QUEENSTON MINING INC

DIAMOND DRILL HOLE RECORD

Drill Hole: MB96-11

Property: MCBEAN
Northing: 18223
Easting: 10340
Elevation: 10981

Collar Azimuth (Grid) 3.6
Collar Dip: -68.5
(0 Degrees Grid equals 017 degrees True)
Hole Length: 2423.0

Date Printed: 7 Oct, 1997

*** Dip Tests ***			*** Dip Tests ***		
Depth	Azi.	Dip	Depth	Azi.	Dip
50		-69.0	1200		-63.5
300		-70.0	1500		-61.5
600		-67.0	1800		-59.5
900		-66.5	2100		-59.5

Date Started: Nov 28, 1996
Date Completed: Dec 20, 1996

Drilled by: BENOIT
Core Size: BQ
Material left in hole HW, NW casing
Core Location: Upper Canada Site 1
Logged by: M. McGill

Claim # L-19262 (430'W, 1100'S of #1 Post)

From (ft)	To (ft)	Geology
		SUMMARY LOG
.0	40.0	OVERBURDEN
40.0	1479.7	GABBRO
1479.7	1486.0	ULTRAMAFIC
1486.0	1531.5	BASALT
1531.5	1782.3	GABBRO
1782.3	1974.9	ALTERED GABBRO BASALT
1974.9	2029.1	ULTRAMAFIC
2029.1	2029.2	START OF DEFORMATION ZONE
2029.2	2035.0	ULTRAMAFIC
2035.0	2036.5	PORPHYRITIC SYENITE
2036.5	2081.1	ULTRAMAFIC KOMATIITE
2081.1	2111.5	ALTERED SYENITE
2111.5	2179.7	FELSITE
2179.7	2241.7	ULTRAMAFIC KOMATIITE
2241.7	2265.7	ALTERED GABBRO
2265.7	2423.0	ULTRAMAFIC KOMATIITE

Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T

2.17723

From (ft)	To (ft)	Geology
.0	40.0	OVERBURDEN 0 to 30 ft- Sand; 30 to 40 ft- Sand & Boulders.
40.0	1479.7	GABBRO LITH- pale green in colour, med-cse to cse grnd intrusive; equigranular and locally very cse grained and amphibolitic. Consists of suhedral px (laths and more rounded grains to 2-3 mm) set in a pale greenish matrix of plag. Minor px is fairly fresh and is rimmed w/ amphibole/chlor; most appears almost completely replaced w/ amphibole/chlor. Euhedral plagioclase laths 2-3 mm long are visible in the groundmass. Unit contains basaltic zones, and is crosscut by mafic dykes. Locally appears to be cumulate. Some partially assimilated xenoliths of ?basalt/ finer grned gabbro? up to several inches across appear below 135 ft. ALTER- wkly chloritic (matrix, px); calcitic; and mod to strongly magnetic. Hem developed as xtalline (spec) material in fine fractures and as incipient staining in veins, and siliceous alter material. Locally siliceous alter occurs as fracture-fillings of variable thickness; very wk pervasive epid developed locally, more intense fracture filling epid developing downhole. VEINING- fine qtz-carb and carb veining at high core angles occurs thru/out the unit. Often w/ hem and epid; variable in thickness from 1/8 to 1/2 in. Some contain cse blebby chalco; some have tr diss py. MINERALIZATION- traces of diss and fine cubic py thru/out matrix; greater conc in or near to veining and altered/intruded areas. STRUCT- massive unit w/ sugg of very wk fol locally (may be internal flow textures). Blocky, w/ some rubbly/broken areas; mod RQD overall, breaks and slips coincide w/ fractures and pre-existing joints. Comments on this Unit:. 50.0 to 106.0- gabbro cut by scrappy qtz and spec hem veins, normally 1/4 in thick. Veins are oriented at various angles from 15 to 60 DTCA. 67.5 68.5 Mafic intrusive. Fine grnd, dk grey-green in colour w/ sharp upper contact @ 35 DTCA, more grad lower contact at high core angle; in turn cut by scrappy/irreg bright red syenite dykelets 1/4 to 1/2 in thick; siliceous/hematitic. Thin bands of spec hem are formed against dykes; both dykes and bands sit @ 20 DTCA; whole assemblage is mineralized w/ diss py. All units are magnetic. 75.5 75.9 Mafic intrusive. Thin, very dk grey green dykelet w/ fine accicular mafic phenos. Sharp contacts @ high angles to CA. Red cast to matrix(hem), wkly magnetic. Felted texture in matrix; wkly mineralized w/ diss py. 98.0 to 106.0- several thin (2-3 in) pale grey mafic dykes w/ sharp contacts @ 40 to 60 DTCA; contain 1/8 in rounded mafic phenos?- these may be late stage residual fluids- some subtle internal brecciation/xtalline textures suggest a gabbroic derivation; not well mineralized. 108.0 108.8 Mafic intrusive. Dk olive green intrusive w/ sharp contacts @ 50/50; contains prominent mafic phenos (accicular to lath like)- chlor after amphibole? and biotite; 1/16 to

Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
43078	66.0	67.5	1.5	TR	tr	.000	.000
43079	67.5	68.5	1.0	2.5%	tr	.000	.000
43080	68.5	70.0	1.5	TR	tr	.000	.000
43081	128.0	131.2	3.2	TR	tr	.000	.000
43082	131.2	134.9	3.7	2.0%	tr	.000	.000
43083	134.9	138.0	3.1	TR	tr	.000	.000
43084	145.0	147.0	2.0	TR	tr	.000	.000
43085	147.0	148.5	1.5	1.5%	tr	.000	.000
43086	148.5	149.5	1.0	0.5%	tr	.000	.000
43087	149.5	152.3	2.8	TR	tr	.000	.000
43088	152.3	157.0	4.7	0.5%	tr	.000	.000
43089	157.0	160.8	3.8	TR	tr	.000	.000
43090	160.8	166.0	5.2	TR	tr	.000	.000
43091	204.0	206.0	2.0	TR	tr	.000	.000
43092	206.0	208.0	2.0	1.0%	tr	.000	.000
43093	208.0	213.9	5.9	1.5%	tr	.000	.000
99999	213.9	214.9	1.0	LC	.000	.000	.000
43094	214.9	218.0	3.1	TR	tr	.000	.000
43095	218.0	220.6	2.6	1.0%	tr	.000	.000
43096	220.6	222.5	1.9	0.5%	tr	.000	.000
43097	222.5	225.0	2.5	2.0%	tr	.000	.000
43098	225.0	228.3	3.3	0.5%	tr	.000	.000
43099	228.3	232.0	3.7	1.0%	tr	.000	.000
43100	232.0	235.9	3.9	1.0%	tr	.000	.000
43101	235.9	238.3	2.4	TR	tr	.000	.000
43102	238.3	242.8	4.5	0.5%	tr	.000	.000
43103	242.8	243.0	.2	TR	tr	.000	.000
43104	243.0	246.0	3.0	1.5%	tr	.000	.000
43105	246.0	249.0	3.0	2.5%	tr	.000	.000
43106	249.0	251.3	2.3	0.5%	tr	.000	.000
43107	251.3	255.7	4.4	TR	tr	.000	.000
43108	255.7	257.4	1.7	2.5%	tr	.000	.000
43109	257.4	260.0	2.6	TR	tr	.000	.000
43110	408.0	412.8	4.8	TR	tr	.000	.000
43111	412.8	416.0	3.2	TR	.001	.000	.000
43112	416.0	421.0	5.0	TR	.001	.000	.000
43113	421.0	425.0	4.0	0.5%	tr	.000	.000
43114	425.0	429.0	4.0	1.0%	.001	.000	.000
43115	429.0	430.9	1.9	2.0%	.001	.000	.000
43116	430.9	434.0	3.1	1.5%	tr	.000	.000
43117	434.0	438.0	4.0	1.0%	tr	.000	.000
43118	438.0	443.0	5.0	1.5%	tr	.000	.000
43119	443.0	448.0	5.0	1.0%	tr	.000	.000
43120	448.0	451.0	3.0	0.5%	tr	.000	.000
43121	464.0	467.8	3.8	TR	tr	.000	.000
43122	467.8	472.5	4.7	0.5%	tr	.000	.000
43123	472.5	475.5	3.0	TR	tr	.000	.000

From (ft)	To (ft)	Geology
		1/8 in across. Intruded/brecciated internally by patchy sil/carb/hem material; poorly mineralized; probably a tiny lamprophyre.
		114.0 to 119.0- brecciated/veined interval w/ abundant spec hem and epidote as fracture-filling material.
		133.0 134.9 Altered Syenite.
		Bright red, brecciated/hematized/silicified syenitic dyke w/ irreg contacts; a fine granular intrusive, which has been broken up and has strongly altered the host gabbro w/ hem/spec hem and silica. Later carb and spec hem has filled in the angular openings; some cse cubic py is also present in veining. Hem alter extends 1 to 2 ft into WR.
		147.0 148.5 Diorite.
		Pale red-orange dioritic dyke; med grned, sharp contacts @ about 45 DTCA; hematitic and magnetic; consists of an aggregate of euhedral feldspars, 1-2 mm across, barely supported in a fine grned dk grey felsic matrix. Both K feldspar and plag are present. Minor accicular amphibole and fine cubic py occur in the groundmass The unit is wkly magnetic.
		148.5 149.5 Mafic intrusive.
		Dk grey green, aphanitic mafic dyke w/ sugg of felted texture in groundmass; appears crosscut by preceeding diorite dyke; sharp bott contact @ 35 DTCA; contains subtle spots? of mafic material? (or alter?); poorly mineralized except at top contact- spotty/cubic py in contact area. Wkly magnetic.
		149.5 to 171.8- an interval of cse grned gabbro crosscut by several narrow dioritic and syenitic dykelets; and inclusions/patches of cser amphibolitic material; units as described above.
		171.8 to 185.0- an interval of intercalated very cse grned amphibolitic and minor fine- grnd basaltic material; cut by narrow dioritic dykelets and wispy qtz-carb veins commonly at 50 to 70 DTCA.
		185.0 to 206.0- cse grned, equigranular mass gabbro crosscut by dioritic/syenitic dykelets.
		206.0 to 228.3- gabbro interval; w/ contained basaltic and amphibolitic sections; cut by wispy carb and qtz-carb veining @ 50 to 60 DTCA; spotty fine cubic and diss py increasing in conc in this interval.
		228.3 235.9 Diorite.
		Pale pink coloured dyke of dioritic composition; consists of poorly defined (altered?) subhedral feldspars (pale white-cream in colour) 1 to 2mm across set in a pale pink grey aphanitic matrix. Mafics are only a very minor component; locally patchy chlorite is developed in the matrix. A hard, probably silicified or albitized intrusive w/ fine subhedral/diss py thru/out the matrix. Cut by irreg (often @ low angles) hairline fractures w/ chlor infillings. Irreg but sharp top contact, sharp bott contact @ 40 DTCA.
		235.9 to 238.3- gabbro.

Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
43124	481.0	482.8	1.8	TR	tr	.000	.000
43125	482.8	485.6	2.8	0.5%	tr	.000	.000
43126	485.6	489.0	3.4	0.5%	.001	.000	.000
43127	606.9	609.3	2.4	TR	tr	.000	.000
43128	609.3	611.3	2.0	3.0%	.001	.000	.000
43129	611.3	613.0	1.7	0.5%	.001	.000	.000
43130	628.7	631.2	2.5	TR	.003	.000	.000
43131	631.2	632.7	1.5	3.0%	tr	.000	.000
43132	632.7	636.0	3.3	TR	tr	.000	.000
43133	636.0	639.9	3.9	TR	tr	.000	.000
43134	787.0	789.0	2.0	TR	tr	.000	.000
43135	789.0	792.8	3.8	TR	tr	.000	.000
43136	792.8	795.8	3.0	TR	.001	.000	.000
43137	795.8	797.3	1.5	3.0%	tr	.000	.000
43138	797.3	799.5	2.2	TR	tr	.000	.000
43139	860.0	861.4	1.4	TR	tr	.000	.000
43140	861.4	863.0	1.6	TR	tr	.000	.000
43141	863.0	868.0	5.0	0.5%	tr	.000	.000
43142	868.0	871.1	3.1	TR	tr	.000	.000
43143	871.1	876.0	4.9	0.5%	tr	.000	.000
43144	876.0	878.0	2.0	1.0%	tr	.000	.000
43145	878.0	880.8	2.8	1.5%	.001	.000	.000
43146	880.8	881.0	.2	TR	tr	.000	.000
43147	1088.0	1091.5	3.5	0.5%	.001	.000	.000
43148	1091.5	1095.0	3.5	1.0%	.001	.000	.000
43149	1095.0	1098.0	3.0	1.0%	tr	.000	.000
43150	1098.0	1100.5	2.5	2.5%	tr	.000	.000
43151	1100.5	1102.0	1.5	2.5%	.001	.000	.000
43152	1102.0	1106.0	4.0	TR	tr	.000	.000
43153	1106.0	1108.0	2.0	0.5%	tr	.000	.000
43154	1108.0	1113.0	5.0	TR	tr	.000	.000
43155	1113.0	1114.0	1.0	0.5%	tr	.000	.000
43156	1114.0	1114.7	.7	2.5%	.006	.000	.000
43157	1114.7	1117.0	2.3	1.5%	tr	.000	.000
43158	1117.0	1120.0	3.0	0.5%	.011	.000	.000
43159	1120.0	1122.9	2.9	TR	tr	.000	.000
43160	1208.0	1211.3	3.3	TR	.001	.000	.000
43161	1211.3	1213.4	2.1	2.0%	tr	.000	.000
43162	1213.4	1216.4	3.0	1.0%	.020	.000	.000
43163	1216.4	1219.0	2.6	0.5%	.001	.000	.000
43164	1307.0	1308.7	1.7	TR	tr	.000	.000
43165	1308.7	1312.0	3.3	0.5%	tr	.000	.000
43166	1312.0	1317.0	5.0	0.5%	tr	.000	.000
43167	1317.0	1320.0	3.0	TR	tr	.000	.000
43168	1320.0	1322.5	2.5	TR	.002	.000	.000
43169	1322.5	1324.1	1.6	0.5%	.008	.000	.000
43170	1324.1	1326.4	2.3	1.0%	tr	.000	.000
43171	1326.4	1327.4	1.0	TR	.004	.000	.000
43172	1327.4	1330.1	2.7	1.0%	.003	.000	.000
43173	1330.1	1332.9	2.8	1.0%	tr	.000	.000
43174	1332.9	1335.0	2.1	TR	tr	.000	.000

