53B09SW0012 W9430.00052 ZEEMEL LAKE

PROJECT-506-MUSSELWHITE
1993 DRILLING RESULTS
HOLE 506-615 TO 506-635

DRILL HOLE RECORD

Northing: 10100.12
Easting: 8989.96
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -59.25

Hole Length: 419
Core Size: NQ
Date Started: FEB. 8, 1993
Logged by: B.J. McKay

*** Depth	Dip Tests Azi.	*** Dip
7.6	230.5	-60.0
15.2	230.5	-60.0
30.5	230.6	-59.5
38.1	230.7	-59.3
45.7	230.8	-58.8
53.3	229.7	-58.8
61.0	229.8	-58.3
68.6	228.7	-58.0
76.2	228.5	-57.8
83.8	227.9	-57.8
91.4	228.0	-57.5
99.1	226.9	-57.3
106.7	227.0	-56.8
114.3	225.8	-56.3
121.9	224.7	-56.0
129.5	224.6	-55.7
137.2	224.6	-55.3
144.8	224.5	-55.0
152.4	224.4	-54.7
167.6	224.1	-54.0
182.9	223.5	-54.0
198.1	224.1	-54.0
213.4	224.1	-54.0
228.6	224.1	-54.0
243.8	224.1	-53.0
259.1	223.4	-52.5
274.3	224.7	-52.5
289.6	223.4	-52.5
304.8	222.2	-52.5
320.0	220.8	-52.5
335.3	221.9	-52.5
350.5	221.7	-52.5
365.7	221.5	-51.5
381.0	220.7	-51.5
396.2	220.4	-50.0

Drill Hole: 506-615

Northing: 10100N
Easting: 8990E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10100N
Completed: FEB. 17, 1993
Date(s) Logged: FEB. 12-18, 1993

Claim: Pa529826: 171.0m; Pa529500: 248.0m
Comments: 66mW, 277.3mS to WP of #1 post, Claim# Pa529500
Purpose: to test C, T and WA Zones. (Intersected S, C, T & WA ZONES).

From (m)	To (m)	Geology
		REVISED LOG, 22 APRIL, 1993. Includes assay data. Includes revised Gyro-dip data. Missing sample numbers (STANDARDs and BLANKs) are listed at the end of the drill log.

From (m)	To (m)	Geology
		HIGH-LIGHTS of 506-615:. S-ZONE: C-ZONE: T-ZONE: Includes: WA-ZONE: All fold orientations are looking southward, up plunge. This orientation is the same as the strip log.
.0	20.6	OVERBURDEN 0.00 21.3 Casing. 0.00 1.4 Ice & Water. 1.4 12.2 Sand and gravel. 12.2 20.65 Sand, gravel and boulders. 20.65 21.3 Bedrock. NORTHERN IRON FORMATION: 20.65m -54.55m.
20.6	24.2	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, black, non-magnetic. Moderately developed foliation. Averages 20 dca. Occasional fracture parallel to foliation. Occasional fracture perpendicular to foliation. Locally weak to moderate carbonatization. Occasional boudinaged, translucent white, quartz-carbonate veinlet. 21.0 22.0 BVOL. 22.0 24.2 10-20% garnets, aligned 20 dca. 22.0 23.0 BVOL. 22.9 3 cm quartz-carbonate vein, with minor sericite, 30 dca. 23.0 24.2 BVOL. 23.1 1 cm py-qtz-carb seam 25 dca. Lower contact, sharp, irregular, 27 dca.
24.2	26.7	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Fine grained, black, white, hard to very hard, moderately to strongly magnetic. Well developed bedding / foliation, locally disrupted and distorted. Strong grunerite alteration. Locally boudinaged chert beds up to 3 cm thick. 3-5% Garnets up to 5 mm across. Numerous rusted fractures parallel to bedding. Lower contact, sharp, rusted, 37 dca. 24.2 25.0 4BE. 25.0 26.0 4BE. 26.0 26.7 4BE, s grun.

From (m)	To (m)	Geology
26.7	36.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to 20.65-24.2. Moderately developed foliation, 35 dca locally disrupted and micro-faulted. Numerous fractures, two sets: parallel and perpendicular to foliation. Pervasive moderate carbonatization. 3-5% Quartz-carbonate seams. Perpendicular and parallel to foliation. Perpendicular set appear to be healed joints. 27.9 Fault: broken, sheared minor chloritic gouge. Lower contact : faulted, with 3-5 cm chloritic alteration halo, 37 dca. 35.0 36.0 BVOL. 1% 1 mm quartz-calcite stringers.
36.0	38.3	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Similar to 24.2-26.7. Chert layers up to 3-5 cm thick, locally boudinaged, fractured with chl-py matrix. 3-10% Garnets. Moderate developed bedding, 27 dca. Local weak carbonatization. Sulphide content, quartz veining and quartz flooding as noted. 36.0 37.0 Brecciated chert beds with 5-8% chlorite and 1-3% py, as matrix, 10-15% garnets, 3-5% quartz flooding, 2 cm translucent white QUARTZ-VEIN, 37 dca. 36.0 37.0 4BE. 37.0 38.3 From 37.00 to 37.80 barren BVOL. From 37.80 to 38.25 24 with 1% pyrrhotite and 5% quartz stringers.
38.3	43.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. Moderately developed foliation, 37 dca. Locally fractured. 15% Garnets in lower 50 cm. 42.2 Broken section, possible fault. Lower contact, sheared, 22 dca.
43.0	44.2	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Similar to IF above, weakly to moderately magnetic. Upper 45 cm: E beds. Moderately developed bedding, 32 dca. Pervasive moderate carbonatization. Lower contact, sharp, irregular 32 dca.
44.2	49.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. Moderately developed foliation, varies from 30 to 35 dca. Bedding locally, disrupted, fractured and microfaulted. Microfaults and fractures are perpendicular to foliation. Minor quartz veining and flooding up to 2 cm wide. Lower contact, sharp, 32 dca.

From (m)	To (m)	Geology
49.1	54.5	CHERT - MAGNETITE IRON FORMATION 4B. Similar to above Iron Formation. Moderately developed bedding, locally distorted and crenulated, varies between 17 to 50 dca. Weakly to moderately magnetic. Locally weakly to moderately carbonatized. Locally fractured, parallel and perpendicular to bedding. 53.8 54.5 55 cm transcluent black qtz-py with tr. Py. 53.8 54.5 4AB. 54.0 2 cm seam of massive pyrite, 28 dca. Lower contact, 50 dca. END OF NORTHERN IRON FORMATION.
54.5	174.8	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, grey and black, non-magnetic to locally very weakly magnetic. Occasional minute quartz phenocryst. Unit appears to be an intermediate tuff. Moderately developed foliation, 25 to 40 dca. Fractures parallel and perpendicular to bedding : perpendicular set locally smeared with pyrite (<2 mm thick). Pervasive weak carbonatization. Carbonate also in quartz-carbonate veinlets and seams. Occasional quartz-carbonate veins, <2 cm wide and boudinaged veinlets. Silicification and potassic alteration as noted. Very minor biotite. 58.5 59.0 90% qtz veining with minor pyrite and garnet. 58.5 59.0 AVOL. 61.2 64.3 Silicified section, increase in hardness, very fine grained, locally fractured. Numerous translucent white quartz-carbonate veins up to 1 cm wide, locally boudinaged. 65.0 65.3 Silicified section similar to above. Other 20-30 cm silicified sections in remainder of unit, to 110 m. 67.7 67.8 Fault Zone: very fine grained, brownish-white, chert. Extensively brecciated, with a vuggy qtz-carb matrix (3%). Sharp contacts at 40 dca. 72.9 73.9 Extensive potassic alteration, very fine grained, orange-brown, very hard. Alteration is fracture controlled. 73.5 74.5 Local moderate potassic alteration, 10% qtz flooding, locally brecciated, with 1-3% py matrix. 73.5 74.5 AVOL. 74.5 75.4 Similar to to above with vuggy pyrite as matrix in brecciated sections. 74.5 75.4 AVOL. 77.6 Vuggy pyrite cavity, 45 dca, open approx. 1 cm. 78.3 2 cm, brecciated, chert seam with 3% po-py as matrix. 96.0 Foliation, 40 dca. 108.0 108.2 Qtz-carb vein with minor sericite and trace pyrite. 111.0 Foliation, 50 dca. 116.0 Foliation, 43 dca. 120.0 Foliation, 47 dca. 125.0 Foliation, 50 dca. 134.0 Foliation, 54 dca. 135.1 135.5 Ground core ;<40% recovered. 135.5 137.0 LOST CORE. 139.0 143.0 Silicified section with quartz-carbonate veins up to 25 CM WIDE minor pyrrhotite and pyrite as veinlets and seams in qtz veins.

From (m)	To (m)	Geology
		Minor garnets in first 1 meter of interval. Locally, strongly magnetic. 139.3 140.2 AVOL, sild, s grun. 140.0 Foliation, 52 dca. 140.2 141.0 AVOL, sild, s grun. 141.8 142.6 AVOL, sild, s grun. 145.0 Foliation and fractures 52 dca. Perpendicular fractures 50 dca. 146.3 30 CM quartz-carbonate vein, 50 dca. Contacts, sharp, irregular. 150.0 Foliation and fractures, 53 dca. 150.9 151.4 Ground core. 151.6 151.9 Quartz-carbonate vein with silicification of wallrock. 155.0 Foliation and fracture, 55 dca. 155.3 158.0 Section with 2-5% garnet. 160.0 Foliation 50 dca. 161.4 161.8 Section with 2-5% garnet. 162.3 15 cm interval of silicification (and qtz flooding) with minor sericitization. 165.0 Foliation and fractures, 53 dca. Perpendicular fractures, 50 dca. 168.0 174.8 Minor localized silicification, occasional boudinaged quartz-carbonate vein, <1 cm. Trace pyrite and garnet. 170.0 Foliation and fracture, 50 dca. Lower contact, sharp, planar, 50 dca.
174.8	184.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL with 24EA. Fine grained, black, with locally, moderately magnetic 24EA sub-units, up to 1 m thick. Units of BVOL are moderately silicified. Pervasive, weak carbonatization. Trace disseminated pyrrhotite in 24EA sections. 180.0 Foliation and fracture, 62 dca. Lower contact, sharp, 50 dca. 181.3 182.6 24EA.
184.5	186.5	INTRAFORMATIONAL IRON FORMATION 24EA. Fine grained amphibolitic matrix with 5 to 25% coarse grained garnet, weakly to moderately magnetic. Occasional unit of chert up to 8 cm thick. Weakly to moderately developed foliation. Two sets of fractures : parallel and perpendicular to foliation. Weak pervasive carbonatization. Trace to 3% pyrrhotite as disseminations and matrix in micro-brecciated sections. 184.5 185.4 24EA. 185.0 Foliation, 40 dca. Fractures 40 and 50 dca. 185.4 186.4 24EA.
186.5	187.6	BRECCIA ZONE BRECCIA ZONE. Fine grained, dark green, chlorite matrix with 5-8% subrounded and elongated blue white quartz fragments up to 2x.5 cm, 10-15% garnets. Locally, moderate grunerite alteration. Locally micro-brecciated with 1% pyrrhotite.
187.6	192.1	INTRAFORMATIONAL IRON FORMATION 24EA. Similar to above unit. Lower contact, sharp, 55 dca.

From (m)	To (m)	Geology
192.1	198.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL with 24EA. Fine grained, grey, dark green, non-magnetic. Moderately developed foliation, average 40 dca. Locally fractured parallel to core axis. Pervasive weak carbonatization in BVOL. Sub-units of garnet amphibole magnetite chert up to 1.5 medium thick alternating with units of BVOL up to 3.8 medium thick. Weakly to moderately magnetic. 195.0 Foliation, 47 dca.
198.1	198.6	BRECCIA ZONE BRECCIA ZONE. Fine grained, dark green, chlorite matrix with elongated and subrounded bluish-white qtz fragments and creamy-white qtz-carb fragments(30%) up to 3x.75 cm oriented parallel to foliation. Minor biotite. Weak carbonatization.
198.6	208.8	INTERMEDIATE TO MAFIC VOLCANICS BVOL with 24EA. Similar to above. 200.0 Foliation, 60 dca. 203.5 Interflow contact, sharp, 42 dca. Lower contact, gradual over 50 cm, 41 dca.
208.8	288.7	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained to medium grained, black and grey, non to weakly magnetic, locally weakly to moderately magnetic as noted. Occasional sub-units of 24EA as noted. Poor to well developed foliation, averages 30 to 45 dca. Foliation locally crenulated. Fractures parallel to foliation. Occasionally brecciated. Locally carbonatized to pervasive moderate carbonatization. Minor pyrite as matrix in brecciated sections, also as qtz-carb-py seams parallel to foliation. Locally, minor biotite. Occasional quartz-carbonate vein, up to 3 cm wide, also numerous quartz-carbonate seams parallel to foliation. Quartz flooding, as noted. 210.0 Foliation and fracture, 40 dca. 212.2 212.4 Silicified section with brecciated QUARTZ-VEIN and pyrite matrix. 215.0 Foliation and fractures, 47 dca. Perpendicular fractures, 45 dca. 219.7 220.0 Section with 10% garnet, weakly to moderately magnetic, minor quartz flooding. 220.0 Foliation and fracture, 40 dca. 225.0 Foliation and fracture, 33 dca. Perpendicular fracture 18 dca. 228.4 229.5 Silicified section with 10% quartz flooding and minor pyrrhotite. 230.0 Foliation and fracture, 38 dca. Perpendicular fractures, 18 dca. 235.0 Foliation, 30 dca. 237.0 238.0 BVOL. 5% quartz-calcite stringers parallel to foliation. 238.0 240.8 Silicified, with 20% quartz flooding, 5 to 20% garnet, 5% quartz-carbonate veins, trace to 3% pyrrhotite decreasing with depth, to nil. 238.0 239.0 24EA, 20%qf. 239.0 240.0 24EA, 15%qf. 240.0 Foliation, 43 dca.

From (m)	To (m)	Geology
		240.0 240.8 24EA, 20%qf.
		242.0 258.0 Very fine grained to fine grained, grey to brownish-grey, local massive section with moderately developed foliation, non-magnetic Pervasive weak to strong carbonatization. Locally silicified. Occasional quartz flooding up to 25 cm wide, quartz-carbonate veins and seams up to 3 cm wide. Seams are parallel and perpendicular to foliation. The perpendicular set are offset by faulting along the set parallel to foliation.
		243.0 Foliation, 40 dca.
		249.7 Quartz-carbonate seams, 30 and 37 dca.
		249.7 Fractures, 30 and 37 dca.
		255.0 Foliation, 40 dca.
		255.6 25 cm QUARTZ-VEIN, 45 dca.
		260.0 Start of S-ZONE MINERALIZATION:.
		Section with 40 to 60% creamy-white quartz flooding and veining.
		Occasional 4EA sub-unit, up to 1.7 m thick.
		260.0 261.0 BVOL, 20%qf.
		260.0 Foliation, 48 dca.
		260.0 261.0 Strong pervasive carbonatization, minor brecciation.
		261.0 262.0 Strong pervasive carbonatization, minor brecciation.
		261.0 262.0 BVOL, 65%qf.
		262.0 263.0 10% garnets in chloritic (15%) BVOL, weak carbonatization.
		262.0 263.0 BVOL, 40%qf.
		263.0 264.0 30% garnets in chloritic (15%) BVOL and moderately magnetic chert beds (10%).
		263.0 264.0 BVOL, 15%qf.
		264.0 265.0 20% distorted BVOL with strong pervasive carbonatization.
		264.0 265.0 BVOL, 80%qf and qc vng.
		265.0 Foliation and fractures, 40 dca. Perpendicular fractures, 50 dca.
		265.0 266.0 BVOL, 65%qf and qc vng.
		265.0 266.0 35% distorted BVOL with strong pervasive carbonatization.
		266.0 267.0 45% well foliated BVOL with strong pervasive carbonatization.
		266.0 267.0 BVOL, 55%qf and qc vng.
		267.0 268.0 90% brecciated, weakly to moderately magnetic, 4EA bed with 15% translucent white quartz as boudinaged veins and veinlets, 25% garnet, 20% amphibole with minor chlorite, and 3 to 5% pyrrhotite as breccia matrix.
		267.0 268.0 BVOL & 4EA, 10%qf.
		268.0 269.0 Similar to above with 20% translucent white quartz flooding and 8 to 10% pyrrhotite. 15 cm of BVOL in bottom of sample.
		268.0 269.0 4EA.
		269.0 270.0 75% strongly carbonatized, well foliated BVOL.
		269.0 270.0 BVOL, 25%qf.
		270.0 Foliation and fractures, 43 dca. Perpendicular fractures, 50 dca.
		270.0 271.0 BVOL, 20%qf.
		271.0 272.0 BVOL, 20%qf.
		272.0 273.0 BVOL, 20%qf.
		273.0 274.0 BVOL, 40%qf, 13 cm qcbv.
		274.0 275.0 BVOL, 40%qf.
		275.0 Foliation and fractures, 56 dca. Perpendicular fractures, 40 dca.
		275.0 276.0 BVOL, 60%qf and qc vng.
		276.0 End of S-ZONE MINERALIZATION.
		276.0 288.7 Weakly carbonatization, non-magnetic, BVOL.
		280.0 Foliation, 40 dca. Fractures, 40 and 20 dca. The former is offset by the latter, which RUNS SUB-PARALLEL to parallel TO CORE AXIS FOR 1 M.
		281.0 Center of another (the same one?, as above) low angle fracture. Approximately 65 cm long.

From (m)	To (m)	Geology
		285.0 Foliation and fractures, 60 dca. Major Contact at 288.7 medium, sharp, undulating surface, 45 dca.
288.7	299.0	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4BE. 65% B beds, < 3 cm thick, strong grunerite alteration. 35% E beds, < 3 cm thick, local boudinaged, concentrated between 290-292 m, weak grunerite alteration. Very fine grained to fine grained, grey and black, moderately to strongly magnetic. Well developed bedding defined by alternating, 2 to 3 cm thick beds. Bedding, averages 60 dca. Occasional minor folding as noted. Two sets of fractures : one set parallel to bedding, a second set perpendicular to bedding. Locally weak, pervasive grunerite alteration. Nil to weak carbonatization, minor phlogopite. Minor pyrrhotite as irregular seams, locally up to 3%. Occasional translucent white QUARTZ-VEIN up to 3 cm wide, locally boudinaged. 288.7 290.0 4B. 290.0 291.0 4BEA, w grun., 15%qf. 291.0 292.0 4EA, w grun., 5%qf. 291.4 Right limb folding, 50 dca. 292.0 293.0 4B, 5%qf. 293.0 294.0 4B, 3%qf. 294.0 295.0 4B, 3%qf. 295.0 Bedding, 35 dca. 295.0 296.0 4B, 10%qf. 295.6 Right limb folding, 53 dca. 296.0 Bedding, 60 dca. 296.0 297.0 4B, 5%qf. 296.0 Right limb folding, 40 dca. 296.0 299.0 Ground core, (points ground off). All pieces smeared with BRASS FROM INSIDE THE DRILL BIT. Geotechnical data probably not reliable. 297.0 Right limb folding, 50 dca. 297.0 298.0 4B, 5%qf. 298.0 299.0 4B. 298.1 Right limb folding, 45 dca. 298.1 298.3 LOST CORE (into the lake). Lower contact, 47 dca.
299.0	374.6	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA. C-ZONE MINERALIZATION: 299.0m-308.0m. T-ZONE MINERALIZATION: 321.0m-346.0m. WA-ZONE MINERALIZATION: 350.0m-373.0m. 40% B beds up to 5 cm thick, occasional garnets, weak to moderate grunerite alteration. 40% E beds up to 5 cm thick with 50% garnets, weak to moderate grunerite alteration. Unit is competent as evident by high RQD. Unbroken core in lengths of 1 m or more are common. Bedding / foliation poorly developed and distorted to well developed, very weakly magnetic to strongly magnetic. Fractures are predominantly perpendicular to bedding. Distances between fractures of up to 2 m is common. Pervasive weak to moderate grunerite alteration, locally strong. Locally weakly carbonatized.

From (m)	To (m)	Geology
		Nil to 7% pyrrhotite : disseminated, fracture filler and as irregular seams. 20-50% Translucent white and translucent grey quartz flooding, occasional QUARTZ-VEIN. 299.0 Start of C-ZONE MINERALIZATION:. 299.0 300.0 4EAB, w grun., 10%qf. 300.0 Foliation, 33 dca. Fractures 33 and 57 dca. 300.0 301.0 4EA, 5%qf. 301.0 304.0 Amorphous section without definition of beds. 301.0 302.0 4EA. 302.0 303.0 4EA, 40%qf. 302.5 303.1 LOST CORE. 303.0 304.0 4EA, w grun., 40%qf. 304.0 305.0 4EA, w grun., 15%qf. 305.0 306.0 4EA, w grun., 45%qf. 306.0 Foliation, 45 dca. 306.0 307.0 4EA, m grun., 40 cm qv. 307.0 Fracture parallel to foliation, 45 dca. 307.0 308.0 4EA, w grun., 30%qf. 308.0 End of C-ZONE MINERALIZATION. 308.0 309.0 4AE, w grun. 309.0 310.0 4AE, w grun. 310.0 Foliation, 40 dca. 310.0 311.0 4AE, w grun. 311.0 313.0 Ground core, (points ground off). Core smeared with brass from inside drill bit. Geotechnical data is probably unreliable. 311.0 312.0 4AE, w grun. 312.0 313.0 4AE, w grun. 313.0 Foliation, 45 dca. 313.0 314.0 4AE. 314.0 315.0 4AE, w grun. 315.0 Foliation, 37 dca. Perpendicular fracture, 42 dca. 315.0 316.0 4EA, w grun. 316.0 Foliation, 40 dca. Perpendicular fracture, 63 dca. 316.0 317.0 4EA, w grun., 10%qf. 317.0 Foliation, 45 dca. Perpendicular fracture, 60 dca. 317.0 318.0 4EB, w grun., 5%qf. 318.0 Foliation, 40 dca. 318.0 319.0 4EAB, w grun., 5%qf. 319.0 Foliation, 36 dca. 319.0 320.0 4EAB, w grun. 320.0 Foliation, 37 dca. 320.0 321.0 4EAB, w grun., 5%qf. 321.0 Start of T-ZONE MINERALIZATION:. 321.0 322.0 4EA, w grun., 5%qf. 321.0 Foliation, 35 dca. 321.6 Perpendicular fracture, 55 dca. 322.0 Foliation, 45 dca. 322.0 323.0 4E, w-m grun., 5%qf. 323.0 Foliation, 35 dca. Perpendicular fracture, 48 dca. 323.0 324.0 4E, w grun., 5%qf.

From (m)	To (m)	Geology
		324.0 Foliation, 38 dca.
		324.0 325.0 4EB, w grun.
		325.0 Foliation, 40 dca.
		325.0 326.0 4EA, m grun.
		325.9 Perpendicular fracture, 40 dca.
		326.0 Foliation, 40 dca.
		326.0 327.0 4EA, w grun.
		327.0 Foliation, 33 dca.
		327.0 328.0 4EA, w grun., 10%qf.
		328.0 Foliation, 28 dca.
		328.0 329.0 4EBA, m grun., 5%qf.
		329.0 Foliation, 35 dca.
		329.0 330.0 4EBA, w grun., 5%qf.
		330.0 Foliation, 36 dca.
		330.0 331.0 4EB, w grun., 10%qf, 5%qv.
		331.0 Foliation, 37 dca.
		331.0 332.0 4EAB, w grun., 5%qf.
		332.0 Foliation, 35 dca.
		332.0 333.0 4EAB, m grun., 20%qf, tr. Py.
		333.0 Foliation, 37 dca.
		333.0 334.0 4EA, 10%qf.
		334.0 Foliation, 38 dca.
		334.0 335.0 4EB, w grun., 10%qf.
		335.0 Foliation, 38 dca.
		335.0 336.0 4EAB, m grun., 25%qf.
		336.0 Foliation, 31 dca.
		336.0 337.0 4EA, m grun., 15%qf.
		337.0 Foliation, 41 dca.
		337.0 338.0 4E, 5%qf.
		338.0 Foliation, 45 dca.
		338.0 339.0 4EB, w grun., 15%qf.
		339.0 Foliation, 42 dca.
		339.0 340.0 4E, w-m grun., 30%qf.
		340.0 340.5 BVOL.
		Upper contact, sharp, 52 dca.
		Lower contact, sharp, 36 dca.
		340.0 341.0 4EBA(45 cm) with 15%qf, BVOL(55 cm).
		341.0 342.0 4EA, w-m grun., 15%qf.
		342.0 Foliation, 29 dca.
		342.0 343.0 4E, m grun., 50%qf.
		343.0 Foliation, 30 dca.
		343.0 344.0 4BE, w grun., 2%qf.
		344.0 Foliation, 36 dca.
		344.0 345.0 4EB, 15%qf.
		345.0 Foliation, 38 dca.
		345.0 346.0 4EA, m grun., 10%qf, 5%qcv.
		346.0 Foliation, 25 dca.
		346.0 347.0 4EA, m grun.
		346.0 END of T-ZONE MINERALIZATION.
		347.0 Foliation, 29 dca.

From (m)	To (m)	Geology
		347.0 348.0 4E, 20 cm BVOL.
		348.0 Foliation, 28 dca.
		348.0 349.0 4EA, w-m grun., 10%qf, 5%qcv.
		349.0 Foliation, 26 dca.
		349.0 350.0 4EB, w grun., 20%qf.
		350.0 Start of WA-ZONE MINERALIZATION:.
		350.0 351.0 4E, w-m grun., 25%qf.
		350.0 Foliation, 26 dca.
		350.0 Ground core.
		351.0 Foliation, 40 dca. Perpendicular fracture 38 dca.
		351.0 352.0 4E, m grun., 40%qf.
		352.0 353.0 4E, w-m grun., 55%qf.
		353.0 Fault, 58 dca.
		353.0 354.0 4E, w-m grun., 50%qf.
		354.0 Foliation, 40 dca.
		354.0 355.0 4E, m grun., 30%qf.
		355.0 Foliation, 20 dca.
		355.0 356.0 4E, s grun., 40%qf.
		356.0 Foliation, 38. Parallel fracture 50 dca.
		356.0 357.0 4E, w-m grun., 30%qf, 10%qv.
		357.0 Foliation, 34 dca.
		357.0 358.0 4E, m grun., 10%qf.
		358.0 Foliation, 32 dca.
		358.0 359.0 4e, w grun., 5%qf.
		358.7 Perpendicular fracture, 25 dca.
		359.0 Foliation, 22 dca.
		359.0 360.0 4EB, w grun., 5%qf.
		360.0 Foliation, 35 dca. Oblique fracture 18 DEGREES to parallel to core axis.
		360.0 361.0 4E, m grun., 15%qf, 1%qv.
		361.0 Foliation, 40 dca.
		361.0 362.0 4E, w grun.
		362.0 Foliation, 32 dca.
		362.0 363.0 4E, w grun.,.
		363.0 Foliation, 21 dca.
		363.0 364.0 4E, v w grun.
		364.0 Foliation and fracture, 25 dca.
		364.0 365.0 4E.
		365.0 Foliation, 22 dca. Fractures, 33 and 16 dca.
		365.0 366.0 4E.
		366.0 Foliation, 37 dca.
		366.0 367.0 4E, w grun., 1%qv.
		367.0 Foliation, 37 dca.
		367.0 368.0 4EAB, m grun., 1%qcv.
		368.0 Foliation, 30 dca.
		368.0 369.0 4E, 8%qf.
		369.0 Foliation, 28 dca.
		369.0 370.0 4E, 10%qf.
		369.0 Foliation, 28 dca.
		370.0 Foliation, 31 dca.
		370.0 371.0 4E, 5%qf.

