QUINTANA MINERALS CORPORATION
1215 – TWO BENTALL CENTRE
VANCOUVER, BRITISH COLUMBIA V7X 1G4

(AREA CODE 604)
TELEPHONE 688-4688

May 28, 1974

The Mining Recorder
Suite 315 - 840 West Pender Street
Vancouver, B.C.

Re: Wm. Howell

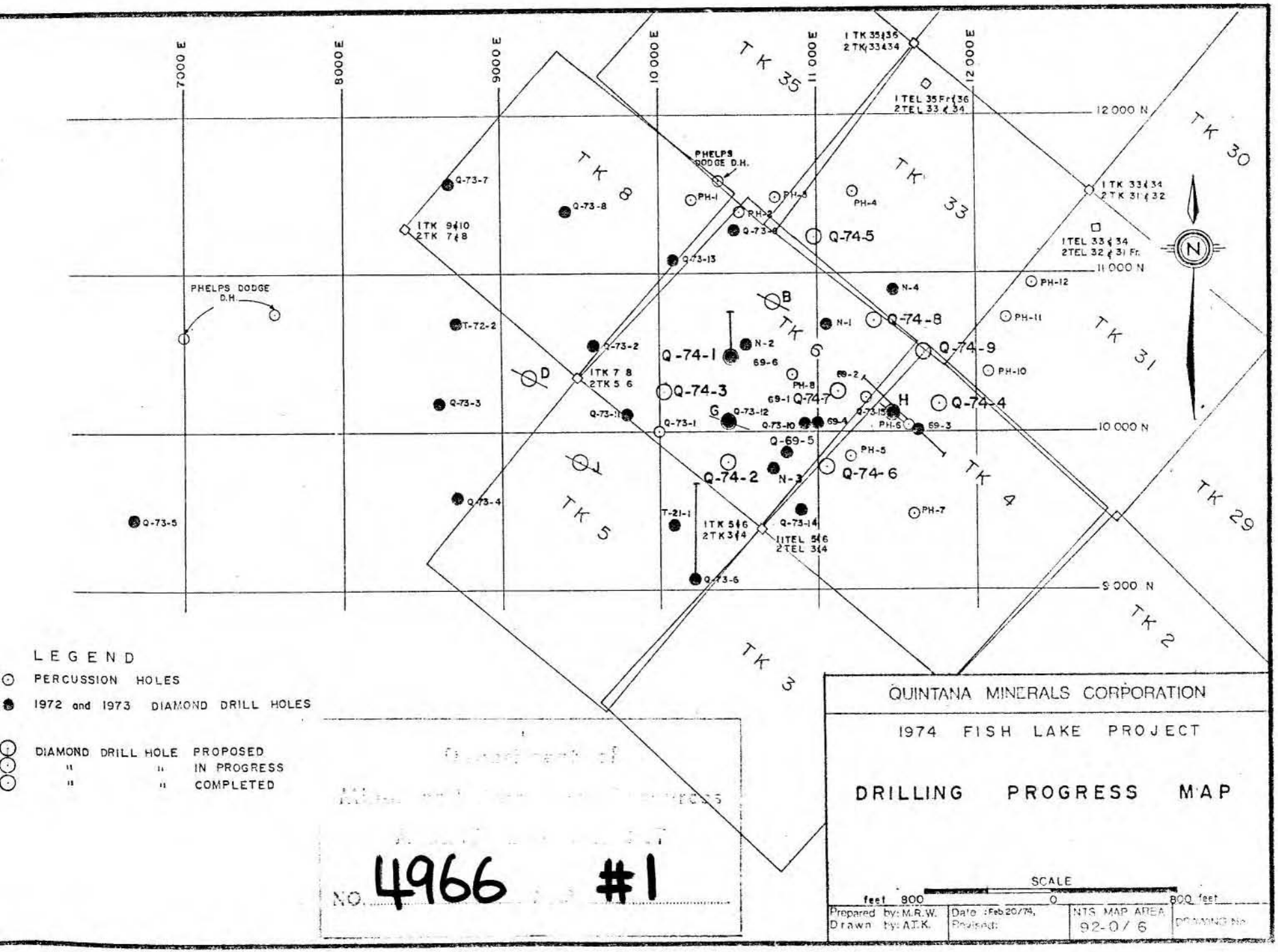
Dear Sir:

Logs of Holes Q-74-1,4, 6, 7, and 9 submitted for assessment work made by Wm. Howell under instruction from M. Wolfhard and with the approval of C.S. Ney. Howell is not available at the moment to sign the logs.

He is a geological graduate of U.B.C. with several years experience in Mineral Exploration in B.C. and we have every confidence in his ability.

Yours truly,

CHARLES S. NEY, P.Eng.
Executive Vice-President



LEGEND

- PERCUSSION HOLES
- 1972 and 1973 DIAMOND DRILL HOLES
- DIAMOND DRILL HOLE PROPOSED
- " " IN PROGRESS
- " " COMPLETED

NO. 4966 #1

QUINTANA MINERALS CORPORATION

1974 FISH LAKE PROJECT

DRILLING PROGRESS MAP

SCALE

feet 800 0 800 feet

Prepared by: M.R.W. Drawn by: A.T.K.	Date: Feb 20/74, Revised:	NTS MAP AREA 92-O/6	DRAWING No.

92 O/5 E½
1:50,000

ITEMIZED COST STATEMENT

D.D.H.-74-1	Longyear invoices 8201, 8341, 8414.	
100 ft.	Overburden penetration and cost of casing	2,017.72
321 ft	HQ coring plus recovery bonus	5,617.50
329 ft	NQ coring plus hole reduction	3,976.02
	Contractors indirect charges prorated over job @ 4.21/ft.	3,164.00
	Quintana indirect costs excluding assaying and sampling - prorated over job.	1,686.44

The numbers and letters used under "Alteration " on the accompanying logs are to be interpreted as follows:

F = Fracture control - either open space filling or selvage.

D = Disseminated

Tr= Trace

1-3 is a subjective measure of intesity from weak to strong.

of interest, there is a hypidiomorphic granular to weakly f dspar porphyritic rock w. h average grain size 1.5 - 2 mm. Quartz is interstitial, and the chloritized mafics occur interstitially or as 2 - 3 mm clots (after hornblende?). The distinction between this rock and dioritized coarse grained hornfels is based on uniformity of texture and fabric, rather than on quantitative criteria.

2) Quartz Diorite Porphyry II (a): In the eastern and northeastern portions of the area of interest, a porphyritic-aphanitic to porphyritic granular rock unit is distinguished. The unit is characterized by some 40 - 50% of plagioclase phenocrysts, 10% hornblende phenocrysts, with a very fine grained matrix of feldspar and quartz. The feldspar is composed mainly of subhedral 1 x 2 mm tablets, with a few euhedral tablets of similar size and a few anhedral grains of 3 to 4 mm. This unit may be intermediate between quartz diorite and quartz diorite porphyry Type II. It is cut by Type I and Type III rocks.

3) Quartz Diorite Porphyry II: This unit is characterized by 20 - 40% 1 X 2 mm sub-euhedral plagioclase and 10% hornblende phenocrysts, in a very fine grain matrix of quartz and feldspar. Minor quartz is present as 1 mm phenocrysts. Type II differs from Type II(a) in that Type II has less abundant, better formed, feldspar in the 1 X 2 mm size, and has no 3 - 4 mm anhedral grains.

4) Quartz Diorite Porphyry I: Type I porphyry consists of 30 - 50% (rarely 20%) 2 to 4 mm anhedral to subhedral plagioclase, 10% hornblende phenocrysts, and less than 5% 1 to 2 mm quartz phenocrysts.

5) Quartz Feldspar Porphyry: This unit is also a quartz diorite, and is texturally similar to Type I except that it contains more than 5% quartz phenocrysts of 4 mm average size. Some rocks having quartz less than 4 mm average size are logged as quartz feldspar porphyry if the average quartz grain size is greater than 2 mm and is similar to the average grain size of the plagioclase phenocrysts. These fine grained rocks are thought to represent chilled, narrow dikes.

6) Quartz Feldspar Porphyry III: This unit is texturally similar to Type I, but is unmineralized or only weakly mineralized with pyrite and barren carbonate veinlets. The relict shapes of chloritized to partially chloritized hornblende are readily apparent. A dyke of this type seen on surface appears to strike 060° and dip steeply. This attitude is consistent with drill hole data.