From (ft)	To (ft)	Geology
		238.3 251.3 Diorite. A sequence of predom dioritic material, w/ a few gabbro xenos and minor MI as dyke material; the 2D is locally similar to that @ 228 to 235, although less altered overall. The contact areas are slightly porphyritic w/ fine white feldspar phenos; internally the 2D is fresher and contains distinctive whiskers of amphibole? in the groundmass. Silica and wk hem alter fade in and out thru/out the interval. A narrow pale grey-green MI cuts the sequence @ 242.8 to 243.0- aphanitic and homogenous w/ little internal texture; magnetic and calcitic w/ tr sulphide; top cnt @ 45 DTCA; gabbro frags are fresh; 2D becoming more altered below 245 ft- constituents are blurred; hard and hem stained; calcitic and magnetic; locally vuggy w/ cse blebby py. The entire section is quite blocky w/ broken-up and ground areas; fine(1-2 mm) hematitic veining cuts dioritic portions of interval at low angles; scattered diss py; bott cnt @ 40 DTCA.
		251.3 to 255.7- gabbro.
		255.7 257.4 Syenite. A bright brick red interval; med grained and equigranular; an altered mosaic of feldspars barely supported in a felsic matrix w/ splotches of interstitial mafics (chlor after amphibole?); wkly magnetic and calcitic; hard and well hematized thru/out; contains cse cubic and subhedral py to 1/2 in across, often following existing low angle chloritic fractures; tr blebby chalco; probably silicified and/or albitic.
		257.4 to 312.9- an interval of gabbro and vuggy altered basalt, often broken and crushed; cut by one dk grey to black hematitic MI @ 287.3 to 289.0 ft. Core between 293.0 and 303.0 is almost completely broken up and crushed. Epidote and fine xtalline spec hem occur on many fracture surfaces; interval is calcitic; slightly elevated py conc in basaltic areas.
		308.0 312.0 Lost core.
		312.0 318.0 Diorite. 318.0 321.0 Lost core. 321.0 323.0 Diorite. A dk grey, med to med cse grned diorite w/ a pale pink cast. Equigranular, consisting of a tightly packed assemblage of plagioclase (1 to 3 mm, both laths and and rounded, zoned, pale white to cream in colour) set in a dk grey felsic matrix w/ tiny accicular amphiboles and patchy/wispy chlor; magnetic; calcitic; cut by irreg tight fractures (well developed alter halos-hem/silica) and a later? dioritic phase and minor dk olive green feldspar porphyry; contains minor diss py. Sharp upper cnt @ 40 DTCA. Generally a fresher looking unit than other 2D units described higher in the hole.
		323.0 323.8 Feldspar Porphyry. Dk olive green colour, hard, w/ scattered feldspar phenos to 3 mm across (subhedral, cream colour, deformed-broken?) set in an aphanitic felsic groundmass which is xcut by narrow healed siliceous fractures; wk hem alter-patchy and near fractures, poorly mineralized.

Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
43175	1233.0	1235.9	2.9	TR	tr	.000	.000
43176	1235.9	1239.0	3.1	1.5%	tr	.000	.000
43177	1239.0	1244.0	5.0	2.0%	tr	.000	.000
43178	1244.0	1247.0	3.0	2.0%	tr	.000	.000
43179	1247.0	1250.7	3.7	TR	tr	.000	.000
43180	1250.7	1253.0	2.3	TR	tr	.000	.000
43181	1358.0	1359.2	1.2	TR	tr	.000	.000
43182	1359.2	1361.5	2.3	1.0%	tr	.000	.000
43183	1361.5	1365.0	3.5	2.5%	tr	.000	.000
43184	1365.0	1368.0	3.0	1.0%	tr	.000	.000
43185	1368.0	1371.0	3.0	2.0%	tr	.000	.000
43186	1371.0	1375.5	4.5	1.0%	tr	.000	.000
43187	1375.5	1378.0	2.5	1.0%	tr	.000	.000
43188	1378.0	1381.2	3.2	0.5%	tr	.000	.000
43189	1451.0	1454.0	3.0	TR	tr	.000	.000
43190	1454.0	1458.0	4.0	1.5%	tr	.000	.000
43191	1458.0	1460.5	2.5	2.0%	tr	.000	.000
43192	1460.5	1465.0	4.5	1.0%	tr	.000	.000
43193	1465.0	1468.0	3.0	2.5%	tr	.000	.000
43194	1468.0	1473.0	5.0	TR	tr	.000	.000
43195	1473.0	1478.1	5.1	1.5%	tr	.000	.000
43196	1478.1	1479.3	1.2	0.5%	tr	.000	.000
43197	1479.3	1479.7	.4	TR	tr	.000	.000

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T

323.8 to 324.9- gabbro.

324.9 325.9 Feldspar Porphyry.
As described above.

325.9 334.1 Diorite.
A pale to dk grey dioritic unit similar to that described above w/ a more porphyritic texture; fresher looking phenos and more groundmass material. Wkly hematitic, cut by hairline fractures w/ chlor/hem infillings; contains small angular gabbro frags; becoming more altered/brecciated towards bott cnt - becoming slightly bleached; increasing density of fine siliceous? fractures; underlying gabbro has a similar bleached appear for 6 in below cnt; poorly mineralized w/ tr diss py.

334.1 to 367.0- gabbro w/ minor basalt constituent.

367.0 388.5 Diorite.
A dioritic dyke similar to that described @ 321 to 323. Becoming more hematized below 381 ft w/ greater conc of basalt and gabbro frags (angular, 1/4 to 3/4 in across). Becoming very blocky around 388 ft; xcut by one narrow light grey felsic dykelet and several dk grey, more porphyritic dioritic dykelets. This assemblage is magnetic, calcitic and poorly mineralized w/ traces of diss py and chalco. Fine siliceous/hem fractures cut the units at high angles.

388.5 to 393.0- gabbro.

393.0 396.0 Diorite.
Diorite as above (367 to 388 ft).

396.0 401.9 Feldspar Porphyry.
A dk grey, porphyritic felsic dyke, probably xcutting the diorites and gabbros in this interval. Very similar to FP's logged in other McBean holes- euhedral feldspars from 1 to 2 mm w/ a few in the 5 to 6 mm range, supported in a very dk grey to almost olive green aphanitic matrix. Hard, and wkly magnetic; calcitic. The phenos are pale white to cream coloured, and locally exhibit a good trachytic texture (@ about 60-70 DTCA). The groundmass contains small angular mafic fragments? and is wkly hematized. Poorly mineralized.

401.9 to 430.0- a zone of partially digested gabbro, altered basalt, dioritic dykes, and MI dykelets in a chaotic arrangement. The host rocks are csely brecciated and displaced randomly. Dioritic phases are as described immed above the MI may be a lamporphyre- dk green matrix hosting biotite and chlor phenos, and small angular mafic/gabbroic? fragments. Some sharp contacts are visible although there is a fair amount of intimate intermingling of the different phases. A breakout follows:.

401.9 to 403.8- dioritic dyke, wk hem staining, irreg contacts.
403.8 to 405.5- diorite/lamp intermix zone?.

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T

405.5 to 405.8- altered gabbro?; chloritic, soft, highly metasomatized.
405.8 to 407.0- lamporphyre dyke?, top cnt @ 60 DTCA.
407.0 to 412.8- mixed sequence of lamp, altered gabbro and bits of dior dyke material.

412.8 to 430.9- basalt, altered/digested gabbro-diorite dyke breccia; cut by wispy carb veining to 1/8 in thick @ high angles to CA; interval contains traces of diss py.

430.9 to 440.9- gabbro xcut by scrappy siliceous/hematitic and epidote veining at both low and high angles to CA. Locally slightly vuggy w/ cse spotty py.

440.9 to 441.8- 2D dykelet, similar to above described units; sharp contacts @ 50/70 DTCA.

441.8 to 467.8- med gned gabbro; slightly foliated locally @ 40 DTCA; wk hem staining thru/out, pervasive epidote in matrix and as fracture-filling material; xcut by fine high angle carb veining, and irreg incipient silica/ hema vein material. Minor diss py, calcitic.

467.8 to 472.5- basaltic interval, w/ spotty appearence; brecciated and wkly veined @ about 40 DTCA w/ silica-epidote material. Sharp top cnt @ 40 DTCA, calcitic, wkly magnetic; xcut by 1 in syenitic dykelet @ 40 deg w/ fine diss py.

472.5 to 482.8- gabbro; wk hem staining in matrix and in hairline fractures.

482.8 485.6 Diorite.
A dk olive green-grey porphyritic dyke w/ some characteristics of a good FP and some more diorite-like properties. Scattered subhedral fedspar phenos set in a dk felsic matrix of altered xtals and aphanitic material. Chloritic spots ?frags and probably alteration after other mafics is well developed in the groundmass. Hematitic matrix; hard and calcitic. Very wk magnetic signature. Xcut by patchy and wispy silica/hematite veins at high angles Minor spotty py in matrix; slightly higher conc in some veining. 3 in of strong silica/hematite alter (brecciated) at bott cnt; sharp cnt's @ 50/50.

485.6 to 515.5- gabbro; med grned intrusive w/ scattered knots of chlor and epidote. Patchy carbonate-hematite material locally (tr chalco).

515.5 525.2 Diorite.
A dk grey coloured, slightly porphyritic dioritic unit similar to that described above at 325 to 334 ft. Internal variations from a porphyritic FP like composition to a equigranular barely matrix-supported intrusive. Wk hem stain in matrix and in fine siliceous fracture fillings. Contains cse angular gabbro xenoliths to several in across; xcut at one location by a 2 in wide brick red syenitic dykelet @ 60 DTCA. Calcitic and mod magnetic. Sharp upper cnt @ 60 DTCA w/ strong hem stain for 2 in.

525.2 to 721.5- gabbro sequence xcut by various narrow MI and syenitic

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T

dykelets, and greyish qtz and qtz-carb veins to 3 in thick. Wk hematite and epidote alter thru/out. Few scattered basaltic xenoliths; some local very cse cubic py. Details as follows:.

563.0 to 563.2- siliceous pale pink dioritic dyklet @ 60 DTCA.
564.9 to 565.2- pale grey, aphanitic mafic dyke; contains very fine wispy mafics; sharp contacts @ 70 DTCA, poorly mineralized.
569.0 to 569.4- pale grey mafic dyke as above w/ sharp cnts @ 50/60 DTCA.
580.0 to 580.4- pale grey, siliceous dioritic dykelet w/ chilled margins @ 40 DTCA; tr diss py.
593.5 to 595.9- pale grey mafic dyke similar to the narrow units described above, w/ suggestion of feldspar grains in matrix, few mafic 'spots'? mafic inclusions?; tr sulphide, sharp bott cnt @ 60 DTCA.

609.3 to 611.2- patchy dk grey and lighter carb-qtz veining w/ diss py and WR inclusions (chloritic and hematitic); veins @ 60 to 70 DTCA.

631.2 to 632.7- black basaltic? interval xcut by dk grey qtz veining @ 60-70 DTCA w/ wispy and diss py; elevated py in amphibolitic ? WR.

637.5 to 637.9- narrow mafic dykelet w/ chloritic metacrysts, dk grey green colour; magnetic, calcitic; poorly mineralized, sharp cnts @ 70 DTCA.

649.1 653.3 Mafic intrusive.
Pale grey in colour, med grned w/ a cse felted texture, abundant fine accicular biotite phenos set in a chloritic matrix; wk hem alter; magnetic and calcitic; poorly mineralized. Sharp cnts @ 50/40 DTCA. Possibly a lamprophyre.

658.9 to 659.5- brick red syenitic dykelet; hematized, hard w/ wispy/patchy chlorite after amphibole? in matrix. Diss py in matrix; wkly magnetic. Sharp cnts @ high angles to CA. Very similar to other dykes described uphole.

672.3 to 674.5- pale grey mafic dyke w/ sharp cnts @ 60-70 DTCA. Similar to other narrow dykes described w/in the last 200 or so ft. Tr diss py; very fine wispy carb? epidote? alter in matrix; few scattered feldspar phenos 2-3 mm across; narrow siliceous/hematitic veinlets xcut unit at high angles. Contains a few gabbro inclusions; shearing along contacts has developed a local foliation in WR against dyke.

