on margin of dyke - minor										
			serpentine, vague bnding 20° dissem cp throug hout	cp	1/4%Cu								
			Sample 175 - 180			8164	5.0	5.0	.29				
180	187.2	4q/g	grey silicified sediment may be phase of dyke blebs of										
			cp @ 183' @185' from 184.5 tongue of dyke along core										
			lower contact 25° sample 180 - 187.2			8165	7.2	7.2	.16				
187.2	191.2	9b	dark grey mottled basic dyke, dissem fg py throughout	py	½%								
			lower ct irreg. @20°										
191.2	194	3/2 S(dt?)	pale- dark green skarn vague bnding 45 - 80°	py	3%								
			hvy py 193 - 194 minor cp 2" dyke @192.7	cp	1/4%Cu								
194	197	9b	Pale grey dyke as above broken at lower ct 15°										
197	208	5/3+s	white marble partially replaced by dark green serpentine along irregular fracts, also fract										

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YUKON TERRITORY

Hole No TH-9 Page No 5

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
197	208		filling of quartz, cp & py associated with serpentine	py	< 1								
				cp	1/4%Cu								
			Sample 191.2 - 194			8166	2.8	2.8	.21				
			197 - 203			8167	6.0	6.0	.24				
			203-210.2			8168	7.2	7.2	.40				
208	219.7	3s+d/5	white green skarn well bnded from 216, 80 - 90°										
		25d	from 210.2 - 212.5 section has blebs & patches cp & py	cpy	2-3%Cu								
			2 - 3% Cu Remainder of section has occasional spec										
			cp & py generally associated with serpentine										
		π 9b	carbonated dyke 213.3 - 21 .8										
219.7	227	π 9b	pale grey green carbonated dyke anhedral grains										
			white feldspar and grains serpentine? to 2mm in										
			pale green ground mess lower contact 25°										
227	242	sch	grey brown silicified carbonated quartz mica schist										
			occasional specs cy & py associated withserpentine,										
			bnding gen 80° from 240 in contact with carbonated										
			dyke broken along contact										
242	274.5	π 9b	pale green carbonated porphyritic dyke as above fracts filled										
			with pale green serpentine contact with schist along										
			core 242 - 248										

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YUKON TERRITORY

Hole No TH-9 Page No 6

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
274.5	285	sch	grey brown carbonated silicified schist as above										
			locally vuggy										
285	290	5/3	grey vaguely bnded marble 80° minor serpentine.										
		9b π	285.3 -285.7 9b π dyke as above										
	290		Hole ends										
			Samples: 175 - 180			8164	5	5	.29		.005	.13	
			180 - 187.2			65	7.2	7.2	.16		.013	.10	
			191.2 - 194			66	2.8	2.8	.21		.001	.10	
			197 - 203			67	6.0	6.0	.24		.025	.13	
			203 - 210.2			68	7.2	7.2	.40		.005	.18	
			210.2 - 213.3			69	3.1	3.1	3.06		.025	.59	
			213.3 - 219.7			8170	6.4	6.4	.25		.002	.12	

092027

Whitehorse Copper Mines Ltd.

MINING DIVISION – WHITEHORSE
YUKON TERRITORY

PROPERTY Thom- Aishihik	Claim No. Acme 14 & Hop 13 FR	Strike 240 (W)	Lat. 9699.7 N	Hole No. TH 10
Date June 30 19 77	Section No.	Dip -80	Dep. 11342.1 E	Total Depth 106
Logged By A Hureau	Plan No.	Level Surface	Elev. 4031.0	Page No. 1

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid Diop Garn Serp Qtz Sil Actino Tremo Chlo Crystalline Shearing Veins Fracturing Foliation Grain Size Texture
0	61	ob	over burden- boulders
61	106	9ab	grey- white porphyritic dyke , euhedral to anhedral phenocrysts feldspar to 1.5 cm. in fine-grained grey groundmess- core generally broken, rusty on fracts.
	106		hole stopped

MINERALIZATION TYPE	%	ASSAY DATA Sample No	Width	Recov	%Cu	%Fe	Moly	Au/Ag	Insol

092P 47

Whitehorse Copper Mines Ltd.

MINING DIVISION - WHITEHORSE
YUKON TERRITORY

PROPERTY Hop Claims- Aishihik 115-H-7	Claim No.	Strike 240 (app. W)	Lat. 9721.1 N	Hole No. TH-11
Date July 11 19 77	Section No.	Dip -80°	Dep. 11587.7 E	Total Depth 617'
Logged By D. Tenney	Plan No.	Level Surface	Elev. 4059.0	Page No. 1 of 4

FOOTAGE From	To		ROCK CLASSIFICATION Epid Diop Garn Serp Qtz Sil Actino Tremo Chlo Crystalline Shearing Veins Fracturing Foliation Grain Size Texture	MINERALIZATION TYPE	%	ASSAY DATA Sample No	Width	Recov	%Cu	%Fe	Moly	Au/Ag	Insol
0.0	96.8	o/b	overburden with few boulders. 26 - 97 10' broken										
			core. granite and schist boulders										
96.8	120.5.	S	grey brown schist moderate to strong jointing										
			rusty joints (weathering) fair coring- silicified										
			in places. banding 80° minor small red garnets										
			- porphyroblastic- traces sulphides pyrite + ? pyrrhotite										
		==	107 - 112 strong jointing										
		--	116 - 118 ---										
			119.0 specks chalcopyrite on joint	cpy	tr								
120.5	121.1	9b	fine/medium grained grey/brown basic dykelet										
			1% blebs pyrrhotite 10° and 20°										
121.1	164.0	S	grey/brown quartz-mica schist- strongly silicified										
			in places- specks sulphides pyrite? fair coring										
			moderate to strong jointing- minor red/pink 2-4mm garnet xtals										
		--	128 - 130 jointing										
			138.0 specks chalcopyrite in quartz rich zone	cpy	tr								
164.0	196.5	9ab	green/grey to light green intermediate dyke	py. pyh									
			good coring 1% specks pyrite; 2% specks										
			pyrrhotite- 177' - 190' - heavy sulphides (?4%)										
			contacts finer-grained and weakly broken-										
			probably at high angle										
			sample 181 - 186			8198	5.0	5.0	.01		.001	/.08	

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P.O. BOX 4220
YUKON TERRITORY

