Chisholm Lake Project 1998 Drilling Report

Claims worked on: CL1, CL4, Star #2, Star #4, Star #5, Star #16

Omineca Mining Division 54°14'N, 127°16'W NTS 93 L/3.

Owner Operator.

Imperial Metals Corporation Suite 420 – 355 Burrard Street, Vancouver, British Columbia V6C 2G8

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Submitted:

June 10, 1999

Author: Stephen Robertson, P.Geo.

GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORT



Executive Summary

The new discovery of strongly mineralized quartz monzonite boulders prompted Imperial Metals to acquire a large land position near Houston BC. The Chisholm Lake property is now known to host a previously unmapped, porphyritic quartz monzonite stock that matches the mineralogy of the boulders, and some mineralization has been discovered in bedrock.

This report describes a percussion drilling program conducted in November of 1998 to test bedrock in the area of the newly discovered mineralized boulders. The program was limited to areas of existing access along the recently constructed logging road.

The Chisholm Lake area logistics are favorable, with good road access and subdued terrain although swampy ground is common. Technically, the area provides some challenges with extensive glacial history, resulting in almost no bedrock exposure and possible strong geochemical smearing. It is therefore recommended that the first phase of exploration consist of relatively wide spaced (reconnaissance level) geochemistry and geophysical surveys, in conjunction with a detailed study of glacial history.

Once targets are established, drilling should be relatively easy in the good ground conditions expected in the quartz monzonite. This will allow testing by shallow drilling of many anomalies identified on the property during the first phase of the work. The presence of well-mineralized boulders suggests that deep drilling will not be necessary to find the target zone(s).

Total expenditures proposed for the next program are estimated at \$250,000. Phase 1 will be reconnaissance style work coming in at \$50,000 and the second phase will be drilling at \$149,000. A property payment of \$51,000 is due in the fall of 1999.

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Introduction

Section

The Chisholm Lake prospect was discovered and staked in the late summer of 1998 by local prospectors Ed and Gerry Westgarde, while prospecting a new logging road south of Houston, B.C. Imperial acquired an option and subsequently surrounded the original ten two-post claims with 260 additional units.

The prospect consists of disseminated and fracture-filled copper and molybdenum sulphide mineralization, occurring in resistant angular boulders (see below) and sub-outcrops spread over a 200 metre by 200 metre area.

Within a few months of acquiring the option, Imperial drilled a two-km stretch of the new access road adjacent to the mineralized boulders. A total of 615.8 metres of drilling in 50 holes was completed. The purpose of this work was to investigate the geology of the bedrock and test for mineralization beneath the thin yet extensive glacial till.

The drilling results were very encouraging: rock chips from bedrock matched the mineralogy of the mineralized boulders. Sulphide mineralization, albeit sparse (best intercept returned 0.49% Cu over 1.8 Metres), was encountered in at least three holes. However, given the grade (in excess of 0.5% Cu) and extent of mineralized boulders, the question remains as to the whereabouts and extent of the source of that mineralization. Further work is required to better pinpoint the area of origin of the mineralized boulders.

Ownership

The property, consisting of 10 two-post claims and 13 four-post (260 units) was optioned by Imperial Metals Corporation from prospectors Ed and Gerry Westgarde.

Location and Access

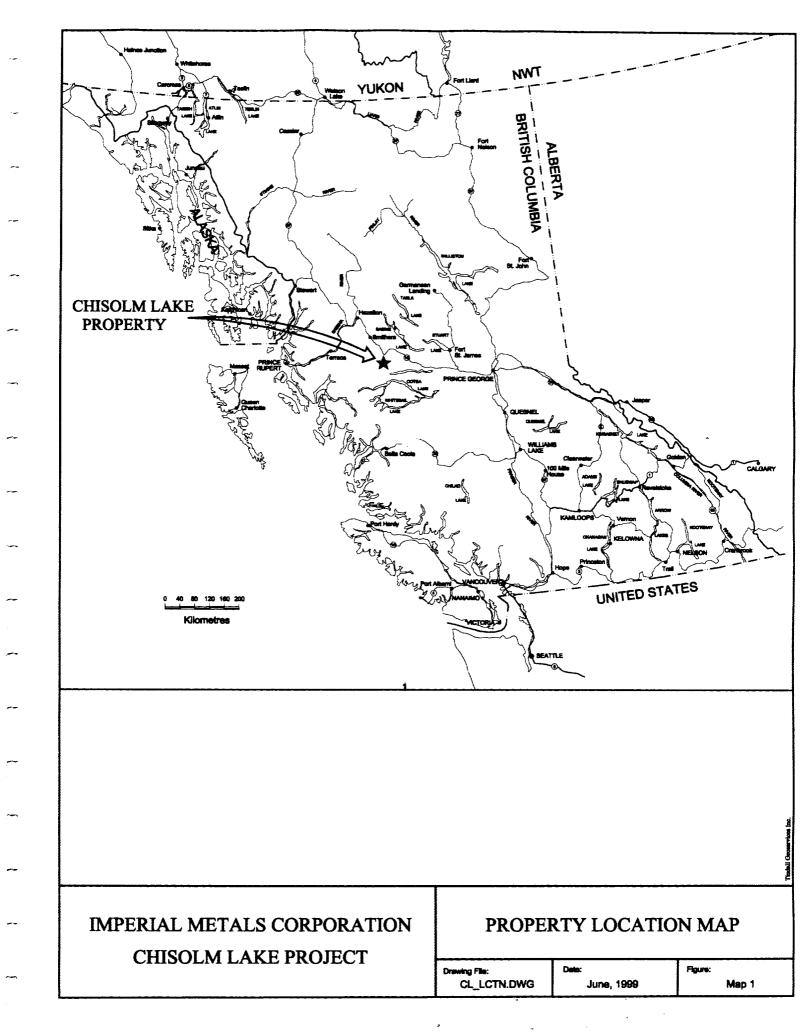
The Chisholm Lake Project is located in the Omineca Mining division, west central British Columbia. The property is centered on 54°14'N, 127°16 W on NTS map sheet 93 L/3. The town of Houston lies 43 km to the northeast.

Access to the property is gained by traveling south and west from Houston, B.C. over a network of well-maintained logging roads that lead directly to the showing area.

Topography

The Chisholm Lake Project lies near the western edge of the Nechako Plateau. The area is characterized by very subdued topography with small ridges amongst larger areas of low-lying, often swampy ground. Glacial features dominate the landscape. The showing area drains east into Tagit Creek, which flows into the Morice River.

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Section

Geology

Regional Geology

The Chisholm Lake property is located within the Intermontane Tectonic Belt. The area is underlain predominantly by Jurassic and Early Cretaceous volcanics and sedimentary rocks, which lie unconformably over Permian sedimentary basement rocks. All units host small to medium sized stocks and zoned intrusive bodies ranging from Late Cretaceous to Early Tertiary age.

Property Geology

The claim group lies in an area with very little outcrop, and therefore, details of the property geology are still largely unknown. Geologic mapping in the area is presented in Geological Survey of Canada Open File 531, authored by H.W. Tipper (1976). Tipper shows the property to be underlain by lower Cretaceous Skeena Group volcanic and sedimentary rocks, in faulted contact with volcanics of the Jurassic Telkwa formation. To the north, plugs of the Early Jurassic Topley suite are noted.

Work on the property in 1998 (see map on following page) identified a previously unmapped quartz monzonite stock of unknown dimension, which appears very similar to the members of the Bulkley intrusive suite. These rocks are commonly found associated with mineral showings in the region. The eastern edge of the stock is observed in a recent road cut, but it can not be followed to the north, south or east due to overburden cover. Subsequent shallow drilling (see below) has identified at least a one-kilometer dimension to the intrusive stock.

Mineralization and Alteration

Alteration observed in the volcanics east of the intrusive includes moderately strong homfelsing, with patches of sericite-clay alteration. Float boulders of this rock-type are commonly found with up to 5% disseminated pyrite content.

Intrusive rocks, both mineralized and unmineralized, appear relatively fresh with only minor degradation of feldspar minerals to clay.

Copper and copper/molybdenum mineralization is observed as both disseminated and fracture related sulfides, hosted in quartz monzonite. Molybdenite is only observed to date, as fracture related mineralization.

Drilling

Section

Program Design

The drilling program was designed to assess bedrock geology, underlying the extensive glacial till that masks most of the area surrounding the mineralized boulders. Holes were drilled along the newly constructed logging road that traverses the heart of the property. This allowed for easy access and quick setups, while minimizing environmental impact.

The holes were generally spaced approximately 20m apart and drilled vertically at least two full steel lengths (6.0m) into bedrock. Production was dramatically reduced when overburden thickness exceeded 6 metres, commonly necessitating the abandonment of those holes.

The program was initiated near the LCP for claims CL 1-4 and continued to the east and west to areas where the overburden was too deep to penetrate efficiently with the equipment used.

Equipment Used

Drilling was done using a Caterpillar M32 Tank Drill, owned by Similco Mines Limited. The self-propelled drill has an onboard air compressor and water tank. Most drilling was completed using a 2" diameter bit and 3m steel. Collars were used to join on additional steel to reach the desired depth.