From (m)	To (m)	Geology
		371.0 Foliation, 16 dca. 371.0 372.0 4E. 372.0 Foliation, 22 dca. 372.0 373.0 4E, v w grun., 20%qf, 1%qv. 373.0 Foliation, 30 dca. 373.0 374.0 4E. 373.0 END of WA-ZONE MINERALIZATION. 374.0 Foliation, 26 dca. Lower contact, 374.6 m, sharp, 18 dca. 374.0 374.6 4E.
374.6	385.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, blue-grey, very weakly magnetic. Moderately developed foliation, averaging 30 to 50 dca. Two sets of fractures, : one set parallel to foliation the other set perpendicular. The parallel set is offset by the perpendicular set. Pervasive weak carbonatization. 5% Quartz-carbonate vein, up to 1 cm, parallel to foliation. Unit is locally brecciated with quartz-carbonate matrix. Lower contact, sharp, 35 dca. 378.0 Foliation, 30 dca. 378.3 Perpendicular fracture, 25 dca. 378.8 Parallel fracture, 30 dca. 380.0 Foliation, 30 dca. 380.6 Perpendicular fracture, 60 dca. 383.0 Foliation, 52 dca. 385.0 Foliation, 55 dca.
385.4	391.0	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Fine grained, dark grey, 4B beds, up to 2 cm thick. 90-95% 4F beds with 90% garnets up to.5 mm across in A fine grained, black, biotitic matrix. Non-magnetic to very weakly magnetic. Well developed bedding / foliation, varies from 32 to 60 dca. Locally fractured, parallel and perpendicular to bedding. Faulting as noted. Minor quartz flooding with trace pyrrhotite confined to 10 cm at upper contact and 50 cm at lower contact. 385.4 386.0 4BF. 386.0 Foliation and fracture, 42 dca. Perpendicular fracture, 41 dca. 387.0 Foliation, 60 dca. 388.8 Axial plane, right limb folding, 45 dca. 389.0 FAULT ZONE, 22 dca. Lower contact, sharp, 55 dca. 390.0 391.0 4BF.
391.0	396.3	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. 392.0 Foliation, 60 dca. 393.0 Foliation, 32 dca. 395.0 Foliation, 50 dca.

From (m)	To (m)	Geology
		Lower contact, sharp, irregular surface, 45 dca.
396.3	410.8	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Similar to above. 396.3 397.0 4BF, 5%qf. 397.0 Foliation, 34 dca. 399.0 Foliation, 42 dca. 401.0 Foliation, 60 dca. Parallel fracture, 65 dca. 403.0 Foliation, 58 dca. 405.0 Foliation, 67 dca. 406.0 406.65 BVOL, upper contact, sharp, 72 dca. Lower contact, sharp, 57 dca. 405.5 406.0 4BF, 5%qf. 406.0 406.6 BVOL, with narrow, <50 cm wide zones of quartz flooding with pyrrhotite at contacts of the 4BF. 406.6 407.7 4BF, 10%qf. 407.7 408.7 4BF, 10%qf. 408.0 Foliation, 45 dca. 408.7 409.7 4BF, 10%qf. 409.7 410.8 4BF, 10%qf. 410.0 Foliation, 63 dca. Lower contact, sharp, 62 dca.
410.8	414.0	CHERT - MAGNETITE IRON FORMATION 4B With BVOL. Very fine grained to fine grained, grey, strongly magnetic. Well developed bedding. Up to 10% quartz flooding with trace pyrrhotite. Weak grunerite alteration. 410.8 411.7 4BF, 10%qf. 411.0 Bedding, 52 dca. 411.7 412.7 4BF, 10%qf. 413.0 Bedding, 63 dca. 413.2 414.0 BVOL interflow. Lower contact, sharp, 40 dca.
414.0	419.0	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Similar to above. Minor quartz flooding with trace of pyrrhotite. 415.0 Foliation, 70 dca. 416.0 417.0 4BF, 5%qf. 417.0 Foliation, 55 dca. 417.0 418.0 4BF, 5%qf. 418.0 Foliation, 50 dca. 418.0 419.0 4BF, 5%qf.
419.0		END OF HOLE Sludge samples taken (250 m to EOH) and stored on the site. Hole cemented and casing cut-off at 9.1 m.

From (m)	To (m)	Geology
		Plug at 225 m. Used 42 bags of Type 10 cement to seal the hole. 7 Hours required to cement the hole. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DRILLING HISTORY and HOLE CONTROL EQUIPMENT:. 0.00-20.65m: Tricone. 0.00-21.3m: NW casing. 20.65-419.0m: Two hex-corebarrels and MX-10 drill bit. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. SAMPLES USED FOR STANDARDs AND BLANKs:. Note: First two samples are void. E36009A 58.45 59.0 DUPLICATE OF E36009 0.07 NS NS. E36021 VOID. E36022 VOID. E36023 STANDARD I 0.07 ns ns. E36024 BLANK 0.07 ns ns. E36029A 264.0 265.0 DUPLICATE OF E36029 3.91 NS NS. E36041 STANDARD I 7.92 ns ns. E36042 BLANK 0.10 ns ns. E36049A 295.0 296.0 DUPLICATE OF E36049 0.07 NS NS. E36061 STANDARD I 6.79 7.61 ns. E36062 BLANK 0.07 ns ns. E36069A 313.0 314.0 DUPLICATE OF E36069 0.03 NS NS. E36080 STANDARD I 8.09 8.71 ns. E36081 BLANK 0.17 ns ns. E36089A 331.0 332.0 DUPLICATE OF E36089 6.48 NS NS. E36099 STANDARD I 7.20 7.41 NS. E36100 BLANK 0.17 0.17 NS. E36109A 349.0 350.0 DUPLICATE OF E36109 1.23 NS NS. E36118 STANDARD I 7.65 7.99 ns. E36119 BLANK 1.34 ns ns. E36129A 367.0 368.0 DUPLICATE OF E36129 0.38 NS NS. E36139 STANDARD I 7.65 7.92 ns. E36140 BLANK 0.03 ns ns. E36149A 416.0 417.0 DUPLICATE OF E36149 0.38 NS NS. Hole dip tests not used as code 2 data. Code 2 used Gyro-dip (Inrun survey) by CBC WELLNAV, NORTH BAY, ONTARIO. Gyro-dip valid to only 143.0 m. Remainder of hole extrapolated (used Roto-dip values) by WELLNAV surveying program. DEPTH DIP TYPE. 0.00 -61 Brunton. 19.3 -61 Acid. 56.0 -61 Acid. 91.0 -57 Acid. 95.0 -57 Roto-dip. 131.0 -55 Roto-dip.

From (m)	To (m)	Geology
		143.0 -55 Roto-dip. 169.0 -54 Acid. 179.0 -54 Roto-dip. 209.0 -54 Roto-dip. 221.0 -54 Roto-dip. 233.0 -54 Roto-dip. 245.0 -53 Roto-dip. 257.0 -52.5 Roto-dip. 269.0 -52.5 Roto-dip. 281.0 -52.5 Roto-dip. 293.0 -52.5 Roto-dip. 305.0 -52.5 Roto-dip. 317.0 -52.5 Roto-dip. 335.0 -52.5 Roto-dip. 347.0 -52.5 Roto-dip. 371.0 -51.5 Roto-dip. 401.0 -50 Roto-dip. 412.0 -48 Roto-dip. MISCELLANEOUS:. The hole required; 93 NQ core boxes, 151 assay tags, 302 sample bags, and 20 sample boxes for 135 core samples. The average daily temperature, @ 7:00 am, was -22 degrees Celsius.

DRILL HOLE RECORD

Northing: 10050.15
Easting: 8960.76
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -60.50

Hole Length: 374
Core Size: NQ
Date Started: FEB. 9, 1993
Logged by: TIA TENNENT

*** Depth	Dip Tests Azi.	*** Dip
30.5		-61.0
61.0		-61.0
91.0		-60.5
121.0		-60.5
158.0		-60.0
181.0		-58.0
208.0		-56.0
214.0		-56.0
220.0		-55.0
226.0		-56.0
232.0		-55.5
238.0		-55.0
244.0		-54.0
250.0		-54.5
262.0		-54.0
268.0		-55.0
289.0		-53.0
310.5		-53.5
328.0		-53.0
337.0		-52.5
343.0		-52.0
349.0		-52.0
355.0		-52.0
361.0		-52.5
367.0		-52.0

Drill Hole: 506-616
Northing: 10050N
Easting: 8953E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10050N
Completed: FEB. 15, 1993
Date(s) Logged: FEB. 11 TO FEB. 17, 1993

Claim: PA 529826: 213.0 m; PA 529500: 161.0m
Comments: 79.3m W and 220.1m S to WP of #1 post, Claim PA 529500
Purpose: TO TEST C AND T ZONES

From (m)	To (m)	Geology
		NOTE: All references to folding - both right and left limb folds - are looking down the plunge of the deposit (i.e. Northwest).
.0	30.5	OVERBURDEN
30.5	133.2	FELSIC TO INTERMEDIATE VOLCANICS AVOL- Interbedded ash and crystal tuffs. Fine grained. Medium to light grey. Non-magnetic. 3% <2mm feldspar phenocrysts stretched parallel to foliation. Locally garnetiferous. Non-magnetic. Well foliated at 40 to 60 dca. Dominant fracture set subparallel to foliation at 40 to 50 dca. Second set perpendicular to foliation at 50 to 60 dca. Locally calcareous. Fracture selvages locally silicified and/or potassic altered. Pervasive and lighty banded weak to moderate sericite and biotite alteration. Occasional zone of chloritic enrichment up to 30cm. Barren to trace pyrite. 3% Quartz and quartz-carbonate stringers parallel to foliation. Lower contact sharp at 50 dca.

From (m)	To (m)	Geology
		31.0 Foliation 45 dca. Fractures subparallel to foliation at 30 dca. 32.8 32.9 FAULT GOUGE. 60 dca. 33.3 33.5 FAULT GOUGE. 45 dca. 33.5 33.6 10 cm QUARTZ-VEIN. Lower contact at 45 dca. 40.0 Foliation 46 dca. Fractures parallel to foliation at 40 dca. 50.0 Foliation 30 dca. Fractures parallel to foliation at 30 dca. 60.0 Foliation 40 dca. Fractures parallel at 40 dca and perpendicular at 60 dca. 64.0 67.5 Weakly bleached. 80.0 Foliation 60 dca. Fractures parallel at 60 dca. 83.5 85.3 Zone of 65% quartz veining. Trace pyrrhotite. Contacts parallel to core axis at 40 degrees. 83.5 84.4 50% quartz veining with trace pyrrhotite. 84.4 85.3 80% quartz veining with trace pyrrhotite. 85.3 133.2 Ash tuff. Moderate sericite banding. 93.1 94.6 90% quartz-sericite-minor calcite veining. 100.0 Foliation 45 dca. Fractures parallel at 45 dca. 105.0 Fractures perpendicular to foliation at 50 dca. 110.0 Foliation 50 dca. 115.0 123.1 1% disseminated pyrrhotite. 2% to 5% anhedral garnets. Foliation 55 dca. Fractures parallel to foliation at 65 dca. 123.2 125.3 30% irregular quartz-carbonate-sericite veining with up to 1% pyrrhotite. 123.2 124.2 30% irregular quartz-carbonate-sericite veining. 5% tourmaline. 124.2 125.3 30% irregular quartz-carbonate-sericite veining.
133.2	159.6	GARNETIFEROUS BASALT GtB. Fine grained to medium grained, dark grey. Up to 30% 1 mm to 5 mm anhedral to subhedral garnets, pervasive to locally banded to 4 cms in a biotite-muscovite- amphibole-chlorite matrix. Locally up to 5% 1 mm brown staurolite crystals. Moderately hard to soft. Weakly magnetic. Well foliated at 45 dca. Dominant fracture set subparallel to foliation. Second set perpendicular at 50 dca. Barren to trace pyrrhotite. 1% Quartz stringers up to 3 cm wide. Parallel to foliation. Barren. Lower contact at 45 dca. 135.0 Foliation 60 dca. Fractures parallel to foliation at 65 dca and perpendicular at 50 dca. 140.0 150.0 Foliation 45 dca. 148.9 149.4. Contacts sharp at 55 dca. 155.9 156.1. Contacts sharp at 42 dca.
159.6	198.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Moderately hard. Non-magnetic. Finely foliated at 40 to 55 dca. Dominant fracture set parallel to foliation at 45 dca. Second minor set at 60 dca. Often calcite-filled. Weak pervasive chlorite alteration. Minor pervasive and finely laminated biotite alteration. Very weak carbonatization. Trace disseminated pyrite. 1% Wispy quartz-calcite stringers parallel to foliation. Barren. Lower contact sharp at 40 dca. 160.0 Foliation 50 dca. Fractures parallel to foliation at 45 and perpendicular at 40 dca. 170.0 Foliation 54 dca. Fractures parallel to foliation at 48 and perpendicular at 60 dca.

From (m)	To (m)	Geology
		180.0 Foliation 45 dca. Fractures parallel to foliation at 45 and perpendicular at 55 dca. 190.0 Foliation 40 dca. Fractures parallel at 40 dca. 193.6 194.4. Garnetiferous. Bedding at 45 dca. 1% disseminated pyrrhotite. 5% quartz veining parallel to bedding. Right limb folding looking down-plunge with axial plane at 47 dca. Micro-shears parallel to axial plane. 195.6 196.1. Similar to 193.60 to 194.40.
198.5	201.6	INTRAFORMATIONAL IRON FORMATION AND INTERMEDIATE TO MAFIC VOLCANICS 70% 24B, 30% BVOL. 70% 24B Beds with 20% 2 mm to 10 mm amorphous garnets. Moderately gruneritized. Moderately magnetic. Bedding moderately well developed at 35 dca. 2% disseminated pyrrhotite. 1% quartz stringers parallel to foliation. 30% BVOL. Contacts sharp at 45 dca. 198.5 200.0 24B, BVOL. 200.0 201.6 24B, BVOL.
201.6	237.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Hard. Non-magnetic. Foliation at 40 to 45 dca. Minor fractures parallel to foliation at 45 dca and perpendicular at 65 dca. Weak chlorite and biotite alteration. Weakly calcareous. Barren to trace pyrrhotite. <1% quartz stringers irregular and parallel to foliation. Minor units of 24EA. Weakly magnetite. Bedding disrupted. Strongly silicified and calcareous. Lightly gruneritized with 20% pyrrhotite, 1% chalcopyrite and 20% quartz stringers and quartz flooding. Lower contact sharp at 30 dca. 205.1 205.6 BVOL. 205.6 206.3 24EA. 1% chalcopyrite. 20% quartz stringers and quartz flooding. Moderate grunerite alteration. 206.3 207.5 BVOL. 5% quartz stringers. 207.5 208.4 24EA. 1% chalcopyrite. 20% quartz stringers and quartz flooding. Moderate grunerite alteration. 208.4 208.9 BVOL. 210.0 Foliation 45 dca. Fractures parallel to foliation at 45 dca. 220.0 Foliation 40 dca. Fractures perpendicular at 55 dca. 226.0 230.5 10% quartz-calcite stringers parallel to foliation. Trace pyrrhotite. 226.0 227.5 BVOL. 10% quartz stringers with trace pyrrhotite. 227.5 229.0 BVOL. 10% quartz stringers with 3% pyrrhotite. 229.0 230.5 BVOL. 5% quartz stringers with 3% pyrrhotite. Minor tourmaline. 230.0 Foliation 30 dca. Fractures perpendicular at 65 dca. 232.6 237.1 10% quartz-calcite stringers parallel to foliation. 233.3 233.4 5% pyrrhotite. Left limb folding looking down-plunge with axial plane at 43 dca. 236.0 237.1 BVOL. 7% quartz-calcite stringers parallel to foliation.
237.1	262.2	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EAB. 50% Dark grey 4b beds. 5 mm to 2 cm wide. Strongly magnetic. 50% 4eab Beds. 5 mm to 3 cm wide. 30% 2 mm to 1 cm anhedral garnets, moderately gruneritized. Strongly magnetic. Bedding ranges from 12 to 40 dca. Folding throughout unit with axial planes at 27 to 50 dca. Dominant fracture set perpendicular to bedding at 55 to 60 dca.

From (m)	To (m)	Geology
		1% to 10% boudinaged quartz stringers parallel to bedding. 1% to 10% wispy, disseminated and stringer pyrrhotite parallel to bedding. Lower contact sharp at 15 dca. 237.1 238.0 4eab. 5% boudinaged quartz stringers. Moderate grunerite. 238.0 239.0 4eab. 3% boudinaged quartz stringers. Moderate grunerite. Bedding 30 dca. 239.0 240.0 4eab. 1% boudinaged quartz stringers. Moderate grunerite. Bedding 30 dca. 240.0 241.0 4eab. 2% boudinaged quartz stringers. Moderate grunerite. 240.6 262.2 Zone of left limb folding looking downplunge with axial planes at 27 to 50 dca. 240.6 Left limb folding looking downplunge with axial plane at 27 dca. 241.0 242.0 4eab. 2% boudinaged quartz stringers. Moderate grunerite. 241.2 Left limb folding looking downplunge with axial plane at 42 dca. 242.0 243.0 4eab. 5% boudinaged quartz stringers. Moderate grunerite. 242.9 Left limb folding looking downplunge with axial plane at 40 dca. 243.0 244.0 4eab. 5% boudinaged quartz stringers. Moderate grunerite. 244.0 245.0 4eab. 2% boudinaged quartz stringers. Moderate grunerite. 244.1 Left limb folding looking downplunge with axial plane at 50 dca. 245.0 246.0 4eab. 1% boudinaged quartz stringers. Moderate grunerite. Bedding 15 dca. 246.0 247.0 4eab. 3% boudinaged quartz stringers. Moderate grunerite. 247.0 248.0 4eab. 5% boudinaged quartz stringers. Moderate grunerite. Bedding 15 dca. 248.0 249.0 4eab. 10% boudinaged quartz stringers. Moderate grunerite. 249.0 250.0 4eab. 5% boudinaged quartz stringers. Moderate grunerite. 249.5 Left limb folding looking downplunge with axial plane at 49 dca. D63721 BLANK 0.032 NS NS. D63722 BLANK 0.044 NS NS. 250.0 251.0 4eab. 8% boudinaged quartz stringers. Moderate grunerite. Bedding 13 dca. 251.0 252.0 4eab. 25% boudinaged quartz stringers. Bedding 12 dca. 252.0 253.0 4eab. 5% boudinaged quartz stringers. Bedding 12 dca. 253.0 Left limb folding looking downplunge with axial plane at 35 dca. 253.0 254.0 4eab. 20% boudinaged quartz stringers. Bedding 20 dca. 254.0 255.0 4eab. 15% boudinaged quartz stringers. Bedding 20 dca. 255.0 256.0 4eab. 5% boudinaged quartz stringers. Bedding 30 dca. 256.0 257.0 4eab. Bedding 41 dca. 257.0 258.0 4eab. 1% boudinaged quartz stringers. Bedding 30 dca. 258.0 Left limb folding looking downplunge with axial plane at 25 dca. D63742 BLANK 0.034 NS NS. D63743 BLANK 0.028 NS NS. 258.0 259.0 4eab. 5% boudinaged quartz stringers. Bedding 40 dca. 259.0 260.0 4eab. 15% boudinaged quartz stringers. Bedding 40 dca. 260.0 261.0 4eab. 1% boudinaged quartz stringers. Bedding 25 dca. 261.0 262.2 4eab. 1% boudinaged quartz stringers. Bedding 20 dca.
262.2	263.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Lower contact broken. 262.2 263.0 BVOL.
263.0	267.5	CHERT - MAGNETITE IRON FORMATION 4b. Finely banded, light grey and dark grey. Minor garnetiferous beds with 5% garnets. Strongly magnetic. Weakly gruneritized along selvages of

From (m)	To (m)	Geology
		some magnetite beds. Bedding ranges from 0 to 7 dca. At 263.80 Folding with axial plane at 28 dca. Rare fracture perpendicular to bedding at 60 dca. Barren. Lower contact gradual. 263.0 264.0 4b. Weak grunerite. Bedding 5 dca. 264.0 265.0 4b. Weak grunerite. Bedding 10 dca. 265.0 266.0 4b. Weak grunerite. Bedding 0 dca. 266.0 267.0 4b. Bedding 7 dca. 267.0 267.5 4b. Bedding 15 dca.
267.5	299.1	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. 50% Light grey chert and/or chert-magnetite beds. 1 mm to 2 cm wide. 50% 4eab Beds with 30% 1 mm to 1 cm amorphous garnets. Moderate to strong grunerite alteration. Bedding moderately to well developed at 15 to 45 dca. Bedding indistinct in zones of quartz flooding. Dominant fracture set perpendicular to bedding at 55 dca. Second set subparallel to foliation at 24 dca. 1% to 30% wispy, stringer and disseminated pyrrhotite. Trace chalcopyrite and ARSENOPYRITE. Minor specks of VISIBLE GOLD. 1% to 50% quartz flooding and quartz stringers parallel to foliation. Higher concentrations of pyrrhotite are found in zones with increased quartz flooding and quartz stringers. Lower contact sharp at 26 dca. 267.5 268.0 4eab. 5% quartz stringers. Moderate grunerite. Bedding 15 dca. 268.0 269.0 4eab. 15% quartz stringers. Moderate grunerite. Bedding 20 dca. 269.0 270.0 4ea. 50% quartz flooding. 2 specks VISIBLE GOLD. 1% chalcopyrite. Weak grunerite. Bedding 20 dca. 270.0 271.0 4ea. 60% quartz flooding. 5 specks VISIBLE GOLD. Trace chalcopyrite. Moderate grunerite. Bedding 30 dca. 271.0 272.0 4eab. 5% quartz stringers. Weak grunerite. Bedding 30 dca. 272.0 273.0 4eab. 1% quartz stringers. Weak grunerite. Bedding 25 dca. D63761 BLANK 0.07 NS NS. D63762 BLANK 0.17 NS NS. D63769A 282.0 283.0 DUPLICATE OF D63769 4.49 NS NS. 273.0 273.6 BVOL. 273.6 274.0 4eab. 1% quartz stringers. 274.0 275.0 4eab. 3% quartz stringers. Moderate grunerite. Bedding 26 dca. 275.0 276.0 4eab. 60% quartz flooding. 5 specks VISIBLE GOLD. Moderate grunerite. Bedding 29 dca. 276.0 277.0 4eab. 3% quartz stringers. Moderate grunerite. Bedding 25 dca. 277.0 278.0 4eab. 3% quartz stringers. Bedding 28 dca. 278.0 279.0 4eab. Moderate grunerite. Bedding 27 dca. 279.0 280.0 4eab. 15% quartz flooding. Moderate grunerite. Bedding 26 dca. 280.0 281.0 4eab. 3% quartz stringers. Moderate grunerite. Bedding 30 dca. 281.0 282.0 4eab. 1% quartz stringers. Moderate grunerite. Bedding 35 dca. 282.0 283.0 4eab. 20% quartz flooding. 1 speck VISIBLE GOLD. Moderate grunerite. Bedding 30 dca. 283.0 284.0 4eab. 20% quartz flooding. Moderate grunerite. Bedding 30 dca. 284.0 285.0 4eab. 25% quartz stringers. Moderate grunerite. Bedding 34 dca. 285.0 286.0 4eab. 2% quartz stringers. Moderate grunerite. Bedding 23 dca. 286.0 287.0 4eab. 8% quartz stringers. Weak grunerite. Bedding 30 dca. 287.0 288.0 4eab. 10% quartz stringers. Moderate grunerite. Bedding 30 dca. 288.0 289.0 4eab. 20% quartz flooding. Moderate grunerite. Bedding 35 dca.

From (m)	To (m)	Geology
		289.0 289.5 4eab. 40% quartz flooding. Moderate grunerite. Bedding 40 dca. 289.5 290.5. Contacts sharp at 20 dca. D63780 STANDARD II 0.24 0.24 NS. D63781 BLANK 0.17 NS NS. 289.5 290.5 BVOL. 290.5 291.0 4eab. Bedding 30 dca. 291.0 292.0 4eab. 15% quartz stringers. Moderate grunerite. Bedding 30 dca. 292.0 293.0 4eab. 20% quartz flooding. Moderate grunerite. Bedding 30 dca. 293.0 294.0 4eab. 40% quartz flooding. Moderate grunerite. Bedding 40 dca. 294.0 295.0 4eab. 5% quartz stringers. Moderate grunerite. Bedding 40 dca. 295.0 296.0 4eab. 5% quartz stringers. Moderate grunerite. Bedding 35 dca. 296.0 297.0 4eab. 20% quartz flooding. Moderate grunerite. Bedding 45 dca. 297.0 298.0 4eab. 25% quartz flooding. Trace ARSENOPYRITE. Moderate grunerite. Bedding 22 dca. 298.0 299.1 4eab. 15% quartz flooding. Moderate grunerite. Bedding 25 dca.
299.1	301.8	GARNET-BIOTITE SCHIST 4f. 40% 1 Mm to 5 mm chert beds. Non-magnetic. Weakly gruneritized. 60% 1 Mm to 1 cm 4f and 4e beds with 30% 1 mm subhedral garnets. Non-magnetic. Bedding at 20 to 25 dca. Minor fractures at 20 dca. Trace disseminated pyrrhotite. Lower contact a QUARTZ-VEIN at 30 dca. D63789A 299.10 300.00 DUPLICATE OF D63789 0.82 NS NS. 299.1 300.0 4f. Bedding 20 dca. 300.0 301.0 4f. Bedding 20 dca. 301.0 301.8 4f. Bedding 30 dca.
301.8	308.7	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. 80% 4ea Beds. 1 to 2 cm wide. 30% 1 cm amorphous garnets. Moderately to strongly gruneritized. 20% 4b Beds. Disrupted bedding at 26 to 45 dca. Rare fracture perpendicular to bedding at 50 dca. 1% to 15% disseminated, stringer and wispy pyrrhotite. 1% to 30% quartz stringers and quartz flooding. Lower contact sharp at 42 dca. 301.8 302.2 4ea. 30% quartz veining and quartz flooding. Weak grunerite. Bedding 25 dca. 302.2 303.8 75% BVOL, 25% 4EA with 5% pyrrhotite and quartz flooding. Bedding 26 dca. 303.8 305.0 4ea. 50% quartz flooding and quartz veining. Moderate grunerite. Bedding 26 dca. 305.0 306.0 4ea. 50% quartz flooding. At 305.00 a 10 cm QUARTZ-VEIN at 43 dca. Moderate grunerite. Bedding 26 dca. 306.0 307.0 4ea. 50% quartz flooding and quartz veining. Moderate grunerite. Bedding 40 dca. 307.0 308.0 4ea. 20% quartz flooding and quartz veining. Moderate grunerite. Bedding 35 dca. 308.0 308.7 4ea. 1% QUARTZ-VEIN. Moderate grunerite. Bedding 43 dca.
308.7	318.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Hard. Foliated at 30 to 40 dca.