Hole No TH-11 Page No 2 of 4

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
196.5	402.3	S	grey brown quartz-mica schist weakly silicified										
			in places- fair to good coring weak/moderate										
			jointing traces sulphides : pyrite/pyrrhotite	banding	70+ 90°								
		3a	201- 201.5 dark green actinolite skarn- remnant brown mica										
			209.0 1/4" partial stringer pyrite 30°										
			224.0 2-4 mm. pale red garnets in schist										
		3a/s	227 - 228 green-dark green skarnified schist & actinolite	cpy	tr.								
			few specks pyrite chalcopyrite										
			251.2 - 251.4 solid wedge chalcopyrite 5°	cpy	5%								
			strongly altered schist										
			225 - 273 good coring										
			261.5 specks pyrite/ chalcopyrite	cpy	tr.								
			286.0 minor 4mm. garnet (red) xtals- rounded										
			289 - 291 weak skarnification & actinolite quartz - 1%	cpy	tr.								
			pyrrhotite & specks associated chalcopyrite- minor dull red garnet										
			297.0 - 297.5 joints & pyrite- minor dull red garnets										
			312.0 3 cm. grey quartz minor dull red garnet trace pyrite										
			326.2 2 cm.										
		3 at/S	337.5 - 343.0 weakly to strongly skarnified white/pale	pyh	tr.								
			~~green schist & tremolite/actinolite good coring~~ trace	cpy	tr								
			pyrrhotite. 342 - specks blebs chalcopyrite										
			358.9 white/grey quartz specks chalcopyrite	cpy	tr								
			382 - 402.3 2 - 4 mm. pale red garnets in schist										
402.3	406.1	9b	fine grained dark green basic dykelet 1-2mm.										
			rounded mafic xtals fair coring 402.3 chilled 90°										
			406.1 chilled @ 30°										

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WHITEHORSE COPPER MINES LTD.
P.O. BOX 4280
YUKON TERRITORY

Hole No TH-11 Page No 3 of 4

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	% Fe	Moly	Au/Ag	Insol
406.1	442.7	S	grey/brown quartz-mica schist banding 60 - 80° fair	py	tr								
			good coring moderate jointing- some sections silicified										
			406.3 heavy quartz fine grained pyrite mainly on joint										
		3/2a/S	411 - 417 intermittent pale to dark green skarnification &	cpy	½%								
			actinolite specks and small blebs chalcopyrite - pyrrhotite										
			pyrite										
			samples 411 - 414			8193	3.0	3.0	.38		.003	/.17	
			414 - 417			8194	3.0	3.0	.04		NIL	/.08	
			442 - 442.7 silicified specks pyrrhotite chalcopyrite	cpy	1/4%								
			440.2 1 cm. zone/stringer 50% chalcopyrite & pyrrhotite & quartz	cpy									
		3a	441.6 - 441.8 dark green actinolite 260°										
442.7	443.0	3a/s	dark green actinolite with remnant brown mica										
443.0	446.5	XX	dark brown and green altered breccia +2%										
			disseminated pyrite - minor pyrrhotite - fracture through										
			quartz pebble is mineralised (1mm pyrite)										
446.5	451.8	S	grey quartz mica schist- silicified banding 80°										
			specks pyrite pyrrhotite										
451.8	453.3	9ab	brown to light brown intermediate dyke 3% pyrite/	cpy	tr.								
			pyrrhotite - minor chalcopyrite in altered section good coring										
453.3	467.9	S	more strongly silicified grey schist moderate jointing										
467.9	476.2	3/2at/S	pale to dark green skarnified schist & actinolite tremolite	cpy	1/4%								
			bands & fine-grained disseminated pyrrhotite/pyrite	pyh	3%								
			specks associated chalcopyrite good coring										
			sample 467.9- 476.2			8195	8.3	8.3	.10		NIL	/.10	
476.2	601.0	S	grey brown quartz-mica schist silicified in places										
			banding 80 - 90° fair coring moderate jointing minor pale green skarnified sections										
			jointing 477-478; 480-481; 485-487; 492-494										

42 02 00

WHITEHORSE COPPER MINES LTD.
P.O. BOX 4280
YUKON TERRITORY

Hole No TH-11 Page No 4 of 4

FOOTAGE From	FOOTAGE To		ROCK CLASSIFICATION Epid, Diop, Garn, Serp, Qtz/Sil, Actino, Tremo, Chlo, Crystalline, Shearing, Veins, Fracturing, Foliation, Grain Size, Texture	MINERALIZATION TYPE	MINERALIZATION %	ASSAY DATA Sample No.	Width	Recov.	%Cu	%Fe	Moly	Au/Ag	Insol
			501.0 pyrrhotite in small (5mm) quartz stringer 30°										
		--	512 - 545 moderate - strong jointing										
		3ad/2/S	544 - 551 green epidote actinolite diopside alteration	cpy	tr.								
			2% pyrite pyrrhotite minor specks chalcopyrite - banded 85°										
			sample 544- 551			8196	7.0	7.0	.02		NIL	/.08	
		3ad/2/S	578.0 - 582.5 as above - more pyrrhotite (4%) and chalcopyrite	cpy	1/4%Cu	8197	4.5	4.5	0.06		NIL	/ .07	
601.0	602.0	XX	breccia schist fragments cemented with calcite										
602.0	617.0	9a	light grey quartz feldspar porphyry dyke good coring	cpy	tr.								
			specks and blebs pyrrhotite - specks chalcopyrite		? .1% Cu								
			Hole ends @ 617.0'										
			B.Q. core split for assay										
			Caron Diamond Drilling										

BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Branch: 136B Industrial Rd., Whitehorse

Certificate of Analysis

TO Whitehorse Copper Mines Ltd.,
P.O. Box 4280,
Whitehorse, Yukon

REPORT NO. A-47-8

DATE June 20, 1977

I hereby certify that the following are the results of analyses made by us upon the herein described pulp samples

MARKED		% Ni
8032		Trace
8033		Trace
8035		Trace
8102		Trace
8113		Trace
8114		Trace
8115		0.01
8116		Trace
8117		Trace
8118		Trace
8119		0.01

Trace: less than 0.01% Ni

Au, Ag, Cu to follow

BONDAR-CLEGG & COMPANY LTD.

Steven Simpson

NOTE:
Rejects retained two weeks
Pulps retained three months
unless otherwise arranged.

0-21

12026

APPENDIX IV

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: Whitehorse Copper Mines Ltd.
P.O.Box 4280
Whitehorse, Y.T.