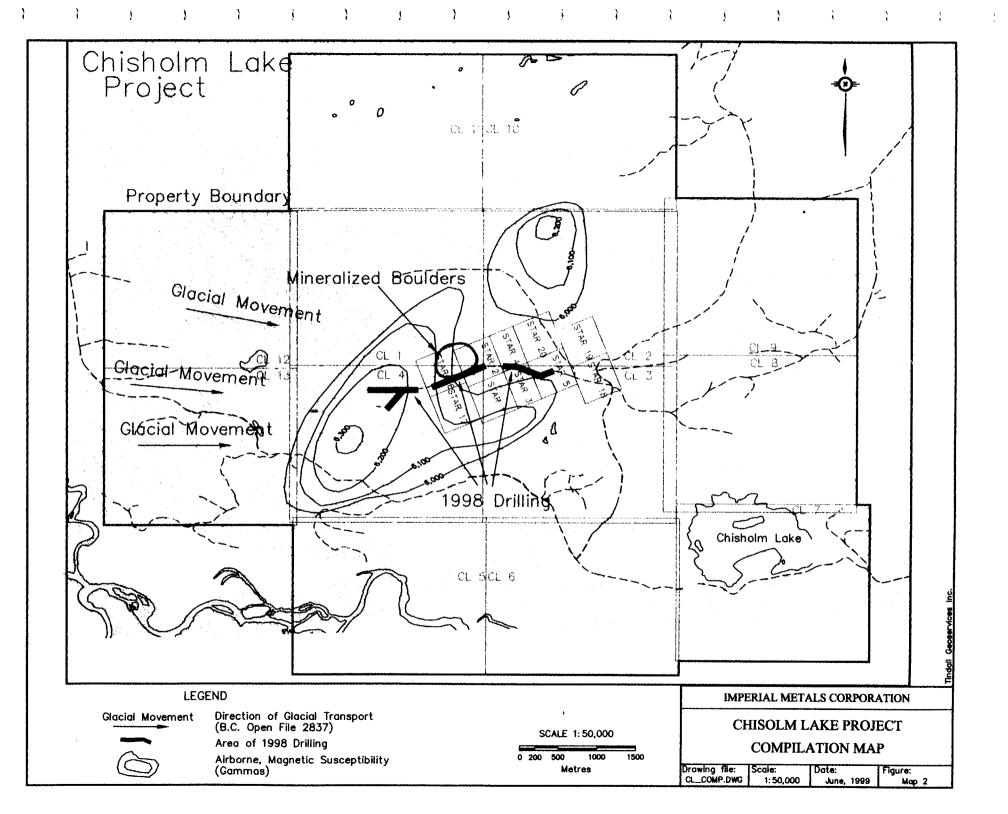
Procedure

During the drilling operation, an operator controlled the machine under the supervision of the foreman and with the assistance of a helper. In this case the helper was also an experienced driller, greatly increasing the efficiency of the work. The foreman and helper lined up the drill for placement and orientation, took notes, added and removed drill steel, serviced the machine, split samples, labeled and bagged chips and placed a representative portion of sample into a chip storage tray.

All drill hole locations were recorded using a hand held GPS unit. Each location was recorded as the average of 10 readings.

The chips produced, range from fine clay up to 0.5 cm in diameter. The fineness of the chips made sampling on the basis of geologic boundaries impractical, so samples were taken when drilling was stopped to add steel or end the hole.

The chips were logged by the author and P. McAndless using a binocular microscope. See Appendix A for drill logs.



Assays

All samples were double bagged and sent to a non-arms length laboratory at Huckleberry Mine and analyzed for copper and molybdenum. The samples were dropped at the Arrow Transportation transfer facility in Houston, where they were picked up by the driver of a concentrate haulage truck and then delivered to the mine site assay lab.

The assays are intended to be used for internal purposes only and will not be used for the calculation of resource figures or be used as the sole basis for financial decisions. Assaying was only intended to provide an indication of the presence/absence of copper and/or molybdenum mineralization in the samples, as an indication of where the mineralized zones may exist.

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Proposed Program

Preamble

Mineralized quartz monzonite (and adjacent andesite) bedrock has been identified for a distance stretching over one kilometre, but the best grades have been observed in boulders of unknown origin. They are believed to be relatively proximal, being angular and appearing to match the intrusive stock observed in bedrock. This has provided an intriguing

The area surrounding the showings will be covered with a selection of reconnaissance surveys suited to the terrain. Mapping and geochemistry, followed by geophysics should provide detailed targets for follow-up drilling.

Geology

Limited exposure has resulted in the failure of regional mapping by government agencies to identify the quartz monzonite stock, now known to be at least one km across. Very little exposure is expected, but all bedrock observed will be mapped and studied in detail.

The presence of the best mineralization observed on the property to date, in float boulders suggests that the glacial history of the property must be fully understood in order to make the best use of geochemical data gathered. Consultants with experience in Quaternary Geology, ideally with some direct experience in the surrounding region will be contracted to determine the glacial history of the area, with particular emphasis on ice direction. Air photo interpretation and a site visit to map features related to ancient ice movement and glacial episodes will provide the required data.

Geochemistry

Biogeochemical sampling of trees over an area of two km by one km, with in-fill soil sampling and moss mat sampling from streams where appropriate would generate a database of over 500 samples. The biogeochemical sampling will be employed wherever possible as some areas of the property are covered by deep, impervious, clay rich till that may limit the usefulness of conventional soil sampling. Soil sampling will be used mostly in clearcuts where biogeochemical coverage is not possible. Moss mat samples will be taken from any streams or creeks encountered that have a high enough gradient to be useful.

Geophysics

The classical "porphyry-style" of alteration and mineralization observed at Chisholm Lake suggests that Induced Polarization (IP), especially chargeability, would work very well to define areas of sulfide mineralization (either pyrite halo or disseminated chalcopyrite). Once geochemistry and geological investigation have focused in on prospective areas, nine line km of IP survey will be conducted to further define drill targets.

Drilling

Drill targets generated from the reconnaissance work will be prioritized and drilled accordingly. A total of 2,150 meters of drilling is budgeted.

The presence of well-mineralized boulders suggests that deep drilling will not be necessary to determine the location of well-mineralized zones in the first pass of diamond drilling. Drilling to a depth of 150 metres should provide information on the presence and areal extent of the hydrothermal system, and grade of the mineralization. It is intended that 12 to 15 of the highest priority targets will be tested.

Shallow drilling will translate to cost savings due to lower footage costs and quicker drilling, and could allow the application of a packsack (Gopher^{**}) drill. This would save money in road building, reclamation and bonding requirements. The risk with using such a drill is the possibility of not being able to penetrate through the overburden if the till is thicker than expected.

Access to all areas of the property should be gained relatively easily.

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Proposed Budget

The total budget of \$250,000 Cdn. is summarized below. Note that the drilling costs are targeted at \$60/metre. This may be underestimated and higher costs realized in the field would mean a reduction of drilled footage.

Geology	\$5,000
Geochemistry	\$25,000
Geophysics	\$20,000
Phase 1 Total	\$50,000
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Drilling	\$129,000
Reporting and Drafting	\$10,000
Filing Fees	\$10,000
Phase 2 Total	\$149,000
Property Payment	\$51,000
Total	\$250,000

Statement of Expenditures

Wages

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Ū	Patrick McAndless	\$500	Geologist	(5)	\$2,500
	Steve Robertson	\$345	Geologist	(10)	\$3,450
	Gary Agar	\$310	Drill Foreman	(12)	\$3,720
	Gary Corsi	\$290	Helper	(12)	\$3,480
	Sytze Kempenaar	\$290	Drill Operator	(12)	\$3,480
Food					\$1,300
Accomodatio	on				\$2,100
Transportation	o n		Truck Rental		\$3,200
			Fuel		\$830
Communicat	tions		Two-Way Radio	Rental	\$110
			Telephone – LD		\$700
Drill			Tank Drill Renta	Ì	\$2,500
			Support and Ma	intenance	e \$4 ,200
Assays			Acme		\$180
			Bondar-Clegg		\$250
			Huckleberry Min	es	\$800
Field Supplie	es				\$1,000
Drafting					\$1,000
Report Writin	ng				\$2,700
Subtotal		\$			\$37,500
Filing Fees	1	0% of Valu	e of Work		\$3,750
Total					\$41,250

Statement of Qualifications

Stephen B. Robertson, P.Geo.

I, Stephen Robertson, of 1969 Lower Road, Roberts Creek, British Columbia, hereby certify that:

- I am a geologist, employed by Imperial Metals Corporation.
- I am a 1989 graduate of the University of Alberta in Edmonton, with a Bachelor of Science degree in geology.
- I have been employed in mining since 1988 and have continuously practiced my profession since 1989.
- I am a Professional Geoscientist, registered with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- I supervised and planned the program described in this report.
- This report is based on the information gained during the 1998 field season and a review of public reports.
- This report may be used for development of the property or raising of funds, provided that no portion of it is used out of context, or in such a manner as to convey a meaning different from that set out in the whole.

Signed at Vancouver, British Columbia, this <u>10</u> day of <u>June</u>, 1999.

Stephen Robertson, P.Geo.



List of Personnel

Patrick McAndless Geologist

Steve Robertson

Sytze Kempenaar

Gary Agar

Gary Corsi

Geologist

Helper

Drill Foreman

Drill Operator

(5) (10)

(12)

(12)

(12)

December 7 - 11

November 19 - 28

November 18 - 29

November 18 - 29

November 18 - 29



Drill Logs

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HOLE NO:	CL 98-01	Date:	NOVEMBER 19, 1998		
PROJECT:	CHISHOLM LAKE	***(DRILLING SUMMARY***	SURVEY DATA:	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 6,010,513.4
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 613,171.2
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: N/C

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COMMENTS:	rock at 1.5 m
	drilled to 15.24m (trouble with lost circulation twice)
	EOH at 15.2 m

Hole Name	From	To	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98-01	1.5	3	1.5	4 	Intermediate volcanic (dust tuff) very fine grained. = 0.1% sulphide - very fine grained chalcopyrite. Trace malachite. Volcanic is strongly magnetic. Hematite coated slickensides 1.5 m - 3 m, grey-green, fine grained, minor quartz veins; felted biotite indicating hornfelsing finer chips.	0.073	<.001
CL 98-01	3	6.1	3.1		3 m - 6.1 m as above.	0.027	<.001
CL 98-01	6.1	9.1	3		6.1 m - 9.1 m as above but less sulphide and increase in quartz chips (stockwork of veinlets?).	0.019	<.001
CL 98-01	9.1	12.2	3.1		9.1 m - 12.2 m as above - Trace sulphide or mala observed in this sample. 9.1 m - 15.2 m very little sulphides.	0.027	<.001
CL 98-01	12.2	15.2	3		12.2 m - 15.2 m as above.	0.036	<.001

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HOLE NO:	CL 98-02	Date:	NOVEMBER 20, 1998		
PROJECT:	CHISHOLM LAKE	····	DRILLING SUMMARY***	SURVEY DATA:	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 6,010,513.8
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 613,150.9
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
Water: hole makir	ng too much water at 15.2 m]		Dip:	-90°
COMMENTS:	rock at 3.3 m				
	tried to go 15.2 m - hole making too i	nuch water			
	EOH at 12.2 m				

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Hole Name	From	To	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
					Mostly intermediate volcanic as in hole 01, lessor quartz chips, trace chalcopyrite in volcanic. Hornfelsed, moderate limonite, weak to moderate sericite alteration,		
CL 98-02	3	6.1	3.1		quartz veins (0 m - 12.2 m).	0.073	0.007
CL 98-02	6.1	9.1	3		As above. Sample has 10% contamination from road fill.	0.077	0.003
CL 98-02	9.1	12.2	3.1		Sample wet - hit aquifer. Muddy matrix around volcanic chips - contaminated by road fill.	0.071	0

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LOCATION: OMINECA MINING DISTRICT, BC Drill Rig: TANK DRILL E 613,131	PROJECT:	CHISHOLM LAKE	***(DRILLING SUMMARY***	SURVEY DATA:	
	MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 6,010,516.0
HOLE TYPE: DEPCUSSION UI organ By: S DOBEDTSON/D MCANDLESS	LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 613,131.4
nole iffe. Ferodooloia filogged by. O.Robertoolar.Monabeoo [[Azimuli, 0	HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°

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COMMENTS:	went down 6.1 m all alluvial	
	EOH after 6.1 m, no samples	

Hole Name	From (m)	To (m)	Length (m)	Unit	Geological Log	Cu%	Мо%
					No sample. 6.1 m of O/B and making water. No		· · · ·
CL 98-03					bedrock.		