The core is stored on the property about 800 ft. south of Hole No. 4

DIAMOND DRILL RECORD

[illegible] P. Eng.

Property FISH LAKE
Hole No. R74-1 Page No. 1 Length 750' Lat. ______ Drill Type LONGYEAR 44
District CLINTON Bearing ______ Dept. ______ Hole Size HQ - NQ
Commenced February 27, 1974 Inclination 90° (VERTICAL) Elev. ______ Contractor CAN. LONGYEAR Logged by W.A. HOWELL
Completed MARCH 6 12:30 P.M. Approved by ______ Date ______

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.			ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.			% Sulph.	Diss./ Vein	Py/ Cpy	EST % Cu	
0	100				OVERBURDEN																	
100	120	7501			TYPE I QUARTZ DIORITE PORPHYRY. SULPHIDES	F	2					1		1								
		7502			DISS. & ON FRACTURE FACES & MINOR STRINGERS.	D				3	3	?		?				2		4/1	.3	
					ROCK COMMONLY CONTAINS 1-15 mm VUGS																	
					(AVG SIZE 2-4 mm) MINOR MoS_2 ON FRACT																	
					FACES, VERY OCCAISIONAL BORNITE ON FRACT.																	
					FACES.																	
120	177	7503			TYPE I Q.D. PORPHYRY. SULPHIDE MORE COMMON	F	1-2			1	1	1		2								
		7504			ON FRAC., MINOR DISS SULPHIDES MAGN.	D	3			3	2			1				1.0		10/1	.1	
		7505			ON FRAC. & AS DISS. OCCAISIONAL VEINLET																	
		7506			CONTROLLED SERICITE WITH PY & QTZ.																	
		7507			MINERALIZED FRACTURES ARE "TIGHT"																	
		7508																				
		~~7509~~																				
177	189	7509			TYPE I Q.D. PORPHYRY. PY ON FRAC. AND	F	1				~~2-3~~	2-3		?								
					DISS AS XTLS. VERY LITTLE Cu MINERALIZATION.	D	1			~~1-2~~	1-~~2~~	?(1)		1				1.0		20/1	.05	
					ROCK IS BLEACHED																	
189	191				GOUGE, MUCH SERICITE AND "BLACK MUD"						3	3										
					OCCAISIONAL PY. VISIBLE																	
191	248	7510			TYPE I Q.D. PORPHYRY GREY COLOUR, PY,	F	2			1		2		3	1							
		7511			CPY ON FRACTURES AND WEAKLY DISSEMINATED	D	?			2	2	1		2				2.0		20/1	.1	
		7512			FELDSPARS GENERALLY MORE "CHALKEY".																	
		7513			QTZ - CARB - GYPSUM - PY VEINING PARALLEL CORE																	
		7514			NEAR 220'.																	
		7515			AS CARB/GYPSUM CONTENT INCREASES																	
					VUGS DECREASE IN SIZE AND FREQUENCY																	

DIAMOND DRILL RECORD

Property FISH LK.
Hole No. 24-1 Page No. 2/4 Length 750 Lat. _____ Drill Type _____
District _____ Bearing _____ Dept. _____ Hole Size _____
Commenced _____ Inclination _____ Elev. _____ Contractor _____ Logged by W A. HOWELL
Completed _____ Approved by _____ Date _____

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.			ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	Est % Cu
248	262	7516			TYPE I Q.D. PORPHYRY, BLEACHED CREAM COLOUR														
		7517			FELDSPARS MED SOFT - "CHALKEY"	F	3				2-3								
					MAFICS INDISTINCT TO OBLITERATED	D	2				2-3	1(?)		(?)		1%		10/1	<.1
					HEMATITE AFTER MAGNETITE PRESENT														
					PY, CPY, MINOR Bn (BORNITE) ON FRACT.														
					QTZ VEINLETS WITH PY, CPY, HEMATITE,														
					OCCASIONAL PY VEIN TO 1 cm WIDE, W. MINOR TO														
					NIL Cu.														
262	267	7517			BROKEN CORE, ROCK SIMILAR TO 248 - 262	F	2			1	2	2		2-3					
					SLICKENSIDED FRACTURES WITH HEMATITE & "BLACK	D				2	2	2		1-2		1		10/1	<.1
					GOUGE" COMMON. GOUGE CONTAINS ABUNDANT														
					CARBONATE. PY VEINLETS TO 2 cm WIDE WITH														
					MINOR CPY														
267	347	7518			TYPE I Q.D PORPHYRY LIGHT GREY TO	F	2			1	2	2		2-3					
		7519			CREAM COLOUR. FELDSPARS CHALKY WHITE TO	D				2	2	2		1-2		1		10/1	<.1
		7520			SOFT PALE GREEN (? SERICITE), MAFICS - CHLORITE														
		7521			TO BLEACHED CHL/Bi. PY & MINOR CPY DISS.														
		7522			MOST SULPHIDES ON "TIGHT" FRACT. OR QTZ,														
		7523			SERICITE, CARB. VEINLETS														
		7524			282 - 285 QTZ/CARB VEINING, INCREASE IN														
		7525			SERICITE. ALSO 317 - 319														
347	395	7526			TYPE I Q.D.P. GREY GREEN COLOUR.	F	2			2	1	2		3					
		7527			FELDSPARS - MOD HARD, OPAQUE APPEARANCE	D				2	1			1-2		2		20/1	.1
		7528			MAFICS - CHL. CLOTS OFTEN CONTAINING MAGN.														
		7529			PY & CPY PREDOM. ON FRACT. SFC. ALSO														
		7530			DISS. LOCAL QTZ CARB VEINLETS WITH														
					SERICITE SELVAGES, ROCK IS GENERALLY														
					BLEACHED AROUND SUCH VEINLETS, CHL. SERICITE ON														
					OCCASIONAL FRACT. SURFACES. GROUND UP SULPHIDES														
					ON OCCASIONAL SLICKENSIDED SFC's PY/CPY ON OCC.														
					QTZ CARB VEINLETS ~ 1/1.														

DIAMOND DRILL RECORD

Property FISH LK
Hole No. 74-1 Page No. 3/4
District
Commenced
Completed

Length
Bearing
Inclination

Lat.
Dept.
Elev.

Drill Type
Hole Size
Contractor

Logged by W.A. Howell
Approved by Date

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcv.			ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	Au F Az Cu
395	431	7531			TYPE I (?) Q.D.P. POSSIBLY TYPE II	F	2			2	2	2		2	1				
		7532			FELDSPAR AVG SIZE ~ 2 mm, CHALKEY WHITE TO	D					3	1(?)				1		10/1	.15
		7533			PALE GREEN TRANSLUCENT, MAFICS ARE RECRYST.														
		~~7534~~			CHL. IN V.F.g. CLOTS, SOME MINOR STOCKWORK														
					DEVELOPMENT. PY/CPY ON FRACT. ~ 3/1, SHEARS														
					AT 420' CONTAIN GROUND UP SULPHIDES AND														
					LENSES TO 2 mm OF PYRITE & CARBONATE,														
					GYPSUM ON SOME FRACTURE FACES.														
					— "H" CORE ENDS AT 421' —														
431	508	7534			TYPE I Q.D.P. FELDSPARS WHITE "CHALKEY",	F	3			1	2	2		1	1				
		7535			MAFICS BLEACHED RELICT TEXTURES ± APPARENT.	D	1				3					1		10/1	.1
		7536			HEMATITE ALT. FROM MAGN. QTZ SERICITE														
		7537			VEINLETS, SOME STOCKWORK FRACTURE DEVELOPMENT														
		7538																	
		7539																	
		7540																	
508	537	7541			TYPE I QDP GENERALLY GRADING FROM "FRACT.	F	2			2	1-2	1		1	1-2			10/1	
		7542			CONTROLLED SERICITE" ALT TO "INTRODUCED FRACT	D				2		1(?)				1			.1
		7543			CONTROLLED CHL." ALT. FELDSPARS MED SOFT,														
		~~7544~~			MAFICS ARE CHLORITE CLOTS. PY/CPY IN														
					STRINGERS AND VEINLETS ± QTZ CARB GYP.														
					PY, CPY, PRESENT IN MINOR AMTS AS DISSEMINATED														
					MINERAL. MAGNETITE PRESENT AS ACCESSORY														
					DISSEMINATIONS														
537	643	7544			SIMILAR TO 431-508 GROUND UP	F	3			1	2	2		1	1				
		7545			SULPHIDES ON SHEARED FACES. PY OCCURS BOTH	D	1				3					1		10/1	.1
		7546			DISS. & ON FRAC. SURFACES, CPY OCCURS MOSTLY														
		7547			ON FRACT. SFC. GYP. INCREASING WITH DEPTH FROM														
		7548			~ 430'														
		7549																	
		7550																	
		7551																	