ATTN: 21626

CERTIFICATE NO. SP 0634
INVOICE NO. 20769
RECEIVED June 24/77
ANALYSED July 12/77

SAMPLE NO. :	Lower Concentration Limit (PPM)	TH-2 8032	TH-4 8115	TH-6 8102	TH-7 8113
Antimony	50	bcl	bcl	bcl	bcl
Arsenic	50	bcl	bcl	bcl	bcl
Barium	5	10	15	15	700
Beryllium	5	bcl	bcl	bcl	bcl
Bismuth	5	bcl	bcl	bcl	bcl
Boron	20	bcl	bcl	50	bcl
Cadmium	20	bcl	bcl	bcl	bcl
Calcium	0.05%	7%	10%	3%	7%
Chromium	10	20	20	50	70
Cobalt	10	70	50	70	bcl
Copper	1	> 10,000	>10,000	>10,000	5,000
Gallium	2	10	10	10	10
Germanium	20	15	20	15	10
Iron	0.05%	15%	10%	10%	2%
Lead	5	bcl	bcl	bcl	20
Magnesium	0.02%	2%	5%	10%	5%
Manganese	5	300	1500	500	500
Molybdenum	10	70	20	20	bcl
Nickel	5	10	50	5	5
Niobium	50	bcl	bcl	bcl	bcl
Silver	1	20	10	15	2
Strontium	20	1	10	2	50
Tantalum	200	bcl	bcl	bcl	bcl
Tellurium	200	bcl	bcl	bcl	bcl
Thorium	100	bcl	bcl	bcl	bcl
Tin	10	10	20	bcl	bcl
Titanium	5	150	200	300	2000
Vanadium	10	70	70	20	50
Zinc	50	500	300	300	100
Zirconium	20	20	bcl	20	150

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSES

>5000 ppm => 5000 ppm
5000 ppm = 2500–10000 ppm
2000 ppm = 1000–4000 ppm
1000 ppm = 500–2000 ppm
500 ppm = 250–1000 ppm
200 ppm = 100–400 ppm
100 ppm = 50–200 ppm

50 ppm = 25–100 ppm
20 ppm = 10–50 ppm
10 ppm = 5–20 ppm
5 ppm = 2–10 ppm
2 ppm = 1–4 ppm
1 ppm = 0.5–2 ppm
bcl = below concentration limit

Ranges for Iron, Calcium & Magnesium are reported in %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: .....

APPENDIX IV

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FIG. I

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GEOLOGICAL LEGEND

9a	Acid Dyke	
9ab	Intermediate Dyke	
9b	Basic Dyke	
8	Diorite	
7	Granite	7b - Granodiorite
5	Limestone/Marble	
4	Clastic Sediments	
3	Skarn	
2	Mineralized Calc-Silicate Skarn ...	
1	Mineralized Magnetite Skarn ...	
5	Schist	

a - Actinolite, c - Chlorite, d - Diopside, e - Epidote, f - Feldspar, g - Garnet

s - Serpentine, t - Tremolite, w - Wollastonite, M - Magnetite, H - Hematite, C - Chalcopyrite

092027

CLAIM BOUNDARY

N

NO OUTCROP

TL 20 NW

00NE

PROBABLE INTRUSIVE CONTACT FROM GROUND MAG

OTH 12

NO OUTCROP

OTH 13

120N

BL00NW

OTH 14

OTH 15

OTH 7

OTH 6

OTH 3

OTH 8

100N

OTH 11

OTH 10

OTH 2

OTH 1

OTH 5

LOEBL

80N

FRANKLIN CREEK

AISHIHIK ROAD

HOPKINS LAKE

MILE 32

3500

FIG 111

GEOLOGICAL MAPPING

— LEGEND —

S	SCHIST (mainly mica and quartz)	
S	LIMESTONE / MARBLE	
9	DYKE (a=acid b=basic π=porphyritic)	
8	INTRUSIVE (grano diorite, quartz diorite)	
3	SKARN (barren)	a actinolite
2	SKARN (mineralized) (silicate)	d diopside e epidote g garnet
1	SKARN (mineralized) (magnetite)	m magnetite s serpentine t tremolite
	copper mineralization	

