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# DIAMOND DRILLING ASSESSMENT REPORT on the FISH LAKE PROPERTY

# TK4 and TK6 claims

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VOLUME I

(1 OF 3)

Clinton Mining Division NTS 920/5E Latitude 51° 27'N, Longitude 123° 36'

Owner and Operator: Taseko Mines Limited 1020 - 800 West Pender Street Vancouter BOLLOGICAL BRANCH V6CAVSSESSMENT REPORT

22,060

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Darwin Piroshco, M.Sc. Nadia Caira, B.Sc., FGAC

December 15, 1991

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#### 1.0 SUMMARY

From August 1 to October 15, 1991, Taseko Mines Limited completed 7506 m of large diameter diamond drilling on their Fish Lake property (TK-4 and TK-6 claims). The property is located 128 km southwest of Williams Lake, B.C. and contains a large tonnage gold-copper porphyry deposit (Fish Lake deposit) hosted within calc-alkaline volcanic and intrusive rocks of Cretaceous age. Ten drill holes tested the deposit over a north-south distance of 550 m, an east-west distance of 500 m, and an average thickness of 769 m. The purpose of this drilling was to determine the distribution of gold and copper mineralization below the zone of mineralization outlined by previous drilling. All of the drill holes intersected continuous gold-copper mineralization averaging 595 m thickness. As a result, the Fish Lake deposit has been redefined, having a main zone of mineralization containing an estimated 600,000,000 tons of mineralization averaging 0.32% Cu and 0.55 grams Au/ton.

Gold-copper mineralization is hosted within andesitic to rhyodacitic volcaniclastic rocks and lesser diorite and quartz diorite intrusions. Biotite + chlorite alteration is widespread and most commonly occurs within fine and coarse ash tuffs of andesitic composition. In the mineralized zone, intense biotite + magnetite alteration may represent a potassic alteration zone. Sericite + carbonate alteration forms zones within, and peripheral to the main mineralized zone and is commonly observed in quartz feldspar porphyry dykes and plagioclase porphyry intrusions. Chlorite + pyrite + calcite assemblages are common in areas flanking the mineralized zone and may represent propylitic-style alteration. Quartz alteration (silicification) is most commonly observed as haloes around fault structures and in areas peripheral to the mineralized zone.

Gold-copper mineralization is superimposed on all alteration types except for the chlorite + pyrite + calcite assemblage. Mineralization is dominated by chalcopyrite, and lesser bornite, occurring as disseminations, fracture fillings, and discrete veins. Veins can be grouped as main and late stage types based on reoccurring mineral assemblages and cross cutting relationships. Main stage veins are composed mainly of quartz, pyrite, and chalcopyrite with accessory carbonate, sericite, biotite, molybdenum and copper sulphides, sphalerite, galena, magnetite/hematite, clay, and anhydrite. Late stage veins are composed mainly of quartz, calcite, and gypsum, with accessory sericite, clay, chalcopyrite, pyrite, anhydrite, sphalerite and galena. Two late-stage, (post-ore) faults influence the geometry of the mineralized zone; the Fish Lake Thrust and the Carramba fault.

In view of the success of the 1991 deep diamond drill program, as well as the presence of copper and gold mineralized intersections in relatively shallow peripheral drill holes, the deposit is considered to be open in all directions.

As outlined in detail in Appendix IX, a total of \$786,991 was expended on the TK-4 and TK-6 claims during the course of the 1991 exploration drill program.

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## 2.0 INTRODUCTION

The Fish Lake property, located in south central B.C., (Figure 1) contains a large tonnage gold-copper mineralized porphyry system known as the Fish Lake deposit. The property includes 185 mineral claims encompassing 10,825 hectares (108.23 km<sup>2</sup> - Figures 2 and 3). This report describes the diamond drilling program conducted by Taseko Mines on the TK-4 and TK-6 claims from August 1, to October 15, 1991. Two diamond drill rigs were used and a crew of two geologists, 3 assistants, 4 drillers, 4 helpers, and 3 support staff were present on site. The crew was housed in a fully equipped tent camp near Fish Creek, and approximately 1 km northwest of Fish Lake. The drill core from the 1991 drilling program is stored adjacent to this camp.

This report describes the results of the 1991 drilling program and has been written to conform with Assessment Report Regulations, and Section C of the Mineral Tenure Act Regulations.

### 2.1 Location, Access and Topography

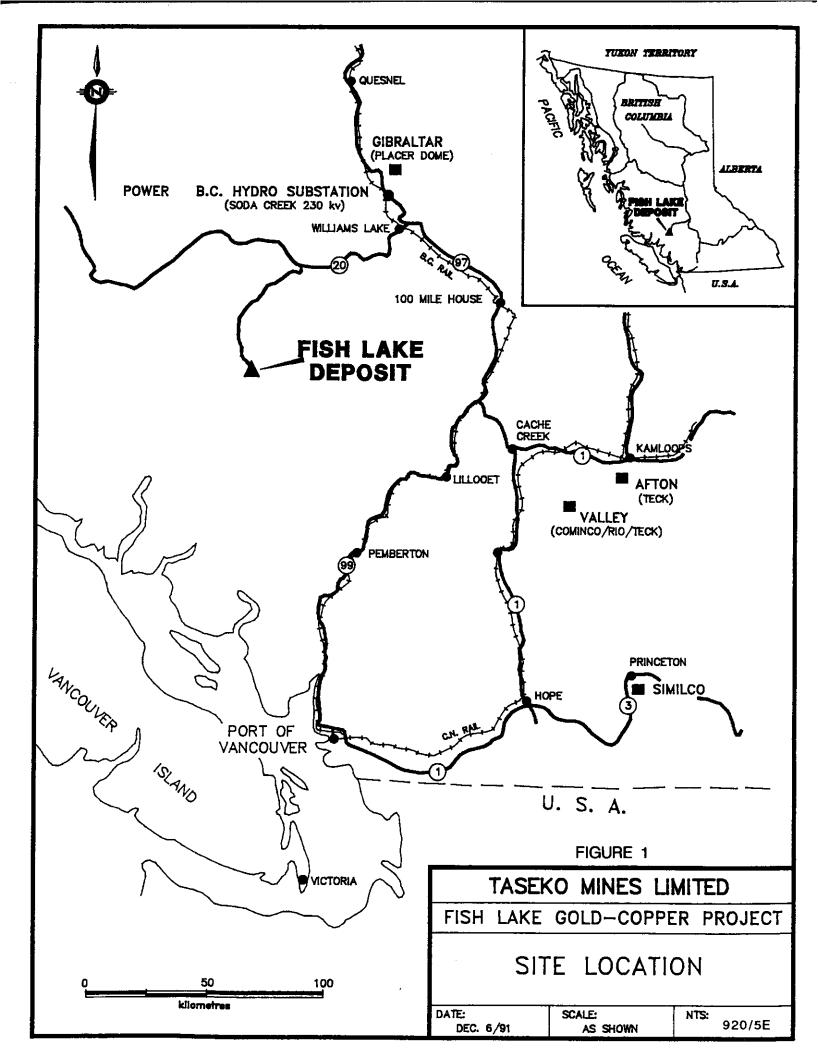
The Fish Lake property is located 250 kilometres north of Vancouver and 128 km southwest of Williams Lake, B.C. (Figures 1 and 2). Access is by paved Highway 20 west from Williams Lake to Lees Corner at Hanceville, and then southwest along a government maintained gravel road to the Davidson bridge over the Taseko River. From the bridge a gravel road covers the last 16 km to the property. Total road distance from Williams Lake is 192 kilometres and travelling time is approximately 2 1/2 hours.

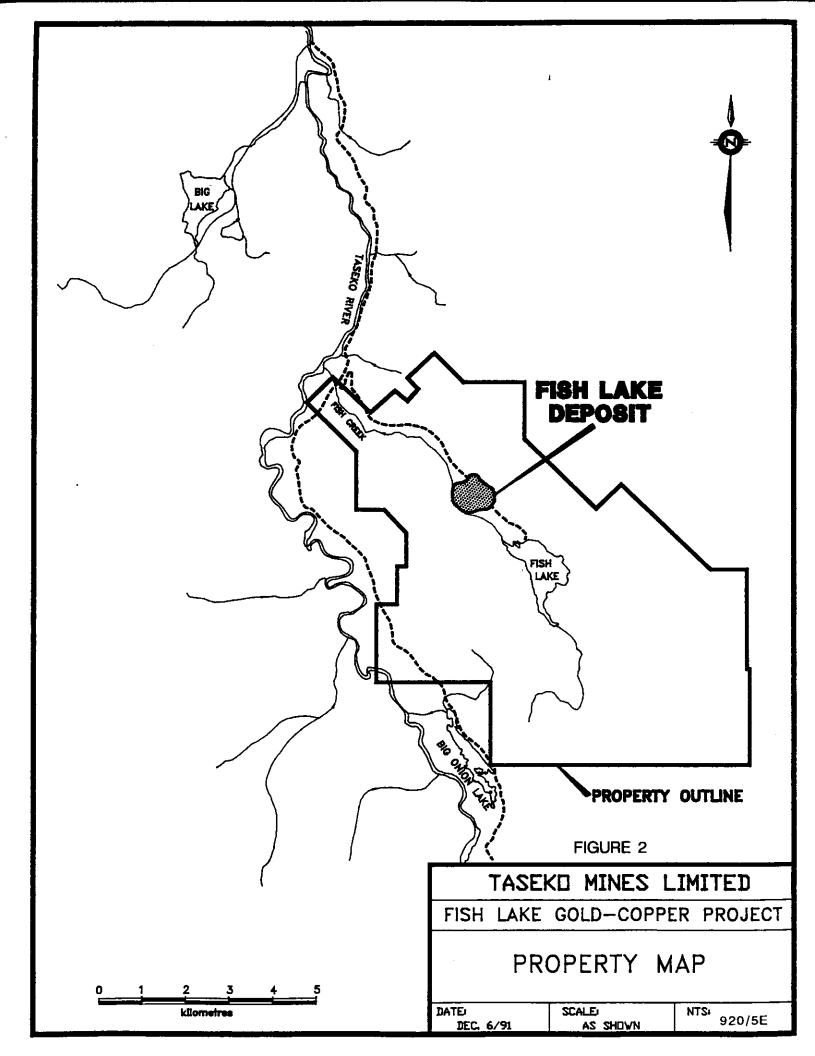
The deposit is in the Fish Creek valley, 1 km north of Fish Lake. The property area is part of the Chilcotin plateau and topography is subdued with elevations ranging from 1450 to 1600 m above sea level. Overburden is up to 60 m thick and averages approximately 31 m.