DIAMOND DRILL RECORD

Property FISH LAKE
Hole No. 74-1 Page No. 4
District
Commenced Feb 27/74
Completed Mar 4/74

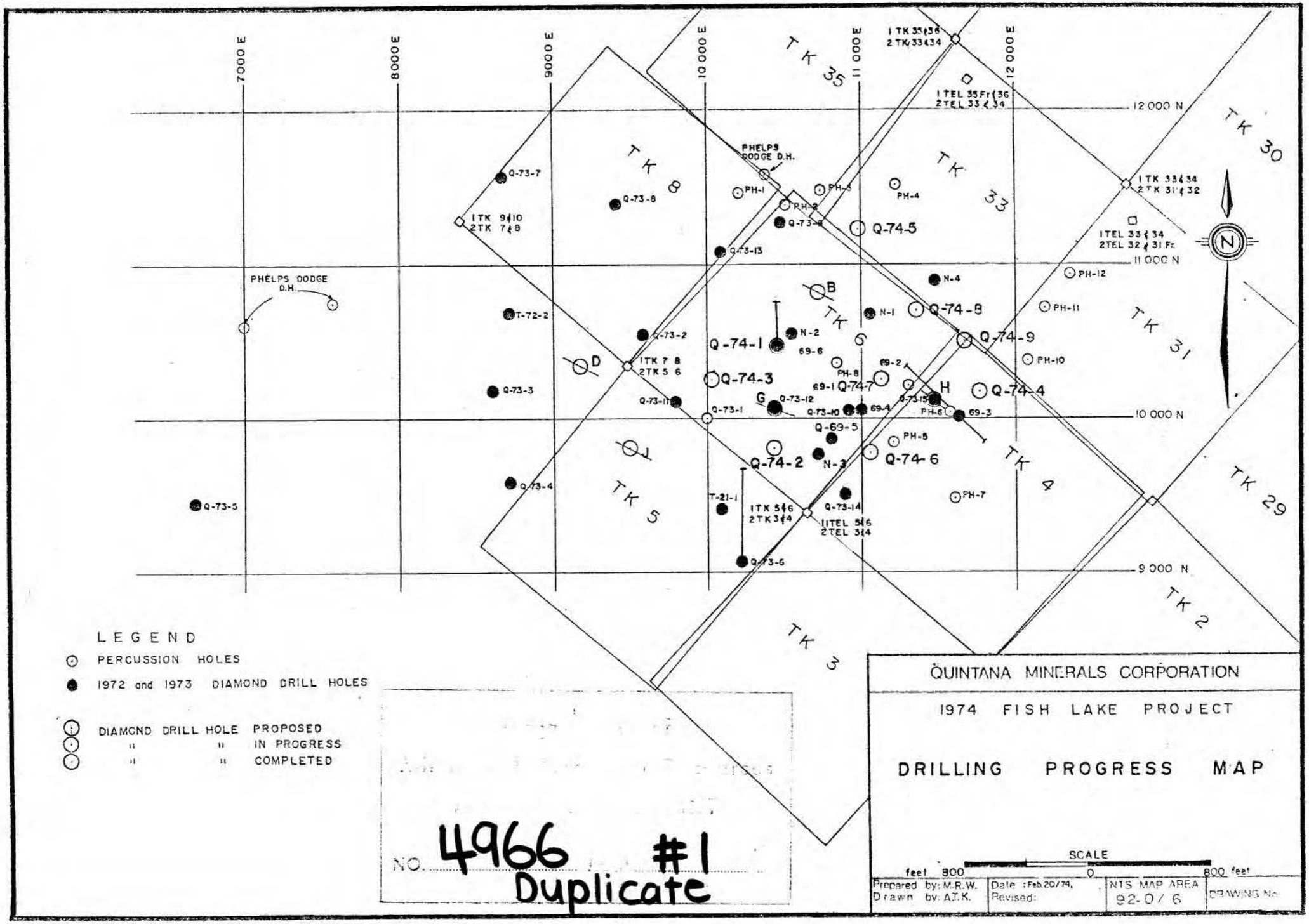
Length
Bearing
Inclination

Lat.
Dept.
Elev.

Drill Type
Hole Size
Contractor

Logged by W.A. Howell
Approved by Date

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.			ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	Est % Cu
547	643	7552			CONT'D – FELDSPAR GRAIN SIZE	F													
		7553			DECREASES TO 643' ROCK LOOKS SIMILAR TO	D													
		7554			TYPE II ALTERATION AND MINERALIZATION														
		~~7555~~			HOLD CONSTANT.														
643	750	~~75~~			HORNFELS, ROCK IS INITIALLY BLEACHED.	F	2		(?) 1	2		2			3				
		7555			CONTACT IS DETERMINED ON THE BASIS OF	D			(?) 1	2						1.5		2/1	.1
		7556			± EUHEDRAL FELDSPARS IN GROSS APPEARANCE														
		7557			CONTACT IS GRADATIONAL OVER ~ 30' FROM														
		~~7558~~			DISTINCT ROCK TYPES ON EITHER SIDE.														
		7559			TIGHT FRACTURES COMMONLY CONTAIN														
		7560			Py / Cpy ≈ 1/2 to 1/5, OCCASIONAL QTZ-GYPSUM														
		7561			VEINLETS ARE ACCOMPANIED BY Cpy / Py														
		7562			MINERALIZATION WITH ACCESSORY BORNITE AND														
		7563			MINOR MoS_2. QTZ GYPSUM VEINLETS ARE														
		7564			COMMONLY BARREN OF SULPHIDES. MAGNETITE I														
		7565			HEMATITE IS PRESENT THROUGHOUT THE ROCK														
		7566			AS AN ACCESSORY MINERAL. OCCASIONAL														
		~~75~~			QTZ PYRITE VEINLETS UP TO 1.5 cm WIDE														
					HAVE SERICITE SELVAGES. GYPSUM VEINLETS														
					AND FRACTURE FILLINGS ARE COMMON														
					— END OF HOLE —														



LEGEND

- ⊙ PERCUSSION HOLES
- ● 1972 and 1973 DIAMOND DRILL HOLES
- ⊙ DIAMOND DRILL HOLE PROPOSED
- ⊙ " " IN PROGRESS
- ⊙ " " COMPLETED

NO. 4966 #1 Duplicate

QUINTANA MINERALS CORPORATION

1974 FISH LAKE PROJECT

DRILLING PROGRESS MAP

SCALE

feet 800 0 800 feet

Prepared by: M.R.W. Drawn by: A.T.K.	Date: Feb 20/74, Revised:	NTS MAP AREA 92-O/6	DRAWING No.

ITEMIZED COST STATEMENT

D.D.H.-74- 4	Longyear invoices 8201, 8342, 8414	
60 ft.	Overburden penetration and cost of casing	710.10
542 ft	HQ coring plus recovery bonus	9,363.00
199 ft	NQ coring plus hole reduction	2,733.15
	Contractors indirect charges prorated over job @ 4.21/ft.	3,400.00
	Quintana indirect costs excluding assaying and sampling - prorated over job.	1,812.36

The numbers and letters used under "Alteration " on the accompanying logs are to be interpreted as follows:

F = Fracture control - either open space filling or selvage.

D = Disseminated

Tr= Trace

1-3 is a subjective measure of intesity from weak to strong.

of interest, there is a hypidiomorphic granular to weakly feldspar porphyritic rock with average grain size 1.5 - 2 mm. Quartz is interstitial, and the chloritized mafics occur interstitially or as 2 - 3 mm clots (after hornblende?). The distinction between this rock and dioritized coarse grained hornfels is based on uniformity of texture and fabric, rather than on quantitative criteria.