092027

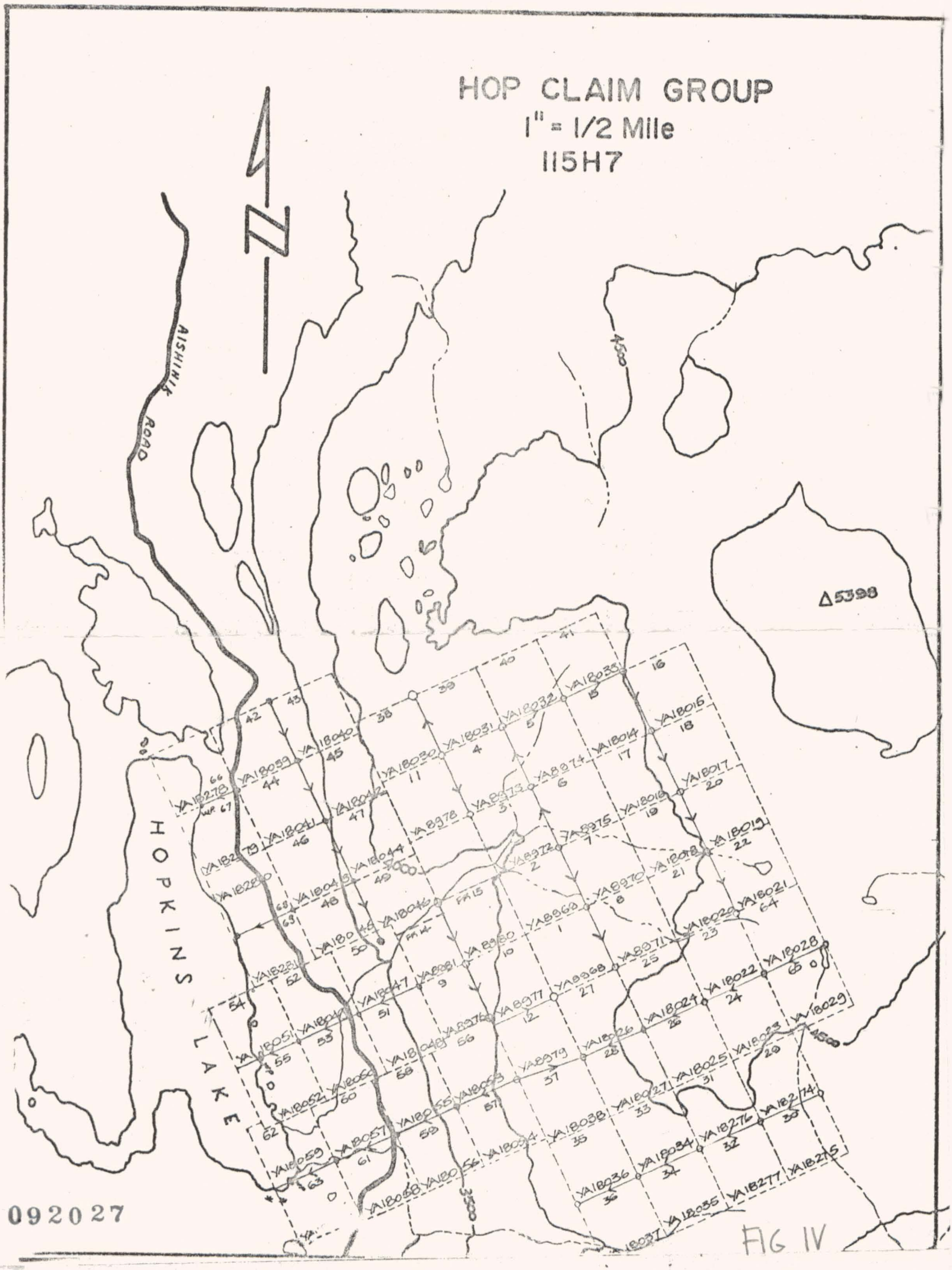
THOM OPTION

AISHIHIK LAKE

115 H 7

1" = 400'

OCT 1978 A.H.


HOP CLAIM GROUP
1" = 1/2 Mile
115H7
AISHIHIK ROAD
HOPKINS LAKE
Δ5398
092027
FIG IV

LEGEND

- Granitic Rock
- Yukon Group
- Porphyry Dyke
- Andestic Dyke
- Showing (Mainly Py-Cp. Imp)
- ① Rock Samples

△ 5398

5000

4500

4500

4000

3500

Hopkins Lake

B.M.

AISHIHIK ROAD

TH2

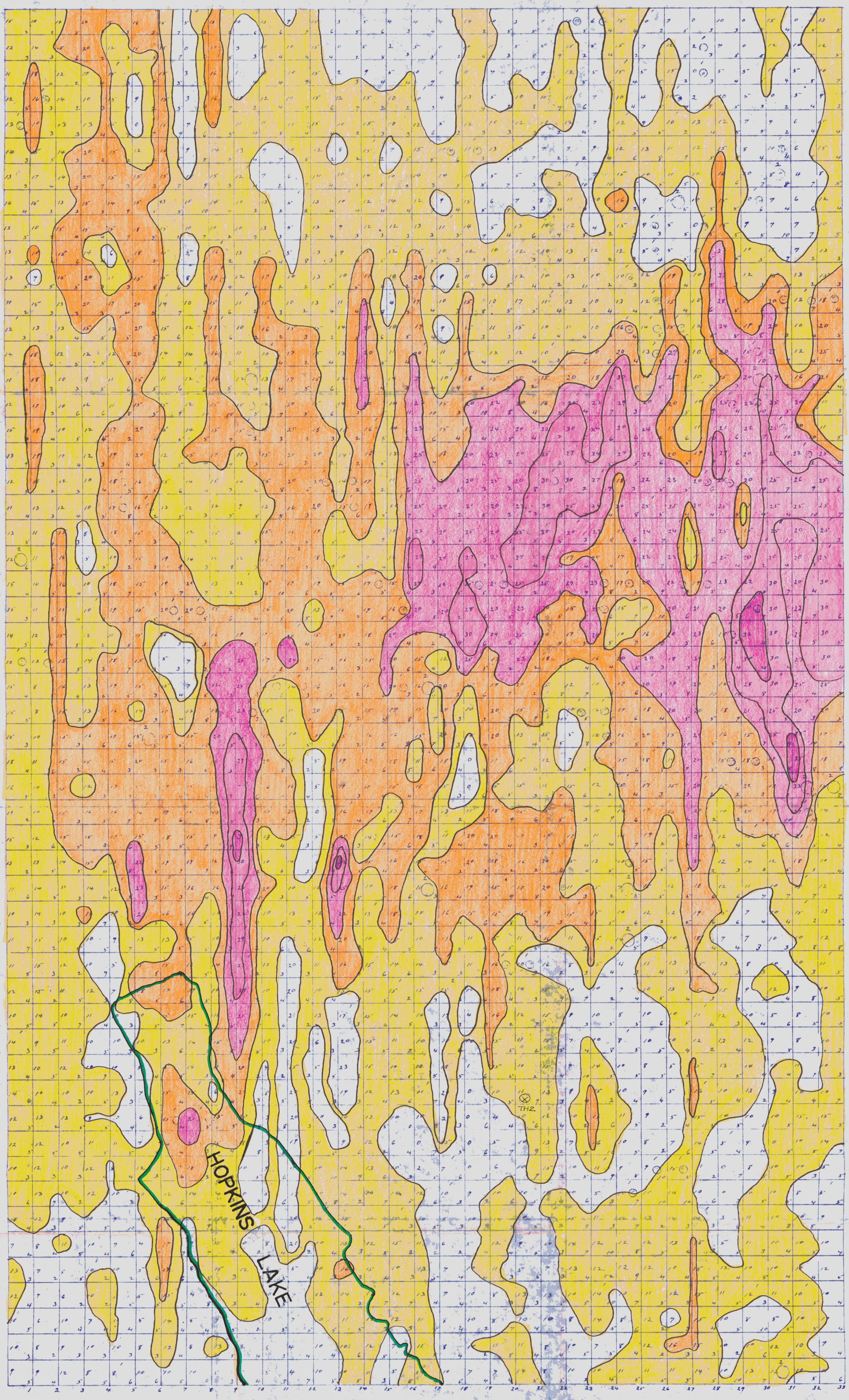
MITSUBISHI METAL MINING CO. LTD.

YUKON PROJECT 1968 FIG. AD-2-a

GEOLOGICAL MAP
AD CLAIM GROUP, AISHIHIK AREA

Scale: 1" = 1000' | Date: Oct. 20, 1968

FIG. V



0 1/2 1 MILE

2 7 4

= .001 MR/HR. RADIOACTIVITY

ELECTROMAGNETIC IN 10 CPS

RADIOACTIVITY IN .001 MR/HR

MAGNETOMETER IN 100 GAMMAS

IN 100S.

0-10
10-15
15-20
20-25
25-30
30+

FIG. VI

AIRBORNE GEOPHYSICAL RECONNAISSANCE JUNE 17, 1968
HOPKINS LAKE YUKON
GRID SCALE: 1000 FEET TO ONE INCH
PAT. No. 75-8308 (CANADA) 1967
WATERTON AERONAUTICS & EXPLORATIONS LTD.
Pilot

MITSUBISHI METAL MINING CO. LTD.
YUKON PROJECT 1968 FIG. AD-5
AIRBORNE GEOPHYSICAL SURVEY DATA
OF AD CLAIM GROUP
Surveyed by Waterton Aeronautics & Exploration Ltd.
Scale: 1" = 1000' | Date: Oct. 20, 1968

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LEGEND

400+
200-400
>100 -200 p.p.m.
>50 -100 p.p.m.
<50 p.p.m.

