

LEGEND

DRILL LOG ABBREVIATIONS

* abbreviations may be used in upper or lower case.

cm =	centimetres
m =	metres
mm =	millimetres
ppb =	parts per billion

Au =	gold
py =	pyrite
pyrr =	pyrrhotite
mag =	magnetite

AL/ALB =	albite
alter/altn/alt'n/alt =	alteration
aph =	aphanitic
assoc =	associated
avg =	average
B/BC =	brown carbonate
BIO =	biotite
brecc/bx =	breccia
bx'd/bxd/brx =	brecciated
ca =	core axis
CA =	calcite
carb =	carbonate
CB/C =	carbonate
cba =	carbonitized
cg/cgr =	coarse grained
chl'd =	chloritized
CL/CH/CHL =	chlorite
congl =	conglomerate
ctc =	contact
ctcs =	contacts
deg =	degree
dissem/diss =	disseminated
dk =	dark
dtca =	degrees to core axis
equig =	equigranular
ext'y =	extremely
FC =	fuchsite
fg =	fine grained
flt =	fault
fn =	fine
fol/foln =	foliation
frac =	fractured
fracs =	fractures
frags =	fragments
FZ =	fault zone
gnsh =	greenish
gr'd/gr/grd =	grained
grdr =	granodiorite
HEM =	hematite

homo =	homogenous
lca =	long core axis
loc =	locally
M =	mixed
massive =	massive
med =	medium
mg =	medium grained
minzn =	mineralization
mod =	moderate
NA =	not applicable
occ =	occasional
orig =	original
per =	pervasive
phenos =	phenocrysts
poss =	possibly
prll =	parallel
Q/C =	quartz carbonate
qcv/qcvt =	quartz carbonate veinlet
QZ/QTZ =	quartz
rep =	repetition
rk =	rock
RQD =	rock quality determinant
S/SE/SER =	sericite
SI =	silica
sig =	significant
stgrs =	stringers
str =	strong
stwk =	stockwork
t-c/tc =	talc chlorite
T =	talc
t.o. =	throughout
tca =	to core axis
text =	texture
tr =	trace
um =	ultramafic
vfg =	very fine grained
vfn =	very fine
VN =	vein
wk =	weak
wkly =	weakly



Date Printed: 27 Jun, 1996

ECHO BAY ONTARIO LTD.

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Surveyed Coordinates

Grid Coordinates

DRILL HOLE RECORD

Drill Hole: 96-303

Survey Northing: 2839.840
 Survey Easting: 10849.950
 Elevation: 280.566

Grid Northing: 2840 N
 Grid Easting: 10850 E

***** Dip Tests *****

Depth	Azi.	Dip
73.0		-58.0
130.0	349	-60.0
200.0	349	-60.0

Measure: Metric
 Drilled by: MacKenzie
 Survey: Yes
 Date Started: 12 Mar. 1996
 Completed: 15 Mar. 1996
 Core Size: NQ
 Property: Old Aquarius
 Claim: CLM 293
 Township: Macklem
 Prov/State: Ontario
 Country: Canada

Collar Azi.: 344
 Collar Dip: -60
 Hole Length: 201.00

Core Storage: Aquarius Mine Site

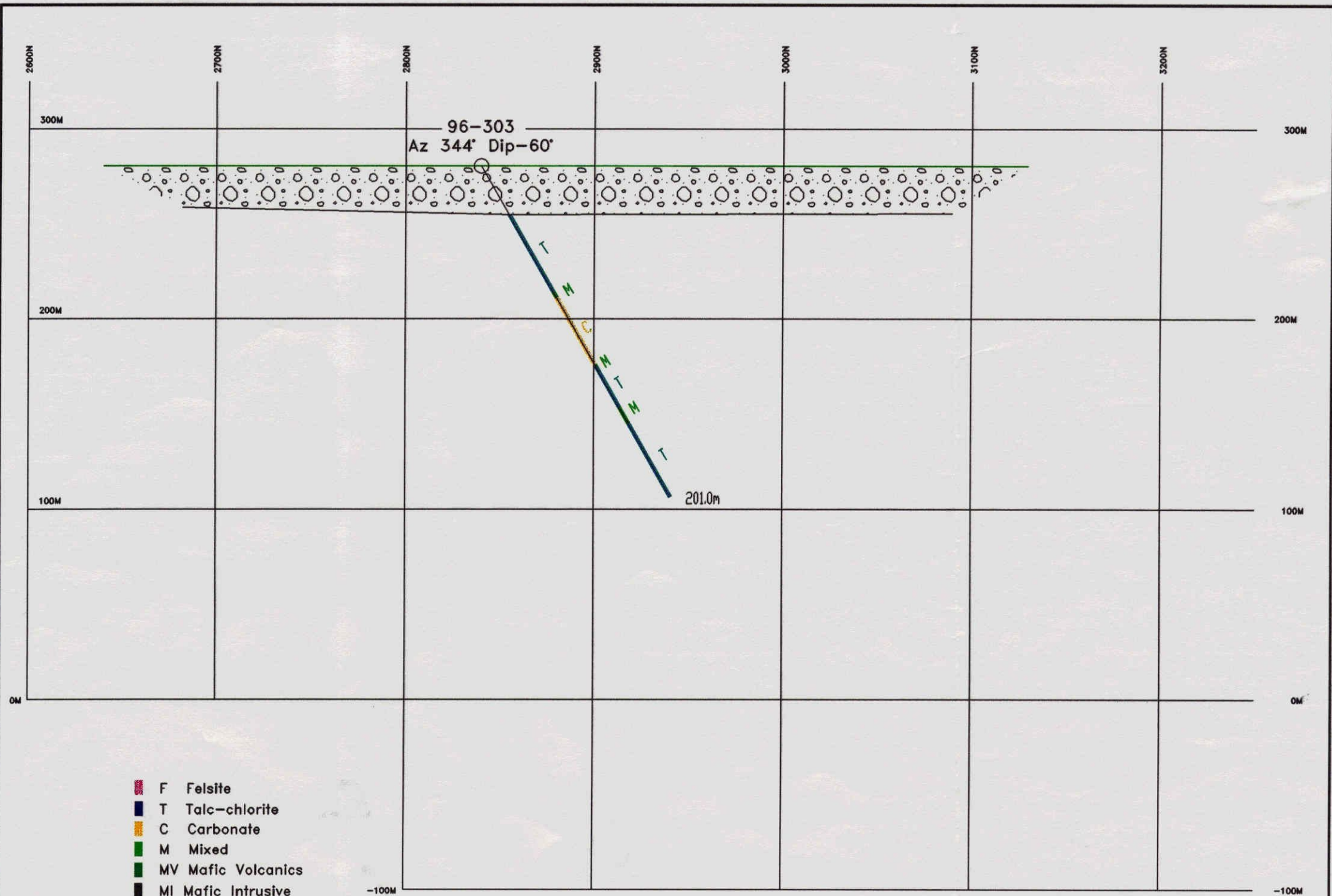
Local reference: South of Hwy 101
 Local reference: 30 km East of Timmins, Ontario
 Type of Drill: Diamond
 Purpose:
 Comments:
 Comments:

Date(s) Logged: 18 Mar. 1996
 Logged by: M. Seaman

W. [unclear] for

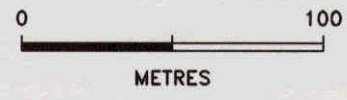
From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	29.70	6.0 OVERBURDEN/CASING Overburden - Casing not recorded.										
29.70	77.00	4.0 TALC-CHLORITE SCHIST Talc Chlorite Schist\phyllite, dark green fine grained and massive. Calcium carbonate veins @ <5% and mainly oblique to core axis. Some stock work throughout. Some visible biotite (fine to med grain) within matrix. Fairly sound rock and unfoliated. Core is non - para magnetic. 30.3-31m: Fault material (rubbly). 48-50m: Fault gouge - very friable. 55-56m: Fault gouge - gritty and friable. Local 1% Disseminated and vein cubic fine grained pyrite. 69-69.11m Fault gouge - clay material.	75182	68.00	69.00	1.00	NA	T/CHL	3	<1.00	11	
			75183	69.00	70.00	1.00	NA	T/CHL	3	<1.00	3	
			75184	70.00	71.00	1.00	NA	T/CHL	3	<1.00	20	
			75185	71.00	72.00	1.00	NA	T/CHL	3	<1.00	12	
			75186	72.00	73.00	1.00	NA	T/CHL	3	<1.00	18	
			75187	73.00	74.00	1.00	NA	T/CHL	3	<1.00	4	
			75188	74.00	75.00	1.00	NA	T/CHL	3	<1.00	27	
			75189	75.00	76.00	1.00	NA	T/CHL	3	<1.00	13	
			75190	76.00	77.00	1.00	NA	T/CHL	3	<1.00	16	
77.00	80.00	2.1 MIXED GRADING TO CARBONATE Mixed grading to carbonate. Light to dark green grey, fine to med grained. No foln to weak foln steep to ca QCV prll to foln. Finely diss py @ .5%. Core is non magnetic.	75191	77.00	78.00	1.00	NA	C/T	3	<1.00	53	
			75192	78.00	79.00	1.00	NA	C/T	2	<1.00	33	
			75193	79.00	80.00	1.00	NA	C/T	5	<1.00	545	


From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
80.00	121.00	1.2 STRONGLY FUCHSITIC CARBONATE 80-107m: Fc Carbonate with minor grey brown carb. Fine to med grain bright - pale green patchy carb alt. Massive anastomosing carb veins. QCV are mainly steep @ 60-80deg TCA. Some QCV are @ 20-40deg TCA but are fewer than above. Good sound rock, core non magnetic. Local foln @ 90.6 - 90.7m and is 45deg TCA. 92m-96m Carbonate is silicious and very massive. Less than 1% diss cubic fine graine pyrite. Fractures are mainly prll to core axis. 104 - 104.2: Less alt portion with contacts @ 80deg TCA. Rich in chl with some patchy fuchsitic carbonate alteration. 1.8 + 1.2 107 - 112: oxidized brown carb with fuchsite and. Minor chl alt fragments. Massive fine to med grained. QV are 60 - 80deg TCA with some apparent stockwork. Core is non magnetic. Some local slippage plains @ 5deg TCA. 1.11=1.2>1.7 112 - 121m Grey carb with fuchsitic and magnesite. Weak fol @ 50 - 70 deg TCA. QV prll to oblique to foln. <1% py. Less than 2% veining of Qz. Less than 2% veining prll to foln. Carb non magnetic. 120.5-120.58m: Q + A rich dikelet with considerable amounts of over printed patchy carb. Alt.	75194	80.00	81.00	1.00	NA	C/CHL	5	.50	90	
			75195	81.00	82.00	1.00	NA	FC/CHL	80	.50	990	
			75196	82.00	83.00	1.00	NA	FC/CHL	5	.50	147	
			75197	83.00	84.00	1.00	NA	FC/CHL	20	.50	383	
			75198	84.00	85.00	1.00	NA	FC/BC	5	.50	70	
			75199	85.00	86.00	1.00	NA	FC/BC	5	.50	3	
			75200	86.00	87.00	1.00	NA	FC/BC	7	.50	8	
			75202	87.00	88.00	1.00	NA	FC/BC	2	.50	38	
			75203	88.00	89.00	1.00	NA	BC/FC/OB	8	.50	21	
			75204	89.00	90.00	1.00	NA	FC/BC/CH	10	.50	71	
			75205	90.00	91.00	1.00	NA	FC/BC/CH	10	.50	59	
			75206	91.00	92.00	1.00	NA	FC/BC/CH	25	.50	103	
			75207	92.00	93.00	1.00	NA	FC/QA	5	<1.00	5	
			75208	93.00	94.00	1.00	NA	FC/QA	10	<1.00	282	
			75209	94.00	95.00	1.00	NA	FC/QA	5	<1.00	5	
			75210	95.00	96.00	1.00	NA	FC/QA	5	<1.00	6	
			75211	96.00	97.00	1.00	NA	FC/QA	5	<1.00	7	
			75212	97.00	98.00	1.00	NA	FC/QA	10	<1.00	3	
			75213	98.00	99.00	1.00	NA	FC/QA	5	<1.00	32	
			75214	99.00	100.00	1.00	NA	FC/QA	5	<1.00	6	
			75215	100.00	101.00	1.00	NA	FC/QA	3	<1.00	3	
			75216	101.00	102.00	1.00	NA	FC/CHL	5	<1.00	9	
			75217	102.00	103.00	1.00	NA	FC/CHL	5	<1.00	23	
			75218	103.00	104.00	1.00	NA	FC/CHL	2	<1.00	10	
			75219	104.00	105.00	1.00	NA	FC/CHL	10	<1.00	57	
			75220	105.00	106.00	1.00	NA	FC/CHL	5	<1.00	4	
			75222	106.00	107.00	1.00	NA	NA	5	<1.00	19	
			75223	107.00	108.00	1.00	NA	OBC/FC/C	20	1.00	22	
			75224	108.00	109.00	1.00	NA	OBC/FC/C	20	<1.00	20	
			75225	109.00	110.00	1.00	NA	OBC/FC/C	10	<1.00	3	
			75226	110.00	111.00	1.00	NA	OBC/FC/C	5	<1.00	6	
			75227	111.00	112.00	1.00	NA	OBC/FC/C	5	<1.00	23	
			75228	112.00	113.00	1.00	NA	FC/CHL	2	<1.00	3	
			75229	113.00	114.00	1.00	NA	FC/CHL	2	<1.00	8	
			75230	114.00	115.00	1.00	NA	FC/CHL	2	<1.00	286	
			75231	115.00	116.00	1.00	NA	FC/CHL	2	<1.00	86	
			75232	116.00	117.00	1.00	NA	FC/BC/CH	2	<1.00	2	
			75233	117.00	118.00	1.00	NA	FC/BC/CH	2	<1.00	568	
			75234	118.00	119.00	1.00	NA	FC/BC/CH	10	<1.00	220	
			75235	119.00	120.00	1.00	NA	FC/BC/CH	2	<1.00	158	
			75236	120.00	121.00	1.00	NA	BC/Q/A	2	<1.00	273	
121.00	122.00	2.2 MIXED GRADING TO TALC CHLORITE Mixed grading to Talc Chlorite Schist dark green with	75237	121.00	122.00	1.00	NA	C/T		<1.00	611	

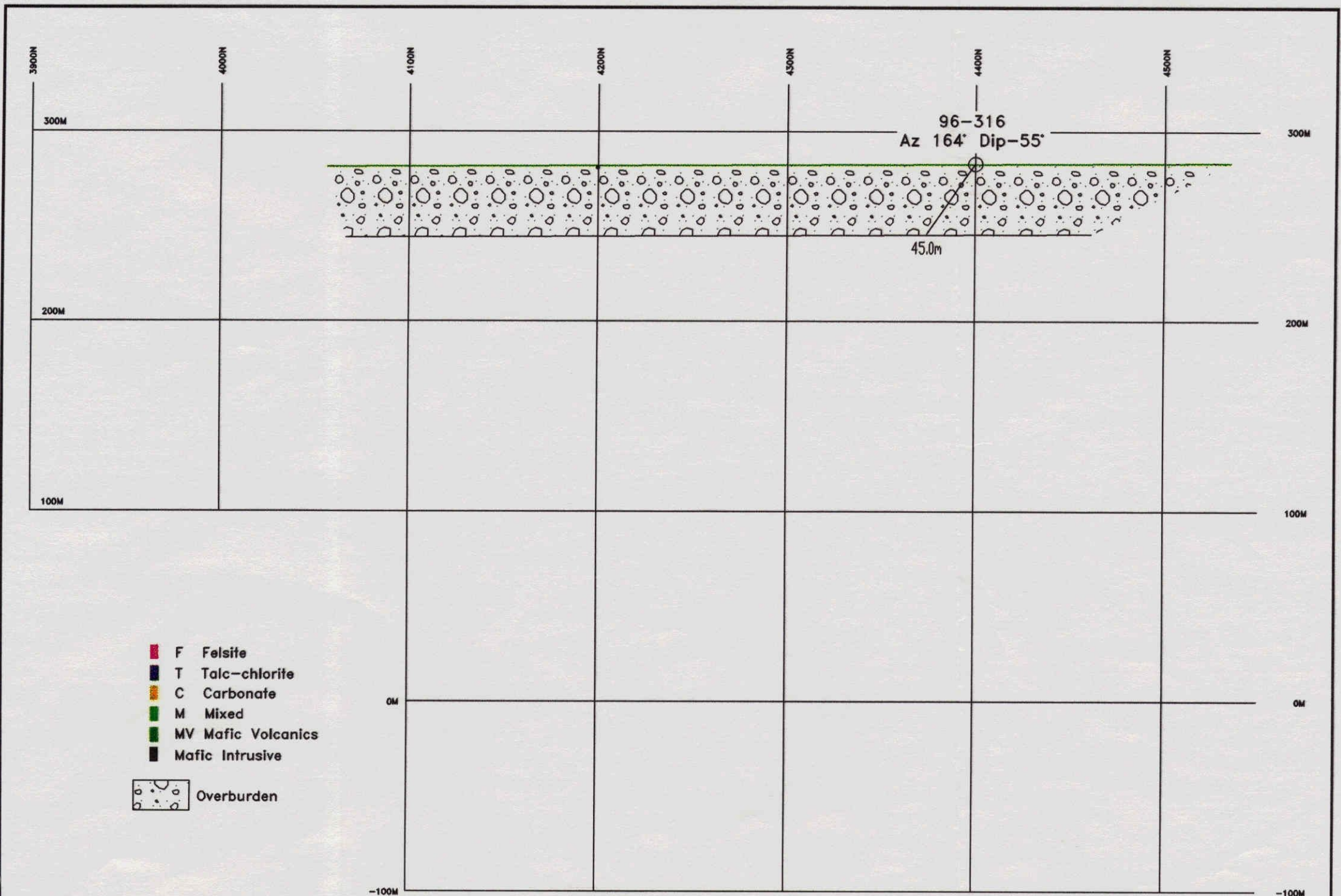


- F Felsite
- T Talc-chlorite
- C Carbonate
- M Mixed
- MV Mafic Volcanics
- MI Mafic Intrusive

 Overburden



 ECHO BAY ONTARIO LTD. AQUARIUS PROPERTY		
CLM 293 CROSS SECTION 10850NE Looking West		
SCALE: 1:2500	DRAWN: EGJ	No.
DATE: Feb 1997	REV. BY	



- F Felsite
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	ECHO BAY ONTARIO LTD. AQUARIUS PROPERTY	
	CLM 293 CROSS SECTION 10950NE Looking West	
SCALE: 1:2500	DRAWN: EGJ	No.
DATE: Feb 1997	REV. BY	

Date Printed: 27 Jun, 1996

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Surveyed Coordinates

Grid Coordinates

DRILL HOLE RECORD

Drill Hole: 96-317

Survey Northing: 4240.000
 Survey Easting: 11500.000
 Elevation: 283.000

Grid Northing: 4240 N
 Grid Easting: 11500 E

***** Dip Tests *****
 Depth Azi. Dip
 78.0 342 -51.0
 152.0 340 -52.0
 263.0 -53.0

Measure: Metric
 Drilled by: NDS
 Survey: No
 Date Started: 2 May 1996
 Completed: 3 May 1996
 Core Size: NQ
 Property: Northwest Carbonate
 Claim: CLM 293
 Township: Macklem
 Prov/State: Ontario
 Country: Canada

Collar Azi.: 344
 Collar Dip: -50

Hole Length: 269.00

Core Storage: Aquarius Mine Site

Local reference: South of Hwy 101
 Local reference: 30 km East of Timmins, Ontario

Type of Drill: Diamond

Purpose: To determine the location, orientation and thickness of the carb.

Comments: Two carbonate units intersected

Date(s) Logged: 3-4 May 1996

Logged by: C. Raatz

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	68.00	6.0 OVERBURDEN/CASING										
68.00	79.00	1.11 REGULAR GREY CARBONATE Light to medium grey with buff zones; fine grained. Upper zone (68-75.7m) is moderately to strongly foliated at 50 to 70 degrees to core axis. More massive and mottled (lighter in colour) and weakly brecciated from 76-79m; minor chlorite veinlets. Poor to moderate quartz carbonate veining (15%, less than 1.5cm) at 20 to 50 degrees to core axis generally cross-cutting foliation. Regular carb alteration throughout; minor weak silicification of lower massive zone; minor chlorite alteration and weak brown carb alteration of breccia clasts; minor sericitic alteration of foliated zone. Local zones of mineralization; approx. Tr to 0.5% pyrite as finely disseminated crystals in quartz/carbonate blebs *one speck each chalcopryrite and molybdenite at 72.25m inside a QCV 1.5cm wide. Lower contact is gradational. 72.00 73.00 Chalcopryrite and VISIBLE GOLD at 72.25.	76482	68.00	69.00	1.00	61	C/CHL/SE	5	2.00	3	
			76483	69.00	70.00	1.00	59	C/CHL/SE	2	.50	110	
			76484	70.00	71.00	1.00	70	C/CHL/SE	2	.50	5	
			76485	71.00	72.00	1.00	NA	C/CHL/SE	2	.50	75	
			76486	72.00	73.00	1.00	51	C/CHL/SE	2	.50	3	
			76487	73.00	74.00	1.00	68	C/CHL/SE	15	tr	3	
			76488	74.00	75.00	1.00	66	C/CHL/SE	5	.50	35	
			76489	75.00	76.00	1.00	NA	C/SER	8	.50	3	
			76490	76.00	77.00	1.00	NA	C/SI/CHL	8	.50	3	
			76491	77.00	78.00	1.00	NA	C/SI/CHL	10	tr	3	
			76492	78.00	79.00	1.00	NA	C/CHL/SI	5	tr	3	
79.00	80.65	1.1 CARBONATE GRADING TO MIXED Medium grey with greenish-grey patches; fine-grained. Poorly quartz/carbonate veined (5%, 1-10mm) at 50	76493	79.00	80.65	1.65	NA	C/T/SER	2	tr	3	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		degrees to core axis. Minor Q/C blebs with angular inclusions of grey carb. Non-foliated; weakly brecciated and locally fractured. Minor talc and chlorite veining. Patchy grey carb alteration with minor talc. Weak, patchy sericitic alteration locally. Trace pyrite in groundmass as fine subhedral cubes. Lower contact is gradational.										
80.65	90.50	2.2 MIXED GRADING TO TALC CHLORITE Dark to medium grey with patches of light purplish-grey; fine to medium grained. Weakly foliated locally at 40 to 60 degrees to core axis. Poorly quartz/carbonate veined; mostly blebs and stringers; generally subparallel to foliation. Abundant anastomosing chlorite veinlets especially away from Q/C blebs. Weakly brecciated near upper contact. Grey carb alteration is patchy and weak; chlorite and talc alteration are more abundant; sericitic alteration is weakly pervasive. Local remnant spinifex textures. Nil to trace amounts of pyrite, very fine crystals in chlorite veinlets and groundmass. Lower contact is gradational.	76494 76495 76496 76497 76498 76499 76500 76502 76503	80.65 82.00 83.00 84.00 85.00 86.00 87.00 88.00 89.00	82.00 83.00 84.00 85.00 86.00 87.00 88.00 89.00 90.50	1.35 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.50	NA 40 54 51 NA NA 61 70 NA	C/CHL/T CHL/C/T CHL/C/T CHL/C/T CHL/C/T CHL/C/T CHL/C/T CHL/C/T CHL/C/T	2 2 2 2 2 2 1 1	tr tr tr tr tr tr 1.00 tr	3 3 3 3 3 3 3 3 3	
90.50	141.40	4.0 TALC-CHLORITE SCHIST Dark grey with patches of dirty green; fine to medium grained. Poorly foliated at 50 to 55 degrees to core axis; defined by chlorite and Q/C veinlets. Moderately to poorly veined (5-10%, 1-10mm) subparallel to foliation. Minor talc veins (less than 8mm) at 30 degrees to core axis. Abundant Q/C stringers and blebs; anastomosing. Minor local contortions of foliation. Talc and chlorite alteration throughout; weak patches of carb alteration, minor sericitic alteration. 0.5 to 1% pyrite locally in clusters of subhedral to euhedral crystals less than 8mm; usually located in groundmass near Q/C blebs. 109.55-113.7m: Massive light coloured zone with stronger sericitic alteration and weak grey carb alteration; slightly harder than T-C schist increase in pyrite to	76504 76505 76506 76507 76508 76509 76510	90.50 92.00 93.00 94.00 138.00 139.00 140.00	92.00 93.00 94.00 95.00 139.00 140.00 141.40	1.50 1.00 1.00 1.00 1.00 1.00 1.40	45 60 NA NA NA NA NA	CHL/T T/CHL/C T/CHL T/CHL T/CHL T/CHL T/CHL	1 1 1 5 2 5 2	tr .75 .50 .50 .50 .50 tr	3 3 3 3 25 3 25	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		CARBONATE 1.7 BROWN CARBONATE Generally medium to light grey with patches of dark grey and brown; fine to medium grained. Massive to locally foliated; at 30 degrees to core axis from 173.6-175.4m. Weakly brecciated from 176.8 to 177.75m. Regular grey carb alteration and quartz-carb alteration are patchy throughout; minor brown carb alteration from 172.45 to approx 173m where it grades to grey carb. 172.1-172.25m: Grey albitite 'vein' with 5% pyrite and trace micro QC veins; at 45 degrees to core axis. Overall, 0.5% pyrite finely disseminated in groundmass and in haloes around QC blebs and veins. 174.75m: One speck chalcopyrite in groundmass. Lower contact is irregular. 174.50 175.50 Chalcopyrite at 174.75.										
			76538	169.25	170.50	1.25	NA	QC/C	20	.50	20	
			76539	170.50	171.50	1.00	NA	C/QC/SER	5	tr	3	
			76540	171.50	172.45	.95	NA	C/QC	15	.50	30	
			76542	172.45	173.50	1.05	NA	BC/C/QC	5	tr	3	
			76543	173.50	174.50	1.00	31	C/CHL	2	1.00	3	
			76544	174.50	175.50	1.00	30	C/CHL	2	tr	3	
			76545	175.50	176.50	1.00	NA	C/QC/BC	2	1.00	3	
			76546	176.50	177.85	1.35	NA	C/QC/BC	2	tr	3	
177.85	179.80	3.6 FELDSPAR PORPHYRY 3.1 FELSITE/ALBITE Generally white to very light grey grading to pale pink; fine grained. Massive; non-magnetic; some elongated minerals (i.e. biotite are preferentially oriented locally at 40 degrees to core axis. Trace to minor amounts of quartz veining at all orientation to CA. Most veins are less than 1.5cm wide. One veinlet appears to contain magnesite crystals felted together. Trace to 0.5% pyrite as finely disseminated euhedral crystals. Lower contact is sharp and irregular at 47 degrees to core axis.										
			76547	177.85	178.80	.95	NA	NA		tr	3	
			76548	178.80	179.80	1.00	NA	NA		tr	10	
179.80	183.40	1.7 BROWN CARBONATE 1.11 REGULAR GREY CARBONATE Approx 60:40 brown carb to grey carb.; brown grades into grey in last metre. Light brown with streaks of light grey then grading into medium grey; fine to medium grained. Moderately foliated (defined by chlorite veinlets and elongate blebs of QC at 30 to 35 degrees to core axis. Poorly quartz-carbonate veined (less than 10%, 2mm-8mm) at 30 to 80 degrees to core axis. Other tiny veinlets at random angles to CA. 181.15m: Two parallel veinlets (1.5mm ea.) at 90 degrees to core axis contain approx 20 crystals of chalcopyrite.										
			76549	179.80	181.00	1.20	NA	BC/C/SI	8	3.00	10	
			76550	181.00	182.00	1.00	25	BC/C/SI	3	3.00	3	
			76551	182.00	183.40	1.40	20	C/BC/SI	5	2.00	3	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		181.48, 181.62 And 182.3m: several specks of chalcopyrite in groundmass. Brown carb alteration at top of zone with trace grey carb patches and minor quartz-carb altered patches; grading to grey carb over the last metre of the unit ; trace chloritic alteration and silicification. 2-3% Pyrite in chlorite and quartz-carb veinlets and groundmass; as crystals up to 6mm, generally clustered together. Lower contact is sharp at 18 degrees to core axis and marked by a 4cm zone of strongly foliated carb. Which is also very fine grained (Chill margin). 181.00 182.00 Pyrite and trace chalcopyrite. 182.00 183.40 Pyrite and trace chalcopyrite.										
183.40	186.30	3.6 FELDSPAR PORPHYRY 3.1 FELSITE/ALBITE As the unit above, but all white in colour (no pink). Elongate minerals are oriented parallel to core axis. 0.5% Pyrite within microfractures as fine sub- to euhedral crystal (less than 1mm). Lower contact is sharp at 28 degrees to core axis.	76552	183.40	185.00	1.60	NA	NA	2	.50	3	
			76553	185.00	186.30	1.30	NA	NA	2	.50	3	
186.30	189.80	1.11 REGULAR GREY CARBONATE 1.6 QUARTZ CARBONATE ALTERATION Approx 50:50 grey carb and quartz-carb alteration. Light to medium grey and brown; fine to medium grained. Moderately foliated locally, defined by chlorite veinlets at 30 to 40 degrees to core axis, and sometimes locally contorted subparallel tca. Poorly quartz veined (5%, 1mm to 1.5cm) at 40 to 80 degrees to core axis generally cross-cutting foliation. Trace fuchsitic alteration near quartz veins; weak brown carb alteration throughout; silicification throughout. Zone below upper contact is highly silicified and possibly a 'carb. Greater than felsite' zone (30cm). 188.70m: Cluster of chalcopyrite crystals (less than 2mm) over a 3cm length relatively close to a quartz-carbonate bleb, inside a fine breccia zone. Overall, approx 2-3% pyrite occurring as finely disseminated crystals in the groundmass and in microfractures. Lower contact is marked by a highly silicified zone (25cm) and appears almost gradational. 188.50 189.80 Pyrite and trace chalcopyrite.	76554	186.30	187.50	1.20	NA	C/SI/QC	2	.50	10	
			76555	187.50	188.50	1.00	NA	C/BC/SI	5	.50	20	
			76556	188.50	189.80	1.30	37	C/QC	5	.50	5	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
189.80	193.40	3.1 FELSITE/ALBITE 3.6 FELDSPAR PORPHYRY Very light grey; fine grained to aphanitic. Massive; non-foliated; non-magnetic. Very poorly veined (less than 5%; up to 5mm) at 35 to 45 degrees to core axis. Finer veinlets are anastomosing and in all orientations TCA. Strongly silicified, such that the phenocrysts are very hard to discern (appears almost 'cherty'). 5-6% Pyrite as individual crystals up to 5mm, scattered almost uniformly throughout the unit. 191.35m: Inclusion of brown carb which is foliated parallel to the contacts of the inclusion at 45 degrees to core axis. Lower 50cm of unit contains more inclusions of carbonate and appears to grade into the carb.	76557 76558 76559	189.80 191.00 192.00	191.00 192.00 193.40	1.20 1.00 1.40	NA NA NA	SI SI SI	2 2 2	4.00 6.00 5.00	50 50 110	
193.40	195.10	1.7 BROWN CARBONATE Light to medium brown with flecks of medium grey; fine to medium grained. Moderately to strongly foliated, defined by chlorite stringers at 25 to 30 degrees to core axis. Poorly to moderately quartz veined (5-10%; up to 1cm) at 40 to 80 degrees to core axis generally cross-cutting foliation; higher angle veins also cross-cut those more parallel to the core axis. Brown carb alteration throughout with minor quartz-carb alteration and weak silicification. 193.70m: 6 Chalcopyrite crystals (sub-hedral) in quartz-healed microfracture. Approx 3-4% pyrite in groundmass as an- to subhedral crystals in small clusters. Lower 25cm is highly silicified and is grey in colour. Lower contact is relatively sharp at 32 degrees to core axis. 193.40 195.10 Pyrite and trace chalcopyrite.	76560	193.40	195.10	1.70	28	BC/C/SI	5	4.00	10	
195.10	197.35	3.6 FELDSPAR PORPHYRY As 189.80-193.40m. Highly silicified, making phenocrysts appear ghost-like. Quartz veins become wider (up to 2cm across) and more orthogonal to CA towards bottom of unit. 197.20m: One speck chalcopyrite just inside a 2cm quartz vein; appears subhedral. 3-4% Finely disseminated sub- to euhedral pyrite	76562 76563	195.10 196.30	196.30 197.35	1.20 1.05	NA NA	SI SI	2 5	5.00 4.00	100 65	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		crystals, almost uniformly disseminated across the unit. Lower contact is marked by a grey aphanitic silicified zone with very finely disseminated pyrite. Lower contact is sharp at 20 degrees to core axis. 196.30 197.35 Pyrite and trace chalcopyrite.										
197.35	199.05	1.7 BROWN CARBONATE As the unit 193.40-195.10m. Foliation is contorted and appears subparallel to core axis from 197.75-198.70m. 197.50m: 3 Crystals of chalcopyrite in a 1mm quartz-healed microfracture. Approx 3% pyrite as fine to medium sized crystal (less than 5mm) individually and in clusters in the groundmass. Lower contact is sharp at 70 degrees to core axis. 197.35 199.05 Pyrite and trace chalcopyrite.	76564	197.35	199.05	1.70	35	BC/C	2	5.00	25	
199.05	201.35	3.6 FELDSPAR PORPHYRY 3.1 FELSITE/ALBITE As the previous feldspar porphyry. Again highly silicified. 4% Sub-to euhedral pyrite uniformly disseminated throughout the unit. Very few quartz veins (2 per m) up to 2cm wide at 80 degrees to core axis. Minor anastomosing quartz-healed microfractures. Lower contact is sharp but irregular.	76565 76566	199.05 200.10	200.10 201.35	1.05 1.25	NA NA	SI SI	3 1	3.00 5.00	80 35	
201.35	207.20	1.7 BROWN CARBONATE 1.11 REGULAR GREY CARBONATE Light grey to brown; fine to medium grained. Massive; locally weakly foliated; non-magnetic. 201.85-202.8m: Strongly brecciated; chlorite interstitially. Poorly to moderately quartz-carbonate veined (up to 10%, 2mm to 10cm) at 50 degrees to core axis. Higher angle quartz-carb veins cross-cut lower angle veins. Grey and brown carb alteration throughout with minor quartz-carb. Alteration and chloritic alteration. 0.5% Pyrite overall, with higher local concentrations in massive, unbrecciated zones 5 lower contact is gradational. 206.00 207.20 Pyrite and trace chalcopyrite.	76567 76568 76569 76570 76571	201.35 202.50 203.50 205.00 206.00	202.50 203.50 205.00 206.00	1.15 1.00 1.50 1.00 1.20	NA NA NA 35 35	C/BC/QC BC/C BC/C BC/C BC/C	8 3 2 5 5	.50 1.00 .50 2.00 3.00	3 3 3 3 3	
207.20	220.20	1.11 REGULAR GREY CARBONATE Light to medium grey; medium grained.	76572	207.20	208.50	1.30	26	C/CHL	5	tr	3	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		Generally massive; locally weakly foliated at 20 to 30 degrees to core axis.	76573	208.50	210.00	1.50	NA	C/CHL	5	tr		3
		Foliation defined by elongate quartz-carb blebs and chlorite veinlets.	76574	210.00	211.00	1.00	NA	C/CHL	2	tr		3
		Moderate quartz-carbonate veining (up to 10%, up to 10cm) at 65 to 80 degrees to core axis.	76575	211.00	212.00	1.00	43	C/CHL	2	tr		3
		Minor talc on edges of larger quartz-carb veins.	76576	212.00	213.00	1.00	32	C/CHL/SE	5	tr		3
		Grey carb alteration is patchy; chloritic alteration is pervasive; trace fuchsitic alteration in haloes around veins.	76577	213.00	214.00	1.00	NA	C/CHL/SE	8	tr		3
		Trace to 0.5% pyrite as finely disseminated sub-euhedral crystals in the groundmass and along Q-C healed microfractures.	76578	214.00	215.00	1.00	NA	C/CHL	3		.50	3
		Lower contact is gradational.	76579	215.00	216.00	1.00	NA	C/CHL			.50	3
			76580	216.00	217.00	1.00	NA	C/CHL			.50	3
			76582	217.00	218.00	1.00	NA	C/CHL	2	.50		3
			76583	218.00	219.00	1.00	NA	C	5	.50		3
			76584	219.00	220.20	1.20	NA	C/CHL	2	.50		5
220.20	221.50	2.2 MIXED GRADING TO TALC CHLORITE Medium to dark grey with patches of buff; fine to medium grained. Massive; non-foliated; non-magnetic. Weakly veined (less than 5%; up to 1cm) at 40 degrees to core axis. Talc-chlorite alteration is slightly more pervasive than carb alteration. Trace to 0.5% pyrite as finely disseminated euhedral crystals in groundmass. Lower contact is gradational.	76585	220.20	221.50	1.30	NA	C/CHL/T	2	.50		15
221.50	233.05	4.0 TALC-CHLORITE SCHIST Dark grey speckled buff; fine grained. Generally massive; non-foliated; non-magnetic. Poorly quartz-carb veined with 30% talc veining at steep angles to core axis. Generally barren of mineralization; trace to 0.5% pyrite as blebs up to 4mm. Talc-chlorite alteration throughout with very minor weak zones of carb alteration. Lower contact is gradational.	76586	221.50	223.00	1.50	NA	T/CHL	2	tr		3
			76587	223.00	224.00	1.00	NA	T/CHL	2	tr		3
			76588	224.00	225.00	1.00	NA	T/CHL	2	tr		3
			76589	225.00	226.00	1.00	NA	T/CHL	2	tr		3
			76590	226.00	227.00	1.00	NA	T/CHL	2	tr		3
			76591	227.00	228.00	1.00	NA	T/CHL	2	.50		3
			76592	228.00	229.00	1.00	NA	T/CHL	1	.50		3
			76593	229.00	230.00	1.00	NA	T/CHL	1	.50		3
			76594	230.00	231.00	1.00	NA	T/CHL	2	.50		3
			76595	231.00	232.00	1.00	NA	T/CHL	2	tr		3
			76596	232.00	233.05	1.05	NA	T/CHL	2	.50		3
233.05	235.00	2.0 MIXED Light brown and grey, speckled; fine to medium grained. Massive; non-foliated; non-magnetic. No significant Q-C veining; minor talc veining. Grey and brown carb alteration and talc-chlorite	76597	233.05	234.00	.95	NA	C/T/CHL	2	1.00		400
			76598	234.00	235.00	1.00	NA	C/T/CHL	2	1.00		55