2) Quartz Diorite Porphyry II (a): In the eastern and northeastern portions of the area of interest, a porphyritic-aphanitic to porphyritic granular rock unit is distinguished. The unit is characterized by some 40 - 50% of plagioclase phenocrysts, 10% hornblende phenocrysts, with a very fine grained matrix of feldspar and quartz. The feldspar is composed mainly of subhedral 1 x 2 mm tablets, with a few euhedral tablets of similar size and a few anhedral grains of 3 to 4 mm. This unit may be intermediate between quartz diorite and quartz diorite porphyry Type II. It is cut by Type I and Type III rocks.

3) Quartz Diorite Porphyry II: This unit is characterized by 20 - 40% 1 X 2 mm sub-euhedral plagioclase and 10% hornblende phenocrysts, in a very fine grain matrix of quartz and feldspar. Minor quartz is present as 1 mm phenocrysts. Type II differs from Type II(a) in that Type II has less abundant, better formed, feldspar in the 1 X 2 mm size, and has no 3 - 4 mm anhedral grains.

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5) Quartz Feldspar Porphyry: This unit is also a quartz diorite, and is texturally similar to Type I except that it contains more than 5% quartz phenocrysts of 4 mm average size. Some rocks having quartz less than 4 mm average size are logged as quartz feldspar porphyry if the average quartz grain size is greater than 2 mm and is similar to the average grain size of the plagioclase phenocrysts. These fine grained rocks are thought to represent chilled, narrow dikes.

6) Quartz Feldspar Porphyry III: This unit is texturally similar to Type I, but is unmineralized or only weakly mineralized with pyrite and barren carbonate veinlets. The relict shapes of chloritized to partially chloritized hornblende are readily apparent. A dyke of this type seen on surface appears to strike 060° and dip steeply. This attitude is consistent with drill hole data.

The core is stored on the property about 800 ft. south of Hole No. 4

pr. Charles [illegible]
P. Eng.

DIAMOND DRILL RECORD

Property FISH LAKE
Hole No. Q 74-4 Page No. 1/4
CLINTON
Commenced MAR 19
Completed MAR 23

Length 601
Bearing
Inclination 90°

Lat.
Dept.
Elev. 4883

Drill Type LONGYEAR 44
Hole Size HQ - NQ
Contractor CAN. LONGYEAR

Logged by W.A. Howell
Approved by Date

From	To	Sample No.	Length	% Rec.	Description		O	KF	Bi	Chl.	Cl.	Ser.	Ep.	Ch.	Su.	% Sulph	Diss. Metal	Cu Min	EST % Cu
0	60				OVERBURDEN														
60	~94	7646			HORNFELS - DARK GREY GREEN RK.	F				1				2					
		7647			FELDSPARS INDISTINCT AND FINE GRAINED.	D			(?)	2	1-2			0-1		1%	~3%		.03
		7648			QTZ OBSERVED AS A MINOR CONSTITUENT WHERE														
					PRESENT. MAFICS ~~ARE~~ IS CHLORITE, POSSIBLY SOME														
					RELICT BI WITH OCCASIONAL CHLORITE CLOTS.														
					ROCK IS WELL FRACTURED AND BROKEN, WITH														
					PYRITE ON FRACTURE FACES. SOME INTRODUCED														
					FRACTURE CHLORITE. FRACTURES ARE OFTEN														
					SLIKENSIDED														
~94	259	7649			TYPE II Q.D.P. - FELDSPARS SMALL	F	1-2					0-1		1					
		7650			(.5 - 2 mm) SUBHEDRAL MED. HARD WHITE.	D				2	3			0-1		1%	~3%		.03
		7651			QTZ - MINOR CONSTITUENT. MAFIC - CHLORITE														
		7652			IN INDISTINCT CLOTS, FROM 110 - 131 ROCK														
		7653			IS MORE ARGILLIC, CHLORITE IS BLEACHED														
		7654			THIS ZONE APPEARS TO BE ZONED AROUND														
		7655			A VERY BROKEN SECTION @ 116-121.														
		7656			FRACTURES COMMONLY CONTAIN PY, OCC.														
		7657			QTZ - PY VEINLETS OF "ROTTEN PYRITE" IE														
		7658			VERY LOOSE & GRANULAR. DETAILED INSPECTION														
		7659			OF THESE VEINLETS SHOWS SOME MINOR														
		7660			CHALCOCITE (?) COATING OF PYRITE GRAINS														
		7661			CPY IS OBSERVED VERY RARELY AS VERY														
		7662			FINE DISSEMINATED GRAINS IN THE ROCK MATRIX.														
		7663			SLIKENSIDED SURFACES ARE COMMON.														
		7664			(SOME OF THE FINE GRAINED TYPE II MAY														
		7665			BE AN ADVANCED GRADE OF HORNFELS.														
					- EST. GRADE OF Cu IS VERY SUBJECTIVE)														
					BROKEN CORE @ 203 - 205														
					225														
					GOUGE, PYRITE - QTZ - SERICITE VEINLETS AT														
					228 - 234														

DIAMOND DRILL RECORD

Property FISH LAKE
Hole No. Q74-4 Page No. 2/6
District CLINTON
Commenced MAR 19
Completed MAR 23

Length 604
Bearing
Inclination 90°

Lat.
Dept.
Elev.

Drill Type LONG 44
Hole Size HQ - NQ
Contractor CAN. LONGYEAR

Logged by W.A. HOWELL
Approved by Date

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.			ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	EST % Cu
259	302	7666			TYPE I (?) PORPHYRITIC NATURE OF ROCK														
		7667			IS MORE DISTINCT. BROKEN ROCK @ 260' MAY	F	1-2			2		1		1-2					
		7668			REPRESENT A SHEAR CONTACT WITH TYPE I	D				2	1					1.5%		~40/1	.03
		7669			PORPHYRY. CLOTS OF CHLORITE OCC. CONTAIN														
		7670			MINOR CPY. MINOR CPY & PY DISS. & ON FRAC.														
					PLAG PHENOCRYSTS ARE SMALL FOR TYPE I														
					(.5 t 2 mm) OCC 9% CARB VEINLETS CARRY														
					MINOR CPY. QTZ IS MINOR CONSTITUENT OF														
					ROCK														
302	350	7671			ROCK HAS A MORE HORNFELS APPEARANCE	F	1-2			1		0-1		1-2					
		7672			STYLE OF MINERALIZATION HAS NOT CHANGED	D				2	1					1.5%		~40/1	.03
		7673																	
		7674																	
		7675																	
350	364	7676			SIMILAR TO 94 - 259, FELDSPARS SUB TO	F	1			1		0-1		1		1.5%			
		7677			ANHEDRAL, CHLORITE PRESENT AS CLOTS, MINOR DISS CPY	D				2	1-2					Tr		30/1	.06
364	446	7678			TYPE I Q.D.P. - QUARTZ IS UBIQUITOUS THROUGHOUT														
		7679			THE MATRIX RATHER THAN DISCRETE "EYES". FELDSPARS	F	2				2-3	2-3		1					
		7680			SOFT, PEARLY LUSTRE (SERICITIZED?) CHLORITE IS	D	2			0-1	2	2		1-2		1.5%		10/1	.2
		7681			VERY BLEACHED CARB NOT OBVIOUS BUT IS														
		7682			SIGNIFICANTLY PRESENT, QTZ, SERICITE, PY ±														
		7683			SPECULAR HEMATITE VEINING TO 1.5 cm, PRESENT.														
		7684			MoS_2 ABUNDANT ON SOME SLICKENSIDES. CPY														
		7685			VARIABLY PRESENT ON FRACTURES AND AS														
					DISSEMINATIONS														
446	455	7686			AS ABOVE BUT Cu MINERALIZATION	F	2				2-3	2-3		1					
		7687			DIMINISHES, TOTAL SULPHIDES ALSO DIMINISH.	D	2			0-1		2		1-2		1%		10/1	.15
		7688																	
		7689																	
		7690																	

DIAMOND DRILL RECORD

Property FISH LAKE
Hole No. Q74-4 Page No. 3
District CLINTON
Commenced MAR 19
Completed MAR 23

Length 804
Bearing
Inclination

Lat.
Dept.
Elev.

