



42D14NW0001 24 PAYS PLAT LAKE

010

DIAMOND DRILLING

Area: Pays Plat Lake

Report No: 24

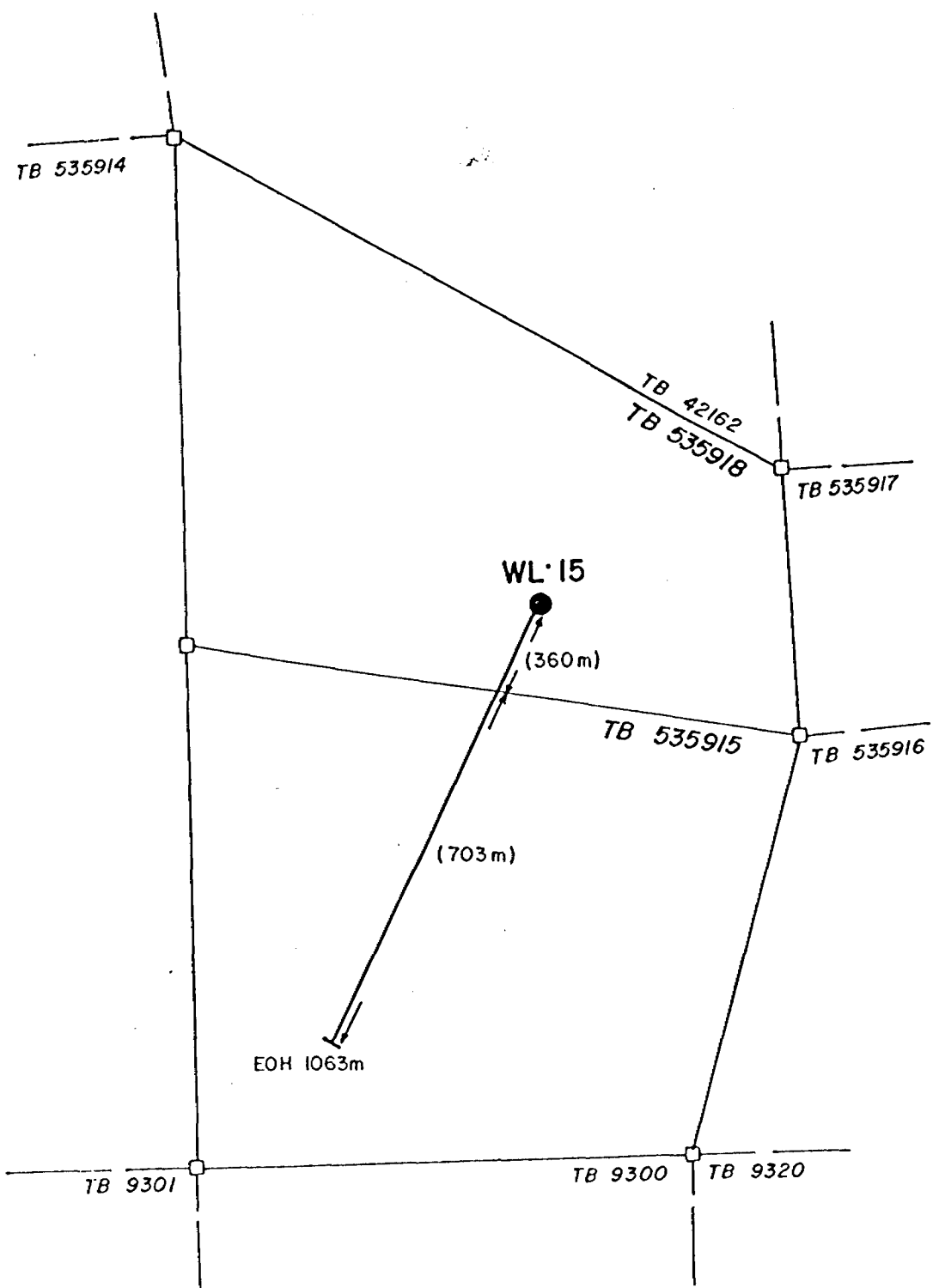
WORK PERFORMED FOR: Corporation Falconbridge Copper

RECORDED HOLDER: SAME AS ABOVE [x]

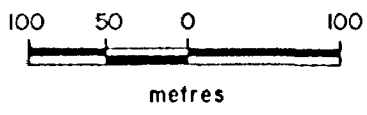
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<u>CLAIM NO.</u>	<u>HOLE NO.</u>	<u>FOOTAGE</u>	<u>DATE</u>	<u>NOTE</u>
TB 535918	WL-15	1063m	Feb-Mar/85	(1)
TB 535915				
TB 386770	WL-21	740m	Mar-May/85	(1)
386777				
TB 388801	WL-22	597m	April-May/85	(1)
TB 386770	WL-23	820m	May/85	(1)
TB 519248	WL-34	450m	Dec/85	(1)

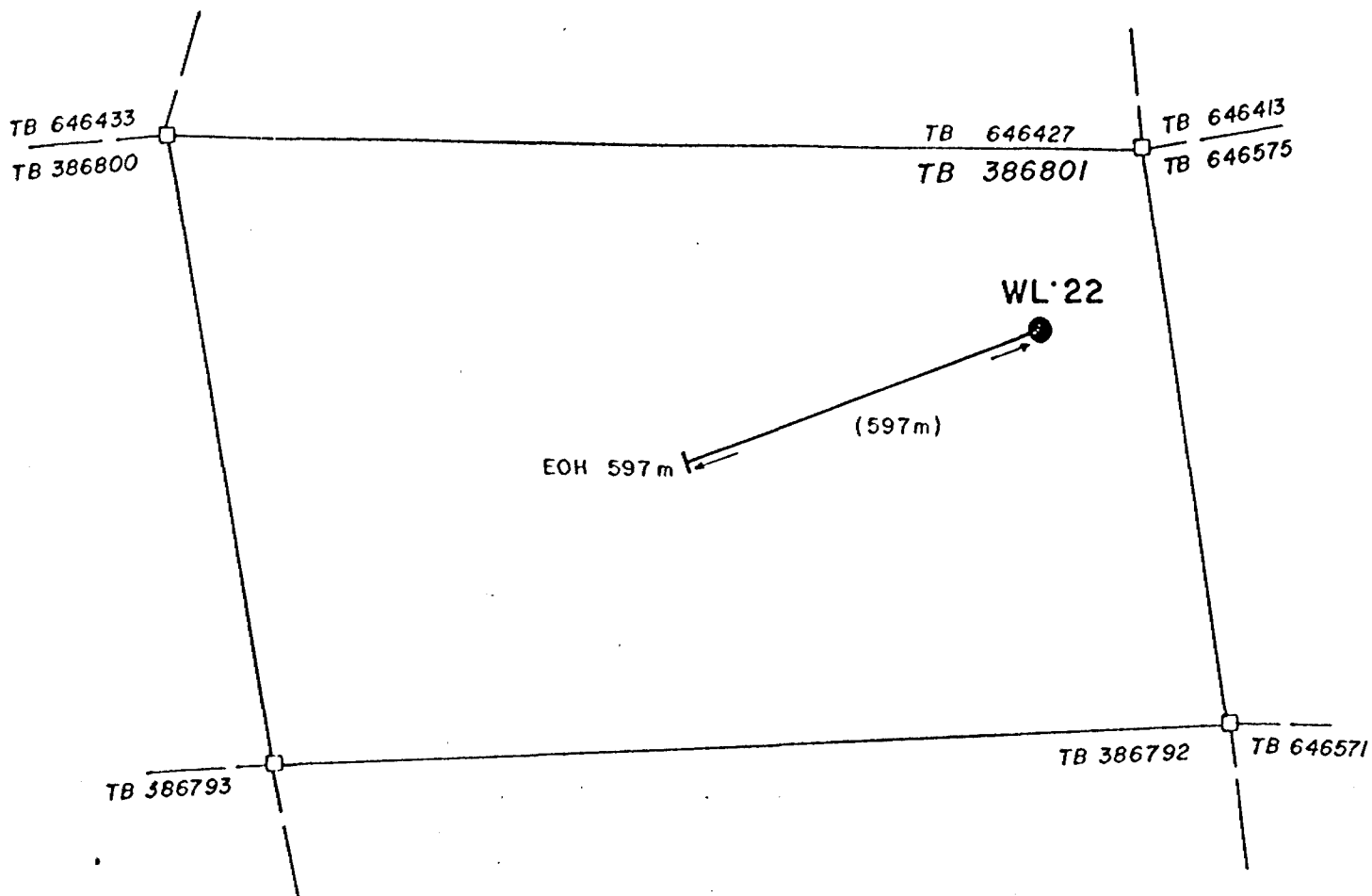
NOTES: (1) #605-86



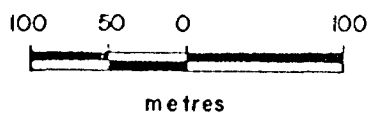
WINSTON LAKE
DRILL PLAN



Paul Brown



WINSTON LAKE
DRILL PLAN



Paul Green

CORPORATION FALCONBRIDGE COPPER
DRILL HOLE RECORD

HOLE NUMBER: WL-15

IMPERIAL UNITS:

METRIC UNITS: X

PROJECT: PN370 FIELD COORDS: LAT: L20+95E COLLAR BRNG: 220° CONTRACTOR: ST. LAMBERT DRILLING
 GRID: ZENMAC DEP: 4+65S COLLAR DIP: 83° CORE STORAGE: CLEAVER LAKE
 CLAIM NUMBER: ELEV: HOLE SIZE: BQ CASING: BW
 LOCATION: IDEAL COORDS: LAT: L 2+00E FINAL DEPTH: 1063 m PLUGGED:
 DATE STARTED: FEB. 21, 1985 DEP: 12+00N ROD LOG: MULTISHOT SURVEY:
 DATE COMPLETED: MARCH 25, 1985 ELEV: PULSE EM SURVEY: COLLAR SURVEY:

PURPOSE:

ACID TESTS		TROPARI TESTS			MULTISHOT DATA				
Depth (m)	Corrected Angle	Depth (m)	Corrected Angle	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
6	83°						760	213	62°
100	79° ?						820	213	60°
200	79°						880	217 ?	59°
300	77°						940	212	57°
400	75°						1000	216 ?	54°
500	70°								
600	66°								
700	63.5°								
800	62°								
900	57°								
1000	53°								

ONTARIO GEOLOGICAL SURVEY
AGGREGATION PLANS
RESEARCH OFFICE
FEB 11 1985
RECEIVED

Rest of hole multishot shorted out!
Used acid tests to plot.

HOLE NO: WL-15

LOGGED BY: R.C.Sim/P.W.A.Severin

P. Severin
JAN. 28/86.

DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
0 to 1.5	Casing							
1.5 to 10.0	Gabbro	Dark green/grey with white spots	mg-cg	Massive with spots and clots of white feldspar & quartz (20-30%) Non-magnetic. Breccia @ 5.2m for 10cm along carb vein (1mm) @	10°	Moderate chl. altered amphiboles		None
10.0 to 12.2	Diabase dyke	Black	fg	Massive magnetite-rich (15%) with pronounced chill zones at contacts @	70°			
12.2 to 55.9	Gabbro	Dark green/grey to blue grey	mg-cg	Massive - same as above 16.1-16.5: V.c.g. gabbro. Increase feld to 35% in section. 38.4-39.1: Carb-rich bx zone @	10°			38.4-39.1: Fault zone
55.9 to 56.6	Diabase dyke	Black with minor white spots	fg	Massive, feld-phyric (3%) weakly magnetic Contacts sharp @	70-75°			
56.6 to 63.0	Transition zone gabbro	Greenish steel blue/grey	cg	Massive, with numerous fracturing 61.6-63.0: Fault zone Chlor, slickensides				61.6-63.0: Fault zone
63.0 to 93.0	Meta-peridotite	Steel blue/grey	cg	Massive to very weakly foliated @ Dry fractures throughout 67.0: felsic clot (5cm)	60-65°			Tr py diss.

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				75.5: Chlor/musc. fault (1cm)				
				79.6: 10cm bx, highly chloritized				
				92.5-93.0: Very brecciated fault zone, mud gouge.				91.5-93.0: Fault zone
93.0 to 98.6	Gabbro chill	Green/grey to grey	mg-fg	Massive unit gradually going from transition looking material to f.g. speckled gabbro. Lower contact sharp @	50°	Up to 4% phlog in clots in transition looking material.	None	
98.6 to 132.7	Gabbro	Splotchy green with white specks	mg	Massive to mod. fol. defined by chlorite & leucoxene @	60-65°	2-3% leucoxene flecks throughout	Rare chlor/py (50%-50%) veins (1-2mm) at 101.0-101.5 & 106.0-108.0	
				113.8: 2mm carb vein fracture @	15°			
				117.3-118.2: Fractured carb vein (2mm) @	5°			117.3-118.2: Fracture along carb vein
				119.0: Carb vein (2mm) @	<5°			
				129.0: 1cm hem/carb/ep vein @	10°			
				130.0: 5mm hem/carb/ep vein, fractured along vein @	5°			
132.7 to 135.4	Feld. phyrlic mafic dyke	Dark green/grey with white spots	fg	Massive f.g. mafic matrix with 7% rounded feldspar phenocrysts. Upper and lower contacts sharp @ Non-magnetic.	20°	Moderate biotite/musc/chlorite	None	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
135.4 to 212.6	Zenmac Gabbro	Speckled green & white	mg	Massive typical gabbro, very few fractures		2% leucoxene throughout Tr-1% qtz/ep veins	Tr diss py throughout Occasional band of py (<2mm) associated with qtz epidote veins	
				149.0-149.8: Carb/chlor seam (<1cm) parallel to CA				
				152.3-152.9: Mafic dyke, same as 132.7 Sharp contacts @	35°			
				155.3-156.6: Well fol, f.g. mafic dyke @	40°	Chloritized @ 156.0m		Chloritization may be fault related @ 156.0
				162.0-163.1: Feld. phyrlic mafic dyke. Same as 132.7		Bleached gabbro from 164.0-166.0		
						179.8-180.2: Very ep bleached gabbro related to 7% veinlets cutting section.		
						187.5: 2mm carb vein parallel to CA		
						196.1: 5cm chlor band		
				196.2-197.0: Pale green/white felsic dyke. 5% feldspars (powdery), contacts ragged.			None	
				199.9-200.8: Feld. phyrlic diabase dyke		Ep bleached for .3m	None	
						207.6-208.1: Bleached zone with 4% phlog.	2% py clots (<2mm) over section	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				209.7-210.7: Bleached pale green/white zone. may be felsic dyke or related to numerous qtz veinlets.				
212.6 to 215.7	Grano-dioritic dyke	Grey with white spots	mg-cg	Massive to mod. fol. @ 20% qtz/feldspar phenos. in biotite/amph/qtz matrix. Contacts sharp @	60° 60-70°	1% chlor veinlets with 2% py.		
215.7 to 386.7	Gabbro	Dark green with white spots	fg-mg	Massive gabbro. 215.7-226.0: F.g., no leucoxene 5-7% feldspar 226.0: Grain size increases to m.g.			Ir diss py throughout. 229.9: 10 cm zone with 10% qtz/epidote veinlets rich in py (4% over section) & tr cp.	
				241.3-244.0: Blocky core, numerous carb/qtz/ep veins sub-parallel to CA.		Leucoxene increases to 4% at 233.0m		241.3-244.0: Fault zone
						244.0: Gabbro becomes 'splotchy' due to chlor chlots (1-2cm)		
						249.0: Leucoxene decreased to 2% avg.		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				270.0-270.9: Feld. phyrlic mafic dyke similar to 132.7 Contacts sharp @	55°		None	
				272.5-273.5: F.g. chloritic mafic dyke Massive		Intense chlorite with minor biotite	1-2% py clots (1-2mm) throughout dyke	
				272.8-273.0: Gabbro xenolith in dyke. Bottom 5cm highly brecciated. Contacts of dyke sharp @	80°		Illmenite clots @ 272.9 in gabbro xenolith (1cm x .5cm)	
						293.9: 20cm ep bleached patch related to numerous veinlets		
						317.0: Qtz vein @ 30° to CA	299.7-299.9: Pyrite rich qtz/ep vein. 6% py over section. Contacts ragged.	
						342.8: 1cm qtz vein parallel to CA. Bleached gabbro for .2m	326.2: 10cm qtz/ep vein similar to 299.7, 10% py in vein.	
				Gabbro becomes mg-cg @ 339.0m				
						358.0-359.5: 4-5% phlog wisps & clots over section defining weak foliation @ 70-75° to CA		
				368.2-368.6: Broken core along carb vein @ 10°		364.0: Phlog occurs 1-2%		
						373.8: 3cm biotite clot in gabbro		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				379.2-380.3: Granodioritic dyke F.g. wk fol. Sharp chilled contacts @	70°			
				10cm blocky core @ 383.8				
				385.7-386.7: Very blocky chloritic core - fault zone.				385.7-386.7: Fault zone
386.7 to 405.0	Transition zone gabbro	Spotchy light & dark green	cg	Typical massive TZ		1-2% phlog increasing to 2-3% @ 397.0m		Tr py associated with rare quartz veinlets
405.0 to 411.6	Gabbro chill	Dark green with white spots	fg	Massive chill with 2-10% feldspars in irregular patches. Rare larger feldspars (up to 1cm) Lower .3m marked by intense chloritization (lower contact)				Chill to upper gabbroic unit. Not magnetic pyroxenite.
411.6 to 428.7	Speckled gabbro	Dark green with white specks	mg	Massive m.g. gabbro with average 10% feldspar		Tr-1% qtz veinlets		Tr diss throughout Numerous minor veinlets of py associated with qtz veinlets 425.5: 10cm section with 4% py veinlets
				427.0: 10cm breccia zone. Fault.				427.0: Fault
428.7 to 431.7	Intermediate feldspar phyric dyke	Grey with white spots	vfg	Massive with 3% feldspar Contacts sharp but irregular.				Tr diss py.
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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
431.7 to 437.3	Speckled Gabbro			Same as 411.6 436.6-436.7: Int. dyke Same as above @	45°			
437.3 to 439.5	Int. feld-phyric dyke	Light grey with white spots	fg	Same as above but matrix is not as fine grained. Sharp contacts @	60°		Tr diss py.	
439.5 to 451.8	Speckled gabbro	Green with white spots	mg- fg	Massive typical gabbro Same as 411.6 Last 0.5m is f.g. chill.	451.8 Irregular Chilled @ 70-80°	444.5-446.0: 3% ep/carb veinlets	Nil	451.6-451.8: Moderately to strongly magnetic
451.8 to 452.6	Massive magnetite rich mafic unit	Medium to dark grey	vfg	Massive aphanitic. Very fg and difficult to estimate amount of magnetite. 452.3-452.6: Undulating and faulted contact of weakly banded 'Magnetite IF' with felsic material.	452.6 70°	Not significant	Tr py-mt-(sph) in frac <1mm	Massive non-descript fg strongly magnetic unit. Locally with subtle mt-silica banding (mm scale) Geochem: Cu Zn Au WS301 (sawn)
452.6 to 452.75	Silicate magnetite iron formation	Light & dark grey	vfg	Banded (mm scale) magnetite and more silica rich material. Contorted and faulted à la typical IF	452.6 very irregular and complicated by micro-faults 452.75 very irregular	Not significant	Nil	Geochem Cu Zn Au WS302 (sawn)

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
452.75 to 453.5	Massive magnetite-rich mafic unit	Medium to dark grey	vfg	Similar to 541.8-542.6	Grad'l	Not significant	Nil	Geochem. Cu Zn Zu WS303 (sawn)
453.5 to 457.9	Massive to locally banded mafic unit	Medium to dark grey	vfg	Similar to above but essentially non-magnetic. Subtle to locally well developed banding (mm scale) at 60-80°	457.9 55°	Weak biot-chl.	Nil	Geochem. Cu Zn Au WS304 (sawn)
457.9 to 458.3	Esp phyrlic mafic dyke	Medium grey	fg	20% subhedral fsps up to 4mm in a fg gabbroic matrix.		Not significant	Nil	Non-magnetic No carbonate
458.3 to 473.85	Mafic (gabbroic) intrusion? or mafic flow ??	Medium grey	mg- fg	Massive mafic unit (gabbroic) with locally a weak fabric @ 60° F.g. mafic 'inclusions' 466.85-466.9 (dykelet?) 467.2-467.9	458.3 Chilled 60°	Not significant	Nil	Non-magnetic No carbonate 462.8-463.0: blocky 464.2-464.5: blocky 465.4-465.9: blocky Chlc jnts but not likely fault associated. Geochem. WS305 (grabs)
473.85 to 484.4	Mafic/intermed/felsic ash (with mafic dyke as noted)	Medium to dark grey	fg	Bedded ash of primarily intermediate to mafic composition with locally more silica-rich bands. Banding generally 1-3mm but locally up to 10mm at 50-80° to CA. Local slump folds	484.4 80°	Weak biot - (chl)	<1% po (py) as diss. specks and streaks & blebs along bedding planes. 479.7-479.83: 3-4% po (py) conformable to bedding	479.83-481.6: Esp phyrlic mafic dyke? CTS @ 75-80° 481.6-482.2: Several massive fg mafic sections with some amphibole xtals.