HOPKINS LAKE

Cu ppm

+TH2

B.M.

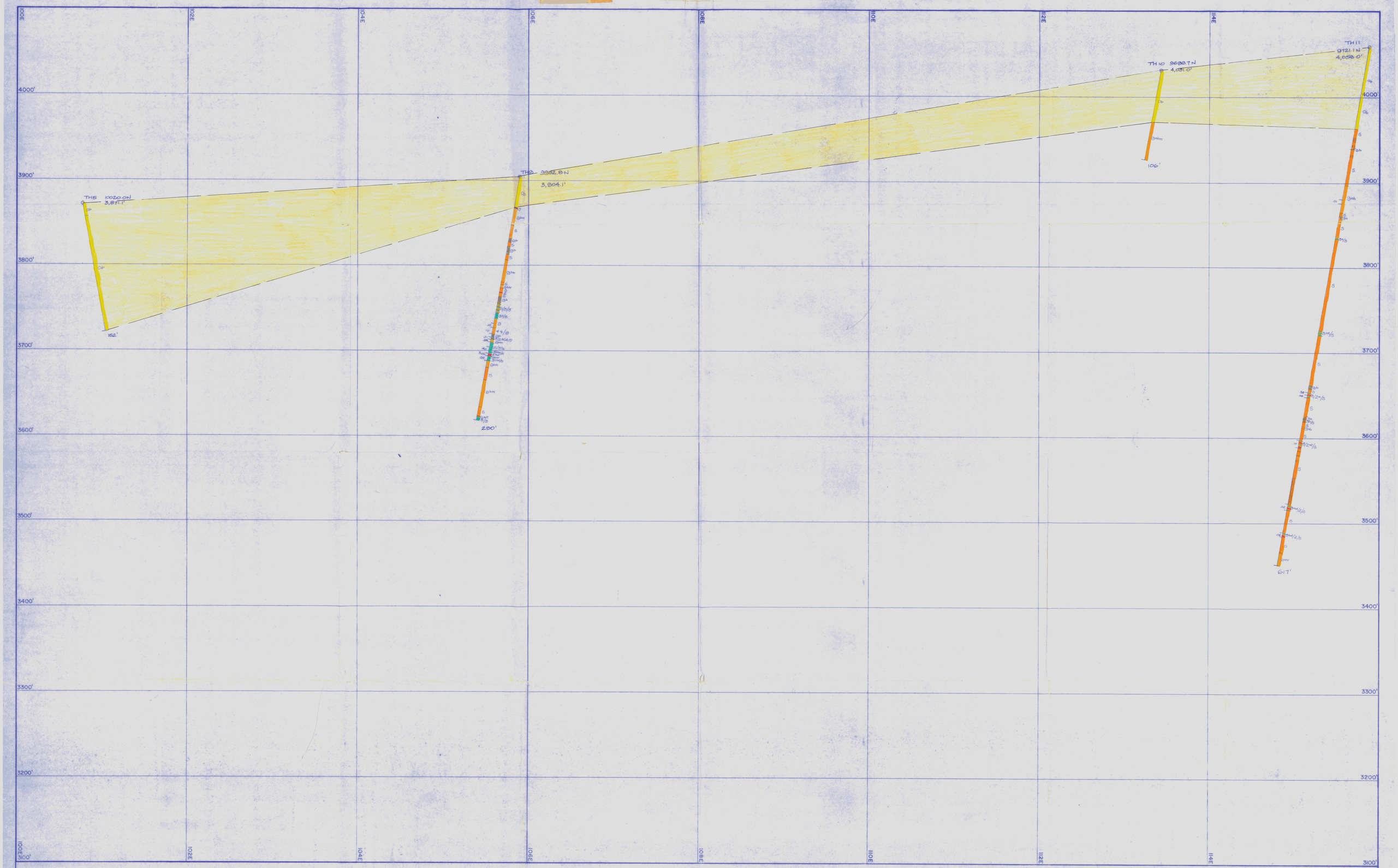
MITSUBISHI METAL MINING CO. LTD.

YUKON PROJECT 1968 FIG. AD-3

GEOCHEMICAL SOIL SAMPLING MAP
A D CLAIM GROUP, AISHIHIK AREA

Scale: 1" = 1000' Date: Oct. 20 1968

FIG. VII 092027



1" = 40'

THOM OPTION 115H7 SECTION COMPOSITE (9700-10000N)

JULY, 1977

092027 WHITEHORSE COPPER MINES LTD.

FIG. VIII

120E | 122E | 124E | 126E | 128E | 130E | 132E | 134E

4000' | 3900' | 3800' | 3700' | 3600' | 3500' | 3400' | 3300' | 3200' | 3100'

TH 15
10596N
12847E

TH 14
10652N
12506E

150'N

TH 14
72'

TH 15
1902'

AZ 60°

1"= 40'