Drill Type LONGYEAR 44
Hole Size HQ - NQ
Contractor CAN LONGYEAR

Logged by W.A. HOWELL
Approved by Date

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcv.			ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	
485	495	7691			TYPE I Q.D.P SIMILAR TO 446 - 485 WITH														
					ALTERATION LESS INTENSE - CHLORITE IS	F	1			1		1				1%		30/1	<3
					UNBLEACHED AND VERY GREEN, Cu CONTENT IS	D				2		1							
					LOW Py ON FRACTURES & AS DISSEMINATIONS														
495	523	7692			TYPE II Q.D.P. (?) EUHEDRAL FELDSPARS ALTERED														
		7693			TO QTZ - SERICITE OCC DISS. Py + MAGN. STRINGERS	F	2			-	2	2		1					
		7694			ROCK MATRIX IS BLEACHED WHITE TO PALE GREY	D	2				2	2		1		.5%			—
					BROWN CHLORITE ALSO BLEACHED														
523	530	7695			TYPE I (?) Q.D.P. SIMILAR TO 364 - 446	F	2				2-3	2-3		1					
					CONTACTS NOT OBS.	D	2			0-1	2	2		1-2		1.5%			.2
530	576	7696			TYPE II QDP - GRE-1, MED HARD														
		7697			SUB GLASSY EUHEDRAL FELDSPARS Py DISS	F	2				1	1							
		7698			& ON FRACTURE FACES. SOME Py - CARB	D	1			1	1	1				1%			-
		7699			VEINING. ONLY TRACE CPY OBS ON FRACT &														
					DISS. SLICKENSIDED SURFACES CONTAIN														
					GROUND SULPHIDES AND A VERY LITTLE (?)														
					MoS_2														
576	602	7700			TYPE I Q.D.P. SIMILAR TO 364 - 446,	F	2-3					2		0-1					
		7701			SHEARED & MYLONITIZED CONTACT WITH PRECEEDING	D	1-2			0-1	2	0-1		0-1		2			.2
		7702			TYPE II. CPY VEINLETS TO 1 CM WIDE														
					APPARENT ON SOME SHEAR PLANES, OTHERS HAVE														
					VUGGY QTZ FILLINGS OR QTZ/Py FILLINGS														
					SOME HEMATITE STAIN ON FRACTURE SURFACES.														
					MOSTLY Py ON FRACT SURFACES BUT OCC														
					FRACTURES CONTAIN REL GOOD CPY/Py.														
					END OF "H" CORE														
					"N" CORE CONTINUES ON P. 4														

DIAMOND DRILL RECORD

Property: FISH LAKE
Hole No.: Q 74-4 Page No.: 4
District:
Commenced:
Completed:

Length: 801
Bearing:
Inclination:

Lat.:
Dept.:
Elev.:

Drill Type: LONGYEAR 44
Hole Size: HQ - NQ
Contractor: CAN. LONGYEAR

Logged by: W. A. HOWELL
Approved by: Date:

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.	NQ CORE		ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss/ Vein	Py/ CPy	Est % Cu
602	690	7703			TYPE II (?) Q.D.P. MOD HARD SUB GLASSY														
		7704			PLAG PHENOCRYSTS (.5 to 2 mm LONG) MAFIC IS	F	1			2	1	1		1	1-2				
		7705			CHLORITE VARIABLY BLEACHED, FELDSPARS IN	D				2	1	0-1		0-1		2%			.1
		7706			MORE BLEACHED SECTIONS BECOMING SOFTER														
		7707			AND TRENDING TO QTZ SERICITE. FRACTURES														
		7708			ARE DOMINANTLY PY COATED WITH OCC														
		7709			FRACTURES HAVING SOME CPY. OCC QTZ														
		7710			VEINING TO .5 CM. AND OCC VUGGY CARB.														
		7711			VEINING. CORE IS VERY BROKEN, WITH														
		7712			GOUGE @ 660' OCC PY VEINING TO .5 CM														
					1 MINOR CPY. MINOR HEMATITE STAINING ON														
					FRACT. SURFACES														
690	801	7713			HORNFELS - DARK GREY GREEN COLOUR,	F	1-2			2		1			2-3				
		7714			INTRUSIVE CONTACT OBS. MARKED INCREASE	D	1		(?)	2						3%		tr/1	.25
		7715			IN CPY CONTENT. FELDSPARS IN THE HORNFELS														
		7716			MATRIX ARE HARD & GLASSY. CHLORITE														
		7717			(± ? 2° Bi) IS PRESENT AS CLOTS AND														
		7718			DISSEMINATED GRAINS. FRACTURES														
		7719			COMMONLY CONTAIN PY WITH SOME CPY														
		7720			CPY IS ALSO OBS. AS OCC DISS GRAINS.														
		7721			QTZ SERICITE GYPSUM CHLORITE VEINS ± PY, CPY														
		7723			ARE ALSO OBS. GYPSUM VEINLETS														
		~~77~~			PRESENT. A SINGLE 5 CM WIDE VEIN														
					OF "HONEY" SPHALERITE, GYPSUM, HEMATITE														
					PYRITE AND CPY OCCURS @ 767'														
					END OF HOLE														

ITEMIZED COST STATEMENT

D.D.H.-74- 6	Longyear invoices 8201, 8342, 8414	
120 ft.	Overburden penetration and cost of casing	1,680.41
452 ft.	HQ coring plus recovery bonus	8,018.00
229 ft.	NQ coring plus hole reduction	2,708.50
	Contractors indirect charges prorated over job @ 4.21/ft.	3,379.00
	Quintana indirect costs excluding assaying and sampling - prorated over job.	1,801.00

The numbers and letters used under "Alteration " on the accompanying logs are to be interpreted as follows:

F = Fracture control - either open space filling or selvage.

D = Disseminated

Tr= Trace

1-3 is a subjective measure of intesity from weak to strong.

of interest, there is a hypidiomorphic granular to weakly feldspar porphyritic rock with average grain size 1.5 - 2 mm. Quartz is interstitial, and the chloritized mafics occur interstitially or as 2 - 3 mm clots (after hornblende?). The distinction between this rock and dioritized coarse grained hornfels is based on uniformity of texture and fabric, rather than on quantitative criteria.

2) Quartz Diorite Porphyry II (a): In the eastern and northeastern portions of the area of interest, a porphyritic-aphanitic to porphyritic granular rock unit is distinguished. The unit is characterized by some 40 - 50% of plagioclase phenocrysts, 10% hornblende phenocrysts, with a very fine grained matrix of feldspar and quartz. The feldspar is composed mainly of subhedral 1 x 2 mm tablets, with a few euhedral tablets of similar size and a few anhedral grains of 3 to 4 mm. This unit may be intermediate between quartz diorite and quartz diorite porphyry Type II. It is cut by Type I and Type III rocks.

3) Quartz Diorite Porphyry II: This unit is characterized by 20 - 40% 1 X 2 mm sub-euhedral plagioclase and 10% hornblende phenocrysts, in a very fine grain matrix of quartz and feldspar. Minor quartz is present as 1 mm phenocrysts. Type II differs from Type II(a) in that Type II has less abundant, better formed, feldspar in the 1 X 2 mm size, and has no 3 - 4 mm anhedral grains.

4) Quartz Diorite Porphyry I: Type I porphyry consists of 30 - 50% (rarely 20%) 2 to 4 mm anhedral to subhedral plagioclase, 10% hornblende phenocrysts, and less than 5% 1 to 2 mm quartz phenocrysts.

5) Quartz Feldspar Porphyry: This unit is also a quartz diorite, and is texturally similar to Type I except that it contains more than 5% quartz phenocrysts of 4 mm average size. Some rocks having quartz less than 4 mm average size are logged as quartz feldspar porphyry if the average quartz grain size is greater than 2 mm and is similar to the average grain size of the plagioclase phenocrysts. These fine grained rocks are thought to represent chilled, narrow dikes.

6) Quartz Feldspar Porphyry III: This unit is texturally similar to Type I, but is unmineralized or only weakly mineralized with pyrite and barren carbonate veinlets. The relict shapes of chloritized to partially chloritized hornblende are readily apparent. A dyke of this type seen on surface appears to strike 060° and dip steeply. This attitude is consistent with drill hole data.