674.5 to 721.5- gabbro; med to cse grned w/ locally very cse grained sections; cumulate textures locally; xcut by wispy epidote and hematite bearing veinlets and stringers at all angles. Xcut by skinny pale grey dioritic? dykelets and locally invaded by irreg patchy siliceous material. Locally slightly vuggy/weathered out; spotty cse xtalline py developed.

721.5 to 763.4 - a sequence of FP, and dioritic dykes intruding gabbros and cse grned basalts. The intrusive phases are dominant volumetrically.

721.5 728.0 Feldspar Porphyry.
A dk grey, distinctly speckled unit; pale pink to cream coloured euhedral

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T

feldspar phenos (2 to 4 mm long) sit in a very finely granular purple-grey felsic groundmass. A fresh rock very much like other FP units in adjacent McBean holes. Sharp cnts @ 40/20; weakly magnetic and calcitic. Zoned phenos. Suggestion of wk hem alter; hard. Age relationships between this phase and nearby dioritic dykes is not known.

733.9 to 735.8- pale pink dioritic dykelet; a tightly packed aggregate of fine to med grned feldspars w/ fine black interstitial mafics (chlor/biotite?) Hard, wkly magnetic and wkly mineralized w/ fine spotty py. Xcut by fine nearly clear qtz veins 1/8 to 1/4 in thick (boudinaged, at high angles to CA) Slightly fuzzy cnts @ 70 DTCA. Minor amounts of this material occur @ 736.5 to 737.1 ft.

739.2 741.4 Feldspar Porphyry.
743.4 751.2 Feldspar Porphyry.
754.8 757.0 Feldspar Porphyry.
All above units as per 721 to 728 ft.

763.4 777.8 Felsic Dyke.
A pale purple-mauve coloured dyke xcutting the gabbro host. Consists of a fine grned aggregate of feldspars (slightly muddy groundmass; possibly silicified/albitic?) in which are scattered a few pale white to yellowish feldspar phenos in the 2 to 3 mm size range. Fine needles of chlorite after amphibole? are common thru/out the matrix Phenos have fuzzy margins; incipient epidote and carbonate is developed in matrix. Magnetic; calcitic, poorly mineralized. Contains a few small (1/4 in) WR? inclusions. A massive, fairly homogeneous unit xcut by hairline carb and qtz stringers; generally at high core angles. A red-orange dioritic? dykelet 2 in thick xcuts the interval @ bott cnt. This is the first occurence of this particular phase in the hole.

777.8 to 780.5- gabbro, csely brecciated.

780.5 783.5 Diorite.
A dioritic unit similar to described above @ 733 to 735 ft; sharp cnts @ 55/70 DTCA; wkly mineralised.

783.5 to 789.0- gabbro.

789.0 792.8 Diorite.
A pale green-grey med grned interval w/ sharp, slightly cuspate cnts at 40-50 DTCA; a tightly packed feldspar aggregate w/ conspicuous mafics (3 to 5 mm amphiboles, accicular); altered feldspars, subhedral, 1-2 mm, pale white/yellow colour set in a muddy carbonated matrix; fn patchy chlor thru/out groundmass calcitic and magnetic; tr diss py; hard. This unit is another variation from the dioritic family of dykes cutting the HW gabbros above the McBean Deformation Zone. It is deficient in hematite, a common alteration product in most other 2D units. The age relationship w/ other 2D dykes is not known at this point in the hole.

792.8 to 795.8- gabbro.

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T

795.8 to 797.3- basalt w/ patchy/irreg carb-qtz veins @ 50 DTCA, slightly elev py conc.
797.3 to 804.0- gabbro.

804.0 809.8 Diorite.
A pale grey dioritic dyke very much like that described at 321 to 323 ft. Contains partially digested gabbroic xenos to 2 in across; xcut by several pale grey qtz veins @ 70 DTCA w/ fine carb xtals; minor diss and spotty py in fine hematitic fractures at high core angles. Poss fault at 805.5 in BBC zone.

812.5 813.5 Diorite.
As above @ 804 to 809.

813.5 to 855.1- gabbro, med grned, xcut by several 2-3 in thick pink 2D dykelets, much like those described above at 733 to 735 ft. Calcitic, and cut by numerous hairline carb/silica/hematite filled fractures.

855.1 to 880.8- a diorite dyke breccia zone: pale pink to reddish to dk grey varieties of dykes cutting gabbro and each other. Small xenos of gabbro and basaltic material is caught up in many of the phases. All intrusives are in turn xcut by patchy, hematitic carb and qtz-carb vein/infilling material and finer 1/8 to 1/4 in thick veining at 40 to 60 DTCA. Minor diss and spotty py in both matrix material and fractures. Some minor epidote in hairline stringers. All of these phases are variations on 2D dykes described uphole. Most are of the granular, med grned, groundmass deficient varieties. Details as follows:.

855.1 to 863.0- dk grey, med grned, equigranular, little groundmass; some local alignment of feldspars, grading w/ a sharp, high angle, hem rich contact into the next phase.

863.0 to 871.1- pale pink-grey, med grned and more hematitic than the unit above. Xcut by patchy and sinuous carb-siliceous-hematitic veining; contains basaltic looking xenos, and recognizable gabbro.

871.1 to 880.8- a pale grey finer grned intrusive, similar to the unit described at 789 to 792, but w/ a more metallic grey colour. Becoming more grey (siliceous?) downhole. Becoming more carbonated? towards bott cnt- dusty white carb alter occurs along fine fractures and against earlier silica-hematite veining. Very hard and v wkly magnetic. Slightly elevated diss and spotty py cf w/ earlier phases in this sequence. Contains a few ghostly mafic xenos to 1/2 across and has a psuedo-porphyritic appearence locally (fresher metacrysts?). Sharp bott cnt @ 35 DTCA against a 3 in thick, vuggy carb-qtz vein w/ tr py. Strong carb metasom away from the vein for 1 to 2 in is visible in the intrusive; wk fol developing at bott of unit @ 50-60 DTCA.

880.8 to 902.9- a brecciated/invaded basalt/gabbro interval. The latter units are xcut and broken up by dioritic material similar to that at 863 to 871, and this in turn may be intruded by a med to med cse grned brick red

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T

syenitic phase as per uphole @ 658 to 659 ft The breakdown is as follows:.

880.8 to 891.3- either basalt or poss a fn MI- fn grned, mass, biotitic? matrix beginning w/ a prominent black chlor alter rind at the top cnt, and grading downhole into a lighter green fine mafic rock w/ v fn mafics in a felted matrix; cut by scrappy cream/pink carb veining and reddish dior dyke material and ending against reconizable gabbro- sharp cnt at about 70 DTCA. Calcitic, and magnetic.

891.3 to 902.9- gabbro, brecciated and xcut by a red syenitic dyke at 895.5 to 897.3 ft.

891.3 915.5 Felsic Dyke.
This interval may be more properly called an FP, however it differs from other FP units logged in this hole and other McBean holes. It is a brown to terra-cata coloured porphyry consisting of abundant feldspar phenos supported in a dk grey, hematized felsic groundmass. The phenos are generally 1-2 mm across, euhedral and fairly fresh; a few are in the 2 to 3mm size range; pale white to cream coloured and zoned is the norm. Some v fine felted chlor rests in the matrix, along w/ pervasive hematite. The matrix is hard, calcitic and is xcut by irreg hairline fractures, normally strongly hematitic and having well developed halos of the same up to 1/4 in thick. Tr diss py. Sharp bott cnt @ 45 DTCA.

915.5 920.9 Felsic Dyke.
Another variation on the felsic dyke theme- not as described above or at 763 to 777. A pale brown-red coloured, fn grned, quite hard and massive phase, w/ fine microphenos of biotite/chlor (after amphibole?) and lath-like 1 mm feldspars (now replaced by calcite) supported in an aphanitic felsic matrix. Calcitic, and magnetic; probably silicified. Sharp bott cnt @ 40 DTCA. May contain digested gabbro xenos; xcut by a few siliceous hairline fractures; some minor diss py near bott cnt.

920.9 to 1018.9- gabbro; med grned w/ some very cse grned patches; xcut by a few narrow pink dioritic dykes as per those at 733 to 735 ft; fine hem/siliceous stringers cut the rox in a random fashion- most are at 45 deg or steeper core angles. Calcitic and magnetic. Some broken up zones at 958 to 960 and 992 to 993.5; also locally slightly vuggy/weathered out; minor py thru/out; minor fn grned basaltic intervals; some cse brecciation near dykes.

1018.9 1029.0 Diorite.
A pale pink red, med grned dyke quite similar to that described at 863 to 871 w/ strong hematite and siliceous alteration about fractures and in the matrix. Spotty and diss py locally. Sharp, irreg cnts at high core angles. Contains small rounded basaltic xenos;(still fairly fresh).

1029.0 1072.0- Gabbro; med to med cse grned; strong shear @ 1069.8 @ 50 DTCA w/ wk hem alter; few redish dioritic dykelets xcut interval; wk epidote alter scattered thru/out in fractures.

1072.0 to 1093.0- gabbro; med to med fine grned, equigranular phase; massive

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T

and featureless. Contains a narrow basaltic band w/ sharp cnts at 75 DTCA and locally slightly higher conc's of diss py.

1093.0 to 1020.0- basaltic interval xcut by two dioritic phases. The first brecciates the primary unit in a manner very much like that described above at 401 to 430 ft- a cse grned black and white dioritic rock(quite carbonated itself) intrudes dk grey to almost black, amphibolitic basalt in a chaotic manner. The basalt is slightly foliated, carbonated and xcut by wispy and patchy carb/qtz alteration. The sequence is calcitic and wkly magnetic (intrusive phases are more strongly magnetic). The lower portion of the interval is cut by a more recognizable pinkish, med grned diorite, much like that at 733 to 735 ft; quite altered and pale grey and carbonated where first seen at about 1115.0 ft, then appearing fresher downhole albiet w/ an increasing hem content. Locally this sequence is well mineralized in narrow zones where silica and hem alter are more intense; and in highly carbonated areas ex: @ 1098 to 1100 ft; sharp, cuspate bott cnt @ about 50 DTCA.

1020.0 to 1144.4- gabbro; back into a med to med cse phase much like rock above 1072.0 ft. Xcut and brecciated by a number of narrow pale pink dioritic dykes. Becoming more askew downhole towards 1144. Some very cse grned zones locally and a few basaltic xenos in the gabbro matrix. Calcitic and xcut by numerous fine silica/hematite stringers normally at between 40 and 70 DTCA. Trace amounts of diss background py; strong shear at 1107.2 @ 35 DTCA.

1144.4 1147.0 Diorite.
A porphyritic interval very similar to 891-915 ft; pale brown, spotted appearence; sharp cnts at 60/30 DTCA.

1147.0 to 1159.5- gabbro/basalt/dyke zone; mostly dk grey to black, wkly foliated basalt intermixed w/ gabbro. Narrow sheared/pyritic zone at 1148.1 to 1148.6; pale grey dioritic dykelet at 1147.7 to 1148.1(as per 871 to 888) w/ sharp cnts at 40/80; fine red incipient syenite dykelets at 1158 ft; strong shear at 30 DTCA at 1158.3 ft.

1159.5 1162.0 Diorite.
As above at 1144 to 1147 ft; cnts at 40/50 DTCA.

1162.0 to 1166.5- basalt; v dk grey to black; strongly altered against overlying dyke(patchy carb/amphibolitic), becoming more green and uniform and then grading smoothly into gabbro at 1166.5 ft; calcitic and magnetic.

1166.5 to 1211.3- gabbro; med grned and massive, locally slightly vuggy and broken up; calcitic and xcut by the normal fine qtz/carb/hem stringers; cut by a pale grey felsic dykelet(looks like felsite?) at 1200 to 1201 ft hard, slightly elevated py conc, sharp cnts at high core angles.

1211.3 to 1216.4- basaltic interval, invaded by dk grey qtz veining and pale purple felsite? dykelets. Both of the latter units have cnts at about 40 to 50 DTCA; locally the host V7 is sheared and mineralized w/ diss and blebby py(some cse gnrd py in qtz also); the felsites are well mineralized and

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T

massive except at the bott cnt of the sequence where they become brecciated/intruded by small red syenitic dykelets.

1216.4 to 1235.9- gabbro; variable grain size, xcut by numerous fine scrappy carb veinlets (poorly mineralized).

1235.9 1250.7 Felsite.
A dark maroon coloured dyke?; fine grained and locally almost porphyritic, hard(probably silicified or albitic?) and massive. Hematized thru/out; w/ greater intensities of alteration around mm scale high angle stringers. Contains a few angular 1 to 2 in diam basaltic frags; scattered diss and fn subhedral py. Ghostly feldspar phenos to 2 mm visible locally; calcitic, magnetic. Sharp cnts at 30/20 DTCA.

1250.7 to 1308.7- gabbro; med cse to fine grned interval; grn size quite variable over short lengths (1 to 3 ft); w/ pervasive calcitic and local epidote alter in fine stringers; cut by felsic dykelet at 1295 to 1296.8- pale purple, similar to that at 1235 to 1250 w/ greater conc of phenos and wispy/patchy epidote alter developing in the matrix- defines a crude foliation at 35 DTCA; sharp cnts at 70/40; hard and poorly mineralised.