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PROJECT:	CHISHOLM LAKE	***[DRILLING SUMMARY***	SURVEY DAT	A :
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 512.8
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 118.4
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

COMMENTS: went down 9.1 m (alluvial all the way) EOH at 9.1 m

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no samples

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
					No sample. 9.1 m of O/B and making water. No		
CL 98-04					bedrock.		

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HOLE NO:	CL 98-05	Date:	NOVEMBER 20, 1998		
PROJECT:	CHISHOLM LAKE		DRILLING SUMMARY***	SURVEY DATA	<u>.</u>
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 505.8
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 096.6
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

Water: water at 7 m

	at 3.3 m
drille	ed to 12.2 m (added a 3 m rod and lost circulation because of water)
EOH	l at 12.2 m

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98-05	4	6.1	2.1		Intermediate volcanics with quartz stockwork trace chalcopyrite. Significant biotite. (Hornfelsed, minor pyrite, chlorite + sericite alteration, quartz veins, minor hematite, sandy section (fault?) - 0 - 12.2 m)	0.036	0.001
CL 98-05 CL 98-05	6.1 9.1	9.1 12.2	3 3.1		As above but sample strongly contaminated by road fill. As above. Less contamination.	0.037	0.001

HOLE NO:	CL 98-06	Date:	NOVEMBER 20, 1998		
PROJECT:	CHISHOLM LAKE		DRILLING SUMMARY***	SURVEY DAT	A:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 496.3
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 078.1
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

Water: water at 7 m

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COMMENTS:	rock at 2.4 m
	drilled to 12.2 m (last hole while adding 3 m of rod because of water)
	EOH at 12.2 m

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98-06	0	3	3		As top of last hole, heavily contaminated. (chlorite + sericite alteration, hornfelsed, moderate limonite minor quartz veins, fine-grained to sandy component - 0 m- 12.2 m).	0.027	0.001
	- <u> `</u>	- <u> </u>	<u> </u>		16.6 III).	0.027	
CL 98-06	3	6.1	3.1		Less contaminated, increase in chalcopyrite to 0.1%.	0.043	0.001
CL 98-06	6.1	9.1	3		As above.	0.015	0.001
CL 98-06	9.1	12.2	3.1		As above but up to 0.5% chalcopyrite. 9.1 m - 15.2 m with minor pyrite - 12.2 m-15.2 m very little sulphides.	0.07	0.001

HOLE NO:	CL 98-07	Date:	NOVEMBER 20, 1998		
PROJECT:	CHISHOLM LAKE		DRILLING SUMMARY***	SURVEY DAT	A:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 486.6
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 062.6
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
******				Dip:	-90°
Water: N/C]				-90

COMMENTS:	rock at 3 m	
l	last circulation at 12.2 m	
	EOH at 12.2 m	

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98-07	3	6.1	3.1		Good rock chips - trace chalcopyrite (hornfelsed, chlorite+ sericite alteration, minor pyrite with chlorite, light (quartz rich) and dark (biotite+ chlorite) chips, minor quartz veins - 0 m-12.2 m).	0.015	0
CL 98-07	6.1	9.1	3		As above.	0.016	0.001
CL 98-07	9.1	12.2	3.1		As above.	0.029	0.001

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HOLE NO:	CL 98-08	Date:	NOVEMBER 20, 1998		
PROJECT:	CHISHOLM LAKE	****(DRILLING SUMMARY***	SURVEY DATA	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 477.6
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 043.9
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
		·····	······································	Dip:	-90°

Water: water at 7.6 m

COMMENTS:	rock at 1.5 m
	last 3 m (9.1 m - 12.2 m) very little sample
	EOH at 12.2 m
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Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98-08	2	6.1	3.1		Chips heavily dominated by quartz - could be intrusive - no sample. Fine to medium biotite grains, weak sericite alteration, a few flecks of chalcopyrite.	0.012	0
CL 30-08		0.1	0.1		Volcanics - sample wet with significant contamination.	0.012	0
CL 98-08	6.1	9.1	3		(Fine to medium dark hornfelsed chips, muddy content, minor pyrite 6.1 m-12.2 m).	0.024	0
CL 98-08	9.1	12.2	3.1		As above.	0.021	0.001

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HOLE NO:	CL 98-09	Date:	NOVEMBER 21, 1998		
PROJECT:	CHISHOLM LAKE	***[DRILLING SUMMARY***	SURVEY DATA	ν:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 469.5
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 024.9
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: water at 8.5 m

COMMENTS:	rock at 3 m
	drilled to 14.6 m (lost hole, water, no circulation)
	EOH at 14.6 m

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98-09	3	6.1	3.1		Samples not put in chip cases.	0.015	0.001
CL 98-09	6.1	9.1	3		As above.		0
CL 98-09	9.1	12.2	3.1		As above.	0.014	0
CL 98-09	12.2	14.6	2.4		As above.	0.014	0.001

HOLE NO:	CL 98-10	Date:	NOVEMBER 21, 1998		
PROJECT:	CHISHOLM LAKE	***(DRILLING SUMMARY***	SURVEY DAT	A:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 460.5
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 004.5
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: N/C

COMMENTS:	hit rock at 4.9 m
	no sample first 6.1 m
	EOH at 15.2 m (lost 6.1 m of rod and bit)

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98-10	6.1	9.1	3		Quartz-rich intrusive, perhaps quartz monzonite, no sulphide observed. (10% quartz, weak to moderate sericite alteration, mainly sand with a few chips, very little sulphide - 0 m-15.2 m).	0.015	0.001
CL 98-10	9.1	12.2	3.1		As above.	0.012	0
CL 98-10	12.2	15.2	3		As above.	0.011	0.002

HOLE NO:	CL 98-11	Date:	NOVEMBER 21, 1998		
PROJECT:	CHISHOLM LAKE] [DRILLING SUMMARY***	SURVEY DATA:	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 6,010,445.8
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 612,968.6
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: water at 5.5 m

COMMENTS:	rock at 4.9 m
	from 9.1 m to 10.7 m no sample (too much water)
	EOH at 10.7 m
	Lorratio./iii

Hole Name	From	To	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98-11	4.9	6.1	1.2		As above sample but some road fill contamination - trace molybdenite. Minor pyrite. (Weak sericite alteration in sandy component; only a few flecks of sulphide - 0 m-9.1 m).	0.015	0.001
CL 98-11	6.1	9.1	3		As above, no molybdenite.	0.012	0

HOLE NO:	CL 98-12	Date:	NOVEMBER 21, 1998		
PROJECT:	CHISHOLM LAKE	****	DRILLING SUMMARY***	SURVEY DATA	λ:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 437.1
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 947.1
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

.

Water: water at 3 m

COMMENTS:	rock at 4.6 m
	drilled to 9.1 m - very little sample (lots of water)
	EOH at 9.1 m

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98-12	4.6	6.1	1.5		As above sample but heavily contaminated. (Fine- grained, quartz-rich sand, slightly muddy ~15% mafics, biotite appears unaltered, very little sulphide - 0 m-9.1 m).	0.015	0.001
	4.0	10.1	1.5				0.001
CL 98-12	6.1	9.1	3		Clean sample - no sulphide.	0.012	0

HOLE NO:	CL 98-13	Date:	NOVEMBER 21, 1998		
PROJECT:	CHISHOLM LAKE	***(DRILLING SUMMARY***	SURVEY DATA	x
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 428.2
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 930.5
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: N/C

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COMMENTS:	drilled to 3.6 m - no rock	
	hole caving badly	
	EOH at 3.6 m	

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
					No samples. Very little saved, mainly quartz and feldspar, ~15% limonite associated with chloritized		
CL 98-13	0	3.6	3.6		biotite.		

HOLE NO:	CL 98-14	Date:	NOVEMBER 21, 1998		
PROJECT:	CHISHOLM LAKE	****(DRILLING SUMMARY***	SURVEY DAT	A:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 420.3
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 913.6
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
		<u></u>		Dip:	-90°

Water: N/C

COMMENTS:	rock at 3 m	
	drilled to 15.2 m - no water	
	EOH at 15.2 m, first good hole	

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98-14	3	6.1	3.1		Trace malachite in intrusive.	0.015	<.001
CL 98-14	6.1	9.1	3		As above. No sulphide.	0.02	<.001
CL 98-14	9.1	12.2	3.1		As above.	0.028	<.001
					As above. Weak sericite alteration, minor chlorite		
CL 98-14	12.2	15.2	3		alteration of biotite, few flecks of sulphide.	0.03	0.001

HOLE NO:	CL 98-15	Date:	NOVEMBER 22, 1998		
PROJECT:	CHISHOLM LAKE	••••	DRILLING SUMMARY***	SURVEY DATA:	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 411.8
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 894.8
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: hit water at 6.1 m

COMMENTS:	rock at 1.5 m
	EOH at 15.2 m

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98-15	1.5	3	1.5	1	Intrusive - no sulphide - clean sample.	0.014	<.001
CL 98-15	3	6.1	3.1		As above.	0.023	<.001
CL 98-15	6.1	9.1	3		As above.	0.011	<.001
CL 98-15	9.1	12.2	3.1	1. 	As above. Fine to medium grains quartz and feldspar and biotite with a few coarse chips, very minor hematite, weak to moderate sericite alteration, a few flecks of molybdenite, very little sulphide.	0.017	0.01
CL 98-15	12.2	15.2	3		Intrusive - no sulphide - clean sample.	0.007	<.001