The core is stored on the property about 800 ft. south of Hole No. 4

DIAMOND DRILL RECORD

Property: FISH LAKE
Hole No.: 74-6 Page No.: 1
District: CLINTON
Commenced:
Completed: APR. 2

Length: 801
Bearing:
Inclination: 90°

Lat.:
Dept.:
Elev.: 4807

Drill Type: LONGYEAR 44
Hole Size: HQ - NQ
Contractor: CANADIAN LONGYEAR

Logged by: W.A. HOWELL
Approved by: Date:

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.			ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	EST % Cu
					OVERBURDEN TO 121 FEET														
121	141	7767			Q.D.P. TYPE I, FELDSPARS INDISTINCT, SOFT.	F						3				1%			.25
		7768			(SERICITIZED?) CHLORITE IS BLEACHED, PY & CPY	D					2	3		0-1					
					ON FRACTURES AND STRINGERS. ALSO DISSEMINATED,														
					SOME HEMATITE STAINING ON FRACTURES														
141	252	7769			BRECCIATED HORNFELS, VERY BLEACHED	F	1-2			1-2	1	2-3		2		1%			.15
		7770			CREAM COLOURED FRAGMENTS IN A BLEACHED	D				1	2	2							
		7771			CHLORITE/WHITE MICA RICH GROUNDMASS, FRAGMENT														
		7772			BOUNDARIES NOT ALWAYS DISTINCT. ABUNDANT														
		7773			FRACTURING, VERY FINE INDISTINCT FRACTURES														
		7774			HAVE QTZ CARB ALTERATION. MINOR DISSEMINATED														
		7775			HEMATITE ALSO PRESENT. QTZ SERICITE ±														
		7776			CHLORITE ± MAGNETITE VEINING OFTEN HAS														
		7777			CPY MINERALIZATION.														
		7778																	
		7779																	
		7780																	
252	286	7781			AS ABOVE WITH LESS BLEACHING - MORE GREEN	F	1-2			2	1	2-3		2		1%			.2
		7782			COLOURATION DUE TO INCREASE IN CHLORITE.	D				2-3	1	1-2							
		7783			CHLORITE ALSO MORE COMMON WITH CPY ON SOME														
					FRACTURE SURFACES. OCC SLICKENSIDES HAVE														
					GROUND UP SULPHIDES (PY & MoS_2 ?)														
286	326	7784			Q.D.P. TYPE I FELDSPARS INDISTINCT TO	F	3					2		2		.75			.2
		7785			SUBAPHANAL, ROCK IS BLEACHED, CREAMY GREY	D	3				1								
		7786			COLOUR, NO LARGE QUARTZ 'EYES' BUT QUARTZ														
		~~7787~~ 7787			IS FAIRLY UBIQUITOUS THROUGHOUT THE ROCK.														
					TOWARDS 326' ROCK GRADES TO A GREY														
					SILICIC HORNFELS 3 OR 4 'TIGHT' HAIRLINE														
					FRACTURES PER INCH ARE COMMON, OCC UP														
					TO 12/IN														

DIAMOND DRILL RECORD

Property FISH LAKE
Hole No. 74-6 Page No. 1
District CLINTON
Commenced
Completed APR. 2

Length
Bearing
Inclination

Lat.
Dept.
Elev.

Drill Type LONGYEAR 44
Hole Size HQ - NQ
Contractor CANADIAN LONGYEAR

Logged by W.A. HOWELL
Approved by Date

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.		ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	PbF % Cu
121	141	7767			F						3							
		7768			O					2	3		0-1		1%			.25
141	252	7769			F	1-2			1-2	1	2-3		2					
		7770			D				1	2	2				1%			.15
		7771																
		7772																
		7773																
		7774																
		7775																
		7776																
		7777																
		7778																
		7779																
		7780																
252	286	7781			F	1-2			2	1	2-3		2					
		7782			D				2-3	1	1-2				1%			.2
		7783																
286	326	7784			F	3					2		2					
		7785			D	3				1					.75			.2
		7786																
		~~7787~~																

DIAMOND DRILL RECORD

Property: FISH LAKE
Hole No. 74-6 Page No. 2
District: CLINTON
Commenced:
Completed:

Length: 801
Bearing:
Inclination: 90°

Lat.:
Dept.:
Elev.:

Drill Type: LONGYEAR 44
Hole Size: HQ - NQ
Contractor: CANADIAN LONGYEAR

Logged by: W.A. HOWELL
Approved by: Date:

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.			ALTERATION Q	KF	Bl	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	Est % Cu
286	326				CONT'D - FRACTURES COMMONLY CARRY HEMATITE, PY, AND MINOR CPY; WITH QTZ & SERICITE. OCC. QTZ CARB. VEINLETS & PY ACCOMPANY SLICKENSIDED SURFACES															
326	333	7788			HORNFELS - BLEACHED, SILICIC, WELL FRACTURED, HEMATITE ON FRACTURES, CHLORITE SLOTS BLEACHED TO WHITE MICA.	F	3				1			1		.75			.25
						D.	3				1								
333	342	~~7789~~			HORNFELS, BRECCIA. IN A PERVASIVE QTZ SERICITE ALTERED QUARTZ DIORITE MATRIX REMANENT CHLORITE SLOTS VARIABLY ALTERED TO WHITE MICA. FRACTURES ~~ARE~~ CONTAIN QUARTZ & CARB & SERICITE AND & MINOR CPY	F	3				2	3		1		.5			<.1
						D	3			1-2	2	3							
342	362	7789			HORNFELS - DARK GREY TO GREEN COLOUR	F	2				1	1		2		.75			.2
		7790			FRACTURES & VEINLETS CONTAIN QTZ CARB & MINOR CPY & PY	D				2-3	1								
362	418.5	7791			BRECCIATED HORNFELS GREEN-GREY COLOUR	F	2-3			1-2		1				.5			.2
		7792			SIMILAR TO 333-342 BUT WITH LESS SERICITE	D	2			2									
		7793			AND NOTICEABLY MORE CPY ASSC. WITH FRAGMENTS														
		7794			AND FRACTURES. A SMALL INTRUSIVE DIKE OF														
		7795			TYPE I Q.D.P. IS OBS AT 372-373 AND														
		7796			ENCLOSES HORNFELS FRAGMENTS IN ADJACENT														
					ROCK WHICH IS MORE SILICIFIED & BLEACHED. FRACTURING IS LESS INTENSE THAN 333-342. GYPSUM BECOMING COMMON IN FRACTURES AND AS VEINLETS.														

DIAMOND DRILL RECORD

Property FISH LAKE
Hole No. 74-6 Page No. 2
District CLINTON
Commenced
Completed

Length
Bearing
Inclination

Lat.
Dept.
Elev.

Drill Type LONGYEAR 44
Hole Size HQ - NQ
Contractor CANADIAN LONGYEAR

Logged by W.A. HOWELL
Approved by Date

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcv.		ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	Au Cu
286	326																	
326	333	7788			F	3				1			1		.75			.25
					D.	3				1								
333	342	~~7789~~			F	3				2	3		1		.5			<.1
					D	3			1-2	2	3							
342	362	7789			F	2				1	1		2		.75			.2
		7790			D				2-3	1								
362	418.5	7791			F	2-3			1-2		1				.75			.2
		7792			D	2			2									
		7793																
		7794																
		7795																
		7796																

DIAMOND DRILL RECORD

Property: FISH LAKE
Hole No.: 74-6 Page No.: 3
District: CLINTON
Commenced:
Completed:

Length: 801
Bearing:
Inclination: 90°

Lat.:
Dept.:
Elev.:

Drill Type: LONGYEAR 44
Hole Size: HQ - NQ
Contractor:

Logged by: W A Howell
Approved by: Date:

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.			ALTERATION Q	KF	Bl	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	CST % Cu
418.5	452.5	7797			QUARTZ FELDSPAR PORPHYRY - LOCALLY SEMI	F	2			2					2-3				
		7798			TYPE I. FELDSPARS ARE HARD OPAQUE	D.	3			2-3		0-1		1		.75			.15
		7799			MAFIC IS CHLORITE WITH VERY OCCASIONAL														
					RELICT HORNBLENDE. QTZ IS PERVASIVE														
					THROUGHOUT THE MATRIX AND ONLY OCCASIONAL														
					AS PHENOCRYSTS OR 'EYES'. THE ENTIRE														
					SECTION MAY BE A MERE SILICIC VARIANT														
					OF TYPE I Q.F.P. ROCK IS GREY IN														
					COLOUR. FRACTURES ARE VARIABLE FROM														
					'TIGHT HAIRLINE' TO GYPSUM FILLED														
					STRINGERS AND VEINLETS. CONTACT WITH														
					PRECEEDING BRECCIATED HORNFELS IS														
					OBSERVED ALONG A GYPSUM FILLED														
					FRACTURE @ 418.5'. PY AND CPY WITH														
					MINOR BORNITE IS OBSERVED AS "SALT														
					& PEPPER" TEXTURE ON SEMI FRACTURE FACES.														
					SILICIC ALTERATION OR INTRODUCED QTZ														
					ACCOMPANIES MINERALIZED FRACTURES.														
					CPY ±PY ARE ALSO OBSERVED WEAKLY														
					DISSEMINATED THROUGH THE ROCK.														
452.5	456	7800			HORNFELS - CONTACT AREA IS BROKEN	F	2-3				2	1-2			2-3				
					& BRECCIATED. GYPSUM AND QUARTZ VEINING	D	2			3				1-2		1%			.2
					MORE COMMON FRACTURES ~~MAY~~ ARE SLICKENSIDED														
					BY ±CPY ± CC. ACCOMPANY VEINING.														
456	597.5	7801			HORNFELS - GREEN COLOUR, OCCASIONALLY	F	2												
		7802			BUFF WITH DARKER SPOTS. ROCK IS	D	2-3			3	1			0-1	2-3	1%			.25
		7803			LARGELY F.g. "FELTED" CHLORITE AND														
		7804			QTZ. CPY AND PY ARE OBSERVED AS														
		7805			MINOR DISSEMINATIONS AND OCCASIONAL CLOTS.														