1308.7 1317.0 Felsic Dyke.
Similar to described at 891 to 915. A porphyritic dyke, w/ knife sharp cnts and only the narrowest of chill margins into gabbro. Hard, hematitic and calcitic. Magnetic and mod mineralised w/ fine py. Cnts at 60/40 DTCA; more purplish colour to the rock (more hem?).

1317.0 to 1324.1- gabbro.
1324.1 1326.4 Diorite.
A pale pink, med grned dykelet similar to those occuring at 863 to 871; slightly vuggy w/ barely visible feldspars in matrix; appears to more silicified? albitized than other examples uphole; poorly mineralised w/ tr spotty py, slightly more at bott cnt; cnts sharp at 30/80 DTCA.

1326.4 to 1327.4- gabbro.

1327.4 1332.9 Felsic Dyke.
As above at 1317 to 1324.

1332.9 to 1430.5- gabbro interval; med cse grned to locally v cse grned section w/ minor basaltic interlayering. Very cse grned sections contain feldspar rich areas (cumulate zones) and large amphibole laths to 1 in long; basaltic areas appear brecciated/granulated/foliated (@ about 40 DTCA); carbonated 1/4 in amygs are scattered amongst fine flow breccia; calcitic; magnetic; xcut by scrappy carb veining and wkly hem carb-qtz knots; scattered diss py thru/out interval; str shear at 1402 @ 30 DTCA, w/ 1/2 in pale green ser/carb alter zone.

1430.5 1435.2 Felsic Dyke.
A dyke similar to that described from 891 to 915; sharp cnts at 50/40, w/ distinct alter rinds/chilled margins? (epidotized, chloritic into WR);

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
		contains a few 1/2 in diam rounded WR xenos, minor diss py.								
		1435.2 to 1479.7- gabbro interval w/ minor basaltic units, and several rounded, partially digested basaltic xenoliths. Cut by fine scrappy carb veining at high core angles; local very wk patchy hem alter; locally slightly higher py conc than in overlying gabbro intervals; locally slightly vuggy/ weathered out; fracture controlled and patchy epidote in places; small felsite dyke occupies bott 6 in of interval against underlying u/mafic.								
1479.7	1486.0	ULTRAMAFIC LITH- pale blue green colour, fne grnd and fairly mass u/mafic flow w/ a slightly granulated, dker grass green zone towards the bott cnt (fine flow top?)(tops downhole?). Subtle brittle deformation textures in central part of interval (possibly primary?). ALTER- wkly talcose, calcitic and wkly magnetic. Otherwise a fairly fresh example of this protolith. VEINING-sparsely veined w/ v fine carb. MINERALISATION- tr of diss/fine cubic py. STRUCT- massive, except for fine brecciation at bott cnt; @ 1482 ft-crushed zone w/ poss fault for 5 in; strong shear at 1482.8 @ 30 DTCA.	43198 43199	1479.7 1484.0	1484.0 1486.0	4.3 2.0	TR TR	tr tr	.000 .000	.000 .000
1486.0	1531.5	BASALT An interval of predom basalt w/ a few gabbroic inclusions; pale green to olive green w/ red cast (where more intensely hematized); xcut by patchy and vein type carb-qtz-hematite material; med to med fn grned; xcut by several types of dioritic dykelets; locally hard (silicified); strongly calcitic (numerous wispy carb stringers at high angles); strongly magnetic; a breakout of the dykes is as follows:.	43200 43201 43202 43203 43204 43205 43206 43207 43208 43209 43210 43211 43212	1486.0 1490.3 1492.9 1497.0 1499.2 1504.0 1508.0 1511.5 1515.1 1518.0 1523.0 1526.0 1529.1	1490.3 1492.9 1497.0 1499.2 1504.0 1508.0 1511.5 1515.1 1518.0 1523.0 1526.0 1529.1 1531.5	4.3 2.6 4.1 2.2 4.8 4.0 3.5 3.6 2.9 5.0 3.0 3.1 2.4	0.5% 2.0% 3.0% 3.5% 2.0% 1.0% 0.5% 0.5% 1.0% 0.5% TR 1.0% 2.0%	tr tr tr tr tr tr tr tr tr tr tr tr tr	.000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000	.000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
		1486.0 to 1490.3- diorite dyke; light grey in colour, med grained w/ poorly defined feldspar xtals in matrix (silicified/albitic?); fn spotty mafics; unit becomes slightly more porphyritic/hematitic downhole; fairly distinct bott cnt at about 50 deg; contains a few partially digested mafic inclusions, and minor diss py in matrix and fine fractures.								
		1490.3 to 1492.9- basalt xcut by wispy dyke material similar to underlying dyke structure; well mineralized towards 1492.								
		1492.9 1499.2 Diorite. A pale pink to salmon coloured dioritic dykelet, similar to several units described earlier in the hole;(ex:228-235), this interval has very poorly defined feldspar in matrix and appears to be strongly silicified. It is similar to the 'porphyritic syenite' described in other McBean holes, but w/o the phenos. Wk hematite alter is pervasive in the groundmass. Irreg chlorite filled fractures and knots xcut the unit randomly. Fine siliceous veinlets and thicker white qtz veins cut the unit at high angles Blebby/anhedral py occurs both in the matrix and along healed fractures. Sharp bott cnt at 60 DTCA.								
		1499.2 to 1531.5- a basaltic interval xcut by numerous fine (2 to 8 in) dioritic and red syenitic dykelets; both dykes and host are well hematised;								

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
		fine gash carb veining 1/8 in thick cuts core at 50 to 60 deg; dykes contain diss and cse subhedral py to 1/2 in across; from 1515.1 to 1531.5- basalt xcut by wispy carb/carb-hem veining only; faults as follows: @ 1507; vuggy/tr gouge @ 55 DTCA @ 1518.5; tr hem gouge @ ~55 DTCA; @ 1518.8; 1/4 in gouge @ 55 DTCA; at 1521.3 and 1521.5- tr cse gouge @ 30/40 DTCA; shear at 1522.9 @ 30 DTCA.								
1531.5	1782.3	GABBRO Contact back into a section of med grned gabbro, mostly fairly fresh and equigranular w/ some sections becoming black, strongly carbonated and slightly foliated; contains fined grned basaltic intervals. The volume of basaltic material is increasing in this section cf w/ similar intervals uphole. Details as follows:. 1531.5 to 1563.5- gabbro w/ strong pervasive hem alter as per above basalt interval; xcut by several pink/red dioritic and syenitic dykes at 1564 to 1549; similar to the dykes in the above basalt horizon; slightly vuggy w/ spec hem, blebby/anhedral py and scrappy carb veining; few rounded xenos of 'flowy' basaltic material; fault w/ 1/8 in hem gouge @ 1557.6 @ 40 DTCA; narrow pale olive green MI at 1560.9 to 1562.3; well carbonated and wkly hematized; fn grned and featureless; wkly mineralized w/ sharp cnts at 50/40 ; becoming brecciated and silicified at bott cnt against a small syenitic dykelet. 1563.5 to 1664.5- gabbro; w/ basaltic horizons and very few dykes or other xcutting features. Strong shear at 1565.0 @ 20 DTCA; fault @ 1578.0 @ w/ 1 in rubbly gouge @ about 70 DTCA; fault? @ 1578.6 (rubbly zone); fault at 1578.9 w/ 1/2 in gouge @ 60 DTCA; fault @ 1580.5; 2 in of rubble/gouge @ 75 DTCA; fault @ 1582.4 @ about 30 DTCA w/ 2 in rubbly gouge; predom gabbro down to 1617.0, then grading into a more carbonated zone which overprints the gabbro. At 1664.5 ft fresher gabbro again becomes visible. Mineralised/hematized/wkly silicified from 1620 to 1634 w/ 1 to 3 % fn/cse cubic and diss py in a slightly vuggy matrix. Shears at 1633.1 and 1633.8 at 30/70 w/ tr chloritic gouge. 1640.1 1644.3 Mafic intrusive. Very dk grey-green colour, fn grnd felted felsic matrix; pervasive hem alter and fine incipient carb/qtz hem veining (irreg, 1/8 to 1/4 in thick); calcitic, wkly magnetic w/ sharp cnts @ 50/40 DTCA. Well mineralised w/ diss and fine subhedral py. 1644.3 to 1664.5- basaltic interval w/ minor gabbro; slightly vuggy; w/ some broken/blocky core in places; well mineralised locally; some hem staining on broken core surfaces; poss fault at around 1654 ft and at 1659.2- @ 75 DTCA w/ minor gouge. 1664.6 to 1678.0- prod gabbro; massive w/ a few scrappy carb/qtz/dioritic veins/dykelets. 1678.0 to 1738.0- prod basalt; xcut by wispy and patchy carb and qtz veining; locally almost black and strongly carbonated/foliated @ 20 to 40	43213	1531.5	1535.0	3.5	0.5%	tr	.000	.000
			43214	1535.0	1538.0	3.0	0.5%	tr	.000	.000
			43215	1538.0	1542.0	4.0	TR	tr	.000	.000
			43216	1542.0	1546.8	4.8	TR	tr	.000	.000
			43217	1546.8	1548.9	2.1	1.5%	.002	.000	.000
			43218	1548.9	1553.1	4.2	0.5%	tr	.000	.000
			43219	1553.1	1558.0	4.9	TR	tr	.000	.000
			43220	1558.0	1563.5	5.5	1.5%	tr	.000	.000
			43221	1563.5	1568.0	4.5	TR	tr	.000	.000
			43222	1618.0	1621.0	3.0	TR	tr	.000	.000
			43223	1621.0	1625.0	4.0	3.5%	tr	.000	.000
			43224	1625.0	1629.0	4.0	0.5%	tr	.000	.000
			43225	1629.0	1634.0	5.0	1.0%	.003	.000	.000
			43226	1634.0	1638.0	4.0	TR	tr	.000	.000
			43227	1638.0	1640.1	2.1	1.0%	tr	.000	.000
			43228	1640.1	1644.3	4.2	2.0%	tr	.000	.000
			43229	1644.3	1648.0	3.7	2.5%	tr	.000	.000
			43230	1648.0	1652.0	4.0	1.5%	tr	.000	.000
			43231	1652.0	1656.0	4.0	1.0%	tr	.000	.000
			43232	1656.0	1660.0	4.0	0.5%	tr	.000	.000
			43233	1660.0	1664.9	4.9	2.0%	tr	.000	.000
			43234	1664.9	1668.0	3.1	TR	tr	.000	.000

From (ft)	To (ft)	Geology
		DTCA; brecciated/veined dioritic dyke at 1711 to 1712.3 w/ hem alter and diss/spotty py; fault at 1728.3 @ 40 DTCA w/ tr gouge and local rubble zone; several vuggy/broken core zones between 1728 and 1738. 1738.0 to 1751.0- prod gabbro; w/ scrappy pink irreg 2D dykelets near bott of interval. 1751.0 to 1782.3- prod basalt- rubbly, broken core from 1751.0 to 1758.0; and 1766 to 1768.0; xcut by numerous fine carb veins (1/8 to 1/4 in) at high angles to CA, and scattered grey-pink dioritic dykelets/patchy qtz veins, also generally at high core angles; locally diss and spotty py near veining and in strongly carbonated areas.
1782.3	1974.9	ALTERED GABBRO BASALT An intercalated sequence of carbonated gabbro and basalts. The basalts are not unlike those units occuring uphole(v dk grey to black in colour, fn grnd and massive to foliated, w/ locally flowy/brecciated textures; generally well carbonated(calcite). The gabbros have become less fresh, more carbonated and dk grey to almost black in colour. These rox remain calcitic and contain very chloritic contacts?/alter fronts?. They look much more as gabbros do w/in the deformation zone proper. Comments on this sequence:. 1782.3 to 1812.7- mostly gabbroic; xcut by a few patchy qtz veinlets; well mineralized near top of interval; numerous scrappy carb veins near bott of interval; wkly foliated at 40 DTCA locally. 1812.7 to 1869.9- basaltic interval; fne grned, wkly foliated locally; dk grey to almost black, xcut by wispy/gash carb veining to 1/4 in thick; contains zones where recognizable cser grained essentially undeformed gabbroic material can be seen; locally slightly vuggy w/ cse diss py near weathered areas. 1869.9 to 1974.9- gabbroic interval; med to locally very cse grned and amphibolitic; locally more carbonated/foliated/dk grey to black in colour; u/mafic xenos becoming apparent approaching lower cnt; calcitic thru/out; xcut by scrappy carb veining, and minor irreg, pale grey/red dioritic veinlets. Variably magnetic from quite strong to quite wk. Details include:. 1869.9 to 1890.0- med to cse grned gabbro grading into carbonated gabbro; then grading into a wkly foliated (~50 DTCA) veined/mottled section; contains diss and spotty anhedral py to 1/8 in across locally. 1890.0 to 1942.3- section of prod cse grned pale green amphibolitic/chloritic gabbro w/ minor 2D and carbonate veining; contains small interval of black carbonated gabbro w/ foliation at 10 DTCA. Traces of wispy epidote, poorly mineralised overall. 1942.3 1949.1 Mafic intrusive. A very dk grey green, fn grned dyke, w/ a felted groundmass. Magnetic and

Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
43235	1853.0	1856.0	3.0	TR	tr	.000	.000
43236	1856.0	1858.0	2.0	0.5%	tr	.000	.000
43237	1858.0	1862.0	4.0	2.5%	tr	.000	.000
43238	1862.0	1866.0	4.0	0.5%	tr	.000	.000
43243	1877.0	1879.5	2.5	TR	tr	.000	.000
43244	1879.5	1881.9	2.4	1.0%	tr	.000	.000
43245	1881.9	1887.0	5.1	0.5%	tr	.000	.000
43246	1887.0	1891.0	4.0	1.0%	tr	.000	.000
43247	1891.0	1892.9	1.9	1.0%	tr	.000	.000
43248	1892.9	1896.0	3.1	TR	tr	.000	.000
43249	1938.0	1942.3	4.3	TR	tr	.000	.000
43250	1942.3	1946.0	3.7	1.0%	tr	.000	.000
43251	1946.0	1949.1	3.1	2.0%	tr	.000	.000
43252	1949.1	1952.0	2.9	TR	tr	.000	.000

From (ft)	To (ft)	Geology

pervasively calcitic. Homogeneous and massive; looks like a fn diabase. Xcut by fine hem/carb/silica stringers at 30 to 50 DTCA (some spec hem developed). Contains fine diss py; sharp top cnt at 30 DTCA.