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				473.85-476.2: Pillowed ? mafic flow forming base to overlying massive flow. Locally fsp phyrlic. 2 or 3 possible pillow selvages. Local possible vesicles.	476.2 sharp 80°		<1% diss py-po.	
				476.2-478.6: Garnetiferous bedded ash. 5-10% garnets (up to 5mm) gradually becoming less abundant towards the base.			476.6: Tr sph as diss blebs.	Samples sawn Geochem. Cu + Zn 473.85-476.2: WS306 476.2-478.6: WS307 478.6-479.83: WS308 481.6-484.4: WS309
484.4 to 492.7	Mafic to lithic/crystal tuff	Dark grey with greenish hue	fg	Has same appearance as the clotted rhyolite except it is more mafic. 10-25% biot/amph elongate streaks (i.e. collapsed mafic pumice) in a mafic fg matrix containing 10-15% milk white subhedral feldspar ? crystals.		Moderate to strong biotite	Tr diss py.	Similar in composition to the overlying bedded ash. i.e. coarse base to the volcanoclastic flow. 486.9-487.1: Mafic dykelet @ 60° Non-magnetic No carbonate Geochem. WS310 SiO2 TiO2 Na2O Cu Zn Au
492.7 to 503.2	Mafic unit (tuff ?? flow ??)	Medium grey	fg- to locally mg	Fg massive unit with 9% to locally 8% amphibole lensoid streaks & ragged 'frags' up to 5 x 10 mm Local subtle suggestion of banding	503.2 sharp 50°	Weak biot/chl, local bleaching adjacent to carb-hem veinlets 497.1-497.2: Amphibole 'veinlet' at 20°	Tr diss py-po	Non-magnetic No carbonate Mg gabbroic dykes at 60-80°: 492.8-493.35 495.05-495.15 502.6-503.1: core partially ground Geochem: 496-503 - WS311

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
503.2 to 547.9	Fsp phyrlic mafic unit (flow?) or (intrusion)	Medium grey	fg- mg	Massive mafic unit containing occasional fg mafic inclusion/ wisp up to 2cm x 3cm 10-25% fsp phenos <2mm	547.9 sharp 60°	Weak	Tr diss py-po.	Non-magnetic No carb except in fine veinlets. Numerous carb-hem veinlets as the fault zone is approached. 518.2-518.25: Hematite-calcite filled fault bx @ 40° Major fault zone 519.9-522.0 Bx and qtz-carb veinlets actual fault 521.0-521.2 @ 45-50° Geochem. WL312 503.0-510.0
				527.6-528.0: Weakly banded inter-flow?? material silica-fsp-epid.			1-2% diss py.	
				530.83-530.95: Inter-flow? fsp-qtz-epidote			10% diss py-po.	
				Possible amygdule in the vicinity of 540.0		532.6-533.3: Fsps are "stained" orange by hematite.		
				540.0-547.0: Feldspar increase in abundance to 20-25% and up to 3mm.				

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FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				547.0-547.9: Feldspars decrease in size and abundance towards the contact.			@ 547.1: 3mm qtz veinlet with py.	
547.9 to 565.0	Mixed mafic unit	Light to dark grey	vfg	A mixture of intermediate to mafic material - likely flow material Possibly a series of thin flows with the top of the flows looking less mafic than the bases ?? Contacts between 'flows' are sharp @ 40-60° Local 'swirly' textures as observed on surface NE of Demijohn Lake. 548.2-549.5: Local felsic/cherty bands.	565.0 sharp	Not significant	Nil	Local tiny white fsp-qtz phenos Geochem: WS313 561-564
565.0 to 606.6	'Clotted' rhyolite	Light to medium grey	fg	Typical CLR as described in previous holes 5% elongate clots and streaks of amphibole/mica @ 45-60° Locally moderately magnetic. Occasional glassy qtz 'eye' up to 2mm and tiny milky fsp xtal. Local weak banding by mafic material. 585-606.6 orangy-pink hue	606.6 grad/l over 0.1m	Not significant	Tr py assoc. with mafic clots & occasionally as narrow 1-2% concentrations of diss py.	Mafic dykelets: 571.6-571.7 @ 45° 581.5-581.95 @ 30° 600.14-600.35 @ 60° 603.05-603.1 @ 60° 603.15-603.25 @ 60° Geochem: WL314 576-579

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				594.3-606.6: Mafic streaks/blobs increase in size and abundance to 15-20%		595.5-606.6: Occasional garnet		@ 606.1: garnet- magnetite patch. Geochem: WS315 600-603
606.6 to 625.5	"Clotted rhyolite" of more intermediate composition i.e. intermediate volcanoclastic	Grey	fg	Probably represents another pulse of volcanoclastic material. Texture similar to above. 625.4-625.7: Mafic clots become less well defined and milky white feldspar phenos up to 3mm become evident.	625.5 grad/l over 0.3m	Weak 617.4-625.5: 2-5% garnets up to 10mm	Ir diss py.	Mafic dykelet: 610.75-611.1 @ 70° 620.8-621.0 @ 35° Geochem. WS316 618-621
625.5 to 635.8	Fsp phyrlic mafic/int. grey unit (int.tuff/ fragmental)	Medium grey	fg	5% milky white fsp phenos Amph/biot streaks (10%) still evident but not as well defined as above. Likely the same composition as the unit above.		Weak 625.5-629.5: 2-5% garnets	Ir py. 635.7-635.8: Irregular siliceous bands/veins? 3% py, diss & strs. <1% sph.	Frac'd mafic dyke 626.4-627.3 Geochem. WS317 633-635.7 Geochem. WS318 635.7-635.8

DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
635.8 to 673.05	Intermediate crystalline lapilli-bedded tuff/fragmental	Dark grey with light bands & spots	fg	Generally massive to weakly foliated feld. phytic (3-5%) Patchy well banded sections on mm scale. Rare sub-angular fragments of siliceous nature.		Localized chlorite in streaks and clots		NOTE: Same as 625.5 but shows bedding & distinct fragments.
				637.7-637.95: Cherty & mafic banding on mm scale		Mafic fraction shows very weak biotite formation	No visible sulphides.	WS 0319
				639.2-639.5: Very well banded on mm scale. Very cherty.			Possibly <u>very</u> fine grained sphalerite in cherty beds(?)	WS 0320
				640.2-640.5: mm banded tuff.				WS 0321
				647.7-651.0: Very evident fragments (up to 5cm) in a chloritic altered mafic matrix.			647.7-648.4: 3% clots & streaks of po in the mafic fraction.	
							649.0: 10 cm zone with 4% po streaks in mafics	
							650.0: Py, po vein 2-3mm @ 5° to CA	
				651.0-659.7: Very fragmental tuff, mottled white siliceous material with chlorite (± biotite) clots and bands. 2% visible white feldspar phenocrysts.		Mafic component moderately altered to chlorite with minor biotite	Tr-1% diss & clots of py & po, associated with mafic fraction.	NOTE: section resembles a moderately altered CLR with phenocrysts. NOTE: sharp contact exists @ 659.7. May represent a new phase of tuff unit (i.e. tuff unit consists of a series of pulses).

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				659.7-660.2: Cherty siliceous zone, feld. phyrlic Upper contact sharp @	55°		1% po in mafic fraction.	
				660.2: Tuff becomes more massive feld. phyrlic with moderate mafic & felsic clotting & banding (mottled)			Ir py/po in mafic fraction.	
						662.6-662.8: Fine ep/silica veinlets through section	1-2% py/po clots	
						668.3: 2 mm garnet vein @ 40° to CA	664.8: 5mm pyrrhotite band	
				668.5: Unit becomes garnetiferous & light grey in colour.				NOTE: Tuff has same appearance & texture as hanging wall 'intermediate sediments' at Pick Lake
673.05 to 674.6	Banded mineralized cherts & mafic flows/dykes (?)			673.05-673.1: Banded cherts on mm scale with intercalated sulphide bands. Top contact sharp with biotite in tuff. Lower contact with mafic sharp with 1.5cm banded green chlor/amph.			1-2% sphalerite over 5cm Ir-1% pyrite	WS 0325
	Dark green/black			673.1-674.2 Mineralized mafic flow/ dyke. massive, f.g. mafic unit			2% streaks & specks of po & sphalerite	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				674.2-674.25: Banded cherty mineralized tuff, same as 673.05			3% sphal. over 5cm	IMPRESSIVE LITTLE EXHALITE !
				674.25-674.6: Mineralized mafic flow/dyke, same as 673.1			1% sphal, 1% po.	WL 0326
674.6 to 678.0	Intermediate tuff	Grey with white patches & pink spots	fg	Same as 668.5. Massive to weakly banded @ 677.0 @	60°	2-3% garnets (<1cm)	1% diss & banded py & po	Same as Anderson hanging wall int. sed. unit.
678.0 to 747.65	Quartz to feldspar phyrlic rhyolite (Camp Flow)	Grey & white spotted to mottled	mg	Moderately foliated. 15-20% feld. phenocrysts up to 40% quartz eyes in grey intermediate matrix.		Matrix is patchy altered to biotite. 1% garnet over top 6m Decreasing to tr gnt.	Tr diss py throughout. Py & Po increase with increasing alteration.	
				678.3-678.4: Quartz dyke @	45°		2% py & py filling fractures in quartz	
				Locally weakly magnetic.		683.1-84.0: Moderate biotite alt. (15% biotite)	1.5% py, 1.5% po in speckled bands parallel to fol'n.	689.25-689.55: Mafic dyke @ 60°
						Local sections over ± 0.2m containing elongate streaks (2 x 4mm) of sericite origin??		Lamprophyre-type dykes - no carbonate - 10-20% biotite "blobs" - chilled contact 70-90° 701.4-702.2 702.3-702.8 705.75-705.85 708.25-708.3

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
								Lambrophyre-type dykes (cont'd) 709.2-710.65 711.0-711.2 711.6-711.8 712.2-713.15 713.65-713.9 Local hematite staining
				Two 'different-looking' very fine grained black dykes cutting CA at 30° 723.8-723.95 727.5-727.9				Geochem. 703-708 WS 328 Cu,Zn,Au,SiO2,TiO2,Na2O
				They are banded towards the contacts and are baked to glass for 2-3mm at the contact. A translucent greenish-blue glass occurs (<1mm) at the contact and fills tension gashes perpendicular to the contacts.				Mafic dykes: 717.0-718.35 732.7-732.8 733.3-734.2 736.3-737.1 737.5-737.7
				Both dykes are strongly magnetic, moderate carbonate throughout.		734.2-736.3: Hematite stained 1-2% diss subhedral mt specks	734.2-736.3: 1-4% diss subhedral py.	725.5-727.0: Core made into 'poker chips' by the drillers.
				Occasional irregular patch (.5 x 2cm) of granular pyrite minute acicular crystals (fsp?) observed with binoc. Possible vfg diabase?				Geochem. 738-741 WS 0329
						740.0-747.5: Hematite stained		Mafic dykes: 742.7-743.0 745.45-745.8
				@ 745.35: 2cm qtz frac. containing blebs of ilmenite?				743.0-747.65: Numerous fractures

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				771.2-771.4: Chlorite alt. cherty sediments			1% py & po	
				771.7-772.1: Mineralized chloritic sediments with 5cm feld. phyrlic 'pillow' @ 771.9			3% po clots & streaks 1% py diss.	
				772.1: Flow becomes more massive Selvages not as pronounced as above.				
				778.4-779.3: Mafic dyke. Massive,fg, contacts sharp @	55°	Intensely chloritized	Tr diss py.	
782.8 to 784.9	Mineralized mafic sediment	Dark grey with light banded sections	fg	Massive to banded on cm to mm scale @ 783.9: Felsic banding begins cherty sections containing vfg sphalerite	85-90°	Mafic portions chloritized with minor biotite Occasional trace garnet	2% sphalerite from 783.9 to 784.4	Sphalerite mineralized banded exhalite Est: <1% Zn WS0332, WS0333
784.9 to 789.7	Weak feld. phyrlic mafic flow	Mottled light to dark green with white spots	fg	Massive feld. phyrlic (2%) flow		Very weak chlor/biotite with 2% garnet (< 1cm)	Tr diss py.	
789.7 to 792.0	Ladder Flow	Dark green with white spots	cg	Same as above No visible selvages				
792.0 to 792.6	Mafic sediment/ flow ? (garnet-iferous)	Dark grey with pink spots	fg	Massive flow similar to 782.8 but shows no felsic banding & no mineralization. Contacts @	85°	Minor chlor/biotite 2% garnet (< .5cm)	Tr diss py.	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
792.6 to 814.3	QFP	Salt & pepper grey & white with pink spots	mg-cg	Massive typical QFP with visible feldspars		Patchy unaltered to banded biotite/garnet 4% biot, 2-3% garnet	Ir diss py throughout increasing in biotite altered sections.	
				Broken along epidote vein @ 793.5	10°			
				795.3-796.0: Mineralized qtz vein @	0-5°		45 py, 1% po.	WS 0334
				796.0-797.2: Highly mineralized mafic sediments Very weak felsic bands visible Cut by pyrite rich qtz vein (10 cm) @ 796.7 @	30°	Intense chloritization 2% garnet	5% pyrite (diss & clots) Ir pyrrhotite 2% magnetite blebs (1-3mm)	WS 0335
				797.2-798.2: QFP. Same as above. 1cm mineralized qtz vein @ cuts QFP. 10cm mafic garnetiferous band @ 798.0	<5°			WS 0336
				798.2-799.2: Garnetiferous mafic unit; same as 796.0 but less mineralized.		3% garnet Intense biotite/chlorite	2% diss py.	WS 0337
				799.4-799.5: Mafic sediment, same as 798.2				
				799.7-801.0: 1cm qtz vein (mineralized) @	0°			WS 0338
				801.0-814.3: Weak patchy altered QFP Visible feldspars Weak foliated @	70°	2% section patchy altered zones with garnet/biotite alt'n.		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
814.3 to 815.0	Int/mafic dyke	Salt & pepper grey & white	fg	Moderately foliated @ with sharp contacts @	65° 65°	Cut by 3% ep/qtz veinlets (< 1mm) parallel to fol'n.	None	
815.0 to 822.0	Mafic tuff/flow	Dark green to black	fg- vfg	Varying sections of massive (flow ?) banded & tuffaceous material varying in silica & sulphide content.		Massive sections show moderate biotite alteration (f.g.) Banded sections show biotite/chlorite alt'n.		
				815.0-815.2: Well banded tuffaceous section on mm scale @	65-70°	Chloritized, cut by 2% carb veins	Tr diss py.	
				815.2-815.6: Granitic/pegmatite dyke. Qtz healed breccia. Irregular contacts.				
				815.6-816.7: Massive section with several felsic/cherty bands @		E.g. biotite	2% diss pyrite throughout section to weak banded at bottom 0.2m. 1% vfg sphal. dust in chert	
				815.7 - 1cm				
				816.5 - 2-2mm Cherty beds crenulated approx. @ 10°			No visible sulphides	
				816.7-819.0: Banded to fragmental (tuffaceous) section @	35-45°	5% epidote patches & veinlets 816.7-817.3	1% diss py throughout	
							817.2-817.3: 5% sulphides weakly banded over section 4% po, 1% py, tr cp, tr sphalerite (?)	
							818.7-818.9: 2% banded py, 1% po.	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				819.0-822.0: Massive vfg mafic with 4% more felsic tuffaceous fragments.		820.0: 10cm section cut by qtz veinlets	1-2% clots & diss py & po throughout.	
						820.9-921.4: Green epidote bleached sections.		
							821.5: Angular felsic fragment (3 x 5cm) with 15-20% fg po & minor py.	
822.0 to 825.2	Massive rhyolite flow/tuff	Mottled light grey	vfg	Massive with numerous healed fractures, very weakly laminated from 825.1-825.2 @	30°	Weak pink stained patches	2% py/po clots & splotches ($< 2\text{mm}$) often in fractures	
825.2 to 826.0	Mafic tuff	Dark green to black	fg	Massive to weakly banded Same as above		Moderate f.g. biotite (\pm chlorite)	1-2% po/py clots & splashes	
826.0 to 826.2	Mineralized exhalite horizon	Banded white brown & dark green	vfg	Banded cherty & mafic on mm scale @ Microfaults slightly offset beds.	70°	Mafic bands chlor/bio altered	Cherty beds rich in sphalerite (1-1.5% over section). V.f.g. sulphides	Exhalite Horizon !!
826.2 to 827.3	Mafic tuff/dyke?	Dark green	fg	Weakly banded cut by numerous ep/qtz & granitic veinlets giving highly brecciated appear- ance in lower 0.4m.			Rare trace diss py.	
827.3 to 827.4	Exhalite horizon	Banded white, brown & dark green	vfg	Moderately banded on mm scale, same as 826.0 @	70°	Mafic bands mod. altered to fg biotite (\pm chlorite)	1% vfg sphalerite in cherty bands 2% py clots over section	Exhalite Horizon !!
827.4 to 829.0	Mafic tuff/dyke?	Dark green/grey	fg	Massive tuff/dyke cut by 20% ep/qtz & granitic veinlets obliterating all original textures.			2% py clots over top 0.3m of section	NOTE: 827.4-829.0: May be a dyke, therefore exhalite @ 827.3 may have been originally part of exhalite @ 830.0