From (m)	To (m)	Geology
		Two fracture sets - subparallel to foliation at 42 to 50 dca and perpendicular to foliation at 53 dca. Unit chloritic, biotitic, locally calcareous. Barren. 5% Quartz-calcite stringers parallel to foliation. Lower contact sharp at 25 dca. 308.7 309.7 BVOL. 310.0 Foliation 40 dca. Fractures parallel to foliation at 42 dca and perpendicular at 53 dca. 316.9 317.5 Beds at 37 dca. Upper and lower contacts at 36 dca. Axial plane at 50 dca. 316.9 317.5 4ea. 10% quartz stringers. Weak grunerite. Bedding 37 dca. 317.5 318.5 BVOL.
318.5	319.2	GARNET-BIOTITE SCHIST 4f. Black and pink. 30% 1 mm subhedral garnets. Weakly magnetic. Hard. Bed weakly developed at 43 dca. 3% Disseminated fine grained pyrrhotite. Lower contact sharp at 37 dca. D63803 BLANK 0.62 NS NS. D63804 BLANK 0.03 NS NS. 318.5 319.2 4f.
319.2	323.8	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. 70% 4ea Beds. Up to 7 cm wide. 40% amorphous 1 cm garnets. Moderate grunerite alteration. Non to weakly magnetic. 20% 4b Beds. 1 mm to 3 cm wide. Weakly gruneritized. 5% Chert beds. Bedding poorly developed to indistinct at 40 to 45 dca. 2% to 15% disseminated, stringer and wispy pyrrhotite parallel to bedding. Up to 35% quartz flooding. Lower contact sharp at 43 dca. 319.2 320.0 4ea. 35% quartz stringers and quartz flooding. Moderate grunerite. Bedding 43 dca. 320.0 321.0 4ea. 15% quartz stringers and quartz flooding. Moderate grunerite. 321.0 322.0 4ea. Moderate grunerite. Bedding 40 dca. 322.0 323.0 4ea. 25% BVOL. 5% quartz stringers. Moderate grunerite. 322.7 323.0. Contacts at 35 dca. D63809A 323.0 323.8 DUPLICATE OF D63809 0.03 NS NS. 323.0 323.8 4ea. Moderate grunerite.
323.8	355.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Foliated at 45 to 50 dca. Chloritic, biotitic, locally calcareous. Trace disseminated pyrrhotite. 3% to 5% quartz-calcite stringers and wisps parallel to foliation. Lower contact sharp at 65 dca. 323.8 325.0 BVOL.

From (m)	To (m)	Geology
355.1	363.0	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. 30% Chert beds. Light grey. 5 mm to 2 cm wide. Non-magnetic to locally magnetic. 30% 4b Beds. Dark grey to light brown. 2 mm to 1 cm wide. With 20% pinhead garnets. Non-magnetic to strongly magnetic. Weakly to strongly gruneritized. 40% 4f Beds. Dark grey. 1 mm to 2 cm wide. 10% to 25% pinhead garnets. Non to locally weakly magnetic. Minor folding throughout unit with axial plane at 60 to 85 dca. Lower contact gradual. 355.1 356.0 4bf. 5% folded quartz stringers. Very weak grunerite. Axial plane at 85 dca. 356.0 357.0 4bf. Very weak grunerite. Folded with axial plane at 65 dca. 359.0 360.0 Bedding 43 dca. 360.0 361.0 Bedding 54 dca. 361.0 362.0 Bedding 67 dca. 362.0 363.0 4bf. Weak grunerite. M style folds. Bedding 60 dca.
363.0	367.5	GARNET-BIOTITE SCHIST 4f. 90% 4f Beds. 1 mm to 1 cm wide with 20% 1 mm garnets. Non to weakly magnetic. 10% 4b Beds. 1 mm to 3 mm wide. Weakly gruneritized. Well developed bedding at 60 to 63 dca. Fracture sets subparallel to bedding at 45 dca and perpendicular at 43 dca. Unit biotitic and weakly gruneritized. Trace disseminated pyrrhotite. Lower contact sharp at 60 dca.
367.5	371.4	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. 30% 4b Beds. 1 mm to 2 cm wide. Weakly to moderately gruneritized. 30% Light grey chert beds. Up to 1 cm. 40% 4f Beds with 30% pinhead to 5 mm anhedral garnets. Unit weakly to strongly magnetic. Well bedding at 60 to 66 dca. Biotitic, weakly to moderately gruneritized. Lower contact sharp at 53 dca. 368.0 369.0 4bf. Weak grunerite. Bedding 60 dca.
371.4	372.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Lower contact sharp at 63 dca.
372.4	374.0	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. Similar to 367.50 371.43. 373.0 374.0 4bf. Weak grunerite.
374.0		END OF HOLE

From (m)	To (m)	Geology
		DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. DRILLING HISTORY:. 0.00 30.50 Tricone, 30.5 metres of NW Casing. 30.50 158.00 Two Hexagon Core Barrels. MX10 bit. 158.00 235.00 Standard Core Barrel. Hobick Series 4 bit. 235.00 374.00 Standard Core Barrel. 30.5 Metres of N casing left in hole. Two hours spent attempting to pull. Hole cemented - 4 hours. 60 bags of 20 kg Type 50 cement used. DOWNHOLE SURVEYS:. Acid tests used for Class 2 data. Several rotodip readings used but instrument broken. Gyroscopic Directional Survey by CBC Welnav, North Bay unsuccessful Two survey attempts made totalling 5.5 hours.

Date: 14 Nov, 1993

PLACER DOME EXPLORATION

DRILL HOLE RECORD

Northing: 10299.62
Easting: 9010.60
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -61.50

Hole Length: 449
Core Size: NQ
Date Started: FEBRUARY 8, 1993
Logged by: DENISE INGS

*** Depth	Dip Tests Azi.	*** Dip
7.6	227.1	-60.8
15.2	224.2	-60.5
22.9	225.3	-60.0
30.5	225.3	-59.8
38.1	224.6	-59.0
45.7	224.0	-58.5
53.3	223.9	-58.0
61.0	223.3	-57.8
68.6	223.8	-57.3
76.2	223.1	-57.0
83.8	223.1	-56.5
91.4	222.5	-56.3
99.1	222.4	-56.0
106.7	222.4	-56.0
114.3	222.4	-56.0
121.9	221.8	-56.0
129.5	221.1	-56.0
137.2	221.1	-56.0
152.4	221.0	-55.0
167.6	220.9	-54.0
182.9	220.8	-53.5
198.1	220.7	-53.0
213.4	220.1	-53.5
228.6	219.4	-53.0
243.8	219.4	-53.0
259.1	219.2	-52.0
274.3	219.1	-51.0
289.6	217.8	-51.0
304.8	219.0	-51.0
335.3	217.9	-51.0
365.7	218.1	-51.0
396.2	218.1	-50.0
426.7	218.9	-50.0

Drill Hole: 506-617

Northing: 10300N
Easting: 9002E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10300N
Completed: FEBRUARY 18, 1993
Date(s) Logged: FEBRUARY 12-18, 1993

Claim: PA529497: 409.0m; PA529500: 40.0m
Comments: 75.5mW and 44.1mS to WP of #1 post of PA529497
Purpose: TO INTERSECT S,C,T, AND WA ZONES

From (m)	To (m)	Geology
		Samples E10401-10500, E10601-10654 inclusive. Resampling E15501-15522. NOTE: All references to folding - both right and left limb folds - are looking down the plunge of the deposit (ie. Northwest). For detailed structural data see attached STRIP LOG.
.0	1.2	ICE AND WATER

From (m)	To (m)	Geology
1.2	17.5	CASING
17.5	26.4	CHERT - MAGNETITE IRON FORMATION 4B. Fine grained. Grey and black. Moderately to strongly magnetic. Composed of: 65% chert, 15% magnetite, 15% 4e beds, up to 5% carbonate. Well bedded and finely laminated on mm scale at 45 dca. Chert beds are commonly boudinaged, especially when interbedded with 4E. Moderate carbonatization as thin wispy laminae and halos on boudinaged chert beds. Right climbing folds (looking down-plunge) indicate location on the east limb of synclinal structure. Trace to 1% pyrrhotite. Trace pyrite. Lower contact is sharp at 45 dca. 17.5 19.0 4b, 20% quartz flooding, weak carbonate alteration. 19.0 20.3 4b, weak carbonate alteration, trace pyrite, trace chalcopyrite, 1 cm pyrrhotite rich seam, 5% quartz veining, 5% quartz flooding. 20.3 20.7 Parallel to to foliation, fine grained, sugary, minor chlorite, 1% pyrrhotite fracture-filling. 20.3 20.8 QCbv/4b,0.5m,LL to foln, FG, SUGARY, MIN CHL. 20.8 22.0 4b, 5% quartz veining, 5% quartz flooding. 21.5 Minor FAULT GOUGE (<1 cm wide). 22.0 22.9 4b, 5% quartz flooding. 22.9 23.9 4b, planar beds, unaltered. 23.9 25.0 4b, 2 specks VISIBLE GOLD, 10% quartz veining, 10% quartz flooding, moderate carbonatization. 25.0 26.4 4b, moderate carbonatization, 20% quartz flooding.
26.4	30.8	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Consists of: 70% 4B beds and 30% 4E BEDS with 30% 1 to 2 mm garnets. Chert beds are strongly boudinaged. 28.0 29.0 4bf, 30% 4f beds. 29.0 30.8 4f. Trace pyrrhotite stringers. Trace chalcopyrite. 30% 1 mm garnets.
30.8	39.6	CHERT - MAGNETITE IRON FORMATION 4b. Similar to above. Fine grained. Grey and black. Moderately to strongly magnetic. Composed of: 65% chert, 15% magnetite, 15% 4e beds, up to 5% carbonate. Well bedded and finely laminated on mm scale at 45 dca. Boudinaged chert bed fragments are rotated along bedding planes. Fractures are parallel to bedding and perpendicular to bedding. Weak carbonatization as thin wispy stringers along bedding. Trace pyrrhotite as thin wispy stringers or rare 5 cm stringers parallel to foliation. Trace ARSENOPYRITE crystals. 30.8 32.0 4b, 30% quartz veining with trace pyrrhotite fracture-filling, trace ARSENOPYRITE, moderate carbonatization. 32.0 33.0 4b, boudinaged beds, weak carbonatization, trace ARSENOPYRITE. 36.0 37.0 4b, planar beds, unaltered. 37.0 38.0 4b, 5 cm seam of pyrrhotite with trace ARSENOPYRITE, chalcopyrite, 30% quartz flooding. 38.0 39.6 4b, 5% quartz veining, 20% quartz flooding, boudinaged bedding.

From (m)	To (m)	Geology
39.6	45.6	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Similar to above. Bedding at 50 dca. Minor m-type folds with axial planes at 25 dca. 39.6 44.4 15 to 20% carbonate alteration, rare 1 to 4 mm QUARTZ-VEINs, and minor quartz flooding in 4BE. Minor pyrrhotite -(2 TO 3%). CHECK SAMPLES:. E10409A DUPLICATE OF E10409 0.07. 39.6 40.6 4be, 2% quartz flooding, weak carbonatization. 40.6 41.6 4be, 2% quartz flooding, weak carbonatization. 41.6 42.6 4be, 2% quartz flooding, weak carbonatization. 42.6 43.6 4be, 2% quartz flooding, weak carbonatization. 43.6 44.4 4be, 2% quartz flooding, weak carbonatization.
45.6	59.2	CHERT - MAGNETITE IRON FORMATION 4b. Similar to above. Fine grained. Grey and black. Moderately to strongly magnetic. Composed of: 65% chert, 15% magnetite, 15% 4e beds, up to 5% carbonate. Well bedded and finely laminated on mm scale at 45 dca. Chert beds are commonly boudinaged. Moderate carbonatization as wispy laminae and thin halos on chert bed fragments. 46.0 47.0 4b, 1% wispy pyrrhotite stringers, weak carbonatization, 20% quartz flooding. 47.0 48.0 4b, 1% wispy pyrrhotite stringers and fracture-filling, weak carbonatization, 20% quartz flooding. 47.4 69.9 3-7% carbonate alteration - contacts are gradational over 2 metres. Carbonate occurs as wispy halos around boudinaged chert fragments. 48.0 49.0 4b, moderate carbonatization, trace ARSENOPYRITE. 49.0 50.0 4b, moderate carbonatization, 10% quartz flooding. 52.0 53.0 4b, moderate carbonatization. 57.8 63.3 10% quartz flooding and quartz veining, with 1 to 3% stringers and irregular blebs of pyrrhotite, trace crystalline and fine grained blebs of ARSENOPYRITE and pyrite. 57.8 58.6 4b, moderate carbonatization, 3% quartz flooding. 58.6 59.2 MINERALIZED QV : milky white to translucent, fg, sugary, minor fractures are chloritized. Mineralization includes trace pyrrhotite, trace to 1% ARSENOPYRITE, trace pyrite. 58.6 59.2 Qv/4b, 0.6m, trace pyrite, trace to 1% ARSENOPYRITE.
59.2	69.5	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4BE. Similar to above 26.4 - 30.8. Bedding is well developed at 45 dca. CHECK SAMPLES:.

From (m)	To (m)	Geology
		E10420 STANDARD 1 <0.03. E10421 BLANK <0.03. 59.2 60.2 4b, 5% quartz flooding, minor ARSENOPYRITE along bedding. 60.2 61.2 4b, 5% quartz flooding, weak carbonate alteration. 61.2 62.3 4b, 5% quartz flooding, weak carbonate alteration. 62.3 63.5 4b, 5% quartz flooding, weak carbonate alteration. 64.0 65.0 4b, 5% quartz flooding, weak carbonate alteration. 68.0 69.0 4be, no quartz flooding, very weak carbonate alteration.
69.5	79.2	CHERT - MAGNETITE IRON FORMATION 4b. Similar to above. 72.0 75.0 Cm scale crenulation-type folds with axiar planar microfaults. Minor carbonate fracture-filling. Axial planes oriented 30 to 45 dca. 72.0 73.0 4b, unaltered. 76.0 77.0 4b, 2 cm quartz vein, unaltered. 77.0 78.0 4b, 2 cm QUARTZ-VEIN, unaltered. 78.0 79.2 4b, 30% quartz veining, 10% quartz flooding, unaltered.
79.2	83.8	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4BE. Similar to above. Consists of: 50% 4e beds in 4B. 81.0 82.0 4ea, trace pyrite, trace quartz flooding, weak carbonate alteration.
83.8	96.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Typical 4ea. Medium grained. Grey, green and pink mottled. Weakly magnetic. Poorly bedded at 45 dca. Fractures are parallel to and perpendicular to bedding. Moderate to strong grunerite alteration. 85.0 86.0 4ea, trace quartz flooding, 10% quartz veining, weak grunerite alteration. 86.0 87.0 4ea, 20 cm quartz pyrrhotite pyrite chlorite vein, minor chlorite alteration. 87.0 88.0 4ea, moderate grunerite alteration, 2% pyrrhotite, 5% quartz flooding. 88.0 89.0 4ea, trace chalcopyrite, 25% quartz flooding, weak grunerite alteration. 89.0 90.0 4ea, 50% 4E beds, moderate grunerite alteration. 90.0 91.4 4ea, 3 cm seam of semi- massive pyrrhotite with chlorite alteration. 91.4 93.0 4ea, 10% quartz flooding, moderate grunerite alteration, minor chlorite. 91.8 3 cm seam of semi - massive pyrrhotite in chlorite rich matrix of 4e. Minor right climbing folds looking down plunge. Axial plane oriented 40 dca. 93.0 94.0 4ea, moderate grunerite alteration. 94.0 95.0 4ea, 13 specks VISIBLE GOLD, trace chalcopyrite stringers, 10% quartz flooding, 2% quartz veining, moderate grunerite. 95.0 96.0 4ea, 2 specks VISIBLE GOLD, trace chalcopyrite stringers, 30% quartz flooding, moderate grunerite alteration, minor chlorite.
96.0	98.5	GARNET-BIOTITE SCHIST

From (m)	To (m)	Geology
		4f. Fine grained. Brown and pink mottled. Non-magnetic. 20% 1 To 2 mm garnet porphyroblasts. Well bedded and strongly foliated at 40 dca. The predominant fracture set is parallel to bedding. Lower contact is sharp at 35 dca. 96.0 97.0 4f. 97.2 98.5 BVOL fine grained. Green. Massive. INTERMEDIATE TO MAFIC VOLCANICS.
98.5	100.3	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Consists of: 2% garnet, 2 to 5% biotite, 5% quartz flooding, trace to 1% pyrrhotite. 98.5 99.5 4BF, 20% garnet, 2 to 5% biotite to 5% quartz flooding. 99.5 100.3 4BF, 20% garnet, 2 to 5% biotite to 5% quartz flooding.
100.3	121.3	INTERMEDIATE TO MAFIC VOLCANICS WITH MINOR INTRAFORMATIONAL IRON FORMATION BVOL with minor 2-4b. Typical BVOL as above. 100.5 2 cm FAULT GOUGE at 45 dca. CHECK SAMPLES:. E10429A DUPLICATE OF E10429 0.45. 104.7 105.9 2-4BF, weak grunerite, 2% garnet, 8% biotite, 5% quartz flooding, trace chalcopyrite on fracture. 108.4 109.5 2-4B, 20% garnet, 2 to 5% biotite to 5% quartz flooding. 112.9 113.9 2-4B, 20% garnet, 2 to 5% biotite to 5% quartz flooding. 113.9 114.8 2-4B, 20% garnet, 2 to 5% biotite to 5% quartz flooding. 117.5 118.5 2-4B, 20% garnet, 2 to 5% biotite to 5% quartz flooding. 120.4 121.3 2-4B, 3% garnet, 3% biotite, 5% quartz flooding.
121.3	225.1	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Probable bedded felsic crystal-ash tuffs with minor sedimentary component. Fine grained. Grey. Locally weakly magnetic. Well bedded or flow banded, finely laminated at 40 dca. Predominant fractures parallel to bedding, others at 50 to 60 dca. Moderate sericite alteration (8 to 10%). Minor potassic staining locally. Local moderate silicification with trace to 1% pyrrhotite mineralization. Rare garnets. 5% 1 To 2 cm wide bands of sericite alteration. Trace to 1% fracture-filling pyrrhotite throughout, locally concentrated to 5% over 10 cm. Less than 1% quartz and quartz-calcite veins. Veins are generally 0.3 to 2 cm wide and are oriented parallel to foliation. Contacts are sharp and parallel to foliation. 133.9 136.0 Moderate to strong silicification with 3 to 5% pyrite, pyrrhotite as fracture-filling and fine grained disseminated grains. 133.9 134.9 AVOL, moderately silicified, 2% pyrite. 134.9 136.0 AVOL, moderately silicified, 2% pyrite.

From (m)	To (m)	Geology
		142.5 Thin chlorite, biotite, epidote alteration vein at 45 dca. 150.0 225.1 Felsic volcanic appears more massive and is probably a flow. 186.9 187.8 Moderate potassic alteration along foliation extending outward from thin carbonate epidote stringers. 190.8 191.1 5% pyrite, pyrrhotite stringers. 210.8 214.0 Felsic tuff with high sedimentary component. 211.4 to 214.0 moderately altered section. Alteration consists of 15% garnet, 5 to 10% sericite, 3 to 5% biotite, and 2% chlorite. Alteration appears to be hydrothermal.
225.1	225.6	INTRAFORMATIONAL IRON FORMATION 2-4f. Consists of: 95% 4f-beds and 5% cht bds. Very weak grunerite alteration. Minor pyrrhotite along fractures. 1% Barren quartz-carbonate stringers.
225.6	248.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL / GTB. Typical GTB. Probably formed by hydrothermal fluids percolating through more permeable layers in the greywacke. Well foliated at 65 to 70 dca. Predominant fractures are parallel to foliation. Contacts are sharp at 60 dca. 242.7 243.5 GTB, 10 to 25% gar, 15 to 30% bi, 10% chl. 244.4 244.5 1% 1-2 mm boudinaged carbonate altered chert fragments in a chlorite rich matrix. Possible shear. 244.5 248.9 Alternating biotite rich and chlorite rich matrix with 10% garnet porphyroblasts. 245.0 246.0 GTB, 10 to 25% gar, 15 to 30% bi, 10% chl.
248.9	250.3	BRECCIA ZONE BX ZONE - MARKER HORIZON. Consists of 20% quartz rich pebbles \ fragments in chlorite rich matrix. Pebbles are angular to rounded. Most are elongate indicating stretching parallel to foliation or that fragments origionally were boudinaged chert beds rotated along shear planes and rounded. 10-15% 2 Mm to 1 cm subhedral garnets. 1% Hairline carbonate stringers along foliation. 2% Pyrrhotite. Contact with GTB is sharp with biotite rich matrix, gradual with chlorite rich matrix. Probable shear zone with fluids permeating along foliation and altering the greywacke to chlorite - biotite - garnet assemblages.
250.3	311.0	INTERMEDIATE TO MAFIC VOLCANICS WITH MINOR GARNETIFEROUS BASALT BVOL with minor GTB. Fine grained. Medium grey to green. Non-magnetic. Section of intermixed BVOL AND GTB. GTB consists of 60-80% 2-10 mm garnet porphyroblasts in a biotite rich matrix. Non-magnetic. Locally only 5-10% garnets in BVOL matrix. BVOL contains 5-10% 1 to 2 mm biotite and phlogopite rich bands parallel to foliation. Generally weakly altered to 3% phlogopite, < 5% chlorite, minor carbonate. Minor pyrrhotite along fractures. Minor quartz-carbonate stringers <2mm in width.

From (m)	To (m)	Geology
		Lower contact is sharp at 60 dca. 265.0 266.1 BVOL. Garnetiferous. 266.1 269.0 Mineralized with quartz veining trace to 1% pyrrhotite stringers 1% quartz carbonate veins. 266.1 267.0 GTB, 10 to 25% garnet, 15 to 30% biotite, 10% chlorite. 267.0 268.0 GTB, 10 to 25% garnet, 15 to 30% biotite, 10% chlorite. 268.0 269.0 GTB, 10 to 25% garnet, 15 to 30% biotite, 10% chlorite. 269.0 271.1 Strongly foliated with 20% quartz carbonate veins and quartz flooding along the foliation planes. 277.6 278.7 Poorly bedded, 10% quartz flooding, 15% garnet, 5% grunerite, trace to 1% pyrrhotite. 277.6 278.7 2-4bf, 5 to 15% garnet, 5 to 30% biotite, weak grunerite alteration. 284.5 285.5 BVOL. 285.5 286.8 As above, mineralized with quartz flooding over 0.5 metres in overlying BVOL. 285.5 286.8 2-4bf, 5 to 15% garnet, 5 to 30% biotite, weak grunerite alteration. CHECK SAMPLES:. E10443 STANDARD II 0.17. E10444 BLANK 0.07.
311.0	329.1	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea - up dip extension of S-zone. Fine to medium grained. Light green, grey and pink mottled. Moderately to strongly magnetic. Generally well bedded with 50 to 60% 1 to 2 cm beds consisting of sub-hedral garnets, in gruneritized matrix of magnetite, and amphibole. 10% 1 To 2 cm beds of amorphous garnet with minor biotite. 40% 3 To 20 mm medium grey laminated chert and chert magnetite beds. Poorly foliated to non-foliated. Minor small scale m-type folds indicate location at the hinge. Strong grunerite alteration (up to 35% grunerite). 5 to 10% pyrrhotite throughout grunerite altered section. Pyrrhotite content increases downhole to 18% irregular blebs and stringers associated with grunerite alteration and quartz stringers. Trace VISIBLE GOLD locally. 2 to 20% pyrrhotite. Lower contact is sharp at 45 dca. 311.0 314.0 2% pyrrhotite. Locally weakly magnetic at pyrrhotite mineralized zones. No grunerite. 311.0 312.0 4f. 312.0 313.0 4f. 313.0 314.0 4f, very weak grunerite alteration. 314.0 315.0 4ea, very weak grunerite alteration. 315.0 316.0 4ea, weak grunerite alteration. 316.0 317.0 4ea, 2% quartz-calcite vein, moderate grunerite alteration. 317.0 318.0 4ea, moderate grunerite alteration. 318.0 319.0 4ea, moderate grunerite alteration. 319.0 320.0 4ea, moderate grunerite alteration. 320.0 321.0 4ea, moderate grunerite alteration. 321.0 322.0 4ea, moderate grunerite alteration. 322.0 323.0 4ea, moderate grunerite alteration. 323.0 324.0 4ea, moderate grunerite alteration. 324.0 325.0 4ea, moderate grunerite alteration. 325.0 326.0 4ea, moderate grunerite alteration. 326.0 326.2 Brecciated zone with quartz-veining.

From (m)	To (m)	Geology
		CHECK SAMPLES:. E10449A DUPLICATE OF E10449 0.07.
		CHECK SAMPLES:. E10466 STANDARD II 0.27. E10467 BLANK 0.10. 326.0 327.0 4ea, 5% quartz flooding, 1% quartz veining, moderate grunerite alteration. 327.0 328.0 4ea, 5% quartz flooding, 1% quartz veining, moderate grunerite alteration. 328.0 329.1 4ea, 10% quartz flooding, 3% quartz veining, moderate grunerite alteration.
329.1	343.6	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Grey. Non-magnetic. Aphanitic-textured. Moderately well foliated. Primary fracture set is sub- parallel to foliation at 45 dca. Minor QUARTZ-VEINs cut the section also sub- parallel to foliation. 59% Of section is moderately to strongly altered to phlogopite containing 50% quartz-carbonate veins. 341.1 347.0 Zone of moderate to strong phlogopite alteration, quartz veining, and deformation. Phlogopite beds appear to have undergone ductile deformation, while zones with quartz flooding or ? chert beds appear brecciated.
343.6	345.2	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Very siliceous chert magnetite. Contacts are sharp at 55 dca. 343.6 344.6 4B, 30% quartz flooding. 344.6 345.2 4BE, 60% e-beds.
345.2	419.8	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained. Grey and green banded. Moderately to strongly magnetic. 50% Beds of 0 to 30% porphyroblastic garnets in grunerite, amphibole, chlorite matrix, and 50% chert beds. Well bedded on cm -scale with local fine laminae, bedding at 30 to 55 dca, local boudinaged sections. Poorly foliated parallel to bedding, generally massive. Minor left limb folding with axial planes oriented 30 to 55 dca. Fractures appear randomly oriented. Minor shatter zones at 384.5 and 384.9. 1 to 10% quartz veining throughout the section. Grunerite alteration is generally weak to moderate. 2 to 15% quartz flooding occurs locally. Mineralization appears restricted to the quartz flooded areas. Minor pyrite up to 3% locally. Mineralized zones as follows:. 347.8 348.8 4B, very weak grunerite alteration, a 1.5 cm pyrrhotite stringers at 348.3. 348.8 349.8 4B, very weak grunerite alteration. 349.8 350.8 4B, very weak grunerite alteration. 350.8 351.9 4B, very weak grunerite alteration.