HOLE NO:	CL 98-16	5			Date: NOVE	MBER 22, 1998		
PROJECT:	CHISHO				***DRILLIN	G SUMMARY***	SURVEY DATA:	
MAP REFERENC	093 L/03	093 L/03			Drill Contractor: IMPE	RIAL METALS	Colar:	N 402.3
LOCATION:	OMINEC	OMINECA MINING DISTRICT, BC			Drill Rig: TANK	DRILL		E 879.1
HOLE TYPE:	PERCUS	PERCUSSION			Logged By: S.ROI	BERTSON/P.MCANDLESS	Azimuth:	0°
		*******					Dip:	-90°
Water: slight wat	er at 12.2 r	n	7				L	
COMMENTS:	rock at 1	.8 m						
	drilled to	15.2 m						
	drilled to EOH at 1							
Hole Name	EOH at 1	5.2 m	l ength	Unit	Geol	ogical I og	Cu%	
Hole Name	EOH at 1 From	5.2 m	Length (m)	Unit	Geol	ogical Log	Cu%	Mo%
Hole Name	EOH at 1	5.2 m	Length (m)	Unit	Geol Some good large chips, s		Cu%	Mo%
	EOH at 1 From	5.2 m		Unit			Cu%	Mo%
CL 98-16	EOH at 1 From (m)	5.2 m	(m)	Unit	Some good large chips, s			
Hole Name CL 98-16 CL 98-16 CL 98-16	EOH at 1 From (m) 1.8	5.2 m To (m) 3	(m) 1.2	Unit	Some good large chips, s sulphide.		0.023	<.001
CL 98-16 CL 98-16	EOH at 1 From (m) 1.8 3	5.2 m To (m) 3 6.1	(m) 1.2 3.1	Unit	Some good large chips, s sulphide. As above but clean. As above.		0.023	<.001 <.001
CL 98-16 CL 98-16	EOH at 1 From (m) 1.8 3	5.2 m To (m) 3 6.1	(m) 1.2 3.1	Unit	Some good large chips, s sulphide. As above but clean. As above. As above. Fine to medium	sample contaminated, no	0.023	<.001 <.001
CL 98-16 CL 98-16	EOH at 1 From (m) 1.8 3	5.2 m To (m) 3 6.1	(m) 1.2 3.1	Unit	Some good large chips, s sulphide. As above but clean. As above. As above. Fine to medium	ample contaminated, no n grains with a few coarse alteration of biotite, minor	0.023	<.001 <.001

HOLE NO:	CL 98-17	7			Date:	NOVEMBER 22, 1998		
PROJECT:	CHISHO	LM LAKE			***[DRILLING SUMMARY***	SURVEY DATA	
MAP REFERENC	093 L/03	I			Drill Contractor:	IMPERIAL METALS	Colar:	N 391.5
LOCATION:	OMINEC	OMINECA MINING DISTRICT, BC			Drill Rig:	TANK DRILL		E 858.7
HOLE TYPE:	PERCUS	SION			Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
			*****				Dip:	-90°
Water: water at 3	m]					• <u>•</u> •••••	<u></u>
COMMENTS:	rock at 1	<u>6 m</u>						
COMMENTS.	drilled to							
	EOH at 1							
Hole Name	From	То	Length	Unit		Geological Log	Cu%	Mo%
Note Maine	(m)	(m)	(m)	Unit			Cun	1410 70
	I	1			Intrusive - very he	avily contaminated. (Weak to		
		1			moderate sericite	alteration, few flecks of sulphide - 0		
CL 98-17	1.5	3	1.5		m-15.2 m).		0.022	<.001
CL 98-17	3	6.1	3.1		As above but no o	contamination.	0.007	<.001

As above.

As above.

As above.

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CL 98-17

CL 98-17

CL 98-17

6.1

9.1

12.2

9.1

12.2

15.2

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3.1

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HOLE NO:	CL 98-18	Date:	NOVEMBER 22, 1998		
PROJECT:	CHISHOLM LAKE	***(DRILLING SUMMARY***	SURVEY DAT	Ą :
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 382.0
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 840.6
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: water at 12.2 m

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COMMENTS:	rock at 2.1 m		
	drilled to 15.2 m		
	EOH at 15.2 m		

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Мо%
	(m)	(m)	(m)				
CL 98-18	2.1	3	0.9		Intrusive - very heavily contaminated.	0.029	0.001
CL 98-18	3	6.1	3.1		Intrusive - clean - no sulphide.	0.023	0.006
CL 98-18	6.1	9.1	3		As above - trace chalcopyrite. Moderate to intense sericite alteration, few flecks of sulphides.	0.023	0.001
CL 98-18	9.1	12.2	3.1		As above. A few chalcopyrite flecks with quartz.	0.025	<.001
CL 98-18	12.2	15.2	3		As above but contaminated. Few flecks of bornite with quartz plus a few flecks of molybdenite.	0.002	<.001
CL 98-18			0			0.018	<.001
CL 98-18			0			0.001	<.001
CL 98-18		I				0.109	0.015

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HOLE NO:	CL 98-19	Date:	NOVEMBER 22, 1998		
PROJECT:	CHISHOLM LAKE	****[DRILLING SUMMARY***	SURVEY DATA:	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 373.3
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 821.1
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
<u></u>				Dip:	-90°

Water: N/C

COMMENTS:	rock at 4.6 m
	drilled to 15.2 m
	EOH at 15.2 m

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98-19	4.6	6.1	1.5		Intrusive - may be a quartz monzonite biotite-rich. Magnetic - effervesces trace chalcopyrite. (Minor hematite plus chlorite with quartz, a few flecks of sulphide, weak to moderate sericite alteration - 0 m- 15.2 m.).	0.007	<.001
CL 98-19	6.1	9.1	3		As above.	0.03	<.001
CL 98-19	9.1	12.2	3.1		As above - rare sulphide.	0.013	<.001
CL 98-19	12.2	15.2	3		As above - trace chalcopyrite.	0.033	0.001

HOLE NO:	CL 98-20	Date:	NOVEMBER 22, 1998		
PROJECT:	CHISHOLM LAKE	····	DRILLING SUMMARY***	SURVEY DAT	A:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 363.4
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 801.7
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: heavy water at 3.6 m

COMMENTS:	rock at 3 m - (no sample 0 m-3 m)
	drilled to 15.2 m
	EOH at 15.2 m

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
					Intrusive as in hole 19, rare chalcopyrite. chlorite and		
CL 98-20	3	6.1	3.1		quartz and limonite.	0.02	<.001
CL 98-20	6.1	9.1	3		As above. A few sulphide grains.	0.025	<.001
CL 98-20	9.1	12.2	3.1		As above. A few sulphide grains.	0.046	<.001
CL 98-20	12.2	15.2	3		As above. Medium to intense sericite alteration.	0.013	0.002

HOLE NO:	CL 98-21]			Date:	NOVEMBER 22, 1998		
PROJECT:	CHISHOL	M LAKE				DRILLING SUMMARY***	SURVEY DATA	х:
MAP REFERENC	093 L/03				Drill Contractor:	IMPERIAL METALS	Colar:	N 354.4
LOCATION:	OMINEC	A MININC	3 DISTRIC	T, BC	Drill Rig:	TANK DRILL	11	E 785.8
HOLE TYPE:	PERCUS	SION			Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
							Dip:	-90°
Water: N/C]						.	
COMMENTS:	rock at 2.4	4 m						
	drilled to	15.2 m						
	EOH at 1	5.2 m		·····				
Hole Name	From	То	Length	Unit		Geological Log	Cu%	
Tiolo Marilo	(m)	(m)	(m)	Onit		Coologidal Log	Cun	1410 /0
						eldspar rich (less quartz). No sulphide		
			1 1		observed.(Weak	to moderate chlorite and sericite		

				Intrusive - more feldspar rich (less quartz). No sulphide observed.(Weak to moderate chlorite and sericite alteration minor hematite, a few flecks of sulphide - 0 m		
CL 98-21	2.4	3	0.6	15.2 m.)	0.021	0.001
CL 98-21	3	6.1	3.1	As above.	0.012	<.001
CL 98-21	6.1	9.1	3	As above.	0.015	<.001
CL 98-21	9.1	12.2	3.1	As above.	0.01	<.001
CL 98-21	12.2	15.2	3	As above.	0.01	<.001

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HOLE NO:	CL 98-22	Date:	NOVEMBER 23, 1998		· ·····
PROJECT:	CHISHOLM LAKE	••••	DRILLING SUMMARY***	SURVEY DATA	•
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar.	N 345.2
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 767.8
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
	_			Dip:	-90°

Water: N/C

COMMENTS:	rock at 1.8 m
	Good drilling -went 15.2 m
	EOH hole at 15.2 m

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98- 22	1.8	3	1.2	·- 	~10% contaminated by fill. Intrusive as in hole 21 No sulphide. (Light grey-brown grades to darker grey- green, moderate chlorite alteration of biotite, a few sulphide flecks with chlorite and quartz - 0 m-15.2 m)	0.01	<.001
CL 98 -22	3	6.1	3.1		As above.	0.004	<.001
CL 98 -22	6.1	9.1	3		As above.	0.009	0
CL 98 -22	9.1	12.2	3.1		As above.	0.017	<.001
CL 98 -22	12.2	15.2	3		As above, trace chalcopyrite.	0.092	<.001

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HOLE NO:	CL 98-23	Date:	NOVEMBER 23, 1998		
PROJECT:	CHISHOLM LAKE		DRILLING SUMMARY***	SURVEY DAT	A:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 335.8
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 751.7
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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COMMENTS:	rock at 2.4 m	
	good drilling to 15.2 m	
	EOH hole at 15.2 m	

Hole Name	From	To	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
		1			As hole 22, no sulphide. (A few flecks of sulphide - 0 m-		ł
CL 98-23	2.4	3	0.6		15.2 m)	<.001	<.001
CL 98-23	3	6.1	3.1		Rare chalcopyrite.	<.001	0
CL 98-23	6.1	9.1	3		As above.	0	0
CL 98-23	9.1	12.2	3.1		No chalcopyrite. Moderate to weak sericite alteration.	<.001	<.001
CL 98-23	12.2	15.2	3		No chalcopyrite.	<.001	0

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HOLE NO:	CL 98-24	Date:	NOVEMBER 23, 1998		
PROJECT:	CHISHOLM LAKE	***	DRILLING SUMMARY***	SURVEY DATA	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 324.1
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 731.9
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
<u></u>				Dip:	-90°