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				828.5-828.7: Epidote rich breccia dyke with sharp irregular contacts.				
829.0 to 830.0	Intermediate dyke	Grey	fg	Massive dyke cut by 2% ep/qtz veinlets		None	Tr diss py.	
830.0 to 831.2	Bedded exhalite horizon	Banded white, brown & grey	vfg	Very well bedded on mm scale. Very folded from 830.0 to 830.8 (s-folds) Numerous microfaults slightly offset beds.		Mafic beds moderately altered to fg biotite (± chlorite)	1-1.5% fine sphalerite dust in cherty beds Tr-1% pyrite diss to very weakly localized in bands	Beautiful Exhalite Horizon !! Est: 0.2-0.5% Zn
831.2 to 831.8	Intermediate dyke	Grey with white spots	fg	Feld. phyrlic weakly fol. int. dyke Sharp contacts @	55-60° 60°	3% qtz/ep veinlets	None	
831.8 to 832.6	Int/mafic tuff/dyke	Dark green/grey with light green bands	fg	Well foliated dyke/tuff highly epidote bleached & cut by 20% ep veins. Same as 826.2		Intense epidote	1% mineralized veinlets crosscutting fol. containing tr sphalerite, 0.5% pyrite, 0.5% pyrrhotite	
832.6 to 832.8	Bedded exhalite horizon	Banded white, pink & dark green	vfg	Same as 826.0, bedded on mm scale, becoming more mafic with depth @	85°		Tr banded sphalerite	
832.8 to 833.8	Intermediate dyke	Grey with white spots	fg	Feld. phyrlic int. dyke. Same as 831.2		3% qtz/epidote veinlets 3cm ep vein @ 833.0 @ 0° to CA		
833.8 to 835.6	Several exhalitive sequences	Banded light to dark grey with brown streaks	vfg	833.8-834.3: Int. to felsic weakly banded mineralized exhalite. Bedding on mm to cm scale @	80°	Moderate biotite (fg)	1-2% fine sphalerite, not as localized to beds as above (restricted to lower 0.3m of section) Upper 0.3m contains 3% pyrite blebs (1-3 mm)	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS	
				834.3-834.75: Int/felsic exhalitive sequence, same as above.					
				Granitic dyke @ 834.4 to 834.6 Irregular contacts.			1% sphal/po/py veinlets cutting granitic dyke Fg weakly banded sphal. localized to lower sections 834.6-834.75		
				834.75-835.6: Felsic very weakly bedded exhalite horizon		Cut by 3% epidote veinlets	834.3-834.75: 1.5% sphalerite 1% pyrrhotite 1% pyrite - disseminated 834.8: Several cherty sphalerite rich bands (1-2mm) 4% weakly banded to splashes of pyrrhotite 1% pyrite (tr cp)		
						835.3-835.5: Highly biotite altered section with 10% siliceous fragments	834.75-835.6: 0.5% sphalerite 1.5% pyrrhotite 1.0% pyrite Tr chalcopyrite		
835.6 to 875.2	Quartz feldspar porphyry	Mottled white & grey with white spots	mg-cg	Well foliated @ defined by qtz eyes and mafic streaks	60°	Very weak & patchy biotite. Feldspars still visible. approx. 5% altered sections.	Mineralization occurs only in altered sections (py, tr po) 842.4: 10cm biotite rich zone with 7% py cubes 1-3mm, tr-1% pyrrhotite splotches		
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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				861.3-862.5: Fg massive feld. phyric int/mafic dyke Sharp contacts @ Cut by 5cm granitic dyke @ 862.4 @	60° 60°	863.0: Tr gnt begins to occur in altered sections.	864.0: 5cm biotite-rich band with 4% pyrite spots tr pyrrhotite	
				867.2-867.8: Very blocky granitized zone (chloritized)				867.2-867.8: Possible fault?
				867.8-868.4: F.g. massive mafic dyke. Sharp contacts @	80°			
				871.0-872.3: Feld phyric dyke, same as above.				
				873.3-876.8: Blocky ground, minor carb veins.		872.7-875.2: Totally unaltered pink QFP		873.3-881.0: Fault zone
875.2 to 879.8	Magnetite rich diabase dyke	Black	fg	Massive U/M dyke with 4% magnetite blebs (< 1mm)			1% py cubes up to 0.5cm.	
879.8 to 906.3	QFP			Same as above. 879.6-882.0: Blocky core				
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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				880.8-881.0: Quartz dyke, irregular contacts				
						892.5-893.7: Intense biotite altered patch	1% py, 2% po.	
				896.4-896.9: Blocky carbonated rich core @	30°			896.4-896.9: Fault zone
				897.2-897.3 & 898.8 (5cm): Well fol. int/mafic dykes @	70°			
						900.0: Altered patches become more common Up to 40% altered sections.		
				902.4-902.7: Very blocky carbonate rich fault zone				902.4-902.7: Fault zone
906.3 to 915.0	Banded mafic tuff/flow	Banded green/grey, brown & white	fg	Very well banded mafic & felsics on mm-cm scale. Felsic material similar to QFP as seen in larger section @ 909.0-909.2	55°	20% section altered to brown biotite in patches often less than 2cm.	2% pyrite localized in bands	
				913.7-913.9: Blocky, grungy carbonate/chlorite fault zone @	50°			913.7-913.9: Fault
915.0 to 928.0	Gabbro	Green with white spots	mg-cg	915.0-915.7: Fg-mg gabbro dyke. Well foliated @	50°		Ir diss py.	
				915.7-926.4: Moderately foliated mg-cg gabbro @	50°			

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				917.3-917.5, 918.2-919.1 & 926.4-927.1: Feld phyric int/mafic dykes All with sharp contacts @	50°			Tr diss py.
928.0 to 997.0	Altered QFP	Light blue/grey with white streaks & pink spots	fg- mg	Moderate to well fol'd @ Qtz eyes < 3mm	60°	Intense gnt (up to 7%) cordierite, biotite, ± muscovite (4%) ± sillimanite (1-2%) ± cordierite (up to 5%)		None to very rare tr py.
				934.6-935.1, 937.5-938.1 & 943.2-944.0: Feld phyric int/mafic dykes. Massive to weak fol. with sharp contacts @	60-65°			Tr diss py.
				949.3-949.8: Blocky core. Fractures along qtz/carb/ep veins @	5°			
				957.9-958.0: Well fol'd mafic dyke @	65°			
				961.9-962.7: Feld phyric int/mafic dyke cut by 5% qtz/ep veins				
						963.1-963.2: 3% staurolite over 10cm		
						963.9-964.0: 1-2% staurolite		
				965.4-965.7: E.g. massive int. dyke. Sharp contacts @	65°	1% gnt in dyke.		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
		Green with white bands		966.5-967.5: Mafic & felsic banded dyke/tuff (?) Similar to 906.3 Cut by 10% qtz veins		2% banded garnets highly chloritized Minor biotite patches	1% pyrite in qtz veins	
				970.5-970.8: Very blocky core Broken along ep veins @	30°			
				981.5-982.5: F.g. massive int. dyke. Weak feld. phyrlic (2%) Sharp contacts @	75°	980.5-981.5: 2% granular yellow/orange mineral (staurolite ?)	984.0-995.0: 1% cp splashes over section	
997.0 to 1001.7	Patchy to pervasive biotite/ chlorite/ garnet unit	Green/ grey with brown streaks & pink spots	mg- cg	Well fol. unit defined by biotite @ Variations due to internal slumping (?) Core highly blocky due to competency of biotite Highly magnetic	35-50°	Patchy moderately biotite/ chlorite(997.0-997.6) to pervasive biotite, garnet ± chlorite Avg. 15% gnt.	3% py (±po) disseminated and in splashes associated with intense garnet formation Tr cp.	Exhalite Mud (?) !!
1001.7 to 1008.0	Feld. to phyrlic intermed-iate dyke	Grey with white spots	fg	F.g. grey matrix with avg. 15% white feldspar phenocrysts (<3mm) Very blocky 1001.7-1002.1 Drill related.		Cut by 2% hem/carb veins Avg. 50° to CA	None	
1008.0 to 1012.3	Patchy to pervasive chlor/ biotite/ garnet unit	Same as above		Patchy pervasive altered (50% of section). Less alt. sections are f.g. massive sediment of mafic? magnetic over pervasive zones.		Patchy pervasive up to 20% garnet, biotite & chlorite	Up to 2% pyrite, 1% po & 1% cp over pervasive altered sections	Exhalitive Mud (?)

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
1012.3 to 1051.8	Altered QFP	Light blue/grey with silver flakes & pink spots	mg	Moderate to well fol. defined by muscovite @	65°	Up to 20% muscovite flakes. Intense cordierite development (up to 25%) (<4mm) Minor biotite Up to 3% gnt (avg. 1-2%)		Rare tr diss py.
				1012.7-1013.3: Feld. phytic int. dyke. Massive, cut by 5% qtz/epidote veinlets.				
				1020.1-1020.7: E.g. massive mafic dyke with sharp contacts @	65°			
				1032.5-1032.7: Blocky core fractured along carb veins.				
				1049.0-1051.8: 10% qtz veins cutting section				
1051.8 to 1063.0	Mafic breccia faulted unit	Fragments white, dark green and grey	fg	Highly brecciated f.g. mafic partially healed by qtz & hem/carb veins Upper contact sharp @	40°	Numerous veins hem/carb & qtz		none
				1057.9-1059.5: Weak altered QFP flow or xenolith (?) Highly brecciated.				
				End of Hole.				

CORPORATION FALCONBRIDGE COPPER
DRILL HOLE RECORD

HOLE NUMBER: WL-21

IMPERIAL UNITS:

METRIC UNITS: X

PROJECT: PN370 WINSTON LAKE	FIELD COORDS: LAT: L9500N	COLLAR BRNG: 300°	CONTRACTOR: ST. LAMBERT DRILLING
	DEP: 8800E	COLLAR DIP: 90°	CORE STORAGE: CLEAVER LAKE
GRID:	ELEV:	HOLE SIZE: BQ	CASING:
CLAIM NUMBER:	SURVEY COORDS: LAT: 1+65S	FINAL DEPTH: 740 m	PLUGGED:
LOCATION:	(SELCO) DEP: 4+56E		
DATE STARTED: MARCH 31, 1985	ELEV:	RQD LOG:	MULTISHOT SURVEY: X
DATE COMPLETED:		PULSE EM SURVEY:	COLLAR SURVEY:

PURPOSE:

ACID TESTS				TROPARI TESTS			MULTISHOT DATA		
Depth (m)	Corrected Angle	Depth (m)	Corrected Angle	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
10	89.5°						137	312	82
100	87.0°						167	313	81
200	81.0°						197	314	80
300	78.0°						227	316	80
400	78.0°						257	295 ??	80
500	71.0°						287	306 ??	79
600	68.0°						317	323 ??	78
700	63.0°						347	315	77
							377	317	76
							407	320	75
							437	323	72
							467	324	71.5
							497	325	70.5
							527	326	70
							557	327	70
							587	327	67
							617	314 ??	66
							647	316 ??	65.5
							677	313 ??	64
							707	319 ??	63.5
							737	328	62

HOLE NO: WL-21

LOGGED BY: R.C.SIM

P. Swan

DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
0 to 5.5	Casing							
5.5 to 87.2	ALTERED QFP	Grey with white streaks & wisps	mg to fg	Moderate to well foliated @ defined by sillimanite & mica. 1% qtz/ep veinlets (<2mm)	50-55°	Intense biotite/muscovite/anthophyllite with patchy sillimanite (locally up to 7%) 3% gnt up to 15m (± cordierite)	Rare tr diss py. Majority of sulphides restricted to veins (py ± po)	
				6.1-6.3: DB dyke, contacts @	80°			
				13.5-14.0: Well fol. int. dyke @ cut by 3% mineralized chlor/magnetite veins. Sharp contacts @	50°	Intense biotite alt.	2% py, 1% po, 1% mt over section	Alteration suggests section may be individual flow of QFP
				19.8-22.6: Very blocky weakly slickensided core Very grungy from 20.8-21.4 - Fault @	40° 50°			20.8-21.4: Fault
				24.0 - (5cm) & 25.4 - (15cm) Qtz veins/dykes @	50°	3-5% musc. flakes in dyke.		
							27.8-28.2: 2 py-rich streaks in QFP (<1mm)	
				29.6: 5cm qtz vein @	60°	2% fg. musc.		
				31.9-32.5: Qtz dyke @	50°	5% veg musc (up to 2cm laths)		
				33.4: 10cm qtz vein		3% fg musc.		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
						33.9-34.5: 10% wispy sillimanite over section.		
			41.3-41.5:	E.g. int dyke @	40°			
				Magnetic fg mafic dykes @ 48.8-49.5 52.4-52.7 58.9-59.5 all massive with contacts obscured by biotite formation.				
			51.1-51.3 & 51.4-52.0:	Qtz rich dykes @	50°	Up to 6% musc in dyke		
			62.2-62.4:	Mafic dyke. Magnetic, same as above.		@ approx. 63m: QEP begins to show rare weak alt. sections with easily visible Qtz eyes (up to 3mm)		
			79.1:	QEP becomes more massive in appearance due to reduced muscovite.		Alteration front @ 79.1 QEP becomes less altered. Qtz eyes visible 2-3% gnt Moderate to intense biotite Patchy muscovite ± cordierite	1-2% py streaks & clots parallel fol'n.	79.1- approx. 93.0: Less altered QEP
						79.1-79.7: Perv. biot ± cordierite @ 50° to CA		
						85.3-85.7: Pink granitic stained.		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
87.2 to 89.3	GRANITIC DYKE	Grey with mottled pink spots	mg	Massive "base" granite Magnetic Cut by mafic dyke @ 87.4 (10cm)				
89.3 to 160.7	QFP	Grey with mottled white spots		Patchy weak fol. defined by muscovite @ 95.1-96.1: Granitic dyke 95.3 - 10cm mafic dyke	50°	Patchy musc. locally up to 5% Tr-1% gnt to 105.0 Intense cordierite 98.3-98.4: Perv. bio/anth section	1% py diss & in streaks & clots	
				98.4-98.9: Blocky, chlor/bio fault zone @ 65°				98.4-98.9: Fault
				105.2-106.2: Granitic dyke @ Patchy magnetic	50°			
				105.5-105.8: Magnetic mafic dyke E.g. massive, contacts @	55°			
						106.2-106.7: 3% carb veins over section		
				114.8-115.0: Qtz dyke, irregular contacts.				
				117.1-117.4 & 129.2-129.6: E.g. massive int/mafic dykes with sharp contacts @ Highly magnetic.	70°	Weak biotite developed		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	CLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				133.5-134.4: Int/mafic dyke, same as above (magnetic)		Top 0.2m chloritized & cut by 3% qtz veins		
				134.4-136.0: Patchy magnetic QFP		134.4: QFP becomes patchy alt. weak to intense Weak zones contain easily recognizable qtz eyes (up to 3mm)		
				141.6-142.0: Mafic dyke, same as above @	75°			
				160.0: 2-3mm carb vein @	35°	156.0-160.1: Very weak altered QFP, all qtz eyes visible Matrix alt. to fg biotite (± musc.)	157.1: 1mm discontinuous py veinlets @ 0° to CA 157.6: 3% py, tr cp diss. & in weak veinlet (<2mm) parallel to foliation	
				160.1-160.2: Weakly bedded (?) exhalite horizon Top contact shows several very fine (<1mm) cherty beds underlain by 2cm of wispy to clotted sulphides enveloping siliceous fragments (35%) 5cm weak altered QFP Bottom 3cm contains 50% wispy to clotted sulphide enveloping qtz fragments (up to 2cm)		Minor carb fragment or veinlet (clot)(5mm) Probably related to carb vein @ 160.0 Biotite alt. matrix	55% pyrite, 10% chert beds, 35% fragments over 2cm. 10% chalcopyrite, 40% pyrite over 3cm	160.1-160.2: Possibly poorly developed exhalite horizon (?) (Intra QFP Tuff) Est: 1% Cu over 0.1m
				160.2-160.7: Well fol. defined by biotite fg, possible sediments with minor QFP (?)		160.2-160.7: Intense alt. QFP/SEDS Biotite ± cord with tr-1% gnt.	1% py disseminated Tr cp over 0.1m of section	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
160.7 to 207.5	GABBRO	Green/grey with white spots	fg to mg	Well fol. to 162.2 defined by phlogopite @ Massive below 162.2 with patchy cg sections going to patchy mod/well fol. @ 177m	55°	Patchy phlog. locally up to 6% 1% leucoxene 168.4: 5mm qtz/ep vein @ 30° 178.8: 20cm ep/qtz vein swarm @ 90° to CA 180.4: 25% qtz/carb veining over 10cm @ 45-50° to CA 184.0: qtz/ep/carb vein/fracture @ 25° to CA		Rare tr diss py.
		Green grey	fg to mg	184.3-185.4: Well foliated intermediate dyke @ Contacts sharp @ Granitic/qtz veins @ 190.3 - 5cm @ & 191.2 - 3cm faulted @ (healed) and displaced right lateral (2cm) vein @ 25° Fg. massive to weak fol. feld phyrlic intermediate dykes @ 196.0-196.6 contacts @ 197.8-198.7 contacts @ 199.0-199.6: Well fol mg int. dyke Same as 184.3 @ Gabbro becomes coarse grained @ 198.0	55° 55° 30° 55° 50° 50° 50°	Cut by 10% qtz/ep veins parallel to fol.		
						2% phlogopite wisps		1% diss py.

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
207.5 to 239.2	TRANSITION ZONE GABBRO	Green to blue/grey		Contact appears to be gradational over 0.5m marked by decrease in feldspar to 3% visible Massive to patchy foliated @ 222.3-222.5: Qtz dyke @ 225.2-227.8: Feld phytic int. dyke Massive, weakly magnetic Upper contact @ Lower contact @ Similar dykes @ 235.9-236.2 @ & 236.8-238.9 @ Lower contact marked by 10cm qtz vein	45-55° 50° 50° 30° 40° 40°	1% localized phlog. wisps and clots Intense biotite @ qtz vein contacts	None	NOTE: contact point estimated, core jumbled.
239.2 to 300.4	META-PYROXENITE	Steel blue\grey	mg to cg	Typical massive PX with 35% rounded magnetite blebs (<2mm) 251.3-251.5 & 251.9-252.0: F.g. massive feld phytic int. dykes @ also @ 257.4-257.6 258.6: 5cm biotite alt dyke @	50° 30°	241.3-241.8: 5% section cut by carb veins (<1cm) @ 50° Biotite alt @ contacts bleached px for 0.1m @ contacts 257.6-261.0: Bleached white px (ep/qtz/cord) 261.0-261.8: 3% section cut by carb veins @ 70°		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				269.7-270.4: Massive fg mafic dyke.				
				277.5-278.8: Chloritic, slickensided fault zone @	45-50°	Bleached px throughout Intense chloritization		277.5-278.8: Fault Zone
				278.6: 5cm carb mud				
				280.0-280.7: Chloritic healed breccia zone				
				291.7-292.0: Chloritized dyke with sharp, irregular contacts		Pervasive chlorite (cg)		
				295.7-296.3: Altered mafic dyke, massive with contacts @	50°	Bleached px from 294.0 to 299.4		
				296.3-297.4: Chlorite/biotite breccia zone. Fault				296.3-297.4: Fault Zone
						297.4-300.4: 3% carbonate healed fractures		
				299.0-300.4: Blocky carbonatized fault zone				299.0-300.4: Fault Zone
				Fg, non-magnetic chill zone from 299.8-300.4				

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
300.4 to 302.9	GRANITE DYKE	Blue/grey (generally) to patchy pink	mg to fg	Patchy massive to moderately foliated @	40-45°	Cut by 3-5% pink granitic veinlets & white qtz veinlets (<1cm) Localized tr muscovite	None	
302.9 to 311.2	INCIPIENT ALTERED QFP	Grey with white spots	mg	Weak to moderately foliated defined by micas & stretched qtz eyes (up to 25%) @ Sharp upper contact has granite crosscutting foliation @	50° 40°	Moderate to intense with rare visible white feldspars (1%) 15-20% biotite 1-4% muscovite Up to 30% cordierite with rare traces of garnet and anthophyllite Numerous granitic & qtz veinlets cut unit.	Rare tr diss py.	
				304.1-304.3, 305.5-305.7 & 307.7-308.2: Fg massive mafic dykes with irregular contacts. Often quite blocky.				
				304.3-304.4: Grungy, chloritic garnetiferous fault @	35-40°			304.3-304.4: Fault
311.2 to 312.7	ALTERED MAFIC TUFF/ SEDIMENTS	Mottled light & dark green	fg to mg	Well foliated/banded tuff, very blocky along micaceous cleavage planes @ 5% unit composed dark green chloritic clots up to 4mm.	60°	Intense to pervasive 40% anthophyllite, 25% biotite enveloping chloritic clots and cordierite	2% diss py.	NOTE: Upper contact gradational
				311.6: 3cm chloritic shear @ 65°				
312.7 to 314.0	GRANITIC & MAFIC DYKES			312.7-313.5: Pink massive mg-cg granitic dyke with shallow irregular contacts @	20-35°			

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
312.7 to 314.0 (cont'd)				313.5-313.8: Feld. phyric massive mafic dyke 313.8-314.0: Granitic dyke, same as above.				
314.0 to 345.8	SILICEOUS GARNETIF-EROUS SEDIMENTS	Light to dark grey with pink spots	fg	Moderate to well banded sediments on .5-1cm scale @ Degree of alteration seems to fluctuate in intensity probably related to original composition (turbidites?) Rare zones show mafic clots up to 1mm x 1cm in fg cord/bio/anth matrix.	50°	Variable grading from more siliceous zones with up to 10% gnt (rare silica rims) 5-15% biotite Up to 35% cordierite 1-4% anthophyllite To more mafic zones with: up to 40% biotite up to 40% cordierite up to 5% anthophyllite 0-2% gnt.	2% pyrite in streaks, clots & disseminated throughout.	NOTE: Rare patchy zones with up to 3% disseminated magnetite
				320.0-320.3: Partially qtz/carbonate healed fault zone @	25°			320.0-320.3: Fault
				327.5: 10cm granitic dyke @	65°			
				329.0-330.0: Very blocky zone cut by numerous qtz and granitic veins				329.0-330.0: Fault Zone
		Dark grey/brown	fg	330.9-332.4: Massive to foliated near contacts intermediate to mafic feld. phyric dyke. Sharp chilled contacts @	60°	Cut by 3% qtz and granitic veinlets.		
				338.6: 10cm black chlorite healed breccia zone. Fragments pink stained.				