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		alteration. Up to 3% pyrite (sub-hedral blebs, up to 5mm) locally; 1% overall. Lower contact is gradational.										
235.00	269.00	4.0 TALC-CHLORITE SCHIST Dark to medium grey with minor patches of light green; fine to medium grained. Generally massive; very weakly foliated; at 42 degrees to core axis non-magnetic. Locally remnant spinifex textures. Weak quartz-carb veining generally subparallel to foliation. Talc-chlorite alteration throughout. Mineralization decreases away from the mixed zone; approx 0.5% overall with local concentrations up to 1%. 269.00m: END OF HOLE. 76501 Blank. 76521 Blank. 76541 Blank. 76561 Blank. 76581 Blank. 76601 Blank.	76599	235.00	236.00	1.00	NA	T/CHL	1	.50	3	
			76600	236.00	237.00	1.00	40	T/CHL	1	.50	35	
			76602	237.00	238.00	1.00	45	T/CHL	2	.50	3	
			76603	238.00	239.00	1.00	NA	T/CHL	1	.50	3	
			76604	239.00	240.00	1.00	NA	T/CHL	1	.50	3	

George R. ...

Date Printed: 27 Jun, 1996

ECHO BAY ONTARIO LTD.

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Surveyed Coordinates

Grid Coordinates

DRILL HOLE RECORD

Drill Hole: 96-320

Survey Northing: 4445.000
 Survey Easting: 11500.000
 Elevation: 283.000

Grid Northing: 4445 N
 Grid Easting: 11500 E

**** Dip Tests ****
 Depth Azi. Dip
 64.0 164 -51.0
 167.0 169 -52.0
 296.0 170 -52.0

Measure: Metric
 Drilled by: NDS
 Survey: No
 Date Started: 10 May 1996
 Completed: 13 May 1996
 Core Size: NQ
 Property: Old Aquarius
 Claim: CLM 293
 Township: Macklem
 Prov/State: Ontario
 Country: Canada

Collar Azi.: 164
 Collar Dip: -50
 Hole Length: 311.00

Core Storage: Aquarius Mine Site

Local reference: South of Hwy 101
 Local reference: 30 km East of Timmins, Ontario
 Type of Drill: Diamond

Purpose: To test the theory that the carb. is dipping to the north
 Comments:
 Comments:

Date(s) Logged: 14 May 1996
 Logged by: C. Raatz

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	51.75	6.0 OVERBURDEN/CASING										
51.75	73.80	4.0 TALC-CHLORITE SCHIST 4.3 RELATIVELY UNALTERED ULTRAMAFIC Dark grey with patches of greenish grey; fine grained. Moderately foliated (defined by chlorite veinlets and QC stringers at 40 to 80 degrees to core axis. Moderately quartz-carbonate veined overall, with local concentrations of 10 to 10% over 1m; (at 40 to 70 degrees to core axis) generally subparallel to foliation Talc chlorite alteration throughout, with minor local quartz-carb alteration and very weak carb alteration. Local massive zones are relatively barren of mineralization with local concentrations of up to 2%; 0.5% overall, pyrite occurs as both individual sub- to euhedral crystals (up to 6mm) and in clusters of fine blebs; in the groundmass and associated with quartz-carbonate blebs. Relatively unfractured. Non-magnetic. 72.80 to 73.25m: talc and quartz-carbonate vein. Lower contact is gradational.	76605	70.00	71.00	1.00	70	T/CHL	1	.50	10	
			76606	71.00	72.50	1.50	70	T/CHL	1	.50	10	
			76607	72.50	73.80	1.30	53	T/CHL	10	.50	3	
73.80	83.00	4.1 TALC GRADING TO MIXED Medium grey to dark brownish grey; fine to medium grained	76608	73.80	75.00	1.20	49	T/CHL/C	2	.50	3	

96-320 (continued)

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		Abundant quartz-carbonate stringers, veinlets and blebs.	76609	75.00	76.00	1.00	48	T/CHL/C	2	.50		15
		Generally massive, locally, weakly foliated at 40 to 50	76610	76.00	77.00	1.00	NA	T/CHL/C	2	.50		40
		degrees to core axis.	76611	77.00	78.00	1.00	NA	T/CHL/C	1	.50		30
		Fracture at 76.25 to 76.30 meters broken, rubbly core at	76612	78.00	79.00	1.00	NA	T/CHL/C	1	.75		3
		48 degrees to core axis.	76613	79.00	80.00	1.00	42	T/CHL/C	1	.50		3
		Talc-chlorite alteration throughout with patches of weak	76614	80.00	81.00	1.00	NA	T/CHL/C	1	.25		3
		carbonate alteration.	76615	81.00	82.00	1.00	NA	T/CHL/C	5	.50		3
		More mineralized than the talc-chlorite schist with up	76616	82.00	83.00	1.00	NA	QC/CHL/S	2	.50		3
		to 2% locally, and 0.5-1% overall; pyrite occurs as										
		anhedral to subhedral blebs, and in clusters.										
		82.10 to 83.00m: core appears spotted with very small,										
		regular quartz-carbonate blebs and a slight increase in										
		biotite to 10%.										
		Lower contact is gradational.										
83.00	86.30	2.1 MIXED GRADING TO CARBONATE										
		Medium to light grey with patches of brownish-grey; fine	76617	83.00	84.00	1.00	NA	QC/CHL/S	2	.50		3
		grained to medium grained.	76618	84.00	85.00	1.00	NA	QC/CHL/S	2	.50		3
		Poorly quartz-carbonate veined, at 45 to 50 degrees to	76619	85.00	86.30	1.30	NA	QC/CHL/S		tr		
		core axis subparallel to foliation.										
		Locally weakly foliated at 45 to 60 degrees to core axis.										
		Talc-chlorite alteration in upper part of unit, with										
		weak, patchy grey carb alteration becoming more intense										
		over the last meter of unit.										
		Remnant spinifex textures over entire unit.										
		Non-magnetic.										
		85.3-85.6m: Contortion of quartz - carbonate stringer.										
		Trace to 0.5% pyrite overall, generally finely										
		disseminated in groundmass.										
		Lower contact is gradational.										
86.30	105.00	1.11 REGULAR GREY CARBONATE 1.6 QUARTZ CARBONATE										
		ALTERATION										
		Light grey with patches of buff and light brown; fine	76620	86.30	87.50	1.20	NA	QC/CHL/S	2	tr		
		grained to medium grained with zones of coarse grained.	76622	87.50	88.50	1.00	55	QC/CHL/B	1	.50		
		Remnant spinifex textures throughout.	76623	88.50	89.40	.90	NA	QC/CHL/Q	1	.50		
		Moderately veined; mostly fine anastomosing veinlets and	76624	89.40	91.00	1.60	NA	QC/SER	1	tr		
		quartz - carbonate stringer.	76625	91.00	92.00	1.00	NA	QC/T	8	tr		
		Locally foliated.	76626	92.00	93.00	1.00	NA	QC/CHL	1	tr		
		Relatively weak grey carbonate alteration and	76627	93.00	94.00	1.00	NA	C/QC/CHL	1	tr		
		quartz-carbonate alteration alternate.	76628	94.00	95.00	1.00	NA	QC/BC/SE	1	tr		
		Groundmass is chloritic in most areas with large	76629	95.00	96.00	1.00	NA	QC/SER/C	1	tr		
		carbonate crystals appearing felted.	76630	96.00	97.00	1.00	44	QC	10	.50		
		Trace to 0.5% pyrite occurring as both finely	76631	97.00	98.00	1.00	70	QC/C/CHL	3	tr		
		disseminated crystals and individual large (less than	76632	98.00	99.00	1.00	NA	QC/C/SER	5	tr		

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		109.35-111.15m: Strongly foliated with less intense quartz-carbonate alteration and more chlorite, minor local limonite staining.										
		111.15-112.9m: Massive with contorted quartz carbonate stringers and relatively strong quartz-carbonate alteration.										
		112.9-113.70m: Coarse grained with chlorite talc and quartz-carbonate blebs.										
		113.70m: 9cm Quartz vein with minor carbonate, at 41 degrees to core axis.										
		114.0-115.25m: Moderately foliated at 53 to 65 degrees to core axis and lighter grey to beige.										
		115.25-117.75m: Weakly foliated to massive with increase in chlorite content and contortions of quartz-carbonate blebs and stringer.										
		115.20m: 6cm Quartz-carbonate vein at 38 degrees to core axis.										
		116.85m: 1cm Talc vein, light green in colour, almost orthogonal to core axis.										
		117.75-119.00m: Moderately foliated at 70 degrees to core axis with swirled, smooth quartz-carbonate veins. Lower contact is gradational.										
119.00	132.65	2.2 MIXED GRADING TO TALC CHLORITE										
		Dark to medium green and grey/ black; fine grained to medium grained.	76704	119.00	120.00	1.00	NA	C/CHL/QC	5	tr		
		Generally massive or with contorted foliation.	76705	120.00	121.00	1.00	NA	QC/T/CHL	2	tr		
		Minimal quartz-carbonate veining ; mostly quartz-carbonate blebs and stringer.	76706	121.00	122.00	1.00	NA	QC/T/CHL	2	tr		
		130.40 to 130.75m: quartz carbonate vein at 48 degrees to core axis.	76707	122.00	123.00	1.00	NA	CHL/T/QC	2	tr		
		130.80 to 131.00m: quartz carbonate vein at 45 degrees to core axis.	76708	123.00	124.00	1.00	NA	CHL/T/QC	2	tr		
		Talc-chlorite and quartz-carbonate alteration alternate with chloritic alteration being dominant throughout.	76709	124.00	125.00	1.00	50	CHL/QC/T	2	tr		
		Relatively abundant talc veins throughout (less than 2cm wide; light green).	76710	125.00	126.00	1.00	NA	QC/CHL/T	5	tr		
		Within quartz-carbonate altered zones, minor to trace brown carb alteration.	76711	126.00	127.00	1.00	NA	QC/CHL/T	2	tr		
		Trace, weak, local limonite staining around tiny fractures.	76712	127.00	128.00	1.00	NA	QC/CHL/T	2	tr		
		Trace to 0.5% pyrite overall with local concentrations of up to 1%, pyrite occurs as subhedral to euhedral crystals, both individually (larger crystals, up to 6mm) and in clusters.	76713	128.00	129.00	1.00	NA	CHL/QC/T	2	tr		
			76714	129.00	130.00	1.00	NA	CHL/T/QC	2	tr		
			76715	130.00	131.00	1.00	NA	CHL/T/QC	30	.50		
			76716	131.00	132.65	1.65	NA	T/CHL/QC	2	.50		

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
132.65	154.85	Lower contact is very gradational. 4.0 TALC-CHLORITE SCHIST 4.3 RELATIVELY UNALTERED ULTRAMAFIC Dark grey to very dark green (almost black); fine grained Weakly to moderately foliated at 55 to degrees to core axis 70. Very poorly veined, subparallel to foliation; less than 2% overall, with veins being from 1mm to 1cm wide. Abundant talc veins and blebs especially towards the lower part of the unit. 140.05m: 5cm Fracture defined by broken core; occurred in massive zone. Quartz-carb blebs in relatively unaltered ultramafics are slightly brecciated. Talc and chlorite alteration throughout with minimal quartz-carb alteration. Minor weak sericitic alteration. Abundant spinifex textures. Up to 1% pyrite occurring as sub- to euhedral individual crystals (up to 6mm) with very few finely disseminated tiny crystals; occurring generally with quartz-carbonate blebs. Lower contact is gradational.	76717	132.65	134.00	1.35	50	T/CHL/QC	2	1.00		
			76718	134.00	135.00	1.00	NA	T/CHL/LI		.50		
			76719	135.00	136.00	1.00	NA	T/CHL/QC		tr		
			76720	136.00	137.00	1.00	NA	T/CHL	2	tr		
			76722	137.00	138.00	1.00	70	T/CHL	5	tr		
			76723	138.00	139.00	1.00	50	T/CHL	2	tr		
			76724	139.00	140.00	1.00	NA	T/CHL/SE	2	tr		
			76725	149.00	150.00	1.00	NA	T/CHL	5	tr		
			76726	150.00	151.00	1.00	NA	T/CHL	2	.50		
			76727	151.00	152.00	1.00	NA	CHL/T	2	.50		
			76728	152.00	153.50	1.50	NA	CHL/T	2	.50		
			76729	153.50	154.85	1.35	NA	T/CHL/QC	2	.50		
154.85	156.20	2.1 MIXED GRADING TO CARBONATE Dark grey with white flecks; medium grained. Weakly locally foliated at 60 to 70 degrees to core axis. Moderately to poorly quartz-carbonate veined at 47 degrees to core axis. Minor talc alteration; carbonate and chlorite alteration dominate. Some quartz-carbonate veins and blebs are contorted ; less veining and foliation towards lower contact. Slightly brecciated texture. Few sulfides overall; local concentrations of pyrite of up to 0.5%; occurring as finely disseminated euhedral crystals. Lower contact is very gradational.	76730	154.85	156.20	1.35	NA	QC/CHL/T	5	tr		
156.20	158.05	1.11 REGULAR GREY CARBONATE Light to medium grey ; medium grained to coarse grained. Locally STRONGLY foliated ; defined by chlorite veinlets; at 70 degrees to core axis. Sparsely veined ; most are stretched and contorted and	76731	156.20	158.05	1.85	64	QC/CH/SE	8	tr		

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		cross-cut foliation. Carbonate alteration throughout with minor chloritization and silicification. Very well mineralized; up to 3 or 4% pyrite occurring as very fine crystals in clusters around quartz-carbonate blebs. Lower contact is sharp and irregular; at 60 degrees to core axis.										
158.05	163.20	1.6 QUARTZ CARBONATE ALTERATION 1.4 CARBONATE WITH MINOR FELSITE (ALBITE) Light grey to white ; medium grained to coarse grained. Generally massive with local remnant foliation (at degrees to core axis 65) towards lower contact. Moderately to poorly quartz-carbonate veined orthogonally and subparallel to core axis. Carbonate is bleached and locally highly silicified and albitized.										
		158.05 To 158.25 : quartz-carbonate vein at 48 degrees to core axis.	76732	158.05	159.00	.95	NA	C/QC/ALB	5	1.00		
		158.25 To 158.90 : grey carb with a contorted texture and weak sericitic alteration.	76733	159.00	160.00	1.00	NA	SI/SER	2	2.00		
		158.90 To 160.00 : gradational change from felsite to highly silicified carbonate.	76734	160.00	161.00	1.00	NA	C/SI/ALB	5	2.00		
		160.00 To 160.40 : bleached grey carbonate; massive.	76735	161.00	162.00	1.00	65	C/SER/AL	5	2.00		
		160.40 To 160.75 : felsite and quartz; massive.	76736	162.00	163.20	1.20	NA	SI/SER/C	5	2.00		
		160.75 To 161.75 : highly altered carbonate with albitized and silicification ; local remnant foliation defined by chlorite veinlets ; medium grey in colour.										
		161.75 To 162.55 : felsitic and silicified; massive; white.										
		162.55 To 163.20 : highly albitized carbonate; light brownish-grey in colour contact with felsitic zone is marked by a concentration of pyrite (2%) and chalcopyrite in the groundmass. Lower contact of unit is a chill margin (fine grained) and gradational ; MARKED BY AND INCREASE in pyrite content 162.00 163.20 Trace chalcopyrite.										
163.20	167.25	8.0 OTHER DIABASE DYKE(?). Upper contact and lower contact are chill margins (fine										
			76737	163.20	164.50	1.30	NA	NA		1.00		
			76738	164.50	166.00	1.50	NA	NA		.50		

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		grained versions of the dyke). Dark grey and green, almost black grading to a medium grey groundmass with dark. Flecks; Very coarse-grained. Up to 20% biotite; minor feldspars, trace chlorite. Non-magnetic. 4-5% Pyrite as medium-sized sub- to euhedral crystals (up to 3mm); usually occurring in clusters of up to 4cm (not uniformly distributed). Lower contact is marked by sericite. (also interpreted as a highly altered grey carb with retrograde biotite).	76739	166.00	167.25	1.25	NA	NA		.50		
167.25	170.95	8.0 OTHER GRANODIORITE(?). Light grey grading to pinkish grey; medium grained to coarse grained. Porphyroblastic texture. 30-40% Quartz; minor biotite; trace hematite (staining rock pink); abundant feldspars(?). Hematite in at 169.25m. Slightly bleached from 167.7 to 167.95m. Minimal veining, mostly as ghost-like fine quartz veins at all angles to core axis. Weakly foliated (preferential orientation of biotite) at 65 to 70 degrees to core axis. 170.10 to 170.20m: small sericitized zone. Overall 2% pyrite as almost uniformly disseminated euhedral crystals (up to 2mm). 169.15m: One speck chalcopyrite in groundmass. 170.20 to 170.95m: pink (hematite stained); granodioritic texture. * also interpreted as feldspar-altered carbonate with retrograde biotite. Lower contact is relatively sharp but irregular, almost orthogonal to core axis.	76740	167.25	168.50	1.25	NA	SI	1	3.00		
			76742	168.50	169.50	1.00	NA	SI	1	1.00		
			76743	169.50	170.95	1.45	NA	SI	1	1.00		
170.95	177.80	3.1 FELSITE/ALBITE Very light grey to medium brown; fine grained to medium grained with aphanitic zones. Massive homogeneous. Less than 5% quartz-carbonate veins most subparallel to core axis. Minor silicification of local zones; some albitization	76744	170.95	172.00	1.05	NA	ALB	5	2.00		
			76745	172.00	173.00	1.00	NA	ALB/SER	5	3.00		
			76746	173.00	174.00	1.00	NA	ALB/SER	2	2.00		
			76747	174.00	175.00	1.00	NA	ALB/SER	2	2.00		
			76748	175.00	176.50	1.50	NA	ALB/SER	2	2.00		
			76749	176.50	177.80	1.30	NA	SI/ALB	2	2.00		

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		and sericitization as well. Approximately 2% pyrite uniformly disseminated over unit. Up to 10% biotite in local zones which have the same granitic texture as above. 172.45 to 172.65m: fine grained zone that resembles a chill margin; edges 176.75 to 176.95m: porphyritic texture. Marked by sericite and elevated pyrite content (4%). Lower contact is gradational.										
177.80	180.00	2.2 MIXED GRADING TO TALC CHLORITE Dark grey with light brown patches; fine grained to medium grained. Massive brecciated ; minor chlorite veinlets and chlorite interstitial to breccia clasts. Quartz-carbonate veining is minimal; mostly quartz-carbonate stringer and blebs at 18 to 60 degrees to core axis. Talc alteration increases towards lower contact; chlorite alteration throughout and quartz-carbonate alteration is patchy. Abrupt decrease in pyrite content to trace finely disseminated crystals associated with quartz-carbonate blebs. Lower contact is gradational.	76750 76751	177.80 179.00	179.00 180.00	1.20 1.00	60 64	QC/T/CHL CHL/QC/T		tr tr		
180.00	189.60	4.0 TALC-CHLORITE SCHIST 4.3 RELATIVELY UNALTERED ULTRAMAFIC Dark grey to dark green (almost black); fine grained to medium grained. STRONGLY locally foliated at 45 to 56 degrees to core axis ; defined by chlorite veinlets. Minor quartz-carbonate veining subparallel to foliation ; quartz-carbonate veins are up to 5mm wide. Non-magnetic. Locally brecciated in zones with minor quartz-carbonate alteration and veining. 186.80m: 10cm Felsite clast in half of core. Up to 2% pyrite locally, as clustered small crystals and large individual euhedral crystals (up to 1cm). Lower contact is sharp at 65 degrees to core axis.	76752 76753 76754 76755 76756 76757 76758 76759 76760	180.00 181.00 182.00 183.00 184.00 185.00 186.00 187.00 188.00	181.00 182.00 183.00 184.00 185.00 186.00 187.00 188.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.60	64 NA 50 NA NA 55 54 NA NA	T/CHL T/CHL T/CHL/QC T/CHL T/CHL T/CHL T/CHL/QC T/CHL T/CHL/QC		tr .50 1.00 tr tr tr tr tr .50		
189.60	193.20	8.0 OTHER MAFIC DYKE. Relatively sharp upper and lower contacts, marked by	76762 76763	189.60 191.00	191.00 192.00	1.40 1.00	NA NA	NA NA		3.00 2.00		

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		brecciation of surrounding quartz-carbonate altered talc chlorite. Massive homogeneous coarse grained with a diabasic texture. 10 to 20% biotite with trace chlorite and minor amounts of quartz with feldspars. Intermediate in colour. Abundant sericite. 3-4% Pyrite as individual, almost evenly distributed crystals up to 6mm.	76764	192.00	193.20	1.20	NA	NA		2.00		
193.20	194.75	4.0 TALC-CHLORITE SCHIST Dark grey and green (almost black) ; fine grained to medium grained. Moderately foliated, defined by chlorite veinlets at 60 degrees to core axis. Abundant talc veins (light green, very soft and soapy). Very little quartz-carbonate veining, subparallel to foliation. Talc-chlorite alteration throughout with weak quartz-carbonate alteration around contacts. Trace to 0.5% pyrite as finely disseminated crystals. Lower contact is sharp but irregular.	76765	193.20	194.75	1.55	60	T/CHL	2	.50		
194.75	195.95	2.0 MIXED Medium to light grey with buff patches; fine grained to medium grained. Massive, unfoliated with abundant no veining and quartz-carbonate stringers. Minor dolomite-rich veins with vugs. Weak quartz-carbonate alteration and chloritic alteration throughout. Minor talc alteration. Up to 1% pyrite occurring as medium to large (4-6mm) crystals in the groundmass. Lower contact is relatively sharp but irregular and undulatory.	76766	194.75	195.95	1.20	NA	C/QC/CHL	5	.50		
195.95	225.35	4.0 TALC-CHLORITE SCHIST 4.3 RELATIVELY UNALTERED ULTRAMAFIC Dark grey and green almost black to fine grained to medium grained. Moderately to weakly foliated at 40 to 60 degrees to core axis. Foliation is locally contorted especially in zones with	76767	195.95	197.00	1.05	NA	CHL	2	.50		
			76768	197.00	198.00	1.00	NA	CHL	2	.50		
			76769	198.00	199.00	1.00	NA	T/CHL	2	.50		
			76770	199.00	200.00	1.00	NA	T/CHL	5	.50		
			76771	200.00	201.00	1.00	NA	T/CHL	5	.50		