## 2.2 Property Status

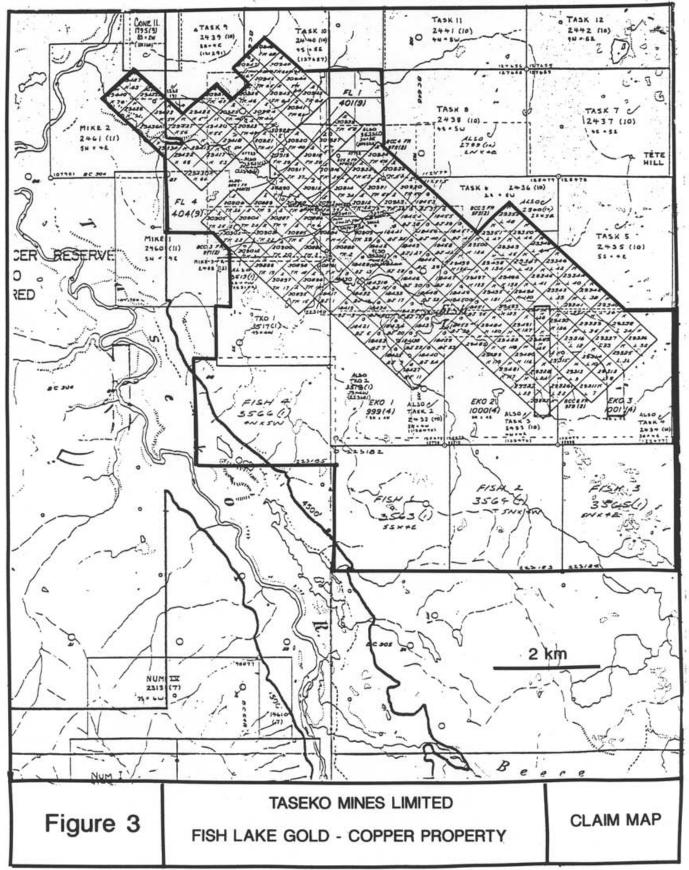
Taseko Mines Limited controls a 100% interest in the 185 mineral claims (433 units) that comprise the Fish Lake property (Figure 3), subject to certain agreements with Cominco Ltd. and Cascade Investments Joint Venture. Placer claims have been staked over the deposit and cover the course of Fish Creek from Fish Lake to the confluence with the Taseko River. Claim information is outlined in Appendix I.

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TO NORTH SEE MAP 92 042 E



## 2.3 Exploration History

Copper mineralization on the Fish Lake property was discovered in 1960 by Phelps Dodge Corporation. Phelps Dodge allowed the project claims to lapse and the ground was staked by Taseko Mines Limited in 1969. Since then a number of mining companies have directed exploration programs on the property including Quintana Minerals, Nittetsu Mineral Company, Bethlehem Copper and Cominco Ltd. (Appendix II).

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Exploration programs completed on the property prior to 1991 includes; grid establishment; ground magnetometer, VLF-EM and induced polarization surveys; soil geochemistry; and percussion and diamond drilling. To date a total of 50 line km of IP, magnetics, and soil geochemistry has been completed. Diamond drilling totals 33,642 m in 200 holes. Of this total, 110 holes (28,944 m) were drilled to delineate the Fish Lake deposit as it is now known; the remaining holes were drilled in other parts of the property.

#### 3.0 1991 DIAMOND DRILL PROGRAM

Diamond drilling programs prior to 1991 generally tested the Fish Lake deposit to the 1100 m elevation level and outlined a copper/gold mineralized zone encompassing an area approximately 900 m in diameter. The purpose of the ten 1991 drill holes was to determine the distribution of gold and copper mineralization below this zone. The drill holes define a 'cross' pattern in plan view and test the deposit over a north-south distance of 550 m, an east-west distance of 500 m, and an average thickness of 769 m (Figure 4 in back pocket). All of the 1991 drill holes intersected significant copper and gold mineralization (Table 1); mineralized intersections range from 213 m to 827 m (595 m average) in thickness. As a result, the gold-copper mineralization was extended to the 650 m elevation level forming a large uniform body of unknown geometry. This body is estimated to contain 600,000,000 tons of mineralization grading 0.32% Cu and 0.55 grams Au/ton. The mineralized zone exhibits relatively consistent gold and copper values and is overlain by a relatively thin veneer of overburden averaging 31.4 m thickness. Mineralization is typical of Cordilleran type porphyry copper deposits of the calc-alkaline affinity. Geological logs for the 1991 drilling program are included in Appendix III and drill core assays are listed in Appendix IV.

# Table 1

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# Summary of Assay Data

# HOLE 91-1

INTERVA	.L (M)	THICKNESS (M)	COPPER (%)	GOLD
FROM	то			(G/TON)
9.76	837.20	827.44	0.37	0.75
includ	ling			
9.76	91.46	81.70	0.25	0.48
91.46	182.93	91.47	0.25	0.41
182.92	274.39	91.46	0.32	0.62
274.39	365.85	91.46	0.40	2.19
365.85	457.32	91.47	0.36	0.58
457.32	548.78	91.46	0.41	0.62
548.78	640.24	91.46	0.41	0.58
640.24	731.71	91.46	0.47	0.62
731.71	837.20	105.49	0.43	0.58

INTERVAL (M)		TUICKNESS (AA)	COPPER	GOLD
FROM	то	THICKNESS (M)	(%)	(G/TON)
7.62	826.83	819.21	0.35	0.65
inc	luding			
7.62	91.46	83.84	0.34	0.55
91.46	182.93	91.47	0.27	0.99
182.93	274.39	91.46	0.32	1.06
274.39	365.85	91.46	0.37	0.72
365.85	457.32	91.47	0.32	0.41
457.32	548.24	91.46	0.33	0.45
548.78	640.24	91.46	0.37	0.62
640.24	731.70	91.47	0.44	0.51
731.71	826.83	95.12	0.36	0.41

# HOLE 91-3

INTERV	FERVAL (M) THICKNESS (M) COPPER GC		GOLD	
FROM	то	(1007	(%)	(G/TON)
43.90	797.87	753.96	0.35	0.55
ind	cluding			
43.90	91.46	47.56	0.24	0.38
91.46	182.92	91.47	0.32	0.48
182.93	274.39	91.46	0.28	0.45
274.39	365.85	91.46	0.26	0.45
365.85	457.32	91.47	0.38	0.65
457.32	548.24	90.92	0.45	0.79
548.24	640.24	91.46	0.46	0.72
640.24	731.71	91.46	0.31	0.51
731.71	797.87	66.16	0.38	0.51
797.87	821.95	24.09	0.07	0.07

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INTERV	INTERVAL (M)		COPPER	GOLD
FROM	то	THICKNESS (M)	(%)	(G/TON)
32.01	125.91	93.90	0.27	0.62
156.10	778.05	621.95	0.33	0.62
in	cluding			
32.01	125.91	93.90	0.27	0.51
125.91	156.10	30.19	Post Mineral Dyke (true width (15.24 m)	
156.10	182.93	26.83	0.31	0.55
182.93	274.39	91.46	0.32	0.55
274.39	365.85	91.46	0.34	0.55
365.85	457.32	91.47	0.43	0.58
457.32	548.24	90.92	0.31	0.45
548.24	640.24	91.46	0.35	0.45
640.24	731.71	91.46	0.32	0.45
731.71	778.05	46.34	0.20	0.34
778.05	817.68	39.63	No significant values	