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Water: N/C

OMMENTS:	rock at 2.4 m
	good drilling to 15.2 m
	EOH hole at 15.2 m

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
		T			Mostly road fill. (Moderate chlorite alteration of biotite,		
CL 98-24	2.4	3	0.6		few sulphide flecks - 0 m-15.2 m)	<.001	0
CL 98-24	3	6.1	3.1		As in hole 23, no sulphide.	<.001	0.001
CL 98-24	6.1	9.1	3		As above.	0.002	0
CL 98-24	9.1	12.2	3.1		As above.	<.001	0.002
CL 98-24	12.2	15.2	3		As above.	<.001	0.002

HOLE NO:	CL 98-25	Date:	NOVEMBER 23, 1998		· · · · · · · · · · · · · · · · · · ·
PROJECT:	CHISHOLM LAKE	***(DRILLING SUMMARY***	SURVEY DATA	۹:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 315.7
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 713.7
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
B				Dip:	-90°

Water: N/C

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COMMENTS:	rock at 2.1 m
	good drilling to 15.2 m
	EOH hole at 15.2 m

Hole Name	From	To	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				1
CL 98-25	2.1	3	0.9		Strongly contaminated by road fill. (Very minor sulphides	<.001	0
CL 98-25	3	6.1	3.1		Quartz-rich intrusive. Very little feldspar. No sulphide.	<.001	0
CL 98-25	6.1	9.1	3		As above. Weak to moderate sericite alteration.	<.001	0.001
CL 98-25	9.1	12.2	3.1		As above.	<.001	0
CL 98-25	12.2	15.2	3		Trace chalcopyrite	<.001	<.001

HOLE NO:	CL 98-26	Date:	NOVEMBER 23, 1998		
PROJECT:	CHISHOLM LAKE	****	DRILLING SUMMARY***	SURVEY DATA	۹:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 311.4
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 693.9
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	~90°

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Water: water at 3 m (slight)

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COMMENTS: rock at 2.4 m rods wet until last 0.9 m to 1.2 m hole would seal and dry. EOH hole at 15.2 m

Hole Name	From	To	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
		1			Road fill. (Hematite and chlorite 2.4 m to 6.1 m, weak		
					to moderate chlorite alteration of biotite, no sulphides		
CL98-26	2.4	3	0.6		observed - 0 m-15.2 m).	0.07	<.001
CL98-26	3	6.1	3.1		Very quartz-rich. Rare chalcopyrite.	0.025	<.001
CL98-26	6.1	9.1	3		As above. No sulphide.	<.001	<.001
CL98-26	9.1	12.2	3.1		As above.	0.029	<.001
CL98-26	12.2	15.2	3		As above.	<.001	<.001

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HOLE NO:	CL 98-27	Date:	NOVEMBER 23, 1998		
PROJECT:	CHISHOLM LAKE	***	DRILLING SUMMARY***	SURVEY DAT	A:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 305.6
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 675.0
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

Water: N/C

COMMENTS:	rock at 3 m, no sample first 3 m.
1	good drilling to 15.2 m.
	EOH hole at 15.2 m

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
01.00.07		6.4	2.4		Very quartz-rich. Up to 5% mica (mostly biotite and chlorite). No sulphide. (Some limonite chips, very siliceous, few flecks of sulphide, weak sericite alteration	- 001	- 004
CL98-27	3	6.1	3.1		- 0 m-15.2 m).	<.001	<.001
CL98-27	6.1	9.1	3		As above. Rare sulphide.	<.001	0
CL98-27	9.1	12.2	3.1		As above.	<.001	<.001
CL98-27	12.2	15.2	3		As above,	<.001	<.001

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HOLE NO:	CL 98-28	Date:	NOVEMBER 23, 1998		
PROJECT:	CHISHOLM LAKE		DRILLING SUMMARY***	SURVEY DATA	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 301.4
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 654.8
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: water at 3 m

COMMENTS:	rock at 4.6 m - no sample for 0 m to 4.6 m.
	hole sealed about half way down rods every 3 m.
	EOH at 15.2 m

Hole Name	ne From To Length Unit Geological Log		Cu%	Mo%			
	(m)	(m)	(m)				
CL 98-28	4.6	6.1	1.5		As hole 27. No sulphide.	<.001	<.001
CL 98-28	6.1	9.1	3		As above.	<.001	0
					As above. Abundant silica, weak sericite, several flecks		
CL 98-28	9.1	12.2	3.1	_	of sulphide (?) noted 9.1 m-12.2 m.	<.001	<.001
CL 98-28	12.2	15.2	3		As above. Trace sulphide.	<.001	<.001

HOLE NO:	CL 98-29	Date:	NOVEMBER 24, 1998		
PROJECT:	CHISHOLM LAKE	***(DRILLING SUMMARY***	SURVEY DATA	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 297.2
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 633.9
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

Water: N/C

COMMENTS:	rock at 5.5 m - no sample 0 m to 5.5 m
	good drilling, drilled to 15.2 m
	EOH at 15.2 m

Hole Name	From	To	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
					Increase in feldspar, mafics, and chlorite. No sulphide. (Weak to moderate sericite, a few flecks of sulphide - 0		
CL 98-29	5.5	6.1	0.6		m-15.2 m).	0.017	0.007
CL 98-29	6.1	9.1	3	-	As above.	0.011	0.001
CL 98-29	9.1	12.2	3.1		As above.	0.007	0
CL 98-29	12.2	15.2	3		As above.	0.011	0

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PROJECT:	CHISHOLM LAKE	***	DRILLING SUMMARY***	SURVEY DATA:	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 293.4
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 613.2
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°
Water: water at 10	.7 m (holes sealing off)				
	······································				
COMMENTS:	rock at 3 m - no sample 0 m - 3 m				
	drilled to 15.2 m				

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	EOH at f	15.2 m					
Hole Name	From (m)	To (m)	Length (m)	Unit	Geological Log	Cu%	Mo%
CL 98-30	3	6.1	3.1		As above, no sulphide. Minor oxide component.	0.009	0
CL 98-30	6.1	9.1	3		As above.	0.005	0
CL 98-30	9.1	12.2	3.1		As above.	0.009	0.001

As above. Intense silica with a few flecks of sulphides.

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0.011

0.001

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12.2

CL 98-30

15.2

HOLE NO:	CL 98-31	Date:	NOVEMBER 24, 1998		
PROJECT:	CHISHOLM LAKE	****(DRILLING SUMMARY***	SURVEY DATA:	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 6,010,292.2
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 612,593.9
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: water at 10.4 m (hole sealing itself)

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COMMENTS: rock at 3 m - no sample 0 m to 3 m EOH at 15.2 m The next two holes were drilled 6.1 m each, all overburden, both holes kept caving and were both abandoned.

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
					Intrusive rare chalcopyrite. High feldspar content		
					(grinds up fine to make "dust"). (Silicification with very		
CL 98-31	3	6.1	3.1		little sericite - 0 m-12.2 m.)	0.01	0.003
CL 98-31	6.1	9.1	3		As above.	0.008	0.001
CL 98-31	9.1	12.2	3.1		As above.	0.005	0.001
CL 98-31	12.2	15.2	3		As above.	0.034	0.001

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HOLE NO:	CL 98-32	Date:	NOVEMBER 24, 1998		
PROJECT:	CHISHOLM LAKE	***	DRILLING SUMMARY***	SURVEY DAT	A:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 217.3
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 174.9
Hole Type:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

Water: N/C

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COMMENTS:	rock at 3 m	
	good drilling	
	EOH at 15.2 m	

Hole Name	From	Τo	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
CL 98-32	3	6.1	3.1		High feldspar content. Trace chalcopyrite.	0.005	0
CL 98-32	6.1	9.1	3		As above.	0.005	0
					As above. No sulphide. Minor hematite silicification,		
CL 98-32	9.1	12.2	3.1	_	few sulphide flakes, very weak sericite.	0.028	0.001
CL 98-32	12.2	15.2	3		Very feldspar-rich, muddy.	0.018	0

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HOLE NO:	CL 98-33	Date:	NOVEMBER 24, 1998		
PROJECT:	CHISHOLM LAKE	***(DRILLING SUMMARY***	SURVEY DATA:	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 214.9
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 612,000.0
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

Water: N/C

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COMMENTS:	rock at 4.3 m	
	drilled to 15.2 m	
	EOH at 15.2 m	

Hole Name	From	To	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
					Very quartz-rich intrusive - abundant chalcopyrite, up to		
					0.5% chalcopyrite. >1% sulphide. 1% sulphide		
CL 98-33	4.3	6.1	1.8		siliceous, weak to moderate sericite.	0.494	0.001
					As above but lower chalcopyrite concentration. Less		
CL 98-33	6.1	9.1	3	-	sulphides.	0.065	0.001
					As above - trace chalcopyrite. (Only a few flecks 9.1 m-		
CL 98-33	9.1	12.2	3.1		15.2 m).	0.021	0.001
CL 98-33	12.2	15.2	3		As above, rare chalcopyrite.	0.012	0.001

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HOLE NO:	CL 98-34	ļ.			Date: NOVEMBER 25, 1998		
	*(65 degi	ree angle	into bank)				
PROJECT:	CHISHO				***DRILLING SUMMARY***	SURVEY DATA	λ:
MAP REFERENC	093 L/03				Drill Contractor: IMPERIAL METALS	Colar:	N 399.3
LOCATION:	OMINEC		3 DISTRIC	T, BC	Drill Rig: TANK DRILL		E 612,846.7
HOLE TYPE:	PERCUS	SION			Logged By: S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
						Dip:	-90°
Water: N/C	7						
COMMENTS:	rock in .3	30 m					
	good dril	lina drille	d 18 3 m				
	good din	ing, unite					
	EOH at 1						
	EOH at 1	18.3 m		1 Init	Ceological Log	Cu94	M0%
Hole Name	EOH at 1 From	18.3 m To	Length	Unit	Geological Log	Cu%	Mo%
Hole Name	EOH at 1	18.3 m		Unit		Cu%	Mo%
Hole Name	EOH at 1 From	18.3 m To	Length	Unit	Quartz-rich intrusive - minor chalcopyrite. (Some	Cu%	Mo%
	EOH at 1 From (m)	18.3 m To	Length	Unit		Cu%	Мо% 0
*CL 98-34	EOH at 1 From	18.3 m To (m) 3	Length (m)	Unit	Quartz-rich intrusive - minor chalcopyrite. (Some sulphide flecks 0 m-6.1 m, weak sericite, moderate to		
*CL 98-34 *CL 98-34	EOH at 1 From (m)	18.3 m To (m)	Length (m) 3	Unit	Quartz-rich intrusive - minor chalcopyrite. (Some sulphide flecks 0 m-6.1 m, weak sericite, moderate to intense silica).	0.016	0
*CL 98-34 *CL 98-34 *CL 98-34	EOH at 1 From (m) 0 3	18.3 m To (m) 3 6.1	Length (m) 3 3.1	Unit	Quartz-rich intrusive - minor chalcopyrite. (Some sulphide flecks 0 m-6.1 m, weak sericite, moderate to intense silica). As above. Trace chalcopyrite.	0.016	0.001
Hole Name *CL 98-34 *CL 98-34 *CL 98-34 *CL 98-34 *CL 98-34	EOH at 1 From (m) 0 3 6.1	18.3 m To (m) 3 6.1 9.1	Length (m) 3 3.1 3	Unit	Quartz-rich intrusive - minor chalcopyrite. (Some sulphide flecks 0 m-6.1 m, weak sericite, moderate to intense silica).As above. Trace chalcopyrite.As above.	0.016 0.016 0.008	0 0.001 0.001
*CL 98-34 *CL 98-34 *CL 98-34 *CL 98-34	EOH at 1 From (m) 0 3 6.1 9.1	18.3 m To (m) 3 6.1 9.1 12.2	Length (m) 3 3.1 3 3.1	Unit	Quartz-rich intrusive - minor chalcopyrite. (Some sulphide flecks 0 m-6.1 m, weak sericite, moderate to intense silica).As above. Trace chalcopyrite.As above.As above.As above.	0.016 0.016 0.008 0.016	0 0.001 0.001 0