From (m)	To (m)	Geology
		351.9 353.0 4BE, very weak grunerite alteration. 353.0 354.0 4EA, weak grunerite alteration, 1% quartz flooding. 354.0 355.0 4EA, weak grunerite alteration, 2% quartz flooding, 1% quartz veining. 355.0 356.0 4EA, weak grunerite alteration. 356.0 357.0 4EA, moderate grunerite alteration, trace quartz flooding. 357.0 358.0 4EA, moderate grunerite alteration. 358.0 359.0 4EA, moderate grunerite alteration, 2% quartz flooding, 10% quartz veining. 359.0 360.0 4EA, moderate grunerite alteration, 5% quartz veining. 360.0 361.0 4EA, weak grunerite alteration, 5% quartz veining. 361.0 362.0 4EA, weak grunerite alteration, 5% quartz veining. 362.0 363.0 4EA, weak grunerite alteration, 5% quartz flooding. 363.0 364.0 4EA, weak grunerite alteration, 10% quartz flooding, 10% quartz veining. 364.0 365.0 4EA, weak grunerite alteration, 2% quartz flooding, from 364.2. 365.0 374.6 C-zone - 2 to 15% quartz flooding, 1 to 8% pyrrhotite, moderate grunerite alteration. 365.0 366.0 4ea, C, moderate grunerite alteration, 15% quartz flooding, 5% quartz veining, VISIBLE GOLD. 366.0 367.0 4ea, C, moderate grunerite alteration, 5% quartz flooding. 367.0 368.0 4ea, C, moderate grunerite alteration, 15% quartz flooding, 5% quartz veining. 368.0 369.0 4ea, C, moderate grunerite alteration, 5% quartz flooding. 369.0 370.0 4ea, C, moderate grunerite alteration, 10% quartz flooding, 1% quartz veining. 370.0 371.0 4ea, C, moderate grunerite alteration, 7% quartz flooding, 1% quartz veining. 371.0 372.0 4eaf,C, 20% f-beds, weak grunerite alteration, 2% quartz veining. 372.0 373.0 4ea, C, weak grunerite alteration, 2% quartz flooding, 8% quartz veining. 373.0 374.0 4ea, C, weak grunerite alteration, 3% quartz flooding, 4% quartz veining. 374.0 375.0 4ea, C, 20% BVOL, weak grunerite alteration, 3% quartz flooding, 2% quartz veining. 375.0 376.0 4ea, 20% BVOL, weak grunerite alteration. 376.0 377.0 4ea, 30% BVOL, very weak grunerite alteration. 377.0 378.0 4ea, 15% BVOL, very weak grunerite alteration, 12% quartz flooding, 1% quartz veining. 378.0 379.0 4ea, weak grunerite alteration, 2% quartz flooding. 379.0 380.0 4ea, weak grunerite alteration, 8% quartz flooding, 4% quartz veining. 380.0 381.0 4ea, 10% BVOL, weak grunerite alteration. 381.0 382.0 4ea, 40% BVOL, weak grunerite alteration, 6% quartz veining. 382.0 387.0 T1-zone - 2 to 10% quartz flooding, moderate to strong grunerite alteration, 1 to 3% pyrrhotite. 382.0 383.0 4ea, 70% BVOL, 8% quartz flooding, 6% quartz veining. 383.0 384.0 4ea, 20% BVOL, very weak grunerite alteration, 2% quartz flooding, 1% quartz veining. 384.0 385.0 4ea, weak grunerite alteration, 10% quartz flooding, 16% quartz veining, 3% pyrite. 385.0 386.0 4ea,3% BVOL, weak grunerite alteration, 2% quartz flooding, 3% quartz veining, 1% pyrite. 386.0 387.0 4ea, weak grunerite alteration, 2% quartz flooding, trace pyrite. 387.0 388.0 4eab, 50% BVOL, very weak grunerite alteration, 8% quartz flooding, 1% quartz-carbonate. 388.0 389.0 4eab, very weak grunerite alteration, 5% quartz flooding, 2% quartz veining. 389.0 389.7 4eab, very weak grunerite alteration, 3% quartz veining. 389.7 391.9 T2-zone - 5 to 10% quartz flooding, 2% quartz veining, 3 to 5% pyrrhotite. 389.7 391.0 4ea, T2, weak grunerite alteration, 5% quartz flooding, 2% quartz veining. 391.0 391.9 4ea, T2, weak grunerite alteration, 10% quartz flooding, 2% quartz veining. 391.9 393.0 4eab, weak to moderate grunerite alteration, 2% quartz flooding, 1% quartz veining. 393.0 394.0 4eab, weak grunerite alteration, 2% quartz flooding. 394.0 395.0 4eab, weak grunerite alteration, 3% quartz flooding, 6% quartz veining. 395.0 396.0 4eab, weak grunerite alteration, 2% quartz flooding, 20% BVOL. 396.0 397.0 4eaf, weak grunerite alteration, 2% quartz flooding. 397.0 398.0 4eaf, weak grunerite alteration, 1% quartz flooding, 10% BVOL. 398.0 399.0 4eab, 20% b-beds, weak grunerite alteration, 1% quartz veining. 399.0 399.6 4ea, 30% ANHEDRAL garnets, moderate grunerite alteration.

From (m)	To (m)	Geology
		399.6 406.2 T-zone (main) - 5 to 15% quartz flooding, 1% quartz veining, 3 to 8% pyrrhotite. 399.6 401.0 4ea, T(main), 20% b-beds, weak grunerite alteration, 10% quartz flooding. 401.0 402.0 4ea, T(main), 30% garnets, 5% quartz veining, 5% quartz flooding. 402.0 403.0 4ea, T(main), 20% garnets, 10% quartz flooding. 403.0 404.0 4ea, T(main), moderate grunerite alteration, 15% quartz flooding. 404.0 404.8 4ea, T(main), 20% quartz flooding, 30% QUARTZ-VEIN, strong grunerite alteration. 404.8 405.6 QV, T(main), 90% QUARTZ-VEIN, 3% pyrite, strong grunerite. 405.6 406.2 4eab, 5% b-beds, 5% quartz flooding, 30% garnets. 406.2 407.0 BVOL / 4ea, 80% BVOL, 20% 4eab. 407.0 407.9 BVOL, unmineralized, unaltered. 407.9 409.5 4ea/BVOL, 50% 4ea, 50% BVOL. 409.5 410.2 4ea, 20% garnets, moderate to strong grunerite alteration. 410.2 412.5 T3-zone - moderate grunerite alteration, 20% quartz flooding, 5 to 7% pyrrhotite. CHECK SAMPLES:. E10487 STANDARD I 2.61. E10488 BLANK 0.03. E10489A DUPLICATE OF E10489 6.58. E10499 STANDARD II 11.90. E10500 BLANK 0.17 0.24. E10609A DUPLICATE OF E10609 0.03. E10621 STANDARD I 7.20 7.47. E10622 BLANK 0.31. E10629A DUPLICATE OF E10629 8.57. E10645 STANDARD I 7.17. E10646 BLANK 0.03. E10649A DUPLICATE OF E10649 1.10. 410.2 411.0 4ea, T3, 20% quartz flooding, moderate grunerite alteration. 411.0 412.0 4ea, T3, 20% quartz flooding, moderate grunerite alteration. 412.0 412.5 4ea, 3% quartz flooding, 30% garnet. 412.5 414.0 4ea, 12% quartz flooding, moderate grunerite alteration, 10% b-beds. 414.0 415.0 4eaf, 10% f-beds, 10% quartz flooding, moderate grunerite alteration. 415.0 415.9 4eaf, 30 cm mineralized zone, 20% f-beds, 10% quartz flooding. 415.9 416.9 4fb, 20% b-beds, 2% quartz flooding. 416.9 417.9 4fb, 5% b-beds, 20% garnet. 417.9 418.8 4fb, 20% b-beds, 2% quartz flooding. 418.8 419.8 4fb, 30% b-beds, 2% quartz flooding.
419.8	420.2	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, medium grey, green, non-magnetic. Moderately foliated at 45 dca. Minor phlogopite alteration.
420.2	424.9	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA. Similar to section at 347.8 - 419.8. Minor m-type folds indicate location at the hinge of minor synclinal structure. 420.2 421.4 4ea, 10% B-BEDS, 1% quartz flooding.

From (m)	To (m)	Geology
		421.4 422.6 4ea, 10% B-BEDS, 1% quartz flooding. 422.6 423.7 Small mineralized zone containing 5% quartz flooding, 4% pyrrhotite, weak grunerite alteration, 1% QUARTZ-VEINs. 422.6 423.7 4ea, 15% B-BEDS, 5% quartz flooding, weak grunerite alteration. 423.7 424.9 4ea, 10% B-BEDS, minor quartz flooding.
424.9	449.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, medium grey to green, non-magnetic. Generally aphanitic textured. Well foliated at 30 dca. Prominent fracture set is oriented sub- parallel to bedding. Locally altered to 5 to 10% phlogopite with up to 20% quartz-calcite veins.
449.0		END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. No sludge samples were taken. DRILLING HISTORY:. 0.0 17.5 Tricone bit. 17.6m NW casing. 17.5 449.0 Double-hex core barrel and MX5 bit. Hole cemented - 6 hours. 91 20 kg bags of Type 50 cement used. Casing cut - charged for 10 feet. SURVEYING HISTORY:. Gyroscopic Directional Survey by CBC WELNAV, North Bay, Ontario used for Class 2 data. Survey time: 3 hours. DIP TESTS. 0 -61 COLLAR. 23 -60 ACID. 53 -59 ACID. 83 -56.5 ACID. 113 -56 ACID. 143 -55 ROTODIP. 167 -54 ROTODIP. 191 -53.5 ROTODIP. 197 -53 ACID. 203 -53 ROTODIP. 221 -53.5 ROTODIP. 233 -53 ROTODIP. 251 -53 ROTODIP. 275 -51 ROTODIP. 287 -50.5 ROTODIP. 311 -51 ROTODIP. 323 -50 ROTODIP. 335 -51 ROTODIP.

From (m)	To (m)	Geology
		347 -50 ROTODIP. 356 -50 ROTODIP. 383 -50 ROTODIP. 392 -51 ROTODIP. 404 -50 ROTODIP. 416 -51 ROTODIP. 434 -50 ROTODIP. 449 -49.5 ROTODIP.

Date: 14 Nov, 1993

PLACER DOME EXPLORATION

DRILL HOLE RECORD

Northing: 10049.97
Easting: 9006.87
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -62.00

Hole Length: 452
Core Size: NQ
Date Started: FEB. 16, 1993
Logged by: T. TENNENT

*** Depth	Dip Tests Azi.	*** Dip
15.2	228.1	-60.5
30.5	227.3	-62.0
45.7	227.1	-61.0
61.0	225.7	-60.3
76.2	225.7	-60.0
91.4	226.1	-59.5
106.7	227.0	-59.3
121.9	225.0	-59.0
137.2	225.0	-60.0
152.4	225.9	-59.0
167.6	226.3	-59.0
182.9	223.4	-57.5
198.1	223.6	-58.0
213.4	223.0	-57.0
228.6	221.8	-56.5
243.8	224.4	-57.3
259.1	223.9	-57.3
274.3	224.4	-55.0
289.6	223.9	-55.0
304.8	222.2	-55.0
320.0	224.2	-55.5
335.3	225.5	-55.5
350.5	226.0	-53.5
365.7	226.7	-54.0
381.0	227.5	-54.0
396.2	227.6	-53.5
411.5	227.6	-52.3

Drill Hole: 506-618

Northing: 10050N
Easting: 9000E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10050N
Completed: FEB. 24 , 1993
Date(s) Logged: FEB. 17 TO FEB. 25, 1993

Claim: PA 529826: 306m; PA 529500: 146m.
Comments: 112.2m W AND 252.1m S TO WP of #1 post, CLAIM PA 529500
Purpose: TO TEST THE S AND WA ZONES

From (m)	To (m)	Geology
		NOTE: All references to folding - both right and left limb folds - are looking down the plunge of the deposit (ie. Northwest).
.0	1.0	ICE AND WATER
1.0	11.0	OVERBURDEN
11.0	40.9	CHERT - MAGNETITE IRON FORMATION 4B. 45% Medium grey chert beds. 2 mm to 1 cm wide. Weakly magnetic. Boudinaged. 45% Dark grey magnetite beds. 2 mm to 1 cm wide. Strongly magnetic. Boudinaged. Weakly gruneritized along edges of beds. <10% 4e beds. 20% 1 mm garnets. Well bedded at 10 to 40 dca. Beds are boudinaged. Minor folding with axial planes at 25 to 45 dca. Micro-shearing occurs along axial planes. Two fracture sets - one parallel to bedding at 20 to 30 dca. Second set perpendicular to bedding at 45 to 55 dca.

From (m)	To (m)	Geology
		Up to 2% pyrrhotite. Smeared along foliation planes and disseminated. Lower contact at 32 dca. 11.4 11.8 Broken core. 12.0 13.0 4b. Bedding 15 dca. 12.5 13.0 Broken core. 13.0 14.0 Bedding 15 dca. 13.5 15.5 Broken core. 14.0 33.0 Bedding 20 to 25 dca. 16.0 17.0 4b. Bedding 30 dca. 19.7 Axial plane at 75 dca. 20.0 21.0 4b. 10% boudinaged quartz stringers with 1% pyrrhotite. Very weak grunerite. Bedding 25 dca. 22.5 Axial plane at 40 dca. 22.9 Axial plane at 45 dca. 24.0 25.0 4b. Very weak grunerite. Bedding 28 dca. 24.5 Axial plane at 38 dca. 25.0 Axial plane at 45 dca. 26.0 27.0 4b. 2% boudinaged quartz stringers. Very weak grunerite. Bedding 22 dca. 27.0 28.0 4b. Very weak grunerite. 28.0 29.0 4b. 5% quartz stringers. Bedding 20 dca. 28.4 Axial plane at 40 dca. 29.0 30.0 4b. 2% quartz stringers. 30.0 31.0 4b. Very weak grunerite. 31.0 32.0 4b. Bedding 22 dca. 32.0 33.0 4b. Bedding 24 dca. 32.9 Axial plane at 35 dca. 33.0 34.0 Broken core. 33.0 34.0 4b. 34.0 35.0 Bedding 35 dca. 34.5 Axial plane at 35 dca. 35.0 36.0 Bedding 33 dca. 36.0 37.0 Bedding 24 dca. 37.0 38.0 4b. Bedding 20 dca. 38.0 39.0 Bedding 30 dca. 38.3 Axial plane at 35 dca. 39.1 Axial plane at 32 dca. 42.70 Axial plane at 23 dca. 40.0 41.0 Bedding 40 dca. D63820 STANDARD II 9.81 9.87 NS. D63821 BLANK 0.10 NS NS. D63829A 33.0 34.0 DUPLICATE OF D63829 0.31 NS NS.
40.9	55.2	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. 40% Dark grey 4b beds. 1 mm to 1 cm wide. 40% Buff, moderately gruneritized, 4be beds with 30% anhedral garnets. 1 mm to 2 cm wide. 20% Dark green 2 mm 4e beds with 10% 1 mm garnets. Unit is moderately to strongly magnetic. Bedding well developed at 20 to 27 dca. Dominant fracture set perpendicular to bedding at 47 to 55 dca. Second set parallel to bedding at 15 to 25 dca. Trace disseminated and stringer pyrrhotite.

From (m)	To (m)	Geology
		Lower contact sharp at 25 dca. 41.0 42.0 4be. Weak grunerite. Bedding 23 dca. 42.0 43.0 Bedding 27 dca. 43.0 44.0 Bedding 10 dca. 44.0 45.0 Bedding 17 dca. 45.0 46.0 4be. Weak grunerite. Bedding 20 dca. 46.0 47.0 Bedding 25 dca. 47.0 48.0 Bedding 15 dca. 48.0 49.0 Bedding 25 dca. 49.0 50.0 4be. Moderate grunerite. Bedding 22 dca. 50.0 52.0 Bedding 20 dca. 52.0 53.0 Bedding 25 dca. 52.0 53.0 4be. 53.0 54.0 4be. Weak grunerite. Bedding 22 dca. 54.0 55.0 Bedding 27 dca. 54.0 55.0 4be. 4% quartz stringers parallel to bedding.
55.2	57.6	GARNET-BIOTITE SCHIST 4f. Black and pink. 30% 1 mm garnets. Non-magnetic. Bedding at 30 dca. Barren. Lower contact sharp at 35 dca. 56.5 57.2. Contacts at 33 dca.
57.6	61.0	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Similar to 40.90 to 55.20. Lower contact broken. 58.8 59.8 4be. 1% QUARTZ-VEIN. Moderate grunerite. 59.8 60.7 4be. 1% boudinaged QUARTZ-VEIN. Moderate grunerite.
61.0	88.7	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Foliation at 34 dca. Fracture sets subparallel to foliation at 32 to 42 dca and perpendicular to foliation at 52 to 58 dca. Chloritic, weak pervasive biotite and carbonate alteration. Barren to trace disseminated pyrrhotite. 3% Quartz-calcite stringers parallel to foliation. Minor 10 cm intervals of garnetiferous interflow sediment or basalt. Lower contact sharp at 36 dca. 68.2 68.3 Broken core. 68.8 68.9 Broken core. 70.0 71.0 BVOL. 71.0 71.7 BVOL. 71.7 72.4 24ea. 10% quartz stringers. Garnetiferous. Moderate grunerite alteration.

From (m)	To (m)	Geology
		72.4 73.4 BVOL. 10% quartz stringers with 1% pyrrhotite parallel to foliation. 72.7 73.2. 5% quartz stringers. Trace pyrrhotite. 79.3 80.3. 2% pyrrhotite. 84.0 85.1. 5% pyrrhotite. 5% Boudinaged quartz stringers. D63838 STANDARD II 9.81 NS NS. D63839 BLANK 0.17 NS NS.
88.7	188.0	FELSIC TO INTERMEDIATE VOLCANICS AVOL - Interbedded Intermediate to Felsic Ash and Crystal Tuffs. Fine grained, dark green and light greenish buff. Non-magnetic. Rare garnet. Hard. Well foliated at 43 to 50 dca. One fracture set parallel to foliation at 45 to 55 dca. Second set perpendicular at 60 to 65 dca. Fractures calcareous. Fracture selvages often bleached. Weak pervasive sericite alteration throughout the unit. Alternating zones of felsic tuff with 5% to 10% sericite laminae and crystal tuff with 5% white feldspar phenocrysts stretched parallel to foliation. Trace to 1% pyrrhotite. Disseminated and smeared along foliation planes. Rare 10 cm intervals with up to 3% pyrrhotite. 1% Quartz and/or quartz-calcite stringers. Average width <1 cm. Occasionally sericitic with trace to 1% pyrrhotite. Lower contact contact gradual. 90.4 90.6 Broken core. 92.8 93.3 Broken core. 108.1 108.4 Broken core. 116.0 128.0 Crystal tuff. 5% <1 mm white feldspar phenocrysts. 128.0 137.0 Ash tuff. 5-10% sericite laminae. 128.0 129.0 Zone of 40% calcite healed fractures at all angles to core axis. 137.0 141.0 Crystal tuff. 5% 1 mm feldspar phenocrysts. 141.0 179.3 Ash tuff. 5% - 10% sericite laminae. 144.3 114.8 Broken core. 179.3 188.0 Crystal tuff. 5% 1 mm feldspar phenocrysts. 184.5 185.0 Broken core. 184.5 185.0 An irregular 20 cm quartz-sericite vein.
188.0	192.5	GARNETIFEROUS BASALT GtB. 10% to 30% garnets in a biotite-muscovite-amphibole-chlorite matrix. Moderately soft. Non-magnetic. Foliated at 43 dca. Fracture sets parallel to foliation at 40 dca. Second and third set perpendicular to foliation at 20 and 55 dca. Barren. Minor quartz veining with 1% pyrrhotite. Lower contact gradual. 189.6 190.5 GtB. 25% quartz veining with 1% pyrrhotite.
192.5	201.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Moderately hard. Non-magnetic. Finely foliated at 53 dca. Fractures parallel to foliation at 30 dca. Barren. 1% Quartz-calcite stringers parallel to foliation. Lower contact sharp at 70 dca.

From (m)	To (m)	Geology
201.0	207.4	INTRAFORMATIONAL IRON FORMATION 24EA. Garnet-amphibole-chert-grunerite-magnetite iron formation. 40% amorphous garnets. Bedding disrupted and folded. Fractures perpendicular to bedding at 45 to 53 dca. Silicified, weakly gruneritized. Trace to 3% disseminated and wispy pyrrhotite. 1% Quartz stringers. Lower contact sharp at 63 dca. 201.0 202.0 24ea. 2% quartz stringers. Weak grunerite. 202.0 203.0 24ea, BVOL. Weak grunerite. 203.0 204.0 24ea. Weak grunerite. 204.0 205.0 24ea. 1% quartz stringers. Weak grunerite. 205.0 206.0 24ea. 1% quartz stringers. Weak grunerite. 205.5 Folding with axial plane at 45 dca. 206.0 207.0 24ea. 5% quartz stringers. Weak grunerite. 206.8 207.4. 10% subrounded, stretched quartz boudins in a fine grained dark green-grey matrix. Strongly sheared. 207.0 207.4 Breccia Zone. 10% quartz boudins.
207.4	213.3	INTERMEDIATE TO MAFIC VOLCANICS AND GARNETIFEROUS BASALT BVOL, GtB. Fine grained, dark green-grey. Non-magnetic. Locally garnetiferous. Finely foliated at 45 dca. Fracture set parallel to foliation at 30 dca. Barren. Lower contact at 40 dca. 212.0 213.0 Broken core.
213.3	219.1	BRECCIA ZONE BX Z. 8% 5 Mm to 3 cm subrounded quartz boudins parallel to foliation in a fine grained, dark green-grey, chlorite-biotite matrix. 5% to 15% anhedral garnets. Hard. Non-magnetic. Well foliated at 50 dca. Sheared. Trace to 1% pyrrhotite. Lower contact sharp at 36 dca.
219.1	247.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Finely foliated at 40 to 50 dca. One fracture set parallel to foliation at 42 to 55 dca. Second set perpendicular to foliation at 50 to 55 dca. Chloritic, weak pervasive biotite. Locally calcareous and siliceous. Barren to trace disseminated pyrrhotite. 1% Quartz-calcite stringers parallel to foliation. Lower contact sharp at 50 dca. 238.4 239.2 QUARTZ-VEIN. 85 cms of quartz veining with 10% BVOL.

From (m)	To (m)	Geology
247.1	249.3	INTRAFORMATIONAL IRON FORMATION 24f. Garnet-biotite, minor 4b I.F.. 15% <1 cm amorphous garnets. Non-magnetic to weakly magnetic. Hard. Poorly developed bedding at 50 dca. Minor right limb folds looking down-plunge. Dominant fracture set perpendicular to bedding at 65 dca. Unit is very silicious. Trace to 3% disseminated and stringer pyrrhotite. 5% Quartz stringers and quartz flooding. Lower contact sharp at 39 dca. 247.1 248.1 24f. Siliceous. 5% quartz veining. 247.4 Right limb folding looking down-plunge with axial plane at 56 dca. 248.1 249.3 24f. 5% quartz flooding.
249.3	256.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Finely foliated at 50 dca. Two fracture sets perpendicular to foliation at 25 and 50 dca. Weak pervasive biotite and chlorite alteration. Trace disseminated pyrrhotite. 1% Quartz-calcite stringers parallel to foliation. Minor 20 to 50 cm zones with 5% pyrrhotite and 20% quartz veining. Lower contact sharp at 45 dca. 249.3 250.3 BVOL. 2% quartz-calcite stringers. 250.3 251.5 BVOL. 251.5 253.0 BVOL. 2% quartz-calcite stringers. 253.0 253.9 BVOL. 2% quartz-calcite stringers. 253.9 254.9 BVOL. 65 cm band with 10% quartz veining and 5% pyrrhotite. 254.9 256.0 BVOL. 20 cm band with 15% pyrrhotite and quartz veining.
256.0	257.0	INTRAFORMATIONAL IRON FORMATION 24e. Poorly developed 24e beds with 15% 5 mm to 1 cm amorphous garnets. <5% 4b beds. Non to weakly magnetic. Bedding at 45 dca. 2% Stringers pyrrhotite. 3% Quartz stringers. Lower contact sharp at 40 dca. 256.0 257.0 24e. 3% quartz stringers.
257.0	279.8	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to 249.30 to 256.00. Zone of 30% barren quartz veining from 270.0 to 276.50 metres. Veining generally irregular but some contacts sharp at 55 dca. Lower contact at 43 dca. 257.0 258.0 BVOL. 258.4 258.5 15% irregular quartz veining.

From (m)	To (m)	Geology
		258.7 259.1 20% irregular quartz veining. Trace pyrrhotite. 259.5 260.0 20% irregular quartz veining. 1% pyrrhotite. D63861 STANDARD I 9.63 9.74 NS. D63862 BLANK 0.17 NS NS. 270.0 270.7 60% irregular quartz veining and 30% BVOL. 272.0 273.0 30% quartz veining. 60% BVOL. 273.0 274.0 70% quartz veining. 30% BVOL. 274.0 275.0 40% quartz veining. 60% BVOL. 275.0 276.0 20% quartz veining. 80% BVOL. 276.0 276.5 40% quartz veining. 60% BVOL.
279.8	284.5	GARNET-AMPHIBOLE I.F. / GARNET-BIOTITE SCHIST 4ef. 59% 4e Beds. Up to 2 cm. 20% anhedral garnets. 30% 4f Beds. 1 cm to 20 cm. 30% 1 mm garnets. 10% Chert beds. 5 mm to 1 cm. 1% 4b Beds. 5 mm to 1 cm. Weakly gruneritized. Bedding moderately developed at 40 to 50 dca. Minor right limb folding looking downplunge between 283.0 and 284.50 metres. Two fracture sets subparallel to bedding at 30 and 60 dca. Unit is locally siliceous. Trace to 2% disseminated and stringer pyrrhotite. Trace chalcopyrite. Minor quartz veining and quartz flooding. Lower contact sharp at 45 dca. 279.8 281.0 4ef. 5% quartz veining and quartz flooding. 281.0 282.0 4ef. <1% quartz veining. Very weak grunerite. 282.0 283.0 4ef. Trace chalcopyrite. Very weak grunerite. 283.0 284.0 4fe. Weak grunerite. 283.3 Right limb fold looking downplunge with axial plane at 40 dca. 284.0 284.5 4fe. Moderate grunerite.
284.5	326.2	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab and 4ea. Alternating intervals of 4eab and 4ea. 4eab subunit has:. 70% 4ea Beds. 1 to 3 cm wide. Moderately to strongly gruneritized. 20-30% 1 mm to 5 mm anhedral garnets. 30% 4b Beds. Up to 1 cm wide. 5% 4e Beds with 20% garnets. 4ea Subunit has:. Up to 35% chert beds. Up to 64% 4ea beds with strong grunerite alteration and amorphous garnets. 1% 4b Beds. Up to 50% quartz flooding and quartz veining. Bedding moderately developed at 20 to 50 dca in 4eab units. Bedding is poorly to moderately developed in 4EA units. Moderate folding throughout. Weak shearing from 324.00 to 326.00. Fractures subparallel to bedding at 56 to 65 dca and perpendicular to bedding at 45 and 70 dca. 0 to 7% disseminated and stringer pyrrhotite. Trace chalcopyrite. 0 to 50% quartz veining and quartz flooding. Lower contact sharp at 63 dca. 284.5 285.0 4eab. Moderate grunerite.