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		increased quartz-carbonate alteration.	76772	201.00	202.00	1.00	NA	T/CHL	5	.50		
		Moderately to STRONGLY quartz-carbonate veined and	76773	202.00	203.00	1.00	NA	T/CHL	2	.50		
		abundant quartz-carbonate blebs.	76774	203.00	204.00	1.00	60	T/CHL	2	tr		
		Veining is generally subparallel to foliation.	76775	204.00	205.00	1.00	NA	T/CHL	5	.50		
		Local zones of intense quartz-carbonate alteration (less	76776	205.00	206.00	1.00	NA	T/CHL	2	.50		
		than 30cm each).	76777	206.00	207.00	1.00	NA	T/CHL	5	.50		
		212.20 To 213.75 : intensely sericitized zone	76778	207.00	208.00	1.00	NA	T/CHL	2	.50		
		chloritic groundmass with minor quartz,	76779	208.00	209.00	1.00	NA	T/CHL	2	.50		
		biotite and abundant sericite.	76780	209.00	210.00	1.00	NA	T/CHL	2	.50		
		Minor pyrite (less than 1%) occurring as finely	76782	210.00	211.00	1.00	NA	T/CHL	2	.50		
		disseminate crystals in groundmass.	76783	211.00	212.20	1.20	NA	T/CHL	2	.50		
		Lower contact is gradational.	76784	212.20	213.75	1.55	NA	SER/CHL		1.00		
			76785	213.75	215.00	1.25	NA	T/CHL	2	.50		
			76786	215.00	216.00	1.00	NA	T/CHL	1	tr		
			76787	216.00	217.00	1.00	NA	T/CHL	1	tr		
			76788	217.00	218.00	1.00	NA	T/CHL	1	tr		
			76789	218.00	219.00	1.00	50	T/CHL	1	tr		
			76790	219.00	220.00	1.00	NA	T/CHL	1	tr		
			76791	220.00	221.00	1.00	52	T/CHL	1	tr		
			76792	221.00	222.00	1.00	NA	T/CHL	1	tr		
			76793	222.00	223.00	1.00	NA	T/CHL/LI	5	tr		
			76794	223.00	224.00	1.00	NA	T/CHL/QC	2	tr		
			76795	224.00	225.35	1.35	NA	T/CHL	2	.50		
225.35	227.50	2.1 MIXED GRADING TO CARBONATE										
		Light to medium grey with patches of brownish grey; fine	76796	225.35	226.50	1.15	NA	QC/CHL/T	5	tr		
		grained to medium grained.	76797	226.50	227.50	1.00	NA	QC/CHL/T	2	tr		
		Moderately to weakly foliated locally with foliation										
		often being contorted.										
		Moderately quartz-carbonate veined subparallel to										
		foliation at 40 to 55 degrees to core axis.										
		225.85 Quartz-carbonate vein at 55 degrees to										
		core axis with sericitic halo.										
		Becoming brecciated towards lower contact with clasts										
		being up to 2cm.										
		Talc and chloritic alteration with minor										
		quartz-carbonate alteration becoming stronger towards										
		lower contact.										
		Minor sericitic alteration locally.										
		Almost barren of mineralization; trace fine grained										
		pyrite.										
		Lower contact is gradational.										
227.50	233.30	1.11 REGULAR GREY CARBONATE										
		Light to medium grey to greenish-grey; medium grained.	76798	227.50	229.00	1.50	NA	C/BC	5			

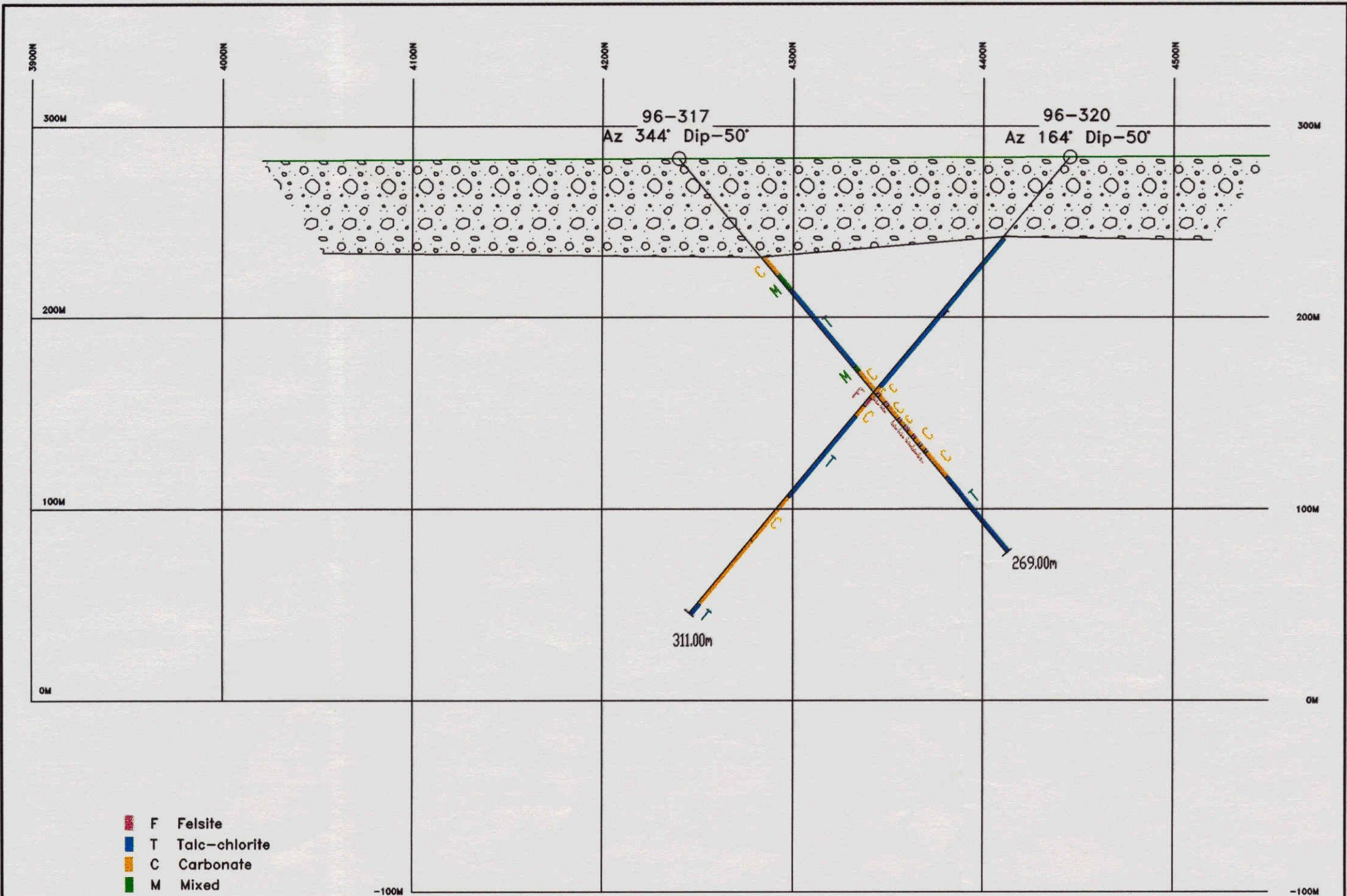
From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		Massive ; non-foliated; non-magnetic.	76799	229.00	230.00	1.00	NA	C/QC	5	tr		
		Minor local brecciation with clasts up to 1cm.	76800	230.00	231.00	1.00	NA	C/BC	2	tr		
		Generally unfractured.	76802	231.00	232.00	1.00	NA	C/BC	5	tr		
		Approximately 2% quartz-carbonate veining at 36 to 60 degrees to core axis 2mm to 1cm.	76803	232.00	233.30	1.30	NA	C/BC/FC	5	tr		
		Minor quartz-carbonate blebs and stringer especially bordering brecciated zones.										
		Local small talc veins approximately 1 per metre.										
		Veins are nearly 100% quartz while blebs and stringer are 50/50 Q/C.										
		Trace epidote near lower contact.										
		Carbonate alteration throughout with minor chlorite and sericitization.										
		Trace fine grained pyrite associated with quartz-carbonate blebs.										
		Lower contact is gradational.										
233.30	235.50	2.0 MIXED										
		Medium grey with patches of brownish grey; medium grained to fine grained.	76804	233.30	234.50	1.20	NA	QC/CHL/T	2	tr		
		Locally brecciated near patches of brown carbonate.	76805	234.50	235.50	1.00	NA	QC/CHL/T	2	tr		
		Abundant chlorite veinlets and stringer defining foliation at 30 to 50 degrees to core axis.										
		Foliation is locally contorted (233.55-233.70m; 235.00-235.30m).										
		Minor quartz-carbonate veining, mostly quartz-carbonate blebs and stringer subparallel to foliation.										
		Chloritic alteration throughout with patchy grey and brown carbonate alteration ; minor talc.										
		Trace fine grained pyrite in chlorite veinlets and near quartz-carbonate stringer.										
		Lower contact marked by quartz vein WITH 2 3MM chalcopyrite CRYSTALS.										
		234.50 235.50 Trace chalcopyrite in veinlet.										
235.50	246.90	1.11 REGULAR GREY CARBONATE										
		Light grey to medium brown to medium greenish-brown; fine grained to medium grained.	76806	235.50	237.00	1.50	NA	C/ALB		.50		
		Massive ; non-foliated; non-magnetic.	76807	237.00	238.00	1.00	NA	C/ALB	1	.50		
		Less than 2% quartz-carbonate veining (2mm to 1.2cm) at 50 to 72 degrees to core axis.	76808	238.00	239.00	1.00	NA	C/ALB	1	tr		
		Grey and weak brown carbonate alteration throughout ; trace epidote; minor chloritic alteration.	76809	239.00	240.00	1.00	NA	C/BC		tr		
		238.00 To 238.35 weak albitic and minor sericitic alteration with decreased concentration of	76810	240.00	241.00	1.00	NA	C/CHL	5	tr		
			76811	241.00	242.00	1.00	NA	C/BC	2	.50		
			76812	242.00	243.00	1.00	NA	C/BC/ALB	2			
			76813	243.00	244.00	1.00	NA	C/SI		tr		
			76814	244.00	245.50	1.50	NA	C/ALB/QC		.50		

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		pyrite to trace. Overall 0.5 to 1% pyrite in veins and stringer with minor large crystals in groundmass. 238.10 6.00 Specks of chalcopyrite in 0.5CM quartz-carbonate veinlet. 245.00 Chalcopyrite IN ZONE OF quartz-carbonate breccia. 242.20 To 242.35 albitic alteration. 243.35 To 243.50 highly contorted quartz-carbonate blebs. Lower contact is gradational minor bleeding of albite into grey carbonate. 238.00 239.00 Trace chalcopyrite in vein. 244.00 245.50 Trace chalcopyrite in quartz-carbonate blebs. 245.50 246.90 Trace chalcopyrite in quartz-carbonate blebs.	76815	245.50	246.90	1.40	NA	C/QC		.50		
246.90	248.15	1.5 CARBONATE > ALBITE Pale grey with purplish hue; fine grained to aphanitic. Massive ; non-magnetic. Veining appears ghost-like due to albitic overprinting of carbonate. 1% Quartz-carbonate veins 2mm to 1cm at 35 degrees to core axis. Abundant quartz-carbonate blebs and stringer. 247.15 To 247.30 abundant chlorite in groundmass with trace chalcopyrite in chlorite. Strong albitic and grey carbonate alteration alternate with minor chloritic alteration. 0.5% Pyrite overall with local concentrations in chlorite to 1% over 10CM. Lower contact is gradational. 246.90 248.15 Trace chalcopyrite in chlorite groundmass.	76816	246.90	248.15	1.25	NA	ALB/C		tr		
248.15	262.10	1.11 REGULAR GREY CARBONATE 1.7 BROWN CARBONATE Light to medium grey with patches of brownish-grey to fine grained to medium grained. Less than 2% quartz-carbonate veining (3MM-1.5CM) at 16 to 75 degrees to core axis. Zones of abundant chlorite veinlets anastomosing at all angles to core axis. Massive ; non-magnetic. Grey with weak brown carbonate alteration and minor chloritic alteration.	76817	248.15	249.50	1.35	NA	BC/C	2	1.00		
			76818	249.50	251.00	1.50	NA	BC/C	2	1.00		
			76819	251.00	252.00	1.00	NA	C/BC/ALB	2	1.00		
			76820	252.00	253.00	1.00	NA	BC/C/ALB	2	1.00		
			76822	253.00	254.00	1.00	NA	C/BC/ALB	2	.50		
			76823	254.00	255.00	1.00	NA	C/BC	1	.50		
			76824	255.00	256.00	1.00	NA	ALB/C/SE	1	2.00		
			76825	256.00	257.00	1.00	NA	C/CHL/QC	1	2.00		
			76826	257.00	258.00	1.00	NA	C/ALB	1	4.00		

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		Patchy albitic alteration locally.	76827	258.00	259.00	1.00	NA	C/CHL/AL	1	3.00		
		260.00 To 261.20 remnant spinifex texture is prominent.	76828	259.00	260.00	1.00	NA	C	2	.50		
			76829	260.00	261.00	1.00	NA	C	1	tr		
		MINERALIZATION: 0.5% overall with barren zones and zones of up to 4% disseminated pyrite crystals up to 5mm (generally associated with chloritic and albitic zones). Mineralization trace chalcopyrite in and on the edges of quartz-carbonate veins and blebs.	76830	261.00	262.10	1.10	NA	C/QC	1			
		250.40, 250.85, 251.20, 251.55 to 251.70, 252.90, 253.80, 254.40, and 255.15: trace chalcopyrite.										
		Lower contact is gradational.										
		Chalcopyrite at.										
		249.50 251.00 Trace chalcopyrite in quartz veins.										
		251.00 252.00 Trace chalcopyrite in quartz-carbonate veins.										
		252.00 253.00 Trace chalcopyrite in albite alteration.										
		253.00 254.00 Trace chalcopyrite in quartz-carbonate vein										
		254.00 255.00 Trace chalcopyrite in quartz-carbonate vein										
		255.00 256.00 Trace chalcopyrite in groundmass.										
262.10	269.45	2.0 MIXED										
		Light grey with patches of greenish and brownish-grey; fine grained to medium grained.	76831	262.10	263.50	1.40	60	QC/CHL/T	5			
			76832	263.50	265.00	1.50	NA	CHL/T/QC	5	tr		
		STRONGLY foliated from 262.10 to 263.90m at 41 to 62 degrees to core axis defined by chlorite veinlets.	76833	265.00	266.00	1.00	NA	CHL/QC/T	2	tr		
			76834	266.00	267.00	1.00	64	QC/CHL	2	tr		
		Moderately quartz-carbonate veined (5%) subparallel to foliation.	76835	267.00	268.00	1.00	NA	QC/CHL/T	2	tr		
			76836	268.00	269.45	1.45	NA	QC/CHL/T	2	tr		
		Abundant chlorite veinlets and quartz-carbonate stringer and blebs.										
		Minor talc veins up to 8mm.										
		Weak local brecciation with clasts less than 1.5cm.										
		Quartz-carbonate and chloritic alteration throughout with minor talc.										
		Trace very fine grained pyrite one edges of quartz-carbonate blebs.										
		Lower contact is gradational.										
269.45	280.80	1.11 REGULAR GREY CARBONATE 1.7 BROWN CARBONATE										
		Medium grey with patches of brown-grey; medium grained.	76837	269.45	270.50	1.05	NA	C/BC	1	2.00		
		Massive ; non-magnetic.	76838	270.50	272.00	1.50	NA	C/BC	2	.50		
		273.00 To 274.4 weak brecciation.	76839	272.00	273.00	1.00	NA	C/BC	2	tr		
		Poorly quartz-carbonate veined at 30 to 70 degrees to core axis (1mm to 8mm).	76840	273.00	274.00	1.00	NA	C/BC/QC	2	tr		
			76842	274.00	275.00	1.00	NA	C/CHL/QC	5	1.00		
		Minor local zones of fine anastomosing hairline fractures with minor pyrite.	76843	275.00	276.00	1.00	NA	C/BC	1	.50		
			76844	276.00	277.00	1.00	NA	C/BC	1	1.00		

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		Grey carbonate alteration throughout with weak brown carbonate and minor albitization. Local zones of silicification. Locally 4 to 5% pyrite as medium euhedral disseminated crystals. Overall 2% pyrite mostly occurring in the groundmass. Lower contact is sharp at 52 degrees to core axis. 279.50 280.80 Trace chalcopyrite in groundmass.	76845	277.00	278.00	1.00	NA	C/BC	1	2.00		
			76846	278.00	279.50	1.50	NA	C/BC	5	2.00		
			76847	279.50	280.80	1.30	NA	C/BC/QC	8	2.00		
280.80	292.10	1.7 BROWN CARBONATE 1.11 REGULAR GREY CARBONATE Medium brown with patches of light greenish-grey; medium grained to fine grained. Massive ; non-magnetic. Moderately quartz-carbonate veined at 35 to 50 degrees to core axis with most larger veins containing vuggy dolomite. Local small talc veins and abundant anastomosing chlorite veinlets near zones of brecciation. Locally brecciated with breccia clasts up to 4cm and usually made up of brown carbonate or albitized carbonate Zones of intense brown carb alteration have abundant pyrite. Zones of intense green colouration are chloritic alteration and are generally barren. 3% Pyrite locally with less than 1% overall. Groundmass between breccia clasts is chloritic and barren of mineralization. Lower contact is sharp at 53 degrees to core axis and marked by a narrow quartz-carbonate vein. 283.00 284.00 Trace chalcopyrite in groundmass. 290.00 291.00 Trace chalcopyrite in quartz-carbonate vein	76848	280.80	282.00	1.20	NA	BC/CHL/C	5	1.00		
			76849	282.00	283.00	1.00	NA	CHL/BC	2	.50		
			76850	283.00	284.00	1.00	NA	BC/C/CHL	2	1.50		
			76851	284.00	285.00	1.00	NA	BC/C/CHL				
			76852	285.00	286.00	1.00	NA	BC/C		.50		
			76853	286.00	287.00	1.00	NA	BC/C	2	1.00		
			76854	287.00	288.00	1.00	NA	C/BC	5	2.00		
			76855	288.00	289.00	1.00	NA	C/BC		1.00		
			76856	289.00	290.00	1.00	NA	C/QC	2	2.00		
			76857	290.00	291.00	1.00	NA	C/BC/QC	2	2.00		
			76858	291.00	292.10	1.10	NA	C/QC/BC	2	2.00		
292.10	295.10	1.0 CARBONATE HEAVILY CHLORITIZED CARBONATE. Dark green to greenish-grey; fine grained to medium grained. Massive ; non-magnetic. 294.1- 294.5m: Slightly brecciated texture. Poorly quartz-carbonate veined with most being contorted or anastomosing. Abundant anastomosing hairline fractures. Strong chloritic alteration throughout with patches of weak grey carbonate alteration. Core is relatively soft with a hardness of approx 2.5. Heavily chloritized zones are barren of mineralization.	76859	292.10	293.50	1.40	NA	CHL/C	1	tr		
			76860	293.50	295.00	1.50	NA	CHL/C	2	tr		
			76862	295.00	296.25	1.25	NA	CHL/C	2	tr		

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
295.10	296.25	Lower contact is gradational. 1.11 REGULAR GREY CARBONATE 1.6 QUARTZ CARBONATE ALTERATION Dark to medium grey with zones of brown and buff ; medium grained to fine grained. Massive ; non-magnetic. Weakly brecciated with chlorite veinlets surrounding clasts. Very poorly quartz-carbonate veined ; mostly blebs and stringers. Patchy grey and brown carbonate alteration and minor chloritization at contacts. Core is significantly harder than overlying zone; H=4. 2% Pyrite disseminated throughout zone with local concentrations near quartz-carbonate blebs most pyrite occurring in the groundmass. Lower contact is gradational.										
296.25	302.05	1.0 CARBONATE HIGHLY CHLORITIZED CARBONATE (as above). Few talc veinlets appearing at 297.20m. Upper part of zone is massive, but becoming moderately foliated from 300.10 to the base at 50 to 75 degrees to core axis. Minor quartz-carbonate veining less contorted than previous chloritized unit; at 46 to 54 degrees to core axis. Chloritic alteration throughout with patches of grey and brown carbonate. Quartz-carbonate blebs and stringer increase in abundance (to 10%) towards lower contact. Trace pyrite as very fine crystals (less than 0.25mm) disseminated near patches of carbonate. Lower contact is gradational.	76863	296.25	297.50	1.25	NA	BC/C/QC	1	3.00		
			76864	297.50	299.00	1.50	NA	CHL/C	3	tr		
			76865	299.00	300.00	1.00	NA	CHL/C	3	tr		
			76866	300.00	301.00	1.00	50	CHL/C	3	tr		
			76867	301.00	302.05	1.05	75	CHL/C	5	tr		
302.05	303.85	2.2 MIXED GRADING TO TALC CHLORITE Dark to medium green and greenish grey; fine grained to medium grained. Mostly massive or with extremely contorted foliation. Non-magnetic. Abundant quartz-carbonate blebs and stringer which are also contorted. Fine anastomosing stringer of chlorite throughout. Chlorite and quartz-carbonate alteration throughout with	76868	302.05	303.85	1.80	NA	QC/CHL/T	5	tr		



- F Felsite
- T Talc-chlorite
- C Carbonate
- M Mixed
- MV Mafic Volcanics
- MI Mafic Intrusive

Overburden



ECHO BAY ONTARIO LTD. AQUARIUS PROPERTY	
CLM 293 CROSS SECTION 11500NE Looking West	
SCALE: 1:2500	DRAWN: EGJ
DATE: Feb 1997	REV. BY
No.	

Date Printed: 27 Jun, 1996

Surveyed Coordinates

Survey Northing: 4240.000
 Survey Easting: 11250.000
 Elevation: 283.000

Grid Coordinates

Grid Northing: 4240 N
 Grid Easting: 11250 E

ECHO BAY ONTARIO LTD.

DRILL HOLE RECORD

Drill Hole: 96-318

***** Dip Tests *****
 Depth Azi. Dip
 84.0 -55.0
 135.0 -54.0
 264.0 -54.0

Measure: Metric
 Drilled by: NDS
 Survey: No
 Date Started: 30 April 1996
 Completed: 1 May 1996
 Core Size: NQ
 Property: Northwest Carbonate
 Claim: CLM 293
 Township: Macklem
 Prov/State: Ontario
 Country: Canada

Collar Azi.: 344
 Collar Dip: -50
 Hole Length: 264.00

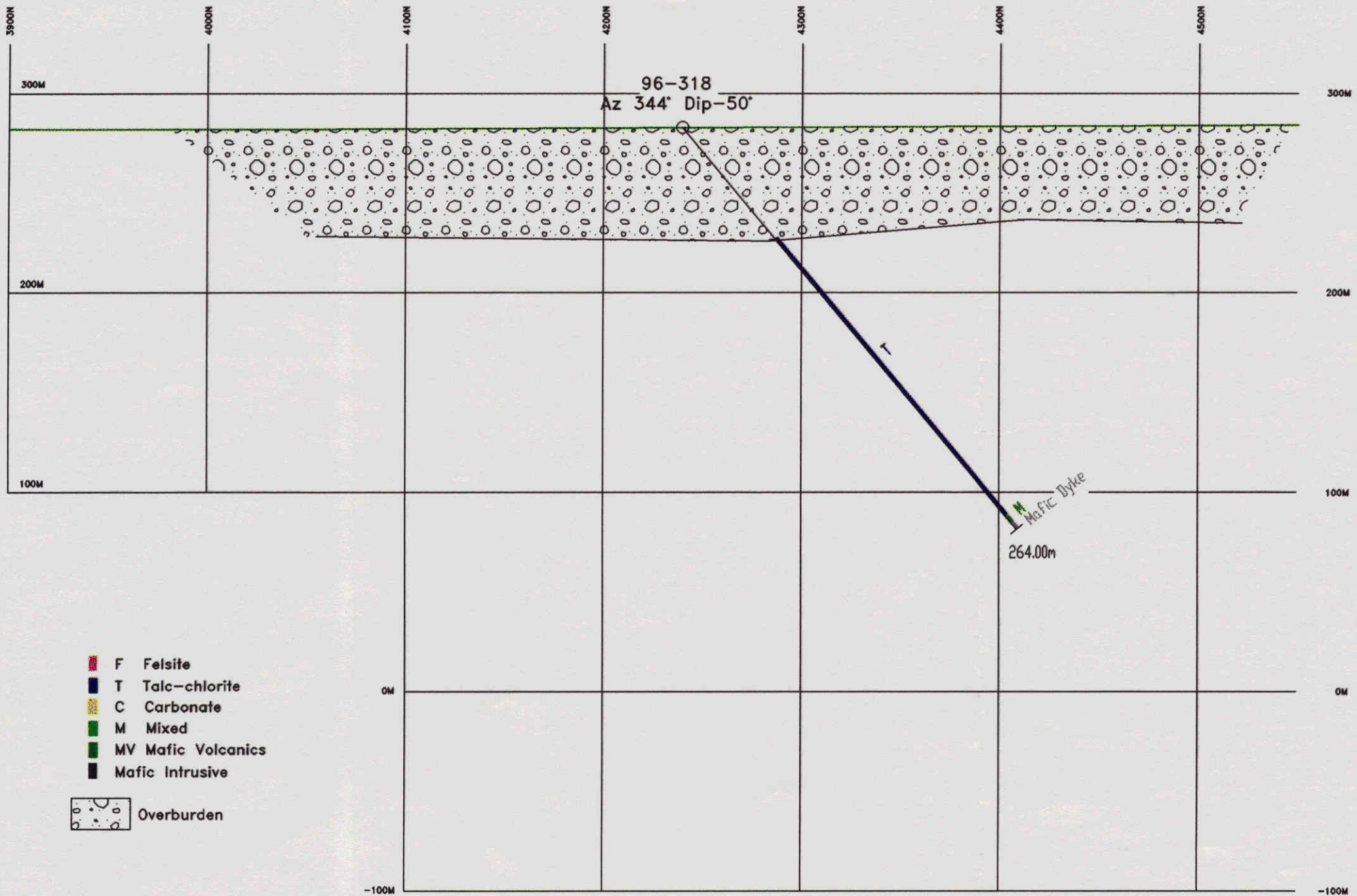
Core Storage: Aquarius Mine Site

Local reference: South of Hwy 101
 Local reference: 30 km East of Timmins, Ontario
 Type of Drill: Diamond
 Purpose: To determine the thickness and orientation of the NW carb.
 Comments: No carbonate unit intersected
 Comments:

Date(s) Logged: 1 May 1996
 Logged by: C. Raatz

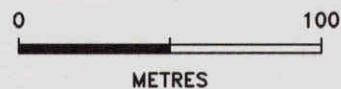
From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	73.80	6.0 OVERBURDEN/CASING Casing to 74.00m.										
73.80	255.00	4.0 TALC-CHLORITE SCHIST Minor unaltered ultramafics locally. Dark greenish-grey; fine-grained. Poorly foliated at 50 degrees to core axis at 84.15m. Poorly quartz-carbonate veined subparallel to foliation; veins are less than 8mm wide, locally up to 3cm. Quartz-carbonate veins and stringers are locally contorted and folded (i.e. At 84.8-84.95m). Local zones of angular rubbly core or ground core, possibly indicative of fractures and shear; angular pieces are less than 1cm. 20% Talcose veining defining schistosity; 2% talc veins less than 1cm at 50 to 60 degrees to core axis. Minor low angle 'ghost' carb. Veins in massive zones at 30 degrees to core axis. 0.5-1% Pyrite as individual crystals less than 4mm; locally up to 4% crystals less than 1cm. Sub- to euhedral, in groundmass and near fractures and breaks in core; also found in clusters of individual crystals. Local remnant spinifex textures. 128.80 to 129.00m: weakly carbonatized zone with 2-3%	76459	168.50	169.50	1.00	NA	T/CHL	10	1.00		3
			76460	169.50	170.50	1.00	NA	T/CHL	90			3
			76462	170.50	171.50	1.00	NA	NA	100			3
			76463	171.50	172.50	1.00	NA	NA	100			3
			76464	172.50	173.50	1.00	NA	NA	100			3
			76465	173.50	174.50	1.00	NA	NA	100			3
			76466	174.50	175.50	1.00	NA	NA	100			3
			76467	175.50	176.75	1.25	NA	NA	100			3
			76468	176.75	178.00	1.25	NA	T/CHL	2	.50		3
			76469	178.00	179.00	1.00	NA	T/CHL	2	.50		3
			76470	252.00	253.00	1.00	NA	T/CHL		tr		3
			76471	253.00	254.00	1.00	NA	T/CHL	15	tr		270
			76472	254.00	255.00	1.00	NA	T/CHL	10	tr		60

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		pyrite. 170.35 to 176.75m: quartz vein; quartz flooding of talc-chlorite; relatively sharp, irregular contacts; barren of sulfides, except for 1 speck cpy at 176.65m; generally massive and medium to coarse grained. 228.3-EOH: Strongly ferromagnetic. 248.3-249.0m: Talc vein, subparallel to core axis; light green; sharp irregular contacts with Talc-chlorite. Lower contact with mafic volcanic is gradational. 175.50 176.75 1 speck chalcopyrite.										
255.00	258.70	5.1 MASSIVE MAFIC VOLCANICS Dark greenish-grey; fine to medium grained. Relatively gradational contacts; massive. Contacts marked by talc and quartz veining at 50 deg. TCA Little to no mineralization; as finely disseminated euhedral crystals. Little to no veining.	76473	255.00	256.00	1.00	NA	CHL	10	tr		3
			76474	256.00	257.50	1.50	NA	CHL	5	.50		40
			76475	257.50	258.70	1.20	NA	SER/CHL		.50		800
258.70	264.00	8.0 OTHER Mafic dyke with high levels of sericite. Fine grained; light grey. Massive; relatively homogenous. Hardness of about 4. Strongly ferromagnetic. Approx. 10% biotite; 20% chlorite; trace talc; 50% sericite; minor magnetite; minor feldspathoids. 0.5-1% Individual pyrite cubes, less than 4mm. 164m: END OF HOLE. 76461 Blank. 76481 Blank.	76476	258.70	260.00	1.30	NA	SER/CHL		1.00		4010
			76477	260.00	261.00	1.00	NA	SER/CHL		tr		260
			76478	261.00	262.00	1.00	NA	SER/CHL	2	.50		35
			76479	262.00	263.00	1.00	NA	SER/CHL		.50		120
			76480	263.00	264.00	1.00	NA	SER/CHL	1	1.00		150



- F Felsite
- T Talc-chlorite
- C Carbonate
- M Mixed
- MV Mafic Volcanics
- Mafic Intrusive
- Overburden

ECHO BAY ONTARIO LTD. AQUARIUS PROPERTY	
CLM 293 CROSS SECTION 11250NE Looking West	
SCALE: 1:2500	DRAWN: EGJ
DATE: Feb 1997	REV. BY
No.	



Date Printed: 27 Jun, 1996

Surveyed Coordinates

Survey Northing: 4240.000
 Survey Easting: 10700.000
 Elevation: 283.000

Collar Azi.: 344
 Collar Dip: -50

Hole Length: 226.00

Local reference: South of Hwy 101
 Local reference: 30 km East of Timmins, Ontario
 Type of Drill: Diamond
 Purpose: Exploration hole
 Comments:

Grid Coordinates

Grid Northing: 4240 N
 Grid Easting: 10700 E

ECHO BAY ONTARIO LTD.