# HOLE 91-5

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INTERV	INTERVAL (M)		INTERVAL (M) THICKNESS COPPER (M) (%)		GOLD
FROM	то	(171)	(%)	(G/TON)	
19.21	737.50	718.29	0.30	0.51	
inclu	Iding				
19.21	91.46	72.26	0.29	0.65	
91.46	182.93	91.47	0.27	0.55	
182.93	274.39	91.46	0.28	0.58	
274.39	365.85	91.46	0.24	0.41	
365.85	457.32	91.47	0.31	0.45	
457.32	548.24	90.92	0.33	0.69	
548.24	640.24	91.46	0.36	0.48	
640.24	737.50	97.26	0.30	0.41	
737.50	764.02	26.52	no significant values		

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INTERVA	INTERVAL (M)		COPPER	GOLD	
FROM	то	THICKNESS (M)	(%)	(G/TON)	
10.67	795.73	785.06	0.31	0.45	
inc	luding				
10.67	91.46	80.79	0.23	0.48	
91.46	182.93	91.47	0.22	0.34	
182.93	274.39	91.46	0.22	0.51	
274.39	365.85	91.46	0.31	0.58	
365.85	457.32	91.47	0.35	0.58	
457.32	548.24	90.92	0.37	0.45	
548.24	640.24	91.46	0.35	0.38	
640.24	731.71	91.46	0.34	0.38	
731.71	795.73	64.02	0.41	0.38	
795.73	801.83	6.10	no significant values		

## HOLE 91-7

INTERVA	L (M)			
FROM	то	THICKNESS (M)	COPPER (%)	GOLD (G/TON)
15.24	228.05	212.80	0.26	0.45
includ	ing			
15.24	91.46	76.22	0.24	0.48
91.46	182.93	91.47	0.27	0.51
182.93	228.05	45.12	0.25	0.31
228.05	482.01	253.96	0.14	0.24
482.01	800.62	318.60	no significant values	

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### HOLE 91-8, 10

INTERVAL (M)		THICKNESS	COPPER	GOLD
FROM	то	(M)	(%)	(G/TON)
197.87	721.95	524.09	0.33	0.51
inc	luding			
57.93	197.87	139.94	vertical faut zone	
197.87	274.39	76.52	0.30	0.41
274.39	365.39	91.46	0.34	0.51
365.85	457.31	91.46	0.32	0.65
457.31	548.24	91.46	0.35	0.65
548.24	640.24	91.46	0.32	0.45
640.24	731.71	81.71	0.32	0.34
731.71	797.87	11.59	no signific	ant values

INTER	INTERVAL (M)			
FROM	то	THICKNESS (M)	COPPER (%)	GOLD (G/TON)
51.83	702.13	632.32	0.23	0.34
incl	uding			
51.83	400.00	348.17	0.19	0.27
400.00	417.99	17.99	post mir	neral dyke
417.99	457.32	39.33	0.33	0.45
457.32	548.24	91.46	0.28	0.38
548.24	640.24	91.46	0.27	0.38
640.24	702.13	61.89	0.22	0.38
702.13	741.46	39.33	no signifi	cant values

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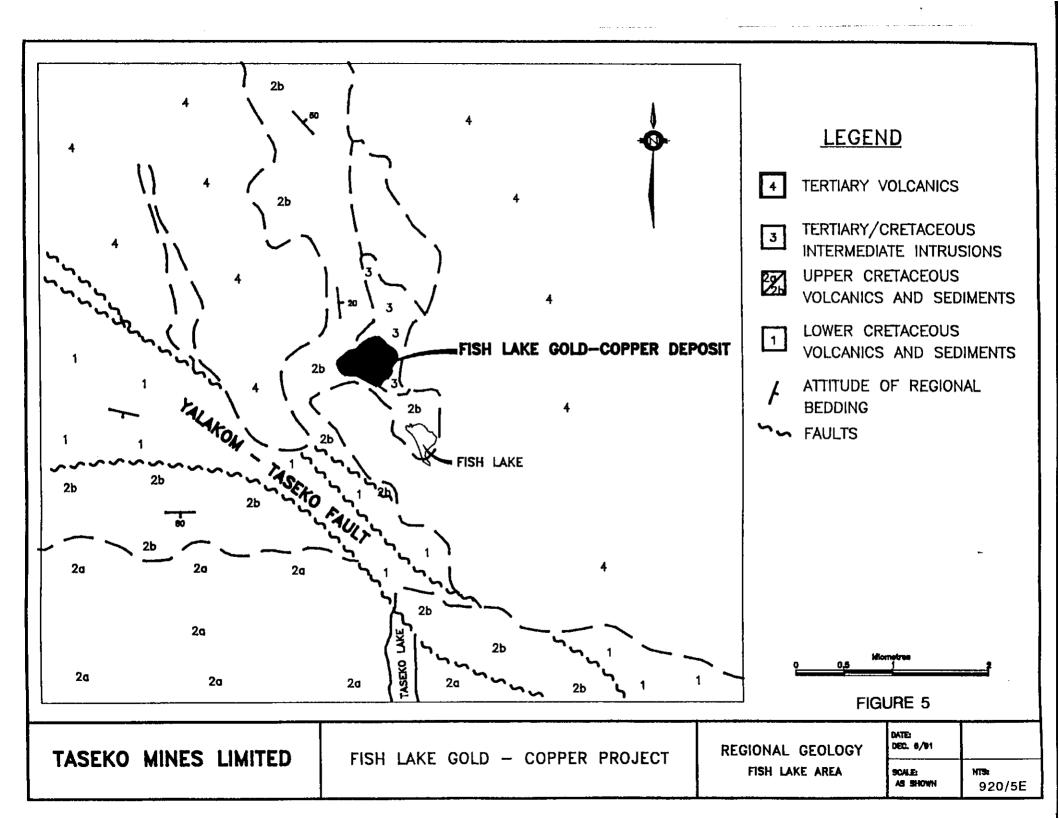
#### 3.1 <u>Technical Data</u>

A total of 7506.03 m was drilled in ten diamond drill holes located on the TK-4 and TK-6 mineral claims from August 1 to October 15, 1991. The drilling was carried out using two Longyear 44 diamond drills supplied by Quest Canada Drilling Inc. The location and elevation of the drill hole collars is shown in Table 2. The holes were collared at -90° and Sperry-Sun surveys were taken approximately every 150 m down hole (Appendix V). Drill hole wandering was less than three degrees from vertical. From bedrock surface to 1100 m elevation, HQ diameter rods were drilled and below this level, drill rod size was reduced to NQ diameter (Table 3). A total of 283.20 m of HW casing, 3059.06 m of HQ and 4163.77 m of NQ rods were used. The purpose of using large-diameter rods was to attain high core recovery and samples most representative of the mineralization. Drill hole 91-8 was abandoned at 360.43 m due to bad ground, and drill hole 91-10 was collared 2 m east of 91-8 and completed to the target depth using NQ rods.

Detailed geological logs (Appendix III) are based on examinations of drill core by project geologists Darwin Piroshco and Nadia Caira. All of the core was split, sampled in 2 m intervals, and analyzed for gold and copper (Appendix IV) using fire assay analytical procedures (Appendix VI). The split core is stored adjacent to the 1991 campsite (Figure 4 in back pocket). A total of \$786,991.74 was expended on the Fish Lake property during the 1991 drill program (Appendix VII).

#### 4.0 **REGIONAL GEOLOGY**

The Fish Lake deposit is hosted mostly within andesitic to dacitic volcanic rocks correlated with the upper Cretaceous Kingsvale Group, and diorite to quartz diorite intrusions of Tertiary (Eocene) and Cretaceous age. These rocks form part of a 6.5 km long and 2.0 km wide, north-trending window within Tertiary plateau basalts (Figure 5). Most of this window is underlain by a shallowly to moderately east-dipping sequence of clastic sedimentary rocks and lesser volcanic rocks of the Kingsvale Group. To the south, the window is truncated by the west-northwest-trending Yalakom-Taseko fault system. Immediately south of this fault, Cretaceous sedimentary rocks form a south-dipping wedge.



# Table 2

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Hole No.	Claim	Elev. (m)	Northing	Easting	Dip	Date Started	Date Completed
91-1	ТК6	1481	10100	10405	-90°	03/08/91	16/08/91
91-2	TK6	1467	10101	10299	-90°	15/08/91	30/08/91
91-3	TK4	1461	9900	10300	-90°	17/08/91	29/08/91
91-4	ТК6	1473	10200	10300	-90°	01/09/91	13/09/91
91-5	тк6	1449	10095	10200	-90°	31/08/91	13/09/91
91-6	ТК4	1493	10100	10500	-90°	14/09/91	23/09/91
91-7	ТК6	1474	10301	10300	-90°	14/09/91	29/09/91
91-8	TK4	1461	9820	10300	-90°	24/09/91	29/09/91
91-9	TK6	1444	10096	10105	-90°	01/10/91	12/10/91
91-10	ТК4	1461	9823	10300	-90°	30/09/91	12/10/91

# Location and elevation of 1991 diamond drill holes.

# Table 5

# Technical drill data for 1991 drill holes (metres).

Hole	Casing	НО	NQ	HQ + NQ	E.O.H.
91-1	9.75	364.25	463.29	827.57	837.29
91-2	7.67	367.23	452.02	819.25	826.92
91-3	43.89	314.86	463.29	778.15	822.04
91-4	12.19	351.28	454.31	805.59	817.78
91-5	20.11	331.32	412.70	744.02	764.13
91-6	10.67	383.26	408.00	791.26	801.93
91-7	15.24	358.75	426.72	785.47	800.71
91-8	57.91	302.52	-	302.52	360.43
91-9	51.82	285.59	403.86	689.45	741.27
91-10	53.95	-	679.58	679.58	733.53
Total	283.20	3,059.06	4,163.77	7,222.86	7,506.03

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#### 5.0 PROPERTY GEOLOGY

The following description of the Fish Lake deposit is based on logging of core from the 1991 drill holes (Appendix III), the relogging of 45 pre-1991 holes located peripheral to, and within, the main deposit area (Figure 6), and 49 thin and 2 polished sections (Appendix VIII). The description of property geology is accompanied by cross-section 10300E and longitudinal section 10100N (Figures 7 and 8 - in back pocket).