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
314.0 to 345.8 (cont'd)				339.2-339.5 & 340.1-340.2: Black chloritic mafic to ultramafic dykes supporting up to 15% light green epidote fragments (up to 2cm) Contacts very irregular. 345.0-345.8: Very blocky ground with fractures along qtz/carb veinlets.				
345.8 to 351.2 (TUFF?)	ALTERED MAFIC	Grey/green	fg	Generally massive to localized zones which may be tuffaceous in nature - very blocky ground cut by 5% qtz/carb veinlets.		Generally unaltered hydro-thermally Up to 5% biotite + antho-phyllite Localized garnets (up to 3%) may be intercolated sediments	1% py streaks mainly in lower 0.3m	
				346.5: 1cm grungy fault @ Upper contact brecciated Lower contact with QFP sharp @ 75° 347.7-347.9: Fg massive mafic dyke @	50° 85°			
351.2 to 387.0	QFP	Light grey with white spots	mg	Massive QFP with 30% undeformed white qtz eyes. 10% white anhedral feldspars in fg qtz/feld/amphibole matrix. 352.6 - 10cm, 353.4 - 5cm & 353.9-354.1: Fg massive mafic dyke, same as 347.7 Irregular contacts.		Unaltered hydrothermally 1-2% muscovite Locally pink stained matrix (hematite) cut by 1% hem/carb & qtz veinlets.	Very rare trace diss py.	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
351.2 to 387.0 (cont'd)				369.3-370.0: Fg massive intermediate dyke @	50°	@ 375m: alteration begins occurring in the QFP Gradational over 0.5m to: 50% cord 15% biot 5% anthophyllite		
						379.8-381.1: Window of unaltered QFP Gradational contacts.		
387.0 to 639.6	SILICEOUS GARNET-IFEROUS SEDIMENTS	Light to dark grey with pink spots	fg	Upper contact sharp, marked by appearance of garnets @ Typical weak banded to massive garnetiferous unit.	65°	Variable composition with gradational changes Fg matrix of bio/qtz/anth/cord supporting up to 15% pink garnets (common silica rims) grading to less common zones with: Up to 20% biotite Up to 10% anthophyllite + 50% cordierite & very rare to no garnets	2% pyrite streaks & clots often associated with garnets (tr-1% Po)	
				388.7-389.8: Well foliated int. to felsic dyke with 30% chloritic clots stretched @ Cut by feld. phyrlic int. dyke at 389.1-389.4	60°			
				396.2-396.5 & 396.8-397.1: Well foliated fg int. to mafic dykes @	60°			
						409.0-413.1: Intense to pervasive zone of cord/anth/biotite.		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
387.0 to 639.6 (cont'd)		Grey with white spots	fg to mg	413.1-415.5: Massive to locally foliated feldspar phyrlic intermediate dyke Upper contact sheared for 10cm & cut by several qtz veins Lower contact sharp @	65°	Some feldspars stained pink	Tr py in qtz veinlets	
		Grey to pink with white & pink spots	fg to mg	418.2-424.0: Well foliated feld. phyrlic intermediate dyke Patchy pink stained zones give dyke a granitic appearance. Sharp upper & lower contacts @	60°			
						424.0-425.8: 3% staurolite over section in irregular clots up to 1cm associated with garnets		
		Dark green with white specks	fg to mg	425.8-429.2: Typical moderate to well foliated equigranular gabbro dyke @	75°	Cut by 3% qtz/carb veins up to 1.5cm 10cm pervasive biotite in sediments @ upper & lower contacts	2% disseminated pyrite 1% magnetite (patchy)	
				Slickensided slip planes at 440.0 & 440.7 @	50-60°			

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
387.0 to 639.6 (cont'd)				Black & white massive mg granodiorite dykes at: 441.6-442.3 442.7-443.1 443.3-444.0 444.6-445.6 446.2-446.4 446.6-447.1 447.7-447.9 448.9-449.1 449.5-449.7 452.4-452.6		Commonly 1-2% garnet	None	Dykes show similar contacts separated by garnetiferous sediments
	Blue/grey	fg		460.0-475.2: Massive equigranular altered garnet free sediments/dyke. Upper contact sharp @ Very locally unit is feld. phyrlic giving it an int. dyke appearance.	45°	40% cordierite 5% biotite Very rare garnets (<1% anhedral)		454.5: 1cm band with 30% pyrite clots @ 60°
				471.6-471.7: Feld. phyrlic (20%) int. dyke @	75°			1% pyrite in rare chlorite hosted veinlets or in clots up to 1.5cm (eg: 469m)
				473.4-474.3: Well foliated weak feld. phyrlic int/mafic dyke with 10% chlor/amph clots (up to 4mm) stretched @ Sharp upper & lower contacts @	75°			
				@ 475.2: Sediments (?) grade back into typical garnetiferous.		Numerous fractures along qtz/ carb/hematite veinlets up to 1cm		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
387.0 to 639.6 (cont'd)						486.5: Sediments grade over 10cm into pink rock with 40% garnet (<1mm) Unit slowly grades back to silica rimmed garnets @ 489m.		
				491.2-491.8: Grey/green gabbroic dyke, massive, fg with sharp contacts @ Cut by 5cm granitic pegmatite dyke at 491.7 @	70° 75°			
				491.8-492.0: Granitic pegmatite dyke @	75°	Alt has increased gradually At 493.5m all qtz has gone to cordierite 25% biotite 10% garnet (locally up to 15%) 2-5% anth. Up to 65% cordierite	2% diss. & clots pyrite	NOTE: Only silica visible is enveloping garnets (none in matrix)
						1% staurolite	495.2-495.3: 15% sulphides over section in clots enveloping fragments 2% cp, 13% py, tr sphal.	NOTE: Most fragments are qtz, sulphides probably vein related
				495.7-499.8: Intense to pervasive altered zone with relatively sharp but irregular contacts. May be an altered mafic or more altered section of sediments. 20% anthophyllite clots 40-50% biotite 25-35% cordierite 5% mineralized qtz veins and clots			1-2% cp diss & clots (up to 1cm) at 497.7 2% pyrite, 1% pyrrhotite	NOTE: From 495.1-501.7 May be an altered mafic unit based on content of anthophyllite
							2% total disseminated py + po + cp.	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
387.0 to 639.6 (cont'd)						499.8-501.7: Anthophyllite rich garnetiferous sediments 5% 'wormy' qtz veins (<2cm) 10% garnet 10% biotite 20% cordierite 55% light green anthophyllite Sharp contact @ 501.7 back into regular S.G.S. 507.5: silica rims around garnets is creamy yellow/green in colour (epidote stained ?) Up to 3% garnet		
				Garnetiferous granodiorite dykes at: 510.7 - 2cm 511.4-511.6 513.6-513.7 514.9-515.0 515.2-515.3				
		Dark green & white	fg	515.8-525.3: Weak altered intermediate dyke. Generally equigranular matrix of qtz, feldspar & amphibole with rare cloudy siliceous fragments (subangular). 0.2 to 0.3m chill zones are noted at top & bottom contacts @	65-70°	Rare weak alteration 1% garnet 2% localized wisps of anthophyllite 2% biotite with anth.		Alteration may be contamination or fragments with boundaries masked.
						526.4: 5cm zone with 25% garnet partially retrograded to qtz/anthophyllite		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
387.0 to 639.6 (cont'd)				528.0: 1cm vuggy qtz vein @ with euhedral qtz crystals	15°		2% pyrite in qtz.	
	Pink & white with black specks		mg	530.3-531.8: Massive granitic dyke with irregular contacts supporting 7% host fragments.			532.4-533.3: 5% pyrite over section, disseminated in clots & clotted bands parallel to foliation	
						537.8-538.7: Pervasive altered zone in sediments 20% garnet 10% cordierite 30% biotite 40% anthophyllite		
				540.0-540.7: Fg well foliated gabbroic dyke Sharp contacts @ (tr magnetite)	65°			
						541.1 - 2cm & 541.2 - 5cm: Bands rich in sillimanite (locally 35%) Below 541.2, commonly 1-2% wispy white sillimanite in sediments		
				551.8-552.2: Gabbroic dyke Same as 540.0 @	65°			

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
387.0 to 639.6 (cont'd)				557.7-558.1: Partially qtz healed fault zone.		557.7-560.0: Relatively sharp contacts bound a garnet free altered zone (intermediate sediments) · 30% biotite, 30% cord, 30% qtz with 1-2% sillimanite		557.7-558.1: Healed Fault
				573.7-574.4: Feld. phyrlic int. dyke @	70°			
				588.6-589.5: Gabbroic dyke @	50°	583.7-586.4: Gradational contacts bound an intermediate sediment zone similar to 557.1 Cut by granitic dykes at: 584.1-584.2 585.6-585.75		
				594.7-594.9: Blocky qtz vein @	50°	591.8-593.0: Gradational zone of intermediate sediments 593.0-~594.7: 4% fine staurolite over section in siliceous garnetiferous sediments		
				600.5-601.4: Fg gabbroic dyke with sharp contacts @	70°			596.0: 0.5 x 3cm tear-drop shaped pyrrhotite clot

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
387.0 to 639.6 (cont'd)				At approximately 605m, sediments begin to regularly fluctuate gradationally from intermediate to siliceous garnetiferous, over zones from 1-2m separated by sharp contacts (turbidite sequences)	75-80°	'Intermediate' sediment mat'l' 10-15% biotite 15% anthophyllite (locally up to 25%) 30-40% cordierite 0-3% garnet 30-45% recrystallized qtz (matrix)	Rare trace py & po in clots Patchy magnetite, locally up to 2%	Increasing anthophyllite suggests sediments have increased in mafic component with depth.
	Dark green & white with pink patches		fg to mg	630.4-631.5 & 631.6-631.9: Mm-cm patchy qtz banded weak to unaltered probable dykes. Locally crenulated banding Contacts distinct & gradational over 5mm @	55-60°			
				633.9-634.2: Massive fg weakly feld. phyrlic int/mafic dyke @	70°			
				636.7-637.6: Blocky ground along qtz vein/vug @	0-10°			
				638.9-639.4: Fg mafic dyke @	65°			
						Patchy intensely granitized	Trace diss pyrite	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
639.6 to 660.4	INTER-COLATED SEDIMENTS AND VOLCANIC TUFF (CLR)	Grey with black bands	fg to mg	Mixture of very weak to intensely altered banded clotted rhyolite and equigranular massive to weak banded intermediate sediments (greywackes) Gradational contacts averaging <1m apart.	70°	Tuffaceous zones Commonly intensely matrix altered (bands) of biotite (10-30%) and cordierite (+40%) with 1-2% gnt & 1% anthophyllite Sediment material lacks banding and consists of 5-10% biotite <40% cordierite Tr-1% anthophyllite 1% garnet avg. 50% recrystallized qtz. Pervasive zones with up to 90% biotite with minor cord & qtz are common (eg: 639.8-640.0, 649.7-649.9 plus several smaller zones)	Tr-1% diss pyrite throughout Locally up to 2% in more intensely altered bands	Similar alteration minerals suggests sediments are same composition essentially as CLR but evenly sorted & slightly more siliceous.
				641.9-642.7 & 643.3-644.2: Weak feld. phytic well foliated int/mafic dykes @	70°	Feldspars stained pink with numerous dark pink stained patches.		
				644.9-645.2 & 646.8-647.1: Granitic dykes @	~70°			
				659.5: 15cm blocky, weakly slickensided core.				

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
660.4 to 664.2	ALTERED CLOTTED RHYOLITE	Green/grey & grey/white with pink patches	fg	Well banded on .5 - +1cm scale matrix altered volcanic tuff @ Section cut by 3% qtz/carbonate/hematite veins Upper contact has banded felsics & mafics but only trace pyrrhotite - does not look at all like an "ore" horizon.	75°	More siliceous bands composed of 5% anth, 5% biotite, <50% cordierite + recrystallized qtz. Mafic bands intensely altered to anth/biotite with <10% cord + qtz. Siliceous bands commonly hematite/granite stained pink/orange. 10cm pervasive biotite band at 663.2-663.3	Very rare trace diss py.	Probably very minor intercolated sediments
664.2 to 664.6	MINERALIZED BANDED VOLCANIC TUFF	Dark grey & white	fg	Well banded on mm-cm scale altered mafics and siliceous recrystallized mat'l.	75°	20% biotite 5% anthophyllite 40% cordierite 30% recrystallized qtz	5% disseminated bands of sulphides over section. 1.5% orange sphalerite 0.5% cp 2% pyrrhotite 1% pyrite	"Ore" horizon in other holes located at sediment/CLR contact. This may represent one of the lower sulphide horizons located in WL-25. Due to paleotopography (?) upper zone may not exist in this area. Est: 0.7% Zn 0.2% Cu 0.4m
664.6 to 693.3	ALTERED CLR	Grey to pink	fg	Well banded on mm-cm scale increasing to cm scale @ 668m 2% qtz/carb/hematite veinlet (<.3cm) cutting unit, averaging	75° 0-10°	Mafic portions altered to biotite (avg. 10% over section) with minor anthophyllite. Cordierite patchy from 5-15% Alteration decreased gradually down section to 684m then picks up again. Approximately 1/2 unit is hematite/granite stained pink/orange.	3% banded disseminated sulphides to 666m +2% pyrite <2% pyrrhotite Tr cp, tr sphal. Below 666m, 1% total py+po Locally up to 1% py, 1% po in streaks	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
664.6 to 693.3 (cont'd)				From 684.0 to 691.6: ground is very blocky with chloritic fractures (few slickensides noted) 688.5-691.6: Very blocky! 689.8-689.9 & 691.5-691.8: Granodiorite dykes with irregular contacts. 5cm fault grunge at 691.8				Increase sulphide content at 685m to 1% py, 1% po. disseminated or in discontinuous bands
						Ir garnets begin occurring at 692.0		
693.3 to 695.9	WEAKLY MINERALIZED ALTERED CLR	Grey & white	fg	Typical banded matrix altered tuffaceous material as above. 693.8-693.9: Qtz vein	75-80°	1% garnet 20% biotite +35% cordierite	693.3-693.8: 3% po, 1% py fine disseminated throughout 693.9-695.9: 2% po, 1% py disseminated or in discontinuous bands	Does not really look like a potential MS horizon.
695.9 to 704.8	MIXED TUFFACEOUS AND SEDIMENTARY MAT'L (ALTERED)	Blue/grey with pink spots	fg	Typically a garnetiferous equigranular massive greywacke with localized banded zones of tuffaceous material. 696.9-697.2: Feld. phytic int. dyke @ Top contact marked by 3cm Qtz vein.	80° 80°	3-7% garnets up to 1cm in a fg matrix of up to 50% cordierite, 10% biotite with 1% muscovite. Tuffaceous bands (<1cm) intensely altered to biotite with minor anth. 697.2-697.7: 70% biotite over section, 20% cord, 8% Qtz, 2% gnt.	2% pyrite disseminated and in streaks & clots (tr po) decreasing down section 2-3% diss magnetite 3mm pyrite band at 699.4m	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
695.9 to 704.8 (cont'd)		Pink & white	mg	698.0-699.2: Weak foliated granitic dyke @ Very blocky ground from 702.0-702.5 and 703.0-704.0 Fractures along chloritic veins - does not seem to be a fault.	80°			
704.8 to 740.0	GRANITIC, INTER-MEDIATE & MAFIC DYKES ('RAINBOW' GRANITE)	Varibale Grey with pink & white spots Green & white Pink Pink, white & grey	Var-iable mg mg fg to mg	704.8-705.0: Massive dark green mafic dyke @ 705.0-706.1: Granite, well foliated, mg. 706.1-706.3: Int/mafic dyke @ 706.3-708.6: Granite. Possible tuffaceous Xenolith from 707.8-708.2 708.6-710.3: Well foliated gabbroic dyke @ 710.3-711.9: Granitic syenite dyke. 711.9-731.4: Well foliated magnetic granite @ 715.3: 15cm qtz vein 717.9-718.2: Feld. phyrlic int/mafic dyke.	80° 80° 80°		Tr disseminated pyrite 713.8: 10cm light grey epidote patch	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
704.8 to 740.0 (cont'd)						718.6-718.7: Chloritic possible shear zone		
E.O.H.				721.0-721.2: Fg int. dyke		721.2-721.4: 50% chilled epidote veinlets over section		
				Weak feld. phyrlic int/mafic dykes at: 723.8-724.1 725.4-726.2 727.4-727.5 727.8-727.9 % 731.0-731.2				
				729.4: 15cm highly feld. pyritic (15%) int. dyke				
	Black with white spots		fg	731.4-733.5: Massive carbonate soaked diabase dyke with chilled irregular contacts.				
				733.5-734.6: Granite				
				734.6-735.3: Gabbroic dyke				
				735.3-737.5: Granite				
				737.5-740.0: Gabbroic dyke		Cut by 10cm qtz vein at 739.8m		
				End of Hole				

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CORPORATION FALCONBRIDGE COPPER
 DRILL HOLE RECORD

HOLE NUMBER: WL-22

IMPERIAL UNITS:

METRIC UNITS: X

PROJECT: PN370 WINSTON LAKE
 GRID: MINE
 CLAIM NUMBER:
 LOCATION: WINSTON LAKE
 DATE STARTED: APRIL 29, 1985
 DATE COMPLETED:

FIELD COORDS: LAT: 11600N
 DEP: 10600E
 ELEV:
 SURVEY COORDS: LAT:
 DEP:
 ELEV:

COLLAR BRNG: 210°
 COLLAR DIP: 89°
 HOLE SIZE: BQ
 FINAL DEPTH: 597m

CONTRACTOR: ST. LAMBERT DRILLING
 CORE STORAGE: CLEAVER LAKE
 CASING: 1.5m
 PLUGGED:

RQD LOG:
 PULSE EM SURVEY:

MULTISHOT SURVEY: X
 COLLAR SURVEY:

PURPOSE:

ACID TESTS		TROPARI TESTS			MULTISHOT DATA				
Depth (m)	Corrected Angle	Depth (m)	Corrected Angle	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
6	89°								
100	76°								
200	69°								
300	63°								
400	56°								
500	53°								
597	50°								

HOLE NO: WL-22

LOGGED BY: F.BALINT, R.C.SIM

Paul Spence

DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
0 to 1.5	CASING							
1.5 to 429.6	PILLOWED MAFIC VOLCANIC (EPIDOTE PATCHES & BIOTITE SELVEDGES AND MINOR SILICIFICATION)	Green with dark & light green bands occasionally	Aphanitic with 10-20% mg sections	Moderately foliated at 0-45m: very blocky broken core with rusty slip planes. Entire section alternates between mg coarser flows (10-20%) or pillows on a 1 to a few metres scale with the rest of section aphanitic mafic with dark green selvedges up to 2cm thick.	45°	<p>VEINING: 1-2% carbonate veinlets (1-3mm) 1-3% silica (quartz) veinlets up to 2mm at random angles to core (some of which are pink stained).</p> <p>BIOTITE: From 0-23: 10% selvedges with weak biotite alteration (2-3%) From 23 to 26: 10% biotite altered selvedges (very strong 100% biotite)</p> <p>EPIDOTE: Epidote silica patches on a cm to m scale from 3% to 30% over entire section.</p> <p>SILICIFICATION: Curious silicification throughout section in various degrees. From 0-32m: 1-5% along selvedge margins From 32-36m: very strong silicification, 30-50% bleached white intermediate in composition</p>	8.4m: 1cm of 10% pyrite in a discontinuous streak Occasionally 1-2% py in pillow selvedges. Overall trace diss py.	<p>NOTE: biotite alteration is identical to the alteration at Big Duck Lake and is very local.</p> <p>* Still obviously pillowed</p> <p>NOTE: all pillow selvedges conformable to foliation implying stretched.</p>
		Silicified sections bleached pale green	As above		Fabric still 45-50°			

HOLE NO: WL-22

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
							42.1: 3cm qtz vein with 3% sphalerite crystals at 80° to CA	
						47.5-55.0: Strong biotite-phlog (100%) altered selvages (10%) occasional 1-3mm garnet in selvage		
							48.4: 2cm band with 10% py streaks	
				53.2-53.6: Ugly mafic dyke speckled with carbonate 10-20% 30% biotite in patches Sharp contacts at	50°			
				58.3-58.6: White 100% quartz vein at	30°		No sulphides	Section is strongly magnetic. Association between gnt & magnetite in selvages
						From about 63.5 to 65.7: 30% of section is zones of gnt-bio-magnetite patches or thick bands (conformable to foliation) 10's of cm thick Consist of 30% pink, 1-10mm gnt, 20% mt, 50% bio-chl.		
						From 65.7 down: 5-7% of section selvages mostly bio-gnt-magnetite altered to varying degrees		
				70.5-70.7: Tectonic breccia zone at Fragments of mg mafic in a fg green chloritic matrix Section continues alternating between mg more massive sections, silicified stretched pillowed locally with biotite or biotite-gnt-mt selvages.	45°			