DRILL HOLE RECORD

***** Dip Tests *****
 Depth Azi. Dip
 76.0 341 -51.0
 172.0 -51.0
 226.0 -52.0

Core Storage: Aquarius Mine Site

Drill Hole: 96-319

Measure: Metric
 Drilled by: NDS
 Survey: No
 Date Started: ?? May. 1996
 Completed: ?? May. 1996
 Core Size: NQ
 Property: Northwest Carbonate
 Claim: CLM 293
 Township: Macklem
 Prov/State: Ontario
 Country: Canada

Date(s) Logged: 16 May 1996
 Logged by: S.CONLEY

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	66.30	6.0 OVERBURDEN/CASING Sections of homogeneous talc chlorite.										
66.30	75.30	4.0 TALC-CHLORITE SCHIST Pyrite grains in green talc chlorite groundmass.	76651	74.00	75.30	1.30	45	CH/TC/SI	1	tr		
75.30	76.90	3.6 FELDSPAR PORPHYRY Quartz-carbonate stringer. Upper contact sharp at 45 degrees to core axis and lower contact clear although fractured and uneven. Chalcopyrite fine grained in dark green chlorite. Pyrite throughout as disseminated euhedral grains in a fine grained form and in a cubic form. 75.30 76.90 Chalcopyrite.	76652	75.30	76.90	1.60	NIL	SI/CHL		.50		
76.90	190.00	4.0 TALC-CHLORITE SCHIST With extensive local quartz-carbonate veins and alteration. Massive, homogeneous, aphanitic talc chlorite with light green talc veins.	76654 76655 76656 76657	92.00 93.00 94.10 112.00	93.00 94.10 96.00 113.00	1.00 1.10 1.90 1.00	NIL NIL 45-60 40-45	TC/CHL AL/SIL/C TC/CHL TC/CHL		tr tr tr tr		

S. Conley

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		Foliation at 50 to 60 degrees to core axis and quartz-carbonate veins of at 35 to 50 degrees to core axis and 8mm-3cm in diameter.	76658	113.00	114.00	1.00	45	TC/CHL	1	tr		
			76659	114.00	115.00	1.00	NIL	TC/CH/CA		tr		
			76660	115.00	116.00	1.00	NIL	TC/CH/CA	0	tr		
			76662	116.00	117.00	1.00	NIL	TC/CH>CA		tr		
			76663	117.00	118.00	1.00	45	TC/CHL		.25		
			76664	118.80	119.00	.20	NIL	TC/CHL		tr		
		The upper contact is clear at at 89 degrees to core axis and the lower contact clear at at 35 degrees to core axis Unit is homogeneous, massive and aphanitic.	76665	119.00	120.00	1.00	NIL	TC/CHL		tr		
			76666	120.00	121.00	1.00	NIL	TC/CHL		tr		
		Areas of 4.3 >4 locally.										
		Talc veins in the weak mixed zone with pyrite as euhedral grains overall.										
		Carbonate overprinted by the pervasive talc chl from 114.7- 118.0.										
		Locally sheared 136.0 -137.0 -139.0.										
		145.02 Massive, aphanitic unit dark green talc chlorite, generally barren of mineralization.										
		Quartz-carbonate alteration alternating with 4.3 throughout.										
		At 161.0 -163.0 more pervasive quartz-carbonate alteration and pyrite in the qc altered areas.										
		Pyrite as euhedral grains with talc veins throughout with the quartz-carbonate.										
		Alteration overall.										
		Quartz-carbonate alteration more pervasive with talc veins prevalent locally.										
		Quartz-carbonate alteration close to grey carb and weak halo of green mafic rock.										
190.00	214.00	3.6 FELDSPAR PORPHYRY										
			76667	190.00	191.00	1.00	NIL	CHL/SER		1.00		
		Minor local quartz veining orientated at 45 degrees to core axis.	76668	191.00	192.00	1.00	NIL	TC>CHL		.25		
			76669	192.00	193.00	1.00	NIL	TC>CHL		.50		
		Talc veins overall with minor local quartz-carbonate altered areas.	76670	193.00	194.00	1.00	NIL	CH/TC/SE		.25		
			76671	194.00	195.00	1.00	NIL	CHL>TC		.50		
		Massive, homogeneous, aphanitic.	76672	195.00	196.00	1.00	NIL	CHL		1.00		
		Pyrite as cubic grains to 1cm and as euh grain'.	76673	196.00	197.00	1.00	NIL	CHL		1.50		
			76674	197.00	198.00	1.00	NIL	CHL		1.00		

Date Printed: 27 Jun, 1996

Surveyed Coordinates

Survey Northing: 4325.000
 Survey Easting: 10700.000
 Elevation: 283.000

Collar Azi.: 164
 Collar Dip: -50

Hole Length: 131.00

Local reference: South of Hwy 101
 Local reference: 30 km East of Timmins, Ontario
 Type of Drill: Diamond
 Purpose: To determine whether or not there was carb on line 10700
 Comments: Talc hole
 Comments:

Grid Coordinates

Grid Northing: 4325 N
 Grid Easting: 10700 E

ECHO BAY ONTARIO LTD.

DRILL HOLE RECORD

***** Dip Tests *****
 Depth Azi. Dip
 80.0 164 -50.0

Core Storage: Aquarius Mine Site

Page: 1 of 2

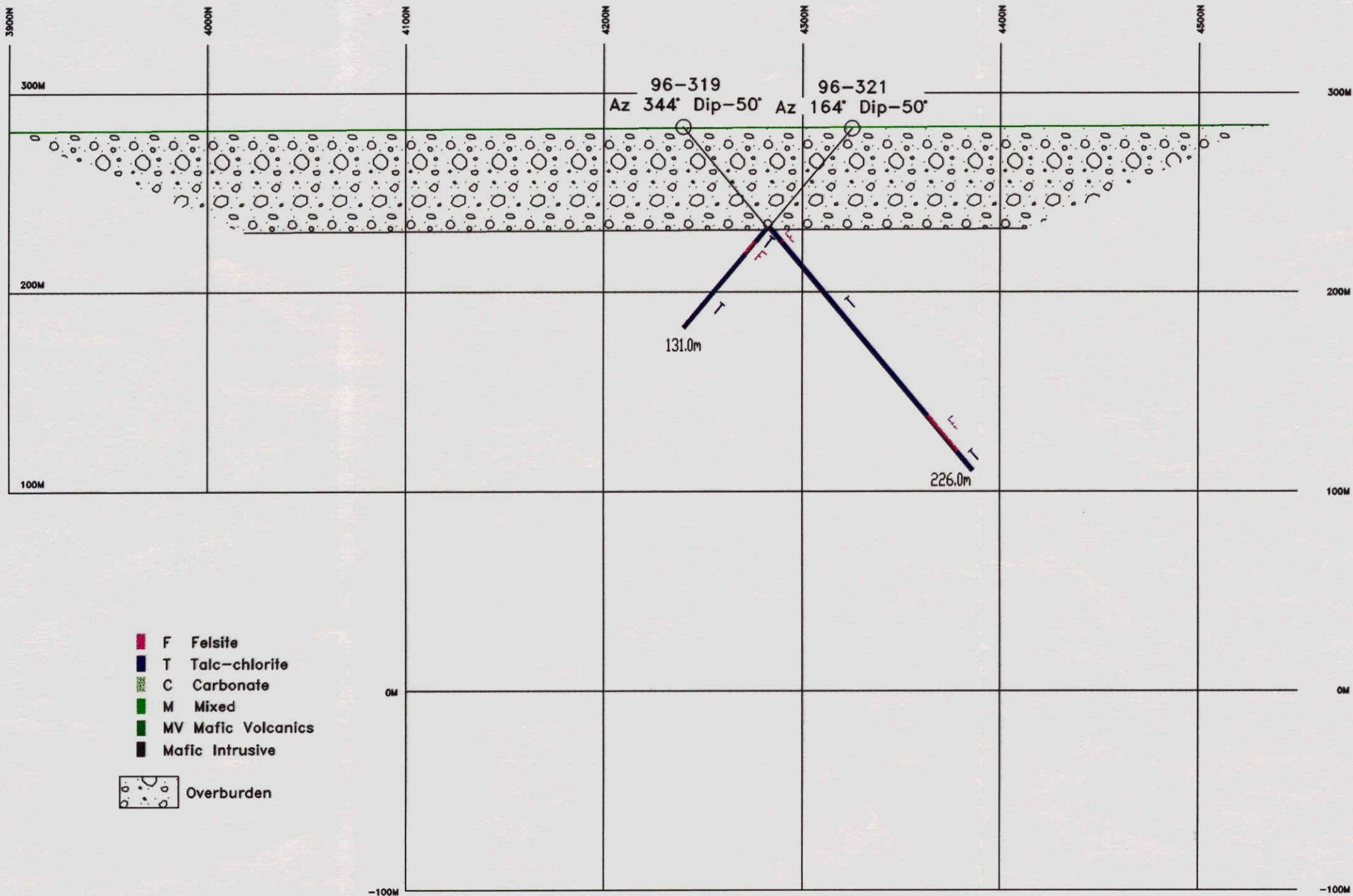
Drill Hole: 96-321

Measure: Metric
 Drilled by: NDS
 Survey: No
 Date Started: 14 May 1996
 Completed: 15 May 1996
 Core Size: NQ
 Property: Northwest Carbonate
 Claim: CLM 293
 Township: Macklem
 Prov/State: Ontario
 Country: Canada

Date(s) Logged: 23 May 1996
 Logged by: C. Raatz

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	66.30	6.0 OVERBURDEN/CASING										
66.30	74.50	4.0 TALC-CHLORITE SCHIST Dark grey to black with patches of greenish grey; fine grained. Foliation is obscured due to intense quartz-carbonate alteration in the form of blebs and stringers. Core is rubbly in local zones (10-20cm) approx 2 per m, denoting intense fracturing. Non-magnetic. Unbroken sections of core exhibit weak brecciation with chlorite interstitial to breccia clasts (usually QC material). Trace pyrite as euhedral crystals in or near QC blebs. Lower contact is sharp at 84 degrees to core axis and marked by very intense QC alteration and chlorite veining	76873 76874 76875 76876	70.00 71.00 72.00 73.00	71.00 72.00 73.00 74.50	1.00 1.00 1.00 1.50	NA NA NA NA	T/CHL/QC T/CHL/QC T/CHL/QC T/CHL/QC				tr tr tr tr
74.50	83.05	3.1 FELSITE/ALBITE FELSITE DYKE. Light grey to buff and greenish-grey; medium grained to coarse grained. Massive homogeneous ; non-magnetic. Nearly porphyritic texture, almost granitic without mafic content. No veining, only minor quartz-healed fractures at 41	76877 76878 76879 7688 76882 76883 76884	74.50 75.50 77.00 78.00 79.00 80.00 81.00	75.50 77.00 78.00 79.00 80.00 81.00 82.00	1.00 1.50 1.00 1.00 1.00 1.00 1.00	NA NA NA NA NA NA NA	SI SI SI SI SI SI SI				

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		degrees to core axis. Weak silicification throughout. Core is unbroken, most pieces are greater than 0.5m and up to 1.5m. No sulphides. Lower contact is sharp at 90 degrees to core axis and marked by intensive chloritization.	76885	82.00	83.05	1.05	NA	SI				
83.05	131.00	4.0 TALC-CHLORITE SCHIST As talc-chlorite unit above. Sparodically fractured approx 2 per m (10-15 cm each). Generally foliation is contorted or obscured. Relatively intense quartz-carbonate blebbing and abundant stringers. 108.95 To 109.4 and 123.4 to 123.95 fault gouge marked by ground core of a pale green colour. Talc and chlorite alteration throughout with zones of intense QC blebs and stringers. Trace pyrite as fine euhedral crystals in groundmass and in QC. 131.00 END OF HOLE. 76881 Blank.										
			76886	83.05	84.00	.95	NA	T/CHL	1	tr		
			76887	84.00	85.00	1.00	NA	T/CHL/QC	1	tr		
			76888	85.00	86.00	1.00	NA	T/CHL/QC	1	tr		
			76889	86.00	87.00	1.00	NA	T/CHL/QC	1	tr		
			76890	87.00	88.00	1.00	NA	T/CHL/QC	1	tr		



ECHO BAY ONTARIO LTD. AQUARIUS PROPERTY		
CLM 293 CROSS SECTION 10700NE Looking West		
SCALE: 1:2500	DRAWN: EGJ	No.
DATE: Feb 1997	REV. BY	

Date Printed: 27 Jun, 1996

ECHO BAY ONTARIO LTD.

Page: 1 of 2

Surveyed Coordinates

Grid Coordinates

DRILL HOLE RECORD

Drill Hole: 96-401

Survey Northing: 3350.000
 Survey Easting: 11800.000
 Elevation: 280.000

Grid Northing: 3550 N
 Grid Easting: 11800 E

***** Dip Tests *****
 Depth Azi. Dip

Measure: Metric
 Drilled by: NDS
 Survey: No
 Date Started: 24 May 1996
 Completed: 25 May 1996
 Core Size: NQ
 Property: Aquarius
 Claim: CLM-293
 Township: Macklem
 Prov/State: Ontario
 Country: Canada

Collar Azi.: 344
 Collar Dip: -55

Core Storage: Aquarius Minesite

Hole Length: 161.40

Date(s) Logged: 25 May 1996
 Logged by: Susan Lomas

Local reference: Strat. line between Old Aquarius and Aquarius Mine
 Local reference:
 Type of Drill: Diamond
 Purpose: To test for carbonate in area of magnetic low west of Aquarius minesite
 Comments: No carbonates were intersected
 Comments:

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	110.00	6.0 OVERBURDEN/CASING										
110.00	117.10	4.2 TALC CHLORITE STRONGLY SHEARED - FAULT GOUGE Dark green, moderately soft serpentized talc chlorite schist Moderately to strongly foliated at 15 to 20 dtca. 5% quartz-chlorite-calcite fracture filling parallel to foliation. Strongly sheared and brocken core (gougey) every one to two metres. Lower contact sharp but brocken. 116.10 117.10 Bracket sample to intrusive.	76901	116.10	117.10	1.00						
117.10	118.80	8.1 GABBRO Dark grey, fine to medium grained dioritic intrusive. Massive, unfoliated. 5% quartz-carbonate veining, at 70 to 90 dtca, 3 to 5 mm wide, locally with 1 cm wide bleached-brown halo with upto 1% coarse cubic pyrite. Overall the rock contains 0.5 to 1% disseminated coarse cubic pyrite, 1 to 3 mm. 117.10 118.80 Dioritic intrusive with 0.5 to 1% disseminated pyrite and alteration halos around quartz-calcite fracture filling.	76902	117.10	118.80	1.70						

Date Printed: 27 Jun, 1996

ECHO BAY ONTARIO LTD.

Page: 1 of 4

Surveyed Coordinates

Survey Northing: 2900.000
 Survey Easting: 11800.000
 Elevation: 280.000

Grid Coordinates

Grid Northing: 2900 N
 Grid Easting: 11800 E

DRILL HOLE RECORD

Drill Hole: 96-403

***** Dip Tests *****
 Depth Azi. Dip

Measure: Metric
 Drilled by: NDS
 Survey: No
 Date Started: June 3, 1996
 Completed: June 7, 1996
 Core Size: NQ/BQ
 Property: Aquarius
 Claim: PATENT 8550
 Township: Macklem
 Prov/State: Ontario
 Country: Canada

Collar Azi.: 344
 Collar Dip: -55

Hole Length: 321.00

Core Storage: Aquarius Minesite

Local reference: South of Hwy 101
 Local reference: 30 km East of Timmins, Ontario
 Type of Drill: Diamond
 Purpose: To test for carbonate in area of magnetic low
 Comments: No carbonate was intersected
 Comments: Reduced to BQ at 269.4m

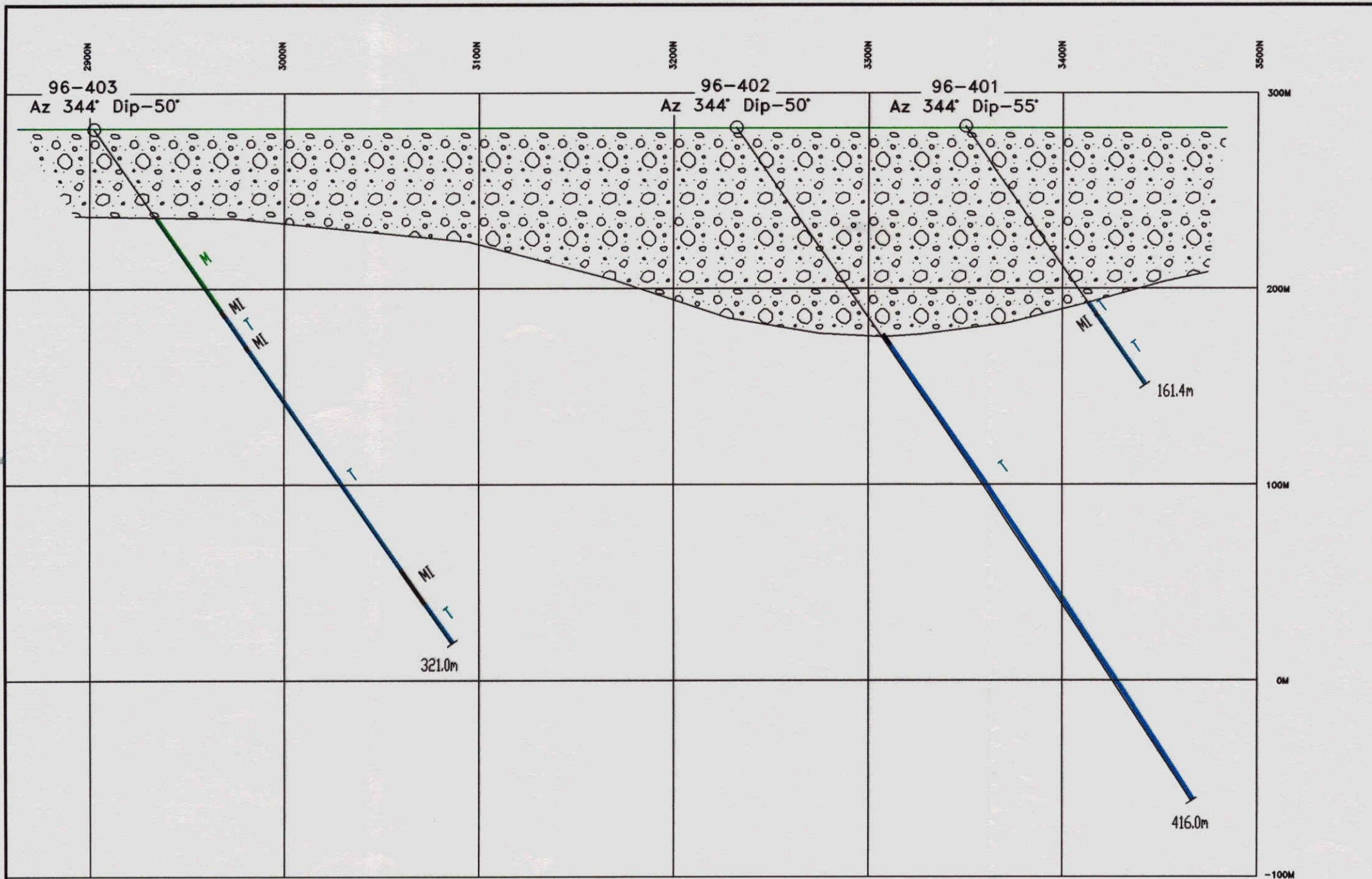
Date(s) Logged: June 7-8, 1996
 Logged by: Albert Ali

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	55.60	6.0 OVERBURDEN/CASING										
55.60	75.50	5.1 MASSIVE MAFIC VOLCANICS Medium green, fg, relatively fresh, equigranular, massive, homogeneous. Hard (Probably silicified), trace amount of very finely diss py. Traces of 1-mm carb stringers.										
75.50	113.65	5.2 PILLOWED MAFIC VOLCANIC Possible pillow selvages: 3 to 4-cm wide chloritized (darker green) selvages every 30 cm to 1 meter. Unit is lighter green in this pillowed section. At 104-109.2m: variolitic, darker green, weakly fol'd at 65-70 deg tca.										
113.65	117.45	8.1 GABBRO Dark green, mg, equigranular, homo, massive. Chilled sharp contacts at 40/90 deg tca. Minor carb stringers, pervasively chl'd.	76909	113.65	115.00	1.35	NA	CL			nil	
			76910	115.00	116.00	1.00	NA	CL			nil	
			76911	116.00	117.45	1.45	NA	CL			nil	
117.45	135.70	4.3 RELATIVELY UNALTERED ULTRAMAFIC Dark gnsh grey, vfg, bxd texture with 5-10% carb 1mm-3mm carb stringers interstitial to closely-packed bx clasts. Locally fol'd at 45 deg tca.	76912	117.45	119.00	1.55	NA	CL/T	5		nil	
			76913	119.00	120.00	1.00	NA	CL/T	5		nil	
			76914	120.00	121.00	1.00	NA	CL/T	13		nil	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		At 233-259m: Increasing pitted and vuggy core and increasing pale green talc stringers.										
		AT 259m: Sharp contact with pitted, talcose fault zone above; zone ends at 5cm of gouge and crushed rock at 60 deg tca.										
		At 259-274.70m: Dark greenish grey, pervasively chl'd/talcose, generally massive, locally fol'd at 60 deg tca.										
		This section displays 10% 1-2mm disseminated subhedral carb.										
		Faults indicated by gouge and crushed rock as follows:.										
		At 264.6m: 2 cm of gouge and crushed rock.										
		At 269.4-270.1m: 80 cm of core lost; 15 cm of ground core; at 270.8m - 4 cm of gouge and crushed rock; at 272m - 5 cm of gouge and crushed rock.										
		At 273.4-273.7m: Major fault zone - gouge and crushed rock at 60 deg tca.										
		At 274.0-274.6m: ground core with gouge-coated frac surfaces; 50 cm of core lost in this section.										
		260.00 261.00 Sample includes 15-cm band of qc at 60 deg tca.										
		263.00 264.00 40-cm pitted zone of shearing at 55 deg tca										
		265.00 266.00 2 cm of gouge at 264.6m at 80 deg tca.										
		267.00 268.00 2% fd py over 25 cm.										
		269.40 271.00 Approximately 50% core recovered.										
		273.00 274.70 Approximately 50 cm of core lost.										
274.70	296.35	8.5 ALTERED QUARTZ DIORITE										
		Dark greenish grey, massive, medium grained to coarse grained, pervasively chloritized.	76940	274.70	276.00	1.30	NA	CL/T	2	.10		
		15-20% Anhedral Qtz phenocrysts, 20% subhedral carbonate in chloritized groundmass.	76941	276.00	277.00	1.00	SH5	CL/T	1	tr		
		Generally soft, chl'd/talcose with short sections of pervasive silicification.	76942	277.00	278.00	1.00	NA	CL/T	2	tr		
		Near the upper contact, 10-50cm sections of talc/chlorite with sharp contacts indicate this unit is an intrusive.	76943	278.00	279.00	1.00	45	CL/T	3	tr		
		At 279.8-280.7: MAJOR FAULT - 40 cm of gouge and crushed rock at 90 deg tca.	76944	279.00	280.00	1.00	SH45	CL/T	1	tr		
		Minor fd py concentrated to 2% coarse euhedral py at 282.4-283.4m.	76945	280.00	281.00	1.00	NA	CL/T	1	tr		
		At 283.7-283.9m: Two frags at 30 and 60 deg tca coated with muscovite.	76946	281.00	282.00	1.00	NA	CL/T	2	tr		
		274.70 276.00 SAMPLE INCLUDES 30 CM OF TALC/CHLORITE SCHIST.	76947	282.00	283.00	1.00	NA	CL/T/SI	4	2.00		
			76948	283.00	284.00	1.00	NA	CL/T/SI	4	.10		
			76949	284.00	285.00	1.00	NA	CL/SI	4	.20		
			76950	285.00	286.00	1.00	NA	CL/SI	3	.50		
			76951	286.00	287.00	1.00	NA	CL/T	3	.20		
			76952	287.00	288.00	1.00	NA	CL/T/SI	3	tr		
			76953	288.00	289.00	1.00	NA	CLK/T	3	tr		
			76954	289.00	290.00	1.00	NA	CL/T		tr		
			76955	290.00	291.00	1.00	NA	CL/T		tr		
			76956	291.00	292.00	1.00	NA	CL/T		tr		


From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		277.00 278.00 Sample includes 10 cm of talc/chlorite schist.	76957	292.00	293.00	1.00	NA	CL/T	0	tr		
			76958	293.00	294.00	1.00	NA	CL/SI	3	tr		
			76959	294.00	295.00	1.00	NA	CL/T	3	tr		
			76960	295.00	296.35	1.35	NA	CL/T/SI	1	tr		
296.35	321.00	4.2 TALC CHLORITE STRONGLY SHEARED - FAULT GOUGE At 296.35-302.0m: medium to dk greenish grey, aphanitic, becoming light green, extremely talcose. At 302.0-321.0m: Pale green, talcose; very poor core condition and recovery. The entire unit appears to be in a major fault zone with ground and fragmented core and gouge-coated frac surfaces Hole abandoned at 321.0m. 321.0 -- END OF HOLE.	76961	296.35	297.00	.65	NA	CL/T				
			76962	297.00	298.00	1.00	NA	CL/T		nil		
			76963	298.00	299.00	1.00	NA	CL/T		nil		

Paul A. All.



- F Felsite
- T Talc-chlorite
- C Carbonate
- M Mixed
- MV Mafic Volcanics
- MI Mafic Intrusive



	ECHO BAY ONTARIO LTD. AQUARIUS PROPERTY	
	Patent 8550/CLM 293 CROSS SECTION 11800NE Looking West	
SCALE: 1:2500	DRAWN:	No.
DATE: Feb 1997	REV. BY:	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
74.70	85.70	Med.-dk. Green-grey, vfg-fg, massive, locally magnetic. 72.3m: Shear at 150 dtca(90R). 74.7m: Shear at 60 dtca, parallel qcvt. 4.0 TALC-CHLORITE SCHIST Same as 57-68m. Local brittle-ductile shearing. 74.7-75.4m: Argillitic shear, lower contact at 40 dtca. 85.7m: Shear at 40 dtca.	99120	84.70	85.70	1.00	NA	CHL	0	.00	3	
85.70	86.50	4.1 TALC GRADING TO MIXED Pale green-grey, vfg-fg, weak 'OVOID' carb. Altn., tr-2% dissem. Py. 86.5m: Shear at 150 dtca(90R), relative to shear at 85.7m.	99121	85.70	86.50	.80	NA	CBA	0	2.00	4	
86.50	109.00	4.0 TALC-CHLORITE SCHIST Dark-med. Green-grey, vfg-fg, locally magnetic, local brittle ductile shearing. 89.9m: F1(shear) at 30 dtca, F2(shear) at 50 dtca. 90.2m: F1(shear) at 30 dtca(90R), F2(shear) at 50 dtca. 91.6m: Shear(py) at 60 dtca. 92.1m: F1(shear,qcvt) at 50 dtca, F3(shear,chl) at 150 dtca(90R). 92.9m: F2(chl) at 50 dtca(150R), F3(shear,chl) at 150 dtca(90R). 93.3m: F1(chl,F4?) at 30 dtca(90R), F2(shear, chl, qcvt, F5?) at 50 dtca. 93.3-104.0m: Increasing brittle-ductile deformation. 101.1m: Shear at 30 dtca. 108.0m: F1(qcvt) at 45 dtca, F2(shear) at 140 dtca with subhorizontal slickenslides. 108.2m: F3(qcvt) at 30 dtca(150R), F3(shear,chl) at 130 dtca(150R).	99122	86.50	87.50	1.00	NA	CHL	0	.00	3	
109.00	114.60	9.0 FAULT ZONE AND GOUGE Dark green-grey, ang-round, talc-chl. Frags. In clay matrix. Elongate axis of frags at 45 dtca. 111.0m: Foln. At 45 dtca.										
114.60	117.00	4.2 TALC CHLORITE -STRONGLY SHEARED Dark green grey, vfg, massive, locally faulted and sheared.										

R. Brian Alexander

Date Printed: 17 Jan, 1997

ECHO BAY MINES ONTARIO LTD.

Page: 1 of 1

Survey Northing: 3293.360
Survey Easting: 10699.330
Elevation: 280.320

Grid Northing: 3290 N
Grid Easting: 10700 E

DRILL HOLE RECORD

Drill Hole: 96-408

**** Dip Tests ****
Depth Azi. Dip

Measure: Metric
Drilled by: Dominik
Survey: yes
Date Started: 01 August 1996
Completed: 02 August 1996
Core Size: NQ
Property: Aquarius
Claim: CLM 293
Township: Macklem
Prov/State: Ontario
Country: Canada

Collar Azi.: 344
Collar Dip: -50

Core Storage: Aquarius Minesite

Date(s) Logged: 12 August 1996
Logged by: R. Norman

Hole Length: 75.00

Local reference: South of Hwy 101
Local reference: 30 km East of Timmins, Ontario
Type of Drill: Diamond
Purpose:
Comments:
Comments:

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	71.30	6.0 OVERBURDEN/CASING										
71.30	75.00	4.3 TALC CHLORITE -RELATIVELY UNALTERED Badly broken core and rubble of massive u/m. Predominantly chloritic and weakly to moderately talcosed. Fault breccia and gouge make up some of the rubble. Note : Only 2.2 m of core recovered, i.e 1.8 m of lost core. Hole abandoned because of jamming and breaking of casing. Core to 75.3 meters; driller indicated end of hole at 75m										

Date Printed: 17 Jan, 1997

ECHO BAY MINES ONTARIO LTD.