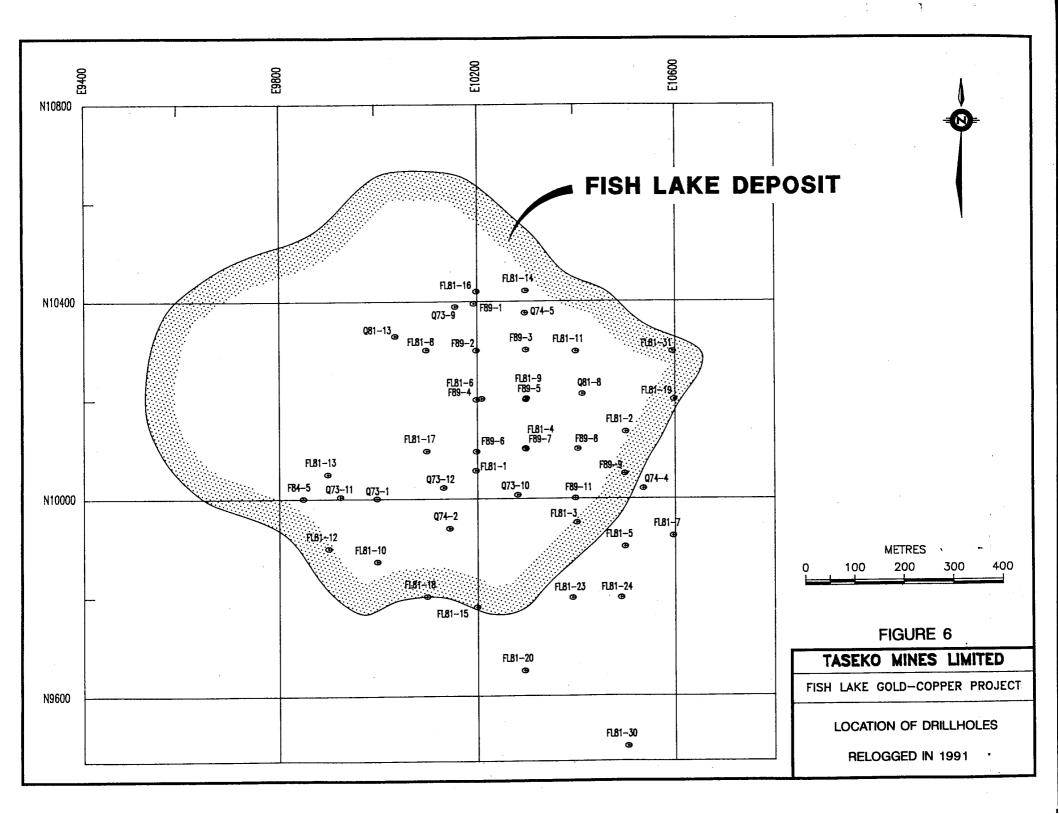
The geology of the Fish Lake property is based on drill hole data as outcrop is scarce. At surface the rock type is dominated by several dioritic intrusions that are exposed in trenches and identified in drill holes. The gross outline of these intrusions is shown in Figure 5. The intrusions are underlain by volcanic and sedimentary rocks which subcrop in the southwestern and southern portions of the deposit area. These volcanic/sedimentary rocks may represent embayments or enclaves within the intrusions, or alternatively, the intrusions may be sills or lopoliths.

In addition to the diorite intrusions, the volcanic rocks are cut by a series of quartz feldspar porphyry and post-ore dykes, and by lenses of intrusive breccia. Alteration includes widespread biotization and chloritization and isolated zones of sericitization and silicification. Copper mineralization occurs most commonly as disseminations, fracture-fillings, and discrete veins of chalcopyrite. Below the 700 m elevation, the mineralized and altered zone is juxtaposed against barren rocks by the Fish Lake Thrust fault.

The origin of layered rocks on the Fish Lake property continues to be enigmatic; interpretations of the origin range from sedimentary to volcanic and are complicated by heterogeneous lithologies and superimposed alteration. In the main zone of the deposit, outlined by 1991 drilling, all of the layered rocks are considered volcaniclastic in origin because of the composition of contained detritus (andesitic to rhyodacitic). Based on attitudes measured in drill core and the apparent dip of the succession, (Figure 7 in back pocket) layering is thought to be inclined 20 - 50° south-southeast.

## 5.1 Lithologies

Volcaniclastic rocks dominate the main zone of the deposit below the 1100 m elevation level. These rocks contain an abundance of fine-grained, plagioclase detritus and locally display graded bedding and coarse grained, fragmental textures. For descriptive purposes they have been subdivided into three units; fine and coarse ash tuff and fine grained flows (FAXT); andesitic debris flows (DEBF); and bedded ash tuffs (BEAT - Figures 7 and 8 in back pocket).



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The fine and coarse ash tuff unit (FAXT) includes a fine grained, varicolored, plagioclase-rich rock with 20-50% spheroidal, dark clots that average 0.5 cm in diameter. The origin of the clots is unknown. FAXT is intercalated with narrow (less than 2 m thick) units of a fine grained to aphanitic, bleached, pale brown to olive green, plagioclase + sericite-rich lithology. In general this lithology has a glassy texture and hosts an extensively developed network of mineralized stringers. The massive, fine grained flows consist of variable proportions of plagioclase, quartz, and amphibole phenocrysts and may display clot textures. These flows are predominant in the mid to upper portions of the volcaniclastic sequence and are intercalated with the clot-rich units.

The bedded ash tuff unit (BEAT) is of rhyodacitic composition and forms distinct lenses of up to 150 m thickness that are intercalated with the FAXT and DEBF units (Figure 7 in back pocket). The tuff unit is characteristically very fine grained, siliceous, well-bedded/laminated, and thickens to the north.

Debris flows (DEBF) occur in the deeper levels of the deposit and can be grossly correlated between drill holes. Individual flows vary from 5 - 50 m thickness and exhibit well-layered, fine grained, tuffaceous bases and coarse, fragmental tops. Matrix supported fragments (to 30%) are subangular to subrounded, and dominated by volcaniclastic lithologies with rare clasts of diorite and quartz feldspar porphyry. The tuffaceous matrix varies from a dark plagioclase + chlorite + biotite assemblage to a bleached plagioclase + sericite + carbonate assemblage.

In the upper parts of the main zone of the deposit, the volcaniclastic rocks are intruded by a bowl-shaped, plagioclase porphyry diorite body (PPD1 - Figures 7 and 8 in back pocket). The body pinches out to the north, thickens to the east, and is juxtaposed against a younger plagioclase porphyry diorite (PPD2) to the west. To the south it is juxtaposed against volcaniclastic rocks. The PPD1 has a fine to medium crystalline, crowded, plagioclase porphyritic texture with a subordinate amount of quartz and mafic phenocrysts. Plagioclase phenocrysts are euhedral to subhedral, range from 20-40%, and average 2 mm in length. The groundmass dominantly consists of a bleached, finely crystalline mixture of plagioclase + sericite + carbonate + quartz. Xenoliths/rafts of highly altered volcanic rock up to 50 m thick occur throughout the diorite but make up less than 5% of the rock volume.

The plagioclase porphyry diorite and volcaniclastic lithologies are crosscut by a series of subparallel, quartz feldspar porphyry dykes (QFP - Figures 7 and 8 in back pocket) up to 100 m thick. The dykes dip moderately to steeply south-southeast (50-70°) and are juxtaposed to the west against a poorly defined stock of plagioclase porphyry (PPD2 - Figure 8 in back pocket). The QFP has a coarse, porphyritic texture with up to 5%, subhedral to anhedral, spherical, quartz phenocrysts that average 5 mm in diameter (up to 10 mm). Plagioclase phenocrysts (20-40%) are subhedral to anhedral, average 3-4 mm in length, and locally display resorption textures. A second

population (10%) of relatively large plagioclase phenocrysts (averaging 7 mm in size up to 10 mm) are sub- to euhedral and locally zoned. The groundmass composition is variable, ranging from finely crystalline mixtures of bleached, quartz + sericite + carbonate, to sericite + gypsum + clay, to quartz + chlorite + biotite + magnetite. Chill margins up to 2 m wide occur locally and are composed of aphanitic, buff to flesh-toned quartz. Scattered, subangular inclusions of volcaniclastic lithologies and rare dioritic fragments are present throughout the QFP unit.