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HOLE NO:	CL 98-35 *(65 degree angle into bank)	Date:	NOVEMBER 25, 1998		
PROJECT:	CHISHOLM LAKE	***(DRILLING SUMMARY***	SURVEY DAT	A:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 402.0
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL	11	E 853.2
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°
Water: N/C]				

COMMENTS:	drilling 65 degree angle into the bank (tree's)
	rock in .30 m, good drilling - drilled 12.2 m
	EOH at 12.2 m

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
*CL 98-35	0.3	3	2.7		As previous hole. No sulphide.	0.058	0.001
*CL 98-35	3	6.1	3.1		As above hole. Trace chalcopyrite.	0.017	0.001
*CL 98-35	6.1	9.1	3		As above.	0.014	0
					As above. Few flecks of sulphide @ 12.2 m-15.2 m		
*CL 98-35	9.1	12.2	3.1		with weak to moderate sericite.	0.046	0.001

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HOLE NO:	CL 98-36				Date:	NOVEMBER 25, 1998		
	*(65 degre	ee angle	into bank)]			
PROJECT:	CHISHOL	M LAKE			***	DRILLING SUMMARY***	SURVEY DAT	A:
MAP REFERENC	093 L/03				Drill Contractor:	IMPERIAL METALS	Colar:	N 407.1
LOCATION:	OMINECA		S DISTRIC	T, BC	Drill Rig:	TANK DRILL		E 857.0
HOLE TYPE:	PERCUS	SION			Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
							Dip:	-90°
Water: N/C]							
COMMENTS:	duilling of			hank		······································		
COMMENTS:	drilling at rock in 0.3	-	-					
	EOH at 6.	•						
	EOH al 0.	1 111					· · · · · · · · · · · · · · · · · · ·	<u></u>
Hole Name	From	To	Length	Unit		Geological Log	Cu%	Mo%
	(m)	(m)	(m)					
					As above up to 0	2% chalcopyrite (Coarse sulphide		

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				As above up to 0.2% chalcopyrite. (Coarse sulphide		
				grains, intense silica, weak to moderate sericite 0 m-		
*CL 98-36	0	3	3	6.1 m).	0.212	0.01
	1			As above but trace molybdenite sulphide as well and		
*CL 98-36	3	6.1	3.1	less chalcopyrite.	0.047	0.002

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HOLE NO:	CL 98-37	Date:	NOVEMBER 25, 1998		
	*(65 degree angle into bank)				
PROJECT:	CHISHOLM LAKE		DRILLING SUMMARY***	SURVEY DATA	<u> </u>
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 402.7
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 866.4
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°
Water: N/C]				
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COMMENTS:	drilling at 49 degree angle into the m	iddle of fan			
	rock in 0.30 m, drilled 6.1 m				
	EOH at 6.1 m				

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Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
	1				As above with trace chalcopyrite. No molybdenite.		
+CL 98-37	0	3	3		(Weak hematite staining of feldspar 0 m-6.1 m).	0.021	0
*CL 98-37	3	6.1	3.1	_	As above.	0.013	0.003

HOLE NO:	CL 98-38 *(65 degree angle into bank)	Date:	NOVEMBER 25, 1998		<u> </u>
PROJECT:	CHISHOLM LAKE	،،،، (DRILLING SUMMARY***	SURVEY DAT	A:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 390.9
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL	11	E 852.0
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: N/C

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COMMENTS:	drilling at ?
	rock at 0.61 m, drilled 6.1 m
	EOH at 6.1 m

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
					Intrusive is K-spar rich, trace chalcopyrite. A few		
	1				sizeable pieces of sulphide, very similar to hole 37, few		
*CL 98-38	0	3	3	_	pieces of molybdenite.	0.017	0
*CL 98-38	3	6.1	3.1		Very little K-Spar. Rare chalcopyrite.	0.011	0

HOLE NO:	CL 98-39				Date:	NOVEMBER 25, 1998		
	*(65 degr	ree angle	into bank)]			
PROJECT:	CHISHO		· · · · · · · · · · · · · · · · · · ·		****(DRILLING SUMMARY***	SURVEY DATA	\ :
MAP REFERENC	093 L/03				Drill Contractor:	IMPERIAL METALS	Colar:	N 212.9
LOCATION:	OMINEC		G DISTRIC	T, BC	Drill Rig:	TANK DRILL		E 612,027.7
HOLE TYPE:	PERCUSSION				Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
							Dip:	-90°
Water: N/C	٦							
	1							
COMMENTS:	rock at 2	.1 m						
	drilled to	9.1 m						
	EOH 9.1	m						
Hole Name	From	То	Length	Unit	1	Geological Log	Cu%	Mo%
	(m)	(m)	(m)					
	1		$+ \cdot \cdot +$		Very quartz-rich.	No sulphide. (Weak to moderate		
*CL 98-39	2.1	3	0.9			ips a greenish tinge - 0 m-9.1 m).	0.013	0
	1					· · · · · · · · · · · · · · · · · · ·		

As above.

As above.

*CL 98-39

*CL 98-39

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6.1

6.1

9.1

3.1

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0.012

0.014

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HOLE NO:	CL 98-40	Date:	NOVEMBER 25, 1998		
	*(65 degree angle into bank)				
PROJECT:	CHISHOLM LAKE	7	DRILLING SUMMARY***	SURVEY DATA	
MAP REFERENC		Drill Contractor:	IMPERIAL METALS	Colar:	N 218.2
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 611,967.2
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

Water: N/C

COMMENTS:	rock at 7.3 m, no sample 0 m-7.3 m, drilled to 15.2 m, EOH at 15.2 m.
	the next hole was abandoned at 6.1 m, down 6.1 m no bedrock, hole caving badly, EOH - no hole.
	the next two holes both also abandoned down 6.1 m - no bedrock caving and plugging badly - no holes.

Hole Name	From	To	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
	1				Strong contamination by fill - intrusive, no chalcopyrite.		
*CL 98-40	7.3	9.1	1.8		Same as hole 38.	0.014	0
	-			_	No contamination. Minor chalcopyrite, quartz-rich		
*CL 98-40	9.1	12.2	3.1	- -	intrusive.	0.03	0.001
*CL 98-40	12.2	15.2	3		Feldspar (fines) rich-source, very fine chalcopyrite.	0.011	0

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HOLE NO:	CL 98-41A	Date:	NOVEMBER 26, 1998		
	*(65 degree angle into bank)				
PROJECT:	CHISHOLM LAKE	٦	DRILLING SUMMARY***	SURVEY DATA:	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 150.0
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 612,054.7
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: hit bad water pressure at 4.6 m, bad water pressure at 1.5 m, no bad groundwater

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COMMENTS:	rock at 3 m
	drilled to 9.1 m
	EOH at 9.1 m, good drilling

Hole Name	From	To (m)	Length (m)	Unit	Geological Log	Cu%	Mo%
*CL 98-41A	(m) 0	9.1	9.1		Intrusive - as hole38.	0.014	0.001
	1					0.01	0

HOLE NO: CL	L 98-41B	Date:	NOVEMBER 26, 1998		
*(6	65 degree angle into bank)]			
PROJECT: CH] [DRILLING SUMMARY***	SURVEY DATA:	<u></u>
	93 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 150.0
LOCATION: OF	MINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 612,054.7
	ERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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COMMENTS: next hole was abandoned at 6.1 m got down to 6.1 m (all overburden) holes caving badly and bit plugging EOH at 6.1 m

Hole Name	From (m)	To (m)	Length (m)	Unit	Geological Log	Cu%	Мо%
*CL 98-41B	0	+ <u> </u>	9.1		Intrusive - as hole38.	0.014	0.001
		1				0.01	0

HOLE NO:	CL 98-41C *(65 degree angle into bank)	Date:	NOVEMBER 26, 1998		
PROJECT:	CHISHOLM LAKE		DRILLING SUMMARY***	SURVEY DATA:	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 150.0
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 612,054.7
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

Water: hit bad water pressure at 4.6 m, bad water pressure at 1.5 m, no bad groundwater

COMMENTS: next hole down also abandoned at 6.1 m caving and plugging bit badly, some kind of clay-like material all 6.1 m overburden

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Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
*CL 98-41C	0	9.1	9.1		Intrusive - as hole38.	0.014	0.001
						0.01	0

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HOLE NO:	CL 98-41D	Date:	NOVEMBER 26, 1998		
	*(65 degree angle into bank)				
PROJECT:	CHISHOLM LAKE	++++(DRILLING SUMMARY***	SURVEY DATA:	<u>.</u>
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 150.0
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 612,054.7
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: hit bad water pressure at 4.6 m, bad water pressure at 1.5 m, no bad groundwater

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COMMENTS: next hole down also abandoned at 4.6 m caving and plugging badly, still in clay-like material all 4.6 m in lower burden, this is last hole on this lower rd now moved east on other side of original holes where first started to drill

Hole Name	From	То	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
*CL 98-41D	0	9.1	9.1		Intrusive - as hole38.	0.014	0.001
						0.01	0