1949.1 to 1974.9- pale green cse gabbroic interval w/ scattered u/mafic fragments/xenos to 1 in across; increasing veining and carb/hem/epidote alter (mostly fracture controlled); blocky and slightly vuggy near top of this section; poss fault in a weathered/chlor interval @ around 1956 ft.(fault at ?40 DTCA) Becoming more carbonated, pyritic and black in colour near the bott cnt.

1974.9 2029.1 ULTRAMAFIC

LITH- a dk blue-black to blue-green interval, fairly massive w/ local foliated sections. Soft, and xcut by vuggy altered dioritic/felsitic? dykelets. A few carbonated gabbro intervals are present.
ALTER- wkly talcose, calcitic down to 2018; (ankeritic below); locally siliceous near dykes; carbonate invades the unit as wispy/patchy veining and spotty alteration; wk hematitic alter in and around dykes, and in the matrix of some carbonated gabbro intervals; variably magnetic.
VEINING- wispy/patchy veins range from mm to 1/2 in thick locally; mostly carbonate filled w/ minor qtz and hem; often xcutting the unit at angles similar to the prevailing (local) foliation (20 to 70 DTCA).
MINERALISATION- spotty anhedral py and minor diss py are predom found in or near dykes and carbonated gabbro sections; traces in the matrix.
STRUCT- a fairly massive unit w/ variably developed fabrics (foliations) and shearing (// to fol) locally. These range from 20 to 60 DTCA. Some examples: @ 1977- 60 DTCA; @ 2000.5- 20 DTCA; @ 2017- 30 DTCA; @ 1984- 55 DTCA. The unit is more deformed downhole.

Commments on internal Units:.

1988.3 to 1988.9- carbonated gabbro; sharp cnts at 40/50 DTCA; wkly pyritic.
2000.9 to 2002.0- felsite? dykelet; pale pink to grey, vuggy and weathered out w/ wk hematite alter; brecciated and xcut by fine carb/hem stringers at high core angles; contacts are offset and overprinted w/ wispy carb alter; contains spotty and diss py.

2010.3 to 2010.9- dk brown-red carbonated gabbro inclusion? (or an MI?); sharp cnts at 30/40 DTCA; biotite metacrysts oriented at about 50 DTCA; poorly mineralized.

2010.9 to 2011.9- cse grned pale grey dioritic dykelet; muddy carbonated/ silicified matrix w/ irreg chlor knots and sinuous WR inclusions; elevated py conc cf w/ enclosing units; sharp but highly deformed cnts.

2022.9 to 2023.6- felsite dykelet?; pale brown coloured, hard felsic unit w/ sharp cnts at 50/55 DTCA; fn grned, w/ fine spotted texture (carb alter?) poorly mineralised.

2029.1 2029.2 START OF DEFORMATION ZONE

Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
43253	1986.0	1988.3	2.3	TR	tr	.000	.000
43254	1988.3	1988.9	.6	0.5%	tr	.000	.000
43255	1988.9	1993.0	4.1	TR	tr	.000	.000
43256	1993.0	1998.0	5.0	TR	tr	.000	.000
43257	1998.0	2000.9	2.9	TR	tr	.000	.000
43258	2000.9	2002.0	1.1	1.0%	tr	.000	.000
43259	2002.0	2007.0	5.0	TR	tr	.000	.000
43260	2007.0	2010.3	3.3	TR	tr	.000	.000
43261	2010.3	2010.9	.6	TR	tr	.000	.000
43262	2010.9	2011.9	1.0	2.5%	tr	.000	.000
43263	2011.9	2013.9	2.0	0.5%	tr	.000	.000
43264	2013.9	2018.0	4.1	TR	tr	.000	.000
43265	2018.0	2021.0	3.0	TR	tr	.000	.000
43266	2021.0	2022.9	1.9	TR	tr	.000	.000
43267	2022.9	2023.6	.7	TR	tr	.000	.000
43268	2023.6	2027.0	3.4	TR	tr	.000	.000
43269	2027.0	2029.2	2.2	TR	tr	.000	.000

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
2029.2	2035.0	ULTRAMAFIC A more deformed and altered equivalent of the overlying unit; patchy and vein ankerite is becoming abundant w/in the interval, and the rock is more consistently foliated at 40 to 50 DTCA.	43270	2029.2	2035.0	5.8	TR	tr	.000	.000
2035.0	2036.5	PORPHYRITIC SYENITE A pale orange-red coloured interval, very hard and siliceous w/ a few rounded feldspar and qtz phenos. The matrix is aphanitic and xcut by numerous fine/blebby qtz and qtz/carb stringers. Wkly hematized and non-calcitic; non-magnetic; well mineralized w/ fn diss, anhedral spotty and fine patchy (w/ chalco) dendritic growths (fracture controlled). Traces of a grey metallic, (gal/sphal/tetrahedrite?); occurs in prox to the chalco.	43271	2035.0	2036.5	1.5	2.0%	.001	.000	.000
2036.5	2081.1	ULTRAMAFIC KOMATIITE LITH- a med grned, strongly foliated/deformed grey to blue black interval w/ a banded/streaky aspect. Begins as a wkly banded, slightly gritty/grainy gneissic appearing rock(has some similarity to earlier logged sections of altered steel grey syenite and/or carbonated gabbro) which then grades into a more recognizable banded, intensely veined/carbonated komatiitic rock of u/mafic origin. Xcut by altered syenitic dykes (2 to 6 in thick) and finer local 'incipient syenite dykelets'. Contains narrow tuffaceous? layers locally. ALTER- strongly carbonated w/ patchy and vein like material intruding all areas of the unit; non magnetic until 2074 ft where it becomes strongly magnetic. Wk wispy fuchsite alter in matrix from 2078 to 2081.1; locally siliceous about dykes and some of the veining. VEINING- moderately veined down to about 2061 where the amount of carbonate increases dramatically and the rock appears distinctly banded. Upper areas are cut by 1/8 to 1/2 in carb veining which is typically highly deformed, folded and boudinaged; veining mimics local fabric orientations. Variably mineralized w/ fine py and tr of chalco; qtz veins have carb selvages commonly. Below 2061 the rock mass is typically about 30 to 50% carbonate/veining. It is wkly hematized locally, and contains scattered diss and spotty py. MINERALISATION- fn diss py occurs in syenitic dykes, w/in tuffaceous bands, in some veining and to a lesser extent in the matrix materials. Traces of spec hematite, to 1 mm across occur in groundmass. STRUCT- a highly deformed interval w/ a well developed foliation thru/out. Locally kinked and almost crenulated at high angles to CA. Fabric orientation is quite variable from 20 to 50 DTCA in upper subzone (above 2061) and slightly more consistent below 2061 at 40 to 50 DTCA; fault at 2069 w/ 1/2 in of gritty gouge at about 30 DTCA; strong shears at 2069.5 and 2070 @ ~ 50 DTCA w/ traces of gouge. 2078.0 2081.1 Green Carbonate Zone. Banded appearence in this section; incipient syenite dykelets are common; all components of the rock are highly deformed and kinked/foliated; the fabric orientation is quite variable; wk wispy fuchsite in matrix.	43272	2036.5	2039.0	2.5	1.0%	.003	.000	.000
			43273	2039.0	2041.5	2.5	0.5%	tr	.000	.000
			43274	2041.5	2046.0	4.5	0.5%	tr	.000	.000
			43275	2046.0	2049.0	3.0	TR	.001	.000	.000
			43276	2049.0	2052.1	3.1	1.5%	.001	.000	.000
			43277	2052.1	2053.5	1.4	2.5%	.002	.000	.000
			43278	2053.5	2054.2	.7	0.5%	.001	.000	.000
			43279	2054.2	2055.1	.9	1.0%	.003	.000	.000
			43280	2055.1	2056.8	1.7	1.5%	.001	.000	.000
			43281	2056.8	2059.0	2.2	1.0%	.002	.000	.000
			43282	2059.0	2060.8	1.8	1.5%	.011	.000	.000
			43283	2060.8	2063.0	2.2	0.5%	.004	.000	.000
			43284	2063.0	2068.0	5.0	0.5%	.001	.000	.000
			43285	2068.0	2070.4	2.4	TR	tr	.000	.000
			43286	2070.4	2072.0	1.6	3.0%	.001	.000	.000
			43287	2072.0	2074.1	2.1	1.0%	tr	.000	.000
			43288	2074.1	2076.5	2.4	1.5%	tr	.000	.000
			43289	2076.5	2078.2	1.7	2.0%	.001	.000	.000
			43290	2078.2	2081.1	2.9	2.5%	.001	.000	.000
2081.1	2111.5	ALTERED SYENITE								

From (ft)	To (ft)	Geology
		LITH- a pale orange, med to med fn grnd section; w/ a subtle mottled appearence; locally appears almost porphyritic (as per porphyr syenite); contains xenos of u/mafic material very much like the overlying unit, narrow pale yellow tuffaceous? intervals and some partially digested dk grey material which resembles a carbonated gabbro; locally more brick red. ALTER- very hard (silicified, albitic?), wkly hematitic and non calcitic; ankerite appears to be the dominant carb phase as pervasive and vein alter; although calcite returns below 2106 ft; the tuff horizon is wkly sericitic. VEINING- fn wispy carb and qtz-carb veining occurs thru/out the interval, generally at about 40-50 DTCA; heavier patchy qtz (pale white, +/- carb selvages) also xcuts the rox randomly. The latter veining is often boudinaged and or irreg. MINERALISATION- py occurs thru/out the sequence as disseminations, as anhedral /blebby masses and as fn fracture fillings. More sulphide is present in the matrix, although veining is wkly mineralised. Fn xtalline spec hem infills some fn qtz stringers; a v fn grned xtalline grey metallic occurs in some fractures and small (1/8 to 1/4 in) veins-galena/sphal/tetrahedrite?. STRUCT- a fairly massive unit except for included u/mafic and ?gabbroic inclusions which are mod to well foliated (fabric at 20-50; most commonly at 40-50 DTCA) Finer veining cuts the core at 40-50 DTCA typically.
2111.5	2179.7	FELSITE LITH- a dk purple grey coloured unit, med to med fn grned w/ a slightly gritty appearence, and very hard; massive w/ wkly foliated inclusions of carbonated gabbro?, slightly more fresh looking gabbro/dioritic? and u/mafic material. This felsite is somewhat darker in colour than others described in adjacent McBean holes-(possibly due to greater amounts of included mafic material?); the overall composition appears similar to other felsites however: a predom felspathic rock of unknown origin; locally xcut by fn incipient brick red syenitic dykelets. ALTER- silicified and poss albitic; wkly hematitic thru/out; well carbonated (as calcite down to about 2173 ft) becoming more so downhole; magnetic. VEINING- sparsely veined w/ fn wispy carb, qtz and mixed carb/qtz; these are commonly at 40-60 DTCA and range up to 1/4 in thick. Locally more patchy, or breccia-filling type qtz (to several in across) w/ WR and angular clots /infillings of chlorite; most veining is not strongly mineralised except for some of the cser patchy qtz. MINERALISATION- diss, fn cubic and slightly cser blebby to anhedral py is developed thru/out matrix and to a lesser extent in the veining; minor amounts of fracture-filled sulphide is visible. STRUCT- overall a massive unit w/ high RQD; foliated inclusions show fabrics at 40-50 DTCA; few local zones 6-12 in long of very BBC, no faulting is apparent. Comments on the Interval:. 2111.5 to 2114.9- appears to contain ghosted dioritic? material; cut by wispy low angle carb/qtz stringers. 2114.9 to 2118.9- dk grey-purple, mass, grainy interval.

Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
43291	2081.1	2085.0	3.9	2.5%	.002	.000	.000
43292	2085.0	2088.0	3.0	2.5%	.005	.000	.000
43293	2088.0	2088.9	.9	3.0%	.006	.000	.000
43294	2088.9	2089.5	.6	1.5%	.001	.000	.000
43295	2089.5	2093.5	4.0	3.0%	.011	.000	.000
43296	2093.5	2096.0	2.5	3.5%	.006	.000	.000
43297	2096.0	2098.0	2.0	3.0%	.004	.000	.000
43298	2098.0	2100.5	2.5	1.5%	.001	.000	.000
43299	2100.5	2102.0	1.5	3.0%	.010	.000	.000
43300	2102.0	2106.0	4.0	3.0%	.003	.000	.000
43301	2106.0	2108.9	2.9	2.5%	.002	.000	.000
43302	2108.9	2111.5	2.6	2.0%	.001	.000	.000
43303	2111.5	2114.9	3.4	3.5%	tr	.000	.000
43304	2114.9	2117.0	2.1	3.5%	tr	.000	.000
43305	2117.0	2118.9	1.9	3.5%	tr	.000	.000
43306	2118.9	2119.4	.5	TR	tr	.000	.000
43307	2119.4	2123.0	3.6	3.5%	tr	.000	.000
43308	2123.0	2125.0	2.0	3.5%	tr	.000	.000
43309	2125.0	2127.3	2.3	3.5%	tr	.000	.000
43310	2127.3	2130.9	3.6	4.0%	tr	.000	.000
43311	2130.9	2135.0	4.1	4.0%	tr	.000	.000
43312	2135.0	2138.0	3.0	3.5%	tr	.000	.000
43313	2138.0	2140.5	2.5	2.5%	tr	.000	.000
43314	2140.5	2142.9	2.4	0.5%	tr	.000	.000
43315	2142.9	2144.4	1.5	3.0%	tr	.000	.000
43316	2144.4	2146.0	1.6	TR	.001	.000	.000
43317	2146.0	2149.4	3.4	2.5%	tr	.000	.000
43318	2149.4	2150.8	1.4	TR	.001	.000	.000
43319	2150.8	2156.0	5.2	3.5%	tr	.000	.000
43320	2156.0	2160.0	4.0	1.0%	tr	.000	.000
43321	2160.0	2164.0	4.0	2.5%	tr	.000	.000
43322	2164.0	2168.0	4.0	3.0%	.001	.000	.000
43323	2168.0	2170.3	2.3	3.0%	tr	.000	.000
43324	2170.3	2175.0	4.7	1.5%	tr	.000	.000
43325	2175.0	2179.7	4.7	2.5%	tr	.000	.000

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
		2118.9 to 2119.4- small u/mafic inclusion w/ sharp cnts at 30/40; poorly mineralised.								
		2119.4 to 2127.3- mass grey-purple felsite, few scrappy syenitic dyklets and small mafic inclusions.								
		2127.3 to 2130.9- a slightly brecciated interval w/ patchy qtz(chlor clots) and reddish syenitic intrusions.								
		2130.9 to 2140.5- purple-grey felsite w/ a subtle spotted texture.								
		2140.5 to 2142.9- a dk green interval; wkly banded and suggestive of carbonated gabbro; foliation at about 45 deg; sharp cnts at 60/40 DTCA.								
		2142.9 to 2144.4- felsite; slightly more hematitic and internally brecciated? slight increase in veining conc.								
		2144.9 to 2146.0- a more fresh looking med grned gabbro; becomes more foliated downhole (50 deg becoming flatter towards 2146); fairly sharp upper cnt at 40 DTCA; not well mineralised.								
		2146.0 to 2149.4- grey-purple felsite; more intensely carbonated/veined than previous intervals.								
		2149.4 to 2150.8- gabbro (as per 2144-2146); more altered and deformed than the above unit; sharp cnts at 40/50 DTCA.								
		2150.8 to 2170.3- purple felsite, slightly mottled appearence.								
		2170.3 to 2179.7- pale pink felsite; more carbonated than above intervals, appears to be altered by the underlying kom/u-mafic interval.								
2179.7	2241.7	ULTRAMAFIC KOMATIITE								
		LITH- a sequence of variably altered and deformed komatiitic rox of u/mafic derivation, xcut by altered syenites, felsites and interlayered w/ highly altered tuffaceous? horizons. The u/mafic rox vary from pale blue green, almost massive intervals to blue-black highly deformed/veined units w/ prominent banding.	43326	2179.7	2180.4	.7	TR	tr	.000	.000
			43327	2180.4	2181.1	.7	0.5%	tr	.000	.000
			43328	2181.1	2181.5	.4	TR	tr	.000	.000
			43329	2181.5	2181.8	.3	3.0%	tr	.000	.000
			43330	2181.8	2183.7	1.9	0.5%	tr	.000	.000
		ALTER- heavily carbonated thru/out; wkly calcitic down to about 2187 ft; ankerite becomes dominant below; locally silicified about veining and w/in intrusive/felsic units; wkly hematized locally (w/in felsites/syenites, in a few fn veins, slightly more common towards bott of sequence; wk fuchsite alter locally near top of sequence; the more fresh looking rox near bott of sequence are mildly talcose; wkly magnetic locally.	43331	2183.7	2185.1	1.4	0.5%	tr	.000	.000
			43332	2185.1	2186.5	1.4	2.5%	.091	.000	.000
			43333	2186.5	2189.8	3.3	0.5%	.001	.000	.000
			43334	2189.8	2193.9	4.1	2.5%	tr	.000	.000
			43335	2193.9	2195.0	1.1	0.5%	tr	.000	.000
			43336	2195.0	2198.0	3.0	1.0%	tr	.000	.000
		VEINING- carb veining/banding is well developed in most of sequence; it generally mimics local fabrics and is quite variable both in orientation and thickness locally; patchy, boudinaged and irreg invasive qtz veining xcuts the sequence randomly (dk grey, often w/ carb selvages); it ranges from 1/8 to 1 in thick and is often at high angles to the CA.	43337	2198.0	2199.4	1.4	1.5%	tr	.000	.000
			43338	2199.4	2200.0	.6	TR	.001	.000	.000
			43339	2200.0	2203.0	3.0	1.0%	tr	.000	.000
			43340	2203.0	2206.0	3.0	0.5%	tr	.000	.000
			43341	2206.0	2208.0	2.0	0.5%	tr	.000	.000
		MINERALISATION- fn diss and cubic py (variable from 1 to 4 mm) is scattered thru/out sequence; some larger xtals have strain shadows and are visibly	43342	2208.0	2209.2	1.2	1.0%	tr	.000	.000
			43343	2209.2	2209.9	.7	1.5%	tr	.000	.000

From (ft)	To (ft)	Geology

deformed/rotated; greater conc's are found in the felsites/syenites; fn xtalline spec hematite is visible in some slightly vuggy/weathered areas STRUCT- a highly deformed/foliated sequence w/ foliations commonly 40-50 DTCA; locally these may almost // the CA; fn (cm to mm) scale folding is visible in banded zones; AP directions are variable (generally at high angles); kink bands at 60 DTCA are developing locally; some faulting and fine healed breccias also present near bott of interval; jointing and core breakage is generally // to foliation.

Comments on Sequence:.

2179.7 to 2180.4- finely banded u/mafic kom.

2180.4 to 2181.1- strongly brecciated/veined altered syenite; irreg sinuous cnts at about 35 deg.

2181.1 to 2181.5- as per 2179 to 2180.4; bott cnt at 50 DTCA; fol is similar.

2181.5 to 2181.8- felsite?; muddy/granulated appearence; well mineralized.

2181.8 To 2185.1 Green Carbonate Zone.
A heavily carbonated u/mafic interval w/ wk wispy fuchsite alter in matrix and wk patchy hem alter; minor patchy qtz; fol at 50 DTCA; wkly mineralized.

2185.1 2186.5 Altered Syenite.
Pale red interval, well carbonated w/ a subtle granulated appearence; xcut by fine carb and qtz/carb veining; well mineralized w/ diss py; sharp upper cnt at 50 deg, sinuous lower cnt (also sharp); probably silicified.

2186.5 to 2189.8- granular/foliated kom interval; fine speckled appearence w/ fol at 50 DTCA; sharp bott cnt at 50 DTCA.

2189.8 2191.3 Felsite.
Pale brown felsite; sharp cnts at 50/20; mottled appearence w/ grey patches/streaks; well mineralized w/ diss and blebby py.

2191.3 to 2209.2- streaky/banded kom interval; xcut by numerous 1/2 to 1 in dk grey ('oily?') qtz veins at high angles; fol at 30 to 60 DTCA; kink bands at 60/70 DTCA (ex: @ 2193.3); locally patchy irreg qtz to 6 in across w/ minor sulphide; spotty and diss py thru/out.

2209.2 to 2209.9- highly deformed tuffaceous? interval; cm scale banding; alternating light and dk bands, both of which are hard (silicified?); w/ slightly elevated py as fine cubes.

2209.9 to 2212.4- kom interval as per 2191 to 2209 ft; several strong shears at 2110.5 @ 40 deg to CA, w/ minor gouge.

2212.4 to 2213.0- a pale brown, fnly foliated/banded unit resembling a carbonated gabbro; fol at ~30 deg; wkly hematized and hard; pale white and reddish carb metacrysts visible in matrix; contains spotty py slightly

Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
43344	2209.9	2212.4	2.5	0.5%	tr	.000	.000
43345	2212.4	2213.0	.6	1.0%	tr	.000	.000
43346	2213.0	2215.9	2.9	1.5%	tr	.000	.000
43347	2215.9	2218.0	2.1	0.5%	tr	.000	.000
43348	2218.0	2221.8	3.8	0.5%	tr	.000	.000
43349	2221.8	2225.5	3.7	0.5%	.005	.000	.000
43350	2225.5	2228.1	2.6	1.0%	tr	.000	.000
43351	2228.1	2230.2	2.1	0.5%	.001	.000	.000
43352	2230.2	2231.9	1.7	0.5%	tr	.000	.000
43353	2231.8	2235.0	3.2	0.5%	tr	.000	.000
43354	2235.0	2238.3	3.3	1.0%	tr	.000	.000
43355	2238.3	2239.2	.9	2.0%	tr	.000	.000
43356	2239.2	2241.7	2.5	TR	tr	.000	.000

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
		smaller in size than that in surrounding kom.								
		2213.0 to 2213.9- kom as noted above.								
		2213.9 2215.9 Fault Zone. Fault zone composed of greenish gritty gouge/fine fault breccia w/ cnts at 50/50; crushed rock and a lower fine grnd cemented/healed breccia (chlor/carb? cement).								
		2215.9 to 2218.0- kom at noted above.								
		2218.0 to 2221.8- a banded, almost cherty horizon; pale olive green to pale brown in colour; finely laminated/foliated at a cm scale (at 60-70 DTCA); hard and locally wkly hematized; sericitic near top cnt; possibly a small tuff band which has been later silicified/carbonated; contains diss and fn xtalline py and 1-2 mm spec hem xtals near bot cnt in a qtz-carb vein; irreg veined both at high angles (narrow qtz/carb) and later at very low angles (slightly thicker carb/qtz); non magnetic and non-calcitic.								
		2221.8 to 2241.7- a kom interval; transitional from the highly deformed/banded intervals above to a recognizable slightly talcose blueish u/mafic; contains brownish, quite hard horizons (deformed/brecciated, rotated locally // to CA)-tuffs?; and speckled/veined/foliated zones in *amongst more fresh areas. A pale brown carbonated gabbro sits at 2238.3 to* 2239.2; sharp cnts @ 45/20 DTCA; a healed breccia zone is at 2222.8 to 2223.4-similar to that near the fault at 2213-2215; strong shear at about 2225 @ 15 DTCA; crushed, blocky zone around 2228 w/ tr of gouge-poss fault(orientation unknown); fn folds at 2224.5 w/ AP's // to CA; foliations in this interval in the 40-45 deg range where visible; fault @ 2236.5 @ 60 deg w/ 1/4 in talcy gouge.								
2241.7	2265.7	ALTERED GABBRO LITH- a dk grey grainy/speckled and or mottled/banded unit w/ a distinctive red cast; med to med fn grned and foliated in part; a heavily altered interval of gabbroic composition, in part massive and in part more deformed and foliated. Locally xcut by irreg syenitic dykelets up to 1 in across. Slightly vuggy areas in weathered out veins. ALTER- strongly carbonated(becoming calcitic around 2243); wky hematized thru/out (tr spec hem in some vuggy areas); locally silicified about veining and as patches; v fn carb speckling developed in a few spots; magnetic. VEINING- patchy, boudinaged carb and carb-qtz veining is developed in more foliated areas; typically at about 40/50 DTCA and/or sub // to local foliations and ranging from 1/8 to 1/2 in thick; a later? finer set of stringers also xcuts the unit (also at 40 to 50 DTCA). MINERALISATION- fn cubic py (1-3 mm) is scattered thru/out the unit; slight increase in conc in some veined/banded areas. STRUCT- a mass to foliated interval; foliated zones have a fabric lying at 40 to 50 DTCA w/ some flatter angles locally; sharp cnts at 55/35. Comments on the Interval:.	43357	2241.7	2242.3	.6	0.5%	tr	.000	.000
			43358	2242.3	2246.0	3.7	3.0%	tr	.000	.000
			43359	2246.0	2248.0	2.0	2.5%	tr	.000	.000
			43360	2248.0	2250.6	2.6	3.0%	tr	.000	.000
			43361	2250.6	2253.0	2.4	2.0%	tr	.000	.000
			43362	2253.0	2256.0	3.0	1.0%	tr	.000	.000
			43363	2256.0	2258.0	2.0	1.0%	tr	.000	.000
			43364	2258.0	2261.2	3.2	1.5%	tr	.000	.000
			43365	2261.2	2263.7	2.5	2.0%	tr	.000	.000
			43366	2263.7	2265.7	2.0	1.5%	tr	.000	.000