Intrusive breccia (INBX - Figures 7 and 8 in back pocket) is the least abundant lithology on the property and forms a series of east-trending, elongate lenses of up to 60 m thickness. The INBX is distinguished from other lithologies by the presence of 5-20% angular to subrounded heterolithic wall rock fragments and 5-15% subhedral to euhedral, locally zoned, plagioclase phenocrysts. Angular to subangular fragments include volcaniclastic lithologies, lesser diorite and quartz feldspar porphyry, and rare, mineralized quartz vein fragments.

The origin of the INBX unit is unclear but it is interpreted as an intrusive breccia that is genetically related to the quartz feldspar porphyry dykes based on their close spatial relationships. The breccia roughly parallels the contacts of the QFP dykes and in most instances it is localized within the dyke cores (Figure 8 in back pocket). Less commonly up to 20 m of breccia occurs on the hanging-wall of the QFP dykes while in other instances it crosscuts volcanic rocks. The matrix varies from fine grained quartz + sericite to quartz + chlorite + magnetite + biotite.

Plagioclase porphyry diorite (PPD2 - Figure 8 in back pocket) forms a poorly defined stock of greater than 300 m diameter in the western portion of the deposit. It consists of 15 to 25% euhedral to anhedral plagioclase phenocrysts from 1 - 10 mm length (average 4 mm) within a finely crystalline, dark green, groundmass of plagioclase and 5-10% chloritized mafic minerals. This intrusion post-dates the crowded plagioclase porphyry diorite (PPD1) since it truncates quartz feldspar porphyry dykes.

In the southeastern portion of the deposit area, volcaniclastic rocks are cross cut by a diorite dyke localized along a northeast-trending fault (PPD3 - Figure 7 in back pocket). This rock is similar in texture and composition to the crowded plagioclase porphyry diorite (PPD1) described above but was subdivided because of distinct alteration (see below) and negligible gold and copper values. This lithology may contain up to 25% chloritized and pyritized mafic minerals resulting in a speckled appearance.

The youngest identified lithology in the deposit area is a set of discontinuous, south- and north-dipping, post-ore, plagioclase + hornblende porphyry dykes (PMPD -Figures 7 and 8 in back pocket) up to 20 m thick. These dykes are identified by their bleached appearance; sharp, irregular contacts; lack of significant sulphide

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mineralization; and presence of variably chloritized hornblende phenocrysts. The dykes are typically intensely silicified and/or carbonatized and generally lack wall rock inclusions. Plagioclase phenocrysts are 2-5 mm in length, comprise up to 25% of the rock and are partially or totally altered to carbonate with lesser sericite.

#### 5.2 Structural Geology

An array of structures has been delineated in the Fish Lake deposit suggesting a complex structural history. At least two of these structures (Fish Lake Thrust and Carramba Fault) influence the geometry of the mineralized zone.

Below the 700 m elevation level a shallowly southeast-dipping structure, referred to as the Fish Lake Thrust fault, has been delineated (Figures 7 and 8 in back pocket). The fault zone is at least 50 m thick and is characterized by chlorite + sericite + clay - altered schistose lithologies and sheeted fracture zones. These structures are overprinted by intense clay alteration, gouge, and local fault breccia zones. The fault juxtaposes rocks with significant copper and gold values against barren rocks. Although the surface expression of the Fish Lake Thrust has not been identified, the fault is roughly along-strike with the Hungry Valley Thrust fault to the southeast, as illustrated on Map O.F. 534 (NTS 92-O) of Tipper (1978).

To the south a subvertical structure of at least 100 m width, referred to as the Carramba Fault, has been delineated (Figure 7 in back pocket). This east-trending fault is characterized by alternating zones (0.25 m to 10 m thick) of intensely deformed and relatively undeformed rock. The deformed zones are characterized by intense clay-chlorite alteration and gouge, fault breccia, and polished graphitic-chloritic slip planes with slickensides. Lithologies and bedding attitudes cannot be correlated across the Carramba Fault. Furthermore, the top 200 m of the south block contains weakly mineralized rock (drill holes 91-8,10 - Figure 7 in back pocket) that is juxtaposed against well mineralized rock to the north, suggesting a south-side down displacement.

Other faults in the deposit area are defined by clay-chlorite alteration, silicification, gouge, and concentrations of graphite-chlorite slip planes. They include faults subparallel and spatially related to quartz feldspar porphyry and post-ore dykes, and faults that locally offset lithological units. The faults that are subparallel to the dykes form an opposing set of east-trending structures that are oblique to both the Carramba and Fish Lake faults. Several north-northeast-trending faults have resulted in en echelon, apparent left-handed offsets in the Carramba Fault. This fault system, and the northwest-trending faults, also offset or truncate quartz feldspar porphyry dykes.

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#### 6.0 ALTERATION

The recognition of alteration in the Fish Lake deposit is based primarily on color index and mineral identification in hand specimen. Four alteration types have been identified based on reoccurring mineral constituents. The four types are; biotite; sericite; quartz and; chlorite. Generally, sericite alteration types are light colored, bleached rocks that contain a relative abundance of finely crystalline sericite and carbonate. Biotite alteration types are darker colored rocks that contain a relative abundance of finely crystalline biotite and chlorite. Rocks altered to quartz are bleached grey and lack sericite and biotite. Chlorite altered rocks are typically dark and contain abundant pyrite and calcite.

Thin section studies show that in most instances groundmass plagioclase and quartz are partially preserved and represent the predominant constituents. Alteration styles range from phenocryst-selective, to pervasive, to vein and fracture controlled. Data compilation has outlined sericite alteration zones centered around drill holes 91-1 and 91-2 and in areas peripheral to the main deposit. In contrast, biotite alteration is relatively widespread within the deposit area.

## 6.1 <u>Biotite</u>

Biotite alteration is the most common alteration type in the volcaniclastic rocks and is characterized by a finely crystalline assemblage of biotite, quartz, sericite, chlorite and anhydrite with accessory calcite, ankerite, magnetite, hematite, and apatite. This alteration type is primarily pervasive, locally replacing groundmass plagioclase, and forms the clots and mineral aggregates observed in the fine and coarse ash tuff (FAXT). The biotite is typically black to dark green, finely crystalline and it locally makes up to 20% of the rock composition. In other instances chlorite is dominant and may or may not show replacement relationships with biotite.

In relatively narrow zones (less than 10 m wide) within the diorite, biotite alteration is both phenocryst selective and pervasive; mineral constituents may be replaced by biotite + chlorite + magnetite resulting in the near complete destruction of original texture. Biotite alteration in quartz feldspar porphyry dykes is dominant in the southern parts of the property (DDH 91-8,10) and is characterized by the partial replacement of plagioclase and mafics by chlorite and/or biotite, and the groundmass by patchy aggregates of chlorite + magnetite + biotite + chalcopyrite.

The presence of biotite haloes around quartz veins, and magnetite intermixed with biotite, indicates that some of the biotite is hydrothermal. Older descriptions of the property interpret much of the pervasive biotite alteration as a biotite facies hornfels related to diorite intrusions. Additional data is needed to determine the distribution of biotite alteration and its relationship to mineralization and the emplacement of intrusions.

#### 6.2 <u>Sericite</u>

In general, sericite alteration is less common than biotite alteration. In the volcaniclastic rocks it is mostly pervasive in style and is characterized by an assemblage of sericite + carbonate + chlorite with accessary quartz, Ti-oxide and hematite. This assemblage mostly occurs as the partial to complete replacement of groundmass plagioclase, or locally, plagioclase phenocrysts. Amphibole phenocrysts are typically altered to chlorite in sericite alteration zones. Within the diorite intrusions, plagioclase, hornblende and biotite phenocrysts are partially to completely pseudomorphed by the fine grained sericite (+ ankerite); magnetite is replaced by hematite; and the groundmass is replaced by sericite and ankerite with relict apatite.

Sericite alteration is dominant in quartz feldspar porphyry dykes north of DDH 91-8,10. It occurs with carbonate as the partial or complete replacement of plagioclase, hornblende, and biotite phenocrysts, and with ankerite and Ti-oxide as the pervasive, partial replacement of the plagioclase-rich groundmass. A less common variation includes the partial to complete replacement of sericite/muscovite by white, chalky clay and the groundmass by pale, flesh-toned mixtures of clay and gypsum. This alteration type is structurally controlled.

Sericite occurs less commonly as fracture envelopes or vein haloes indicating that some of the sericite is hydrothermal. Fracture controlled chlorite in sericite zones is best developed in the volcaniclastic rocks and is weakly developed peripheral to the main mineralized zone.

## 6.3 <u>Quartz</u>

The least common type of alteration on the property is the replacement of phenocrysts and the groundmass of volcaniclastic rocks and quartz feldspar porphyry dykes by amorphous quartz, with or without carbonate. Much of this alteration occurs as crude haloes reaching widths up to 100 m that envelope faults (i.e. DDH 91-6, 91-3). Quartz alteration generally results in near total destruction of the original mineral texture. In most instances silicified/carbonatized rocks are bleached pale grey but in some instances a pale pinkish to reddish hue is observed. Thin section analyses indicates exsolved hematite in the silica rather than potassium feldspar results in the red coloration.