From (m)	To (m)	Geology
		285.0 286.0 4eab. Moderate grunerite. Bedding 45 dca.
		286.0 287.0 4eab. Moderate grunerite. Bedding 45 dca.
		287.0 288.0 4eab. Moderate grunerite. Bedding 43 dca.
		288.0 289.0 4eab. 1% quartz veining. Strong grunerite. Bedding 41 dca.
		288.7 Left limb fold looking downplunge with axial plane at 46 dca.
		289.0 290.0 4eab. Strong grunerite.
		289.5 Axial plane at 30 dca.
		290.0 291.0 4eab.
		290.6 Left limb fold looking downplunge with axial plane at 44 dca.
		291.0 292.0 4eab. Strong grunerite. 1% quartz veining. Bedding 33 dca.
		292.0 293.0 4eab. Strong grunerite. Bedding 26 dca.
		292.8 Axial plane at 51 dca.
		293.0 294.0 4eab. Strong grunerite. Bedding 20 dca.
		293.6 Right limb fold with axial plane at 30 dca.
		294.0 295.0 4eab. Strong grunerite. Bedding 36 dca.
		294.5 Left limb fold with axial plane at 23 dca.
		295.0 296.0 4eab. 1% quartz veining. Strong grunerite.
		296.0 297.0 4be. Trace chalcopyrite.
		D63890 303.00 304.00 DUPLICATE 0.17 NS NS.
		D63899 STANDARD II 10.11 10.29 NS.
		D63900 BLANK 0.17 NS NS.
		D63910 320.00 321.00 DUPLICATE 3.67 NS NS.
		296.4 Axial plane at 40 dca.
		297.0 298.0 4be.
		297.5 W folds with axial plane at 47 dca.
		298.0 299.0 4be.
		298.9 M folds with axial plane at 45 dca.
		299.0 300.0 4be.
		299.3 Axial plane at 52 dca.
		300.0 301.0 4be.
		301.0 302.0 4be. Weak grunerite.
		301.5 Left limb folding with axial plane at 60 dca.
		302.0 303.0 4eab. Trace chalcopyrite. Moderate grunerite. Bedding 50 dca.
		302.3 Left limb folding with axial plane at 37 dca.
		303.0 304.0 4eab. 8% quartz veining. Moderate grunerite. Bedding 32 dca.
		304.0 305.0 4eab. 5% quartz veining. Moderate grunerite.
		305.0 306.0 4eab. 10% quartz veining. Moderate grunerite.
		305.7 Axial plane at 85 dca.
		306.0 307.0 4eab. 10% quartz veining. Moderate grunerite.
		307.0 308.0 4eab. 5% quartz veining. Moderate grunerite. Bedding 30 dca.
		308.0 309.0 4eab. 3% quartz veining. Moderate grunerite. Bedding 33 dca.
		309.0 310.0 4eab. 7% quartz veining. Trace chalcopyrite. Moderate grunerite.
		310.0 311.0 4ea. 20% quartz flooding and quartz veining. Moderate grunerite.
		311.0 312.0 4ea. 50% quartz flooding. Moderate grunerite.
		312.0 313.0 4ea. 20% quartz flooding. Strong grunerite.
		313.0 314.0 4ea. 20% quartz flooding. Strong grunerite.
		313.8 Axial plane at 60 dca.
		314.0 315.0 4ea. 2% quartz veining. Strong grunerite. Bedding 48 dca.
		315.0 316.0 4ea. Strong grunerite.
		316.0 317.0 4eab. Strong grunerite. Bedding 16 dca.
		317.0 318.0 4eab. 20% quartz veining. Strong grunerite.

From (m)	To (m)	Geology
		318.0 319.0 4ea. 2% quartz veining. Strong grunerite. 319.0 320.0 4ea. 10% quartz veining. Strong grunerite. 320.0 321.0 4ea. 10% quartz veining. Strong grunerite. D63880 STANDARD II 9.87 10.42 NS. D63881 BLANK 0.27 NS NS. 321.0 322.0 4eab. Strong grunerite. 322.0 323.0 4eab. 5% quartz veining. Strong grunerite. Bedding 40 dca. 323.0 324.0 4ea. 10% quartz veining. Strong grunerite. Bedding 46 dca. 324.0 325.0 4eab. 20% quartz veining. Weak grunerite. 325.0 326.2 4eab. 5% quartz flooding. Weak grunerite. Bedding 68 dca.
326.2	341.6	CHERT - MAGNETITE IRON FORMATION 4b. 40% Medium grey chert beds. 2 mm to 5 mm wide. Hard. 57% Dark grey chert-magnetite beds. 1 mm to 3 cm wide. Weakly gruneritized along bedding selvages. Some beds are garnetiferous. Up to 3% 4e beds with 1 mm garnets. 5 mm wide. Bedding well developed at 10 to 60 dca. From 326.20 to 336.00 bedding folded with axial planes at 40 to 61 dca. Folded zone displays micro-faulting of beds with 1 cm offsets. Dominant fracture set perpendicular to bedding at 45 to 53 dca. Second minor set parallel to bedding at 30 to 34 dca. 0 To tr dis po. 1% to 5% boudinaged quartz stringers parallel to bedding. Generally barren but may have up up to 1% po. Lower contact sharp at 37 dca. 326.2 327.0 4b. 3% quartz veining. Very weak grunerite. Bedding 65 dca. 327.0 328.0 4b. Very weak grunerite. Bedding 70 dca. 327.8 M folds with axial plane at 47 dca. 328.0 329.0 4b. 1% quartz veining. Very weak grunerite. 329.0 330.0 4b. 3% quartz veining. Very weak grunerite. 330.0 331.0 4b. Very weak grunerite. Bedding 57 dca. 330.3 Axial plane at 50 dca. 331.0 332.0 4b. Very weak grunerite. Bedding 38 dca. 331.6 W folds with axial plane at 61 dca. 332.0 334.0 Bedding 25 dca. 333.1 Left limb folding looking downplunge with axial plane at 50 dca. 334.0 335.0 Bedding 10 dca. D63922 STANDARD 9.46 9.87 NS. D63923 BLANK 0.21 NS NS. 334.5 Axial plane at 40 dca. 335.0 336.0 4b. 3% quartz stringers. Very weak grunerite. Bedding 47 dca. 336.0 337.0 Bedding 20 dca. 337.0 340.0 Bedding 30 dca. 340.0 341.0 4b. 5% quartz stringers. Very weak grunerite. Bedding 30 dca. 341.0 341.6 Bedding 37 dca.
341.6	365.1	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. 75% 4b Beds. 1 mm to 5 mm wide. Strongly magnetic. 25% 4e Beds. 1 mm to 1 cm wide. 25% pinhead garnets. Bedding well developed at 30 to 40 dca. Fractures subparallel to bedding at 35 dca and perpendicular to bedding at 35 to 45 dca. Barren.

From (m)	To (m)	Geology
		Up to 3% quartz stringers parallel to bedding. Lower contact gradual at 45 dca. 342.0 343.0 Bedding 36 dca. 343.0 344.0 Bedding 30 dca. 344.0 345.0 4be. 37 cm QUARTZ-VEIN with contacts at 45 dca. Bedding 35 dca. 346.0 346.4 QV. 35 cm QUARTZ-VEIN with contacts at 50 dca. 347.0 348.0 Bedding 30 dca. 348.0 349.0 4be. 3% quartz stringers. Bedding 32 dca. 349.0 351.0 Bedding 34 dca. D63930 352.00 353.00 DUPLICATE 0.03 NS NS. 352.0 353.0 4be. 3% quartz stringers. Bedding 40 dca. 353.0 354.0 Bedding 36 dca. 356.0 357.0 4be. 1% irregular quartz stringers. Bedding 35 dca. 360.0 361.0 4be. Bedding 40 dca. 364.0 365.1 4be. Bedding 47 dca.
365.1	367.3	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. 80% 4eab Beds. Strongly gruneritized with amorphous garnets. Moderately magnetic. 20% Chert beds. Up to 3 mm wide. Bedding well developed at 50 dca. Fractures perpendicular to bedding at 30 dca. Barren. Lower contact sharp at 45 dca. 365.1 366.1 4eab. Strong grunerite. Bedding 50 dca. 366.1 367.3 4eab. Strong grunerite. Bedding 47 dca.
367.3	376.1	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Similar to 341.60 to 365.10. Bedding 45 to 47 dca. Lower contact sharp at 50 dca. 367.3 368.4 4be. 368.4 368.8 QUARTZ-VEIN. Contacts at 45 dca. 368.8 369.8 4be. 373.0 374.0 4be. Bedding 45 dca.
376.1	383.0	CHERT - MAGNETITE IRON FORMATION 4b. 40% Medium grey chert beds. 1 mm to 1 cm. 55% 4b Beds. 1 mm to 2 cm. Strongly magnetic. Local weak grunerite alteration. Up to 5% 4e beds. 2 mm to 1 cm. 25% pinhead garnets. Bedding well developed at 40 dca. Fractures subparallel to bedding at 35 dca and perpendicular to bedding at 33 and 65 dca. Barren. Lower contact sharp at 40 dca. D63941 STANDARD II 10.01 10.56 NS.

From (m)	To (m)	Geology
		D63942 BLANK 0.10 NS NS. 377.0 378.0 4b. 381.0 382.0 4b.
383.0	411.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. 60% 4ea Beds. 1 to 2 cm wide. Moderate to strong grunerite alteration. Garnet texture ranges from 1 to 3 mm well developed subhedral crystals to amorphous clusters. Weak to moderately magnetic. 40% 4b Beds. 1 mm to 5 mm wide. Bedding moderately to well developed at 40 to 50 dca. Fracture sets parallel to bedding at 40 to 50 dca and perpendicular to bedding at 30 and 50 dca. Trace disseminated pyrrhotite. From 403.00 to 405.00 metres 3% to 5% pyrrhotite. Minor quartz stringers, locally up to 20%. Lower contact gradual. 289.8 290.0. Contacts at 40 dca. 383.0 384.0 4eb. Very weak grunerite. Bedding 36 dca. 384.0 385.0 4eb. 20% quartz veining. Very weak grunerite. Bedding 27 dca. At 284.8 left limb folding with axial plane at 50 dca. 385.0 386.0 4eb. 10% quartz veining. Weak grunerite. Bedding 35 dca. 386.0 387.0 4eb. Weak grunerite. Bedding 37 dca. 387.0 388.0 4eb. Weak grunerite. Bedding 40. 388.0 389.0 4eab. 5% quartz veining. Moderate grunerite. Bedding 40 dca. 389.0 390.0 4eab. Moderate grunerite. Bedding 45 dca. At 289.75 metres 25 cms of BVOL. 390.0 391.0 4eab. Moderate grunerite. Bedding 42 dca. At 390.90 metres 25 cms of BVOL. 390.9 391.1. Contacts at 40 dca. D63950 388.00 389.00 DUPLICATE 1.58 NS NS. D63961 STANDARD II 10.15 10.66 NS. D63962 BLANK 0.27 NS NS. 391.0 392.0 4eab. Moderate grunerite. Bedding 40 dca. 392.0 393.0 4eab. Moderate grunerite. Bedding 40 dca. 393.0 394.0 4eab. Moderate grunerite. Bedding 40 dca. 394.0 395.0 4eab. 1% quartz stringers. Strong grunerite. Bedding 40 dca. 395.0 396.0 4eab. Strong grunerite. Bedding 45 dca. 396.0 397.0 4eab. 5% quartz stringers. Strong grunerite. Bedding 41 dca. 397.0 398.0 4eab. 1% quartz veining. Strong grunerite. Bedding 40 dca. 398.0 399.0 4eab. At 398.88 a 12 cm barren QUARTZ-VEIN. Strong grunerite. Bedding 45 dca. 399.0 400.0 4eab. 3% quartz stringers. Strong grunerite. Bedding 42 dca. D63970 405.00 406.00 DUPLICATE 0.10 NS NS. 400.0 401.0 4eab. Moderate grunerite. Bedding 45 dca. 30 cm BVOL. 401.0 402.0 4eab. Moderate grunerite. Bedding 45 dca. 402.0 403.0 4eab. Weak grunerite. Bedding 40 dca. 403.0 404.0 4eab. 10% quartz flooding. Weak grunerite. Bedding 40 dca. 404.0 405.0 4eab. 10% quartz veining. Weak grunerite. Bedding 44 dca. 405.0 406.0 4eab. 2% quartz veining. Moderate grunerite. Bedding 46 dca. 406.0 407.0 4eab. 1% quartz veining. Moderate grunerite. Bedding 40 dca. 407.0 408.0 4eab. 1% quartz veining. Moderate grunerite. Bedding 40 dca. 408.0 409.0 4eab. Moderate grunerite. Bedding 47 dca. 409.0 410.0 4eab. Weak grunerite. Bedding 50 dca. 410.0 411.0 4eab. Weak grunerite. 1% quartz stringers. Bedding 50 dca.
411.0	415.6	GARNET-BIOTITE SCHIST

From (m)	To (m)	Geology
		4f. 60% 4f Beds. 3 mm to 5 mm wide. 30% 1 mm garnets. 40% Chert beds. 3 mm to 5 mm wide. Non-magnetic. Bedding at 40 to 50 dca. W style folds throughout unit with axial planes at 57 dca. Fractures parallel to bedding at 40 dca and perpendicular to bedding at 45 dca. Trace disseminated pyrrhotite. Lower contact at 40 dca. D63981 STANDARD II 10.11 10.15 NS. D63982 BLANK 0.38 NS NS. 411.0 412.0 4f. W folds with axial plane at 55 dca. 412.0 413.0 4f. W folds with axial plane at 57 dca. 413.0 414.0 4f. Bedding 40 dca. 414.0 415.0 4f. Bedding 43 dca. 415.0 415.6 4f. Bedding at 45 dca.
415.6	440.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. 60% 4ea Beds. 5 mm to 2 cm. Moderately to strongly gruneritized. Moderately magnetic. 30% 4b Beds. Up to 1 cm. Magnetic. 10% 4e Beds. 20% 1 mm garnets. Bedding at 35 to 50 dca. From 422.00 to 440.00 metres bedding disrupted, folded and sheared with 1 mm microfault offsets. Fractures subparallel to bedding at 40 to 60 dca. Second fracture set at 53 to 60 dca. Barren to 5% disseminated pyrrhotite. Trace to 5% sheared quartz and quartz-calcite stringers. Locally up to 50% quartz stringers and quartz flooding with trace pyrrhotite. Lower contact gradual. D63990 422.00 423.00 DUPLICATE 0.51 NS NS. D68701 STANDARD II 10.01 10.29 NS. D68702 BLANK 0.03 NS NS. D68710 439.00 440.00 DUPLICATE 0.03 NS NS. 415.6 417.0 4eab. 10% quartz stringers. Moderate grunerite. Bedding at 42 dca. 417.0 418.0 4eab. 7% quartz stringers. Strong grunerite. Bedding at 35 dca. 418.0 419.0 4eab. 50% quartz flooding. Strong grunerite. Bedding at 39 dca. 419.0 420.0 4eab. 50% quartz flooding. Moderate grunerite. Bedding at 50 dca. 420.0 421.0 4eab. Moderate grunerite. Bedding at 50 dca. 421.0 422.0 4eab. Moderate grunerite. Bedding at 60 dca. 422.0 423.0 4eab. 5% quartz stringers. Weak grunerite. Bedding at 50 dca. 423.0 424.0 4eab. 1% quartz stringers. Weak grunerite. Bedding at 42 dca. 424.0 425.0 4eab. 1% quartz stringers. Weak grunerite. Bedding at 45 dca. 425.0 426.0 4eab. Moderate grunerite. Bedding at 42 dca. 426.0 427.0 4eab. Moderate grunerite. Axial plane at 40 dca. 427.0 428.0 4eab. Weak grunerite. 3% quartz-calcite stringers. At 427.5 axial plane 50 dca. 428.0 429.0 4eab. Weak grunerite. 10% quartz-calcite stringers. 429.0 430.0 4eab. 5% quartz-calcite stringers. Very weak grunerite. Bedding 25 dca. At 429.75 axial plane at 37 dca. 430.0 431.0 4eab. Very weak grunerite. Bedding at 35 dca. 431.0 432.0 4eab. 2% quartz-calcite stringers. Weak grunerite. At 431.15 axial plane at 60 dca. 432.0 433.0 4eab. 2% quartz-calcite stringers. Weak grunerite. At 432.60 axial plane at 45 dca. 433.0 434.0 4eab. 3% quartz stringers. Weak grunerite. 434.0 435.0 4eab. 3% quartz stringers. Weak grunerite.

From (m)	To (m)	Geology
		435.0 436.0 4eab. 5% quartz stringers. Moderate grunerite. 436.0 437.0 4eab. 5% quartz stringers. Moderate grunerite. 437.0 438.0 4eab. 15% quartz stringers. Moderate grunerite. Bedding 46 dca. 438.0 439.0 4eab. 15% quartz stringers. Moderate grunerite. Bedding 49 dca. 439.0 440.0 4eab. 5% quartz stringers. Moderate grunerite. Bedding 45 dca.
440.0	448.5	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. 60% 4b Beds. 5 mm to 1 cm. Magnetic. 40% 4e Beds. 1 mm to 1 cm. 20% 1 mm subhedral garnets. Bedding well developed at 50 to 56 dca. Fractures parallel to bedding at 45 to 50 dca and perpendicular at 50 dca. Barren. <1% quartz veining. Lower contact gradual. 440.0 441.0 4bf. Very weak grunerite. Bedding 56 dca. 441.0 442.0 4bf. Very weak grunerite. At 441.75 a 25 cm QUARTZ-VEIN. Bedding 54 dca. 442.4 443.0. Contacts at 55 dca. 443.0 444.0 Bedding 53 dca. 444.0 445.0 Bedding 50 dca. 445.0 448.0 Moderate folding. 445.0 446.0 4bf. At 445.6 W fold with axial plane at 49 dca. Bedding 60 dca. 446.0 447.0 Bedding 68 dca. 447.0 448.0 32 dca. 447.0 Left limb folding with axial plane at 45 dca.
448.5	452.0	CHERT - MAGNETITE IRON FORMATION 4b. 50% Medium grey chert bands with magnetite beds. Up to 1 cm. 50% Dark grey chert-magnetite beds. Up to 5 mm. Bedding well developed at 66 dca. Minor fractures parallel and perpendicular to bedding at 58 and 47 dca respectively. Trace disseminated pyrrhotite. Up to 40% 1 cm quartz stringers with trace pyrrhotite. Parallel to bedding. 448.5 450.0 4b. 40% quartz veining. At 449.05 a 35 cm QUARTZ-VEIN with trace pyrrhotite. Bedding 65 dca. 450.0 451.0 4b. 20% quartz stringers. Bedding 66 dca. 451.0 452.0 4b. 10% quartz stringers. At 451.55 a 7 cm quartz stringer with trace pyrrhotite. Bedding 66 dca.
452.0		END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken. DRILLING HISTORY:. .0 11.0 Tricone bit. 11 metres of NW casing. 11.0 208.0 Dimatec MX 10 bit. Double Hexagon core barrels. 208.0 281.0 Hobic Series 3 bit. Standard core barel.

From (m)	To (m)	Geology
		281.0 452.0 Dimatec MX 10 bit. Standard core barrel. Hole cemented - 8.5 hours. 93 bags of 20 kg Type 50 cement used. Casing pulled. SURVEYING HISTORY:. Gyroscopic Directional Survey by CBC Welnav, North Bay, Ontario used for Class 2 Data. Survey took 4 hours. Dip Tests. 11.00m -62 Acid, -62 Rotodip. 16.00m -62 Rotodip. 49.00m -61 Acid, -62 Rotodip. 55.00m -61 Rotodip. 67.00m -60.5 Rotodip. 92.00m -61.00 Rotodip. 112.00m -60.00 Rotodip. 124.00m -60.5 Rotodip. 136.00m -59.5 Rotodip. 158.00m -59.0 Acid. 178.00m -59.0 Acid. 208.00m -58.0 Acid. 238.00m -57.0 Acid. 262.00m -57.0 Acid. 283.00m -55.0 Acid. 313.00m -53.0 Acid. 343.00m -53.0 Acid. 375.00m -54.0 Acid. 403.00m -53.0 Acid. 433.00m -52.0 Acid.

Date: 14 Nov, 1993

PLACER DOME EXPLORATION

DRILL HOLE RECORD

Northing: 10149.80
Easting: 8982.23
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -62.00

Hole Length: 21
Core Size: NQ
Date Started: FEB. 18, 1993
Logged by: B.J. McKay

Claim: Pa529826: 21.3m
Comments: 26.2mW, 307.8mS to WP of #1 post, Claim# Pa529500
Purpose: to test S, T and WA Zones.

*** Dip Tests ***

Depth	Azi.	Dip

Drill Hole: 506-619

Northing: 10150N
Easting: 8982E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10150N
Completed: FEB. 18, 1993
Date(s) Logged: FEB. 19, 1993

From (m)	To (m)	Geology
		REVISED LOG, 22 APRIL, 1993.
.0	21.3	CASING
21.3		END OF HOLE
		Abandoned in overburden. Too many boulders and caving at bedrock interface.
		CASING PULLED.
		DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.

DRILL HOLE RECORD

Northing: 10299.37
Easting: 9030.60
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -64.00

Hole Length: 524
Core Size: NQ
Date Started: FEBRUARY 18, 1993
Logged by: DENISE INGS

*** Depth	Dip Tests Azi.	*** Dip
15.2	225.9	-64.0
30.5	225.9	-62.5
45.7	225.4	-62.3
61.0	225.6	-64.0
76.2	225.7	-63.0
91.4	224.5	-62.0
106.7	224.6	-63.0
121.9	224.7	-63.0
137.2	224.8	-62.0
152.4	224.3	-62.5
182.9	223.8	-60.0
198.1	223.9	-60.5
213.4	225.1	-61.0
228.6	224.0	-60.5
243.8	221.6	-59.5
259.1	221.7	-60.0
274.3	222.8	-59.0
289.6	222.3	-59.0
304.8	222.2	-58.0
320.0	220.6	-58.0
335.3	219.5	-58.5
350.5	219.5	-58.0
365.7	220.7	-58.0
381.0	220.6	-57.0
396.2	223.1	-58.0
411.5	223.0	-56.0
426.7	222.3	-56.0
441.9	220.4	-55.0
457.2	221.0	-55.0
472.4	219.7	-55.0

Drill Hole: 506-620

Northing: 10300N
Easting: 9022E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10300N
Completed: FEBRUARY 27, 1993
Date(s) Logged: FEBRUARY 20-27, 1993

Claim: Pa529497: 510.3m; Pa529500: 13.5m
Comments: 89m W and 31.2m N to WP of #1 post of Pa529497.
Purpose: TO INTERSECT S,T, AND W ZONES

From (m)	To (m)	Geology
		Samples E10655-10700, E11401-11500, E11701-11781 inclusive. Resampling E15523-15533. Samples marked and left at Musselwhite camp for splitting on next drill program. NOTE: All references to folding - both right and left limb folds - are looking down the plunge of the deposit (ie. Northwest). For detailed structural data see attached STRIP LOG.
.0	17.0	OVERBURDEN
17.0	28.3	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4BE - NORTHERN IRON FORMATION.

From (m)	To (m)	Geology
		Fine grained, grey and black, moderately to strongly magnetic. Composed of: 65% 4b beds, 25% 4e beds, 10% 4f beds. Well bedded at 30 to 35 dca. Beds are generally 3 mm to 2 cm in width. Chert beds are commonly boudinaged, especially when interbedded with 4e. Predominant fracture set is at 45 dca sub- parallel to bedding. Moderate alteration to carbonate, garnet, and biotite (5-10% cb, 3% bi, 10% gar). Trace to nil pyrrhotite. Contacts are sharp at 35 to 40 dca. 21.0 22.0 4be, moderate carbonate, biotite, garnet alteration. 23.4 24.1 GARNET-BIOTITE SCHIST bed, non-magnetic. 25.0 26.0 4be, moderate carbonate, biotite, garnet alteration.
28.3	37.7	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained, grey, green, and pink mottled, non-magnetic to locally weakly magnetic. Composed of 80% 4f beds, 7% 4b beds, 3% chert beds. 4F Beds generally 70 cm thick, interlayered 4b beds are 1 to 2 cm thick. Bedding varies from 10 to 60 dca due to minor folds. Fractures are sub- parallel to bedding. Moderate to strong sericite alteration locally. 29.7 32.8 4fa - Small zone of strong grunerite alteration and minor quartz flooding. 40% f beds, 50% a beds, 10% quartz flooding. CHECK SAMPLES:. E10660 STANDARD I 7.03 7.51. E10661 BLANK 0.27. 29.7 30.7 4fa, folded, 10% quartz flooding. 30.7 31.8 4fa, folded, 10% quartz flooding. 31.8 32.8 4fa, folded, 10% quartz flooding.
37.7	69.4	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Similar to 17.0 28.3 metres. Composed of: 30 to 50% ea-beds 50 to 70% b-beds. Bedding at 30 dca. Generally planer beds 5 to 10 cm in width. 4b beds are finely laminated on sub-mm scale. Beds are locally boudinaged. Moderate to strong grunerite alteration locally. Minor carbonate fracture-filling locally. E-beds altered to biotite (4f) locally. Trace to nil sulphides. 38.0 39.0 4ea, 70% b-beds, 20% e-beds, 10% f-beds, moderate grunerite. 41.7 42.7 4ea, 10% quartz flooding, pyrrhotite stringers, weak grunerite alteration. 42.7 43.7 4ea, moderate to strong grunerite alteration, fine grained pyrrhotite. 43.7 44.7 4ea, moderate to strong grunerite alteration, fine grained pyrrhotite, 2% quartz flooding, minor carbonate stringers. 44.7 45.8 4ea, moderate to strong grunerite alteration, fine grained pyrrhotite, 5% quartz flooding, minor carbonate stringers. 45.8 53.9 Moderate to strong (30%) grunerite alteration. Trace to nil pyrrhotite 6% BVOL beds. 45.8 46.8 4ea, weak grunerite alteration, 5 cm QUARTZ-VEIN at 50 dca. 46.8 47.8 4ea, weak grunerite alteration. 47.8 48.8 4ea, weak grunerite alteration. 48.8 49.8 4ea, moderate grunerite alteration.