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				At 104.5: end of pillowed section				
	Green		fg	104.5-117.5: One discrete flow, no obvious selvages	Weak fabric at 50°	Distinct lack of epidote silicification and biotite alteration	None	
				117.5 to about 144 or so: Pillowed section as above 104.5		Same as above 104.5	Tr py.	
				125.3-125.7: Quartz vein with 5% chlorite along fractures.				
				128.0-129.0: Chloritic sheared zone minor brecciation	70° to CA			128.0-129.0: Possible fault zone
				129.3-129.7: QFP dyke at 10% fsps 1-3mm 5% qtz eyes 1-2mm	50°	None		
			Grain size increases fg-mg	From 144 down to 184.5: More massive (no apparent selvages) flow again. Still weak fabric at	50°	10-20% epidote patches (10cm scale) Noticable lack of significant silicification 1-2% silica veinlets	Trace diss py to none	From 144 down to 184.5: Section grain size increases & less selvages More massive flow material - larger & less pillows.
				159-162: Possible pillow selvages apparent again.				
				From 162: only occasional selvedge evident, mostly massive flow.		162-163: 5-7% 1-3mm gnts peppered throughout (no magnetite)		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				168-171: Qtz veined section 20-30% qtz up to 20cm thick, all at	40-50°	Nothing but qtz in veins No selvages to veins.	None	
				183.1-183.4: Diabase dyke @	60°			
				184.5-205.8: Pillowed section again. Similar texture to above 104m.	Moderate fabric at 50-55° to CA	Similar alteration moderate silicification of pillows Biotite ± garnet ± magnetite altered selvages locally (30% of selvages which make up 5-7% of section are altered) Locally epidote silica pods up to 10cm (40%) 1-2% qtz veinlets up to 3cm	1-2% diss & streaks of py.	NOTE: distinct end to more massive flow section Overall section not magnetic
	Light grey		fg to aphanitic	205.8-207.1: Felsic dyke 5% biotite streaks	Contacts at 70°	None apparent	None	
				217.6: 3cm zone of carbonate veining at	30°	1-2mm calcite veinlets every now and then at various angles to CA.	Continued Ir-1% py throughout	
				From about 220m or so, the section becomes progressively more massive/less or larger pillows to m scale or a few m in size.		From 220m: less silicification down section		
				270.9-271.1: Qtz vein 2% Black chl on fractures.	80°			

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
							298.0-298.2: 4% py streaks	
				301.0-303.4: Diabase dyke	40° to CA			
				At 306m to about 309m: Very banded section (still mafic) green and white streaks and bands.		Minor biotite wisps		Represents a slightly more foliated zone Does not look like a tuff.
				317.8: 1cm chloritic fault at	30°			317.8: good fault gouge
							356-357.5: 2% diss & streaky py.	
				From 364 down section: the selvages to pillows are microspherulitic 1-3mm feldspar (white) round spots up to 20% over 2-3cm at selvedge.			Trace pyrite	
							412.2-412.8: 3% pyrite as streaks	
				414.2-414.9: Epidote-qtz soaked breccia zone at 40% mafic angular frags cm-mm scale with 60% qtz ep matrix.	45°		None-tr py.	Possible fault.
				Epidote rich siliceous veins @ 416.0-416.1 417.1-417.2 @ 417.3-417.4 @	75° 80°			

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				418.6-419.3: Fg section of mafic (interpillow mat'l) Sharp upper contact @ Gradational lower.	75°		Localized mineralized bands, streaks & clots 418.9-419.3: 5% pyrite over section.	Gradational medium grained mat'l (pillow cores) looks identical to lower gabbro
				419.9-421.1: Fg banded section similar to above Locally light & darker green banded mafics on mm scale, 5% section contains bands of white qtz (often mineralized & recrystallized). Commonly discontinuous bands.	75°	Rarely epidote associated with silica banding	3% pyrite streaks & clots over section often associated with silica bands	Veins or interpillow silica dumping (?)
				427.1-429.6: Fg section, similar to 419.9 7% silica banding (as above)		2% epidote associated with silica banding Rare, localized bands altered to mass of biotite/phlogopite (<1cm)	2-3% pyrite (localized)	
429.6 to 459.4	GABBRO	Dark green with white streaks	fg to mg	Very well foliated equigranular gabbro 0.4m chill at sharp upper contact @ Qtz veins @ 430.3-430.4 436.2-436.3 (banded) @ 437.2-437.3 (banded) 25% of section @ 414.0-414.1 @ 440.2-446.6: Fg massive feld. phyrlic intermediate dyke @ also @ 447.5-447.6	75° 70°	Patchy leucoxene (up to 3% over section <10cm)	Very rare trace diss pyrite	Looks like mg mat'l above, but without selvages. Appearance of these veins suggests mineralized siliceous bands in fg mafics (e.g. 419.9) are also veins.

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				447.7-447.9: Brecciated (healed) intermediate dyke Sharp contacts @	65°	Intense epidote/qtz veining healing breccia		
				448.4-448.9 & 449.7-450.0: Feld. phyric int. dykes (Same as 446.2) @	75°			
				451.0-451.1 & 451.4-451.5: Epidote/qtz healed minor breccia zones in Gb. Sharp lower contact to sill with 5cm chill @	75°			
459.4 to 461.5	LAMINATED BIOTITE ALTERED MAFIC TUFF WITH 10% FELSIC BEDS	Banded green, light grey & dark grey/brown	Aphanitic to fg	Generally banded on mm scale, locally very well banded on <mm scale @ Siliceous bands commonly contain minor mafic component (ash) Locally microfaults slightly offset bedding (<1cm)	75°	Localized biotite altered mafic bands 10-15% bio over section (locally up to 50% in individual bands (<5mm))	3% pyrite over section (1% in disseminated bands, 2% in crosscutting veins)	
461.5 to 470.1	MAFIC FLOW (BSF) OR TUFF	Green with white streaks, clots & bands	fg to mg	~ 1/2 of section is massive mg grading to finer grained well foliated and possibly banded (tuff) zones. Sharp upper contact @ 2% section cut by siliceous bands parallel to foliation Locally slightly elongated feldspar porphyroblasts (bird shits) are noted (e.g. 465m)	75°	In banded zones, rarely individual bands go to biotite/phlogopite (<1cm)	Rare disseminated pyrite in banded zones "Gloms" often contain disseminated sulphides (mainly po, with rare tr cp & even sphal 464.7m)	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
470.1 to 472.5	ALTERED LAMINATED MAFIC & FELSIC TUFF	Green, light & dark grey & brown	Aphanitic to fg	Very well mm banded tuff with 20% felsic component	75°	Quite altered. 15% biotite, 5% anth, 15% cordierite over section (alteration varies with banding) Localized garnets (2% over section) anhedral (<1cm) 5cm band at 471.9 with 5% sillimanite wisps	Sulphides in bands to disseminated bands (<1mm)	
472.5 to 499.3	PILLOWED MAFIC FLOW (BSE)	Dark green with white spots & bands (locally)	fg to mg	Generally massive to weak foliated @ Gradational fluctuations in grain size with fg banded (often mineralized) zones <10cm suggest a pillowed mafic flow. Rare porphyroblasts of feldspar up to 2cm (bird shits) eg: 476.7 & 482.7	80°	Basically non-existent 4cm bio/anth/phlog altered selvage (?) @ 484m	Localized to fg banded zones only, up to 2% pyrite (diss) over sections <10cm	
499.3 to 521.8	GABBRO	Dark green with white spots	mg	Moderately foliated equigranular gabbro with sharp upper contact @ 2m finer grained mat'l (chill zone)	80°	Rare gradational zone, weakly epidote bleached 2% leucoxene flecks <.5mm from 503m to 520m	None	Looks like mg mat'l above but without selvages.
521.8 to 533.5	TRANSITION ZONE GABBRO	Mottled light green & blue/grey	cg	Typical massive non-magnetic ultra-mafic, upper contact gradational over 20cm marked by loss of feldspars.		525.7-525.8: Gradational zone with 7% phlogopite 525.9-526.4: Chloritic zone related to qtz veining @ 526.0-526.2 (over 30% section) 527.1-527.3: Micaceous (phlog) halo about single fracture @ 527.2 @ 50° to CA	None	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
533.5 to 542.0	META-PERIDOTITE	Steel blue/grey	cg	Typical massive, highly magnetic ultra-mafic unit. Upper contact gradational marked by influx of magnetite		Bleached green to 533.9m	None	
				Numerous chloritic fractures throughout (rarely slicken-sided) @ avg.	80°			
				533.7: 2cm chloritic breccia Fault @	80°			Fault
				533.8: 2cm chloritic grunge Fault @	80°			Fault
				538.4: 3cm chloritic grunge Fault @	80°			Fault
				539.6-539.7: Very blocky chloritic fault zone @	~80°			Fault
				Non-magnetic gabbroic chill for ~1m above contact.				
				541.5-542.0: Chilled dyke, fg gabbro.				
542.0 to 542.7	BANDED TUFFACEOUS UNIT (CRT)	Green, brown & white	Aphanitic to fg	Well banded @ top & bottom on mm scale grading to more mafic foliated centre. Sharp upper & lower contacts mark tuffaceous zone @	80°	1% garnet in centre of unit Mafic bands moderately altered to fg biotite	None	
542.7 to 545.2	MAFIC FLOW WITH MAFIC TUFF COMPONENT	Dark green with rare light green bands	fg	Generally a massive unit with localized crude banded zones possibly representing a tuffaceous component	80°	Possible weak epidote bleaching of more felsic bands (tuff)	None	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
545.2 to 551.0	BANDED FELSIC TUFF (CRT)	White & grey	Aphanitic	Generally very well banded ashy tuff on mm scale @ becoming slightly more mafic with depth. Numerous microfaults mildly offset banding 545.25-545.35: Qtz/ep healed brecciated zone	80-85°	Minor biotite alteration in more mafic bands Rare garnets localized to bands (1% total)	2-3% po, 1-2% py in rough bands, clots & veins to 549.3 - very rare tr sphal. Below that 1% po, tr py mainly disseminated & in rare clots.	
551.0 to 556.1	INTER-MEDIATE/ FELSIC GARNET-IFEROUS TUFF (ALTERED CLR ?)	Mottled light & dark grey with pink spots	Aphanitic to fg	Upper contact gradational to more mafic portion of tuff. Banding is crude giving mottled appearance.	80-85°	5-10% biotite 5% garnet (<1cm) 2% muscovite +25% cordierite	1% po + py in streaks parallel to foliation	
556.1 to 567.4	MAFIC FLOW (BSF)	Dark green with rare light green bands	fg to locally mg	Generally a massive fg unit with localized more felsic banded zones (selvedges ?) & gradational coarser grained zones (pillow cores ?) Sharp upper contact @	85° 85°	Weakly chloritized	1% diss pyrite, increasing slightly in 'selvedges'	
567.4 to 587.4	INTER-MEDIATE/ FELSIC GARNET-IFEROUS TUFF (ALTERED CLR ?)	Mottled grey & black with pink spots	fg	Mottled banding on +mm scale consisting commonly of discontinuous biotite separating more felsic bands. Upper contact sharp @	85° 75°	7% garnet (<1cm anhedral) 15% biotite +40% cordierite localized muscovite 0-2%	1% pyrite in clots often associated with garnets	Stratigraphically CLR fits in this zone, but the amount of garnet alteration makes it anomalous with the rest of the Winston Lake package.

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
		Dark green with pink spots	fg	568.0-568.7: Garnetiferous mafic dyke. Massive matrix supporting 5% anhedral garnets (<1cm) Sharp upper & lower contacts @	85°		1% py streaks	Smaller examples (<15cm) lower down & sharpness of contacts suggest these are not flows. Garnets due to contamination.
				Garnetiferous mafic dykes, similar to 568m @		573.3-575.8: Gradational zone in which garnets partially retrograding to qtz & chlorite		
				580.1-580.2 @	85°			
				580.6-581.0 @	85°			
				581.1-581.4 @	80°			
				586.9-587.0: Vcg mafic dyke with sharp contacts @	75°	3% garnet		
587.4 to 597.0	GABBRO	Dark green	fg to mg	Massive fg gabbro grading to mg @ ~590m and becoming weak foliated @ Sharp upper contact @	85° 85°	5% garnet over top 10cm (due to contamination) Localized bands of leucoxene (up to 3% over 10cm sections)	Void of sulphides except for 2mm vein pyrite @ 593.7m	
E.O.H.				593.0: 5cm zone of intense qtz-ep veining @ 30° to CA				
				594.9-595.0: Chloritic mafic dyke @ with 10% epidote bleached fragments.	85°			
				End of Hole.				

HOLE NO: WL-22

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CORPORATION FALCONBRIDGE COPPER
DRILL HOLE RECORD

HOLE NUMBER: WL-23

IMPERIAL UNITS:

METRIC UNITS: X

PROJECT: PN370 WINSTON LAKE
GRID: SELCO
CLAIM NUMBER:
LOCATION:
DATE STARTED: MAY 2, 1985
DATE COMPLETED: MAY 27, 1985

FIELD COORDS: LAT: L3+00S
DEP: 6+40E
ELEV: 0
SURVEY COORDS: LAT:
DEP:
ELEV:

COLLAR BRNG: 300°
COLLAR DIP: 89°
HOLE SIZE: BQ
FINAL DEPTH: 856m

CONTRACTOR: ST. LAMBERT DRILLING
CORE STORAGE: CLEAVER LAKE
CASING: 0.9m BW
PLUGGED:

RQD LOG:
PULSE EM SURVEY: X

MULTISHOT SURVEY: X
COLLAR SURVEY:

PURPOSE:

ACID TESTS		TROPARI TESTS			MULTISHOT DATA				
Depth (m)	Corrected Angle	Depth (m)	Corrected Angle	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.5	89°						70	290	63
100	85°						130	291	82
200	81°						190	293	80
300	76°						250	298	78
400	75°						310	303	76
500	75°						370	309	75
600	71°						430	303	73
700	67°						490	281	72
800	63°						550	298	71
							610	255	68
							670	297	67
							730	305	65
							790	304	63
							850	313	63

HOLE NO: WL-23

LOGGED BY: R.C.SIM

Paul Simon

DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
0 to 0.9	CASING							
0.9 to 1.7	BLOCKY ALTERED QFP	Blue/grey	mg	Well foliated altered QFP Very blocky with fractures along biotite bands and qtz veins @ Ground very blocky with numerous qtz/carb veins & vugs from 1.4-2.0m	60°	Intense cord/bio/gnt Same as below	Rusty qtz vein @ 1.5-1.6: no visible sulphides	Fault
1.7 to 4.4	INTER-MEDIATE TO MAFIC FELDSPAR PHYRIC DYKE	Dark green to black with white spots	fg	Massive with up to 5% anhedral feldspar phenocrysts Sharp contacts @ Weak to moderately magnetic.	55°	Rare bio/anth haloes around qtz veinlets averaging 50° to CA 5% garnet over lower 2cm	1% py clots associated with qtz veinlets	
4.4 to 271.0	ALTERED QFP	Mottled to banded light & dark blue/grey	mg	Typically well foliated (locally massive) sugary altered QFP 5.8-6.1: Blocky garnetiferous mafic dyke, well foliated with sharp chloritic slickensides, contacts @	50-55°	15-20% biotite (often defining foliation) 2-5% anthophyllite 1-3% garnet (anhedral <1cm) Tr-1% muscovite +50% cordierite 20% recrystallized qtz. 4% anhedral garnets in anth/magnetite rich bands parallel to foliation.	Rare tr. diss pyrite	
		Dark green with white spots	fg	8.1-10.0: Moderately foliated feld. phyric int/mafic dyke (same as 1.7m) 2% magnetite Chlor/biotite slip planes (1cm) at contacts @	30° 35°		1% diss pyrite 1% py clots associated with qtz veins	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
4.4 to 271.0 (cont'd)				Similar dyke at 11.6-13.6 @ Very blocky ground with rare chloritic slickensides from 11.6-12.4	40°			Possible fault?
				14.2-14.8: Int/mafic dyke, same as above @	40°	Pervasive biotite bands gradational over 10cm at 15.4-15.6 17.5-18.0 20.3-20.6 All at 50° to CA		
				20.7-21.2: Irregular qtz vein with 5% biotite altered host fragments.				
						22.0-22.3: Perv. bio band same as above at 35° to CA		
				22.3-22.6: Irregular qtz vein with 15% biotite altered host fragments.				
				24.3-24.4: Feld. phyrlic int. dyke @	55°			
						At 25m: musc has increased to 4% defining foliation at 55°		
				28.0: 3cm musc/sericite rich siliceous qtz vein @	55°			

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
4.4 to 271.0 (cont'd)			33.3-34.0:	Well foliated mafic dyke with sharp contacts @ 20% chloritic/amph clots (<.5cm) in bio/anth/chlor rich matrix.	45°			
			38.7-39.9:	Blocky weak foliated int/ mafic dyke 2 (same as 1.7m)	35°			10% pyrite clots in 3cm qtz vein at 39.5m
						At 45m: QFP alt has increased gradationally to: 35% biotite 5% muscovite 2% anthophyllite 1-2% wispy sillimanite 2-3% garnet +50% cordierite (25% as 'eyes', 25% as matrix) Very little to no free qtz. Rare rounded light green qtz eyes/clots (<3mm)		Tr-1% diss pyrite
			45.9:	5cm qtz vein @	45°			
			52.5:	7cm qtz clot with 5% host fragments				
			55.5-59.0:	15 individual fractures over section, all @	55°	Commonly carb filled		
						Tr-1% gahnite		62.5-65.7: Mineralized zone in QFP. Numerous veins & clots of sulphides (4% total over section) Sulphides also present along biotite rich slip planes 2% po, 2% py, tr cp, tr sphal from gahnite.