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## 6.4 <u>Chlorite</u>

Chlorite alteration occurs within bedded ash tuffs in the northern portions of the deposit (DDH 91-7) and within the PPD3 intrusion. This alteration is characterized by a chlorite + pyrite + calcite assemblage which replaces both the groundmass and phenocrysts.

## 6.5 Other Alteration Types

Epidote was found as phenocryst selective alteration of plagioclase in the plagioclase porphyry diorite intrusion (PPD3) and in some of the volcaniclastic rocks peripheral to the main mineralized zone. Gypsum and anhydrite occur within veins and as an alteration product throughout the deposit area. Notably, the absence of gypsum within the intensely fractured and weathered intervals throughout the upper 200 meters of the deposit and structurally localized intervals at depth is attributed to its dissolution. Gypsum is common below its level of first appearance at 160-250 m as fibrous open space fillings. Purple anhydrite is seen to replace gypsum, and vise versa, in thin section. Purple anhydrite becomes obvious below the 500 m elevation level, and it occurs locally in quartz veins.

## 7.0 MINERALIZATION

Copper and gold mineralization is relatively uniform in distribution, occurring in all alteration types forming a body of unknown geometry with a vertical extent from surface to 700-800 m depth, and a defined maximum width/length of at least 400 m. Other significant mineralized intervals, peripheral to this zone, have been drilled, but drill holes are too sparse to define distinct bodies. All of the drilling peripheral to the main zone has been confined to the upper 350 m of the deposit, and some holes were abandoned at relatively shallow depths (100 m) with chalcopyrite mineralization still evident.

## 7.1 Mineralization Styles

The style of copper mineralization varies within and between lithologies. At least six distinct styles, and several generations of mineralization, have been recognized. All styles are dominated by chalcopyrite with or without microscopic to submicroscopic intergrowths and overgrowths of bornite, tetrahedrite and chalcocite. Minor disseminated bornite and tetrahedrite is intermixed with groundmass sericite and biotite and within quartz + chalcopyrite veins. Cu oxides (malachite, tenorite) are also present in the upper 50 m of the deposit.

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The six observed styles of chalcopyrite/bornite mineralization are:

- 1. disseminations, intergrowths, and millimetre to centimetre-scale blebs within altered groundmass;
- 2. very fine disseminated grains within altered clots and aggregates;
- 3. massive blebs and fine disseminations within quartz veins;
- 4. hairline, discontinuous stringers and fracture fillings;
- 5. massive blebs and fine disseminations within gypsum veins;
- 6. very fine disseminated grains within stringer networks.

Disseminated and fracture-controlled mineralization (Types 1 and 4) is ubiquitous within sericitized diorite intrusions. In addition, these mineralization types dominate in the volcaniclastic rocks and quartz feldspar porphyry dykes in areas of biotite and quartz + calcite alteration. Vein-controlled mineralization styles (Types 3 and 5) are less common but occur in sericitized quartz feldspar porphyry dykes and zones within volcaniclastic rocks and diorite intrusions. The most common type of mineralization observed in the volcaniclastic rocks is finely disseminated chalcopyrite within altered clots and aggregates (Type 2, and stringer networks (Type 6).

## 7.2 <u>Veins</u>

Mineralized and barren veins can be grouped into Main and Late stage types, based on gross crosscutting relationships. Main stage veins are variably oriented, dip from 30° to vertical (average 70°) and show complex crosscutting relationships. Locally they form well developed, mineralized stockwork zones (ie. DDH 91-1, 91-10) with relatively high copper values (greater than 0.45% Cu). Main stage vein constituents are dominated by quartz, pyrite and chalcopyrite and subordinate calcite and ankerite. At least three vein types, identified by specific, re-occurring, mineral assemblages, have been recognized in the Main stage vein category. They are as follows:

- quartz + (ankerite/calcite) + chalcopyrite + pyrite with accessory sericite, chlorite, specularite, molybdenite, bornite, tetrahedrite, chalcocite, sphalerite, galena, and native gold;
- 2. quartz + (calcite) + magnetite/hematite + biotite/chlorite + chalcopyrite with accessory bornite, tetrahedrite, kaolinite and anhydrite;
- 3. quartz + anhydrite/gypsum + carbonate with accessory pyrite, chalcopyrite, bornite and molybdenite.

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The replacement of biotite by chlorite + sericite; magnetite by hematite; and anhydrite by gypsum is locally observed in thin section within Main stage veins. Microscopic native gold (1-3 micron size) has been identified in polished thin sections in DDH 91-1 (357 - 360 m depth) as inclusions and fracture in-fills in pyrite grains, as a matrix to massive brecciated pyrite, and as intergrowths with chalcopyrite and tetrahedrite (Appendix V).

Late stage veins, composed mainly of quartz, calcite, and gypsum-bearing assemblages, are more abundant than Main stage veins. The vein types of the Late stage veins include:

- 1. gypsum
- 2. calcite
- 3. quartz + calcite + gypsum + chalcopyrite + pyrite + chlorite
- 4. quartz + calcite + pyrite
- 5. quartz + carbonate + sericite + sphalerite + pyrite with accessory galena, chalcopyrite, molybdenite, anhydrite and pyrrhotite
- 6. chalcedonic white bull quartz.

Base metal-bearing veins (Type 5) are relatively minor, are confined to the central part of the mineralized zone, and can be correlated with elevated mercury, arsenic and antimony values. Quartz + calcite + pyrite veins are locally concentrated within the sericitized diorite and quartz feldspar porphyry dykes, and also correlate with high mercury, arsenic and antimony values. The most abundant Late stage veins are composed of fibrous gypsum with an approximate sub-horizontal attitude. These veins are present throughout the main zone but may be absent in the upper 200 m of the deposit (DDH 91-1, 91-6).

## 7.3 Pyrite Content

Pyrite content varies from trace to approximately 10% (averaging 2%) between and within lithologies. The highest content occurs in the unit of chlorite + calcite + pyrite altered diorite in the southwest portion of the property (PPD3). Coincidentally this intrusion does not contain significant values of copper or gold. Overall pyrite to chalcopyrite ratios are generally low (approximately 2:1) within the mineralized zone. Pyrite is present in amounts up to 30% within quartz -carbonate replacement zones (up to 30 cm wide) which cut plagioclase porphyry diorite intrusions (PPD1) and quartz feldspar porphyry dykes.

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## 8.0 **RECOMMENDATIONS**

In view of the success of the 1991 deep diamond drill program, and the presence of copper and gold mineralized intersections in relatively shallow peripheral drill holes (i.e. DDH holes F89-1, FL81-13, FL81-12, Q74-3, Q73-2, Q73-1, Q73-6, 69-10, PC-82-1 - Figure 4 in back pocket), the deposit is considered to be open in all directions. A feasibility-stage diamond drilling and permitting program should be undertaken on the main Fish Lake deposit, and further exploration diamond drilling should be continued in areas peripheral to the mineralized zone. A budget of \$8,497,500 has been recommended for this program as detailed below (Table 6).

#### Table 4

Description	Cost (\$)
130 HQ diamond drill holes (55,000 m) @ \$115/m	6,325,000
Pilot Plant Metallurgical Program	500,000
Geotechnical Consulting	150,000
Environmental and Socioeconomic Studies	250,000
Engineering and Design	250,000
Administration	250,000
Subtotal	7,725,000
Contingencies @ 10%	772,500
Total	8,497,500

Proposed 1992 Drilling and Permitting Program Budget

APPENDIX I

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CLAIM SCHEDULE

#### TASEKO MINES LIMITED

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#### MINERAL CLAIMS IN THE FISH LAKE AREA