From (m)	To (m)	Geology
		49.8 50.8 4ea, moderate grunerite alteration. 50.8 51.8 4ea, moderate grunerite alteration. 51.8 52.8 4ea, moderate grunerite alteration. 52.8 53.9 4ea, weak to moderate grunerite alteration. 58.0 59.0 4ea, very weak grunerite alteration, 30% b-beds. 59.0 59.6 4ea, very weak grunerite alteration, 3% quartz flooding, boudinaged bedding, minor chlorite. 59.6 69.4 Moderate to strong grunerite alteration, 10% quartz flooding, minor pyrrhotite. 59.6 60.4 4ea, 20% quartz flooding, 5% biotite alteration, weak grunerite alteration. CHECK SAMPLES:. E10669A DUPLICATE OF E10669 0.03. E10683 STANDARD I 7.51. E10684 BLANK 0.03. 60.4 61.7 Q-Po vein, in 4ea, 2% grunerite, trace pyrite. 61.7 63.0 4ea, 8% quartz flooding, moderate to strong grunerite alteration, 20% chert beds. 63.0 64.0 4ea, 5% quartz flooding, strong grunerite, 10% b-beds, 10% e-beds, 80% a-beds. 64.0 65.0 4ea, 30% quartz flooding, pyrrhotite as fracture-filling, weak to moderate grunerite alteration. 65.0 66.0 4ea, 5% quartz flooding, strong grunerite alteration, trace pyrite. 66.0 67.0 4ef, 50% f-beds, moderate grunerite alteration. 67.0 68.0 4bfa, pyrrhotite mineralization in chert beds. 68.0 69.4 4ea, 20% quartz veining, fine grained, granular veins, semi- massive pyrrhotite locally.
69.4	76.7	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. Similar to 17.0 28.3 metres. Composed of: 30 to 50% e-beds 50 to 70% b-beds. Bedding at 30 dca. Generally planer beds 5 to 10 cm in width. 4b beds are finely laminated on sub-mm scale. Beds are locally boudinaged. 69.4 70.4 4be, 20 cm bedding of BVOL, 30% e-beds. 74.0 75.0 4be, 30% e-beds, unaltered.
76.7	97.9	CHERT - MAGNETITE IRON FORMATION 4b. Very fine grained, black and white banded, strongly magnetic. Pure 4b beds. Beds are 0.5 to 1 cm thick and finely laminated on sub-mm scale. Minor small-scale left limb folding with axial planes oriented at 20 to 30 dca. Microfaults sub- parallel to axial planes offset the bedding locally on mm -scale. Carbonate filling minor hairline fractures oriented sub-parallel to axial planes. Weak carbonate alteration forms thin wispy halos around the chert beds. Trace pyrrhotite occurs throughout the section, locally concentrated near QUARTZ-VEINs. < 1% QUARTZ-PYRRHOTITE VEINs from 20 to 30 cm wide. 78.6 80.0 4b, 5 cm QUARTZ-PYRRHOTITE VEIN, minor phlogopite alteration of wall rock. 82.9 83.9 4b, 3% quartz flooding, trace carbonate associated with quartz flooding. 83.9 97.5 5 to 20% quartz flooding, several QUARTZ-PYRRHOTITE VEINs, 5 to 40 cm (true-thickness) with 7 to 20% pyrrhotite, trace to 5% pyrrhotite throughout. CHECK SAMPLES:.

From (m)	To (m)	Geology
		E10689A DUPLICATE OF E10689 0.07. E10697 STANDARD II 9.94 10.29 NS. E10698 BLANK 0.14. 83.9 84.7 4b, 20% quartz flooding, 10% QUARTZ-PYRRHOTITE VEIN. 84.7 85.2 4b, unmineralized. 85.2 86.7 4b, 80% QUARTZ-PYRRHOTITE VEIN, 10% quartz flooding, 10% 4b beds, trace pyrite. 86.7 88.0 4b, 5% quartz flooding, pyrrhotite as fracture-filling. 88.0 89.0 4b, 5% quartz flooding, pyrrhotite as fracture-filling. 89.0 90.0 4b, 2% quartz flooding, very weak grunerite alteration. 90.0 91.0 4b, 5% quartz flooding, 5% QUARTZ-VEINs. 91.0 92.0 4b, 5% quartz flooding. 92.0 93.0 4b, 5% quartz flooding, locally brecciated. 93.0 94.0 4b, 20% quartz flooding, 5% QUARTZ-VEIN. 94.0 95.0 4b, 5% quartz flooding, 5% QUARTZ-VEIN. 95.0 96.0 4b, 5% quartz flooding, 5% QUARTZ-VEIN. 96.0 97.5 4b, 10% quartz flooding, trace pyrite.
97.9	101.9	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Similar to 17.0 28.3 metres. Composed of: 30 to 50% e-beds and 50 to 70% b-beds. Bedding at 30 dca. Very weak grunerite alteration locally. E-beds altered to biotite (4f).
101.9	138.1	CHERT - MAGNETITE IRON FORMATION 4B. Similar to above. 100.9 101.7 Massive 4f bed. 102.0 109.0 Zone of 5 to 10 % quartz flooding and quartz veining with 1 to 2% pyrrhotite. 102.0 103.0 4b, 50% quartz veining, 5% quartz flooding, minor breccia. 103.0 103.8 4b, 3% quartz flooding, 1% quartz veining. 103.8 105.1 4b, 1% quartz flooding. 105.1 106.4 4b, 2% quartz flooding, 1% quartz veining. 106.4 107.4 4b, 15% quartz flooding, 5% quartz veining. 107.4 108.0 4b, minor quartz flooding. 108.0 109.0 4b, 20% quartz veining, 5% quartz flooding. 109.9 110.3 4b, minor quartz flooding. 110.3 111.8 4b, 5% quartz flooding, weak carbonate alteration. 111.8 113.3 4b, 30% quartz flooding, weak carbonate alteration. 113.3 124.5 50 % quartz flooding, moderate biotite, chlorite alteration. Mineralization hosted by a boudinaged 4b with weak carbonate alter. Boudinaged chert bedding fractures typically 0.5 to 2 cm in diameter. Carbonate alteration observed as wispy halos on the chert fragments. Strong carbonate alteration locally associated with quartz flooding. Similar to and correlates with 47.4 to 69.9 in hole 506-617. 113.3 114.0 4b, 30% quartz flooding, weak carbonate alteration, minor chlorite alteration. 114.0 115.0 4b, 10% quartz flooding, minor chlorite, boudinaged beds, trace ARSENOPYRITE. 115.0 116.0 4b, 30% quartz flooding, minor chlorite, biotite alteration, 5% garnets, trace to 1% ARSENOPYRITE. 116.0 117.0 4b, 5% quartz flooding, biotite, chlorite alteration, 1% ARSENOPYRITE. 117.0 118.0 4b, breccia chert fragments with carbonate halos, 1% ARSENOPYRITE. 118.0 119.0 4b, 5% quartz flooding, 5% 4f beds, 5% garnets, 1% ARSENOPYRITE.

From (m)	To (m)	Geology
		119.0 119.8 4b, 5% quartz flooding, trace pyrite, 1% ARSENOPYRITE. 119.8 121.0 4b, 3% quartz flooding, weak carbonatization. 121.0 121.9 4b, 60% BVOL, 2% quartz flooding, 20% quartz veining, weak carbonatization. 121.9 123.0 4b, weak carbonate alteration, 10% quartz flooding, 10% chlorite. 123.0 124.0 4b, 15% quartz flooding. 124.0 124.5 4b, boudinaged chert beds. 124.5 125.5 4b, boudinaged chert beds. 131.8 138.1 10% 4E BEDS. Nice planar bedding at 40 dca. Minor boudinaged chert beds. CHECK SAMPLES:. E11423 STANDARD I 7.37 7.78 NS. E11424 BLANK 0.10. 137.0 138.0 4b, weak carbonate alteration.
138.1	148.7	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4BE. Similar to 17.0 28.3 metres. Composed of: 30 to 50% e-beds 50 to 70% b-beds. Bedding at 40 dca. Generally planar beds 5 to 10 cm in width. 4b beds are finely laminated on sub- mm scale. Beds are locally boudinaged. Grunerite alteration increasing down hole to moderate at 141.2 to 148.7. Minor carbonate veins parallel to foliation locally (<1%). Trace to nil sulphides. 141.2 145.1 Quartz flooding, weak to moderate grunerite alteration, trace to 1% pyrrhotite. CHECK SAMPLES:. E11430 DUPLICATE OF E11429 0.21. 141.2 142.0 4be, 8% quartz flooding, with grunerite alteration. 142.0 143.0 4be, 10% quartz flooding, weak grunerite alteration, minor carbonate stringers. 143.0 144.0 4be, includes 30 cm QUARTZ-PYRRHOTITE VEIN. 144.0 145.1 4be, 15% quartz flooding, weak to moderate grunerite alteration. 145.1 146.2 4be, very weak grunerite alteration, 5% quartz flooding. 146.2 147.2 4be, very weak grunerite alteration, 10% quartz flooding. 147.2 148.7 4be, very weak grunerite alteration, 5% quartz flooding, 1% carbonate stringers.
148.7	153.8	INTERMEDIATE TO MAFIC VOLCANICS WITH INTRAFORMATIONAL IRON FORMATION BVOL with 2-4f, 2-4b. Composed of:. 45% BVOL-type beds 30% 4f- beds, 0.3 to 0.5 metres in width and 25% 2-4b beds, 1.3 metres in width. Appears to be a wacke sediment with brick-work style alteration to biotite and garnet. BVOL to 2-4f contacts are not sharp and are probably the result of alteration by fluids channeled along permeable beds. BVOL to 2-4be contacts are sharp and probably reflect origional bedding planes between wackes and iron formation.
153.8	156.7	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Probable bedded felsic crystal-ash tuffs. Fine grained. Grey. Locally weakly magnetic.

From (m)	To (m)	Geology
		Rare 1 to 2 mm quartz blebs and 1 to 5% feldspar phenocrysts. Well bedded or flow banded, finely laminated at 40 dca. Predominant fractures parallel to bedding, others at 50 to 60 dca. Moderate sericite alteration (8 to 10%). Minor biotite alteration (3-5%). Contacts are sharp and parallel to foliation.
156.7	183.7	INTERMEDIATE TO MAFIC VOLCANICS WITH MINOR INTRAFORMATIONAL IRON FORMATION BVOL with minor 2-4eb. Fine grained. Grey, green and brown. Non-magnetic. Aphanitic textured. Well banded and strongly foliated at 50 dca. The predominant fracture set is parallel to bedding / foliation. Moderate biotite, chlorite, alteration is somewhat banded sub- parallel to foliation. <1% quartz carbonate stringers sub- parallel to foliation. Trace pyrrhotite throughout, locally concentrated at quartz-carbonate stringers. Contacts are sharp and parallel to foliation at 50 dca. <1% quartz-carbonate stringers and veins parallel to foliation. Several 24eb units, ranging from 0.5 to 1.1 metres, consisting of: 50% e-beds and 45% b-beds. 5% quartz flooding. 1 to 5% pyrrhotite mineralization as fracture-filling. 162.3 163.2 2-4eb. 166.0 167.1 2-4fb. 171.6 172.4 2-4fb. 183.2 183.5 35 cm band of 4e at lower contact. Semi-massive po over 5 cm at base of 4e. Contacts are sharp. CHECK SAMPLES:. E11438 STANDARD II 10.18 10.46 NS. E11439 BLANK 0.07. 183.2 183.7 4e, 35 cm band, 10% garnet, trace quartz-carbonate stringers, 30% AVOL.
183.7	187.8	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained. Light grey. Locally weakly magnetic. Rare 1 to 2 mm quartz blebs and 1 to 5% feldspar phenocrysts. Well bedded or flow banded, finely laminated at 45 dca. Predominant fractures parallel to bedding. Moderate sericite alteration (8 to 10%). Minor biotite alteration (3-5%). Less than 1% quartz and quartz-calcite veins. Veins are generally 0.3 to 2 cm wide and are oriented parallel to foliation. Contacts are sharp and parallel to foliation.
187.8	190.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to ABOVE. Moderate to strong phlogopite alteration, 5% quartz-carbonate stringers parallel to foliation.
190.0	282.4	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Probable bedded felsic crystal-ash tuffs. Fine grained. Light grey. Locally weakly magnetic.

From (m)	To (m)	Geology
		Trace to 3% 1 to 2 mm quartz blebs locally and 1 to 5% feldspar phenocrysts. Well bedded or flow banded, finely laminated at 40 dca. Predominant fractures parallel to bedding, others at 60 to 70 dca. Weak to moderate sericite alteration (8 to 10%). Minor biotite alteration (3-5%). Sericite alteration typically occurs in 0.5-2cm wide bands parallel to foliation. Minor bleached hairline fractures locally. Local potassic staining. Trace to 1% fracture-filling pyrrhotite and pyrite throughout, locally concentrated to 5% over 5 cm. Less than 1% quartz and quartz-calcite veins. Veins are generally 0.3 to 2 cm wide and are oriented parallel to foliation. Contacts are sharp and parallel to foliation. 190.0 191.0 Silicified zone in AVOL. 190.0 191.0 AVOL, weak to moderate silicification, 5% garnet, minor chlorite, at contact. 196.7 196.9 3% stringers and blebs of pyrite pyrrhotite. 212.3 212.4 10 cm quartz-carbonate vein parallel to foliation, carbonate is light blue grey, trace to 1% pyrite, trace pyrrhotite. 216.1 222.2 Moderate to strong sericite phlogopite alteration. Strong foliation. Minor brecciated QUARTZ-VEIN fractures locally. Unmineralized. 222.2 227.5 Felsic volcanics appear more massive and may be a flow. Alteration, foliation and bedding are less pronounced. 241.6 242.1 AVOL, 5% pyrite associated with quartz carbonate veining over 20 cm. 241.8 242.0 5% pyrite, 1% pyrrhotite associated with quartz-carbonate veining. 250.8 251.8 Strong foliation, strong sericite alteration. 250.8 251.8 AVOL, 2% pyrite, trace very fine grained ARSENOPYRITE, strong sericite alteration, 20 cm QUARTZ-VEIN. 253.8 254.2 5% POTASSIC alteration along fractures. 255.0 256.0 AVOL, 2% pyrite, 30 cm QUARTZ-VEIN, 1% carbonate stringers, strong sericite alteration. 256.0 257.0 AVOL, 2% pyrite, 30 cm QUARTZ-VEIN, 1% carbonate stringers, strong sericite alteration. 257.0 258.0 AVOL, 2% fine grained disseminated pyrite, moderate sericite alteration, minor chlorite. 258.0 259.1 Minor sedimentary component in the felsic tuffs as indicated by mineralogy: 5% garnet, 10-15% amphibole, 10% chlorite. Locally weakly magnetic. CHECK SAMPLES:. E11450 DUPLICATE OF E11449 0.10. E11459 STANDARD II 10.01 10.25 NS. E11460 BLANK 0.17. 258.0 259.1 AVOL, higher sed component, 1% fine grained disseminated pyrite, locally weakly magnetic. 259.1 260.0 AVOL, higher sed component, 1% fine grained disseminated pyrite, locally weakly magnetic. 260.0 261.0 AVOL, 1% pyrite, weak silicification. 261.0 262.0 AVOL, 2% pyrite, weak silicification. 262.0 263.0 AVOL, 2% pyrite, weak silicification. 263.0 264.0 AVOL, 2% pyrite, 10% quartz veining, weak silicification. 264.0 265.0 AVOL, 1% pyrite, moderate sericite alteration, weak silicification. 265.0 266.0 AVOL, 2% pyrite, 25% quartz veining, moderate sericite alteration. 266.0 267.0 AVOL, 1% pyrite, weak to moderate silicification, moderate sericite alteration. 267.0 268.0 AVOL, trace pyrite, weak to very weak silicification, pyrrhotite as stringers. 278.3 279.6 AVOL, trace pyrite, 10% sericite alteration, pyrrhotite as stringers. 279.6 281.0 AVOL, trace pyrite, 10% sericite alteration, pyrrhotite as stringers.
282.4	288.4	INTERMEDIATE TO MAFIC VOLCANICS Fine grained. Grey, green and brown. Non-magnetic. APHANITIC textured. Well banded and strongly foliated at 40 dca. The predominant fracture set is parallel to bedding.

From (m)	To (m)	Geology
		Moderate biotite, chlorite, alteration is banded sub- parallel to foliation. Trace to 2 % carbonate stringers 2-3 mm wide locally. 286.0 287.9 Moderate phlogopite alteration, 2% quartz-carbonate veins 3 to 10 mm wide. 287.9 288.4 Moderate to strong phlogopite alteration, 10% garnets, >1% quartz stringer.
288.4	296.4	INTRAFORMATIONAL IRON FORMATION 2-4E. Fine grained. Grey-green. Weakly to strongly magnetic. Hard. Generally well bedded. Poorly foliated at 45 dca. Fractures generally parallel to beddings. Minor 1 to 2 mm carbonate stringers parallel to bedding. Trace to 1% pyrrhotite, trace pyrite. Contacts are sharp. 288.4 289.0 2-4e, non-magnetic, 2-3% garnet, weak chlorite, biotite, sericite alteration. 289.0 290.0 2-4e, locally weakly to strongly magnetic, minor carbonate stringers. 290.0 291.2 2-4e, locally weakly magnetic, 1% QUARTZ-VEINs, 10% FELSIC TO INTERMEDIATE VOLCANICS - MASSIVE garnets. 291.2 292.2 Locally weakly magnetic, 5% e-beds. 291.2 292.2 2-4fe, locally weakly magnetic, 5% e-beds, 15% garnets. 292.2 293.7 2-4e, locally strongly magnetic, 2% carbonate stringers, 1% quartz stringer, trace pyrite. 293.7 295.2 60% 5 to 60 cm beds of BVOL. 293.7 295.2 BVOL/2-4e, 60% BVOL. 295.2 296.4 2-4e, strongly magnetic, 5% QUARTZ-VEINs, 1% carbonate stringers.
296.4	310.6	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. 2 to 3% phlogopite alteration along bands, weak carbonate alteration and locally bleached. 1% Quartz-carbonate veins parallel to foliation.
310.6	313.6	INTRAFORMATIONAL IRON FORMATION 2-4E. Similar to above. 310.6 312.3 2-4e, 10% quartz veining, 15% quartz flooding, trace pyrite. CHECK SAMPLES:. E11470 DUPLICATE OF E11469 6.17. 312.3 313.6 BVOL. 7% quartz stringers parallel to foliation.
313.6	340.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. Foliation at 45 dca. Fractures at 45 to 60 dca. Patchy weak carbonate alteration. 313.6 314.6 2-4e, 10% quartz veining, 15% quartz flooding, 2% pyrite.

From (m)	To (m)	Geology
		314.6 315.6 BVOL. 1% quartz-calcite stringers.
340.0	342.5	INTRAFORMATIONAL IRON FORMATION 2-4e. Fine grained. Grey-green and pink mottled. Locally weakly to strongly magnetic. Hard. Poorly bedded, with 20% garnet porphyroblasts. Minor chlorite and biotite locally. 8 to 15% very fine grained disseminated pyrrhotite in chert beds. Contact is sharp at 40 dca. 340.0 341.0 2-4e, 10% QUARTZ-VEIN, minor chlorite, trace pyrite and pyrrhotite very finely disseminated grains in chert beds. 341.0 342.0 2-4e, 15% quartz flooding, 5% quartz veining, very fine grained pyrrhotite in chert beds. 342.0 342.5 2-4e, 2% quartz veining, minor biotite, fine grained, dusty pyrrhotite.
342.5	349.3	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. 342.5 343.3 10% quartz-carbonate veins, minor phlogopite. 345.5 346.0 5% garnet, 10% quartz-carbonate veins, minor phlogopite. 348.3 349.3 BVOL. 5% quartz-calcite stringers.
349.3	351.6	INTRAFORMATIONAL IRON FORMATION 2-4e. Similar to above. 10% QUARTZ-VEIN. Minor carbonate fracture-filling. Minor chlorite alteration. 5 to 10% pyrrhotite as fine grained disseminated grains, blebs and stringers up to 10 cm. CHECK SAMPLES:. E11477 STANDARD I 7.03 7.41. E11478 BLANK 0.07. 349.3 350.0 2-4e, 5% quartz flooding, 5% garnet. 350.0 351.0 2-4e, 5% quartz veining, quartz-carbonate veins. 351.0 351.6 2-4e, 5% quartz flooding, 5% quartz veining, trace carbonate stringers.
351.6	366.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. Well foliated at 35 dca. 362.0 364.7 Weak carbonate alteration and 1% 2 to 3 mm stringers throughout parallel to foliation, strongly foliated at 45 dca. 364.5 Minor microfaults at 45 dca. 364.7 365.9 50% 4e-beds, 30% 4f-beds, 20% 4b-beds.
366.4	373.4	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained. Medium grey to green and pink mottled. Strongly magnetic. Moderately hard. Banded, with garnet porphyroblasts. Bedding is well developed and generally at 45 dca.

From (m)	To (m)	Geology
		Contacts are sharp at 45 dca. 366.4 366.6 60% e-beds, 40% b-beds, 1% pyrrhotite. 366.4 367.2 Interbedded 4e and 4f. 366.6 367.2 Locally weakly magnetic, 30% garnets in biotite -rich matrix. 367.2 368.0 4ea, 5% QUARTZ-VEIN, 1% carbonate along stringers, moderate grunerite alteration. 368.0 369.0 4ea, locally weakly magnetic, 5% quartz flooding, moderate grunerite alteration. 369.0 370.0 4ea(b), weakly to moderately magnetic, 5% quartz veining, 10% quartz flooding, moderate grunerite alteration. 370.0 371.0 4ea, locally weakly magnetic, 5% quartz flooding, moderate grunerite alteration. 371.0 372.0 4ea, locally weakly magnetic, 2% quartz flooding, moderate grunerite alteration. 372.0 373.4 4ea, moderately to strongly magnetic, 5% quartz veining, 1% carbonate stringers, moderate grunerite alteration.
373.4	378.0	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. Fine grained. Black and white banded. Strongly magnetic. Hard. 10% Garnet porphyroblasts in biotite matrix, lesser amphibole matrix. Well bedded, locally contorted and boudinaged. Beds are generally 1 to 2 cm wide, and locally thinly laminated. Core is poorly foliated to massive. Folds occcur throughout the section at various angles to the core axis. Weak grunerite alteration locally as described below. Trace to 1% pyrrhotite as fine disseminated grains.
378.0	382.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Similar to above. Bedding very contorted along fold axes oriented 30 to 45 dca. Moderate to strong grunerite alteration, 2 to 5% quartz flooding, 5% quartz veining, up to 5% very fine grained dusty pyrrhotite. Minor carbonate stringers parallel to foliation. CHECK SAMPLES:. E11490 DUPLICATE OF E11489 0.03. 378.0 379.0 4ea, minor carbonate stringers, moderate grunerite alteration. 379.0 380.0 4ea, minor carbonate stringers, 3% quartz flooding, moderate grunerite alteration, 15% 4f-bds. 380.0 381.0 4ea, 1% carbonate stringers, bedding at shallow angles to core axis, moderate grunerite alteration. 381.0 382.0 4ea, 1% carbonate stringers, moderate grunerite alteration.
382.0	396.8	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Fine grained. Grey and black. Moderately to strongly magnetic. Hard. Composed of: 50% 4b beds, 40% 4e beds and 10% 4f beds. Well bedded at 40 to 50 dca. Beds are generally 3 mm to 2 cm in width and locally thinly laminated. Chert beds are commonly boudinaged, especially when interbedded with 4e. Predominant fracture set is at 45 dca sub- parallel to bedding. Left limb folding and isoclinal folding throughout. Local alteration to grunerite, garnet and biotite (3-5%, grun, 3% bi, 10% gar). Trace to nil pyrrhotite. Contacts are sharp at 45 dca.

From (m)	To (m)	Geology
		386.0 387.0 4be, 20% e-beds, very weak grunerite alteration, 2% carbonate stringers. 387.7 388.6 4be, 20% quartz flooding, very weak grunerite alteration. 391.0 392.0 4be, 20% quartz flooding, very weak grunerite alteration. 392.0 393.0 4be, 10% quartz flooding, very weak grunerite alteration.
396.8	415.4	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained. Grey and black. Moderately to strongly magnetic. Hard. Composed of: 80% 4b beds, and 20% 4e beds. Well bedded at 20 to 35 dca. Beds are generally 3 mm to 2 cm in width and locally thinly laminated. Predominant fracture set is at 45 dca sub- parallel to bedding. Right climbing folds occur locally with axial planes oriented at 35 to 45 dca. M-type folds occur at 399.5 metres. Minor carbonate stringers parallel to axial planes. Trace to 2% pyrrhotite. Contacts are sharp at 35 dca. 400.0 401.0 4b, 20 cm QUARTZ-VEIN, minor carbonate stringers. 403.2 404.2 4b, trace carbonate stringers. 404.0 Minor ground core (<5 cm). 404.2 404.8 4b, 8 cm QUARTZ-PYRRHOTITE VEIN, 5% axial plane hairline carbonate stringers. 404.2 411.6 Trace to 2% pyrrhotite, 5% hairline carbonate stringers, 5% quartz flooding. CHECK SAMPLES:. E11701 STANDARD II 10.56 10.35 NS. E11702 BLANK 0.07. 404.8 406.3 4b, minor FAULT GOUGE, 5% quartz veining, 3% carbonate fracture-filling parallel to axial plane. 405.1 405.2 Chert beds are brecciated to angular fragments with carbonate grunerite halos. Change in bedding orientation. 406.3 407.3 4b, 3% quartz veining, 5% quartz flooding, very weak grunerite alteration. 409.9 410.9 4b, 5% carbonate stringers sub- parallel to to axial plane, boudinaged. 410.9 411.6 4b, 5% carbonate stringers sub- parallel to to axial plane, boudinaged. 414.5 415.4 4be, fault breccia, 30% QUARTZ-VEINs, 5% quartz-carbonate veins, moderate chlorite alteration.
415.4	420.0	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Fine grained. Black and white. Strongly magnetic. Hard. Composed of: 80% 4b beds and 20% 4e beds. Well bedded at 10 to 30 dca. Minor left limb folding with axial planes oriented 35 dca. Very weak grunerite alteration, minor carbonate stringers. Trace to 1% pyrrhotite throughout. 414.5 415.4 10 cm FAULT GOUGE, 35% QUARTZ-VEINs and quartz-carbonate veins, abundant angular chert fragments in a chlorite -rich matrix. Unmineralized. 419.0 420.0 4be, 15% quartz veining, 1% pyrite.
420.0	426.7	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4fb. Fine grained, black and white banded, strongly magnetic, hardness. Composed of: 80% 4f beds and 20% 4b beds. Well bedded at 35 dca.