HOLE NO:	CL 98-41E *(65 degree angle into bank)	Date:	NOVEMBER 26, 1998		
PROJECT:	CHISHOLM LAKE	***[DRILLING SUMMARY***	SURVEY DATA	:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 150.0
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 612,054.7
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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COMMENTS: this hole was also abandoned at 7.6 m hole caving and washing out badly, no bedrock EOH at 7.6 m

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Hole Name	From	To	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
*CL 98-41E	0	9.1	9.1		Intrusive - as hole38.	0.014	0.001
						0.01	0

HOLE NO:	CL 98-41F	Date:	NOVEMBER 26, 1998		
	*(65 degree angle into bank)	1			
PROJECT:	CHISHOLM LAKE	***(DRILLING SUMMARY***	SURVEY DATA:	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 150.0
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 612,054.7
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

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Water: hit bad water pressure at 4.6 m, bad water pressure at 1.5 m, no bad groundwater

COMMENTS: this hole abandoned at 6.1 m same thing again, plugging and caving, no bedrock to 6.1 m EOH at 6.1 m

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Hole Name	From	To	Length	Unit	Geological Log	Cu%	Mo%
	(m)	(m)	(m)				
*CL 98-41F	0	9.1	9.1		Intrusive - as hole38.	0.014	0.001
						0.01	0

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HOLE NO:	CL 98-42				Date:	NOVEMBER 26, 1998			
	*(65 degre	ee angle i	into bank)]				
PROJECT:	CHISHOL	MLAKE] [DRILLING SUMMARY***	SURVEY DATA:		
MAP REFERENC	093 L/03				Drill Contractor:	IMPERIAL METALS	Colar:		
LOCATION:	OMINECA MINING DISTRICT, BC			T, BC	Drill Rig:	TANK DRILL	N 6,010,41		
HOLE TYPE:	PERCUS	SION			Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	E 613,788.9	
							Dip:	0°	
Water: N/C]							-90°	
COMMENTS:	rock at 3 i		mple (0 n	n-3 m)					
	drilled to f								
····	EOH at 12	2.2 m							
Hole Name	From	То	Length	Unit	1	Geological Log	Cu%	Mo%	
	(m)	(m)	(m)			<u>-</u>	1		

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 Hole Name
 From
 To
 Length
 Onit
 Geological Log
 Curve
 More

 (m)
 (m)
 (m)
 (m)
 (m)
 Volcanic - hornfelsed with several grains of sulphide, heavily oxidized 0 m-9.1 m.
 0.01
 0

 *CL 98-42
 0
 12.2
 12.2
 heavily oxidized 0 m-9.1 m.
 0.009
 <.001</td>

,

HOLE NO:	CL 98-43A	Date:	NOVEMBER 26, 1998		
	*(65 degree angle into bank)				
PROJECT:	CHISHOLM LAKE	7	DRILLING SUMMARY***	SURVEY DAT	·A:
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 397.6
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 919.0
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	-90°

Water: N/C

COMMENTS:	•	rock 1.5 m no sample 0 m-1.5 m, drilled 9.1 m EOH at 9.1 m										
Hole Name	From (m)	To (m)	Length (m)	Unit	Geological Log	Cu%	Mo%					
		1	1-3-1		Sediment (?) or volcanic - very white, almost all quartz							
*CL 98-43A	0	9.1	9.1		feldspar, several sulphide grains.	0.009	0.001					
		1				0.005	0					
		1				0.004	0.001					

)

HOLE NO:	CL 98-43B	Date:	NOVEMBER 26, 1998		
	*(65 degree angle into bank)				
PROJECT:	CHISHOLM LAKE		DRILLING SUMMARY***	SURVEY DATA:	
MAP REFERENC	093 L/03	Drill Contractor:	IMPERIAL METALS	Colar:	N 397.6
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 919.0
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
			****	Dip:	-90°
Water: N/C]				
COMMENTS:	next hole kept caving				
	could not get a collar on the hole				
	hole was abandoned at 2.4 m				
Hole Name	From To Length Unit		Geological Log	Cu%	Mo%

(1, 1) , (1, 2) ,

Hole Name	From (m)	To (m)	Length (m)	Unit	Geological Log	Cu%	Мо%
*CL 98-43B	0	9.1	9.1		Sediment (?) or volcanic - very white, almost all quartz feldspar, several sulphide grains.	0.009	0.001
		1	1			0.005	0
	1	1	1			0.004	0.001

,

HOLE NO:	CL 98-43C	Date:	NOVEMBER 26, 1998		
	*(65 degree angle into bank)]			
PROJECT:	CHISHOLM LAKE	٦ 	DRILLING SUMMARY***	SURVEY DATA:	
MAP REFERENC		Drill Contractor:	IMPERIAL METALS	Colar:	N 397.6
LOCATION:	OMINECA MINING DISTRICT, BC	Drill Rig:	TANK DRILL		E 919.0
HOLE TYPE:	PERCUSSION	Logged By:	S.ROBERTSON/P.MCANDLESS	Azimuth:	0°
				Dip:	~90°

,

COMMENTS:	plugging	this hole also abandoned because of caving ground plugging badly, went down 4.6 m, all overburden EOH at 4.6 m									
Hole Name	From (m)	To (m)	Length (m)	Unit	Geological Log	Cu%	Mo%				
*CL 98-43C	0	9.1	9.1		Sediment (?) or volcanic - very white, almost all quartz feldspar, several sulphide grains.	0.009	0.001				
						0.005	0				



Assays

Sheet1

DIAMOND DRILL HOLES

	Sample	Feet	Cu %	Mo %
1	CL 01	05-10	0.073	<.001
2	CL 01	10-20	0.027	<.001
3	CL 01	20-30	0.019	<.001
4		30-40	0.027	<.001
5	CL 01	40-50	0.036	<.001
6	CL 02	10-20	0.073	0.007
7	CL 02	20-30	0.077	0.003
8	CL 02	30-40	0.071	0.000
9	CL 05	13-20	0.036	0.001
10	CL 05	20-30	0.037	0.001
11	CL 05	30-40	0.014	0.001
12	CL 06	00-10	0.027	0.001
13	the second se	10-20	0.043	0.001
14		20-30	0.015	0.001
15		30-40	0.070	0.001
16	the second se	10-20	0.015	0.000
17	the second se	20-30	0.016	0.001
18		30-40	0.029	0.001
19		10-20	0.012	0.000
20		20-30	0.024	0.000
21		30-40	0.021	0.001
22		10-20	0.015	0.001
23		20-30	0.012	0.000
24		30-40	0.014	0.000
25		40-48	0.014	0.001
20	and the second sec	20-30	0.015	0.001
2		30-40	0.012	0.000
20	and the second	40-50	0.011	0.002
29		16-20	0.022	0.001
30	the second s	20-30	0.019	<.001
3	the state of the s	10-20	0.028	<.001
3	the second se	20-30	0.025	0.001
3		10-20	0.015	<.001
3		20-30	0.020	<.001
3	and the second se	30-40	0.028	<.001
3	and the second	40-50	0.030	0.001
3		05-10	0.014	<.001
and the second se	8 CL 15	10-20	0.023	<.001
	9 CL 15	20-30	0.011	<.001
	0 CL 15	30-40	0.017	0.010
	1 CL 15	40-50	0.007	<.001
	2 CL 16	06-10	0.023	<.001
	3 CL 16	10-20	0.006	<.001
	4 CL 16	20-30	0.006	<.001

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Sheet1

$\begin{array}{ c c c c c c c c c c c c c c c c c c c$						
46 CL 16 40-50 0.015 <.001 47 CL 17 05-10 0.022 <.001	Г	45	CL 16	30-40	0.060	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	F	the second s	CL 16	40-50	0.015	<.001
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	F		the second se	05-10	0.022	<.001
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	ŀ	48	CL 17	10-20	0.007	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	h		CL 18	07-10	0.029	0.001
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ľ			10-20	0.023	0.006
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ľ		CL 18	20-30	0.023	0.001
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	t		CL 18	20-30	0.025	<.001
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	ŀ	53	CL 18	30-40	0.002	<.001
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	F		CL 18	30-40	0.018	<.001
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Ì	55	CL 18	40-50	0.001	
58 CL 19 20-30 0.030 <.001 59 CL 19 30-40 0.013 <.001	ľ	56	CL 18	40-50	0.109	0.015
59 CL 19 30-40 0.013 <.001 60 CL 19 40-50 0.033 0.001 61 CL 20 10-20 0.020 <.001	ľ	57	CL 19	15-20	the second se	
60 CL 19 40-50 0.033 0.001 61 CL 20 10-20 0.020 <.001		58	CL 19	20-30	the same of a second seco	
61 CL 20 10-20 0.020 <.001 62 CL 20 20-30 0.025 <.001	Ī	59	CL 19	30-40	0.013	
61 01 00 <td< td=""><td>ľ</td><td>60</td><td>CL 19</td><td>40-50</td><td>0.033</td><td>And the second se</td></td<>	ľ	60	CL 19	40-50	0.033	And the second se
63 CL 20 30-40 0.046 <.001 64 CL 20 40-50 0.013 0.002 65 CL 21 08-10 0.021 0.001 66 CL 21 10-20 0.012 <.001		61	CL 20	10-20	0.020	
64 CL 20 40-50 0.013 0.002 65 CL 21 08-10 0.021 0.001 66 CL 21 10-20 0.012 <.001		62	CL 20	20-30	0.025	<.001
65 CL 21 08-10 0.021 0.001 66 CL 21 10-20 0.012 <.001		63	CL 20	30-40	0.046	<.001
66 CL 21 10-20 0.012 <.001 67 CL 21 20-30 0.015 <.001		64	CL 20	40-50	0.013	
67 CL 21 20-30 0.015 <.001 68 CL 21 30-40 0.010 <.001		65	CL 21	08-10	0.021	0.001
68 CL 21 30-40 0.010 <.001 69 CL 21 40-50 0.010 <.001		66	CL 21	10-20	0.012	<.001
69 CL 21 40-50 0.010 <.001 70		67		20-30		
70 71 71 72 73 74 75 75		68	CL 21			
71 72 73 74 75				40-50	0.010	<.001
72 73 73 74 75 75		70				
73 74 75		71				
74 75		72				
75		73				
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76		75				
		76				