<u>Claim</u>	Record <u>No.</u>	# <u>Units</u>	Date Recorded <u>mm/dd/yy</u>	Expiry Date <u>mm/dd/yy</u> •
L-7	29311	1	Aug. 17, 1972	Aug. 17, 2000
L-8	29312	1	Aug. 17, 1972	Aug. 17, 2000
L-9	29313	1	Aug. 17, 1972	Aug. 17, 2000
L-10	29314	1	Aug. 17, 1972	Aug. 17, 2000
L-11	29315	1	Aug. 17, 1972	Aug. 17, 2000
L-12	29316	1	Aug. 17, 1972	Aug. 17, 2000
L-21	29325	1	Aug. 17, 1972	Aug. 17, 2000
L-22	29326	1	Aug. 17, 1972	Aug. 17, 2000
L-23	29327	1	Aug. 17, 1972	Aug. 17, 2000
L-24	29328	1	Aug. 17, 1972	Aug. 17, 2000
L-31	29335	1	Aug. 17, 1972	Aug. 17, 2000
L-32	29336	1	Aug. 17, 1972	Aug. 17, 2000
L-33	29337	1	Aug. 17, 1972	Aug. 17, 2000
L-34	29338	1	Aug. 17, 1972	Aug. 17, 2000
L-35	29339	1	Aug. 17, 1972	Aug. 17, 2000
L-36	29340	1	Aug. 17, 1972	Aug. 17, 2000
L-37	29341	1	Aug. 17, 1972	Aug. 17, 2000
L-38	29342	1	Aug. 17, 1972	Aug. 17, 2000
L-39	29343	1	Aug. 17, 1972	Aug. 17, 2000
L-40	29344	1	Aug. 17, 1972	Aug. 17, 2000
L-41	29345	1	Aug. 17, 1972	Aug. 17, 2000
L-42	29346	1	Aug. 17, 1972	Aug. 17, 2000
L-43	29347	1	Aug. 17, 1972	Aug. 17, 2000
L-44	29348	1	Aug. 17, 1972	Aug. 17, 2000
L-45	29349	1	Aug. 17, 1972	Aug. 17, 2000
L-46	29350	1	Aug. 17, 1972	Aug. 17, 2000
L-47	29351	1	Aug. 17, 1972	Aug. 17, 2000
L-48	29352	1	Aug. 17, 1972	Aug. 17, 2000
K-53	29417	1	Aug. 17, 1972	Aug. 17, 2000
K-54	29418	1	Aug. 17, 1972	Aug. 17, 2000
K-55	29419	1	Aug. 17, 1972	Aug. 17, 2000
K-56	29420	1	Aug. 17, 1972	Aug. 17, 2000
K-57	29421	1	Aug. 17, 1972	Aug. 17, 2000
K-58	29422	1	Aug. 17, 1972	Aug. 17, 2000
K-59	29423	1	Aug. 17, 1972	Aug. 17, 2000
K-61	29425	1	Aug. 17, 1972	Aug. 17, 2000
K-63	29427	1	Aug. 17, 1972	Aug. 17, 2000

\* After recording of the exploration work described within this report.

MINERAL CLAIMS IN THE FISH LAKE AREA L

<u>Claim</u>	Record No.	# <u>Units</u>	Date Recorded mm/dd/yy	Expiry Date <u>mm/dd/yy</u>
K-66	29430	1	Aug. 17, 1972	Aug. 17, 2000
K-68	29432	1	Aug. 17, 1972	Aug. 17, 2000
K-70	29434	1	Aug. 17, 1972	Aug. 17, 2000
K-72	29436	1	Aug. 17, 1972	Aug. 17, 2000
K-74	29438	1	Aug. 17, 1972	Aug. 17, 2000
K-76	29440	. 1	Aug. 17, 1972	Aug. 17, 2000
K-116	29480	1	Aug. 17, 1972	Aug. 17, 2000
K-117	29481	1	Aug. 17, 1972	Aug. 17, 2000
K-118	29482	ī	Aug. 17, 1972	Aug. 17, 2000
K-119	29483	1	Aug. 17, 1972	Aug. 17, 2000
K-120	29484	1	Aug. 17, 1972	Aug. 17, 2000
K-121	29485	1	Aug. 17, 1972	Aug. 17, 2000
K-125	29489	1	Aug. 17, 1972	Aug. 17, 2000
K~126	29490	1	Aug. 17, 1972	Aug. 17, 2000
K-127	29491	ĩ	Aug. 17, 1972	Aug. 17, 2000
K~128	29492	1	Aug. 17, 1972	Aug. 17, 2000
K-129	29493	1	Aug. 17, 1972	Aug. 17, 2000
K-130	29494	ī	Aug. 17, 1972	Aug. 17, 2000
K-130 K-131	29495	1	Aug. 17, 1972	Aug. 17, 2000 Aug. 17, 2000
K-131 K-132	29496	1	Aug. 17, 1972	Aug. 17, 2000 Aug. 17, 2000
K-133	29490	1	Aug. 17, 1972 Aug. 17, 1972	Aug. 17, 2000 Aug. 17, 2000
K-135 K-134	29497	1	Aug. 17, 1972 Aug. 17, 1972	Aug. 17, 2000 Aug. 17, 2000
	29498			-
K-135		1 1	Aug. 17, 1972	Aug. 17, 2000
K-136	29500		Aug. 17, 1972	Aug. 17, 2000
BJ-1	18417	1	June 25, 1969	June 25, 2000
BJ-3	18419	1	June 25, 1969	June 25, 2000
BJ-5	18421	1	June 25, 1969	June 25, 2000
BJ-7	18423	1	June 25, 1969	June 25, 2000
BJ-9	18426	1	June 25, 1969	June 25, 2000
BJ-11	18427	1	June 28, 1969	June 28, 2000
BJ-13	18429	1	June 25, 1969	June 25, 2000

### MINERAL CLAIMS IN THE <u>FISH LAKE AREA</u>

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<u>Claim</u>	Record <u>No.</u>	# <u>Units</u>	Date Recorded <u>mm/dd/yy</u>	Expiry Date <u>mm/dd/yy</u>
BJ-14	18430	1	June 25, 1969	June 25, 2000
BJ-15	18431	1	June 25, 1969	June 25, 2000
BJ-16	18432	l	June 25, 1969	June 25, 2000
BJ-17	18433	1	June 25, 1969	June 25, 2000
BJ-18	18434	1	June 25, 1969	June 25, 2000
BJ-19	18435	1	June 25, 1969	June 25, 2000
BJ-20	18436	1	June 25, 1969	June 25, 2000
BJ-21	18437	1	June 25, 1969	June 25, 2000
BJ-22	18438	1	June 25, 1969	June 25, 2000
BJ-23	18439	1	June 25, 1969	June 25, 2000
BJ-24	18440	1	June 25, 1969	June 25, 2000
BJ-25	18441	1	June 25, 1969	June 25, 2000
BJ-26	18442	1	June 25, 1969	June 25, 2000
BJ-27	18443	1	June 25, 1969	June 25, 2000
BJ-28	18444	1	June 25, 1969	June 25, 2000
BJ-29	18445	1	June 25, 1969	June 25, 2000
BJ-30	18446	1	June 25, 1969	June 25, 2000
BJ-31	18447	1	June 25, 1969	June 25, 2000
BJ-32	18448	1	June 25, 1969	June 25, 2000
BJ-33	18449	1	June 25, 1969	June 25, 2000
BJ-34	18450	1	June 25, 1969	June 25, 2000
BJ-35	18451	l	June 25, 1969	June 25, 2000
BJ-36	18452	1	June 25, 1969	June 25, 2000
BJ-37	18453	1	June 25, 1969	June 25, 2000
BJ-38	18454	1	June 25, 1969	June 25, 2000
BJ-39	18455	1	June 25, 1969	June 25, 2000
BJ-40	18456	1	June 25, 1969	June 25, 2000
BJ-41	18457	1	June 25, 1969	June 25, 2000
BJ-42	18458	1	June 25, 1969	June 25, 2000
TK-1	30881	1	May 28, 1973	May 28, 2001
TK-2	30882	1	May 28, 1973	May 28, 2001
TK-3	30883	1	May 28, 1973	May 28, 2001
TK-4	30884	1	May 28, 1973	May 28, 2001
TK-5	30885	1	May 28, 1973	May 28, 2001
TK-6	30886	1	May 28, 1973	May 28, 2001
ТК-7	30887	1	May 28, 1973	May 28, 2001
TK-8	30888	1	May 28, 1973	May 28, 2001
TK-9	30889	1	May 28, 1973	May 28, 2001
TK-10	30890	1	May 28, 1973	May 28, 2001
TK-15	30895	1	May 28, 1973	May 28, 2000
TK-16	30896	1	May 28, 1973	May 28, 2000
TK-17	30897	1	May 28, 1973	May 28, 2000
TK-18	30898	1	May 28, 1973	May 28, 2000