From (m)	To (m)	Geology
		10% Quartz veining. 422.0 423.0 4fb, 15% quartz veining, trace pyrite. 423.0 424.0 4fb, 20% quartz veining, trace pyrite, minor carbonate stringers. 424.0 425.0 4fb, 10% quartz veining, 20% quartz flooding, trace pyrite, minor carbonate stringers. 425.0 426.0 4fb, 10% quartz flooding, trace pyrite. 426.0 426.7 4fb, 10% quartz veining, trace pyrite, minor carbonate stringers.
426.7	456.0	CHERT - MAGNETITE IRON FORMATION 4b. Similar to above. Fine grained. Grey and black. Moderately to strongly magnetic. Hard. Composed of: 95% 4b beds and 5% 4e beds. Well bedded at 45 dca. Beds are generally 3 mm to 2 cm in width and locally thinly laminated. M-type folds are common at 429.0-. Axial planes oriented 35 to 40 dca. Predominant fracture set is at 45 dca sub- parallel to bedding. 428.9 429.5 Very chlorite -rich 10% quartz veining, 1% carbonate stringers. Good slickensides on fracture planes. Unmineralized. 429.2 429.4 Approximately 15 cm CORE LOST. 432.7 434.3 4b, chlorite alteration, FAULT GOUGE locally, 10% quartz veining, trace to 1% pyrite. 434.3 435.5 80% f-beds. 436.6 437.6 4b, 5% e-beds, 10% carbonate alteration. 437.6 442.5 15-20% pyrrhotite, trace pyrite. Mineralization is concentrated to 30 to 35% in weakly CHZD 4-e beds. Pyrrhotite occurs in thin wisps parallel to bedding and may be of primary origin. Bedding is well developed and strongly to intense folded (especially the 4e beds). Folds appear to be predominantly m-type folds with a few minor left limb folds. Axial planes are oriented 45 to 45 dca. Chert beds contain thin carbonate altered laminae 1-2 mm wide and are generally unmineralized. CHECK SAMPLES:. E11710 DUPLICATE OF E11709 0.03. E11723 STANDARD I 7.51 7.58 NS. E11724 BLANK 0.07. E11730 DUPLICATE OF E11729 6.62 6.17 NS. 437.6 438.4 4be, 30% e-beds, weak chlorite alteration, intensely folded. 438.4 439.0 4b, 12% e-beds, weak carbonate alteration, 5% garnets. 439.0 440.0 4b, 12% e-beds, weak carbonate alteration, well developed laminae. 440.0 441.2 4e, 95% e-beds, intensely folded, very weak carbonate alteration, moderate chloritization. 441.2 442.0 4b, 15% e-beds, very weak carbonate alteration. 442.0 442.5 4b, 15% e-beds, very weak carbonate alteration. 442.5 443.5 4b, trace carbonate stringers, 2% e-beds. 443.5 444.5 4b, 5% quartz flooding, 3% carbonate stringers. 444.5 446.0 4b, 5% quartz flooding, 3% carbonate stringers. 446.0 447.0 4be, 20% e-beds, pyrrhotite concentrated in e-beds, 10% quartz flooding. 447.0 448.0 4b, trace ARSENOPYRITE, 10% quartz flooding, trace quartz veining, weak to moderate carbonate alteration. 448.0 449.0 4b, trace ARSENOPYRITE, 5% quartz veining, 5% quartz flooding. 449.0 450.0 4b, 10 cm quartz magnetite pyrrhotite vein at 45 dca, 25% quartz flooding. 450.0 451.0 4b, 10% quartz flooding. 451.0 452.0 4b, 5% quartz flooding. 452.0 453.0 4b.

From (m)	To (m)	Geology
		453.0 454.0 4b, 10% quartz veining. 454.0 455.0 4b, 10% quartz veining, 5% quartz flooding. 455.0 456.0 4b, 10% quartz veining, 15% quartz flooding.
456.0	486.5	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Fine grained. Grey and black banded. Strongly magnetic. Hard. Composed of: 80% 4b beds and 20% 4e beds. Well developed bedding at 45 dca. Chert beds are thinly laminated. Minor QUARTZ-VEINs at 35 to 45 dca. Minor m-type folds locally with axial planes at 45 to 55 dca. 456.0 457.0 4be, 5% quartz veining, 3% quartz flooding. 457.0 458.0 4be, 15% quartz veining, 5% quartz flooding. 460.4 460.9 4be, 5% quartz flooding. 462.9 463.9 4be, 15% quartz veining, 10% quartz flooding, very weak carbonate alteration. 464.3 467.6 Weak to moderate carbonate alteration. Thin yellowish carbonate stringers as wispy coatings on boudinaged chert beds. Unmineralized. 466.0 467.0 4be, 5% carbonate alteration. 471.6 473.0 Weakly sheared zone with 10% quartz veining, 1% pyrrhotite, weak carbonate alteration. 471.6 473.0 4be, weakly sheared, 10% quartz veining, 5% quartz flooding, 3% carbonate alteration. 473.0 474.0 4be, 20 cm QUARTZ-VEIN with minor very fine grained pyrrhotite, chlorite. 475.5 476.0 4be, 5 cm quartz pyrrhotite vein at 45 dca, 2% quartz flooding. 476.0 477.0 4be, 50 cm QUARTZ-VEIN at 45 dca. 478.8 479.5 4be, 25 cm QUARTZ-VEIN. 480.7 481.5 30 cm qv in 4be, pyrrhotite in vein and fine grained disseminated in wallrock. 481.5 483.8 2 to 8% pyrrhotite, 10 to 50% quartz flooding, 10 to 20% quartz veining, weak carbonate alteration and stringers. 481.5 482.0 4be, 10% quartz flooding, minor carbonate stringers. 482.0 483.0 4be, 50% quartz flooding, 10% quartz veining, minor carbonate stringers, trace pyrite. 483.0 483.8 4be, 30% QUARTZ-VEIN, 20% quartz flooding, minor carbonate alteration, pyrrhotite as stringers. 483.8 485.5 Mineralization is dying out, but quartz flooding and quartz veining continue. CHECK SAMPLES:. E11740 STANDARD II 9.91 9.53 NS. E11741 BLANK 0.07. E11750 DUPLICATE OF E11749 0.38. 483.8 485.0 4be, 2% quartz flooding. 485.0 486.0 4be, 5% QUARTZ-VEIN, 2% quartz flooding, minor carbonate alteration. 486.0 486.5 4be, 80% quartz flooding, trace pyrite.
486.5	491.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. Fine grained. Grey and yellowish banded. Moderately magnetic. Hard. Composed of: 50% 4b beds and 50% 4ea beds. Bedding is generally well developed although boudinaged and contorted. Moderately grunerite altered, 20% quartz flooding. 0 To trace pyrrhotite. 486.5 488.0 4eab, moderate grunerite alteration, 20% quartz flooding, 10 cm QUARTZ-VEIN.

From (m)	To (m)	Geology
		488.0 489.0 4eab, moderate grunerite alteration, 20% quartz flooding. 489.0 490.0 4eab, moderate grunerite alteration, 10% quartz veining. 490.0 491.0 4eab, moderate grunerite alteration, 10% quartz flooding.
491.0	494.0	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Fine to medium grained. Black and grey banded. Strongly magnetic. Hard. Consists of: 60% b-beds and 40% e-beds. Bedding is well developed. Bedding thickness is generally 1 to 2 cm. Fractures are generally parallel to bedding. Minor folds with axial planes oriented 60 dca. 491.0 492.0 4be. 1% quartz stringers parallel to bedding.
494.0	501.5	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. Similar to above. Fine grained, grey and yellowish banded, moderately to strongly magnetic, hardness. Consists of:. 30% Grunerite altered beds and 70% b-beds. Contorted bedding and locally boudinaged. Fractures are generally parallel to bedding. Minor m-type folds with axial planes oriented 45 dca. Weak to moderate grunerite alteration, minor hairline carbonate stringers. CHECK SAMPLES:. E11762 STANDARD I 7.44 7.61 NS. E11763 BLANK 0.07. 494.0 495.0 4eab, moderate grunerite alteration, 10 cm QUARTZ-VEIN, 5% quartz flooding. 495.0 496.0 4eab, weak grunerite alteration, 10% quartz flooding. 496.0 497.0 4eab, weak grunerite alteration, 2% quartz flooding, pyrrhotite as disseminated grains. 497.0 498.0 4eab, very weak grunerite alteration. 498.0 499.0 4eab, moderate grunerite alteration. 499.0 500.0 4eab, moderate grunerite alteration, weak carbonate alteration. 500.0 501.0 4eab, moderate grunerite alteration, 10% quartz flooding. 501.0 501.5 4eab, moderate grunerite alteration, 2% quartz flooding.
501.5	506.7	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Similar to above. Consists of:. 70% B-beds and 30% e-beds. Well bedded at 45 dca. Minor folds with axial planes oriented 45 dca. Trace to nil pyrrhotite. 501.5 502.2 4be, 5 cm QUARTZ-VEIN. 505.7 506.7 4be. 4% quartz stringers parallel to bedding.

From (m)	To (m)	Geology
506.7	517.2	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine to medium grained. Light grey and yellowish banded. Weakly to moderately magnetic. Hard. Consists of: 60% grunerite altered beds, 30% b-beds, and 10% f-beds. Contorted and boudinaged bedding at 45 dca. Minor folds with axial planes at 40 dca. Moderate grunerite alteration, very weak carbonate alteration locally. CHECK SAMPLES:. E11770 DUPLICATE OF E11769 0.45 0.51 NS. 506.7 508.0 4ea, moderate grunerite alteration, 3% quartz flooding. 508.0 509.0 4ea, moderate grunerite alteration, minor carbonate stringers, 5% quartz flooding. 509.0 510.0 4ea, moderate grunerite alteration, 3% quartz flooding, minor carbonate stringers. 510.0 511.0 4ea, moderate grunerite alteration, 2% quartz flooding. 511.0 512.0 4ea, 20% quartz flooding, moderate grunerite alteration. 512.0 513.0 4ea, moderate grunerite alteration, 15% quartz flooding. 513.0 514.0 4ea, moderate grunerite alteration, contorted bedding. 514.0 515.0 4ea, moderate grunerite alteration, 10% quartz flooding. 515.0 516.0 4ea, moderate grunerite alteration, 2% quartz veining, 5% quartz flooding. 516.0 517.2 4ea, moderate grunerite alteration, 5% quartz veining, 10% quartz flooding.
517.2	521.0	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. Contains: 50% 4b-beds and 50% 4f-beds. Fine to medium grained. Black and white banded. Strongly magnetic. Moderately hard. Bedding is moderately developed at 30 to 45 dca. Locally folded with axial planes oriented at 20 to 30 dca. Very weak grunerite alteration locally and minor carbonate alteration along thin laminae in chert beds. Rich carbonate stringers. Trace to 1% quartz flooding. Trace to nil pyrrhotite. 518.3 518.8 4bf, 0.5 cm pyrrhotite stringers, and minor fine grained disseminated pyrrhotite in 4f bed.
521.0	523.8	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine to medium grained. Yellowish and black banded. Strongly magnetic. Very hard. Consists of: 60% grunerite altered beds, 30% b-beds, and 10% f-beds. Bedding is moderately well developed at 30 dca. Local folds with axial planes at 30 dca. Weak to moderate grunerite alteration. 2% Quartz flooding. Trace to nil pyrrhotite. 521.0 522.0 4ea, weak to moderate grunerite alteration, 2% quartz flooding. 522.0 523.0 4ea, weak to moderate grunerite alteration, 2% quartz flooding. 523.0 523.8 4ea, weak to moderate grunerite alteration, 2% quartz flooding.
523.8		END OF HOLE

From (m)	To (m)	Geology
		DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken from 350.0m to 523.8m. Samples stored at Musselwhite camp. DRILLING HISTORY:. .0 17.0 TRICONE bit. 18.3m NW casing. 17.0 110.0 MX10 bit, double hex core barrel. 110.0 220.0 MX10 bit, standard 3m core barrel. Start trying to flatten at 110m. 220.0 296.0 MX5 bit, standard 3m core barrel. 296.0 523.8 MX4 bit, STANDARD 3m core barrel. Hole cemented - 6.5 hours. 105 20 kg bags of Type 50 cement. Casing pulled. SURVEYING HISTORY:. Gyroscopic Directional Survey by CBC Welnav, North Bay, Ontario used for Class 2 data. Survey time: 5 hours. DIP TESTS. 20 -63 ACID. 29 -63 ROTODIP. 47 -63 ROTODIP. 74 -62 ROTODIP. 80 -62 ROTODIP. 86 -62 ROTODIP. 98 -62 ROTODIP. 128 -61 ROTODIP. 134 -61 ROTODIP. 140 -60.5 ROTODIP. 146 -60.5 ROTODIP. 152 -59 ROTODIP. 158 -60.5 ROTODIP. 164 -60 ROTODIP. 176 -60 ROTODIP. 188 -59 ROTODIP. 200 -59 ROTODIP. 212 -59 ROTODIP. 218 -59 ROTODIP. 224 -59 ROTODIP. 251 -60 ROTODIP. 263 -59 ACID. 275 -57.5 ROTODIP. 287 -57 ROTODIP. 302 -58 ROTODIP. 308 -57.5 ROTODIP. 314 -57.5 ROTODIP. 320 -57.5 ROTODIP. 326 -57 ROTODIP. 332 -57 ROTODIP.

From (m)	To (m)	Geology
		335 -57 ROTODIP. 344 -56 ROTODIP. 350 -57 ROTODIP. 359 -56.5 ROTODIP. 368 -57 ROTODIP. 374 -57 ROTODIP. 377 -57 ROTODIP. 383 -57 ROTODIP. 389 -57 ROTODIP. 395 -57 ROTODIP. 404 -56.5 ROTODIP. 416 -56.5 ROTODIP. 422 -56 ROTODIP. 428 -56 ROTODIP. 434 -56 ROTODIP. 440 -57 ROTODIP. 443 -57 ROTODIP. 449 -56.5 ROTODIP. 461 -55 ROTODIP. 467 -55 ROTODIP. 473 -55 ROTODIP. 479 -54 ROTODIP. 485 -55 ROTODIP. 491 -55 ROTODIP. 497 -55 ROTODIP. 503 -55 ROTODIP. 509 -55 ROTODIP.

Date: 14 Nov, 1993

PLACER DOME EXPLORATION

DRILL HOLE RECORD

Northing: 10149.79
Easting: 8983.20
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -61.00

Hole Length: 428
Core Size: NQ
Date Started: FEB. 19, 1993
Logged by: B.J. McKay

*** Depth	Dip Tests Azi.	*** Dip
15.2	228.3	-61.0
30.5	229.9	-61.0
45.7	230.0	-61.0
61.0	229.1	-60.0
76.2	225.7	-59.5
91.4	224.1	-60.0
106.7	224.2	-58.5
121.9	223.1	-59.0
137.2	223.3	-59.0
152.4	223.4	-59.0
167.6	222.9	-58.5
182.9	222.5	-58.0
198.1	222.7	-58.0
213.4	223.0	-58.0
228.6	223.3	-57.5
243.8	222.3	-56.8
259.1	222.6	-57.0
274.3	222.3	-56.5
289.6	221.9	-56.0
304.8	222.2	-56.0
320.0	223.5	-55.0
335.3	223.1	-54.0
350.5	223.4	-53.8
365.7	223.6	-52.8
381.0	223.7	-52.3

Drill Hole: 506-621

Northing: 10150N
Easting: 8983E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10150N
Completed: FEB. 27, 1993
Date(s) Logged: FEB. 20-27, 1993

Claim: Pa529826: 79.0m; Pa529497: 62.0m; Pa529500: 287.0m
Comments: 27.9mW, 308.6mS to WP of #1 post, Claim# Pa529500
Purpose: to test S, T and WA Zones.

From (m)	To (m)	Geology
		REVISED LOG, 22 APRIL, 1993. Includes assay data. Includes revised Gyro-dip data. Missing sample numbers (STANDARDs, BLANKs and DUPLICATEs) are listed at the end of the drill log. Highlights of 506-621:. S-Zone:. C-Zone:. T-Zone:. WA-Zone:. All fold orientations are looking southward, up plunge. This orientation is the same as the strip log.

From (m)	To (m)	Geology
.0	19.8	OVERBURDEN 0.0 1.4 Ice. 1.4 19.8 Sand, gravel and boulders (up to 1.2 m in diameter). 0.0 20.3 Casing. NORTHERN IRON FORMATION: 19.8M-43.7M.
19.8	20.9	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Fine grained, black and yellowish-brown, biotitic and sericite matrix, with 30% 4B beds. Weakly magnetic. Well developed, distorted bedding. Weak grunerite alteration. Non carbonatized. Unit is sheared and broken throughout. Lower contact, sheared, faulted, 15 dca. 19.8 20.9 24F.
20.9	28.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, grey, non-magnetic. Moderately developed foliation, averages, 30 to 35 dca. Fractured throughout. Non to weakly carbonatized. 23.0 Foliation, 31 dca. 25.0 Foliation and fractures, 32 dca. Perpendicular fracture, 56 dca. 27.0 Foliation and fractures, 33 dca. Perpendicular fracture, 36 dca. Lower contact, sharp, 35 dca.
28.1	29.7	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Similar to above. Locally weakly carbonatized. 28.1 29.7 24F. 29.0 Bedding, 28 dca. Lower contact, sharp, 33 dca.
29.7	40.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above, non-magnetic. Non carbonatized. 31.0 Foliation, 32 dca. 32.3-33.1 4F Bed with 5% garnets and minor 4B. 32.3 Upper contact, sharp, 35 dca. 33.1 Lower contact, sharp, 40 dca. 35.0 Foliation, 30 dca. Perpendicular fracture, 60 dca. 39.0 Foliation, 24 dca. Perpendicular fracture, 72 dca. Lower contact, sharp, 40 dca.
40.4	43.7	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Similar to above.

From (m)	To (m)	Geology
		40.4 41.4 24F. 41.0 Perpendicular fracture, 56 dca. 43.0 Foliation, 30 dca. 43.5 Perpendicular fracture, 54 dca. Lower contact, sharp, 35 dca.
43.7	50.3	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. Non-magnetic. Non to weakly carbonatized. Fractures locally smeared with pyrite and/or chlorite. 45.0 45.8 4F similar to above. With 15% quartz flooding and weak grunerite alteration. Minor translucent-white quartz flooding in lower 3 metres of section. Contact, sharp, 32 dca. 45.8 Contact: gradual over 40 cm, 32 dca. 47.0 Foliation, 31 dca. Perpendicular fracture, 60 dca. 50.0 Foliation, 30 dca. Lower contact, sharp, 32 dca.
50.3	159.7	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, light grey, non-magnetic to locally weakly magnetic. Well developed foliation. Up to 5% quartz phenocrysts < 3 mm across. Two sets of fractures :one set parallel to foliation the second. Perpendicular to foliation. The perpendicular set locally smeared with pyrite. Unit is locally sheared and faulted. Non to weakly carbonatized. Locally weak potassic alteration. Minor sericite alteration. Occasional QUARTZ-VEIN up to 5 cm wide. Narrower veins with trace pyrrhotite and pyrite. Up to 25% quartz flooding, in silicified sections, with 1% pyrrhotite. Numerous quartz-carbonate veinlets and seams parallel foliation. 53.0 Perpendicular fracture, 66 dca. 54.0 Perpendicular fracture, 16 dca. 54.6 Perpendicular fracture, 70 dca. 55.0 Foliation, 30 dca. 60.0 Foliation, 37 dca. 64.7 Perpendicular fracture, 55 dca. 65.0 Foliation, 35 dca. 65.0 10 cm broken section. 68.8 69.0 Broken section. 69.0 Perpendicular fracture, 28 dca. 69.0 Perpendicular fracture, 28 dca. 70.0 Foliation, 34 dca. 70.0 Foliation, 34 dca. 70.2 71.2 AVOL, sil, 5%qf. 71.2 72.4 AVOL, sil, tr. Py., 5%qf. 74.0 74.8 AVOL, sil, 10%qf. 75.0 Foliation and fracture, 42 dca. 78.0 Perpendicular fracture, 57 dca. 80.0 Foliation, 47 dca. 83.0 Perpendicular fracture, 59 dca.

From (m)	To (m)	Geology
		85.0 Foliation, 41 dca. 90.0 Foliation, 43 dca. Perpendicular fracture, 55 dca. 95.0 Foliation and fracture, 45 dca. Perpendicular fracture, 50 dca. 99.0 Foliation, 42 dca. 105.0 Foliation, 42 dca. 106.4 Perpendicular fracture, 70 dca. 110.0 Foliation, 46 dca. 111.6 112.0 Ground core. 112.2 Fault, 50 dca. 115.0 Foliation, 42 dca. 120.0 Foliation, 43 dca. 122.8 Perpendicular fracture, 60 dca. 124.9 5 cm fault, parallel foliation. 125.0 Foliation, 45 dca. 125.0 Foliation, 45 dca. 127.9 Perpendicular fracture, 60 dca. 130.0 Foliation, 50 dca. 135.0 Foliation, 47 dca. 135.4 Perpendicular fracture, 56 dca. 136.1 136.6 AVOL, sil, 20%py.&po. 140.0 Foliation, 50 dca. 144.0 Fracture, 40 dca. 144.5 Perpendicular fracture, 55 dca. 145.0 Foliation, 40 dca. 145.3 Narrow fault, parallel to foliation, with minor gouge. 148.9 A 8 cm quartz-carbonate vein, with wallrock fragments. 150.0 Foliation, 50 dca. 154.6 A 8 cm brecciated, silicified zone. 155.0 Foliation, 46 dca. 159.6 Perpendicular fracture, 60 dca. Lower contact, sharp, 55 dca.
159.7	163.4	GARNETIFEROUS BASALT GtB. Fine grained, DARK green to black, non-magnetic. Moderately developed foliation. 5-10% Garnets, up to 8 mm across. Locally silicified with minor sericite. 160.0 Foliation, 50 dca. 163.0 Perpendicular fracture, 44 dca. Lower contact, sharp, 50 dca.
163.4	177.5	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Similar to above. 165.0 Foliation, 30 dca. 167.3 167.5 Fault zone: brecciated, silicified, broken, parallel to foliation. 170.0 Foliation, 50 dca. 175.0 Foliation, 60 dca. 177.0 Perpendicular fracture, 65 dca. Lower contact, sharp, 46 dca.

From (m)	To (m)	Geology
177.5	179.6	GARNETIFEROUS BASALT GtB. Fine grained, DARK green, weakly to moderately magnetic. 30% Garnets. Occasional irregular quartz-carbonate seam. Scattered disseminated pyrrhotite and tr pyrite. Moderately developed foliation. Non carbonatized. 178.5 Foliation, 55 dca. Lower contact, sharp, 58 dca.
179.6	182.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, green, non-magnetic. Moderate to well developed foliation. Brecciated, throughout with quartz-carbonate matrix. Occasional quartz-carbonate veinlet parallel foliation. 181.0 Foliation, 54 dca. 182.0 Perpendicular fracture, 67 dca. Lower contact, sharp, 61 dca.
182.9	184.3	GARNETIFEROUS BASALT GtB. Similar to above. 184.0 Foliation, 53 dca. Lower contact, sharp, 50 dca.
184.3	187.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. 184.6 Perpendicular fracture, 65 dca. 185.7 Perpendicular fracture, 30 dca. 187.0 Foliation, 54 dca. Lower contact, sharp, 47 dca.
187.9	205.3	GARNETIFEROUS BASALT GtB with BVOL. Similar to above, with trace to 3% pyrrhotite. Poor to moderately developed foliation. Up to 70% garnets. Occasional QUARTZ-VEIN with 3% pyrrhotite as noted. Occasional interbed of BVOL, <25 cm thick unless otherwise noted. 188.0 Perpendicular fracture, 20. 190.0 Perpendicular fracture, 62. 192.5 193.3 BVOL. Similar to above. 192.5 Interflow contact, sharp, 40 dca. 193.3 Interflow contact, sharp, 48 dca. 195.0 Foliation, 60 dca. 197.6 198.1 BVOL. 197.6 Contact, sharp, 50 dca.

From (m)	To (m)	Geology
		198.1 Contact, sharp, 63, dca. 198.9 199.7 BVOL. 198.9 Contact, sharp, 60 dca. 199.7 Contact, sharp, 36 dca. 199.7 Perpendicular fracture, 47 dca. 200.4 Perpendicular fracture, 50 dca. 200.4 201.0 GtB, 25 cm qv, 5%qf. 200.5 200.9 Two QUARTZ-VEINs, 15 and 10 cm, with 2 to 3% pyrrhotite. Minor quartz flooding in wallrock with pyrrhotite. Veins, 50 dca. 203.0 Foliation, 37 dca.
205.3	205.9	BRECCIA ZONE BRECCIA ZONE. Fine grained, dark green, chlorite matrix with angular to subrounded and elongated qtz clasts up to 5x1 cm and larger (> core diameter).
205.9	211.2	GARNETIFEROUS BASALT GtB with AVOL. Similar to to above GtB with AVOL. 205.7 Perpendicular fracture, 18 dca. 208.7 209.6 AVOL. 208.7 Contact, sharp, 39 dca. 209.6 Contact, irregular, 36 dca. 210.0 Perpendicular fracture, 55 dca. Lower contact, sharp, 26 dca.
211.2	212.6	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Similar to above. 212.0 Foliation, 40 dca. Lower contact, gradual over 50 cm, 33 dca.
212.6	221.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical BVOL similar to above. 215.0 Foliation, 43 dca. 219.0 Foliation, 32 dca. Perpendicular fracture, 61 dca. Lower contact, sharp, 42 dca.
221.5	226.3	GARNETIFEROUS BASALT GtB with minor 4b. Consists of locally silicified mafic sub-units with minor 4b layers, interbedded with GtB. The mafic-4b units are 1.4 m and 0.4 m thick and the GtB beds are 0.4 m and 0.85 m thick. The remainder of the section is biotized BVOL. The 4b beds are weakly magnetic and weakly gruneritized. The upper 45 cm of section contains 10% quartz flooding and 3% pyrrhotite. Garnets, up to 50% of the units, vary up to 1.3 cm in diameter. 221.5 222.0 BVOL, 4b, 10%qf. 225.0 Foliation, 45 dca. 225.3 Perpendicular fracture, 53 dca. Lower contact, sharp, 30 dca.
226.3	233.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL.