Page: 1 of 2

Survey Northing: 3130.090
 Survey Easting: 10700.450
 Elevation: 279.860

Grid Northing: 3135 N
 Grid Easting: 10700 E

DRILL HOLE RECORD

Drill Hole: 96-409

Collar Azi.: 344
 Collar Dip: -55

***** Dip Tests *****
 Depth Azi. Dip
 91.0 339 -59.0
 191.0 340 -59.0

Measure: Metric
 Drilled by: Dominik
 Survey: yes
 Date Started: 06 August 1996
 Completed: 014 August 1996
 Core Size: BQ
 Property: Aquarius
 Claim: CLM 293
 Township: Macklem
 Prov/State: Ontario
 Country: Canada

Hole Length: 298.00

Core Storage: Aquarius Minesite

Date(s) Logged: 17 July 1996
 Logged by: R. Norman

Local reference: South of Hwy 101
 Local reference: 30 km East of Timmins, Ontario
 Type of Drill: Diamond
 Purpose: Test magnetic low and stratigraphy
 Comments:
 Comments:

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	88.00	6.0 OVERBURDEN/CASING										
88.00	255.10	4.2 TALC CHLORITE -STRONGLY SHEARED Strongly talcosed and chloritic. Intense fault gouge and brecciation in sections t.o averaging 45 dtca. Maybe later shearing 20 dtca locally. 100 to 109.1: More massive with anastomosing narrow carb veins and veinlets filling fractures. Rare specks of py locally. 170.6 to 170.8: Calcitic carb vein in gouged fault zone. Core angles not discernible. No mineralisation. Massive sections of talc-chl occur t.o. 138.5 to 143.9: Unusual texture. Rounded to irregular shaped blobs of chlorite and light grey-green talc(?) in talcose matrix. No sig veining or minzn. Weak to modly magnetic. 175.7 to 178.0: More massive and mafic looking. Maybe basaltic flow. Green to dark olive green, med grd. Chloritic and talcosed and cut by narrow talc veins at various angles to LCA. Moderately magnetic with 0.5 to 1 % py and pyrr. Locally. Bx'd and infilled with talc-carb locally. Contacts faulted and rubble. 184.7 to 188.3: As 175.7 to 178.0. Blocks of broken carb veins from 187.4 to 187.9. 200.2 to 205.6: As from 175.7 to 178.0. 1% pyrr-py. More massive. 185.1 to 185.5: Intense shearing with talc/carb veining 10 dtca.										
			77205	100.00	101.00	1.00	0-90	CHL-TALC	10	.10	3	
			77206	101.00	102.00	1.00	0-90	CHL-TALC	10	.10	2	
			77207	102.00	103.00	1.00	0-90	CHL-TALC	10	.10	5	
			77208	103.00	104.00	1.00	0-90	CHL-TALC	10	.10	7	
			77209	104.00	105.00	1.00	0-90	CHL-TALC	10	.10	7	
			77210	175.70	176.70	1.00	NA	CHL-TALC	0	.50	5	
			77211	176.70	178.00	1.30	NA	CHL-TALC	5	.50	7	
			77212	183.10	183.50	.40	15	CHL-TALC	5	.50	2	
			77213	183.50	184.70	1.20	0-45	CHL-TALC	5	.50	2	
			77214	184.70	185.70	1.00	NA	CHL-TALC	0	.50	3	
			77215	185.70	187.00	1.30	45-75	TALC-CHL	5	.50	4	
			77216	187.00	187.90	.90	NA	TALC-CHL	5	.50	3	
			77217	205.00	205.60	.60	5	TALC-CHL	20	nil	412	
			77218	218.90	219.40	.50	35	CB/VN	10	.00	2	
			77219	223.50	224.50	1.00	NA	TALC-CHL	3	.00	2	
			77220	224.50	225.10	.60	40	CB/VN	10	.10	2	
			77221	229.00	229.50	.50	NA	TALC/CHL	2	.00	3	
			77222	232.40	233.40	1.00	40-80	TC/CHL/C	10	.00	24	
			77223	233.40	234.40	1.00	40-80	TC/CHL/C	10	.00	5	
			77224	234.40	235.40	1.00	40-80	TC/CHL/C	10	.00	7	
			77225	235.40	236.40	1.00	40-80	TC/CHL/C	10	.00	3	
			77226	236.40	237.00	.60	40-80	TC/CHL/C	10	.00	3	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		178.0 to 181.0: Predominantly muddy gouge flt. 205.1 to 205.5: Shearing and talc-carb veining 0 to 5 dtca. 214 to 229.5: Less altered um/mafic as 175.7 to 178.0. 218.5:20 Cms of 50% carb veining in talcosed shear zone-both at 40 dtca. 229.5: 2 Cm carb vein 35 dtca in bx'd talc zone. 232.4 to 238.0: Fault-bounded unit characterised by being spotted by blotchy talc in talc-chlorite matrix.Cut by 10% narrow carb veins 40 to 80 dtca. With 1.5 m of loss core 243.0 to 247.0.										
255.10	283.00	4.3 TALC CHLORITE -RELATIVELY UNALTERED Medium grained, dark to black grey to dark green'; generally massive. Predominantly chloritic. Moderately fractured and in filled with 20% carb veins cutting the core axis at several orientations. Talc-carb veins also common. Talcosed locally. Weakly magnetic locally. Note that the green variety has a mafic appearance loc as in previous unit. Veins range from stringers to 10 cm in width.	77227	255.10	256.00	.90	0-80	CHL-TC	15	.00	10	
			77228	256.00	257.00	1.00	0-80	CHL-TC	15	.00	14	
			77229	257.00	258.00	1.00	0-80	CHL-TC	20	.00	3	
			77230	258.00	259.00	1.00	0-80	CHL-TC	20	.00	4	
			77231	259.00	260.00	1.00	0-80	CHL-TC	20	.00	5	
			77232	260.00	261.00	1.00	0-80	CHL-TC	20	.00	5	
			77233	261.00	262.00	1.00	0-80	CHL-TC	20	.00	260	
			77234	262.00	263.00	1.00	0-80	CHL-TC	20	.00	5	
			77235	263.00	264.00	1.00	0-80	CHL-TC	20	.00	21	
			77236	264.00	265.00	1.00	0-80	CHL-TC	20	.00	123	
			77237	265.00	266.00	1.00	0-80	CHL-TC	20	.00	201	
			77238	266.00	267.00	1.00	0-80	CHL-TC	20	.00	15	
			77239	267.00	268.00	1.00	0-80	CHL-TC	20	.00	22	
			77240	268.00	269.00	1.00	0-80	CHL-TC	20	.00	2	
			77241	269.00	270.00	1.00	0-80	CHL-TC	20	.00	46	
			77242	270.00	271.00	1.00	0-80	CHL-TC	20	.00	12	
			77243	271.00	272.00	1.00	0-80	CHL-TC	20	.00	5	
			77244	272.00	273.00	1.00	0-80	CHL-TC	20	.00	5	
			77245	273.00	274.00	1.00	0-80	CHL-TC	20	.00	3	
			77246	274.00	275.00	1.00	0-80	CHL-TC	20	.00	5	
			77247	275.00	276.00	1.00	0-80	CHL-TC	20	.00	39	
			77248	276.00	277.00	1.00	0-80	CHL-TC	20	.00	5	
			77249	277.00	278.00	1.00	0-80	CHL-TC	20	.00	3	
			77250	278.00	279.00	1.00	0-80	CHL-TC	20	.00	12	
			77301	279.00	280.00	1.00	0-80	CHL-TC	20	.00	3	
			77302	280.00	281.00	1.00	0-80	CHL-TC	20	.00	7	
			77303	281.00	282.00	1.00	0-80	CHL-TC	20	.00	7	
			77304	282.00	283.00	1.00	0-80	CHL-TC	20	.00	3	
283.00	298.00	4.2 TALC CHLORITE -STRONGLY SHEARED 100% Chlorite-talc. Massive from 283.0 to 286.0 with disseminated magnetite crystals locally. FROM 286.0 TO 297.7, Section consists of gouge, rubble and mud of talc-chlorite.										

Date Printed: 17 Jan, 1997

ECHO BAY MINES ONTARIO LTD.

Page: 1 of 4

Survey Northing: 2947.420
Survey Easting: 10699.470
Elevation: 279.720Grid Northing: 2950 N
Grid Easting: 10700 E

DRILL HOLE RECORD

Drill Hole: 96-410

Collar Azi.: 344
Collar Dip: -50***** Dip Tests *****
Depth Azi. Dip57.0 342 -53.0
157.0 338 -54.0Measure: Metric
Drilled by: Dominik
Survey: yes
Date Started: 19 August, 1996
Completed: 21 August, 1996
Core Size: NQ
Property: Aquarius
Claim: CLM 293
Township: Macklem
Prov/State: Ontario
Country: Canada

Hole Length: 189.00

Core Storage: Aquarius Minesite

Local reference: South of Hwy 101
Local reference: 30 km East of Timmins, Ontario
Type of Drill: Diamond
Purpose: Test magnetic low and stratigraphy
Comments: Hole abandoned in fault zone
Comments:Date(s) Logged: 20 August July 1996
Logged by: R. Norman

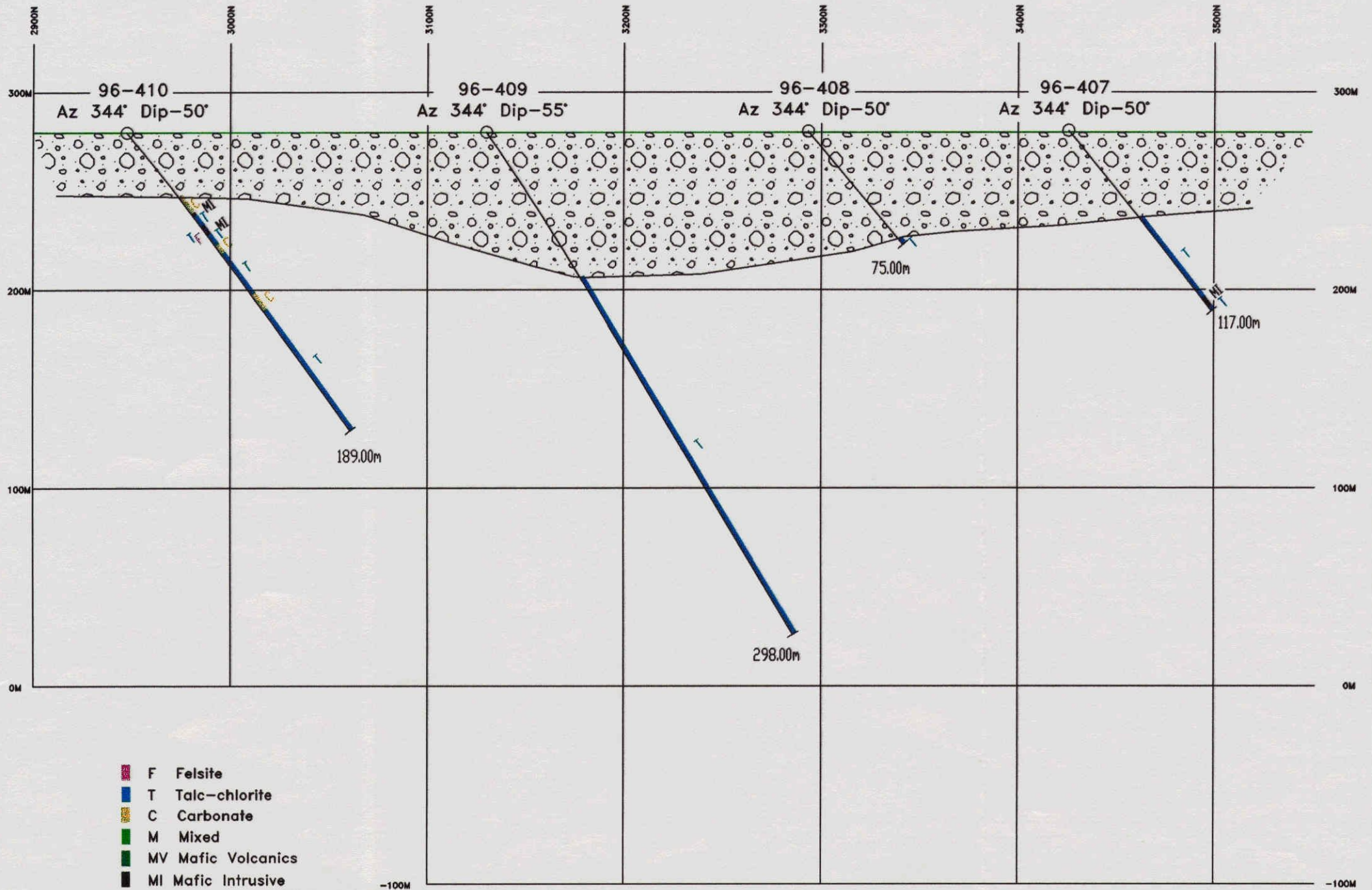
From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	42.00	6.0 OVERBURDEN/CASING Overburden-Casing.										
42.00	52.80	1.11 REGULAR GREY CARBONATE Grey carbonate zone. Grey to light greenish grey. Typical with bands of greyish white carbonate(dolomite?) and abundant convoluted, strolitic chlorite veins defining a strong foliation 50 to 80 degrees to LCA. Speckled locally with light tan-coloured leucoxene. Minor, fuchsite in places. 42.0 to 46.3: 10 to 20% qtz-carb veining, 25 to 60 dtca and ranging in thickness from stringers to 10 cm. Minor py in places. Oxidised to rusty brown in following sections: ---42.6 to 43.0: Broken core, fractured. Minor qtz strgs. ---45.0 to 45.4: Broken core and 5% narrow qtz-carb. ---46.2 to 48.6: Broken core and mud fractures locally. ---49.4 to 50.1: Minor qtz-carb strgs and patches.	77305	42.00	43.00	1.00	60	CARB/CHL	5	.50	70	
			77306	43.00	44.00	1.00	60	CARB/CHL	10	.50	173	
			77307	44.00	45.00	1.00	60	CARB/CHL	15	.50	257	
			77308	45.00	46.00	1.00	60	CARB/CHL	20	.50	45	
			77309	46.00	47.00	1.00	60	CARB/CHL	10	.50	182	
			77310	47.00	48.00	1.00	60	CARB/CHL	0	.50	220	
			77311	48.00	49.00	1.00	60	CARB/CHL	5	.50	177	
			77312	49.00	50.00	1.00	60	CARB/CHL	5	.50	2	
			77313	50.00	51.00	1.00	60	CARB/CHL	0	.50	57	
			77314	51.00	52.00	1.00	60	CARB/CHL	0	.50	93	
			77315	52.00	53.00	1.00	60	CARB/CHL	5	.50	81	
52.80	54.30	2.0 MIXED Mixed talc/chl/carb. 60% carb with 40% bands of talc/chlorite. 10% Narrow carb veins. Well foliated with foliation and veins 75 to 90 dtca.	77316	53.00	54.00	1.00	60	TC/CHL/C	0	.50	15	
			77317	54.00	55.00	1.00	NA	TC/CHL	0	.50	17	
54.30	61.00	4.0 TALC-CHLORITE SCHIST Dark grey to black. Well foliated and brecciated locally 30 to 55 dtca. Otherwise generally massive.	77318	55.00	56.00	1.00	NA	TC/CHL	0	.50	57	
			77319	56.00	57.00	1.00	NA	CBVEINS	0	.50	192	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		Predominately chloritic and moderately talcose.	77320	57.00	58.00	1.00	NA	CBSTGRS	0	.50	63	
			77321	58.00	59.00	1.00	50	TC/CHL	0	.50	10	
			77322	59.00	60.00	1.00	40	TC/CB	0	.50	21	
			77323	60.00	61.00	1.00	NA	TC/CB	0	.50	245	
61.00	62.70	2.0 MIXED Carb-talc-chlorite. 70% greenish-grey carb with typical stylitic chlorite veins. Talc-chlorite matrix in places. 4 cm felsite at in-contact 45 dtca but irregular. 10 cm qtz vein at out-contact irregular 25 dtca(?).	77324	61.00	62.00	1.00	45	CB/CHL/T	0	.00	626	
			77325	62.00	62.70	.70	45	CB/CHL/T	10	.00	848	
62.70	63.70	4.0 TALC-CHLORITE SCHIST Talc-chlorite. Mod foliated 30 to 50 dtca. 15% carb blobs and. Broken and contorted stgrs.	77326	62.70	63.70	1.00	40	TC/CHL	0	.50	228	
63.70	64.40	3.1 FELSITE Pale greyish-green with pinkish tint in places due to albitic alteration. Weakly porphyritic with sparse white albite phenos. Minor fine diss py locally. Broken core at in-contact but appears irregular 5 dtca. Out-ctc 25 dtca.	77327	63.70	64.40	.70	NA	ALB	0	.50	471	
64.40	66.00	9.0 FAULT ZONE AND GOUGE Rubble, breccia and gouge -Fault in talc/chl. 0.66m of lost core.	77328	64.40	66.00	1.60	NA	NA	0	.00	127	
66.00	72.50	4.0 TALC-CHLORITE SCHIST Moderately sheared and foliated talc-chl schist. Foliation averages 45 dtca. Abundant blobs and convoluted carb veins throughout. Spinifex texture at out-contact.	77329	66.00	67.00	1.00	40	TC/CHL	0	.50	21	
			77330	67.00	68.00	1.00	NA	TC/CHL	0	.00	118	
			77331	68.00	69.00	1.00	NA	TC/CHL	0	5.00	14	
			77332	69.00	70.00	1.00	NA	TC/CHL	0	5.00	7	
			77333	70.00	71.00	1.00	45	TC/CHL	0	1.00	5	
			77334	71.00	72.00	1.00	NA	TC/CHL	0	.50	61	
			77335	72.00	73.00	1.00	NA	TC/CHL	0	.50	45	
72.50	78.10	8.0 MAFIC INTRUSIVE/DYKE Dioritic to ultramafic dike; massive, fine grading to med grained loc. Dark grey to black in colour. Med gr'd sections more dioritic textured. Strongly chloritic and weakly talcose locally; speckled with white non-calcitic carb. Weakly fractured and in-filled with carb veinlets and stgrs in places. Also cut by 5% larger carb veins up to 2 cm thick and ranging from 20 to 90 dtca; minor py in some veins.	77336	73.00	74.00	1.00	NA	CHL/CARB	5	.50	9	
			77337	74.00	75.00	1.00	NA	CHL/CARB	5	.50	2	
			77338	75.00	76.00	1.00	NA	CHL/CARB	5	.50	3	
			77339	76.00	77.00	1.00	NA	CHL/CARB	5	.50	5	
			77340	77.00	78.00	1.00	NA	CHL/CARB	5	.50	3	
			77341	78.00	79.00	1.00	NA	CHL	0	.50	7	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
78.10	103.60	In-contact irregular at 90 dtca; Out-contact 60 dtca cutting foliation and veining which is at 90 dtca in talc-chl at contact. 4.0 TALC-CHLORITE SCHIST Talc-chlorite schist: Well foliated 45 dtca average, 10 to 20 % blobs and broken carb veins boudinaged in plane of foliation t.o. Foliation folded parallel to core axis in some places. 88.6 to 89.7: More massive section with 10% narrow qtz-carb veining 40-50 dtca in two directions. Speckled with fine carb in places. Minor py locally. 94.8 to 94.9: Qtz-carb vein irregular ctcs 20 to 60 dtca. Occ minor pyrite locally t.o. 95.8 to 96.0: Weak carb zone with blebs of carb loc. Shear foln 5 dtca with paralling carb veins and veins of hard grey material of possible felsite origin (or albite). 79.5 to 80.0: Fault. Breccia and gouge; 90 dtca. Badly broken core :. 81.5 to 82.5. 99.0 to 100.5.										
			77342	79.00	79.50	.50	NA	TC/CHL	5	.50	5	
			77343	79.50	80.50	1.00	45	TC/CHL	5	.50	48	
			77344	80.50	81.50	1.00	45	TC/CHL	5	.50	17	
			77345	84.50	85.50	1.00	45	TC/CHL	5	.50	113	
			77346	85.50	86.50	1.00	45	TC/CHL	0	.50	43	
			77347	86.50	88.00	1.50	45	TC/CHL	0	.50	110	
			77348	88.00	88.60	.60	45	TC/CHL	0	.50	105	
			77349	88.60	90.00	1.40	45	TC/CHL	10	.50	170	
			77350	90.00	91.00	1.00	45	TC/CHL	5	.50	29	
			77351	93.00	94.00	1.00	45	TC/CHL	0	.50	9	
			77352	94.00	94.70	.70	45	TC/CHL	0	.50	94	
			77353	94.70	95.20	.50	45	TC/CHL	10	.50	113	
			77354	95.20	95.80	.60	45	TC/CHL	0	.50	21	
			77355	95.80	96.30	.50	45	TC/CHL/C	5	.50	24	
			77356	96.30	97.30	1.00	45	TC/CHL	0	.50	5	
			77357	97.30	98.30	1.00	45	TC/CHL	0	.50	38	
			77358	98.30	99.00	.70	45	TC/CHL	0	.50	55	
			77359	99.00	100.00	1.00	45	TC/CB	5	.50	422	
			77360	100.00	101.00	1.00	NA	TC/CHL	0	.50	31	
			77361	101.00	102.00	1.00	NA	TC/CHL	0	.50	165	
			77362	102.00	103.60	1.60	NA	TC/CHL	0	.50	247	
103.60	114.00	8.0 MAFIC INTRUSIVE/DYKE Altered diorite? or mafic intrusive. More massive and non-schistosed. Medium grained, dark grey. Strongly chloritic and carbonitised with fine grains of grey to brownish carb pervasive t.o.- maybe ankeritic (bluish stain). Moderately hydro fractured and in-filled with 15% anastomosing carb veins, wisps and strgs. Occn minor qtz-carb vein. Rare py clusters. Narrow bright green talc veins in places. Section may be finely carbonated ultramafic.										
			77363	103.60	105.00	1.40	NA	CHL/CB	15	.50	12	
			77364	105.00	106.00	1.00	NA	CHL/CB	15	.50	7	
			77365	106.00	107.00	1.00	NA	CHL/CB	15	.50	27	
			77366	107.00	108.00	1.00	NA	CHL/CB	15	.50	3	
			77367	108.00	109.00	1.00	NA	CHL/CB	15	.50	3	
			77368	109.00	110.00	1.00	NA	CHL/CB	15	.50	2	
			77369	110.00	111.00	1.00	NA	CHL/CB	15	.50	22	
			77370	111.00	112.00	1.00	NA	CHL/CB	15	.50	7	
			77371	112.00	113.00	1.00	NA	CHL/CB	15	.50	3	
			77372	113.00	114.00	1.00	NA	CHL/CB	15	.50	2	
114.00	185.00	4.0 TALC-CHLORITE SCHIST Talc-chlorite schist. As previous; well foliated generally averaging 45 dtca. Foliation folded parallel to LCA from 118 to 124. 120.6 to 122.0: Fault. Breccia and gouge paralleling LCA. Abundant contorted and broken carb veins typical of this unit.										
			77373	114.00	115.00	1.00	NA	TC/CHL	0	.50	5	
			77374	115.00	116.00	1.00	NA	TC/CHL	0	.50	3	
			77375	116.00	117.00	1.00	NA	TC/CHL	0	.50	29	
			77376	117.00	118.00	1.00	NA	TC/CHL	0	.50	117	
			77384	136.00	137.00	1.00	50	TC/CHL	0	.50	141	
			77385	137.00	138.00	1.00	50	TC/CHL	0	.50	2	

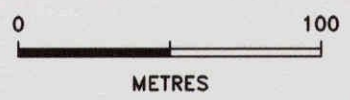
From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		Fairly abundant rusty brown skeletal crystals, probably magnesite.	77386	138.00	139.00	1.00	50	TC/CHL/M	0	.50	159	
		In the following sections:	77377	149.00	150.00	1.00	50-85	TC/CHL	0	.50	1557	
		---138.0 to 139.0.	77378	150.00	151.00	1.00	50-85	TC/CHL/M	0	.50	382	
		---151.0 to 153.0.	77379	151.00	152.00	1.00	50-85	TC/CHL/M	0	1.00	84	
		Occn minor py minzn t.o.	77380	152.00	153.00	1.00	50-85	TC/CHL/M	0	1.00	50	
		141.0 to 150.5: Several 4 to 5 cm thick fine breccia and gouge slips locally t.o. At 45 and 70 to 90 dtca.	77381	153.00	154.00	1.00	50-85	TC/CHL/M	0	1.00	161	
		157.4 to 159.4 :Brecciated zone with foliation and carb veining sub-parallel to 45 dtca.	77382	154.00	155.00	1.00	50-85	TC/CHL/M	0	1.00	79	
		168.9 to 169.7: Brecciated shear zone sub-parallel LCA.	77383	155.00	156.00	1.00	50-85	TC/CHL/M	0	1.00	33	
		181.8 to 183.2: More massive and harder-weakly carbonated with fine crystals of greyish carb. Two carb veins 45 dtca with bluish veining (chlorite?) and minor py. Carb veins 45 dtca.	77389	157.40	158.40	1.00	5	TC/CHL	0	.50	12	
		1 to 2% subhedral py in places t.o. Section.	77390	158.40	159.40	1.00	5	TC/CHL	0	.50	31	
		From 180.0 to 185.0 foliation and veining 75 to 90 dtca.	77388	168.90	169.70	.80	5	TC/CHL	0	.50	77	
			77387	174.00	175.00	1.00	5	TC/CHL	0	.50	3	
			77391	181.00	182.00	1.00	50	TC/CHL	0	1.00	12	
			77392	182.00	183.20	1.20	45	TC/CHL/C	0	1.00	39	
			77393	183.20	184.00	.80	85	TC/CHL	0	.50	100	
			77394	184.00	185.00	1.00	85	TC/CHL	0	.50	24	
185.00	189.00	4.2 TALC CHLORITE -STRONGLY SHEARED Fault zone. From 185.0 to 186.0, brecciated and sheared 45 to 80 dtca. From 186.0 to 189.0 rock 100% rubble and gouge. End of Hole--189.0 meters.										

RSV



- F Felsite
- T Talc-chlorite
- C Carbonate
- M Mixed
- MV Mafic Volcanics
- MI Mafic Intrusive

Overburden



	ECHO BAY ONTARIO LTD. AQUARIUS PROPERTY	
	CLM 293 CROSS SECTION 10700NE Looking West	
SCALE: 1:2500	DRAWN: EGJ	No.
DATE: Feb 1997	REV. BY	

Date Printed: 17 Jan, 1997

ECHO BAY MINES ONTARIO LTD.

Page: 1 of 4

Survey Northing: 4179.108
 Survey Easting: 12401.920
 Elevation: 287.215

Grid Northing: 4180 N
 Grid Easting: 12400 E

DRILL HOLE RECORD

Drill Hole: 96-412

Collar Azi.: 344
 Collar Dip: -55
 Hole Length: 385.00

***** Dip Tests *****
 Depth Azi. Dip
 200.0 341 -59.0
 250.0 344 -59.0
 350.0 -56.0

Measure: Metric
 Drilled by: Dominik
 Survey: Yes
 Date Started: 03 Sept. 1996
 Completed: 08 Sept. 1996
 Core Size: NW
 Property: Aquarius
 Claim: Patent 8550
 Township: Macklem
 Prov/State: Ontario
 Country: Canada

Core Storage: Aquarius Minesite

Local reference: South of Hwy 101
 Local reference: 30 km East of Timmins, Ontario
 Type of Drill: Diamond
 Purpose: Stratigraphic profile north of Aquarius Mine site, undercut 96-411 located 120m
 Comments:
 Comments:

Date(s) Logged: Sept. 10, 1996
 Logged by: R.B. Alexander/R.Norman

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	117.00	North. 6.0 OVERBURDEN/CASING	10562	114.60	115.00	.40	NA	TC/CL/CA	30	.00		1
			10563	115.00	116.00	1.00	NA	TC/CL/CA	30	.00	21	
			10564	116.00	117.00	1.00	NA	TC/CL/CA	30	.00	22	
117.00	171.10	4.1 TALC GRADING TO MIXED Dark green grey, aph-vfg, non-magnetic, 25% pale grey, ovoid cba. 122.9m: Foln. At 40 dtca. 128.0m: Foln. At 50 dtca. 140.0-140.1m: Clay gouge, FZ. 147.3m: Foln. At 60 dtca. 155.4m: Foln. At 60 dtca. 161.1m: Foln. At 55 dtca. 166.0-166.1m: Clay gouge at 40 dtca. 169.0-169.1m: Clay gouge, FZ.	10565	117.00	118.00	1.00	NA	TC/CL/CA	30	.00		2
			10566	118.00	119.00	1.00	NA	TC/CL/CA	30	.00		1
			10567	119.00	120.00	1.00	NA	TC/CL/CA	30	.00		1
			10568	120.00	121.00	1.00	NA	TC/CL/CA	30	.00		3
			10569	121.00	122.00	1.00	NA	TC/CL/CA	30	.00		1
			10570	122.00	123.00	1.00	NA	TC/CL/CA	30	.00		1
			10571	123.00	124.00	1.00	NA	TC/CL/CA	30	.00		2
			10572	124.00	125.00	1.00	NA	TC/CL/CA	30	.00		3
			10573	125.00	126.00	1.00	NA	TC/CL/CA	30	.00		1
			10574	126.00	127.00	1.00	NA	TC/CL/CA	30	.00		1
			10575	127.00	128.00	1.00	NA	TC/CL/CA	30	.00		2
			10576	128.00	129.00	1.00	NA	TC/CL/CA	30	.00		9
			10577	129.00	130.00	1.00	NA	TC/CL/CA	30	.00		5
			10578	130.00	131.00	1.00	NA	TC/CL/CA	30	.00		1
			10579	131.00	132.00	1.00	NA	TC/CL/CA	30	.00		1
			10580	132.00	133.00	1.00	NA	TC/CL/CA	30	.00		1
			10581	133.00	134.00	1.00	NA	TC/CL/CA	30	.00		3
			10582	134.00	135.20	1.20	NA	TC/CL/CA	30	.00		9
			10583	135.20	136.00	.80	NA	TC/CL/CA	30	.00		1
			10584	136.00	137.00	1.00	NA	TC/CL/CA	30	.00		5
			10585	137.00	138.00	1.00	NA	TC/CL/CA	30	.00		1