DIAMOND DRILL RECORD

Property FISH LAKE
Hole No. 74-6 Page No. 3
District CLINTON
Commenced
Completed

Length
Bearing
Inclination

Lat.
Dept.
Elev.

Drill Type LONGYEAR 44
Hole Size HQ - NQ
Contractor

Logged by W. H. Newell
Approved by Date

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.		ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	FST % Cu
418.5	452.5	7797			F	2			2					2-3	.35			.15
		7798			D.	3			2-3		0-1		1					
		7799																
452.5	456	7800			F	2-3				2	1-2			2-3	1%			.2
					D.	2			3				1-2					
456	527.5	7801			F	2									1%			.25
		7802			D	2-3			3	1			0-1	2-3				
		7803																
		7804																
		7805																

DIAMOND DRILL RECORD

Property: FISH LAKE
Hole No.: 74-6 Page No.: 4
District:
Commenced:
Completed:
Length: 801
Bearing:
Inclination: 90°
Lat.:
Dept.:
Elev.:
Drill Type: LONGYEAR 44
Hole Size: HQ - NQ
Contractor: CANADIAN LONGYEAR
Logged by: G. A. HANCOCK
Approved by: Date:

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.			ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph	Diss./ Vein	Py/ Cpy	Py/ Cpy
456	597.5	7806			CONT'D. - CPY IS MORE COMMON THAN														
		7807			PY ON OCCASIONAL HAIRLINE FRACTURES.														
		7808			MAGNETITE IS COMMON, GIVING THE ROCK														
		7809			A NOTICEABLE MAGNETIC CHARACTER, LOCALLY														
		7810			MAGNETITE HAS ALTERED TO HEMATITE														
		7811			ALONG FRACTURES OR OCCASIONAL SHEARS.														
		7812			MAGNETITE IS GENERALLY LESS COMMON BELOW														
		7813			520'														
		7815			HQ CORE ENDS AT 572'														
597.5	607	7816			TYPE I Q-D.P. DIKE, FELDSPARS ARE WHITE, MED	F	3								1				
					HARD. INTERSTITIAL QUARTZ THROUGHOUT THE MATRIX.	D	2-3			2-3	1-2			0-1	1	1%			25
					CHLORITE GENERALLY IN BLOTS AND AGG. AFTER														
					HBDE. MINOR DISS. MAGNETITE. FRACTURES HAVE														
					QUARTZ FILLING OR ALTERATION. MANY ARE														
					'TIGHT'. PY & CPY MAY ACCOMPANY FRACTURES.														
607	683	7817			HORNFELS SIMILAR TO 456 - 597.5	F	2												
		7818			ROCK IS BROKEN & SHEARED @ 659 - 665	D	2-3			3	1			0-1	2-3	1%			.25
		7819																	
		7820																	
		7821																	
		7822																	
		7823																	
		7824																	
683	693.5				POST MINERAL DIKE - SMALL SUB-HEDRAL	f													
					PLAGIOCLASE XTLS, CHLORITIZED RANDOMLY ALLIGNED	b.													
					HBDE, BLADED XTLS. VERY MINOR DISS. PY														

DIAMOND DRILL RECORD

Property: FISH LAKE
Hole No.: 74-6 Page No.: 4
District:
Commenced:
Completed:
Length:
Bearing:
Inclination:
Lat.:
Dept.:
Elev.:
Drill Type: LONGYEAR 44
Hole Size: HQ - NQ
Contractor: CANADIAN LONGYEAR
Logged by: W. A. Howell
Approved by: Date:

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcv.		ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	Cu
456	507.5	7806																
		7807																
		7808																
		7809																
		7810																
		7811																
		7812																
		7813																
		7815																
507.5	607	7816			F	3								1				
					D	2-3			2-3	1-2			0-1	1-3	1%			.25
607	683	7817			F	2												
		7818			D	2-3			3	1			0-1	2-3	1%		-	.25
		7819																
		7820																
		7821																
		7822																
		7823																
		7824																
683	693.5				F													
					D													

DIAMOND DRILL RECORD

Property FISH LAKE
Hole No. 70-6 Page No. 5 Length 801 Lat. Drill Type LONGYEAR 44
District Bearing Dept. Hole Size HQ - NQ
Commenced Inclination 90° Elev. Contractor CANADIAN LONGYEAR Logged by W. A. Powell
Completed Approved by Date

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.			ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Dissem./ Vein	Py/ Cpy	Est. % Cu
693.5	788				HORNFELS - SIMILAR TO 456-597.5	F	2												
					AND 607 - 683	D	2-3			3	1			0-1	2-3	1%			.05
788	801				TYPE I Q.D.P. (?) GREY COLOUR	F	1-2												
					FELDSPARS COMMONLY SMALL MED HARD WHITE,	D				2-3	1				1-2	.5			.1
					MINOR CPY & PY DISS AND ALONG QTZ														
					FILLED FRACTURES AND VEINLETS. HORNFELS														
					MAY BE SHOWING UP AGAIN AT 800-801														

DIAMOND DRILL RECORD

Property FISH LAKE

Hole No. 74-6 Page No. 5 Length _____ Lat. _____ Drill Type LONGYEAR 44

District _____ Bearing _____ Dept. _____ Hole Size HQ - NQ

Commenced _____ Inclination _____ Elev. _____ Contractor CANADIAN LONGYEAR Logged by W.P. NOWELL

Completed _____ Approved by _____ Date _____

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.		ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	Ag oz/T Cu
693.5	788				F	2												
					O	2-3			3	1			0-1	2-3	1%			.25
788	801				F	1-2												
					D				2-3	1				1-2	.5			.1

ITEMIZED COST STATEMENT

D.D.H.-74- 7	Longyear invoices 8201, 8414	
30 ft.	Overburden penetration and cost of casing	827.64
512 ft.	HQ coring plus recovery bonus	9,023.00
255	NQ coring plus hole reduction	3,003.75
	Contractors indirect charges prorated over job @ 4.21/ft.	3,362.00
	Quintana indirect costs excluding assaying and sampling - prorated over job @ 2.24/ft.	1,792.00

The numbers and letters used under "Alteration " on the accompanying logs are to be interpreted as follows:

F = Fracture control - either open space filling or selvage.

D = Disseminated

Tr= Trace

1-3 is a subjective measure of intesity from weak to strong.

1) Quartz Diorite: In the southeastern part of the area of interest, there is a hypidiomorphic granular to weakly feldspar porphyritic rock with average grain size 1.5 - 2 mm. Quartz is interstitial, and the chloritized mafics occur interstitially or as 2 - 3 mm clots (after hornblende?). The distinction between this rock and dioritized coarse grained hornfels is based on uniformity of texture and fabric, rather than on quantitative criteria.

2) Quartz Diorite Porphyry II (a): In the eastern and northeastern portions of the area of interest, a porphyritic-aphanitic to porphyritic granular rock unit is distinguished. The unit is characterized by some 40 - 50% of plagioclase phenocrysts, 10% hornblende phenocrysts, with a very fine grained matrix of feldspar and quartz. The feldspar is composed mainly of subhedral 1 x 2 mm tablets, with a few euhedral tablets of similar size and a few anhedral grains of 3 to 4 mm. This unit may be intermediate between quartz diorite and quartz diorite porphyry Type II. It is cut by Type I and Type III rocks.