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Page 2

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Drill Chisolm Lake

	Sample	Cu %	Mo %
1	CI22 6-10	0.010	<.001
2	CI22 10-20	0.004	<.001
3	CI22 20-30	0.009	0.000
4	CI22 30-40	0.017	<.001
5	CI22 40-50	0.092	<.001
6	CI23 8-10	<.001	<.001
7	CI23 10-20	<.001	0.000
8	CI23 20-30	0.000	0.000
9	CI23 30-40	<.001	<.001
10	CI23 40-50	<.001	0.000
11	CI24 8-10	<.001	0.000
12	CI24 10-20	<.001	0.001
13	CI24 20-30	0.002	0.000
14	CI24 30-40	<.001	0.002
15	CI24 40-50	<.001	0.002
16	CI25 7-10	<.001	0.000
17	Ci25 10-20	<.001	0.000
18	CI25 20-30	<.001	0.001
19	C125 30-40	<.001	0.000
20	CI25 40-50	<.001	<.001
21	CI26 8-10	0.070	<.001
22	CI26 10-20	0.025	<.001
23	CI26 20-30	<.001	<.001
24	CI26 30-40	0.029	<.001
25	CI26 40-50	<.001	<.001
26	CI27 10-20	<.001	<.001
27	CI27 20-30	<.001	0.000
28	CI27 30-40	<.001	<.001
29	CI27 40-50	<.001	<.001
30	Ci28 15-20	<.001	<.001
31		<.001	0.000
32	CI28 30-40	<,001	<.001
33	Ci28 40-50	<.001	<.001

Drill Chisolm Lake December 7/98

Sample	Cu %	Mo %
CI22 6-10	0.010	<.001
CI22 10-20	0.004	<.001
CI22 20-30	0.009	0.000
CI22 30-40	0.017	<.001
CI22 40-50	0.092	<.001
CI23 8-10	<.001	<.001
CI23 10-20	<.001	0.000
CI23 20-30	0.000	0.000
CI23 30-40	<.001	<,001
CI23 40-50	<.001	0.000
CI24 8-10	<.001	0.000
CI24 10-20	<.001	0.001
CI24 20-30	0.002	0.000
Ci24 30-40	<.001	0.002
CI24 40-50	<.001	0.002
CI25 7-10	<.001	0.000
CI25 10-20	<.001	0.000
CI25 20-30	<.001	0.001
CI25 30-40	<.001	0.000
C125 40-50	<.001	<.001
CI26 8-10	0.070	<.001
CI26 10-20	0.025	<.001
CI26 20-30	<.001	<.001
CI26 30-40	0,029	<.001
CI26 40-50	<.001	<.001
CI27 10-20	<.001	<.001
CI27 20-30	<.001	0.000
C127 30-40	<.001	<.001
CI27 40-50	<.001	<.001
CI28 15-20	<.001	<.001
CI28 20-30	<.001	0.000
CI28 30-40	<.001	<.001
CI28 40-50	<.001	<,001
CI29 18-20	0.017	0.007
C129 20-30	0.011	0.001
CI29 30-40	0.007	0.000
CI29 40-50	0.011	0,000
CI30 10-20	0.009	0.000
CI30 20-30	0.005	0.000
CI30 30-40	0.009	0.001
CI30 40-50	0.011	0.001
CI31 10-20	0.010	0.003

Sample	Cu %	Mo %
CI31 20-30	0.008	0.001
CI31 30-40	0.005	0.001
CI31 40-50	0.034	0.001
CI32 10-20	0.005	0,000
CI32 20-30	0.005	0.000
CI32 30-40	0.028	0.001
CI32 40-50	0.018	0.000
CI33 14-20	0.494	0.001
CI33 20-30	0.065	0.001
CI33 30-44	0.021	0.001
CI33 40-50	0.012	0.001
CI34 00-10	0.016	0.000
CI34 10-20	0.016	0.001
Cl34 20-30	0.008	0.001
CI34 30-40	0.018	0,000
CI34 40-50	0.031	0.005
CI34 50-80	0.099	0.009
CI35 00-10	0.058	0.001
CI35 10-20	0.017	0.001
CI35 20-30	0.014	0.000
CI35 30-40	0.046	0.001
CI36 00-10	0.212	0.010
Ci36 10-20	0.047	0.002
CI37 0-10	0.021	0.000
C137 10-20	0.013	0.003
CI39 0-10	0.017	0.000
C139 10-20	0.011	0.000
CI39 7-10	0.013	0.000
C139 10-20	0.012	0.000
C139 20-30	0.014	0.000
CI40 24-30	0.014	0.000
C140 30-40	0.030	0.001
C140 40-50	0.011	0.000
CI41 10-20	0.014	0.001
C141 20-30	0.010	0.000
CH42 10-20	0.007	0.000
C142 20-30	0.010	0.000
C142 30-40	0.009	<.001
CH3 5-10	0.009	0.001
C143 10-20	0.005	0.000
C143 20-30	0.004	0.001

TC	Intertek Testing Services Bondar Clegg
	Bondar Clegg

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REPORT: V98-02111.0 (COMPLETE)

CLIENT: IMPERIAL METALS CORP.

PROJECT: CHISHOLM LAKE

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REFERENCE:

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SUBMITTED BY: S. ROBERTSON

DATE RECEIVED: 08-DEC-98 DATE PRINTED: 14-DEC-98

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Lab

Report

Geochemical

DATE APPROVED	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD	SAMPLE TYPES	NUMBER		E FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER S
APPROVED	ELEMENT	ANDLIGES	DETECTION			R ROCK	10	2	-150	10	CRUSH/SPLIT & PULV.	10
981210 1 AL	نگ0 Gold	10	5 PPB	Fire Assay of 30g	30g Fire Assay - AA							
981210 2 Ag	Silver	10	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 3 Ci	. Copper	10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA		MR. STEVE ROB	ertso	N	INVOICE	TO: MR. STEVE ROBERTS	NC
981210 4 Pt		10	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 5 Zr		10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA						*****	
981210 6 Mc		10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA						data presented in th	
	•										Sample Number" and is	
981210 7 Ni	i Nickel	10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA	applicat	ble only to the	e sam	ples as received	l expressed o	n a dry basis unless	
981210 8 Co		10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA		se indicated					
981210 9 04		10	0.2 PPM	HCL:HN03 (3:1)	INDUC. COUP. PLASMA	*******	******	****	*****	*******	*****	****
981210 10 Bi		10	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 10 B		10	5 PPM	HCL:HN03 (3:1)	INDUC. COUP. PLASMA							
981210 12 St		10	5 PPM	HCE:HN03 (3:1)	INDUC. COUP. PLASMA							
YO1210 12 31	D Antinony	10	2 1111	102111100 (0117								
981210 13 Fe	e Iron	10	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA	L Contraction of the second						
981210 14 Mr		10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 15 Te		10	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 16 Ba		10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 17 Ci		10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 18 V	Vanadium	10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
701210 10 1	TO BOUT ON	10										
981210 19 Sr	n Tin	10	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA	L						
981210 20 W	Tungsten	10	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA	L						
981210 21 L	•	10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 22 A		10	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA	L						
981210 23 M		10	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 24 C	• •	10	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
901210 24 C		10	0.0110									
981210 25 N	a Sodium	10	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 25 K		10	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 27 SI		10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 27 SI		10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 28 1 981210 29 G		10	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
		10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 30 L		10	1 666	10611100 (011)								
981210 31 N	o Niobium	10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA	i i i i i i i i i i i i i i i i i i i						
981210 31 N		10	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 32 S		10	10 PPM	HCL;HNO3 (3:1)	INDUC. COUP. PLASMA							
		10	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 34 T		10	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA							
981210 35 Z		10	0.01 PCT	HE-HNO3-HCLO4-HCL	AAS LOW LEVEL ASSAY							
981210 36 C	u Copper	10	0.01101	In the here her								

	ERIAL METAL -02111.0 (eg																										
			E)			~ ~ ·								DA	TE RE(CE I VED :	08	-DEC-98	5	DATE	PRINT	ED: 14	4-DEC	-98	PAGE	F 1 C		CT: C	CHISHOL	LM LAK	Œ	
IPLE IBER	ELEMENT A UNITS	NU30 Ag PPB PPM					i Co M PPM I				Sb Fe PM PCT					Sn W PPM PPM			Mg PCT		Na PCT		Sr PPM P						Ti Z PCT PF			
5R-001		16 0.4	1507	<2	31 21	B 15	9 14	<.2	<5	<5	<5 2.91	370	<10 5	7 111	66	<20 <20	(9 1.76	1.34	0.60	0.09	0.19	39	4 .	<2 12	2 5	<5	<10 ().14 ·	<1 0.1	16	
R-002		21 1.2	2819	<2	26	2 17	7 13	<.2	<5	<5	<5 3.12	280	<10 13	7 105	67 ·	<20 <20) 8	8 1.53	1.23	0.78	0.06	0.19	29	4	<2 11	5	< 5	<10 0). 16 ·	<1 0.3	31	
SR-003				14. S. A. A.	1.00	S.,	1.12.20				<5 2.33													4	4 7	′ 3	<5	<10 <	:.01	1 0.3	32	
SR-004											<5 2.47														4 9	-		<10 0		1 0.1		
R-005		<5 <.2	176	<2	24 3	5 18	B 14	<.2	ا ح	<5 ·	<5 2.72	380	<10 12	5 130	61 •	<20 <20)](0 1.53	1.33	1.12	0.05	0.27	25	5	<2 12	2 5	5	<10 0	1.14	<1 0.0	01	
R-006		21 0.2	1972	2	31	ें रेंग	9 13	<.2	5	ব	<5 3.00	441	<10.10	7 125	61	<20 <20) 11	0 1.49	1.20	1.06	0.03	0.27	16	4 .	<2 13	4	<5	<10 ().09	<1 0.2	22	
R-007		1001		- 2 - 6 - 6 -			10 N.A.				<5 2.97			5 J. 1															0.13			
R-008		ج ج <.2		813 C (S)	1.1	· · · ·	6 12	·			<5 3.05		1.1		- 10 A.			8 1.37		1.1						5	<5	<10 (0.1 4 ·	<1 0.0	09	
R-009											<\$ 3.37							6 1.43							<2 10) 6	<5	<10 (0.16	<1 0.1	10	
R-010		<5 <.2	322	<2	27	7 19	9 13	<.2	<5	< <u>s</u> :	<5 2.81	405	<10 13	0 141	63 •	<20 <20	r, f	8 1.38	1.09	0.34	0.05	0.26	22	4	<2 . 9	6	<5	<10 0	0.12	1 0.0	03	
																		1997年1月1日には「「「「「「「「「「「」」」」」「「「」」」」」」」」「「」」」」」」」」」														

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