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
207.00	266.40	<p>cba. 205.0m: Shear at 45 dtca. 206-207m: Mod. Argillitic, locally sheared. 207.0m: Shear at 60 dtca.</p> <p>4.3 TALC CHLORITE -RELATIVELY UNALTERED Dark green grey, aph-vfg, locally magnetic, locally sheared, str. Fractured. And brecciated with gouge in places. Shearing and foliation 40 to 50 dtca. Carbonate as 5 to 20% disseminated crystals and locally blobs is common throughout section. Occasional minor quartz and/or carb vein. 221.8- 3cm qtz-carb vein 50 dtca. 212.0-212.7: Fault breccia.Out-contact 30 dtca. 230.0-231.5: Rubble and badly broken core. 231.5-233.0: Shear zone ; 30 to 50 dtca. 241.8-245.0: Narrow shears and breccia zones 30 to 60 dtca. 245.0-258.0: Moderately sheared and brecciated. 258.0-266.4: Massive with an unusual greenish carb alteration along fractures and as blobs. Narrow carb veining also abundant t.o. Strongly magnetic with disseminated magnetite. 245.2: Several large py cubes up to 1 x 2 cm. 262.2-262.3: 2% Fine euhedral pyrite.</p>	10602	207.60	208.60	1.00	NA	TC/CL/CA	0	.00	3	
			10603	209.00	210.00	1.00	NA	TC/CL/CA	0	.00	25	
			99501	219.70	220.70	1.00	45	T/CHL/CB	0	.00	11	
			99502	220.70	221.70	1.00	45	T/CHL/CB	0	.00	5	
			99503	221.70	222.20	.50	50	T/CHL/CB	5	.50	3	
			99504	222.20	224.00	1.80	45	T/CHL/CB	0	.00	3	
			99505	224.00	225.00	1.00	45	T/CHL/CB	0	.00	2	
			99506	225.00	226.00	1.00	45	T/CHL/CB	0	.00	3	
			99507	226.00	227.00	1.00	45	T/CHL/CB	0	.00	2	
			99508	227.00	228.00	1.00	45	T/CHL/CB	0	.00	3	
			99509	235.00	236.00	1.00	45	T/CHL/CB	0	.00	41	
			99510	236.00	237.00	1.00	45	T/CHL/CB	0	.00	125	
			99511	237.00	238.00	1.00	45	T/CHL/CB	0	.00	3	
			99512	238.00	239.00	1.00	45	T/CHL/CB	0	.00	2	
			99513	239.00	240.00	1.00	45	T/CHL/CB	0	.00	2	
			99514	258.00	259.00	1.00	NA	T/CHL/CB	0	.50	3	
			99515	259.00	260.00	1.00	NA	T/CHL/CB	0	.50	3	
			99516	260.00	261.00	1.00	NA	T/CHL/CB	0	.50	3	
			99517	261.00	262.00	1.00	NA	T/CHL/CB	0	.50	2	
			99518	262.00	263.00	1.00	NA	T/CHL/CB	0	1.00	2	
			99519	263.00	264.00	1.00	NA	T/CHL/CB	0	.50	7	
			99520	264.00	265.00	1.00	NA	T/CHL/CB	0	.50	3	
			99521	265.00	266.40	1.40	NA	T/CHL/CB	0	.50	46	
266.40	281.00	<p>4.2 TALC CHLORITE -STRONGLY SHEARED Strongly fractured,sheared and brecciated generally with intense breccia and gouge from 278.0 to 281.0. Rounded to angular pieces of carb abundant. 272.0 to 276.5: Mod carb with 5 to 30% carb crystals t.o.in talc chlorite.</p>	99522	272.00	273.00	1.00	NA	T/CHL/CB	0	.00	3	
			99523	273.00	274.00	1.00	NA	T/CHL/CB	0	.00	2	
			99524	274.00	275.50	1.50	NA	T/CHL/CB	0	.00	12	
281.00	308.00	<p>7.2 CONGLOMERATE Very difficult to mark contact other than at fault. Much the same as previous except with the appearance of various felsite' quartz, carb and porphyry clasts. Matrix consists mainly of chlorite and talc with local matrix or veining of talc-carb. May be some um clasts or pseudobreccia with talc-carb matrix. Clasts are most abundant and largest fro 291.0 to 297.5. 1 to 5% py is common locally disseminated in the matrix but is most abundant Foliation and shearing range from 30 to subparallel to LCA.</p>	99525	291.50	292.50	1.00	NA	T/CHL/CB	0	2.00	48	
			99526	292.50	293.50	1.00	NA	T/CHL/CB	0	2.00	14	
			99527	293.50	294.50	1.00	NA	T/CHL/CB	0	2.00	45	
			99528	294.50	295.50	1.00	NA	T/CHL/CB	0	1.00	3	
			99529	295.50	296.50	1.00	NA	T/CHL/CB	0	1.00	31	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		305.8 to 308.0 : Fault gouge and breccia in places.										
308.00	318.20	8.3 DIABASE Fine grained; black. Several narrow screens of sheared and faulted talc-chlorite. Contacts of diabase 30 dtca as is shearing.										
318.20	335.20	4.2 TALC CHLORITE -STRONGLY SHEARED Extremely friable; faulted gouged and brecciated locally. Infilled with talc and carb.										
335.20	366.80	4.3 TALC CHLORITE -RELATIVELY UNALTERED Typical dark grey to black talc-chlorite. Strongly brecciated in places and cut by talc veins giving a pseudobreccia with rounded talc-chlorite frags similar to that seen in congl unit.										
366.80	369.90	8.2 LAMPROPHYRE Dark brownish grey; med gr'd. Strongly magnetic and calcitic. Minor fracturing with carb veining in places. No sig veining,minzn or alteration.	99530	366.80	367.80	1.00	NA	T/CA/BIO	15	.00	3	
			99531	367.80	368.80	1.00	NA	T/CA/BIO	0	.00	7	
			99532	368.80	369.90	1.10	NA	T/CA/BIO	0	.00	9	
369.90	385.00	4.0 TALC-CHLORITE SCHIST Brecciated with gouge locally; Similar to parts of 335.2 to 366.8 above. Occasional pyrite cubes and minor carb.Strongly talcose. End of Hole 385.0 metres.	99533	373.00	374.00	1.00	NA	T/CHL	0	.50	27	
			99534	374.00	375.00	1.00	NA	T/CHL	0	.50	321	
			99535	375.00	376.00	1.00	NA	T/CHL	0	.50	3	
			99536	376.00	377.00	1.00	NA	T/CHL/CB	0	.50	7	
			99537	377.00	378.00	1.00	NA	T/CHL/CB	0	.50	7	
			99538	383.00	383.50	.50	NA	T/CHL	0	.50	9	

Date Printed: 17 Jan, 1997

ECHO BAY MINES ONTARIO LTD.

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Survey Northing: 4058.211
Survey Easting: 12401.440
Elevation: 285.516

Grid Northing: 4060 N
Grid Easting: 12400 E

DRILL HOLE RECORD

Drill Hole: 96-413

***** Dip Tests *****
Depth Azi. Dip

Measure: Metric
Drilled by: NDS
Survey: Yes
Date Started: 8 September 1996
Completed: 9 September 1996
Core Size: NQ
Property: Aquarius
Claim: Patent 8550
Township: Macklem
Prov/State: Ontario
Country: Canada

Collar Azi.: 344
Collar Dip: -55

Core Storage: Aquarius Minesite

Hole Length: 110.00

Date(s) Logged: 9 September 1996
Logged by: *R. Down*

Local reference:
Local reference:
Type of Drill: Diamond
Purpose:
Comments: Hole abandoned due to excessive overburden
Comments:

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	110.00	6.0 OVERBURDEN/CASING Hole abandoned due to excessive overburden.										

RD

Date Printed: 17 Jan, 1997

ECHO BAY MINES ONTARIO LTD.

Page: 1 of 4

Survey Northing: 3899.399
Survey Easting: 12400.820
Elevation: 284.383Grid Northing: 3900 N
Grid Easting: 12400 E

DRILL HOLE RECORD

Drill Hole: 96-414

Collar Azi.: 344
Collar Dip: -55
Hole Length: 392.00

***** Dip Tests *****		
Depth	Azi.	Dip
152.0	346	-55.0
251.0		-57.0
350.0	345	-53.0

Measure:	Metric
Drilled by:	Dominik
Survey:	Yes
Date Started:	September 11, 1996
Completed:	September 15, 1996
Core Size:	NQ
Property:	Aquarius
Claim:	Patent 8550
Township:	Macklem
Prov/State:	Ontario
Country:	Canada

Core Storage: Aquarius Minesite

Local reference: South of Hwy 101
Local reference: 30 km East of Timmins, Ontario
Type of Drill: Diamond
Purpose: Stratigraphic drilling north of Aquarius and test QFP contact
Comments:
Comments:Date(s) Logged: Sept. 18, 1996
Logged by: R. Norman, M. Lapointe

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	58.80	6.0 OVERBURDEN/CASING										
58.80	134.70	3.5 QUARTZ FELDSPAR PORPHYRY Quartz-Feldspar Porphyry. Coarse grained, grey; equigranular with closely packed glassy quartz and white feldspar phenocrysts in a siliceous matrix with altered, light greenish sericitic feldspar. Generally massive and structurally featureless. No veining or mineralisation. 116.0 to 125.4: Pinkish, hematitic alteration with very minor fractures with narrow qtz veins, chlorite and bleaching locally. Trace amounts of py in some bleached fractures. 119.7 to 120.4 : Rubble-badly broken cores. 127.8 to 131.5: Grey finer grained phase with lesser and smaller. Feldspar phenos. 124.6 to 134.7: Slight pinkish grey chilled contact area speckled with chlorite in aphanitic matrix. Chlorite spots are altered feldspar phenos. White skeletal specks also abundant-sericite?. Out-contact 35 to 40 dtca.	99551	115.00	116.00	1.00	NA	HEM	0	.00	2	
			99552	116.00	117.00	1.00	NA	HEM	0	.00	3	
			99553	117.00	118.00	1.00	NA	HEM	0	.00	5	
			99554	118.00	119.00	1.00	NA	HEM	0	.00	3	
			99555	119.00	119.70	.70	NA	HEM	0	.00	7	
			99556	119.70	120.40	.70	NA	HEM	0	.00	3	
			99557	120.40	121.00	.60	NA	HEM	0	.00	5	
			99558	121.00	122.00	1.00	NA	HEM	0	.00	3	
			99559	122.00	123.00	1.00	NA	HEM	0	.00	2	
			99560	123.00	124.00	1.00	NA	HEM	1	.50	3	
			99561	124.00	125.00	1.00	NA	HEM	1	.50	2	
			99562	125.00	126.00	1.00	NA	HEM	1	.50	5	
			99563	133.00	134.00	1.00	NA	SI	0	.00	3	
			99564	134.00	134.70	.70	NA	SI	0	.00	2	
134.70	200.00	4.3 TALC CHLORITE -RELATIVELY UNALTERED Massive, unfoliated talc-chlorite. Excellent spinifex texture development throughout. Spotted with crystals and blotches of grey carb and talc throughout forming 10 to 20 % of rock in some sections and coalescing in patches locally.	99565	134.70	135.70	1.00	NA	TC/CHL	0	.00	2	
			99566	179.00	180.50	1.50	NA	T/CH/CB	0	.00	3	
			99567	186.20	187.20	1.00	NA	T/CH/CB	0	.00	3	
			99568	187.20	188.20	1.00	NA	T/CH/CB	0	.00	2	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		.5-.75% py assoc with veining. 262.03 Localized zone <20cm of carb veining at random orientation. Locally brecciated with carb breccia filling, veining is @ 60 dtca with dominant orientation 45 dtca.										
282.30	302.50	4.0 TALC-CHLORITE SCHIST Wk-mod shear, upper contact 80 dtca (sharp contact), .5% py assoc with carb veining, fol steep 70-80 dtca locally 55 dtca unit exhibits localized patches of 4.3, local wk brecciation. 287.63 Becoming locally sheared (shears up to 10cm wide, 80-90 dtca) unit exhibiting strong shear/foliation texture, shears make up 10% of unit with 90-100% fault gouge light-med grey. 282.33 Still wk-mod shear/fol, unit becoming more contorted at lower contact. Short <5cm gouge zones continue up to 295.8, unit mod brecciated with 3-5cm frags, subrounded-rounded, carb veining 80-85 dtca 302 9 fault gouge zone upper contact 80 dtca, 100% grey fault gouge.										
302.50	313.60	4.3 TALC CHLORITE -RELATIVELY UNALTERED Massive unit with mod-strong cl/tc, upper contact 60 dtca 305.6-305.8 rubble zone, wk fol 80 dtca, 3-5% ca veining 80 dtca some with random orientation.	99587	313.00	314.00	1.00	FOL60	CL/TC	40	.10	3	
313.60	351.20	4.1 TALC GRADING TO MIXED Grey green with 40% carb veining fine-med gr, non-magnetic, mixed unit with strong ca/cl/tc alter, upper contact 45 dtca localized zones of 4.3, wk brecciation with carb brecc fill, carb veining 70 dtca 319.9-351.2 50-60% carb veining at random orientation, talc appears along carb veins, ground mass fg-mg, tr py assoc with carb veining patchy short intervals of pervasive carb altn 341.9-342.0 shear upper contact 40 dtca lower contact 80 dtca, contains cl/tc alter frags, upper contact rubble, lower contact sharp 343.0-343.1 Fault/gouge zone, upper contact 70 dtca, 70% grey fault gouge 30% cl/tc host frags 343.1-344.0 fol 80 dtca, short intervals of 4.3 cl/tc alter, 10% carb veining, patchy perv ca/cl alter 347.0 348.2 fol 50 dtca.	99588 99589 99590 99591 99592 99593 99594 99595 99596 99597 99598 99599 99600 99601 99602 99603 99604 99605	314.00 315.00 316.00 317.00 318.00 319.00 320.00 321.00 322.00 323.00 324.00 325.00 326.00 327.00 328.00 329.00 330.00 331.00	315.00 316.00 317.00 318.00 319.00 320.00 321.00 322.00 323.00 324.00 325.00 326.00 327.00 328.00 329.00 330.00 331.00 332.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	FOL60 FOL60 FOL60 FOL60 FOL60 FOL60 FOL60 FOL60 FOL60 FOL60 FOL60 FOL60 FOL60 FOL60 FOL60 FOL60 FOL60	CL/TC CL/TC CL/TC CL/TC CL/TC CL/TC CL/TC CL/TC CB/CL/TC CB/CL/TC CB/CL/TC CB/CL/TC CB/CL/TC CB/CL/TC CB/CL/TC CB/CL/TC CB/CL/TC CB/CL/TC	40 40 20 10 25 20 55 55 55 55 55 55 55 55 55 55 55 55	.10 .10 .00 .00 .00 .00 .00 .00 .10 .10 .10 .10 .10 .10 .10 .10 .10 .10	5 3 3 3 3 3 3 3 3 3 3 2 2 3 3 15 3 3	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
			99606	332.00	333.00	1.00	FOL60	CB/CL/TC	55	.10	3	
			99607	333.00	334.00	1.00	FOL60	CB/CL/TC	55	.10	3	
			99608	334.00	335.00	1.00	FOL60	CB/CL/TC	55	.10	2	
			99609	335.00	336.00	1.00	FOL60	CB/CL/TC	55	.10	14	
			99610	336.00	337.00	1.00	FOL60	CB/CL/TC	55	.10	9	
			99611	337.00	338.00	1.00	FOL60	CB/CL/TC	55	.10	3	
			99612	338.00	339.00	1.00	FOL60	CB/CL/TC	55	.10	176	
			99613	339.00	340.00	1.00	FOL60	CB/CL/TC	55	.10	12	
			99614	340.00	341.00	1.00	FOL60	CB/CL/TC	55	.10	12	
			99615	341.00	342.00	1.00	FOL60	CB/CL/TC	55	.10	7	
			99616	342.00	343.00	1.00	FOL60	CB/CL/TC	55	.10	2	
			99617	343.00	344.00	1.00	FOL80	CB/CL/TC	10	.10	3	
			99618	344.00	345.00	1.00	NA	CB/CL/TC	55	.00	10	
			99619	345.00	346.00	1.00	NA	CB/CL/TC	50	.00	3	
			99620	346.00	347.00	1.00	NA	CA/CL	50	.00	2572	
			99621	347.00	348.00	1.00	FOL50	CA/CL/TC	50	.00	36	
			99622	348.00	349.00	1.00	NA	CA/CL/TC	55	.00	132	
			99623	349.00	350.00	1.00	FOL60	CA/CL/TC	55	.00	14	
			99624	350.00	351.20	1.20	FOL60	CA/CL/TC	55	.00	9	
351.20	353.60	8.5 DIORITE Greenish grey,fn-med gr, mod magnetic with 2% fn gr dissem magnetite, massive cl/tc alter unit, 7% carb veing 40 dtca upper contact sharp 60 dtca, 1% py assoc with veins. 351.8 ca vein F3 30 dtca 351.9 ca vein F1 60 dtca 352.4 ca vein F2 (R90) 30 dtca 352.8 ca vein F1 70 dtca.	99625	351.20	352.00	.80	NA	CL/TC/QZ	5	1.00	24	
			99626	352.00	353.00	1.00	NA	CL/TC/QZ	5	1.00	8	
			99627	353.00	353.60	.60	NA	CL/TC/QZ	3	1.00	55	
353.60	361.00	4.1 TALC GRADING TO MIXED Grey-green, fn-med gr,non magnetic, ca/cl/tc intermixed unit, upper contact 45 dtca, fol 45 dtca, 10% cl stringer veins 45 dtca slight increase in talc alter.	99628	353.60	355.00	1.40	FOL45	CA/CL/TC	55	.50	17	
			99629	355.00	356.00	1.00	NA	CA/CL/TC	55	.50	15	
			99630	356.00	357.00	1.00	NA	CA/CL/TC	55	.50	12	
			99631	357.00	358.00	1.00	NA	CA/CL/TC	50	.00	34	
			99632	358.00	359.00	1.00	NA	CA/CL/TC	50	.00	17	
			99633	359.00	360.00	1.00	NA	CA/CL/TC	50	.00	22	
			99634	360.00	361.00	1.00	NA	CA/CL/TC	40	.00	9	
361.00	392.00	4.3 TALC CHLORITE -RELATIVELY UNALTERED Dark green-black, fn-med gr, non magnetic, cl/ca/tc alter,prominent vein orientation 55 dtca 25% carb veining, 370.5-375.0 40% ca as vesicule fills and/or crystalites 375.5-376.0 mod breccia with carbonate as breccia fill and veins 378.7-382.0 msod-strong breccia with 40% carb as breccia fills and veins, fragments are rounded-subangular 381.0-390.4 becoming wkly sheared 70 dtca 390.4-392.0 more massive upper contact 70 dtca, less carb alter 20%. 392.0 EOH.	99635	361.00	362.00	1.00	NA	CA/CL/TC	50	.00	5	
			99636	365.00	366.00	1.00	NA	CL/CA/TC	15	.00	9	
			99637	373.00	374.00	1.00	NA	CL/TC/CA	7	.00	5	
			99638	374.00	375.00	1.00	NA	CL/TC/CA	7	.00	9	
			99639	375.50	376.00	.50	NA	CL/CA/TC	25	.00	9	
			99640	378.70	380.00	1.30	NA	CL/CA/TC	30	.00	3	
			99641	380.00	381.00	1.00	NA	CL/CA-TC	30	.00	17	
			99642	388.00	389.00	1.00	NA	CL/TC/CA	15	.00	5	

RSW

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		lower contact obliterated 86.4-86.6 cl/tc inclusion strongly altered, lower contact 20 dtca 86.6-88.6 strong perv ankerite alter, texture mottled, light-med brown 91.2-92.4 ca veins up to 2mm wide 8% of unit 45 dtca.										
101.90	116.90	3.5 QUARTZ FELDSPAR PORPHYRY Med grey slight green tinge, med-coarse gr, nonmagnetic, wk-locally mod silicification perv gradational upper contact with regard to mafic inclusion content 5% mafic inclusions 109.7-116.9 frac change from 85 dtca to 40 dtca 116.0-116.9 Increase in perv cl alter wk to mod.										
116.90	121.80	8.5 DIORITE Green, fn-med gr, nonmagnetic, strong perv cl with patchy intervals of wk silicification, diorite Upper contact 10 dtca 117.3-118.4 strong cl alter with spinafex texture, wk brecciation, upper contact 45 dtca sharp contact, lower contact 40 dtca Localized fragmenys of unaltered grdr.										
121.80	123.00	3.5 QUARTZ FELDSPAR PORPHYRY Med-coarse gr with wk-mod perv cl alter.										
123.00	127.10	3.5 QUARTZ FELDSPAR PORPHYRY light whiteish brown, med-coarse gr, nonmagnetic, wk carb alter with wk-mod silica overprinting, upper contact 40 dtca sharp.										
127.10	137.40	3.5 QUARTZ FELDSPAR PORPHYRY	99643	135.00	136.00	1.00	NA	SI/CL	0	.00	2	
			99644	136.00	136.80	.80	LC45	SI/CL	0	.00	19	
			99645	136.80	137.30	.50	VN/FOL45	SI	20	1.50	301	
			99646	137.30	138.30	1.00	UC45	SI	0	.00	14	
137.40	287.80	3.5 QUARTZ FELDSPAR PORPHYRY Greenish grey, med-coarse gr, nonmagnetic, wk locally mod sio2 alter of ground mass, granodiorite with 10-15% mafic cl alter inclusions Inclusions have alter halo around core, 2-4cm elongated at random orientation Upper contact 40 dtca sharp contact, 1% carb vein and fracture fill dominant frac orientation 90 dtca 137.0 137.1 qz vein upper contact 45 dtca, cl alter (frac fill) at upper and lower contact, wk vuggy texture of qz vein 137.1-137.4 10% qz vein 45 dtca, 1-2% py assoc with vein and dissem, mod patchy sericite alter around veins (up to 1cm wide) Greenish white, med-coarse gr euhedral-subhedral, 90-95% feldspar, <5% qz, 1-2% mafics cl altered nonmagnetic, mod perv sio2 alter with	1401	209.50	210.00	.50	NA	NA	0	.00	14	
			1402	210.00	210.50	.50	NA	NA	0	.00	2	
			1403	210.50	211.00	.50	NA	NA	0	.00	2	
			1404	211.00	211.50	.50	NA	NA	0	.00	1	
			1405	211.50	212.00	.50	NA	NA	0	.00	5	
			1406	212.00	212.50	.50	NA	NA	0	.00	22	
			1407	212.50	213.00	.50	NA	NA	0	.00	1	
			1408	213.00	213.50	.50	NA	NA	0	.00	1	
			1409	213.50	214.00	.50	NA	NA	0	.00	1	
			1410	214.00	215.00	1.00	NA	NA	0	.00	7	
			1411	215.00	215.50	.50	NA	NA	0	.00	3	
			1412	215.50	216.00	.50	NA	NA	0	.00	1	
			1413	216.00	216.50	.50	NA	NA	0	.00	1	