3) Quartz Diorite Porphyry II: This unit is characterized by 20 - 40% 1 X 2 mm sub-euhedral plagioclase and 10% hornblende phenocrysts, in a very fine grain matrix of quartz and feldspar. Minor quartz is present as 1 mm phenocrysts. Type II differs from Type II(a) in that Type II has less abundant, better formed, feldspar in the 1 X 2 mm size, and has no 3 - 4 mm anhedral grains.

4) Quartz Diorite Porphyry I: Type I porphyry consists of 30 - 50% (rarely 20%) 2 to 4 mm anhedral to subhedral plagioclase, 10% hornblende phenocrysts, and less than 5% 1 to 2 mm quartz phenocrysts.

5) Quartz Feldspar Porphyry: This unit is also a quartz diorite, and is texturally similar to Type I except that it contains more than 5% quartz phenocrysts of 4 mm average size. Some rocks having quartz less than 4 mm average size are logged as quartz feldspar porphyry if the average quartz grain size is greater than 2 mm and is similar to the average grain size of the plagioclase phenocrysts. These fine grained rocks are thought to represent chilled, narrow dikes.

6) Quartz Feldspar Porphyry III: This unit is texturally similar to Type I, but is unmineralized or only weakly mineralized with pyrite and barren carbonate veinlets. The relict shapes of chloritized to partially chloritized hornblende are readily apparent. A dyke of this type seen on surface appears to strike 060° and dip steeply. This attitude is consistent with drill hole data.

The core is stored on the property about 800 ft. south of Hole No. 4

DIAMOND DRILL RECORD

Property: Fish Lake
Hole No.: Q-74-7 Page No.: 1/3
District: Clinton
Commenced:
Completed:

Length: 707'
Bearing:
Inclination: 90°

Lat.:
Dept.:
Elev.: 4841'

Drill Type: 44
Hole Size: HQ-NQ
Contractor: Canadian Longyear

Logged by: W.A. Howell
Approved by: C.S. Ney Date:

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.		ALTERATION Q	KF	Bl	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	Est % Cu
					Overburden to 30'													
30	97				Spotted Hornfels. Quartz is present as a pervasive F	3				1	0-1		2					
					interstitial mineral rather than as quartz phenocrysts D	3			3	1-2			1		1%			3
					Rock is broken and weathered to 50.5'. Minor malachite on rusty fractures. Minor Qt.-carbonate veining accompanied by py-cpy and specular hematite is evident. Cpy is disseminated and on fractures. Spots and clots of chlorite ranging in size from 2 - 20 mm. Rock is locally bleached to a buff colour but generally is a grey green colour in gross appearance. Type I ppy appears locally													
97	167				Hornfels - more bleached than previously increase F	3			1				2		1%			.3
					in clay alt. and decrease in chlorite, otherwise D similar.				1	2-3			0					
167	215				Hornfels - darker in colour shearing evident F	2-3				1			2					
					Grey to tan colour variable qtz. carb. veinlet D				1-2	2			0		1%		-	.2
					to 3 cm with cpy & py, occasional open space filling along shears may contain qtz.carb. with py & cpy also. Locally the hornfels may be quite bleached to a buff or tan colour.													
215	331				Hornfels - more chlorite than before, similar to F	3							2-3					
					30 - 97 D	3			2	1			2		1%			.25

DIAMOND DRILL RECORD

Property Fish Lake
Hole No. Q-74-7 Page No. 2/3 Length ____ Lat. ____ Drill Type ____
District ____ Bearing ____ Dept. ____ Hole Size ____
Commenced ____ Inclination ____ Elev. ____ Contractor ____ Logged by ____
Completed ____ Approved by ____ Date ____

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcv.			ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	Est. % Cu
					Continued														
215	487				Occasional pink carbonite veining up to 5 cm wide has 5 mm black sphalerite border, cpy&py occur in veinlets and stringers up to 1.5 cm wide and occasionally on hairline fractures. Cpy & py are also very weakly disseminated															
487	569				Quartz feldspar porphyry - feldspars med hard white to chalky, quartz phenocrysts to 4mm diameter present. Chlorite variably present - less evident in bleached portion. Cpy and Py on hairline fractures to veinlets and stringers up to 1 cm wide. Gypsum in stringers evident from approximately 525' minor vuggy terminated quartz xtles on zone faces. Carbonate variably present with quartz in occasional veinlets.	F	3							1-2	1=2				
						D	3			2	1-2					1%			.25
569	645				Hornfels buff tan to dark green chlorite common in darker variety, selinite veinlets and quartz stringers evident often with accompanying cpy & py. Gouge and broken core @ 598'. Very fine grained disseminated pyrite common.	F	2-3												
						D	2			2-3	2				2-3	1.5%			.3
645	682				Qtz. feldspar porphyry similar to 487-569	F	2-3			1	1								
					Py & Cpy on hairline fractures and with small 1-2 mm quartz stringers. Gypsum stringers also evident. Py & cpy also disseminated. Chlorite may be locally bleached.	D	3			2	2				2	1%			.2

DIAMOND DRILL RECORD

Property Fish Lake
Hole No. Q-74-7 Page No. 3/3 Length _____ Lat. _____ Drill Type _____
District _____ Bearing _____ Dept. _____ Hole Size _____
Commenced _____ Inclination _____ Elev. _____ Contractor _____ Logged by _____
Completed _____ Approved by _____ Date _____

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.			ALTERATION Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./ Vein	Py/ Cpy	Est. % Cu
682	747				Hornfels - generally bleached to a buff or tan	F	2			1-2	1			2	3	.75			.5
					colour, some minor 2nd Bi evident	D	2		1		1								
					715 to 725' hairline fractures commonly contain hematite after magnetite. Qtz veining and stringers may have chlorite. Cpy & Py accompanying some shearing has accompanied some of the qtz. stringers. Gypsum stringers are common.														
747	780				Type I (?) Q.D.P. Quartz eyes as phenocryst are lacking. Rock is very bleached, feldspars soft and indistinct. Cpy & Py is commonly in fairly tight fractures, rarely disseminated minor hornfels locally.	F	1-2				2			2	2-3				
						D	1				2-3					.75			.15
780	797				Type I (?) Q.D.P. similar to above but noticeably less cpy, pyrite is more common. Rock appears to be gradational between hornfels and porphyry	F	1-2				2			2	2-3				
						D	1				2-3					.75			-.1
					END OF HOLE.														

ITEMIZED COST STATEMENT

D.D.H.-74- 9	Longyear invoices	
60 ft.	Overburden penetration and cost of casing	700.00
Nil	HQ coring plus recovery bonus	--
347 ft.	NQ coring plus hole reduction	3,933.45
	Contractors indirect charges prorated over job @ 4.21/ft.	1,717.00
	Quintana indirect costs excluding assaying and sampling - prorated over job @ 2.24/ft.	915.00

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The core is stored on the property about 800 ft. south of Hole No. 4

DIAMOND DRILL RECORD

[illegible] P.Eng.

Property: Fish
Hole No.: 74-9 Page No.: 1/1
District: Clinton
Commenced: May 3/74
Completed: May 8/74

Length: 407
Bearing:
Inclination: -90

Lat.:
Dept.:
Elev.: 4910

Drill Type: Longyear 44
Hole Size: NQ
Contractor: Longyear

Logged by: M. Wolfhard
Approved by:
Date: May 8/74

FOOTAGE From	FOOTAGE To	SAMPLE No.	Length	% Rcy.	Description		Q	KF	Bi	Chl.	Cl.	Ser.	Ep.	Cb.	Sul.	% Sulph.	Diss./Vein	Py/Cpy	Mag.
0	60				Casing - overburden														
60	122				QFP, py, cpy diss. White Clay?	F	1										9/1	8/1	
					alt. of all feldspar, clots of	D						2-3							
					sericite ~~throughout~~ throughout														
122	190				QD, type IIa. White clay?	F	1					1-2					1/1	4/1	
					alt. of all feldspar. No	D						1							
					mafics left. py, cpy diss. and														
					frac.														
190	223				Hornfels of type IIa. Dark	F	1			1							1/4	2/1	
					green, abundant clots of	D				3									
					chlorite. Feldspar soft.														
223	407				QD, type IIa. As 122-190	F	1					1-2					1/2	4/1	
						D						tr							
					E.O.H.														