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
4.4 to 271.0 (cont'd)			80.8-81.0, 85.3-85.7 & 96.4-97.2:	Fg well foliated altered synvolcanic dykes @ Sharp contacts commonly marked by minor epidote veinlets.	60°	Below 65.7: intense alt'd QFP same as 45m with tr gahnite Same alteration minerals as host but just finer grained.		Chilled dyke of material of same composition as host.
						1% gahnite going to sphalerite below 105m	Beginning at 105m, numerous clots & veins of sulphides in QFP, similar to 62.5 but no pyrrhotite	
			107.5-108.1: 5% black chloritic clots in QFP stretched parallel to foliation @		60°	105.5-106.0: 7% sillimanite wispy clots over section	Avg. tr-1% cp, 2-3% pyrite, tr sphal from 105m-109.5m	Sulphides seem to be mainly as a result of qtz veining & clots. Some sulphides are associated with garnet formation and may be a result of intense hydrothermal solution activity.
							108.7-109.5: 5% sulphides over section in irregular veins approx. parallel to fol'n @ 55° 1% cp, 1% sphalerite (from gahnite), 3% pyrite. 5mm discontinuous pyrite vein associated with 3cm qtz vein @ 109.3m Also sulphides from 109.4-109.5 envelope qtz clots	
						1 x 3mm purple fluorite speck in qtz vein @ 110.3m		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
4.4 to 271.0 (cont'd)				123.1-123.5: Fg altered synvolcanic dyke, same as 96.4m @	60°	1% gahnite up to 3mm to 125.9m 5% irregular qtz veining	Tr sphal from gahnite 1% py in rare clots 1% py, tr-1% cp associated with qtz veining	
	Light to dark grey	fg to mg		Abrupt change at 125.9m to much more siliceous QFP Moderately foliated @ Localized gradational zone with alt. similar to above. Locally black chloritic clots are present, same as 107.5m	60°	Typically: 5-7% biotite 10-15% cordierite 3% muscovite 1-2% anthophyllite Tr-3% garnet In siliceous matrix, often light epidote bleached greenish/yellow (NOTE: qtz generally not recrystallized) 3% irregular qtz veinlets over section. Thicker veins commonly contain up to 5% muscovite books.	1-2% pyrite diss & in cubes up to 1mm	
				148.7-149.1: Massive fg dark green mafic dyke @	60°			
	Black with white spots	fg		154.5-156.0: Massive feldspar phyrlic (10%) int/mafic dyke. Sharp contacts @	70°			
				156.3-156.4: Grungy, muscovite, carbonate rich fault zone @	~60°			Fault

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
4.4 to 271.0 (cont'd)				159.1-159.7: Multiple intruded mafic dyke/qtz-granite vein @	60°	10% epidote veinlets over section		
				@ 161m: QFP begins to look 'sugary' due to recrystallization of all qtz present.		10-15% biotite 2% garnet (<2mm) 2% muscovite +20% cordierite 1-2% anthophyllite	1-2% diss pyrite	
				161.5: 5cm chloritic mafic dyke @	60°			
				164.0-164.3: Well foliated biotite rich altered synvolcanic dyke @	50°			
				167.0-170.0: Gradational siliceous zone lacking to recrystallized qtz (sugary) texture.				
				175.3-175.9: Composite qtz & granitic dyke @	60°			
	Dark green with white spots		fg	176.8-179.9: Weak foliated weak feld. phyrlic (3%) altered mafic dyke. Contacts @ Cut by qtz vein at 177.6-178.1	60°			
				179.9-181.1: Qtz vein @	60°			
				182.2-182.35 & 183.8-184.0: White sillimanite rich qtz/granitic veins/dykes. Irregular contacts.		5% wispy sillimanite cut by 5% green epidote veinlets.		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
4.4 to 271.0 (cont'd)				186.5-187.0: Pervasive biotite zone supporting 5% partially cord. altered qtz fragments. Very blocky from 186.9-187.0				Possible fault?
						187.0-187.6: Pink granitic stained QFP with fractures along qtz/carb vein @ 0° to CA		
					65°	@ 190m: Alt. QFP composed of: 10-15% biotite 2-3% anthophyllite 3% muscovite 0-2% garnet Tr-2% wispy sillimanite +20% cordierite ~50% recrystallized qtz commonly cut by (1-2%) cloudy white sillimanite bearing siliceous granitic veins (<5cm)	1% diss pyrite Tr diss. cp (rare)	
				200.0-207.5: Numerous fractures along qtz/carb/epidote veinlets				
				207.8: 2cm carbonate rich vug in QFP @	60°			2% py in vug
				210.4-211.3 & 211.9-212.1: Eg massive magnetic int/ mafic dykes. Sharp chilled contacts @	65°	Cut by sillimanite rich granitic dykes @ 210.5-210.9		3% py diss & clots (<2mm) in granites

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
4.4 to 271.0 (cont'd)				213.2-213.3 & 215.6-215.8: Moderately foliated fg chloritic mafic dykes @	60°		2% diss. pyrite	
				219.4-219.5: Blocky ground - possible fault?				Possible fault?
				231.0-233.0: Numerous fractures along 2% epidote (± qtz) veinlets				
						233.5-234.5: Gradational zone over 10cm to: 50% biotite enveloping 40% rounded qtz & +10% cordierite 2% cloudy flattened qtz clots (avg. 2 x 1cm) (possible boudinage qtz veins)		
				Massive to weak foliation @	65°	234.5: increase in alt in QFP to: <10% biotite 5-7% muscovite 2-3% garnet (<4mm) +50% cordierite Tr-2% anthophyllite Up to 30% recrystallized qtz.	Tr-1% diss pyrite	
				253.2-253.7 & 254.3-254.8: Gabbro dykes, fg massive at contacts grading to amph. clotted defining foliation @	65°			5cm qtz vein at 254.3

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
4.4 to 271.0 (cont'd)				Blocky ground at 264.0-264.3 and 265.7-270.4 with fractures commonly along qtz/carb/ep veinlets. 266.4-266.7: Eg massive int/mafic magnetic dyke, same as 210.4 @ 270.4-271.0: Very fracture grungy fault zone with 15% qtz/carb veining. 50% angular fragments (<1cm) in grungy mud matrix. Upper contacts sharp @	~50° 60°	@ 256.0: musc. content decreases to 1-2%		Fault!
271.0 to 365.7	GABBRO	Dark green with white spots	Variable	271.0-273.0: Very blocky epidote bleached fault zone. 271.0-271.5: Eg massive Gb chill or dyke(?), very blocky. 271.5-271.8: Blocky carb veined qtz dyke 271.8-285.2: Variable massive cg Gb with up to 40% feldspar and as low as 15% to massive Gb similar to below.		3% carb veining over fault zone 3-4% leucoxene flecks up to 7mm in cg gabbro, commonly with magnetite cores Feldspars commonly weak pink stained. Section cut by 2% qtz clots & veins.	2% pyrite in qtz. Rare tr diss py. Rare clots associated with qtz veining	Fault

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
271.0 to 365.7 (cont'd)				283.9-284.3: Chloritic mafic dyke (synintrusive) @	35°			
				285.1-285.2: Qtz vein @	70°			
			mg	@ 285.2: Gabbro becomes consistently massive to weak foliated with 35% white feldspars & qtz in chloritic amphibole matrix.		1-2% leucoxene (<0.5mm) (non-magnetic)	Tr diss pyrite	
				294.4-294.5: Composite qtz/fg mafic dyke @	70°			
						298.0: 15cm gradational light green ep bleached patch.		
	Light green/grey		fg to mg	299.0-301.0: Massive to moderately foliated gabbroic to intermediate dyke. Sharp chilled contacts, top @ bottom @	30° 75°			
				grading to mg foliated material in centre. Gabbro xenolith at 300.15-300.3 with irregular angular contacts.				
				204.9: 3cm chloritic qtz veined shear @	35°			
								305.4-305.6: 3% py clots over section associated with 20% granitic clots & veins

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
271.0 to 365.7 (cont'd)		Light to dark green	fg to mg	309.9-310.5 & 312.8-314.3: Massive grading to weak foliated int/gabbroic dykes, same as 299.0 Sharp contacts @	50-70°			
								@ 321.2: begins tr phlog in Gb increasing to 3% at 327m (no leucoxene)
				Eg massive light grey int/felsic dykes at: 322.3-322.45 @ 325.7-325.8 @ 326.4-226.9 @	70° 75° 70°			
				@ 327m: Phlog wisps define foliation @	65-70°			
				330.1-330.4: Chloritic massive mafic dyke @	70°			
				343.9-344.1: Eg mineralized massive mafic dyke @	55°		3% diss pyrite	
				344.7-344.9: Blocky ground with fractures along chlor/ carb veinlets @	55°			
								348.5: 3-5% phlog occurs as plates in massive mg gabbro

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
271.0 to 365.7 (cont'd)				351.6-352.4: Massive fg weak feld. phyric int/mafic dyke. Sharp contacts, top @ bottom @	50° 75°			
				354.9-355.1 & 355.4-355.8: Moderately foliated weakly feld. phyric felsic dykes @	60°			
				356.2-356.6: Granitic dyke @	70°			@ 363m: Phlog begins to define foliation as wisps & clots (locally up to 7%)
				364.2-364.5: Salt & pepper granodiorite dyke, top @ bottom @	50° 65°			
365.7 to 368.7	TRANSITION ZONE GABBRO	Mottled light & dark green	cg	Typical massive to rarely locally foliated defined by phlogopite @	75°		0-4% phlogopite wisps	
				366.2-366.4 & 367.4-367.5: Feld. phyric felsic dykes, same as 355.4 @	75°			
				367.5-367.8: Pink & white garnet rich granodiorite dyke @	80°		5% garnets (<1mm) in bands and disseminated.	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
368.7 to 421.8	META-PYROX-ENITE	Steel blue/grey	mg	Gradational upper contact marked by introduction of magnetite - light green 'bleached' colour exists to 372.5m.				
		Dark grey with white spots	fg	369.0-370.8: Massive feld. phyrlic (3%) non-magnetic int/mafic dyke @ 70° cut by granodiorite dyke at 369.2-369.5 @ 70° @ 372.5: Px becomes typical massive ultra-mafic unit with 25% rounded magnetite (<2mm) 382.2-382.4: Chloritic blocky possible shear zone. 388.6-388.9: Chloritic blocky zone, similar to above - possible shear zone @ 70° 396.7-397.0: Massive, mg, granodiorite dyke supporting 10% host fragments. Irregular contacts. 397.3-398.0: Dark green fg chloritic massive mafic dyke @ 60°		1% carb veining 2cm biotite at contacts		
								398.0-398.9: Bleached px (?) looks gabbroic but still has 20% magnetite.

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
368.7 to 421.8 (cont'd)				398.9-399.1: Massive fg feld. phyrlic (3%) int/mafic dyke @	75°	2cm biotite at contacts		
				405.1-405.7: Massive, fg, ultra mafic dyke (pyroxene/amphibole) Biotite rich contacts @	85°	3cm biotite at top contact 10cm sheared (?) blocky biotite at 405.5-405.6 7cm bio at bottom contact		Possibly cumulate layer but sharp contacts suggest syn-intrusive dyke.
				414.5-414.8: Fg, massive feld. phyrlic int. dyke @ Minro fracturing along chloritic/carb veinlets.	85°			
		Dark brown to black	mg to cg	417.2-419.4: Intense to pervasive biotite zone similar to 405.1 (ultra-mafic dyke) Sharp contacts @ cut by int. feld. phyrlic dykes at 417.7-417.8 and 418.3-418.5 @	85° 80-85°	+60% biotite over section	2% py, 1% po disseminated	
				419.4-419.5: 70% irregular granodiorite veining over section				
				419.5-421.8: Gradational gabbroic chill zone to sill.			2% diss py.	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
421.8 to 454.5	QFP	Grey with pink & white spots	mg	Generally massive unaltered felsic porphyritic unit with 20% qtz eyes (<4mm) and up to 15% pink to white cloudy feldspars (<3mm) Sharp upper contact @	70°	Unaltered to 454.5m	Very rare tr diss py.	
				424.7-426.5: Very blocky carbonate rich fault zone @	?			Fault
				427.0-427.3: Well foliated feld. phytic (7%) int/mafic dyke with sharp contacts @	70°		2% diss pyrite	
				428.0-430.0: Several blocky zones over section with fractures along chloritic veinlets.				
		Dark green	fg to mg	430.5-432.3: Massive gabbroic dyke with sharp contacts @	80°		2% pyrite associated with 3% qtz veinlets	
				432.5-432.7 & 433.0-433.1: Granitic dykes @	70°			
				433.1-433.6: Gabbroic dyke same as 430.5 @	70°			
				438.0 - 5cm & 438.7-438.8: Granitic dykes @	~50°			

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
421.8 to 454.5 (cont'd)		Dark green	fg to mg	438.9-439.0, 440.7-443.6 & 443.8-444.3: Gabbroic dykes, same as 430.5, sharp contacts @	70-80°			
				444.3-445.0: Porphyritic granitic dyke @	50°			
				447.4-448.0: Fg to aphanitic int/mafic dyke with zones of chloritic shear @	50°			Fault: 447.4-448.9
				Similar dyke at 448.3-448.9 very chloritic & sheared @	50-60°			
				448.9-450.0: Well foliated int. dyke 10% chloritic/amph. clots (<2mm) @	70°			
		Dark green	fg	450.1-541.7: Locally foliated to massive mafic to gabbroic dyke with sharp chilled contacts @	75°			
				451.7-454.5: Numerous carbonate rich water seams/fractures @ Possibly fault zone.	65°			Possible fault?
454.5 to 495.0	ALTERED QFP	Grey	mg	Locally weak foliated @	70°	@ 454.5m: QFP begins to become altered 10-15% biotite 30-40% cordierite 3-7% muscovite Tr-1% anthophyllite No visible feldspars	Tr diss pyrite	Abrupt alteration change across fault zone. Separate fault block in QFP.

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
454.5 to 495.0 (cont'd)				459.6-459.9 & 460.4-460.8: Well foliated int. dykes with sharp contacts @	70°	1-2% garnet		
				464.8-465.3: Eg gabbroic to mafic dyke @	60°		2% diss pyrite	
				466.1-466.2 & 468.8-469.0: Pegmatitic granitic dykes @	30-50°			
				474.9-475.1: Eg mafic dyke @	75°			
				475.1-475.3 & 476.1-476.3: Granitic dykes @	70-80°			
				485.4-486.4: Eg int/mafic dyke, massive with sharp contacts @	80°			
				492.5-493.2: Black pervasive biotite zone cut by 30% qtz veins & dykes (<10cm)				
				493.2-493.5: Pegmatitic granitic dyke @	~80°			
				493.5-493.7: Biotite rich zone, same as above.				

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
495.0 to 515.0	INTENSELY ALTERED SEDIMENTS (CORD/BIO/ ANTH)	Dark grey to black with blue hue	fg to mg	Generally massive to weak foliated @ defined by biotite. Upper contact sharp marked by abrupt increase in alteration (biotite) @	70-75° 75°	Intense alteration 15-20% biotite 3-6% anthophyllite 40-50% cordierite 25-40% recrystallized qtz.	Tr-1% diss pyrite Up to 3% in localized siliceous patches	Same as material at top of sediments in WL-26
				506.0-507.0: Gradational siliceous patchy zone with 4% garnets			3% pyrite	
				507.0-507.6: Feld. phyrlic int. dyke @	75°			
				508.6-509.4: Well foliated int dyke defined by chloritic clots (2mm x 1cm) @	65°			
515.0 to 746.3	SILICEOUS GARNET-IFEROUS SEDIMENTS	Dark grey with pink spots	fg	Gradational contact into garnet rich sediments. No silica rims about garnets developed until 518m.		Intense alteration 15-20% biotite 3-7% garnet 1-2% muscovite Tr-2% anthophyllite <40% cordierite all qtz recrystallized.	1-2% pyrite clots often associated with garnets 1-3% magnetite rounded blebs (<1mm)	
				516.8-517.8: Massive fg feld. phyrlic int. dyke @	75°			
				519.4-520.6: Feld. phyrlic int. dyke, same as 516.8 @	65°			518.5: 6% pyrite over 10cm (15% garnet over section)
				@ 523m: Sediments look like typical S.G.S.				

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
515.0 to 546.3 (cont'd)				524.8-525.3: Fg massive weak feld. phyrlic (3%) int/mafic dyke @	80°			
				527.8-528.0: Garnetiferous grano-dioritic dyke @	55°			
		Pink & grey	mg	528.0-530.3: Well foliated porphyritic granitic dyke with sharp contacts @	60°			
				530.3-530.6: Clotted int/felsic dyke 25% chloritic clots (3x5mm) Sharp contacts @	60-70°			
				533.9-534.4: Fg aphanitic mafic dyke @ Similar dyke at 537.9 to 538.9 @	75° 80°			
				@ 542m: Seds become lighter grey in colour with chloritic/amph. clots (avg. 7%) up to 1cm x .5cm		3-7% garnet (± silica rims or commonly mafic rims) 5-10% biotite +40% cordierite Tr-2% anthophyllite all qtz recrystallized	1-2% pyrite, tr-1% po associated with garnets 1-3% magnetite often rounded <1mm up to 0.5cm associated with garnets commonly.	Strong altered sediments
				@ ~556m: Seds become darker grey (less siliceous, more biotite/anth.)		15-20% biotite, locally up to 35% over .3m sections 3-7% garnet (<1mm up to 2cm) subhedral commonly no silica rims 3-10% anthophyllite increased with increased biotite.	Tr cp, 2-3% pyrite, 1-2% pyrrhotite in localized clots often associated with garnets (up to 1cm)	Intensely altered sediments

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
515.0 to 746.3 (cont'd)				561.1-561.4: Chloritic slickensided highly qtz & carb/hem veined. Possible shear zone.				Possible fault.
	Grey with pink & white spots		fg	564.4-566.0: Massive feld. phyrlic (5%) garnetiferous intermediate dyke or weak altered window in seds? Sharp siliceous contacts @	60°	3% garnet <1cm 4% fg biotite	20% po over 2cm at 565.2 in qtz/chlor vein/clot.	
							566.5-566.9: 5% po, 1% py streaks & clots over section in biotite rich seds.	
							570.5-571.6: 4% pyrite, 1% po streaks & clots in more siliceous sediments.	
				571.6-571.8: Aphanitic int. dyke @	75°		4% pyrite clots enveloped in chlorite (<5mm)	
	Dark green with white spots		fg to mg	572.4-581.0: Gabbroic dyke swarm, equigranular massive to weak foliated typical Gb grading to locally weak feld. porphyritic (up to 2%) at base. Sharp contacts at 575.9, 576.8 and 577.1, all @	70°		2% pyrite disseminated and in qtz/chlor veins and clots from 472.8-574.5 Tr-1% over rest of section.	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
515.0 to 746.3 (cont'd)				Below 591.0: sediments become light grey with mottled brown (bio/anth) supporting powdery pink, blue/white rimmed garnets. 592.6-593.3: Feld. phytic (3%), massive, fg, int/felsic dyke @	50°	Intense/pervasive alteration 3-15% garnet commonly with sugary qtz/cord rims 10-30% biotite mixed with up to 10% anthophyllite Tr-2% gahnite ~50% cordierite	1-2% pyrite Tr Po Rare tr cp No visible sphalerite	Blitzed sediments (containing gahnite) Probably Zn rich
	Grey with white spots		fg	623.3-631.6: Massive feld. phytic (5%) intermediate dyke. Sharp upper & lower contacts @	65°	Alteration decreases abruptly at 600.1m back to mat'l similar to 556m. 10-20% biotite 3-7% garnet (commonly with silica rims) 1-2% anth. +40% cordierite	1-2% po clots & veins Tr-1% py Patchy 0-2% magnetite	
	Light to dark grey		fg	635.6-638.2: Locally feld. phytic, int. dyke with 7% qtz veining. From 636.3-637.2 bleaching host to light grey colour Sharp contacts @	70°			
				639.9-641.4: Feld. phytic int. dyke Same as 623.3 @	75°			628.5-630.0: 2% py, 2% po in clots and streaks associated with 5% qtz veining & clotting over section.

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
515.0 to 746.3 (cont'd)				652.5-653.3: Green chloritic mafic dyke, massive, fg, with sharp contacts @	75°			
				653.7-653.9: Feld. phyrlic int. dyke, same as 639.9 @	75°			
				660.0-660.3: Salt & pepper granodiorite dyke @	60°			661.1: 0.5 x 3cm garnet rich clot containing 20% pyrite, 1% sphalerite
						15% garnet 20% biotite 5% anth. 3% gahnite * +50% cord.		663.1-665.2: 5% sulphides in veins, wisps & clots over section 35 po, 1% py, 1% sphal.
				669.2-669.5: Massive, fg feld. phyrlic int. dyke @	85°			
		Salt & pepper	mg	672.1-673.2 & 673.8-674.1: Massive granodiorite dykes. Sharp irregular contacts.		1-2% garnet		
				675.9-676.4: Fg int.dyke, same as 669.2 @ and also at 676.8-677.7 @	85° 85°			

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
515.0 to 746.3 (cont'd)		Dark blue/grey	fg	Altered intermediate dykes. Massive to weak foliated, defined by biotite. Contacts commonly sharp, but rarely gradational (?) over <1cm @ at 681.3-682.4 684.0-684.1 687.4-689.7	80°	15% cordierite 4-7% biotite Occasional feldspar noted.	Rare tr diss pyrite	
	Grey		fg	693.6-701.5: Weak altered intermediate sedimentary zone or intermediate dyke. Contacts gradational over 1cm @ Generally massive but locally weak foliated by biotite. Seds become well banded for 1m below 701.5m Below 701.5m: Sediments contain more bio & anth and garnets only rarely have silica rims. All Qtz present is completely recrystallized giving very sugary texture to matrix (where biotite is minimal) 713.3-714.1: Well foliated feld. phyrlic (5%) int/gabbroic dyke @	80°	4% anthophyllite over top 0.7m Throughout: 25% cord 7% biotite 1-2% anth. 5-15% garnet (<1cm) average 12% biotite locally increasing to up to 50% 1-5% anthophyllite, increasing with biotite +40% cordierite	Below 685m: Py + po content locally increases to 4% total, commonly associated with tr-1% cp. (sections <10cm) Barren except for 3% po, 1% cp over top 0.1m Abundant splashes, streaks & clots throughout up to +5mm Avg: 3% po, 1-2% py, tr cp, 2% magnetite.	These are very altered garnetiferous sediments!