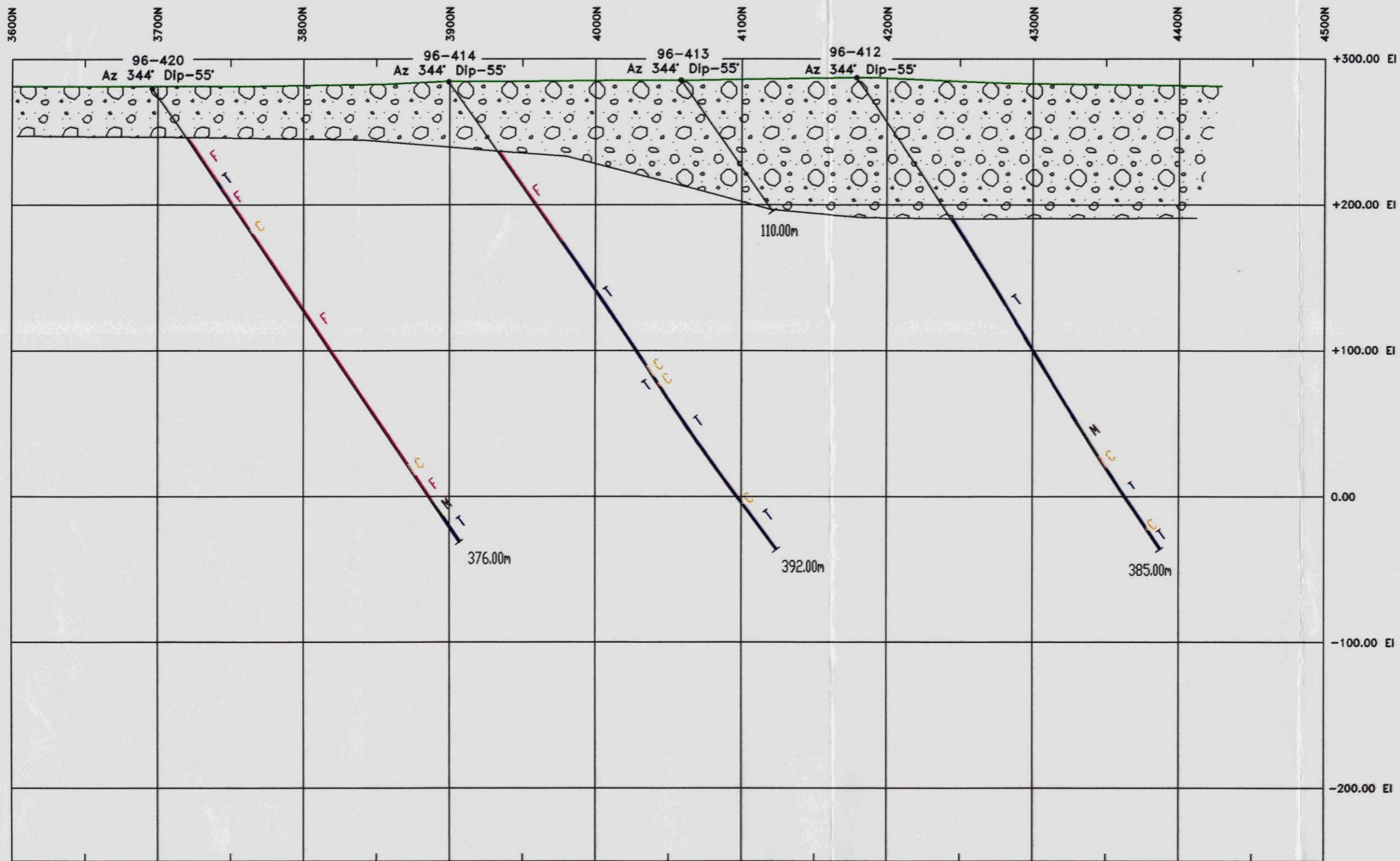
From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		patchy/perv cl alter, upper contact 45 dtca, dominant frac orientation 45 dtca 144.6-153.7 Main fracture 3 dtca, localized zones of wk ankerite alter of ground mass, small increase insilica alter (pervasive from wk to mod With increase in sio2 unit becomes more mottled	1414	216.50	217.00	.50	NA	NA	0	.00	1	
		163.4-165.0 frac 5-7 dtca 165.7-166.0 frac 50 dtca	1415	217.00	217.50	.50	NA	NA	0	.00	1	
		166.7-173.4 frac 5-7 dtca 173.4-173.8 frac 20 dtca	1416	217.50	218.00	.50	NA	NA	0	.00	9	
		186.9-187.0 frac 20 dtca 209.5-225.5 sample sequence used 1401-1432 for standard blank sampling purposes	1417	218.00	218.50	.50	NA	NA	0	.00	1	
		232.4-233.4 qz vein 10cm wide, upper contact 10 dtca, 2% py assoc with vein (dissem plus blebs).	1418	218.50	219.00	.50	NA	NA	0	.00	3	
		237.5-237.6 Qz vein upper contact 60 dtca, frac at 237.55 60 dtca, 2-3% py dissem plus blebs.	1419	219.00	219.50	.50	NA	NA	0	.00	18	
		238.0-238.3 1-2mm Frac 10 dtca .5% py within frac.	1420	219.50	220.00	.50	NA	NA	0	.00	1	
		240.6-241.2 3cm Qz vein, upper contact 10 dtca.	1421	220.00	220.50	.50	NA	NA	0	.00	1	
		233.4-287.8 Increase in cl alter, poss phase change of grdr with gr size decreasing and matrix becoming more cl altered, still wk sio2 alter.	1422	220.50	221.00	.50	NA	NA	0	.00	1	
		244.0-279.5 Rk type is the same with introduction of strong silica along fracs that are mottling orig texture. Increase in pyrite 2-3% assoc with silica zones plus 1=2% disseminated There are two main fracture orientations F1 10 dtca, F2 60 dtca, there is a equal percent distribution of each throughout unit.	1423	221.00	221.50	.50	NA	NA	0	.00	1	
		251.2-252.0 Good representation of 10 dtca.	1424	221.50	222.00	.50	NA	NA	0	.00	3	
		276.9-277.3 Qz ca vein with patchy ankerite. Localized (<5cm) intervals of hematite stain ie	1425	222.00	222.50	.50	NA	NA	0	.00	1	
		284.6-285.0.	1426	222.50	223.00	.50	NA	NA	0	.00	14	
		Less than .5% fg mag in small frac 60 dtca.	1427	223.00	223.50	.50	NA	NA	0	.00	10	
		278.0-???.? Decrease in py from 2-1%.	1428	223.50	224.00	.50	NA	NA	0	.00	2	
			1429	224.00	224.50	.50	NA	NA	0	.00	3	
			1430	224.50	225.00	.50	NA	NA	0	.00	22	
			1431	225.00	225.50	.50	NA	NA	0	.00	12	
			99647	231.00	232.00	1.00	NA	SI	0	.00	9	
			99648	232.00	232.40	.40	NA	SI	0	.00	12	
			99649	232.40	233.40	1.00	NA	SI	45	1.50	14	
			99650	233.40	234.00	.60	10	SI	0	.00	27	
			99651	234.00	235.00	1.00	NA	SI/CL	0	.00	21	
			99652	235.00	236.00	1.00	NA	SI/CL	0	.00	9	
			99653	236.00	237.50	1.50	NA	SI/CL	0	.00	33	
			99654	237.50	237.60	.10	60	SI	99	2.00	50	
			99655	237.60	239.00	1.40	60	SI/CL	0	.50	5	
			99656	239.00	240.60	1.60	NA	SI/CL	0	.00	41	
			99657	240.60	241.20	.60	10	SI	10	.50	1	
			99658	241.20	242.00	.80	NA	SI/CL	0	.00	10	
			99659	243.00	244.00	1.00	NA	SI/CL	0	.50	15	
			99660	244.00	245.00	1.00	NA	SI/CL	0	1.00	278	
			99661	245.00	246.00	1.00	NA	SI/CL	0	2.00	471	
			99662	246.00	247.00	1.00	NA	SI/CL	0	2.00	29	
			99663	247.00	248.00	1.00	NA	SI/CL	0	2.00	1	
			99664	248.00	249.00	1.00	NA	SI/CL	0	2.00	96	
			99665	249.00	250.00	1.00	NA	SI/CL	0	2.00	33	
			99666	250.00	251.00	1.00	NA	SI/CL	0	2.00	27	
			99667	251.00	252.00	1.00	NA	SI/CL	0	.00	10	
			99668	252.00	253.00	1.00	NA	SI/CL	0	.00	1	
			99669	253.00	254.00	1.00	NA	SI/CL	0	.00	6	
			99670	254.00	255.00	1.00	NA	SI/CL	0	.00	2	
			99671	255.00	256.00	1.00	NA	SI/CL	0	.00	2	
			99672	256.00	257.00	1.00	NA	SI/CL	0	.00	9	
			99673	257.00	258.00	1.00	NA	SI/CL	0	.00	5	
			99674	258.00	259.00	1.00	NA	SI/CL	0	.00	1	
			99675	259.00	260.00	1.00	NA	SI/CL	0	.00	3	
			99676	260.00	261.00	1.00	NA	SI/CL	0	.00	1	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
			99677	261.00	262.00	1.00	NA	SI/CL	0	.00	65	
			99678	262.00	263.00	1.00	NA	SI/CL	0	.00	12	
			99679	263.00	264.00	1.00	NA	SI/CL	0	.00	2	
			99680	264.00	265.00	1.00	NA	SI/CL	0	.00	1	
			99681	265.00	266.00	1.00	NA	SI/CL	0	.00	27	
			99682	266.00	267.00	1.00	NA	SI/CL	0	.00	67	
			99683	267.00	268.00	1.00	NA	SI/CL	0	.00	91	
			99684	268.00	269.00	1.00	NA	SI/CL	0	.00	1	
			99685	269.00	270.00	1.00	NA	SI/CL	0	.00	2	
			99686	270.00	271.00	1.00	NA	SI/CL	0	.00	1	
			99687	271.00	272.00	1.00	NA	SI/CL	0	.00	19	
			99688	272.00	273.00	1.00	NA	SI/CL	0	.00	7	
			99689	273.00	274.00	1.00	NA	SI/CL	0	.00	55	
			99690	274.00	275.00	1.00	NA	SI/CL	0	.00	12	
			99691	275.00	276.00	1.00	NA	SI/CL	0	.00	10	
			99692	276.00	277.00	1.00	NA	SI/CL/CA	2	2.00	2	
			99693	277.00	278.00	1.00	NA	SI/CL	0	1.50	21	
			99694	278.00	279.00	1.00	NA	SI/CL	0	1.50	2	
			99695	279.00	280.00	1.00	NA	SI/CL	0	1.50	2	
			99696	280.00	281.00	1.00	NA	SI/CL	0	1.50	9	
			99697	281.00	282.00	1.00	NA	SI/CL	0	1.50	2	
			99698	282.00	283.00	1.00	NA	SI/CL	0	1.50	7	
			99699	283.00	284.00	1.00	NA	SI/CL	0	1.50	5	
			99700	284.00	285.00	1.00	NA	SI/CL	0	1.50	2	
			99801	285.00	286.00	1.00	NA	SI/CL	0	1.50	1	
			99802	286.00	287.00	1.00	NA	SI/CL	0	1.50	2	
			99803	287.00	287.80	.80	NA	SI/CL	0	.50	9	
287.80	288.90	8.5 DIORITE Greenish grey, fg-mg, wk magnetic, wk-mod cl alter, diorite with 7% feldspar phenos plus cl alter mafics. Upper contact is gradational over 15cm, lower contact 55-60 dtca sharp contact.	99804	287.80	288.90	1.10	NA	CL	0	.50	1	
288.90	311.20	3.6 FELDSPAR PORPHYRY 290.0-303.3 Greenish grey, mg-cg with fg matrix, non magnetic, cl pervasive with wk patchy sio2 grdr still 2-3% qz veins upto 1cm wide with 2-3% silica flooding of small (1-3mm) frags 2 prominent frac/vein orientations: 20 dtca, 60 dtca (equal amounts). 303.3-311.2 Same as previous rk type with increase qz vein 10%, 2% py assoc with veins and dissem. 303.3-311-2 F1 30 dtca (fracs withintence silica influx remnant texture of grdr apparent, there are chilled halos around the frags. 2-3% Py assoc with the silica zones, plus 1-2% dissem. Fracs 60 dtca appear to carry more py than the 30 dtca frags and they appear to be the later of the two.	99805	288.90	289.60	.70	NA	SI	0	2.00	45	
			99806	289.60	291.00	1.40	NA	SI/CL	0	2.00	2	
			99807	291.00	292.00	1.00	NA	SI/CL	0	2.00	5	
			99808	292.00	293.00	1.00	NA	SI/CL	0	2.00	75	
			99809	293.00	294.00	1.00	NA	SI/CL	0	2.00	1	
			99810	294.00	295.00	1.00	NA	SI/CL	0	2.00	39	
			99811	295.00	296.00	1.00	NA	SI/CL	0	2.00	1	
			99812	296.00	297.00	1.00	NA	SI/CL	0	2.00	3	
			99813	297.00	298.00	1.00	NA	SI/CL	0	2.00	10	
			99814	298.00	299.00	1.00	NA	SI/CL	0	2.00	1	
			99815	299.00	300.00	1.00	NA	SI/CL	0	2.00	10	
			99816	300.00	301.00	1.00	NA	SI/CL	0	2.00	2	
			99817	301.00	302.00	1.00	NA	SI/CL	0	2.00	1	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		310.5-311.0 Good rep of shallow and steep vein orientation.	99818	302.00	303.00	1.00	NA	SI/CL	0	2.00	1	
			99819	303.00	304.00	1.00	NA	SI/CL	0	2.00	12	
			99820	304.00	305.00	1.00	NA	SI/CL	0	2.00	21	
			99821	305.00	306.00	1.00	NA	SI/CL	0	2.00	3	
			99822	306.00	307.00	1.00	NA	SI/CL	0	2.00	12	
			99823	307.00	308.00	1.00	NA	SI/CL	0	2.00	2	
			99824	308.00	309.00	1.00	NA	SI/CL	0	2.00	2	
			99825	309.00	310.00	1.00	NA	SI/CL	0	2.00	26	
			99826	310.00	311.20	1.20	NA	SI/CL	0	2.00	24	
311.20	311.60	10.0 QUARTZ VEIN This could be a silica influx zone at the contact between grdr and diorite 1-2% py dissem plus frac fills and small veins, locally greater (up to 3%).	99827	311.20	311.60	.40	NA	SI/CL	0	2.00	341	
311.60	322.00	8.5 DIORITE Light green, fg-mg, non magnetic, wk si alter overprinting mod cl alter pervasive, diorite with fragments of previous grdr Prominent frac/vein orientation is 70 dtca (5% vein and/or silica influx) veins are upto 2cm wide. 1-2% fg-mg py dissem plus assoc with vein and fracs.	99828	311.60	313.00	1.40	NA	CL	0	1.00	487	
			99829	313.00	314.00	1.00	NA	CL	0	1.00	50	
			99830	314.00	315.00	1.00	NA	CL	0	1.00	99	
			99831	315.00	316.00	1.00	NA	CL	0	1.00	34	
			99832	316.00	317.00	1.00	NA	CL	0	1.00	14	
			99833	317.00	318.00	1.00	NA	CL	0	1.00	89	
			99834	318.00	319.00	1.00	NA	CL	0	1.00	62	
			99835	319.00	320.00	1.00	NA	CL	0	1.00	24	
			99836	320.00	321.00	1.00	NA	CL	0	1.00	2	
			99837	321.00	322.00	1.00	NA	CL	0	1.00	50	
322.00	342.30	3.5 QUARTZ FELDSPAR PORPHYRY Green grey, mg-cg, non magnetic, mod cl alter with patchy wk silica alter, granodiorite. 322.0-328.6 Dominant vein and frac orientation 70 dtca. 328.6-342.1 Dominant vein and frac orientation 50 dtca. Below 328.4 increase in veining (1-3cm) relative to replacement with silica, 10-15% qz veining over this interval 2-3% py fg-mg assoc with veins and dissem.	99838	322.00	323.00	1.00	NA	SI/CL	5	2.00	27	
			99839	323.00	324.00	1.00	NA	SI/CL	5	2.00	62	
			99840	324.00	325.00	1.00	NA	SI/CL	5	2.00	33	
			99841	325.00	326.00	1.00	NA	SI/CL	5	2.00	50	
			99842	326.00	327.00	1.00	NA	SI/CL	5	2.00	58	
			99843	327.00	328.00	1.00	NA	SI/CL	2	2.00	3	
			99844	328.00	329.00	1.00	NA	SI/CL	5	2.00	57	
			99845	329.00	330.00	1.00	VN50	SI	12	2.00	60	
			99846	330.00	331.00	1.00	VN50	SI	12	2.00	19	
			99847	331.00	332.00	1.00	VN50	SI	12	2.00	27	
			99848	332.00	333.00	1.00	VN50	SI	20	2.00	81	
			99849	333.00	334.00	1.00	VN50	SI	12	2.00	41	
			99850	334.00	335.00	1.00	VN50	SI	12	2.00	69	
			99851	335.00	336.00	1.00	VN50	SI	12	2.00	62	
			99852	336.00	337.00	1.00	VN50	SI	12	2.00	65	
			99853	337.00	338.00	1.00	VN50	SI	12	2.00	72	
			99854	338.00	339.00	1.00	NA	SI	12	2.00	79	
			99855	339.00	340.00	1.00	NA	SI	12	2.00	64	
			99856	340.00	341.00	1.00	NA	SI	12	2.00	1	
			99857	341.00	342.00	1.00	NA	SI	12	2.00	1	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
342.30	355.00	9.0 FAULT ZONE AND GOUGE Greenish grey, fg with 5-10% coarse clasts, strong cl/tc alter with wk patchy fuchsite and 2-3% dolomite veining and fragments talc chlorite schist fault zone (poss Destor Porcupine Fault) strong foliation fabric apparent within specific intervals. Upper contact 60 dtca, fol 60 dtca, 30% fault gouge throughout entire unit. 342.6-344.7 Strong fol 60 dtca, unit appears recemented indicating ;fault occurred prior to the overlying intrusive unit. Fol becomes mottled and less definable below 344.7.	99858	342.00	343.00	1.00	FZ60	CL/TC	0	.50	7	
			99859	343.00	344.00	1.00	FOL60	CL/TC	0	.50	41	
			99860	344.00	345.00	1.00	NA	CL/TC	0	.50	1	
			99861	345.00	346.00	1.00	NA	CL/TC	0	.50	14	
			99862	346.00	347.00	1.00	NA	CL/TC	0	.50	3	
			99863	347.00	348.00	1.00	NA	CL/TC	0	.50	2	
			99864	348.00	349.00	1.00	NA	CL/TC	0	.50	9	
			99865	349.00	350.00	1.00	NA	CL/TC	0	.50	3	
			99866	350.00	351.00	1.00	NA	CL/TC	0	.50	5	
			99867	351.00	352.00	1.00	NA	CL/TC	0	.50	2	
			99868	352.00	353.00	1.00	NA	CL/TC	0	.50	2	
355.00	367.00	4.3 TALC CHLORITE -RELATIVELY UNALTERED Dark green, fg-mg, non magnetic, strong cl/tc with patchy wk carb (ovoids), relatively unaltered schist. WK-MOD SHEARS WITHIN MAIN UNIT DOMINANT SHEAR ORIENTATION 60 DTCA.	99869	353.00	354.00	1.00	NA	CL/TC/CA	0	.50	1	
			99870	354.00	355.00	1.00	NA	CL/TC/CA	0	.50	9	
			99871	355.00	356.00	1.00	FOL60	CL/TC/CA	0	1.00	1	
			99872	356.00	357.00	1.00	NA	CL/TC/CA	0	1.00	22	
			99873	357.00	358.00	1.00	NA	CL/TC/CA	0	1.00	2	
			99874	358.00	359.00	1.00	NA	CL/TC/CA	0	1.00	2	
			99875	359.00	360.00	1.00	NA	CL/TC/CA	0	1.00	1	
			99876	360.00	361.00	1.00	NA	CL/TC/CA	0	1.00	5	
			99877	361.00	362.00	1.00	NA	CL/TC/CA	0	1.00	2	
			99878	362.00	363.00	1.00	NA	CL/TC/CA	0	1.00	3	
			99879	363.00	364.00	1.00	NA	CL/TC/CA	0	1.00	2	
367.00	368.90	4.9 TALC CHLORITE AND FAULT Talc/chlorite altered unit with 50% green fault gouge, localized sections of wk-mod fol 60 dtca, 1% py within fault gouge and small shear frags.	99880	364.00	365.00	1.00	NA	CL/TC/CA	0	1.00	2	
			99881	365.00	366.00	1.00	NA	CL/TC/CA	0	1.00	1	
368.90	376.00	4.3 TALC CHLORITE -RELATIVELY UNALTERED Green with slight grey tinge, fg, non magnetic, strong cl/tc alter with 5% ca veining. Within main unit 10% shears up to 30cm wide 60 dtca, 1-2% py within shears. 369.2-369.7 Shear/fault upper contact 60 dtca, 70% fault gouge, lower contact 60 dtca. 372.3-373.3 Mod cl/tc shear/fol apparent 60 dtca.	99882	366.00	367.00	1.00	NA	CL/TC/CA	0	1.00	2	
			99883	367.00	368.00	1.00	NA	CL/TC/CA	0	1.00	39	
			99884	368.00	369.00	1.00	NA	CL/TC/CA	0	1.00	27	
			99885	369.00	370.00	1.00	NA	CL/TC/CA	0	1.00	9	
			99886	370.00	371.00	1.00	NA	CL/TC/CA	0	1.00	1	
			99887	371.00	372.00	1.00	FOL60	CL/TC/CA	0	1.00	6	
			99888	372.00	373.00	1.00	FOL60	CL/TC/CA	0	1.00	1	
			99889	373.00	374.00	1.00	NA	CL/TC/CA	0	1.00	1	
			99890	374.00	375.00	1.00	NA	CL/TC/CA	0	1.00	1	
			99891	375.00	376.00	1.00	NA	CL/TC/CA	0	1.00	1	

W. Paul



- F Felsite
- T Talc-chlorite
- C Carbonate
- M Mixed
- MV Mafic Volcanics
- Mafic Intrusive



E ECHO BAY ONTARIO LTD.
AQUARIUS PROPERTY

Patent 8550
CROSS SECTION 12400NE
Looking West

SCALE: 1:3000

DRAWN:

DATE: Feb 1997

REV. BY

No.

Date Printed: 17 Jan, 1997

ECHO BAY MINES ONTARIO LTD.

Page: 1 of 5

Survey Northing: 4002.349
 Survey Easting: 12501.100
 Elevation: 285.690

Grid Northing: 4000N
 Grid Easting: 12500E

DRILL HOLE RECORD

Drill Hole: 96-421

Collar Azi.: 344
 Collar Dip: -55
 Hole Length: 299.00

***** Dip Tests *****
 Depth Azi. Dip
 143.0 -54.0
 194.0 -56.0
 244.0 -60.0

Measure: Metric
 Drilled by: Dominik
 Survey: yes
 Date Started: Sept 24 1996
 Completed: 28 Sept 1996
 Core Size: BQ
 Property: Aquarius
 Claim: Patent 8550
 Township: Macklem
 Prov/State: Ontario
 Country: Canada

Core Storage: Aquarius Minesite

Local reference: South of Hwy 101
 Local reference: 30 km East of Timmins, Ontario
 Type of Drill: Diamond
 Purpose: To drill carb zone extention
 Comments: Hole was lost at 299.0m due to sanding in
 Comments:

Date(s) Logged: 28 Sept 1996
 Logged by: M. Lapointe

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
.00	128.70	6.0 OVERBURDEN/CASING										
128.70	146.80	4.9 TALC CHLORITE AND FAULT Greenish grey, fg locally mg, wk magnetic poss 1% fg dissem magnetite, cl/tc alter pervasive strong. Massive chlorite/talc unit with 30-40% fault gouge (clay gouge greenish grey), competent intervals are strong talc/cl alter. 134-134.4 Interval exhibits wk fol with 40 dtca. 1-2% Carb veining at random orientation.	99892	128.70	130.00	1.30	NA	TC/CL/CA	0	.00	1	
			99893	130.00	131.00	1.00	NA	TC/CL/CA	0	.00	1	
			99894	131.00	132.00	1.00	NA	TC/CL/CA	0	.00	1	
			99895	132.00	133.00	1.00	NA	TC/CL/CA	0	.00	82	
			99896	133.00	134.00	1.00	NA	TC/CL/CA	0	.00	77	
			99897	134.00	135.00	1.00	NA	TC/CL/CA	0	.00	17	
			99898	135.00	136.00	1.00	NA	TC/CL/CA	0	.00	1	
			99899	136.00	137.00	1.00	NA	TC/CL/CA	0	.00	15	
			99900	137.00	138.00	1.00	NA	TC/CL/CA	0	.00	15	
			99901	138.00	139.00	1.00	NA	TC/CL/CA	0	.00	1	
			99902	139.00	140.00	1.00	NA	TC/CL/CA	0	.00	3	
			99903	140.00	141.00	1.00	NA	TC/CL/CA	0	.00	1	
			99904	141.00	142.00	1.00	NA	TC/CL/CA	0	.00	1	
			99905	142.00	143.00	1.00	NA	TC/CL/CA	0	.00	15	
			99906	143.00	144.00	1.00	NA	TC/CL/CA	0	.00	7	
			99907	144.00	145.00	1.00	NA	TC/CL/CA	0	.00	45	
			99908	145.00	146.00	1.00	NA	TC/CL/CA	0	.00	3	
			99909	146.00	146.80	.80	NA	TC/CL/CA	0	.00	12	
146.80	176.90	8.3 DIABASE Black, fg-mg, wk magnetic poss 1% fg dissem magnetite, mod cl alter perv with wk patchy ca crystalites or ovoids Diabase poss diorite dyke??? 5% carb veining poss calcite and/or dolomite, patchy wk ancherite. Dominant vein orientation 45 dtca, 15 dtca (equal	99910	146.80	148.00	1.20	VN50/75	CL/CA	5	.50	9	
			99911	148.00	149.00	1.00	VN50/75	CL/CA	5	.50	5	
			99912	149.00	150.00	1.00	VN50/75	CL/CA	5	.50	3	
			99913	150.00	151.00	1.00	VN50/75	CL/CA	5	.50	3	
			99914	151.00	152.00	1.00	VN50/75	CL/CA	5	.50	1	

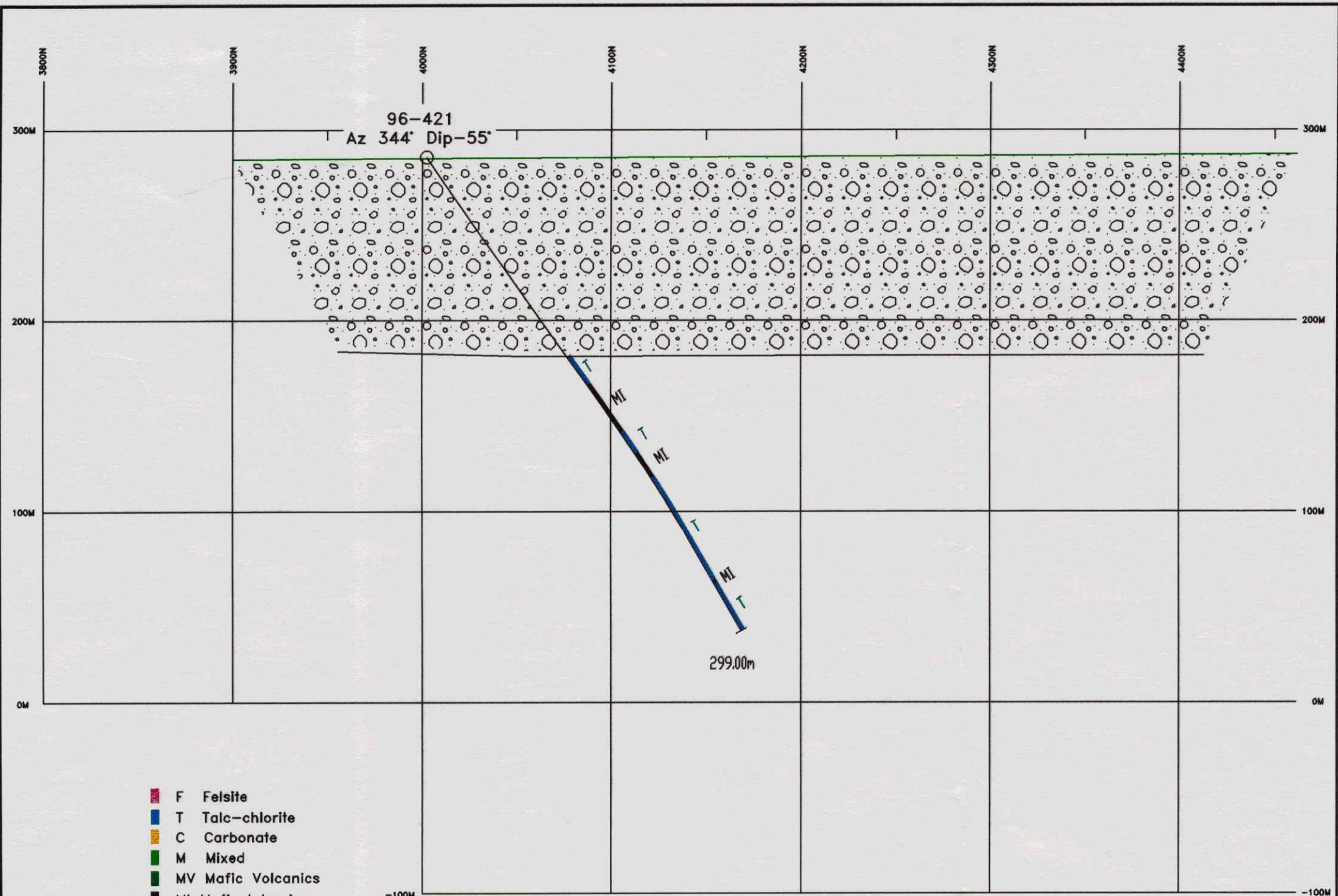
From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
		distribution). Localized zones of 10-15% carb veining over short (<30cm) intervals. 175.8-176.9 15% Carb veining F1 50 dtca, F2 70-80 dtca, steeper (70-80 dtca) wk calcite.	99915	152.00	153.00	1.00	VN50/75	CL/CA	5	.50	1	
			99916	153.00	154.00	1.00	VN50/75	CL/CA	5	.50	1	
			99917	154.00	155.00	1.00	VN50/75	CL/CA	5	.50	1	
			99918	155.00	156.00	1.00	VN50/75	CL/CA	5	.50	9	
			99919	156.00	157.00	1.00	VN50/75	CL/CA	5	.50	1	
			99920	157.00	158.00	1.00	VN50/75	CL/CA	5	.50	3	
			99921	158.00	159.00	1.00	VN50/75	CL/CA	5	.50	4	
			99922	159.00	160.00	1.00	VN50/75	CL/CA	5	.50	1	
			99923	160.00	161.00	1.00	VN50/75	CL/CA	5	.50	1	
			99924	161.00	162.00	1.00	VN50/75	CL/CA	5	.50	3	
			99925	162.00	163.00	1.00	VN50/75	CL/CA	5	.50	1	
			99926	163.00	164.00	1.00	VN50/75	CL/CA	5	.50	2	
			99927	164.00	165.00	1.00	VN50/75	CL/CA	5	.50	2	
			99928	165.00	166.00	1.00	NA	CL/CA	2	.50	5	
			99929	166.00	167.00	1.00	NA	CL/CA	2	.50	9	
			99930	167.00	168.00	1.00	NA	CL/CA	2	.50	3	
			99931	168.00	169.00	1.00	NA	CL/CA	2	.50	3	
			99932	169.00	170.00	1.00	NA	CL/CA	2	.50	9	
			99933	170.00	171.00	1.00	NA	CL/CA	2	.50	1	
			99934	171.00	172.00	1.00	NA	CL/CA	2	.50	3	
			99935	172.00	173.00	1.00	NA	CL/CA	2	.50	3	
			99936	173.00	174.00	1.00	NA	CL/CA	2	.50	3	
			99937	174.00	175.00	1.00	NA	CL/CA	2	.50	1	
			99938	175.00	175.90	.90	NA	CL/CA	2	.50	3	
			99939	175.90	176.90	1.00	NA	CL/CA	2	.50	15	
176.90	184.00	4.9 TALC CHLORITE AND FAULT Grey with localized sections of black more competent material, vfg-fg (clay size material), non magnetic. Strong to intense tc/cl alter, 70 % grey fault gouge with local sections with no fault gouge 178.1-1790.0. Strong fault zone upper contact 70 dtca, wk scrambled fol 70 dtca.	99940	176.90	178.00	1.10	FZ	TC/CL	0	.00	3	
			99941	178.00	179.00	1.00	FZ	TC/CL	0	.00	7	
			99942	179.00	180.00	1.00	FZ	TC/CL	0	.00	1	
			99943	180.00	181.00	1.00	FZ	TC/CL	0	.00	2	
			99944	181.00	182.00	1.00	FZ	TC/CL	0	.00	1	
			99945	182.00	183.00	1.00	FZ	TC/CL	0	.00	2	
			99946	183.00	184.00	1.00	FZ	TC/CL	0	.00	3	
184.00	191.20	4.3 TALC CHLORITE -RELATIVELY UNALTERED Black, fg, non magnetic, strong tc/cl pervasive, massive talc chlorite schist with 5% carb veining with patchy perv carb crystallized. Prominent vein orientation is 80 dtca. Upper contact 85 dtca (not clear contact due to fault gouge above the contact). No visible sulphides>.	99947	184.00	185.00	1.00	NA	TC/CL	5	.00	15	
			99948	185.00	186.00	1.00	NA	TC/CL	5	.00	83	
			99949	186.00	187.00	1.00	NA	TC/CL	5	.00	69	
			99950	187.00	188.00	1.00	NA	TC/CL	5	.00	1	
			99951	188.00	189.00	1.00	NA	TC/CL	5	.00	144	
			99952	189.00	190.00	1.00	NA	TC/CL	5	.00	1	
			99953	190.00	191.20	1.20	NA	TC/CL	5	.00	3	
191.20	203.10	9.0 FAULT ZONE AND GOUGE Fault zone strongly broken with 80% fault gouge. Original material was talc/chlorite schist evident with platy nature of larger frags (wk fol).	99954	191.20	192.00	.80	FZ	TC/CL	0	.50	1	
			99955	192.00	193.00	1.00	FZ	TC/CL	0	.50	1	
			99956	193.00	194.00	1.00	FZ	TC/CL	0	.50	1	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
203.10	205.80	Upper contact 60 dtca wk fol also 60 dtca, 200-203.1 section with 5% coarse euhedral py.	99957	194.00	195.00	1.00	FZ	TC/CL	0	.50	4	
			99958	195.00	196.00	1.00	FZ	TC/CL	0	.50	2	
			99959	196.00	197.00	1.00	FZ	TC/CL	0	.50	3	
			99960	197.00	198.00	1.00	FZ	TC/CL	0	.50	12	
			99961	198.00	199.00	1.00	FZ	TC/CL	0	.50	102	
			99962	199.00	200.00	1.00	FZ	TC/CL	0	.50	46	
			99963	200.00	201.00	1.00	FZ	TC/CL	0	1.00	9	
			99964	201.00	202.00	1.00	FZ	TC/CL	0	1.00	1	
			99965	202.00	203.10	1.10	FZ	TC/CL	0	1.00	1	
			205.80	212.00	3.1 FELSITE Biege to light grey, fg, non magnetic, strong-mod quartz carbonate alter perv. Felsite unit with strong fracturing and tc/cl fracture fills throughout unit, unit may be a fg-mg diorite strongly bleached and ca silica alter possible remnant feldspars apparent ?? Unit contains 2-3% pyas veins 1-3mm wide, frac fills and wkly disseminations.	99966	203.10	204.00	.90	NA	SI/CA	5
99967	204.00	205.00				1.00	NA	SI/CA	5	2.00	4	
99968	205.00	205.80				.80	NA	SI/CA	5	2.00	2	
212.00	220.90	4.3 TALC CHLORITE -RELATIVELY UNALTERED Black-patchy grey, fg, non magnetic, Strong tc/cl alter with patchy pervasive carb alter localized short intervals of wk silica alter. Mod fracture with dominant orientation 85 dtca with random orientation. 208.5-210.5 Prominent fracture orientation 90 dtca. 210.5-211.0 F1 20 dtca, F2 20 dtca with 30R. This is a vein/fracture orientatons. Frac/vein chlorite filled. Frac throughout unit contain 2% py.	99969	205.80	207.00	1.20	NA	CL/TC	2	1.00	3	
			99970	207.00	208.00	1.00	NA	CL/TC	2	1.00	12	
			99971	208.00	209.00	1.00	NA	CL/TC	2	1.00	3	
			99972	209.00	210.00	1.00	NA	CL/TC	2	1.00	1	
			99973	210.00	211.00	1.00	NA	CL/TC	5	1.00	3	
			99974	211.00	212.00	1.00	NA	CL/TC	5	1.00	2	
220.90	231.50	4.1 TALC GRADING TO MIXED Black to patchy light grey, fg-mg, non magnetic, strong tc/cl with 25% carb veining. Talc chlorite massive unit grading wkly to mixed (poss carb). Prominent vein/fracture orientation 80 dtca. Several small shears (<3cm wide) within unit. Have a nice day.	99975	212.00	213.00	1.00	NA	TC/CL/CA	25	.50	2	
			99976	213.00	214.00	1.00	NA	TC/CL/CA	25	.50	1	
			99977	214.00	215.00	1.00	NA	TC/CL/CA	25	.50	1	
			99978	215.00	216.00	1.00	NA	TC/CL/CA	25	.50	1	
			99979	216.00	217.00	1.00	NA	TC/CL/CA	25	.50	3	
			99980	217.00	218.00	1.00	NA	TC/CL/CA	25	.50	2	
			99981	218.00	219.00	1.00	NA	TC/CL/CA	25	.50	9	
			99982	219.00	220.90	1.90	NA	TC/CL/CA	25	.50	3	
			99983	220.90	222.00	1.10	FZ	TC/CL	0	.50	2	
227.0	227.2	4.9 TALC CHLORITE AND FAULT Grey to light green, fg, non magnetic, strong talc chlorite alter with patchy wk carb of select zones. Unit is a talc chlorite fault zone with 80% fault gouge and rubble, dominant fol and frac orientation is 85 dtca. 227.0-227.2 Carb vein with strong cl alter of fractures 45 dtca.	99984	222.00	223.00	1.00	FZ	TC/CL	0	.50	2	
			99985	223.00	224.00	1.00	FZ	TC/CL	0	.50	2	
			99986	224.00	225.00	1.00	FZ	TC/CL	0	.50	80	
			99987	225.00	226.00	1.00	FZ	TC/CL	0	.50	15	
			99988	226.00	227.00	1.00	FZ	TC/CL	0	.50	12	
			99989	227.00	228.00	1.00	FZ	TC/CL	0	.50	5	