THOM OPTION 115H7 SECTION 106N

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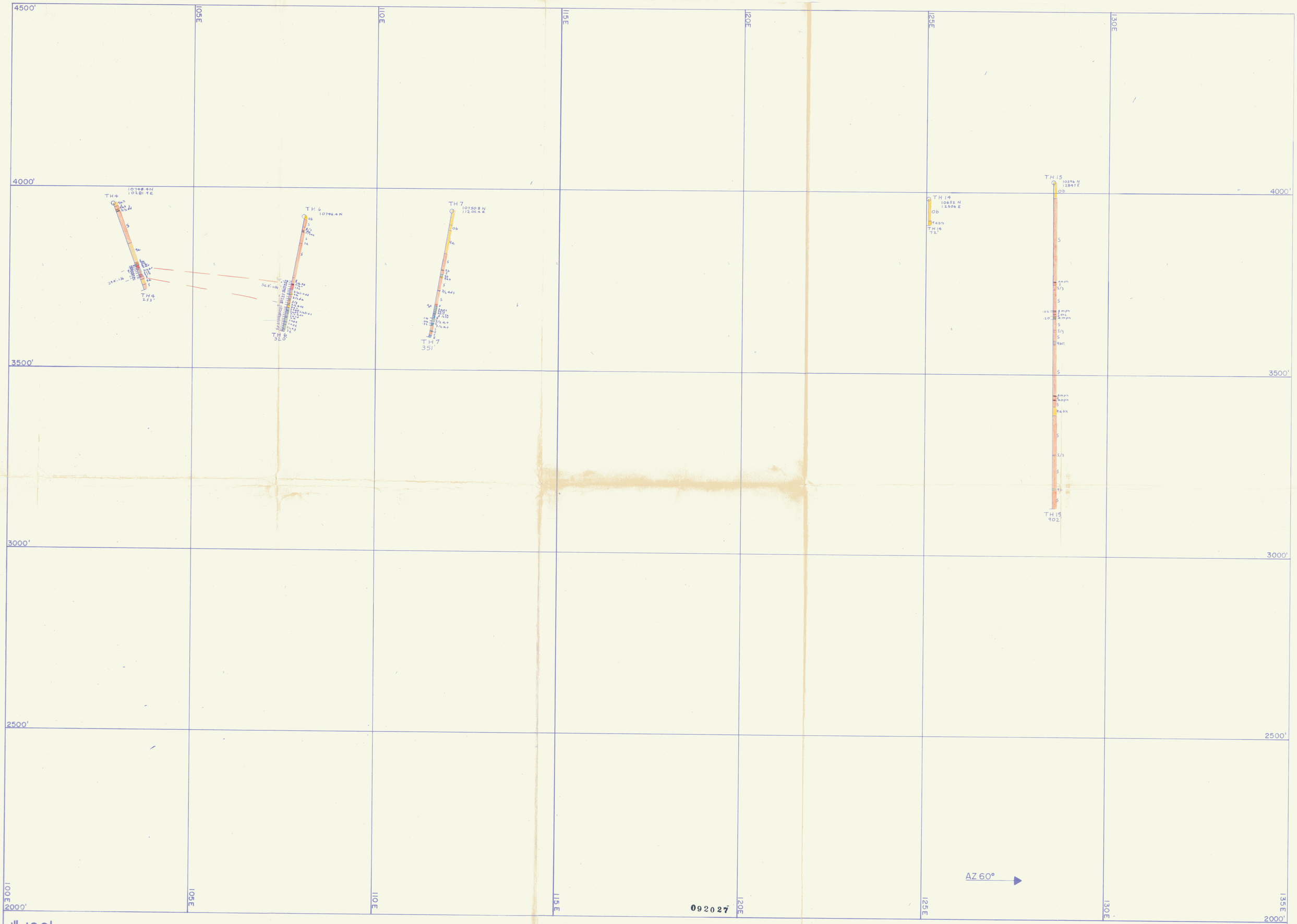
WHITEHORSE COPPER MINES LTD.



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1"=100'

THOM OPTION 115 H7 COMPOSITE SECTION 10600N - 10750N

WHITEHORSE COPPER MINES LTD.

1" = 40'

THOM OPTION 115H7 SECTION 11850N

WHITEHORSE COPPER MINES LTD.

AZ 60°

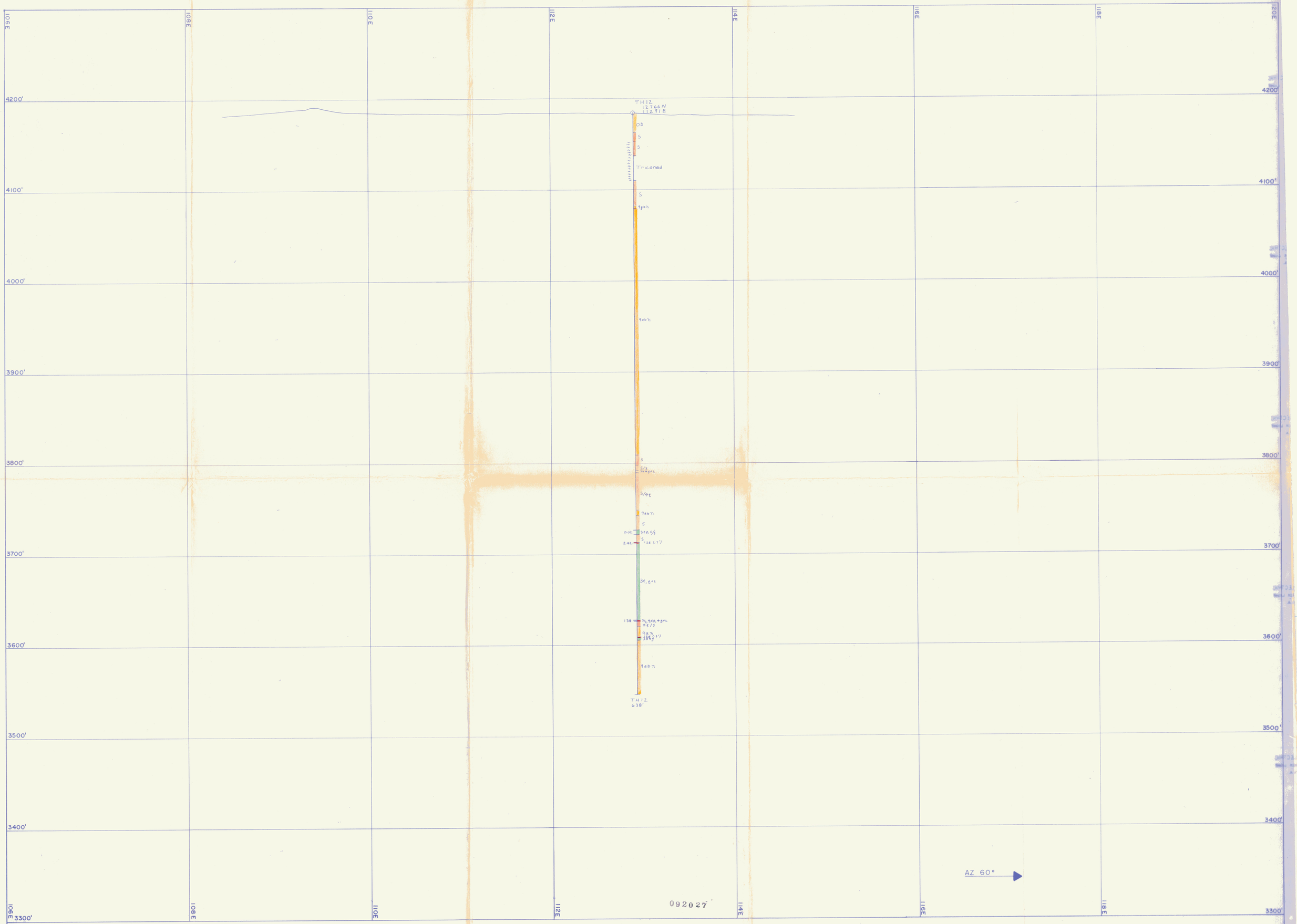
TH 13
677'