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
515.0 to 746.3 (cont'd)				722.5-722.8: Feld. phyrlic dyke, same as 713.3 @	80°	719.0-720.0: Example of intense biotite altered zone (50% bio over section)		
746.3 to 812.5	WEAK ALTERED INTER-MEDIATE SEDIMENTS	Mottled grey & black	fg to mg	Generally an equigranular massive unit locally grading into more altered zones showing a weak foliation @ defined by biotite & amphibole. Localized siliceous garnetiferous patches occur to 765.7 Localized crenulations noted in biotite at 746.6 751.4-751.9 & 753.2-754.3: Fg dark green mafic dykes @	80-85° 85°	Majority is relatively unaltered with up to 5% biotite & 10% cord 5-10% section contains gradational zones (<20cm) with up to 40% biotite & 10% green/brown anthophyllite/chlorite. 758.2-758.8 & 760.9-761.2: Examples of intense bio/anth development in sediments. 10% garnet with granite stained silica rims rare garnets retrograding to chlorite & qtz. 768.7-768.8: Pervasive biotite band, well foliated @ 85°		Very rare tr pyrite Very localized magnetite (up to 1% over sections <3cm)

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
746.3 to 812.5 (cont'd)				768.8-769.0: Siliceous garnetiferous mottled zone possible sil. gnt sed. zone but probable garnetiferous granodiorite dyke.				
						776.6-776.7: Perv. biotite band, same as 768.7		
				776.8: 1cm qtz/carb/hem vein/vug with euhedral crystals @	30°			2% py cubes (<1mm)
				777.7: folding & dislocation of localized banding in sediments along hairline slip @	50°			
						778.0-778.2 & 779.7-779.9: 3% garnets over sections (no rims)		
				783.1-783.2: Irregular garnetiferous granodiorite dyke/clot.				
				786.0-786.2: Mg massive granitic dyke @	45°			
				787.6-788.1: Chloritic mafic dyke @ Similar dyke at 792.7-793.0	85°	Intense biotite at contacts		
				794.2-795.6: Weak foliated feld. phytic (3%) intermediate dyke. Sharp contacts @	85°			
						799.5: Patchy pink/orange granitic staining begins in sediments.		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
746.3 to 812.5 (cont'd)				803.3-803.5: Chloritic shears & chlorite healed breccia. Minor fault zone @ Similar zone at 804.5-804.7 @	40° 20°			
812.5 to 822.9	INTER-COLATED INTER-MEDIATE SEDIMENTS & ALTERED TUFFACEOUS BEDS	Variable Banded black, grey & white	Variable fg	812.5-812.6: Well banded biotite rich altered tuffaceous band (?) Well foliated @ 812.6-815.0: Moderate to locally well banded mixed tuff and unaltered sediments.	85° 80-85°	+60% biotite over section (~40% qtz) Banded zones composed of white silica & biotite altered more mafic mat'l 'Sedimentary' zones remain unaltered as above.		1-2% localized bands & disseminated pyrite
				815.0-815.3: Massive mg zone with 50% biotite 20% cordierite 30% qtz.				
				815.3-817.6: Mixed zone similar to 812.6 Banded zones shown localized crenulations.				2% disseminated & weak banded pyrite
		Brown, black & grey	fg	817.6-818.0: Moderately banded altered tuffaceous zone.		30% biotite, 30% cord.		Tr diss pyrite
		Grey	fg	818.0-818.3: Unaltered int. sediment zone				
		White, brown & black	fg to mg	818.3-819.2: Very well banded felsic & altered mafic tuff on +mm scale @	80°	5% wispy sillimanite over top 0.2m +50% biotite below 818.5 (same as 815.0)		2% sphal. clots <2mm over top 0.2m Rare trace py below 818.5

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
812.5 to 822.9 (cont'd)		Grey/	fg	819.2-820.9: Massive unaltered int. seds with increasing intercolated tuffaceous mat'l over lower 0.5m Upper contact sharp @	80°			1-2% diss pyrite in sediments
				820.9-821.4: Massive fg weakly feld. phytic int. dyke @	85°			
				821.4-822.9: Intercolated biotote rich tuff & sediments (unaltered)		"Tuffaceous" mat'l intensely altered to biotite		3% py over section in weak bands

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CORPORATION FALCONBRIDGE COPPER
DRILL HOLE RECORD

HOLE NUMBER: WL-34

IMPERIAL UNITS:

METRIC UNITS: X

PROJECT: PN 370
WINSTON LAKE
GRID: NEW PICK LAKE
CLAIM NUMBER:
LOCATION: PICK LAKE
DATE STARTED: DECEMBER 4, 1985
DATE COMPLETED: DECEMBER 13, 1985

FIELD COORDS: LAT: 1600N
(NEW PICK LAKE) DEP: 3600E
ELEV: 430M
FIELD COORDS: LAT: 4+85S
(SELCO GRID) DEP: 0+90E
ELEV:

COLLAR BRNG: 300°
COLLAR DIP: -76°
HOLE SIZE: BQ
FINAL DEPTH: 450m

CONTRACTOR: ST. LAMBERT DRILLING
CORE STORAGE: CLEAVER LAKE
CASING: 1.0m BW
PLUGGED:

RQD LOG:
PULSE EM SURVEY:

MULTISHOT SURVEY: X
COLLAR SURVEY:

PURPOSE:

ACID TESTS		TROPARI TESTS			MULTISHOT DATA				
Depth (m)	Corrected Angle	Depth (m)	Corrected Angle	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
30	-75°						25	305	75
60	-75°						85	305	74
90	-74°						145	306	73
120	-73°						205	305	70
150	-72°						265	310	68
180	-71°						325	309	66
210	-70°						385	301	66
240	-69°						445	309	65
270	-68°								
300	-67°								
330	-66°								
360	-66°								
390	-65°								
420	-65°								

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R.C. Sim

DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
0 to 1.0	CASING							
1.0 to 42.7	GABBRO	Dark green with white spots	mg	Well foliated equigranular typical gabbro Cut by siliceous granitic dykes at: 2.5-3.3 @ 3.9-4.0 @ 7.1 - 6cm @ Cut by finer grained gabbroic dykes with sharp contacts at: 8.4-8.5 @ 8.9-9.5 @ Granitic dykes at: 11.5-12.7 @ 12.9-13.0 @ 13.6-13.7 - irregular 14.5-15.1: Eg int/gb dyke @ 15.2-15.5 & 15.6-15.8: Granitic dykes @ 16.4-17.7: Eg massive locally feld. phyric int. dyke Sharp contacts @ Pink & white with black specks	65-70° ~30° 65° 70° 65° 70° 55° 55° 75° ~60° 60° 60° 40°	Typical chloritized amphiboles	Tr diss pyrite	
			mg	18.5-20.6: Massive granitic dyke. Sharp contacts @ Similar dyke at 21.9-22.3, top @ bottom @	60° 60° 40°			

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				23.4-24.0: Fg feld. phyric int. dyke, well foliated by 10% chloritic mafic clots @ Sharp contacts @	60° 60°			
				24.1-24.8: Granitic dyke @	60°			Below 24.8: gabbro contains average +5% wispy clots phlogopite defining foliation @ 65-70° to CA
				25.2: 7cm granitic dyke @ Irregular vuggy veins of hem/carb/qtz @ 30.3 - 3cm 30.7 - 3cm 31.2 - 4cm	60°			
				Siliceous granitic/ granodioritic dykes with sharp contacts @ 31.8-31.9 @ 33.4-35.0 @	65° 70°			
				Massive to weak foliated feld. phyric int. dykes @ 35.8-35.9 @ 39.8-40.1 @	65° 50°			
42.7 to 43.8	TRANSITION ZONE GABBRO	Mottled light & dark green with brown wisps	cg	Typical non-magnetic ultra-mafic, well foliated by 5% phlogopite @ Upper contact gradational over 10-15cm marked by loss of feldspars 43.1: 6cm qtz vein @	65° 65°		None	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
43.8 to 45.3	FELD. PHYRIC INTER-MEDIATE DYKE	Grey with white spots & green clots	fg to mg	Well foliated dyke, defined by 10% chloritic amph. mafic clots <7mm @ Sharp contacts @ Cut by granitic dykes @ 44.1-44.3 @ 44.9 - 4cm @	70° 70° 70° 60°			
45.3 to 71.3	META-PERIDOTITE PX	Steel blue/grey with black spots	mg to cg	Typical massive magnetite rich (+25%) ultramafic unit 45.4-45.5 & 46.4-46.5: Chloritic mud faults @ 47.3-47.4: Massive fg int. dyke with sharp contacts @ 47.5: 4cm chloritic mud @ 57.9-58.2: Massive mg felsic (granitic) dyke Sharp biotite rich contacts @	~60° 75° ~50° ? 70°	Weak patchy green bleaching to ~49m 3cm bio at contacts in Px Sharp contacts define pervasive biotite(fchlor) zones @ 48.9-49.0 @ 30° to CA 56.6-57.0 @ 35° Biotite zones similar to above but gradational over 0.5-1cm @ 58.8-59.0 60.1-60.3 60.6-60.7	None	Faults Fault

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				61.0-61.2: Massive mg granitic dyke @	60°			
				61.2-62.4: Non-magnetic very well foliated chlor/bio zone cut by feld. phytic int. dyke @ 61.4-62.0 @	60°			
				Gradational GB/PX chill begins at 68.7m		'Chill' zone gradationally becomes biotite rich (+70%) at 69.2m 20% irregular qtz clots <10cm from 69.2-70.7		
				70.7-70.8: Grungy, muddy shear zone @	45-60°			Fault
71.3 to 102.3	INCIPIENT TO PATCHY ALTERED QFP	Grey with localized white spots	mg	Massive to locally well foliated (with increased alteration) @	70°	Incipient altered zones: 20% cord, 5% bio, 2% musc, patchy visible feldspars grading to more altered zones consisting of: + 40% cord 10% biotite 1-3% anth/chlor Tr garnet 2-4% muscovite	Tr-1% diss pyrite Tr-1% diss pyrite	
				72.5-73.9: Massive to well foliated composite gabbroic dyke with internal contacts at 72.8 and 73.3 @	65°	Top 1m cut by 5% qtz/carb/hem veins <1cm		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				76.4-76.6 & 77.9 - 3cm: Massive cg granitic dykes, irregular contacts				
				82.1-82.4: Moderately foliated fg gabbroic dyke @	70°			
				82.8-83.0: Fg weak fol. aphyric int. dyke @	70°			
				88.4: 6cm granitic dyke @	55-60°			
				92.7-92.9: Irregular qtz dyke, supporting 30% host fragments				
				96.0-96.1 & 97.2-97.3: Fg massive aphyric int.dykes @	60°			
				97.7-98.0: Fg int dyke well foliated by 12% chloritic mafic clots @ Sharp chilled contacts @	60° 70°			
				Irregular qtz veins @ 102.0-201.1 and 102.3 - 5cm				
102.3 to 103.5	INTER- MEDIATE DYKE	Grey	fg	Massive to weak foliated aphyric dyke, sharp contacts @ Cut by granitic dyke at 102.9-103.1 @	70° 80°		1% diss pyrite	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
103.5 TO 291.7	SILICEOUS GARNET ALTERED SEDIMENTS	Grey with pink spots	fg	Massive to weak foliated by siliceous clots or localized mafic clots @	65-70°	Generally strong altered: + 40% cord + 10% biotite avg. 7% garnet ± silica rims 1-2% anthophyllite Very chloritic over top 5cm giving patchy green colour	1-2% pyrite, tr po, diss, in clots, or chlorite hosted veinlets Patchy localized magnetite up to 3% over 30cm sections	
				107.6: 3mm chloritic grunge @	80°			Possible fault ?
				Cg granitic veins @ 108.5 - 6cm 110.1 - 5cm			110.9-113.5: 2% py, 2% po over section in localized chlorite hosted veinlets (<5mm)	
				114.4-114.7 & 115.5-115.8: Eg well foliated feld. phytic int. dyke. Sharp contacts @	70°			
				116.0-116.5: Eg weak foliated chloritic mafic dyke @	75°			
				Irregular granitic dykes/ veins at: 116.8 - 5cm 118.4-118.6 121.0 - 6cm				
						121.6: 6cm pervasive biotite, gradational over 1-2cm enveloping 10% qtz clots		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				126.3-126.6: Massive fg gabbroic dyke Sharp contacts @ Similar dyke at 133.9-134.5 @	65° 70°			
				136.5-136.6: Massive, vfg feld. phytic int. dyke @	50°			
				Massive mg garnetiferous granodiorite dykes at: 140.9-141.6 @ 141.8-143.0 @ 144.5-144.6 - irregular	65° 65°	3-5% garnet		
				Massive cg irregular granitic dykes at: 155.2-155.4 155.5-156.0 156.5-156.7		Tr honey brown granular staurolite at 152.8m in sediments		
				157.0: 2cm flakey chloritic grunge @	~70°			Fault
				157.1: 1-5cm euhedral qtz/biotite lined vug @	~55°			
				157.5-157.6: Cg white qtz vein enveloping 35% angular pink stained host fragments <2cm	40°			
				157.6-157.7: Blocky chloritic ground. Minor slickensides @	35°			Possible shear zone ?
							159.2-159.3: 8% pyrite over section in chlorite hosted banded veins at 50° to CA	

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				162.8: 3cm gnt/grano-diotite dyke @	55°			
				164.8-165.4: Eg gabbroic dyke with 5% pink & white silica wisps defining foliation Sharp dyke contacts @	50°			
				Garnetiferous grano-diorite dykes at: 167.0 - 5cm 167.8-167.9 169.7-169.8 170.0 - 3cm 172.2-172.3 181.7-181.8 182.0 - 5cm 182.2-182.6 182.7 - 6cm				
				185.0-185.1: Cg granitic dyke @	~80°			
				Similar mg dyke at 186.0-186.2 @	~55°			
	Grey with white spots		fg	190.4-190.7, 194.0-194.7 & 194.9-197.1: Massive feld. phyric int. dykes, all sharp contacts @	65°			
				199.3-199.4: Silica dyke @	55°			
				200.8-201.4: Feld. phyric dyke, same as above @	60°			

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
						201.4-209.2: Patchy localized zones where garnets retrograde to qtz & chlorite, silica rims stained orange.		
				203.4-203.5: Qtz/carb veined zone with numerous chloritic fractures @	30-40°			Possible fault
				204.3: 5cm qtz vein @	50°			
				204.7-205.1: Fg massive aphyric int. dyke @	60°			
				206.5-207.0: 50% granitic clots over section (3-10cm)				
				207.7-207.8: Fg massive chloritic mafic dyke @	70°			
				207.8-208.3: Fg massive feld. phyrlic int. dyke Sharp contacts @	~80°			
						208.7-209.2: Very chloritic zone of sediments gradational over 1-2cm. Crude banded mafic & felsics on +mm scale. 10% garnet over section half regrograded to qtz/chlorite		

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				Below 209.2m: Seds fg massive with foliation defined by localized bands of fg garnet		Avg. 5% garnet up to 1cm or in fg crude bands (± silica rims) + 40% cordierite 10% biotite + 40% qtz - sugary recrystallized	2-3% fg diss magnetite throughout 1-2% py, tr po, diss & in chlorite hosted clots & veinlets	Highly magnetic sediments
				Massive fg feld. phyrlic int. dykes at: 211.4-211.7 @ 211.9-212.4 @ 213.0-213.4 @	60° 60° 60°			
				213.5-213.6: Granitic/qtz vein @	65°			
				213.5-214.3 & 218.0-218.4: Fg massive to weak foliated gabbroic dykes. Sharp contacts @	~60°			
				218.4-218.55 & 218.8 - 5cm: Granitic dykes, irregular contacts.				
				219.7-220.9: Fg massive gabbroic dyke cut by 5% granitic veinlets Lower contact fractured for 10cm in dyke 5mm grunge at 220.9 @	55°			Fault
				221.9-222.2: 60% qtz veining over section at various angles				
				222.4-222.5 & 223.0 - 3cm: granitic dykes				

HOLE NO: WL-34

LOGGED BY: R.C.SIM PAGE: 11

DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				223.1-223.2: GB dyke @	60°			
				Massive mg granitic dykes				
				at: 229.4-229.9 @	50°			
				231.0-231.2 @	65°			
				231.4-232.7 @	70°			
				232.7-233.9:				
				Feld. phyrlic int. dyke				
				well foliated by 10% mafic				
				clots (1 x 4mm) cut by				
				granitic dyke at 233.4-				
				233.55 @	45°			
				235.4-236.8:				
				Massive fg-mg gabbroic dyke				
				Sharp chilled contacts @	70°			
				237.5-237.9:				
				Fg massive chloritic mafic				
				dyke.				
				Sharp irregular contacts.				
				Granitic dykes & veins at:				
				238.6-238.7 @	40°			
				239.1-239.3 @	~65°			
				239.4 - 2-4cm, irregular				
				239.6-240.0 &				
				242.4-243.0:				
				Fg massive gabbroic dykes @	~60°			
				241.5-242.2:				
				Clotted feld. phyrlic int.				
				dyke. (same as 233.4) @	55°			

HOLE NO: WL-34

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
		Mottled orange & white with black specks	mg	Massive granitic dykes at: 244.6-249.6 @ 249.9 - 4cm @ 250.2-250.4 @	65° 60° 55°	Cut by 3% qtz veins	2% pyrite in clots in qtz veins	
						255.5-257.5: Gradational zone of pervasive altered seds similar to top of seds in WL-23 20% biotite 3% anthophyllite/chlor +70% cordierite	No magnetite	
				259.1-259.3: Granitic dyke				
				259.7-260.1: Feld phyric fg massive dyke @ 75°				
				260.9-261.1: Irregular granodiorite dyke				
				261.3-261.6: Pervasive biotite/chloritic zone enveloping 20% elongate qtz clots, several fractures, minor slickensides @	75°			Possible fault ?
				263.2-263.4: GB dyke @	75°			Seds rarely magnetic below 263m
				Massive mg granitic/granodioritic dykes at: 264.0 - 3cm @ 264.8 - 10cm irregular 265.2-265.7 @ 265.85-266.0 @ 266.1-266.6 @ 267.0-267.2 @ 267.5-267.9 @ 268.2-268.3 @	60° 65° ~75° 50° 70° 55° 70°			

HOLE NO: WL-34

LOGGED BY: R.C.SIM

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				270.4-270.9: Fg massive feld. phyrlic int. dyke @	65°			
				Granitic dykes at: 274.1-274.2 @ 275.8-275.9 @	70° 65°			
				275.9-276.6: Fg massive feld. phyrlic int. dyke @	65°			
				276.6-276.7: Fg massive feld. phyrlic mafic dyke @	65°			
				Granitic dykes at: 277.5 - 7cm @ 278.7-278.9 - irregular 281.3-282.3 @ 285.0-285.1 @ 289.3-290.3 - irregular	60° 45° 55°			
				289.3-290.3: Massive mg granitic dyke @	~60°			287.2-288.9: 3% wispy white fg silli- manite in garnet seds.
291.7 to 298.9	GABBROIC DYKE	Dark green/black with white spots & streaks	fg to mg	massive to swirly gabbro dyke with numerous fragments of garnet seds & qtz clots, locally well foliated @	75-80°	Patchy epidote bleached		

HOLE NO: WL-34

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
298.9 to 322.0	INTER-MEDIATE SEDIMENTS	Grey with patchy pink spots	fg	Generally massive homogeneous seds, locally grading to garnetiferous seds. 299.4-299.7: Massive fg feld. phytic int. dyke @ 303.4-303.7: Fg weak fol. chloritic mafic dyke @ Granitic dykes at: 310.5-310.6 310.7 - 3cm 314.1-314.3 314.5 - 5cm 315.4-315.5: Several chloritic fractures over section @ Granitic dykes at: 316.0-316.2 316.4-316.5 316.7-316.85 320.6-320.7	80° 80° 75°	Seem to be weak/moderately altered throughout 20% cord, 5% biotite Locally 5% garnet over <30cm sections	Rare tr diss py & po.	
322.0 to 340.5	CRUDE BANDED ALTERED ZONE (CLR?)	Mottled to banded grey, brown & white	fg	Patchy crude banded felsics & altered mafics on +5mm scale (rarely down to mm scale) @	70°	Preferential alteration of more mafic bands to bio/cord Avg. 15% bio (locally up to 30% over 10-20cm sections) +35% cord.	1% py, 1% po, diss to 325.5	This unit is approx. 50m higher up in the stratigraphy than expected 324.4: 3cm zone with 7% light yellow/brown sphalerite enveloping what seems to be a clotted discontinuous Qtz vein at 40° to CA Vein related sphal (?) WS-190