From (ft)	To (ft)	Geology
		2241.7 to 2243.3- fn grned brownish matrix w/ fn carb speckling, hard. 2243.3 to 2250.6- med grned mass section w/ granular intrusive appearence. 2250.6 to 2261.2- foliated, veined interval; contains irreg 1-2 in thick syenitic dykelets at high core angles. 2261.2 to 2265.7- predom a grainy massive section w/ minor foliated material.
2265.7	2423.0	ULTRAMAFIC KOMATIITE LITH- a sequence of deformed komatiitic rocks of u/mafic origin, quite similar to those described above from 2179 to 2241 ft. The system contains small felsite and carbonated gabbro intervals and both highly deformed and fresher u/mafic rocks as per the above noted sequence; a few narrow tuffaceous bands are also visible. ALTER- a strongly carbonated sequence, w/ several calcitic domains: 2265.7 to 2294.5; 2355.0 to 2371.8; locally silicified and hematized about veining and some internal lithologies; some minor sericite? inside of vein inclusions; generally magnetic, in some spots very strongly so where grainy magnetite is actually visible. VEINING- heavy banding/veining of carbonate is developed in the highly deformed areas; irreg patchy qtz and qtz/carb veining from 1/4 to 2 in thick xcuts the sequence randomly; some are // to fol, others are discordant. Much of the vein material is deformed: boudinaging, tight folding on a cm scale or brecciation is present. Most veins are not well mineralised. STRUCT- a strongly deformed sequence; generally well foliated at 40-60 DTCA. Veining is deformed as noted above; most of the jointing/breakage in the core is // to local foliation orientations. Some short zones have fabrics almost // to the CA. Comments on Sub-Units in this Sequence:. 2265.7 to 2274.5- a pale blue-black kom interval w/ abundant patchy/scrappy carb veining/alter; fol/banding at 40/45 DTCA; grading into a more mass section which although foliated, is lacking the intense veining seen above; Contains a siliceous tuff? unit at around 2272, w/ wk hem alter, fn gritty magnetite; banding almost // to CA. 2274.5 to 2292.3- a foliated, wkly veined interval; dk blue green to grass green; begining w/ some wispy veining w/in 12 in thick u/mafic sub flows? (fresh; foliated bott's? uphole/sugg tops are downhole) the unit grades into a homogeneous well foliated section w/ blue slightly talcose zones and green more chloritic areas(with fine accicular mafic phenos?) This abuts a more hematitic, harder section from 2291 to 2292.3- a tuff sequence?(sharp cnt at 2291 @ 30 DTCA). 2292.3 to 2296.0- a brown coloured, banded interval; fnly foliated and distinctly spotted w/ 3 to 4 mm square carbonate metacrysts; fol/banding at 40 DTCA; wkly hematitic and fairly hard; poss a carbonated gabbro unit? sharp cnts at 25/40 DTCA; strongly magnetic and well mineralized. 2296.0 to 2353.6- a strongly veined/banded section; blue-black w/ abundant carb veins at 40-60 DTCA; often boundinaged/folded/kinked; wkly talcose and locally hard around incipient siliceous veining; contains narrow bands of

Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
43367	2265.7	2268.0	2.3	TR	tr	.000	.000
43368	2268.0	2271.7	3.7	TR	tr	.000	.000
43369	2271.7	2272.7	1.0	0.5%	tr	.000	.000
43370	2272.7	2274.8	2.1	TR	tr	.000	.000
43371	2274.8	2276.0	1.2	TR	tr	.000	.000
43372	2276.0	2277.5	1.5	TR	tr	.000	.000
43373	2277.5	2279.0	1.5	TR	tr	.000	.000
43374	2279.0	2282.5	3.5	TR	tr	.000	.000
43375	2282.5	2286.0	3.5	TR	tr	.000	.000
43376	2286.0	2289.0	3.0	TR	tr	.000	.000
43377	2289.0	2291.0	2.0	0.5%	tr	.000	.000
43378	2291.0	2292.3	1.3	0.5%	tr	.000	.000
43379	2292.3	2294.4	2.1	2.0%	tr	.000	.000
43380	2294.4	2296.0	1.6	2.0%	tr	.000	.000
43381	2296.0	2297.8	1.8	0.5%	tr	.000	.000
43382	2297.8	2301.0	3.2	TR	tr	.000	.000
43383	2301.0	2302.2	1.2	TR	tr	.000	.000
43384	2302.2	2305.0	2.8	TR	tr	.000	.000
43385	2305.0	2309.0	4.0	TR	.001	.000	.000
43386	2309.0	2313.0	4.0	TR	tr	.000	.000
43387	2313.0	2317.0	4.0	TR	tr	.000	.000
43388	2317.0	2317.7	.7	1.0%	tr	.000	.000
43389	2317.7	2321.0	3.3	TR	tr	.000	.000
43390	2321.0	2325.0	4.0	TR	tr	.000	.000
43391	2325.0	2326.2	1.2	TR	tr	.000	.000
43392	2326.2	2327.3	1.1	0.5%	tr	.000	.000
43393	2327.3	2328.9	1.6	1.0%	tr	.000	.000
43394	2328.9	2330.5	1.6	1.5%	.001	.000	.000
43395	2330.5	2332.1	1.6	2.0%	tr	.000	.000
43396	2332.1	2334.8	2.7	TR	tr	.000	.000
43397	2334.8	2335.3	.5	2.0%	.004	.000	.000
43398	2335.3	2339.5	4.2	TR	tr	.000	.000
43399	2339.5	2340.1	.6	3.5%	tr	.000	.000
43400	2340.1	2344.0	3.9	0.5%	tr	.000	.000
43401	2344.0	2348.0	4.0	TR	tr	.000	.000
43402	2348.0	2350.0	2.0	0.5%	tr	.000	.000
43403	2350.0	2351.5	1.5	0.5%	tr	.000	.000
43404	2351.5	2352.4	.9	2.0%	tr	.000	.000
43405	2352.4	2353.6	1.2	TR	tr	.000	.000
43406	2353.6	2354.9	1.3	0.5%	tr	.000	.000
43407	2354.9	2358.5	3.6	1.0%	tr	.000	.000
43408	2358.5	2361.5	3.0	2.5%	.001	.000	.000
43409	2361.5	2365.0	3.5	0.5%	tr	.000	.000

From (ft)	To (ft)	Geology
		carbonated gabbro, possibly tuffaceous material and beige coloured qtz/carb material(wkly sericitic?) Generally non-calcitic in this interval; some spotty background py, elevated conc's in veining/banding; faults as follows: zone around 2330- 4 in crushed gougy section @ 25-30 DTCA; fault at 2330.9- 1/2 in gritty gouge @ 50 deg; strong gougy shears at 2334.5 @ 70 DTCA; fault at 2350.7- 1/4 in talcy gouge at 55 DTCA; symmetrical fold in a 1 in siliceous band at 2336.8 ft- AP @ 60 DTCA, FA appears roughly perp to CA; strong shear at 2276.5 at ~30 deg.
		2353.6 to 2371.8- a well foliated interval w/ a banded appearence; consists of intercalated blue-black bands, and pale brown sections which appear to be altered/carbonated gabbro as described uphole. These units are in turn xcut by pale reddish brown ?syenitic (and poss 1 MI) dykelets commonly w/ sharp contacts at 45 to 50 DTCA. The individual intervals range from 2 to 14 in long w/ many at around 6-8 in length. A variably magnetic, calcitic interval; variably mineralized w/ spotty py; wkly hematized and locally wkly siliceous foliation at 40 to 50 DTCA.
		2371.8 to 2374.9- a dk grey mottled unit; brecciated?; possibly a carbonated gabbro which is highly deformed and silicified/hematized. Progressing downhole, the breccia texture grades into a mottled/foliated domain which in turn grades into a more uniform grey-green lithology at 2374. Hard, wkly hematized w/ diss and subhedral spotty py; foliated at 30-40 DTCA; non-calcitic.
		2374.9 to 2380.4- a dk grey slightly gritty unit, w/ a wk olive green cast; wkly magnetic and non-calcitic; wkly foliated at about 40 deg to CA; intercalated w/ minor amounts of soft blue-black u/mafic material. Hard and slightly chloritic; possibly a tuffaceous band; mod mineralized w/ spotty and diss py.
		2380.4 to 2383.6- felsite? dyke; pale grey bown in colour, very hard and well mineralized w/ very subtle internal breccia? textures; fne carb speckling although non-calcitic; wkly hematized in matrix and around v fn healed fractures(generally at 40 to 50 DTCA) the sulphide is finely diss and cubic py up to 1 mm across. Sharp cnts at 70/40 DTCA.
		2383.6 to 2423.0- prodom u/mafic lithology w/ a few beds? of grey green gritty material similar to that above at 2374 to 2380; heavily carbonated and xcut by irreg white carb-qtz veining(generally barren); becoming wkly calcitic below 2400 ft; extensive ground and lost core below 2389 ft; hole encountered a fault zone which halted drilling; fault at 2385.4 at 45 DTCA w/ 1/2 in gouge; fault at 2388.5 at 40 de w/ 1/4 in gouge.
		2389.0 2423.0 Fault Zone.
		2389.3 to 2398.0- Lost Core.
		2398.0 to 2403.0- scattered gougy faults at about 55 DTCA.
		2403.0 to 2408.0- Lost Core.

Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T
43410	2365.0	2369.0	4.0	3.0%	tr	.000	.000
43411	2369.0	2371.8	2.8	1.0%	tr	.000	.000
43412	2371.8	2374.9	3.1	3.5%	tr	.000	.000
43413	2374.9	2377.5	2.6	2.0%	tr	.000	.000
43414	2377.5	2380.4	2.9	0.5%	.001	.000	.000
43415	2380.4	2383.6	3.2	3.0%	tr	.000	.000
43416	2383.6	2388.0	4.4	0.5%	.001	.000	.000
43417	2388.0	2389.3	1.3	TR	.002	.000	.000
99999	2389.3	2398.0	8.7	LC	.000	.000	.000
43418	2398.0	2403.0	5.0	TR	.003	.000	.000
99999	2403.0	2408.0	5.0	LC	.000	.000	.000
43419	2408.0	2414.0	6.0	TR	.001	.000	.000
99999	2414.0	2418.0	4.0	LC	.000	.000	.000
43420	2418.0	2423.0	5.0	TR	.003	.000	.000

From (ft)	To (ft)	Geology	Sample No.	From (ft)	To (ft)	Len (ft)	PY %	AU OZ/T	AU1 OZ/T	AU2 OZ/T

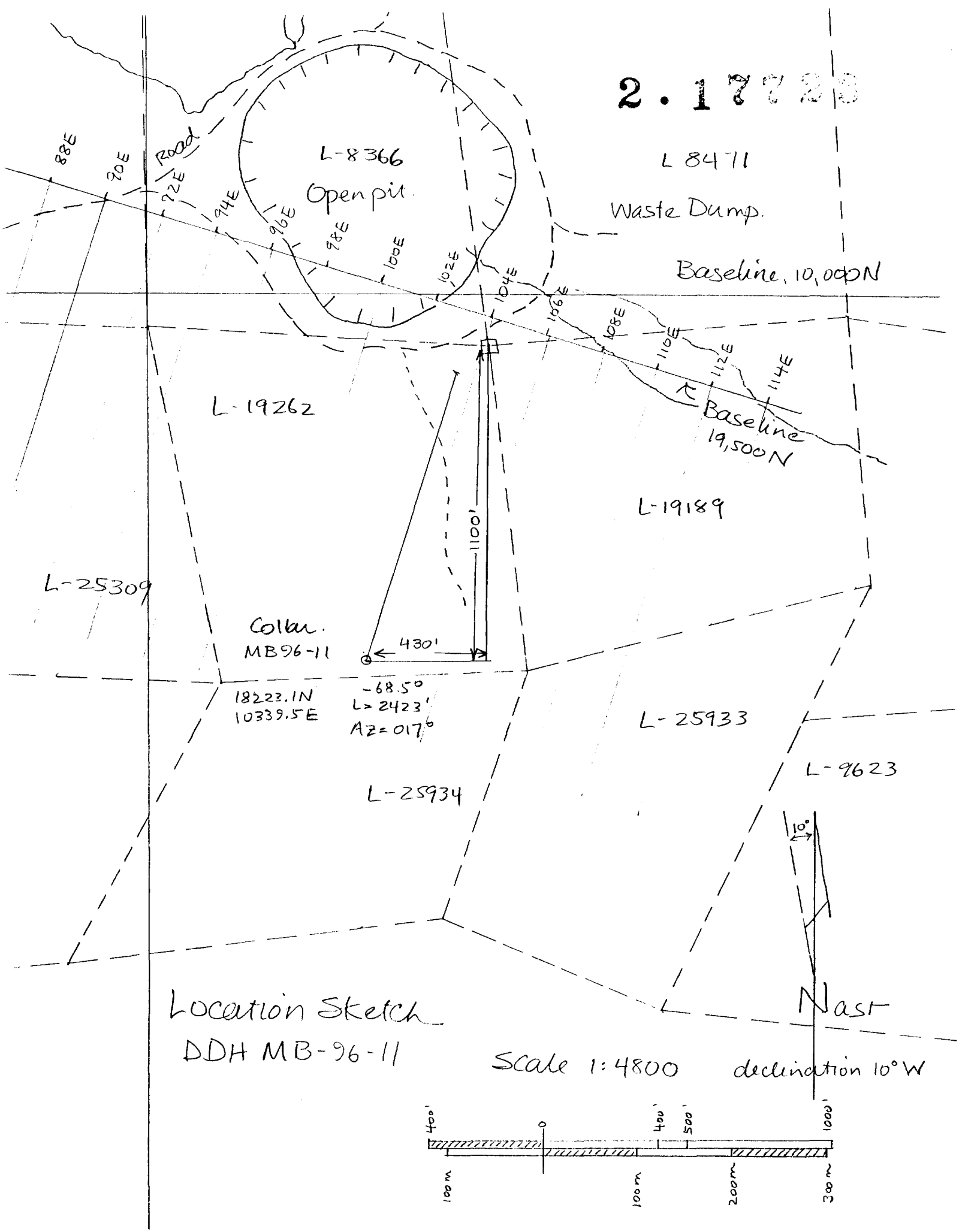
2408.0 to 2414.0- scattered carb-qtz veining w/ highly deformed carb veining -banding; fault at 2410.5 at about 35 deg; 1 in gouge.