TH 13
11845N
119 34E

092027

110E 112E 114E 116E 118E 120E 122E 124E

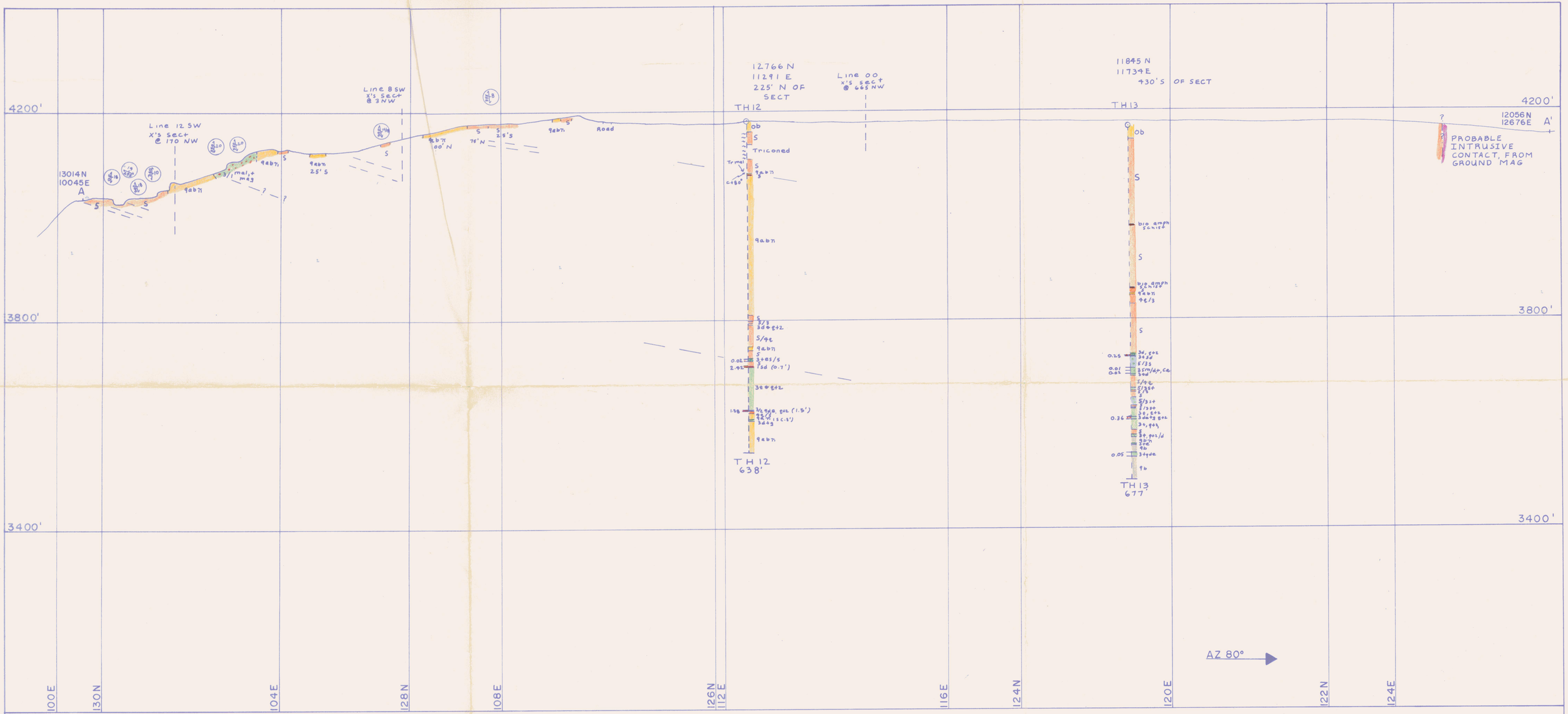
3300' 3400' 3500' 3600' 3700' 3800' 3900' 4000' 4100' 4200'



1" = 40'

THOM OPTION 115H7 SECTION 12750N

WHITEHORSE COPPER MINES LTD.



1" = 100'

THOM OPTION 115H 7 SECTION A–A' 092027

WHITEHORSE COPPER MINES LTD.

92N 94N 96N 98N 100N 102N 104N 106N 108N 110N 112N 114N 116N 118N 120N 122N

99E 101E 103E 105E 107E 109E BASELINE 110E 111E 113E 115E 117E 119E 121E

TH-1 TH-2 TH-3 TH-4 TH-5 TH-6 TH-7 TH-8 TH-9 TH-10 TH-11

57700γ 58000γ 58300γ 57700γ

N

57000-58000 γ
58000-59000 γ
59000-60000 γ
60000+ γ

JULY, 1977

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1"=200'