HOLE NO: WL-34

LOGGED BY: R.C.SIM

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				324.7-324.9: Dark chlorite healed fault (?) zone supporting 25% fragments 2mm grunge at top contact @	70°		@ 324.8: one angular fragment seems to show some sub-mm banding with diss. pyrite & sphalerite Also some fine diss sphal in frag 2cm above lower contact	Sphalerite in fragments in possible fault zone
				324.9-325.5: Fg locally foliated gabbroic dyke Supporting 25% po mineralized volcanic fragments Sharp dyke contacts @	75°			
				Below 326m: banding has become well developed			325.5-328.0: Increased sulphide content to 3% py, 1% po in diss. bands & clots	
				326.3: 6cm granodiorite dyke @	~55°			
				326.6-327.1: Fg massive to locally foliated gabbroic dyke Sharp contacts @	75°		2% po in vein at 326.9	
				327.8: 5cm chloritic grungy fault zone @	~65°			Fault
				327.85-327.9: Granodiorite dyke				
				Well developed mm scale banding locally (generally cm scale banding)		327.9-340.9: Increased alteration to: Avg. 20% biotite in distinct bands (mm-cm) +40% cordierite Total 3% garnet in localized biotitic bands	Generally 1-2% po, 2% py in diss bands Tr sphal -.5 x 1mm fragment/clot at 328.0m	

HOLE NO: WL-34

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
						328.7-329.9: Gradational zone with 40% biotite over section 4% chloritic green mica clots Similar altered zone at 329.9-330.65 - 25% biotite over section	3% py, 2% po clots & diss over section 8% pyrrhotite over section in dendritic bands enveloping host grains also 3% streaky cp, 1% fine diss sphal, 3% py	May be equivalent to pyrrhotite zone in early Pick Lake holes
						331.1-333.0: Gradational zone composed of: 20% biotite (bands 1-+5cm) 5% garnet +40% cordierite 1% fg gahnite commonly with hognomite/sphalerite rims	3% po, 1% py, diss & in discontinuous bands Tr-1% sphal associated with gahnite	Pretty altered stuff!
				Eg massive feld. phyrlic int dykes at: 331.4-331.6 @ 332.3-332.4 @	80° 75°			
				Below 330m: banding in unit not as well defined @	75-80°	15% biotite +35% cord. 2% garnet	1-2% py, 1-2% po, diss & in diss bands 1-2% magnetite	
				337.3-337.4: Qtz vein @	50°		4% po, 1% py in clots in vein	
				339.6-340.2: Massive mg granitic dyke @	80°			

HOLE NO: WL-34

LOGGED BY: R.C.SIM

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
340.5 to 450.0	ANDERSON FOOTWALL "RAINBOW GRANITE"	Variable	Variable			Cut by 1-2% qtz-ep & carb veinlets	1% py, localized clots/veinlets	Magnetic
E.O.H.		Orange & white	mg	340.5-340.7: Massive granite, same as 339.6				
		Grey & white	fg to mg	340.7-343.1: Feld. porphyritic moderately foliated granite @	75-80°			
		Light grey, white spots	fg to mg	343.1-350.0: Similar to 340.7 but slightly more siliceous granite				
				349.0-354.0: Fractured core along chlor/carb veinlets @	0°			
		Grey with white spots & black streaks	mg	Below 350m: Granite is generally homogeneous Well foliated cut by numerous (~3%) granitic dykes cm's up to 40cm & rarely by feld. phyrlic int. dykes (.1-.5m)		1-2% qtz/ep/carb/chlorite veinlets throughout	Rare veins of pyrite (<2mm)	Magnetic throughout
		Green with brown streaks	mg	418.5-427.5: Gabbro xenolith, well foliated by phlogopite wisps, to locally biotitic & highly crenulated Sharp irregular contacts with fg chilled granite		Avg. 7% phlogopite 10% biotite in pervasive bands 10-15cm	Ir diss pyrite	Gabbro Xenolith

HOLE NO: WL-34

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DRILL HOLE LOG

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
				427.5-432.4: Orange & white cg pegmatite granite, sharp lower contact into grey granite similar to above.				
				Granite gradationally becomes orange at 441m.				
				445.0-446.0: Gabbro Xenolith, same as above.				
				End of Hole.				

ONTARIO GEOLOGICAL SURVEY
 ASSESSMENT OF
 RESEARCH VALUE
 FEB 11 1985
 RECEIVED



M.A. Owen
#605



42D14NW0001 24 PAYS PLAT LAKE

900

Name and Postal Address of Recorded Holder

CORPORATION FALCONBRIDGE COPPER, T-556
P. O. BOX 40, COMMERCE COURT WEST, TORONTO, ONTARIO M5L 1B4

Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed	Mining Claim			Work Days Cr.	Mining Claim			Work Days Cr.	Mining Claim		
	Prefix	Number	Work Days Cr.		Prefix	Number	Work Days Cr.		Prefix	Number	Work Days Cr.
18,187.9											
for Performance of the following work. (Check one only)	TB	643754	100	TB	643762	100	TB	643770	100		
<input type="checkbox"/> Manual Work		755	100		763	100		643771	100		
<input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work.		756	100		764	100					
<input type="checkbox"/> Compressed Air, other Power driven or mechanical equip.		757	100		765	100		643779	100		
<input type="checkbox"/> Power Stripping		758	100		766	100		643780	100		
<input checked="" type="checkbox"/> Diamond or other Core drilling		759	100		767	100		781	100		
<input type="checkbox"/> Land Survey		643760	100		768	100		643782	100		
		643761	100		643769	100		see attached lists			

Big Duck TB 534408, 535225, 535227, 228, 229, TB 645301, 307, 310, 311, TB 645770, 771, 774, 775, 776 - Winston TB 386770, 777, TB 386801, TB 519248, 535915, 535918

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

RETAINED FROM DRILL BANK - MAY 6th, 1985 3,872.1
 RETAINED FROM DRILL BANK SUBMITTED - JAN. 22, 1986 16,093.2
 TOTAL DAYS BANKED 19,965.3
 TO BE USED FOR THIS SUBMISSION 18,187.9
 RETAINED FOR FUTURE SUBMISSION 1,777.4
 (Less o/d on TB 386770 of 422)

THUNDER BAY, MINING DIVISION
 RECEIVED JAN 20 1986
 RECEIVED FEB 7 1986

1,315.4 days Credit Balance

RECORDED HOLDER OR AGENT (SIGNATURE)
 Gary Wells

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
GARY S. WELLS, c/o CORPORATION FALCONBRIDGE COPPER, 2606 VICTORIA AVENUE EAST,
THUNDER BAY, ONTARIO P7C 1E7

Date Certified JANUARY 23, 1986
 Certified by (Signature) Gary Wells

Table of Information/Attachments Required by the Mining Recorder

Type of Work	Specific information per type	Other information (Common to 2 or more types)	Attachments
Manual Work	Nil	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Shaft Sinking, Drifting or other Lateral Work			
Compressed air, other power driven or mechanical equip.	Type of equipment	Names and addresses of owner or operator together with dates when drilling/stripping done.	Work Sketch (as above) in duplicate
Power Stripping	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.		
Diamond or other core drilling	Signed core log showing: footage, diameter of core, number and angles of holes.	Nil	Nil
Land Survey	Name and address of Ontario land surveyer.		



Mining Act

Name and Postal Address of Recorded Holder CORPORATION FALCONBRIDGE COPPER	Prospector's Licence No. T-556
P. O. BOX 40, COMMERCE COURT WEST, TORONTO, ONTARIO M5L 1B4	

Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed	Mining Claim			Work Days Cr.	Mining Claim			Work Days Cr.	
	Prefix	Number			Prefix	Number			
For Performance of the following work. (Check one only) <input type="checkbox"/> Manual Work <input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work. <input type="checkbox"/> Compressed Air, other Power driven or mechanical equip. <input type="checkbox"/> Power Stripping <input checked="" type="checkbox"/> Diamond or other Core drilling <input type="checkbox"/> Land Survey	DRILLING THIS SUBMISSION TO BE BANKED FOR FUTURE SUBMISSION								

All the work was performed on Mining Claim(s): TB 386770, 386777, 386801, TB 519248, 535915, 535918

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below) *(over for tool assignments)*

ALL DRILLING PERFORMED BY: ST. LAMBERT DRILLING CO. LTD., P.O. BOX 473, VALLEYFIELD, QUEBEC J6S 4V7

HOLE NUMBER	FROM	TO	METERS	CLAIM NUMBERS	DATES
WL-15	0	360	360	TB 535918	FEB. 21 - MAR. 25, 1985
	360	1063	703	TB 535915	
WL-21	0	100	100	TB 386770	MAR. 31 - MAY 1, 1985
	100	740	640	TB 386777	
WL-22	0	597	597	TB 386801	APR. 29 - MAY 13, 1985
WL-23	0	820	820	TB 386770	MAY 2 - MAY 27, 1985
WL-34	0	450	450	TB 519248	DEC. 4 - DEC. 13, 1985
TOTAL 3,670 METERS X 3.28 = 12,037.6 DAYS (FEET) BANKED AUGUST 15, 1985 FOR FUTURE SUBMISSION= 4,055.6 DAYS (FEET) TOTAL DAYS BANKED 16,093.2 DAYS (FEET)					

Date of Report JANUARY 22, 1986	Recorded Holder or Agent (Signature) <i>Paul Severin</i>
---	---

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
PAUL W. A. SEVERIN, c/o CORPORATION FALCONBRIDGE COPPER, 2606 VICTORIA AVENUE, EAST,

THUNDER BAY, ONTARIO P7C 1E7

Date Certified JANUARY 22, 1986	Certified by (Signature) <i>Paul Severin</i>
---	---

Table of Information/Attachments Required by the MINING DIVISION

Type of Work	Specific information	Other information (Common to 2 or more types)	Attachments
Manual Work	Type of equipment 7 8 9 10 11 12 1 2 3 4 5 6	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Shaft Sinking, Drifting or other Lateral Work			
Compressed air, other power driven or mechanical equip.	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.	Names and addresses of owner or operator together with dates when drilling/stripping done.	Work Sketch (as above) in duplicate
Power Stripping	Signed core log showing: footage, diameter of core, number and angles of holes.		
Diamond or other core drilling	Name and address of Ontario land surveyor.	Nil	Nil

Work Assignments:

TB386770	- 2556 days	-	0 Balance
TB386777	- 2099 days	-	1901 Balance
TB386801	- 1958 days	-	2042 Balance
TB519248	- 1476 days	-	1828 Balance
TB535915	- 2306 days	-	1694 Balance
TB535918	- 1181 days	-	2819 Balance



CORPORATION FALCONBRIDGE COPPER

2606 Victoria Avenue East

Thunder Bay, Ontario P7C 1E7

Telephone 807/623-1511 Telex 073-4237

BIG DUCK LAKE AREA

January 23rd, 1986 - DRILLING ASSESSMENT - LICENCE #T-556

<u>CLAIM NUMBER</u>	<u>DAYS</u>	<u>CLAIM NUMBER</u>	<u>DAYS</u>	<u>CLAIM NUMBER</u>	<u>DAYS</u>
TB 643784	100	TB 645728	100	TB 645779	66.5
785	100	TB 645729	100	645780	100
786	100	TB 645737	82.5	781	100
787	100	738	62.5	782	66.5
TB 643788	100	739	62.5	783	66.5
TB 643804	100	TB 645740	62.5	784	66.5
805	100	741	62.5	785	66.5
806	100	742	62.5	786	66.5
807	100	743	62.5	TB 645787	66.5
808	100	744	62.5	TB 646510	100
809	100	745	62.5	TB 646511	100
TB 643810	100	746	62.5	TB 646583	62.5
811	100	747	62.5	584	66.5
TB 643812	100	748	62.5	585	66.5
TB 645276	100	TB 645749	62.5	586	62.5
277	100	TB 645761	66.5	587	66.5
278	100	762	66.5	588	66.5
TB 645279	66.5	763	66.5	589	66.5
TB 645300	100	764	100	TB 646590	66.5
301	100	765	100	TB 646715	66.5
302	100	766	66.5	716	66.5
TB 645303	100	767	66.5	717	66.5
TB 645306	100	768	66.5	718	100
307	100	769	66.5	719	66.5
308	100	TB 645770	66.5	TB 646720	66.5
309	100	771	66.5	721	66.5
TB 645310	66.5	772	100	722	66.5
311	66.5	773	100	TB 646723	66.5
312	66.5	774	66.5	TB 646727	100
313	66.5	775	66.5	728	100
314	66.5	776	66.5	729	100
TB 645315	66.5	777	66.5		
		TB 645778	66.5		

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CORPORATION FALCONBRIDGE COPPER

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 Thunder Bay, Ontario P7C 1E7
 Telephone 807/623-1511 Telex 073-4237

BIG DUCK LAKE AREA

January 23rd, 1986 - DRILLING ASSESSMENT - LICENCE #T-556

<u>CLAIM NUMBER</u>	<u>DAYS</u>	<u>CLAIM NUMBER</u>	<u>DAYS</u>	<u>CLAIM NUMBER</u>	<u>DAYS</u>
TB 646730	100	TB 653966	100	TB 654017	100
731	100	967	100	018	100
732	100	968	100	019	100
733	100	969	100	TB 654020	100
734	100	TB 653970	100	021	100
735	100	971	100	022	100
736	100	972	100	023	100
737	100	973	100	024	100
738	100	974	100	025	100
739	100	975	100	026	100
TB 646740	100	976	100	027	100
741	66.5	977	100	028	100
742	66.5	978	64	TB 654029	100
743	66.5	TB 653979	64	TB 654037	66.5
744	66.5	TB 653998	26.5	TB 654401	62.5
745	66.5	999	26.5	402	100
746	62.5	TB 654000	70	403	100
747	62.5	001	100	404	62.5
TB 646748	62.5	002	100	405	62.5
TB 646765	66.5	003	100	TB 654406	66.5
766	66.5	004	100	TB 654415	62.5
767	66.5	005	100	416	66.5
768	66.5	006	100	417	66.5
769	66.5	007	100	418	66.5
TB 646770	66.5	008	100	419	66.5
646771	66.5	009	100	TB 654420	62.5
TB 653958	38.5	TB 654010	100	421	62.5
959	64	011	100	TB 654422	66.5
TB 653960	64	012	66.5	TB 654564	66.5
961	64	013	66.5	565	66.5
962	64	014	100	TB 654566	66.5
963	60	015	100		
TB 653964	60	TB 654016	100		

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**CORPORATION FALCONBRIDGE COPPER**

2606 Victoria Avenue East
Thunder Bay, Ontario P7C 1E7
Telephone 807/623-1511 Telex 073-4237

BIG DUCK LAKE AREA

January 23rd, 1986

DRILLING ASSESSMENT - LICENCE #T-556

<u>CLAIM NUMBER</u>	<u>DAYS</u>
TB 654567	66.5
TB 655278	66.5
TB 655292	66.5
655293	66.5
TB 674264	87.4

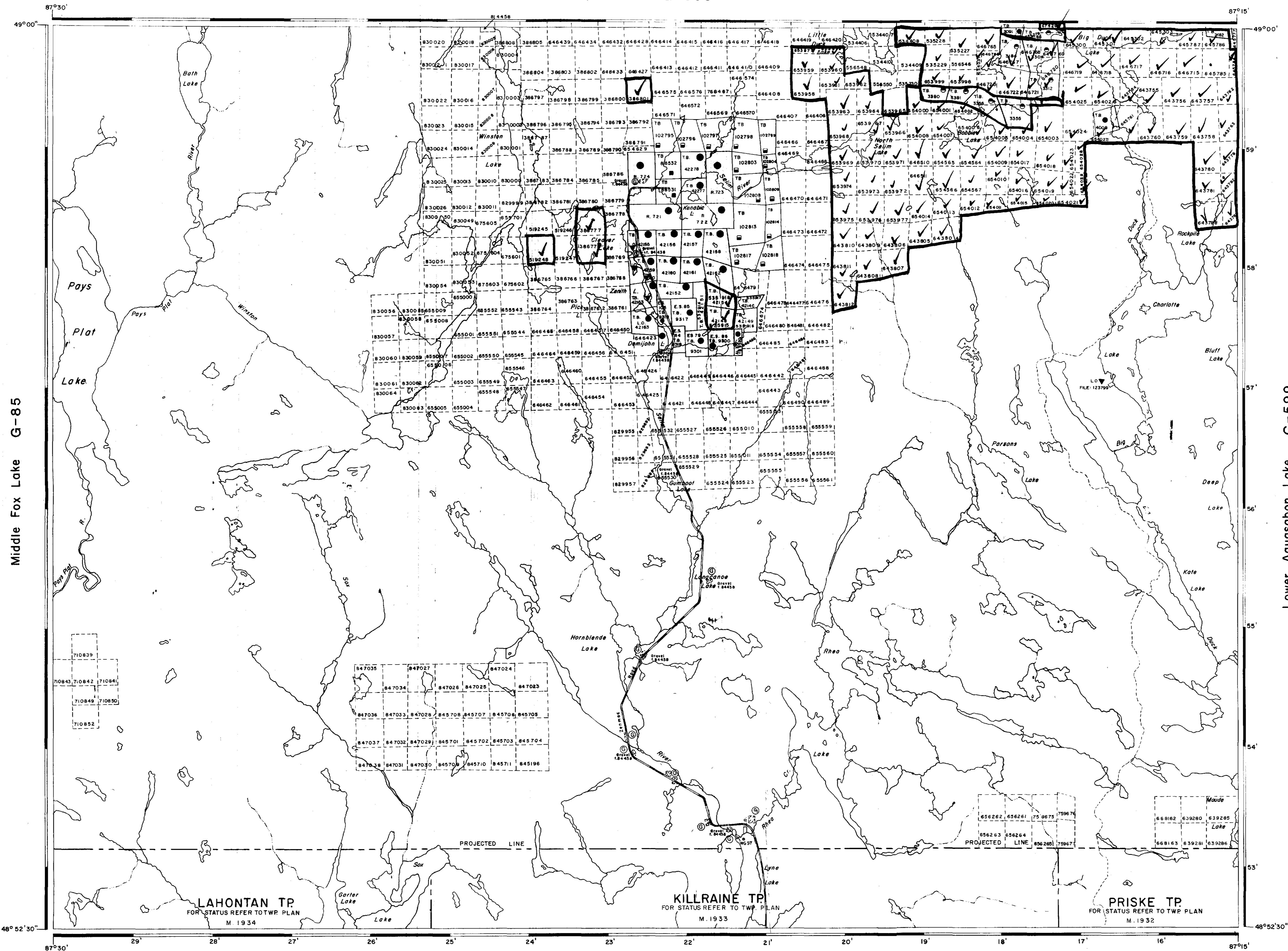
TOTAL 220 CLAIMS18,187.9 DAYS OF ASSESSMENT

Rope Lake G-609

REFERENCES

M.N.R. RESERVE - 2 D3

Mr. Owen



LEGEND

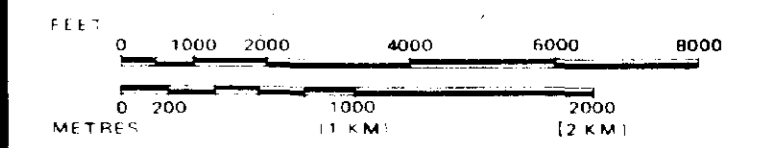
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- OTHER ROADS
- TRAILS
- SURVEYED LINE: TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINE: LOT LINES
- PARCEL BOUNDARY: MINING CLAIMS, ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPLETE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

- TYPE OF DOCUMENT
- PATENT, SURFACE & MINING RIGHTS
 - " SURFACE RIGHTS ONLY
 - " MINING RIGHTS ONLY
 - LEASE, SURFACE & MINING RIGHTS
 - " SURFACE RIGHTS ONLY
 - " MINING RIGHTS ONLY
 - LICENCE OF OCCUPATION
 - ORDER-IN-COUNCIL
 - RESERVATION
 - CANCELLED
 - SAND & GRAVEL

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 8, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 43, SUBSEC. 1

SCALE: 1 INCH = 40 CHAINS



AREA
PAYS PLAT LAKE

M.N.R. ADMINISTRATIVE DISTRICT
TERRACE BAY
MINING DIVISION
THUNDER BAY
LAND TITLES / REGISTRY DIVISION
THUNDER BAY

Ministry of Natural Resources
Land Management Branch
Ontario
Nov. 1, 1985

Date: FEB. 15/1982 Number: **G-606**

Middle Fox Lake G-85

Lower Agusabon Lake G-599

COPPER ISLAND G-538