## (CONT'D)

## MINERAL CLAIMS IN THE FISH LAKE AREA

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<u>Claim</u>	Record No.	# <u>Units</u>	Date Recorded <u>mm/dd/yy</u>	Expiry Date mm/dd/yy
TK-19	30899	1	May 28, 1973	May 28, 2000
TK-20	30900	1	May 28, 1973	May 28, 2000
TK-21	30901	1	May 28, 1973	May 28, 2000
TK-22	30902	1	May 28, 1973	May 28, 2000
TK-23	30903	1	May 28, 1973	May 28, 2000
TK-24	30904	1	May 28, 1973	May 28, 2000
TK-25	30905	1	May 28, 1973	May 28, 2000
TK-26	30906	1	May 28, 1973	May 28, 2000
TK-29	30909	1	May 28, 1973	May 28, 2001
TK-30	30910	1	May 28, 1973	May 28, 2001
TK-31	30911	1	May 28, 1973	May 28, 2001
TK-32	30912	1	May 28, 1973	May 28, 2001
TK-33	30913	1	May 28, 1973	May 28, 2001
TK-34	30914	1	May 28, 1973	May 28, 2001
TK-35	30915	1	May 28, 1973	May 28, 2001
TK-36	30916	1	May 28, 1973	May 28, 2001
TK-37	30917	1	May 28, 1973	May 28, 2001
TK-38	30918	1	May 28, 1973	May 28, 2001
TK-39	30919	1	May 28, 1973	May 28, 2000
TK-40	30920	1	May 28, 1973	May 28, 2000
TK-41	30921	1	May 28, 1973	May 28, 2000
TK-42	30922	1	May 28, 1973	May 28, 2000
TK-43	30923	1	May 28, 1973	May 28, 2000
TK-44	30924	1	May 28, 1973	May 28, 2000
TK-45	30925	1	May 28, 1973	May 28, 2000
TK-45 TK-46	30926	1		
TK-40 TK-47		1	May 28, 1973	
11-47	30927	T	May 28, 1973	May 28, 2000
TK-49	30929	1	May 28, 1973	May 28, 2000
TK-50	30930	1	May 28, 1973	May 28, 2000
TK-51	30931	1	May 28, 1973	May 28, 2000
TK-52	30932	1	May 28, 1973	May 28, 2000
TK-53	30933	1	May 28, 1973	May 28, 2000
TK-54	30934	1	May 28, 1973	
TK-57	30937	1	May 28, 1973	May 28, 2000
TK-58	30938	1	May 28, 1973	May 28, 2000
TK-61	30941	1	May 28, 1973	May 28, 2000
TK-62	30942	1	May 28, 1973	May 28, 2000
TK-63	30943	1	May 28, 1973	May 28, 2000
TK-64	30944	1	May 28, 1973	May 28, 2000
TK-65	30945	1	May 28, 1973	May 28, 2000
TK-66	30946	1	May 28, 1973	May 28, 2000
TK-67	30947	1	May 28, 1973	May 28, 2000
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# MINERAL CLAIMS IN THE <u>FISH LAKE AREA</u>

<u>Claim</u>	Record No.	# <u>Units</u>	Date Recorded <u>mm/dd/yy</u>	Expiry Date <u>mm/dd/yy</u>
TK-68	30948	1	May 28, 1973	May 28, 2000
TEL-57	30661	1	Apr. 25, 1973	Apr. 25, 2000
TEL-59	30663	1	Apr. 25, 1973	Apr. 25, 2000
TEL-75 TEL-76 TEL-77	30679 30680 30681	1 1 1	Apr. 26, 1973 Apr. 26, 1973 Apr. 26, 1973	Apr. 26, 2000 Apr. 26, 2000 Apr. 26, 2000
BCC-1 (Fr) BCC-2 (Fr) BCC-3 (Fr) BCC-4 (Fr) BCC-5 (Fr) BCC-6 (Fr)	969 970 971 972 973 979	1 1 1 1 1	Feb. 6, 1981 Feb. 6, 1981 Feb. 6, 1981 Feb. 6, 1981 Feb. 6, 1981 Feb. 6, 1981 Feb. 25, 1981	Feb. 6, 2001 Feb. 6, 2001 Feb. 6, 2001 Feb. 6, 2000

#### COMINCO INC.

#### MINERAL CLAIMS IN THE FISH LAKE AREA

FL1	401	16	Sept. 11, 1979	Sept. 11, 2000
FL4	404	16	Sept. 11, 1979	Sept. 11, 2000
EKO 1 EKO 2 EKO 3	999 1000 1001	20 20 20	Apr. 2, 1981 Apr. 2, 1981 Apr. 2, 1981	Apr. 2, 2000 Apr. 2, 2000 Apr. 2, 2000

#### TASEKO MINES LIMITED

### MINERAL CLAIMS IN THE CLINTON MINING DIVISION

ТКО ТКО ТКО ТКО ТКО ТКО	2 3 4 5	3518 3519 3520 3521	16 20 8 20 20 12	Jan. 9, 1991 Jan. 8, 1991 Jan. 18, 1991 Jan. 16, 1991 Jan. 17, 1991 Jan. 18, 1991	Jan. 9, 2000 Jan. 8, 2001 Jan. 18, 2001 Jan. 16, 2001 Jan. 17, 2001 Jan. 18, 2001
Fish Fish Fish Fish	2 3	3563 3564 3565 3566	20 20 20 20	Jan. 18, 1991 Jan. 19, 1991 Jan. 19, 1991 Jan. 18, 1991	Jan. 18, 2000 Jan. 18, 2000 Jan. 18, 2000 Jan. 18, 2000

APPENDIX II

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CHRONOLOGICAL LISTING OF EXPLORATION

YEAR	WORK DO	OWNER, OPTIONOR,	
	TYPE	QUANTITY	OPERATOR, CONSULTANT
1960 - 1964	Trenching Geophysical Surveys (Ground Magnetic, Induced Polarization, Self-Potential)		Phelps Dodge (Owner/ Operator)
	Geochemical Surveys (Soil)		
	Diamond Drilling	8 holes - 2,373 Ft. (723 metres)	
1966	Geological Exam. and Mapping		Taseko Mines (Owner) Pentland (Consultant)
	Bulldozer Trenching	9 holes - 1,500 lin Ft. (457 lineal met	
1969	Geological Exam. and Mapping		Taseko Mines (Owner) Dirom (Consultant)
	Geochemical (Soil) Sampling		AMAX (Examining Corp.)
	Bulldozer Trenching		
	Percussion Drilling	6 holes - 1,800 Ft. (549 meters) 6 holes - 2,350 Ft. (716 meters)	
	Diamond Drilling	6 holes - 3,398 Ft. (1,036 meters)	
	Geophysical Survey (Ground Magnetics)		
1970	Geophysical Survey (Induced Polarization	)	Taseko Mines (Owner) Nittetsu (Optionor/ Operator)
	Diamond Drilling	4 holes - 774 Ft. (236 meters)	

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YEAR	WORK DONE		OWNER, OPTIONOR,
	TYPE	QUANTITY	OPERATOR, CONSULTANT
1971	Geological Exam.		Taseko Mines (Owner)
	Drill Core Logging	3 holes - 693 Ft.	Seraphim (Consultant)
1972	Geological Appraisa	1	Taseko Mines (Owner) Dirom/Seraphim (Consultants)
	Diamond Drilling	3 holes - 693 Ft. (211 meters)	
1973	Geological Mapping	Scale 1" = 1 mile	Taseko Mines (Owner) Quintana (Optionor/ Operator)
	Diamond Drilling	15 holes-10,034 Ft. (3,058 meters)	Mountain States Research & Devel. (Consultants)
	Mineral Reserve Calculation		
	Mineralogical Exam.		
	Metallurgical Testi	.ng	
1974	Diamond Drilling	9 holes - 5,679 Ft. (1,731 meters)	Taseko Mines (Owner) Quintana (Optionor/ Operator)
	Economic Evaluation	1	
1979	Percussion Drilling	14 holes - 1,106 m	Taseko Mines (Owner) Bethlehem (Optionor/ Operator)
1980	Geochemical Survey (Soil)	446 samples	Taseko Mines (Owner) Bethlehem (Optionor/ Operator)
	Percussion Drilling	23 holes - 2,158 m	operator)
	Mineralogical Studies		
1981	Geophysical Survey: (Ground IP, Resisti Horizontal Loop EM, VLF-EM)	ivity,	Taseko Mines (Owner) Bethlehem/Cominco (Optionor/Operator)

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YEAR	WORK_	OWNER, OPTIONOR,	
	TYPE	QUANTITY	OPERATOR, CONSULTANT
1981 (cont'd)	(Airborne VLF-EM and Magnetometer) (IP and Magnetics, Downhole Logging, CE and SP, VLF-EM)	30 line kilometres	
	Geological Mapping		
	Geochemical Survey (soil and silt)	Soil (41 line kms - 1,017 samples) Silt (26 streams)	
	Diamond Drilling	39 holes 9,637 m	
	Mineral Reserve Estimate		
	Metallurgical Testi	ng	
	Mineralogical Studi	es	
	Economic (Financial Evaluations	.)	
1982	Geophysical Survey: (IP, Resistivity) (Magnetic) (VLF-EM) (HLEM)	20 line km. 18 line km. 50 line km. 5 line km.	Taseko Mines (Owner) Cominco (Optionor/ Operator)
	Geochemical Survey	16 line km.	
	Percussion Drilling	19 holes - 1,550 m	
	Diamond Drilling	12 holes - 710 m	
	Mineral Reserves Estimate		
1983	Metallurgical Assessment (Summary Report onl	.y)	Taseko Mines (Owner) Cominco (Optionor)
1984	Diamond Drilling	5 holes - 1,003 m	Taseko Mines (Owner) Cominco (Optionor/ Operator)

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YEAR	WO	RK DONE	OWNER, OPTIONOR,	
	TYPE	QUANTITY	OPERATOR, CONSULTANT	
1986	Economic Evaluat	ions	Taseko Mines (Owner) Cominco (Optionor/ Operator) Wright Engineers (Consultant)	
1987	Economic Evaluat	ions	Taseko Mines (Owner) Cominco (Optionor/ Operator) Wright Engineers (Consultant)	
1989	Drilling Metallurgy	12 holes	Taseko Mines (Owner) Cominco (Optionor/ Operator)	
1991	Diamond Drilling	10 holes - 24625 ft. (7506 metres)	Taseko Mines (Owner/Operator) Cominco (Optionor)	
TOTAL DRILL FOOTAGE TO DATE = 110,377 FEET				

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