THOM OPTION 115H7 MAG G816

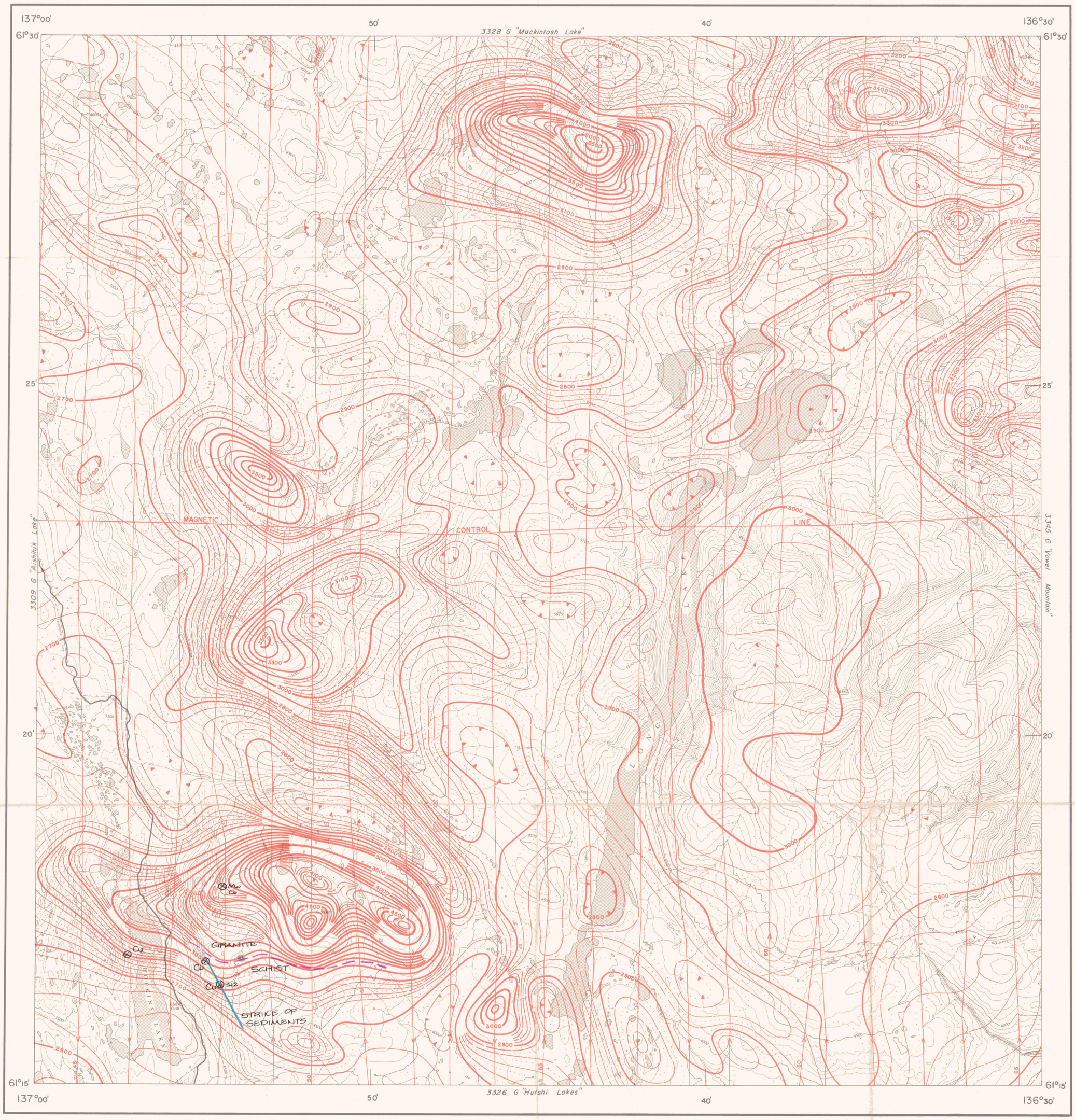
WHITEHORSE COPPER MINES LTD.

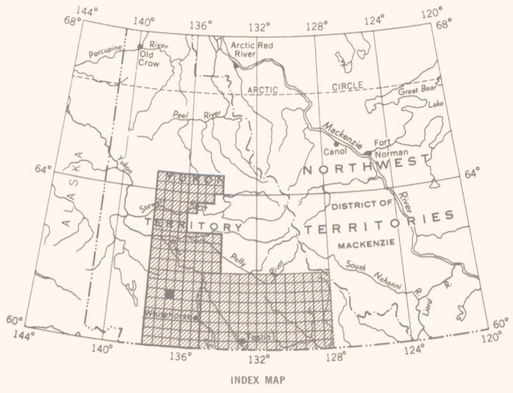
FIG. IX

GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF MINES AND TECHNICAL SURVEYS

AEROMAGNETIC SERIES

SHEET 115 H/7





ISOMAGNETIC LINES (total field):

500 gammas
100 gammas
20 gammas
10 gammas
Magnetic depression
Flight lines

Flight altitude: nominally 1000 feet above ground level where terrain permitted.

MAP 3327G

HOPKINS LAKE

YUKON TERRITORY

Scale: One Inch to One Mile = $\frac{1}{63,360}$

Miles

1 ½ 0 1 2 3

Air photographs covering this map area may be obtained through the National Air Photographic Library, Topographical Survey, Ottawa, Ontario.

Copies of this map may be obtained from the Director, Geological Survey of Canada, Ottawa.

Airborne Magnetic Survey, June 1964 to February 1966, by Canadian Aero Service Limited, Ottawa.

No correction has been made for regional variation

The planimetry for this map was obtained from topographical map sheets published by the Department of Mines and Technical Surveys.

092027

The magnetic data on this map were compiled from information recorded along the flight lines shown. The anomalies expressed by the magnetic contours are dependent on the variable magnetic intensities of the underlying rocks, and may be due to conditions near, or at unknown depths below the surface. High magnetic anomalies normally indicate the presence of basic rocks, such as diabase, gabbro, or serpentine, which have a relatively high iron content, but in special instances may be due, or partly due, to concentrations of magnetic ore minerals. By means of the magnetic anomalies, various rock bodies or structural features, such as faults or folds, may be traced into, or across, areas of few or no outcrops. In many instances, however, no interpretation of particular anomalies may be possible without further geological information.

GEOPHYSICS PAPER 3327

HOPKINS LAKE

YUKON TERRITORY

SHEET 115 H/7

FIG. X

PUBLISHED 1966

092027

100E
110E
110N
N
TH7
TH6
4000'
100N
TH4
TH3
TH8
3900'
TH11
110N
TH2
TH1
TH10
TH9
4000'
3700'
CREEK
FRANKLIN
TH5
100E
110E
THOM PROPERTY
AISHIHIK LAKE
DRILL HOLE LOCATION PLAN
1" = 400'

N

8 NE

T.L. 40 N.W.

28 NE

36 NE

40 NE

T.L. 30 N.W.

12 SW

8 SW

4 SW

00

4 NE

TH12

TH1

TH2

TH3

TH4

TH5

TH6

TH7

TH8

TH9

TH10

TH11

TH14

TH15

120 N

100 N

110 E BL

12 NE

16 NE

20 NE

24 NE

B.L. 00 N.W.

AZ 103°

AZ 330°

4 ONE

48 NE

56 NE

64 NE

T.L. 20 N.W.

See Fig 1x D.T. 78 For Detail

WHITEHORSE COPPER MINES LTD

THOM OPTION

AISHIHIK LAKE

115 H 7

092027

MAGNETOMETER SURVEY

(G-816 PROTON MAG)

JULY 1978 D.T. G.S. 1" = 400'

D4

AISHIHIK LAKE

ACME - HOP CLAIMS

MAGNETOMETER SURVEY

(PROTON G-816)

JULY 25th - 29th 1978

D. TENNEY G. STEEN.

1" = 400'

AZIMUTH OF TIE LINE 20 NW - 103°

AZIMUTH OF BASELINE 103°

D.T.

092027

GEOLOGICAL MAPPING

- LEGEND -

S - LIMESTONE - MARBLE

S - SILICIFIED SCHIST, GOSSAN, IRON FORMATION

Q - ACTINOLITE

T - TREMOLITE

M - MAGNETITE

PYR - PYRRHOTITE

MAL - MALACHITE

Sp - INTRUSIVE PORPHYRITE

D - DACITE

Cu - COPPER MINERALIZATION

HOP CLAIMS

AISHIHIK LAKE

092027

1" = 400'

JUNE 14th, 1977

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