From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
231.50	268.90	4.1 TALC GRADING TO MIXED SAMPLE TAG SERIES CHANGE. SERIES R START: 10501. Black to dark green with patchy grey, fg, non magnetic, strong talc chlorite with 25-30% carb veins. Unit contains several shear zones in upper half of unit. 231.5-231.9 Shear upper contact 85 dtca. 237.8-237.9 Shear upper contact 45 dtca. 240.2-240.3 Shear upper contact 85 dtca. 241.7-242.0 Shear lower contact 10 dtca. Dominant vein orientation 70 dtca.	99990	228.00	229.00	1.00	FZ	TC/CL	0	.50	2	
			99991	229.00	230.00	1.00	FZ	TC/CL	0	.50	15	
			99992	230.00	231.00	1.00	FZ	TC/CL	0	.50	3	
			99993	231.00	231.50	.50	FZ	TC/CL	0	.50	6	
231.50	268.90	4.1 TALC GRADING TO MIXED SAMPLE TAG SERIES CHANGE. SERIES R START: 10501. Black to dark green with patchy grey, fg, non magnetic, strong talc chlorite with 25-30% carb veins. Unit contains several shear zones in upper half of unit. 231.5-231.9 Shear upper contact 85 dtca. 237.8-237.9 Shear upper contact 45 dtca. 240.2-240.3 Shear upper contact 85 dtca. 241.7-242.0 Shear lower contact 10 dtca. Dominant vein orientation 70 dtca.	99994	231.50	232.00	.50	NA	TC/CL/CA	27	.00	3	
			99995	232.00	233.00	1.00	NA	TC/CL/CA	27	.00	3	
			99996	233.00	234.00	1.00	NA	TC/CL/CA	27	.00	3	
			99997	234.00	235.00	1.00	NA	TC/CL/CA	27	.00	171	
			99998	235.00	236.00	1.00	NA	TC/CL/CA	27	.00	2	
			99999	236.00	237.00	1.00	NA	TC/CL/CA	27	.00	3	
			100000	237.00	238.00	1.00	NA	TC/CL/CA	27	.00	14	
			10501	238.00	239.00	1.00	NA	TC/CL/CA	27	.00	4	
			10502	239.00	240.00	1.00	NA	TC/CL/CA	27	.00	12	
			10503	240.00	241.00	1.00	NA	TC/CL/CA	27	.00	2	
			10504	241.00	242.00	1.00	NA	TC/CL/CA	27	.00	1	
			10505	242.00	243.00	1.00	NA	TC/CL/CA	27	.00	1	
			10506	243.00	244.00	1.00	NA	TC/CL/CA	27	.00	2	
			10507	244.00	245.00	1.00	NA	TC/CL/CA	27	.00	7	
			10508	245.00	246.00	1.00	NA	TC/CL/CA	27	.00	1	
			10509	246.00	247.00	1.00	NA	TC/CL/CA	27	.00	2	
			10510	247.00	248.00	1.00	NA	TC/CL/CA	27	.00	1	
			10511	248.00	249.00	1.00	NA	TC/CL/CA	27	.00	21	
			10512	249.00	250.00	1.00	NA	TC/CL/CA	27	.00	2	
			10513	250.00	251.00	1.00	NA	TC/CL/CA	27	.00	2	
			10514	251.00	252.00	1.00	NA	TC/CL/CA	27	.00	2	
			10515	252.00	253.00	1.00	NA	TC/CL/CA	27	.00	2	
			10516	253.00	254.00	1.00	NA	TC/CL/CA	27	.00	1	
			10517	254.00	255.00	1.00	NA	TC/CL/CA	27	.00	1	
			10518	255.00	256.00	1.00	NA	TC/CL/CA	27	.00	1	
			10519	256.00	257.00	1.00	NA	TC/CL/CA	27	.00	3	
			10520	257.00	258.00	1.00	NA	TC/CL/CA	27	.00	41	
			10521	258.00	259.00	1.00	NA	TC/CL/CA	27	.00	12	
			10522	259.00	260.00	1.00	NA	TC/CL/CA	27	.00	7	
			10523	260.00	261.00	1.00	NA	TC/CL/CA	27	.00	1	
			10524	261.00	262.00	1.00	NA	TC/CL/CA	27	.00	5	
			10525	262.00	263.00	1.00	NA	TC/CL/CA	27	.00	1	
			10526	263.00	264.00	1.00	NA	TC/CL/CA	27	.00	3	
10527	264.00	265.00	1.00	NA	TC/CL/CA	27	.00	1				
10528	265.00	266.00	1.00	NA	TC/CL/CA	27	.00	1				
10529	266.00	267.00	1.00	NA	TC/CL/CA	27	.00	1				
10530	267.00	268.00	1.00	NA	TC/CL/CA	27	.00	3				
10531	268.00	268.90	.90	NA	TC/CL/CA	27	.00	1				
268.90	270.60	3.6 FELDSPAR PORPHYRY Light grey to white, mg-cg, non magnetic, wk-mod perv silica alter, feldspar porphyry with poss 1% qz eyes	10532	268.90	270.00	1.10	NA	SI	0	1.00	16	
			10533	270.00	270.60	.60	NA	SI	0	1.00	114	

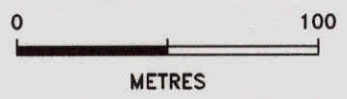
From (m)	To (m)	Geology	Sample	From (m)	To (m)	Length (m)	FOLN TCA	ALTERATION	VEIN %	PY %	AU PPB	AU
270.60	299.00	and/or fragments, 90% feldspars, Unit may be a dyke of splay from intrusive to the west, 5% mafics cl alter +/- quartz. Lower contact 40 dtca, upper contact ground away by drill. Mineralization includes 1% py disseminated, Tr-.25% cpy as frac fills and wk disseminations. Chlorite frac fills 40 dtca <2%. 4.1 TALC GRADING TO MIXED EOH 299.0m. 291.9-295.7 Wk-mod fol 60 dtca. 286.6-286.7 Wk shear 45 dtca. Foliation throughout unit is very contorted (ductile movement is apparent). Localised short of brecciation <10cm. 298.2-299.0 Increase in pervasive carb alter upto 50%. Carb veins prominent orientation 60 dtca.										
			10534	270.60	272.00	1.40	CT40	TC/CL/CA	27	.00		1
			10535	272.00	273.00	1.00	NA	TC/CL/CA	27	.00		1
			10536	273.00	274.00	1.00	NA	TC/CL/CA	27	.00		3
			10537	274.00	275.00	1.00	NA	TC/CL/CA	27	.00		1
			10538	275.00	276.00	1.00	NA	TC/CL/CA	27	.00		7
			10539	276.00	277.00	1.00	NA	TC/CL/CA	27	.00		2
			10540	277.00	278.00	1.00	NA	TC/CL/CA	27	.00		1
			10541	278.00	279.00	1.00	NA	TC/CL/CA	27	.00		9
			10542	279.00	280.00	1.00	NA	TC/CL/CA	27	.00		14
			10543	280.00	281.00	1.00	NA	TC/CL/CA	27	.00		3
			10544	281.00	282.00	1.00	NA	TC/CL/CA	27	.00		10
			10545	282.00	283.00	1.00	NA	TC/CL/CA	27	.00		5
			10546	283.00	284.00	1.00	NA	TC/CL/CA	27	.00		2
			10547	284.00	285.00	1.00	NA	TC/CL/CA	27	.00		1
			10548	285.00	286.00	1.00	NA	TC/CL/CA	27	.00		1
			10549	286.00	287.00	1.00	NA	TC/CL/CA	27	.00		68
			10550	287.00	288.00	1.00	NA	TC/CL/CA	27	.00		3
			10551	288.00	289.00	1.00	NA	TC/CL/CA	27	.00		1
			10552	289.00	290.00	1.00	NA	TC/CL/CA	27	.00		1
			10553	290.00	291.00	1.00	NA	TC/CL/CA	27	.00		48
			10554	291.00	292.00	1.00	NA	TC/CL/CA	27	.00		3
			10555	292.00	293.00	1.00	NA	TC/CL/CA	27	.00		2
			10556	293.00	294.00	1.00	NA	TC/CL/CA	27	.00		1
			10557	294.00	295.00	1.00	NA	TC/CL/CA	27	.00		2
			10558	295.00	296.00	1.00	NA	TC/CL/CA	27	.00		1
			10559	296.00	297.00	1.00	NA	TC/CL/CA	27	.00		1
			10560	297.00	298.00	1.00	NA	TC/CL/CA	27	.00		5
			10561	298.00	299.00	1.00	NA	TC/CL/CA	50	.00		5

W. Ruff

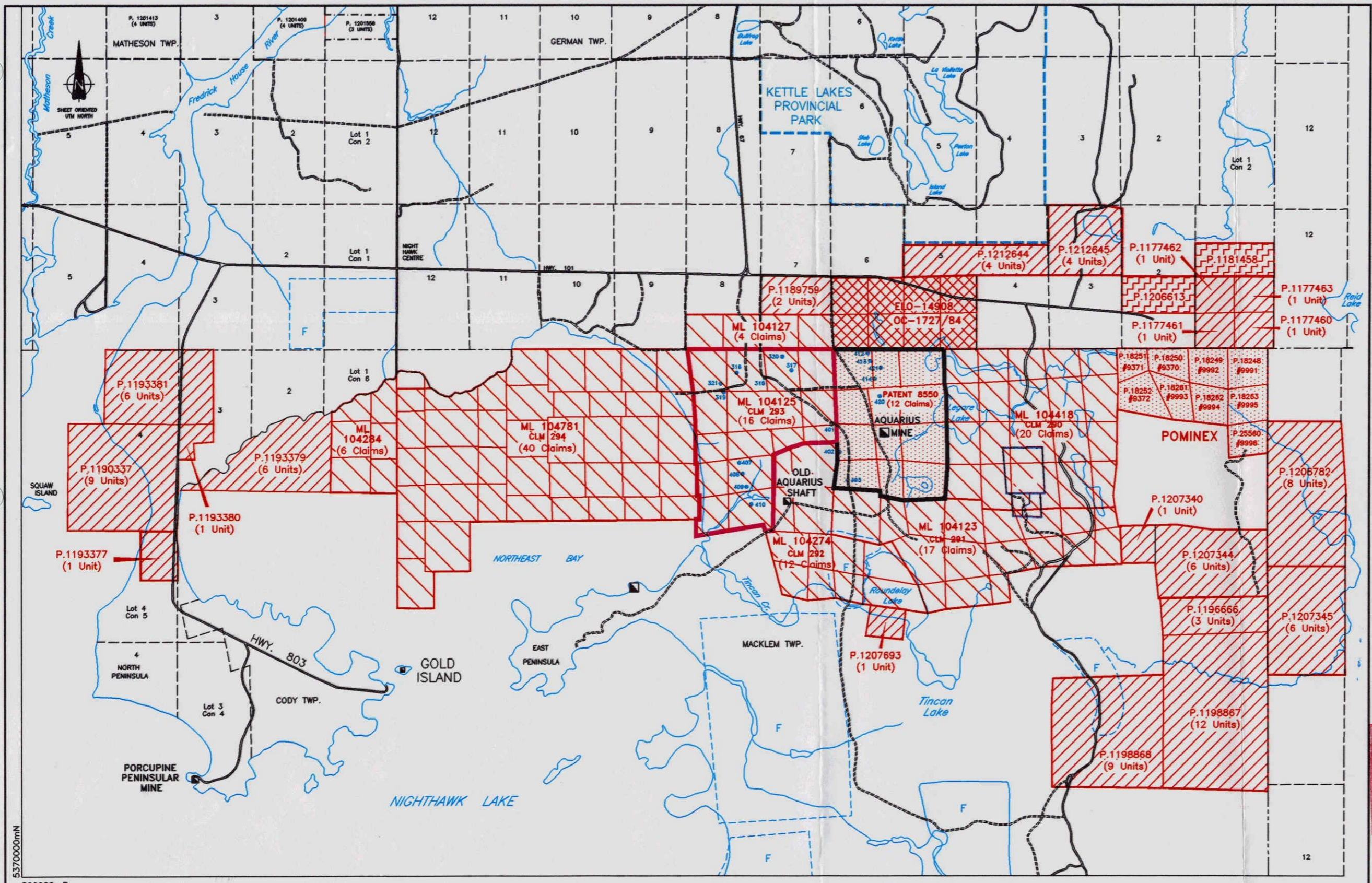


- F Felsite
- T Talc-chlorite
- C Carbonate
- M Mixed
- MV Mafic Volcanics
- MI Mafic Intrusive

Overburden



	ECHO BAY ONTARIO LTD.	
	AQUARIUS PROPERTY	
Patent 8550		
CROSS SECTION 12500NE		
Looking West		
SCALE: 1:2500	DRAWN: EGJ	No.
DATE: Feb 1997	REV. BY	














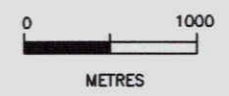
2.17264

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500000mE

Total Area (Jan.97) 36 sq.km.

-  Echo Bay Mineral Claims
-  Echo Bay - Order in Council/ /Licence of Occupation - Mining Lease Pending
-  Echo Bay Mining Leases
-  Asarco Ground
-  Echo Bay Patents
-  Optioned Ground
-  Area subject to forestry activity
-  1996 Drill Holes
-  CLM 293
-  Patent 8550
-  Aggregate Permits



ECHO BAY MINES LTD.
Aquarius Mine Area
AQUARIUS PROPERTY & AREA CLAIM LOCATION MAP

Drawn: P.C.W. Date: January 1997 Scale: NTS: 42A-7/10



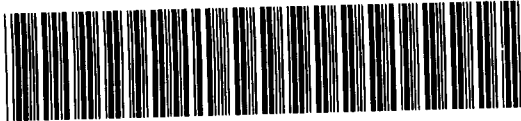
Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 85(2) and 86(3), R.S.O. 1990

Transaction Number (office use) W9760.00093 Assessment Files Research Imaging

Personal Informa Mining Act, the In Questions about 933 Ramsey Lsk



42A10SW0070 2.17264 MACKLEM

Instructions:

900

claim, use Form 0240

2.17264

2) and 86(3) of the Mining Act. Under section 8 of the ment work and correspond with the mining land holder. ry of Northern Development and Mines, 6th Floor.

1. Recorded holder(s) (Attach a list if necessary)

Form with fields for Name, Address, Client Number, Telephone Number, Fax Number. Handwritten: ECHO BAY ONTARIO LIMITED, P.O. BOX 551 569 MONETA AVENUE, TIMMINS, ONTARIO PHN 7E7, Client Number 301427, Telephone Number (705) 268-5858, Fax Number (705) 268-5887.

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

Form with checkboxes for Geotechnical, Physical, and Rehabilitation work. Includes fields for Work Type (DRILLING), Dates Work Performed (29/04/96 to 28/09/96), Ownership/Area (MACKLEM), Total \$ Value of Work Claimed (\$307,770), Mining Division (PORCUPINE), Resident Geologist (TIMMINS).

- Please remember to: - obtain a work permit from the Ministry of Natural Resources as required; - provide proper notice to surface rights holders before starting work; - complete and attach a Statement of Costs, form 0212; - provide a map showing contiguous mining lands that are linked for assigning work; - include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Form with fields for Name, Address, Telephone Number, Fax Number. Handwritten: JOANNE FORBES ECHO BAY MINES LTD, SUITE 350-666 BURRARD ST. VANCOUVER B.C. V6C 2X8, Telephone Number (604) 662-4994, Fax Number (604) 683-6365.

4. Certification by Recorded Holder or Agent

I, GILLES ARSENAULT, do hereby certify that I have personally performed or witnessed the same during forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: Gilles Arsenault, HO BAY MINES LTD, SUITE 350-666 BURRARD ST. VANCOUVER, B.C. V6C 2X8, Telephone Number (604) 662-4994, Fax Number (604) 683-6365, Date: FEBRUARY 17, 1997.

RECEIVED FEB 20 1997 12:50 (C) A PORCUPINE MINING DIVISION

RECEIVED MAY 14 1997 MINING LANDS BRANCH

Deemed May 21/97

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
eg TB 7827	16 ha	\$26,825	N/A	2324,000	2,874
eg 1234567	12	0	\$24,000	0	\$1,892
eg 1234568	2	\$8,892	\$4,000	0	\$1,892
1 CW 293	250 ha	160,020	N/A	116,400	43,620
2 PATENT 2550	197 ha	147,750	N/A	77,200	70,550
3 CG 6000194					
4 CG 6000233					
5 PLEASE SEE ATTACHED FOR DISTRIBUTION OF WORK					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Column Totals		307,770		193,600	114,170

2 claims
447 units

I, GILLES ARSENEAU, do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 8/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing: G. Arsenau Date: FEBRUARY 17, 1997

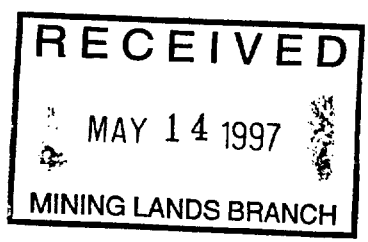
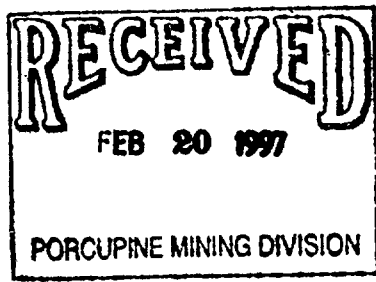
6. Instructions for cutting back credits that are not approved.
- Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:
- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
 - 2. Credits are to be cut back starting with the claims listed last, working backwards; or
 - 3. Credits are to be cut back equally over all claims listed in this declaration; or
 - 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp

Deemed Approved Date <u>MAY 21, 1997</u>	Date Notification Sent
Date Approved	Total Value of Credits Approved
Approved for Recording by Mining Recorder (Signature)	



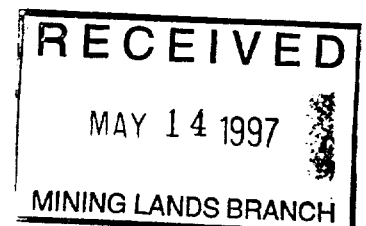
AQUARIUS PROPERTY - DISTRIBUTION OF WORK ¹⁷²⁶⁴

Claim No.	Units	Expiry Date	Assessment Costs \$400/unit/year	Value of Work Applied	New Expiry Date
1198868	9	97 Mar 7	3,600.00	21,600.00	03 Mar 7
1198867	12	97 Mar 7	4,800.00	28,800.00	03 Mar 7
1198866	3	97 Mar 7	1,200.00	7,200.00	03 Mar 7
1177460	1	97 May 23	400.00	2,400.00	03 May 23
1177461	1	97 May 23	400.00	2,400.00	03 May 23
1177462	1	97 May 23	400.00	2,400.00	03 May 23
1177463	1	97 May 23	400.00	2,400.00	03 May 23
1206613	2	97 Aug 16	800.00	4,800.00	03 Aug 16
1181458	2	97 Aug 16	800.00	4,800.00	03 Aug 16
1206782	8	97 Sept 14	3,200.00	19,200.00	03 Sept 14
1207345	6	97 Oct 16	2,400.00	14,400.00	03 Oct 16
1207340*	1	97 Oct 16	400.00	2,400.00	03 Oct 16
1207344*	6	97 Oct 16	2,400.00	14,400.00	03 Oct 16
1212644	4	97 Oct 20	1,600.00	9,600.00	03 Oct 20
1212645	4	97 Oct 20	1,600.00	9,600.00	03 Oct 20
1193379	6	98 Feb 26	2,400.00	12,000.00	03 Feb 26
1190337	9	98 Feb 26	3,600.00	18,000.00	03 Feb 26
1207693	1	98 Mar 7	400.00	2,000.00	03 Mar 7
1193380	1	99 Feb 26	400.00	1,600.00	03 Feb 26
1193381	6	99 Feb 26	2,400.00	9,600.00	03 Feb 26
1193377	1	99 Feb 26	400.00	1,600.00	03 Feb 26
1189759	2	00 Mar 25	800.00	2,400.00	03 Mar 25
		Total:		\$193,600.00	

* Work completed in 1996.

* Assessment filed prior to March 1/97.

* Assumes \$750.00 per hectare for Patent 8550 & CL 293.





Ministry of
Northern Development
and Mines

Statement of Costs
for Assessment Credit

Transaction Number (office use) W9760.00093
--

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
DRILLING	4322.4 meter	\$71.20	\$307,770
Associated Costs (e.g. supplies, mobilization and demobilization).			2.17204
Transportation Costs			
Food and Lodging Costs			

Total Value of Assessment Work

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Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

$$\text{TOTAL VALUE OF ASSESSMENT WORK} \times 0.50 = \text{Total \$ value of worked claimed.}$$

Note:
 - Work older than 5 years is not eligible for credit.
 - A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, Wayne Reid (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as Regional Geologist (Echo Bay) (recorded holder, agent, or state company position with signing authority) am authorized to make this certification.

Signature _____ Date _____

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines



Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

May 20, 1997

Gary White
Mining Recorder
Ontario Government Complex
P.O. Bag 3060, Hwy 101 East
South Porcupine, ON
P0N 1H0

Telephone: (705) 670-5853
Fax: (705) 670-5863

Dear Sir or Madam:

Submission Number: 2.17264

Status

Subject: Transaction Number(s): W9760.00093 Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

NOTE: This correspondence may affect the status of your mining lands. Please contact the Mining Recorder to determine the available options and the status of your claims.

If you have any questions regarding this correspondence, please contact Steve Beneteau by e-mail at beneteau_s@torv05.ndm.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Ron C. Gashinski".

ORIGINAL SIGNED BY
Ron C. Gashinski
Senior Manager, Mining Lands Section
Mines and Minerals Division

Work Report Assessment Results

Submission Number: 2.17264

Date Correspondence Sent: May 20, 1997

Assessor: Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9760.00093	CLM293	MACKLEM	Approval	May 16, 1997

Section:

10 Physical PDRILL

Correspondence to:

Mining Recorder
South Porcupine, ON

Resident Geologist
South Porcupine, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

Gilles Arseneau
VANCOUVER, BC, CANADA

ECHO BAY ONTARIO LTD.
Timmins, Ontario

MAP SYMBOLOGY

Aerial Cableway	Pipeline (above ground)
Boundary	Railroad
Interprovincial	Single Track
District, Township Indian Reserve	Double Track
Abandoned	Abandoned
Archeological	Utilities
Lot, Concession	Road
Approximate	Highway, County
Park Boundary	Township
Bridge	Access (load of doubtful maintenance of significant driveway)
Road, Railroad	"Trail, Bush Road (portage alley)"
Building	Rapids
Chimney	Double line river with multiple rapids
Cliff, Pit, Pile	Double line river with multiple rapids
Contours	Reservoir
Interpreted	River, Stream, Canal
Approximate	Approximate (seasonal)
Control Points	Direction of flow
Horizontal	Vertical
Vertical	Rock
Vertical	Significant
Vertical	Spot Elevation (lake elevations)
Vertical	Tower
Vertical	Transmission Line
Vertical	Poles
Vertical	Pylons
Vertical	Utility Poles
Vertical	Wharf, Dock, Pier
Vertical	Wooded Area
Vertical	Tunnel

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. - MINING RIGHTS ONLY
 S.R.O. - SURFACE RIGHTS ONLY
 M.+S. - MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
EXPLORATORY LICENCE OF OCCUPATION #14920				
ISSUED JULY 06, 1989 ORDER #0-P-5/89-NR				

HR I GOLD ISLAND
 ANNIVERSARY ISLAND
 BALD ISLAND
 PARCEL "C"
 LO. 931
 PARCEL "E"
 LO. 3244
 PARCEL "D"
 LO. 3244

R1 - SITE PREPARATION 05/02/83. 77094 V.6
 R2 - SURFACE AND MINING RIGHTS WITHDRAWN FROM PROSPECTING, STAKING OUT, SALE OR LEASE BY ORDER NO. W-P-36/93 NER DATED SEPT. 27, 1993 SECTION 35, THE MINING ACT, R.S.O. 1990 (FOREST TEST PLOTS)

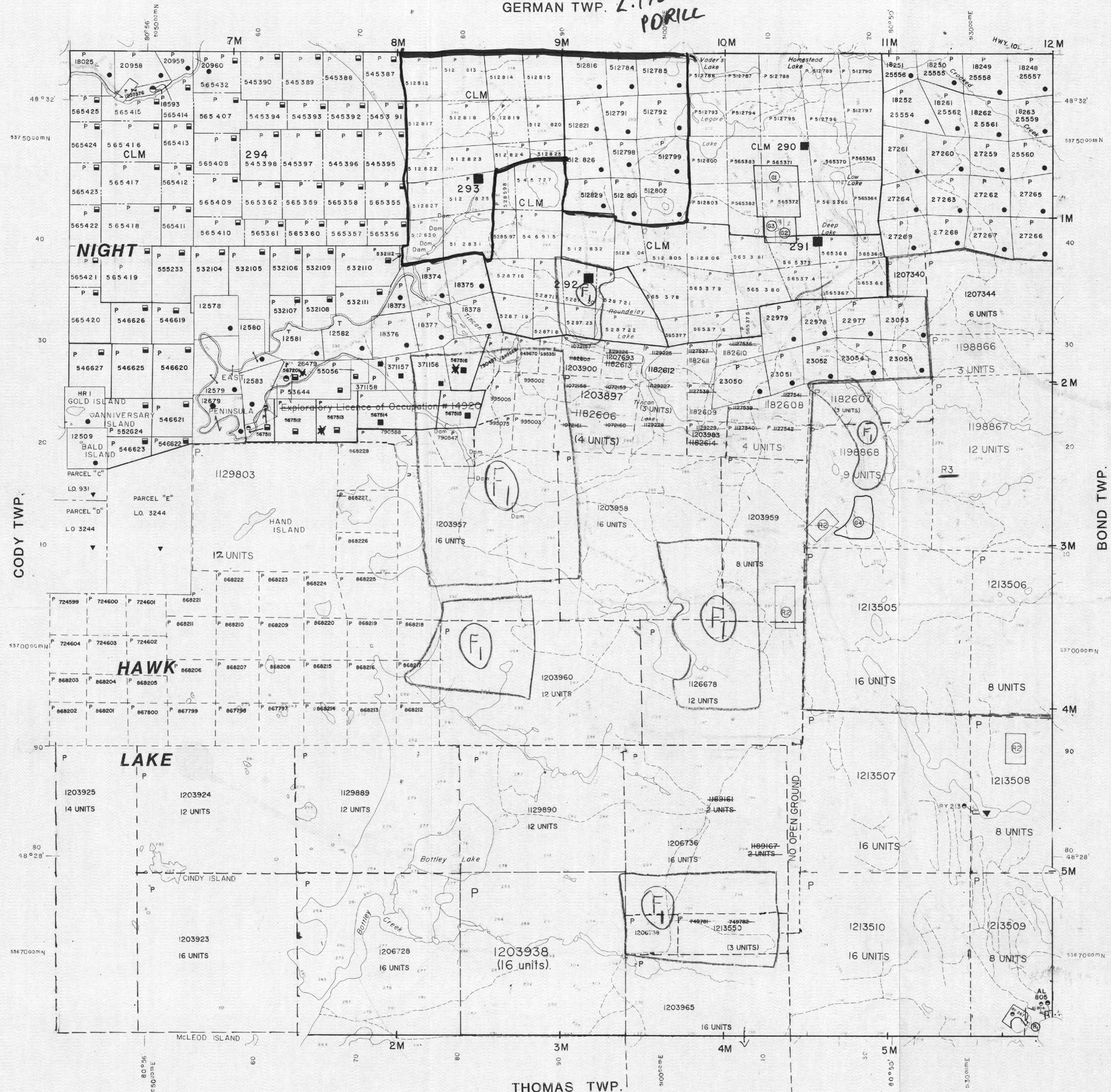
R3 - THIS TWP. IS SUBJECT TO FOREST ACTIVITY IN 1994/95 FURTHER INFORMATION AVAILABLE ON FILE.

R3 SURFACE RIGHTS ONLY WITHDRAWN FROM PROSPECTING, STAKING OUT, SALE OR LEASE BY ORDER NO. WP 12/97 NER DATED MAY 2/97 SECTION 35, THE MINING ACT, R.S.O. 1990

SAND AND GRAVEL

- AGGREGATE PERMIT - ISSUED AUG. 5/89
- AGGREGATE PERMIT - ISSUED FEB. 9/89
- AGGREGATE PERMIT - ISSUED NOV. 21/90
- AGGREGATE PERMIT - ISSUED SEPT. 21/91

GERMAN TWP. 2.1726.4
 PORCILE



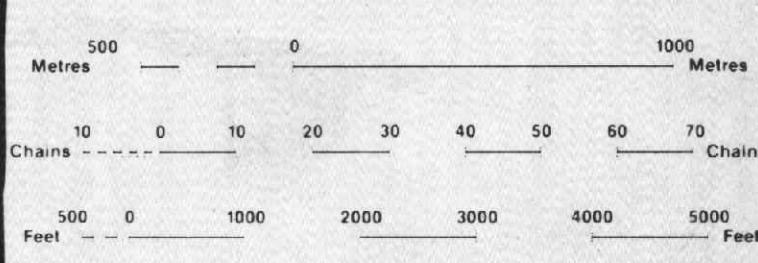
LEGEND

HIGHWAY AND ROUTE No	OTHER ROADS
TRAILS	SURVEYED LINES
TOWNSHIPS, BASE LINES, ETC	LOTS, MINING CLAIMS, PARCELS, ETC
UNSURVEYED LINES	LOT LINES
PARCEL BOUNDARY	MINING CLAIMS ETC
RAILWAY AND RIGHT OF WAY	UTILITY LINES
NON PERENNIAL STREAM	FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN	RESERVATIONS
ORIGINAL SHORELINE	MARSH OR MUSKIEG
MINES	TRaverse MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
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	OC
RESERVATION	○
CANCELLED	◕
SAND & GRAVEL	◖

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.



SCALE 1:20 000
 GRID ZONE 17

Reserve flooding rights on Night Hawk Lake to Ontario Hydro to elevation 903.5', T & N.D.Ry. datum.

ISSUED
 MAY 13 1997
 2.1726.4

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

TOWNSHIP
MACKLEM
 M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
 MINING DIVISION
PORCUPINE LANDS BRANCH
 LAND TITLES / REGISTRY DIVISION
COCHRANE





ML 104127

OC-1727/84



8000 E

10000 E

German Township

Macklein Township

DDH320
(311m Dip-50°)

DDH412
(385m Dip-55°)

DDH316
(45m Dip-50°)

DDH413
(110m Dip-55°)

DDH317
(269m Dip-50°)

DDH421
(299m Dip-55°)

DDH318
(264m Dip-50°)

DDH414
(392m Dip-55°)

DDH321
(131m Dip-50°)

DDH319
(226m Dip-50°)

DDH420
(376m Dip-55°)

CLM 293

PATENT 8550

CLM 290

DDH401
(161m Dip-55°)

AQUARIUS
MINE

Legare Lake

ML 104781

DDH407
(117m Dip-50°)

DDH402
(416m Dip-55°)

DDH408
(75m Dip-50°)

CLM 292

Mud Lake

DDH409
(298m Dip-55°)

DDH403
(321m Dip-55°)

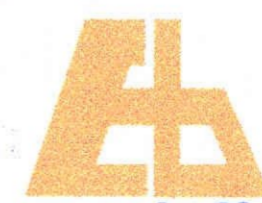
CLM 291

OLD
AQUARIUS

DDH410
(189m Dip-50°)

DDH303
(201m Dip-60°)

0 500



ECHO BAY ONTARIO LTD.
AQUARIUS PROJECT



ASSESSMENT PLAN MAP

February 1997

METRES
1:5000

AZIM 074
BASELINE
3000NW

3500NW

10000E

10000 N

10500E

8000 E

42A105W0370 2.17264 MACKLEIN