2414.0 to 2418.0- Lost Core.

2418.0 to 2423.0- rubbly broken core, 2 feet of lost core.

Hole was stopped at 2324 because of adverse ground conditions- faulted/sandy seam area. The drillers were unable to pass through this area w/ BQ rods. The hole was then reamed to NQ size with the intention of wedging at 2300 and drilling through the bad ground with NQ rods. The hole was subsequently reamed N to 821 feet, where the reamer bits wandered off the original hole. The hole was then abandoned.

End of Hole- 2423.0 feet.


2.17723
L 8471
Waste Dump.
L-8366
Open pit.
Road
88E
70E
72E
94E
96E
98E
100E
102E
104E
106E
108E
110E
112E
114E
Baseline, 10,000N
Baseline
19,500N
L-19262
L-19189
L-25309
L-25933
L-25934
L-9623
1100'
430'
Collar.
MB96-11
18223.1N
10339.5E
-68.5°
L=2423'
AZ=017°
10°
N ast
Location Sketch
DDH MB-96-11
Scale 1:4800
declination 10°W
400'
0
400
500
1000
100m
100m
200m
300m

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use)
W9790.01052
Assessment Files Research Imaging

97-8

Personal information collected on this form is obtained under the authority of subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, the information is a public record. This information will be used to ... vork and correspond with the mining land holder. Questions about this ... Northern Development and Mines, 6th Floor, 933 Ramsey Lake Roa

32D04NW0389 2.17723 GAUTHIER

Instructions: - F ... 900 , use form 0240.
- F ...

RECEIVED
OCT 20 1997 11:10
GEOSCIENCE ASSESSMENT OFFICE

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

Name: Queenston Mining Inc	Client Number: 185109
Address: Suite 1116	Telephone Number: 416 364-0001
111 Richmond St. W. Toronto, Ont. M5H 2G4	Fax Number: 416 364-5098
Name: Robert A MacGregor & Skead Holdings Ltd	Client Number: 162287 + 194897
Address: 28 Ford St.	Telephone Number: 705-949-4250
Sault Ste Marie Ont P6A 4N4	Fax Number: 705-949-2427

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

☐ Geotechnical: prospecting, surveys, assays and work under section 18 (regs)
☒ Physical: drilling, stripping, trenching and associated assays
☐ Rehabilitation

		Office Use
Work Type: Diamond Drilling		Commodity
		Total $ Value of Work Claimed
Dates Work Performed: From 28 (Day) 11 (Month) 1996 (Year) To 7 (Day) 10 (Month) 1997 (Year) — WB		NTS Reference
Global Positioning System Data (if available)	Township/Area: Gauthier	Mining Division: Larder Lk.
	M or G-Plan Number: G-3211	Resident Geologist District

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)

Name: Murray McGill, Project Geologist.	Telephone Number: 705 567-4377
Address: Queenston Mining Inc c/o PO Box 996, Kirkland Lake, Ont. P2N 3L1	Fax Number: 705 567-4426
Name: Benoit Diamond Drilling Ltd.	Telephone Number: 819 824-9107
Address: 1701, Rue de L'Hydro, Val d'Or, Quebec J9P 4P8	Fax Number: 819 825-0784
Name: Accurassay Laboratories	Telephone Number: 705 567-3361
Address: P.O. Box 426 Kirkland Lake, Ont. P2N 3J1	Fax Number: 705-568-8368

2.17723

4. Certification by Recorded Holder or Agent

I, Wayne Benham (Print Name), do hereby certify that I have personal knowledge of the facts set 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: W Benham		Date: Oct 14/97
Agent's Address: c/o Queenston Mining Inc Toronto, Ont.	Telephone Number: 416 364-0001	Fax Number: 416 364-5098

Deemed Jan 18/98

0241 (02/96)

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	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8, 892	$ 4,000	0	$4,892
1	~~G8000704~~ L 19262	1	$70,079	←	18,270	51,809
2	L 1046094	1	—	17	—	—
3	L 1046095	1	—	373	—	—
4	L 1202539	1	—	938	—	—
5	L 1202540	1	—	938	—	—
6	L 1202543	2	—	1548	—	—
7	L 1203499	1	—	734	—	—
8	L 1205549	2	—	2332	—	—
9	L 1206419	1	—	1100	—	—
10	L 1206420	1	—	1090	—	—
11	L 1180405	1	—	1200	—	—
12	L 1180406	5	—	4000	—	—
13	L 1180408	3	—	2400	—	—
14	L 1180409	2	—	1600	—	—
15						
		Column Totals	70,079	18,270	18,270	51,809

I, Robert MacGregor (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 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: [signature] Date: Oct 14/97

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	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use)
W9780.01052

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
Diamond Drilling	2,423 ft / 738.7 m	$25.12/ft $82.39/m	$60,859
Assaying	343 samples Au	$12.30/sample	4,220
Core logging and drill supervision, drill log	20 days	$250/day	5,000
Associated Costs (e.g. supplies, mobilization and demobilization).			
Transportation Costs			
Food and Lodging Costs			
		Total Value of Assessment Work	$70,079

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GEOSCIENCE ASSESSMENT OFFICE

2.17723

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:

TOTAL VALUE OF ASSESSMENT WORK × 0.50 = 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 Benham (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 Agent (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature	Date
W. Benham	Oct 14/97

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

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

Telephone: (888) 415-9846
Fax: (705) 670-5881

January 15, 1998

Wayne Benham
QUEENSTON MINING INC.
1116-111 RICHMOND STREET WEST
TORONTO, ONTARIO
M5H-2G4

Dear Sir or Madam:

Submission Number: 2.17723

Subject: Transaction Number(s):		**Status**
	W9780.01052	Deemed 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.

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

Yours sincerely,

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 11759

Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.17723

Date Correspondence Sent: January 15, 1998 **Assessor:** Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9780.01052	19262	GAUTHIER	Deemed Approval	January 14, 1998

Section:
16 Drilling PDRILL

Correspondence to:

Resident Geologist
Kirkland Lake, ON

Assessment Files Library
Sudbury, ON

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

Wayne Benham
QUEENSTON MINING INC.
TORONTO, ONTARIO

ROBERT ALLAN MACGREGOR
SAULT STE. MARIE, Ontario

Correspondence ID: 11759

Ontario Ministry of Natural Resources

Ministry of Northern Development and Mines

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INDEX TO LAND DISPOSITION

PLAN

G-3211

TOWNSHIP

GAUTHIER

M.N.R. ADMINISTRATIVE DISTRICT

KIRKLAND LAKE

MINING DIVISION

LARDER LAKE

LAND TITLES/REGISTRY DIVISION

TIMISKAMING

Scale 1:20 000

Metres 1000 0 1000 2000 Metres

Feet 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 Feet

Contour Interval 10 Metres

SYMBOLS

- Boundary
- Township, Meridian, Baseline
- Road allowance; surveyed
- shoreline
- Lot/Concession; surveyed
- unsurveyed
- Parcel; surveyed
- unsurveyed
- Right-of-way; road
- railway
- utility
- Reservation
- Cliff, Pit, Pile
- Contour
- Interpolated
- Approximate
- Depression
- Control point (hdrizontal)
- Flooded land
- Mine head frame
- Pipeline (above ground)
- Railway; single track
- double track
- abandoned
- Road; highway, county, township
- access
- trail, bush
- Shoreline (original)
- Transmission line
- Wooded area

DISPOSITION OF CROWN LANDS

- 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)
- Cancelled
- Reservation
- Sand & Gravel

AREAS WITHDRAWN FROM DISPOSITION

MRO - Mining Rights Only

SRO - Surface Rights Only

M + S - Mining and Surface Rights

Description	Order No.	Date	Disposition	File
TOWNSITE STAKING RESTRICTED S.S, 30(B) MINING ACT				
BARRICK POWER LINE (APPLICATION PENDING UNDER PUBLIC LANDS ACT)				

DATE OF ISSUE

JAN 1 3 1998

PROVINCIAL RECORDING OFFICE - SUDBURY

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.

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE

TIMISKAMING MANAGEMENT UNIT

AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT:

P.O. BOX 129
SWASTIKA, ONT.
P0K 1T0
705-642-3222

ARCHIVED JULY 28, 1995

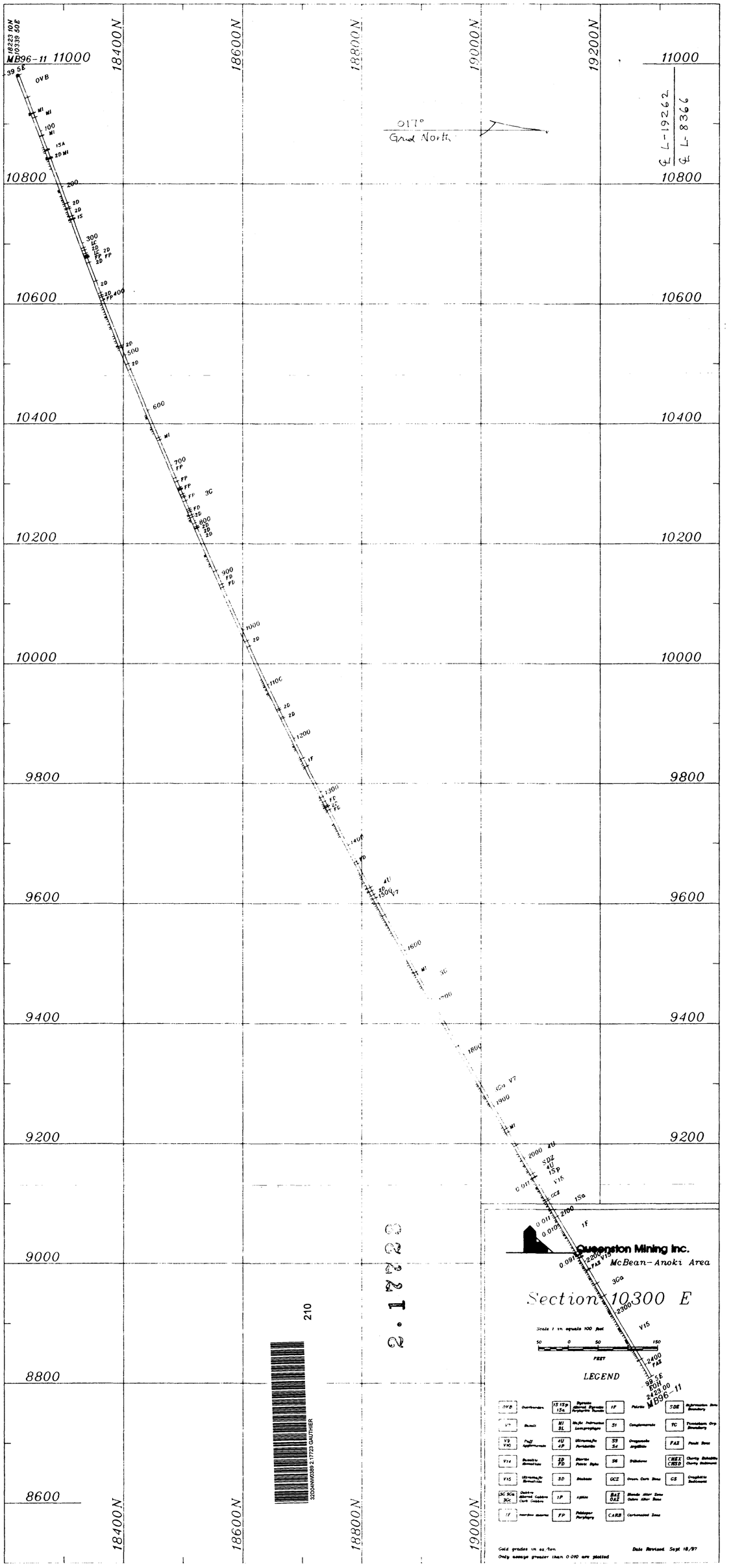
ARCHIVED AUGUST 28/97.

CIRCULATED JANUARY 25, 1995 ML

Map base and land disposition drafting by Surveys and Mapping Branch, Ministry of Natural Resources.

The disposition of land, location of lot fabric and parcel boundaries on this index was compiled for administrative purposes only.

G-3211 GAUTHIER TWP. G-3211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19000N
19200N
10800
10600
10400
10200
10000
9800
9600
9400
9200
9000
8800
8600
017°
Grid North
GL-19262
GL-8366
Queenston Mining Inc.
McBean-Anoki Area
Section 10300 E
Scale 1 cm equals 100 feet
FEET
LEGEND
Gold grades in oz./ton
Only samples greater than 0.010 are plotted
Date Revised: Sept 18/97
210
32DDANW0389 2.17723 GAUTHIER