From (m)	To (m)	Geology
		Similar to above, with very minor, translucent-white quartz flooding. 230.0 Foliation, 36 dca. 233.0 Foliation, 40 dca. Lower contact, sharp, 56 dca.
233.9	236.6	GARNETIFEROUS BASALT GtB with minor 4b. Similar to above, with local moderate grunerite alteration and 3 to 5% quartz flooding with trace to 1% pyrrhotite. Unit is 20 to 60% garnets. 235.0 Fault, 55 dca. Foliation, 55 dca. Lower contact, sharp, 63 dca.
236.6	270.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. 240.0 Foliation, 40 dca. 240.2 255.5 Locally, ground core. 240.2 241.2 Brecciated section with 30% quartz flooding, quartz-carbonate veins and matrix. 243.4 Perpendicular fracture, 45 dca. 243.6 244.6 BVOL. 2% quartz stringers parallel to foliation. 244.6 245.4 BVOL, minor 4E, loc wk grun., 30%qf. 245.0 Foliation, 30 dca. 245.4 246.3 4E, chl, wk grun., 30% qf. 246.3 247.3 BVOL. 3% quartz-calcite stringers. Minor garnets. 250.0 Foliation, 32 dca. 255.0 Foliation, 44 dca. 255.1 255.5 Brecciated, with 60% quartz flooding, quartz-carbonate veins and minor quartz-carbonate matrix. 260.0 Foliation, 33. Perpendicular fracture, 55 dca. 263.4 Perpendicular fracture, 43 dca. 264.0 Foliation, 36 dca. 267.0 Foliation, 33 dca. Lower contact, gradual over 55 cm, 55 dca. 268.6 269.6 BVOL. 10% quartz-calcite stringers. 269.6 270.1 BVOL, 40%qf.
270.1	273.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA: S-ZONE MINERALIZATION. 50-60% E beds. 35-40% Quartz flooding. Up to 5% A beds. 1-5% Pyrrhotite : seams and disseminated. Weak to strong grunerite alteration. Weakly to strongly magnetic. 270.1 271.0 4E, wk grun., 35%qf. 270.8 Axial plane, 23 dca. 271.0 272.0 4E, m-s grun., 40%qf. 272.0 273.0 4E, loc s grun., 40%qf. 272.7 Axial plane, 35 dca. Lower contact, sharp, 44 dca.
273.0	273.9	INTERMEDIATE TO MAFIC VOLCANICS

From (m)	To (m)	Geology
		BVOL. TYPICAL BVOL. Lower contact, sharp, 55 dca. 273.0 273.9 BVOL.
273.9	282.9	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA: S-ZONE MINERALIZATION. Similar to above. 273.9 275.0 4BE, s grun., 40%qf. 274.4 Axial plane, right limb folding, 30 dca. 274.5 Fault: vuggy quartz-carbonate, 1 cm wide, 35 dca. 274.9 Axial plane, right limb folding, 33 dca. 275.0 Foliation, 0 dca. 275.0 276.0 4B, s grun., 40%qf. 275.5 Axial plane, right limb folding, 30 dca. 275.7 Foliation, 20 dca. 276.0 Foliation, right limb folding, 45 dca. 276.0 277.0 4B, s grun., 40%qf. 277.0 278.0 4B, s grun., 40%qf. 277.7 Perpendicular fracture, 48 dca. 278.0 279.0 4B, s grun., 40%qf. 278.5 Axial plane, right limb folding, 28 dca. 279.0 280.0 4AE, m grun., 40%qf. 280.0 Foliation, 62 dca. Lower contact, sharp, 43 dca. 280.0 281.0 4AE, m grun., 35%qf. 281.0 282.0 4EA, s grun., 35%qf. 282.0 282.9 4A, s grun., 20%qf, VG.
282.9	286.1	GARNETIFEROUS BASALT GtB with BVOL. Typical GtB with 15% garnets, up to 20% quartz-carbonate flooding, trace to 3% pyrrhotite, and locally weak grunerite alteration. Lower contact, sharp, 28 dca. 282.9 284.2 GtB/BVOL, 5%qc. 284.2 285.0 GtB, 15%qf. 285.0 286.1 GtB, loc med grun., 20%qf.
286.1	304.3	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained to medium grained, dark grey, black, biotite rich. Moderate developed foliation, averages 30 dca. 20-60% Quartz-carbonate flooding. Trace to 1/2% PO. 286.1 289.4 Section with an extensive network (up to 60%) of quartz-carbonate veins and quartz-carbonate flooding. Occasional translucent-white QUARTZ-VEIN and MILKY-WHITE quartz-carbonate veins, up to 5 cm wide in remainder of section unless otherwise noted. 286.1 287.0 BVOL, 20%qc fldg. 287.0 288.0 BVOL, 60%qc fldg. 288.0 289.0 BVOL, 45%qc fldg. 290.0 Foliation, 39 dca. 294.0 Foliation, 42 dca.

From (m)	To (m)	Geology
		294.9 304.3 Very fine grained to fine grained, black, non-magnetic. 294.9 Contact, 40 dca. Hard to very hard, silicified. Unit becomes less silicified and more biotitic below 299.6 m. Poor to moderately developed foliation, averages 40 dca. Quartz flooding and quartz-carbonate flooding up to 20%. Nil to 3% pyrrhotite. Minor garnets, <5%, in lower 2 m of section. 294.9 295.8 BVOL, sil, 20%qf. 295.7 Foliation, 40 dca. 300.0 Foliation, 36. Perpendicular fracture, 63 dca. Lower contact, sharp, 32 dca. Perpendicular fracture, 56 dca. 303.3 304.3 BVOL, 5% qb fldg.
304.3	310.2	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA: S-ZONE MINERALIZATION (west limb). Typical 4ea with 20-50% E beds and 50-20% A beds. In lower half of section bedding/foliation is locally parallel to core axis. Microfaulting and folding is very common. 5-15% Quartz flooding in upper half of section with 5-10% pyrrhotite. Weakly to strongly magnetic. Moderately developed grunerite alteration. 304.3 305.0 4E, m grun., 30%qf. 305.0 306.0 4BE, w-m grun., 20%qf. 306.0 Foliation, 35 dca. Perpendicular fracture 72 dca. 306.0 307.0 4EB, m grun., 5%qf. 306.7 Axial plane, right limb folding, 44 dca. 307.0 308.0 4EB, w grun., 25%qf. 307.3 Axial plane, right limb folding, 38 dca. 308.0 309.0 4BE, m grun., 15%qf. 308.6 Axial plane, right limb folding, 48 dca. 309.0 310.2 4BE, w-m grun. 309.8 Axial plane, right limb folding, 38 dca. Lower contact, perpendicular to normal trend, 42 dca.
310.2	313.2	CHERT - MAGNETITE IRON FORMATION 4B. Fine grained, black and white, non-magnetic. Well developed bedding, 70-90 dca, locally disrupted and distorted. Strongly magnetic. 310.3 Axial plane, right limb folding, 45 dca. Lower contact, gradual, 20 dca.
313.2	322.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA: 4E With minor 4B. C-ZONE MINERALIZATION ??. Fine grained, grey, 4B beds with increasing 4E beds and grunerite alteration with depth. Moderately to strongly magnetic. Unit with moderately to well developed bedding, crenulated and distorted, locally parallel to core axis. Weak to strong grunerite alteration. 313.2 314.0 4EB, m grun. 314.0 315.0 4EB, m grun.

From (m)	To (m)	Geology
		315.0 Bedding, 20 dca. 315.0 316.0 4EB, m grun. 316.0 Bedding, 0 dca. 316.0 317.0 4EB, m grun. 317.0 318.0 4EB, m grun. 318.0 319.0 4EB, m grun. 319.0 Bedding, 0 dca. 319.0 320.0 4EB, m grun. 320.0 321.0 4EB, m grun. 320.4 Axial plane, right limb folding, 34 dca. Lower contact, sharp, 18 dca. 321.0 322.0 4EB, m grun.
322.0	326.3	CHERT - MAGNETITE IRON FORMATION 4B With minor 4e. Similar to above. 322.0 323.0 4B. 323.0 Bedding, 22 dca. Parallel fracture, 46 dca. 324.0 Bedding, 11 dca. 326.0 Bedding, 25 dca. Lower contact, sharp, 25 dca.
326.3	329.3	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA: 4E With 4B. C-ZONE MINERALIZATION. Similar to above with stronger grunerite alteration, quartz flooding and pyrrhotite. 326.3 327.3 4EB, m grun., 5%qf. 327.0 Bedding, 23 dca. 327.3 328.3 4EB, m-s grun., 20%qf. 328.3 329.3 4EB, w-m grun., 5%qf. 329.0 Bedding, 30 dca. Lower contact, sharp, irregular, 21 dca.
329.3	333.8	CHERT - MAGNETITE IRON FORMATION 4B With minor 4E. Similar to above. 332.0 Bedding, 25 dca. 333.0 Bedding, 33 dca. Lower contact, gradual over 1 m, 32 dca.
333.8	395.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA: T & WA-ZONES MINERALIZATION. Similar to above. Veined sections with sulphides as noted. 333.8 335.0 4EB, w-m grun. 335.0 336.0 4EB, m grun., <5%qf. 336.0 Bedding, 38 dca. 336.0 337.0 4EB, w grun., <2%qf. 337.0 338.0 4EB, w grun., <3%qf. 338.0 339.0 4AB, m grun., 2%qf. 338.4 Perpendicular fracture, 55 dca.

From (m)	To (m)	Geology
		339.0 Perpendicular fracture, 45 dca.
		339.0 340.0 4EB, w grun., 3%qf.
		340.0 Bedding, 37 dca.
		340.0 341.0 4EB, w grun.
		341.0 342.0 4EB, w grun.
		341.1 10 cm zone with 5% pyrrhotite in A quartz-carbonate matrix.
		342.0 343.0 4EB, w grun., 5%qcbv.
		342.3 Perpendicular fracture, 50 dca.
		343.0 344.0 4EB, w grun.
		344.0 345.0 4EB, vw grun.
		344.8 Perpendicular fracture, 45 dca.
		345.0 Bedding, 33 dca.
		345.0 345.8 4EB, w grun., <3%qcbv.
		345.8 Contact, sharp, 33 dca.
		345.8 346.2 4BE, s grun., 10%qf.
		346.2 347.2 4BE, m-s grun., 5%qf.
		347.2 348.2 4BE, s grun., 10%qf.
		348.2 349.2 4BE, s grun., 5%qf.
		349.2 350.2 4BE, m-s grun., 5%qf.
		350.0 Bedding, 33 dca.
		350.2 Perpendicular fracture, with pyrrhotite, 60 dca.
		350.2 350.9 4BE, s grun., 20%qf, VG.
		350.7 A cluster of 7 specks of VG.
		350.9 351.9 4EB, w-m grun.
		351.4 Perpendicular fracture, 55 dca.
		351.9 352.9 4EB, m grun.
		352.3 Perpendicular fracture, 55 dca.
		352.9 353.9 4EB, w-m grun., 5%qf.
		353.9 354.4 4EB, BVOL.
		354.4 355.2 4EB, m grun., 3%qf.
		355.0 Bedding, 40 dca.
		355.2 356.3 4BE, vw grun.
		356.3 357.4 4EB, w-m grun., 10%qf.
		357.4 358.3 4EB, m grun., 15%qf.
		358.3 359.0 Biotized BVOL.
		358.3 359.0 BVOL.
		358.3 Contact, sharp, 38 dca.
		359.0 Contact, sharp, 44 dca.
		359.0 360.0 4EB, w grun., 5%qf.
		359.2 Perpendicular fracture, 60 dca.
		359.6 Perpendicular fracture, 58.
		360.0 361.0 4EB, m grun., 5%qf.
		360.5 Middle of a oblique fracture, with vuggy epidote, subparallel to core axis for 50 cm.
		361.0 362.0 4EB, m grun., 15%qf.
		362.0 363.0 4EB, m grun., 20%qf.
		363.0 364.0 4EB, m grun., 15%qf.
		364.0 364.7 4EB, BVOL(20 cm).
		364.4 364.7 BVOL.
		364.4 Interbed contact, sharp, 38 dca.
		364.7 365.6 4EB, BVOL(12 cm), m grun., 20%qf.
		365.0 Bedding, 40 dca.

From (m)	To (m)	Geology
		365.6 366.5 4BE, m-s grun., 35%qf. 366.0 Bedding, 42 dca. 366.5 367.6 4EB, m grun., 5%qf. 367.0 Bedding, 33 dca. 367.6 368.4 4EB, m grun. 368.0 Bedding, 33 dca. 368.4 369.4 4EB, m grun., 15%qf, 5%qcbv. 369.0 Bedding, 35 dca. 369.4 370.0 4EB, w grun. 370.0 371.0 4EB, m-s grun., 25%qf. 371.0 372.0 4EB, s grun., 15%qf. 371.5 Perpendicular fracture, 50 dca. 372.0 Bedding, 35 dca. 372.0 373.0 4EB, w grun., 30%qf, tr. Py. 372.5 Irregular quartz-carbonate fracture, with speck chalcopyrite. 373.0 374.0 4EB, w grun., 30%qf, tr. Asp. 373.2 Perpendicular fracture, 50 dca. 374.0 375.0 Mineralized section with, 1 bleb of VG (374.55), 1 mm in diameter and 1 speck of VISIBLE GOLD, also 2% ARSENOPYRITE as irregular masses up to 3 mm across. Pyrrhotite as irregular seams parallel to bedding and as disseminated specks. 374.0 375.0 4E, loc s grun., 60%qf, 2%asp, VG. 375.0 Bedding, 42 dca. 375.0 376.0 4EB, w grun. 376.0 377.0 4EB, GtB, m-s grun., 10%qf. 377.0 378.0 4BE, m-s grun., 30%qf. 378.0 Bedding, 26 dca. 378.0 379.0 4BE, m grun., 15%qf, tr. Asp. 379.0 Interbed contact, sharp 36 dca. 379.0 380.0 4EB, m grun., 5%qf. 380.0 381.3 4EB, s grun., 20%qf, 1%asp., tr. Cpy. 380.8 Perpendicular fracture, 50 dca. 381.0 Bedding, 35 dca. 381.3 382.3 4EB, s grun., 10%qf, tr. Asp. 382.3 383.0 4BE, s grun., 10%qf. 383.0 Perpendicular fracture, 46 dca. 383.0 384.2 4BE, s grun., 30%qf. 384.2 385.4 BVOL(80 cm), 4BE. 384.3 Interbed contact, sharp, 34 dca. 385.4 386.7 4BE, s grun., 30%qf. 386.7 387.3 4EB, s grun., 30%qf. 387.3 388.5 4EB, m grun. 388.0 Bedding, 28 dca. 388.5 389.6 4EB, w grun. 389.6 390.6 4EB, w grun. 390.0 Fault: 33 dca. 390.6 Perpendicular fracture, 47 dca. 390.6 391.6 4EB, w grun. 391.6 392.6 4EB, m grun., 3%qf. 392.6 393.6 4EB, w grun., 5%qf, 2%qcbv. 393.6 395.0 4EB, w grun., 5%qf. 394.0 Fault: 46 dca. Lower contact, sharp, 32 dca.

From (m)	To (m)	Geology
395.0	403.3	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical biotized mafic volcanic. 398.0 Foliation, 35 dca. 399.4 400.0 BVOL, 20 cm qv, 20 cm qcb fldg. 399.6 QUARTZ-VEIN, 53 dca. 400.5 401.3 Broken core. 402.6 Perpendicular QUARTZ-VEIN, 45 dca. Lower contact, sharp, with QUARTZ-VEIN, 36 dca.
403.3	428.0	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4FB. Fine to medium grained, black, grey-black, non-magnetic. Moderately hard. 40-60% F beds with moderate amounts of E. 60-40% B beds, locally gruneritized. Moderately developed foliation with alternating beds of F and B up to 3 cm thick. Foliation locally contorted. Right limb folding drag-folds as noted. Occasionally fractured parallel and perpendicular to foliation. Locally faulted as noted. 403.3 403.9 40 cm 4EB, m grun., 20 cm qv. 405.0 Bedding, 45 dca. 407.0 408.0 4FB, tr. Py. 408.0 409.0 4FB. 409.0 410.0 4FB. 410.0 Bedding, 37 dca. 410.0 411.0 4FB. 411.0 Fault: 38 dca. 411.0 412.0 4FB. 412.7 413.3 Broken core. 414.0 415.0 4FB, w grun. 415.0 Bedding, 25 dca. 416.4 Axial plane, right limb folding, 37 dca. 418.7 Perpendicular fracture, 30 dca. 419.0 420.0 4FB, m grun. 421.7 Axial plane, right limb folding, 52 dca. 423.0 424.0 4FB, 5%qf. 425.2 Axial plane, 36 dca. 428.0 Foliation, 37 dca.
428.0		END OF HOLE

DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.

DRILLING HISTORY and HOLE CONTROL EQUIPMENT.
.0 19.8 Tricone.
.0 21.3 NW casing.
19.8 428.0 Two hex-corebarrels and MX-10 drill bit.

From (m)	To (m)	Geology
		HOLE CEMENTED AND CASING PULLED. 84 Bags of #10 Cement. 5 Hours required to cement hole. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples (220m-EOH) stored on site. Sample STANDARDs and BLANKs. E36158 STANDARD I 7.23 7.37 NS. E36159 BLANK 0.27 0.34 NS. E36170 is a DUPLICATE of E36169 0 0.03 ns ns. E36179 STANDARD I 7.44 7.65 NS. E36180 BLANK 0.34 ns ns. E36190 is a DUPLICATE of E36189 0 0.31 ns ns. E36210 is a DUPLICATE of E36209 tr 0.31 0.34 NS. E36219 STANDARD I 7.58 7.95 NS. E36220 BLANK 0.03 ns ns. E36230 is a DUPLICATE of E36229 1 0.10 ns ns. E36240 STANDARD I 7.68 7.92 NS. E36241 BLANK 0.03 ns ns. E36250 is a DUPLICATE of E36249 4 2.26 ns ns. E36258 STANDARD I 7.17 7.65 NS. E36259 BLANK 0.10 ns ns. E36270 is a DUPLICATE of E36269 2 0.48 ns ns. E36281 STANDARD I 7.41 7.92 NS. E36282 BLANK 0.38 ns ns. E36290 is a DUPLICATE of E36289 3 1.27 ns ns. Hole dip tests not used as Code 2 data. Code 2 used Gyro-dip (Inrun Survey) by CBC WELLNAV, NORTH BAY, ONTARIO. Depth Dip Type. 0.0 -62 Brunton. 23 -62 Roto-dip. 47 -62 Roto-dip. 62 -62 Roto-dip. 74 -61 Roto-dip. 86 -59 Roto-dip. 116 -58 Roto-dip. 158 -58 Roto-dip. 170 -58 Roto-dip. 194 -58 Roto-dip. 209 -58 Roto-dip. 227 -57.5 Roto-dip. 239 -57 Roto-dip. 257 -56 Roto-dip. 275 -56 Roto-dip. 287 -56 Roto-dip. 299 -55 Roto-dip.

From (m)	To (m)	Geology
		317 -55.5 Roto-dip. 332 -55 Roto-dip. 344 -54 Roto-dip. 362 -54 Roto-dip. 374 -53 Roto-dip. 380 -53 Roto-dip. 404 -52 Roto-dip. MISCELLANEOUS:. The hole required: 96 NQ core boxes, 144 assay tags, 288 sample bags, and 17 sample boxes for 125 core samples. The average daily temperature, @ 7:00 am, was -21 degrees Celsius.

PLACER DOME EXPLORATION

DRILL HOLE RECORD

Northing: 10199.86
Easting: 8992.01
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -61.00

Hole Length: 455
Core Size: NQ
Date Started: FEB. 25, 1993
Logged by: T. TENNENT

*** Depth	Dip Tests Azi.	*** Dip
15.2	227.9	-61.0
30.5	227.9	-61.3
45.7	226.8	-61.0
61.0	225.6	-59.8
76.2	224.4	-60.0
91.4	224.4	-59.8
106.7	224.4	-58.0
121.9	224.4	-58.0
137.2	223.3	-58.5
152.4	223.9	-58.8
167.6	224.4	-57.8
182.9	224.4	-58.0
198.1	224.4	-58.0
213.4	224.4	-56.8
228.6	223.1	-55.8
243.8	224.4	-57.0
259.1	223.8	-55.5
274.3	224.4	-55.8
289.6	223.7	-54.0
304.8	223.7	-54.0
320.0	223.7	-53.3
335.3	223.6	-52.0
350.5	223.0	-52.3
365.7	223.1	-53.0
381.0	223.0	-52.0
396.2	223.0	-51.8
411.5	224.2	-51.8
426.7	223.6	-51.0
434.3	223.7	-52.5

Drill Hole: 506-622

Northing: 10200N
Easting: 8984E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10200N
Completed: MARCH 4, 1993
Date(s) Logged: FEB. 25 - MARCH 4, 1993

Claim: PA 529496: 7m; Pa529497: 247.5m; Pa529500: 200.5m.
Comments: 0m W AND 352.1m S TO WP of #1 post, CLAIM PA 529500
Purpose: TO TEST THE S,C,T AND WA ZONES

From (m)	To (m)	Geology
		NOTE: All references to folding - both right and left limb folds - are looking down the plunge of the deposit (i.e. Northwest).
.0	2.1	ICE AND WATER
2.1	21.3	OVERBURDEN
21.3	30.5	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be - Northern Iron Formation. 80% 4b Beds. Up to 1 cm. Locally gruneritized and garnetiferous. 20% 4e Beds. Up to 1 cm. 15% garnets. Unit moderately to strongly magnetic.

From (m)	To (m)	Geology
		Well developed bedding at 26 to 36 dca. Folding throughout with axial planes at 30 to 40 dca. Fracture set parallel to bedding at 25 to 35 dca. Second and third set perpendicular to bedding at 53 to 60 dca and 20 dca. Barren. Very minor quartz veining. Lower contact sharp at 30 dca. 21.3 30.5 Broken core. 21.3 22.3 4be. Bedding 30 dca. Left limb folding with axial plane at 45 dca. 21.3 25.0 Bedding 27 to 35 dca. 23.5 Axial plane at 40 dca. 24.6 25.3 Left limb folding. Axial plane at 30 dca. 25.0 26.0 Bedding 17 dca. 26.0 30.5 Bedding 26 to 32 dca. 26.0 27.0 4be. 20 cm QUARTZ-VEIN. Bedding 26 dca. 26.0 29.0 20 cm lost core. 27.0 30.0 Moderate grunerite alteration. 30.2 30.4 15 cm BVOL.
30.5	34.0	GARNET-BIOTITE SCHIST 4f. Black 4f with 30% 1 mm garnets. Moderately soft. Non-magnetic. Biotitic. Bedding at 30 dca. Fractures parallel to bedding at 30 dca and perpendicular at 65 to 70 dca. Trace pyrrhotite. Lower contact gradual.
34.0	37.2	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderate hardness. Chloritic and biotitic. Foliated at 20 dca. Fractures parallel to bedding at 20 dca and perpendicular at 60 to 67 dca. Barren. Lower contact 37 dca. 34.0 36.0 Blocky.
37.2	40.0	GARNET-BIOTITE SCHIST 4f. Black 4f with 30% 1 mm garnets. Moderately soft. Non-magnetic. Bedding at 20 to 38 dca. Fractures subparallel to bedding at 25 dca and perpendicular at 60 dca. Barren. Lower contact gradual at 33 dca. 38.0 39.0 Bedding 38 dca. 39.0 40.0 Bedding 20 dca. 39.5 40.0 Core blocky.
40.0	42.9	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F.

From (m)	To (m)	Geology
		4be. 30% Chert beds. 5 mm wide. 40% Chert-magnetite beds. Moderately to strongly gruneritized. <5 mm wide. Garnetiferous. 30% 4e Beds. Bedding 16 to 30 dca. Fractures subparallel to bedding at 17 dca and perpendicular at 60 dca. Trace to 3% pyrrhotite. Lower contact broken at 35 dca. D68719 STANDARD II 10.29 10.66 NS. D68720 BLANK 0.17 NS NS. 40.0 43.0 Blocky. 40.0 41.0 4be. Strong grunerite. Bedding 30 dca. 41.0 42.0 4be. Moderate grunerite. Bedding 16 dca. 42.0 42.9 4be. Moderate grunerite. 5% quartz flooding. Bedding 20 dca.
42.9	55.2	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Foliated at 35 to 40 dca. Fractures parallel to foliation at 35 to 41 dca and perpendicular at 57 to 62 dca. Trace disseminated pyrrhotite. 1% Quartz-calcite stringers parallel to foliation. Lower contact sharp at 37 dca. 42.9 46.0 Blocky core. 42.9 43.9 BVOL. 11% quartz stringers parallel to foliation. 45.0 Foliation 35 dca. 50.0 Foliation 40 dca. 50.9 51.7. Contacts 31 dca. 50.9 51.7 4eab. 5% quartz stringers. Moderate grunerite. Bedding 31 dca.
55.2	58.2	GARNET-AMPHIBOLE / CHERT-MAGNETITE I.F. 4eb. 70% 4e Beds. 1 to 2 cm. 25% amorphous garnets. 30% 4b Beds. Unit weakly to moderately magnetic. Bedding at 35 to 43 dca. Fractures parallel to bedding at 40 dca and perpendicular at 56 dca. Very weak grunerite alteration. Lower contact sharp at 40 dca. 55.2 56.0 4eb. 5% quartz stringers. Bedding 38 dca. Weak grunerite. 56.0 57.0 4eb. 1% quartz stringers. Bedding 35 dca. Weak grunerite. 57.0 58.2 4eb. Bedding 43 dca. Very weak grunerite.
58.2	80.7	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderate hardness. Foliated at 42 to 44 dca. Biotitic. Weak pervasive carbonatization.

From (m)	To (m)	Geology
		Fractures parallel to foliation at 35 to 50 dca and perpendicular to foliation at 55 to 62 dca. Barren. Up to 1% quartz-calcite stringers and up to 2% quartz stringers parallel to foliation. Lower contact at 37 dca. 59.6 59.8 Very broken core. 60.0 Foliation 44 dca. 61.0 61.4 Very broken core. 63.1 Very broken core. 64.1 64.3 Very broken core. 70.0 Foliation 42 dca. 79.9 80.7. Contacts 37 dca. 79.9 80.7 24eb. 1% quartz stringers. Bedding 40 dca.
80.7	205.7	FELSIC TO INTERMEDIATE VOLCANICS AVOL- Interbedded Intermediate to Felsic Ash and Crystal Tuffs. Fine grained, finely laminated medium to light grey and greenish-buff. Moderately hard. Non-magnetic. Alternating zones of felsic tuff with 5% to 20% sericite laminae and up to 5% 1 mm feldspar crystals and crystal tuff with up to 10% stretched feldspar crystals and minor sericite laminae. Well foliated at 40 to 50 dca. Dominant fracture set perpendicular to bedding at 47 to 60 dca. Minor set parallel to foliation at 50 to 60 dca. Rare sets perpendicular to foliation at 30 and 70 dca. Locally calcareous. Some fractures have bleached and/or potassic altered selvages. Weak pervasive sericite alteration throughout. Weakly calcareous. Barren to trace pyrrhotite, disseminated and stretched parallel to foliation. 1% to 5% quartz-calcite and quartz stringers parallel to foliation. Lower contact sharp at 50 dca. 80.7 100.0 Ash tuff. Up to 20% sericite laminae and <5% feldspar crystals. 90.0 Foliation 40 dca. 96.2 96.5 Broken core. 100.0 Foliation 47 dca. 100.0 141.0 Crystal tuff. 5% to 10% feldspar crystals. 1% to 3% sericite laminae. 104.4 104.6 Broken core. 106.4 106.5 Broken core. 110.0 Foliation 50 dca. 112.2 112.7 Blocky core. 120.0 Foliation 53 dca. 130.0 Foliation 47 dca. 140.0 Foliation 50 dca. 141.0 205.7 Ash tuff. Up to 10% sericite laminae and 5% feldspar crystals. 150.0 Foliation 51 dca. 154.7 154.8 10 cm band with 15% pyrite. 156.0 158.0 Fractures perpendicular to bedding at 55 dca are bleached and potassic altered. 157.6 157.7 Irregular QUARTZ-VEIN with 5% pyrrhotite. 160.0 Foliation 50 dca. 160.7 160.8 Broken core. 164.0 164.6 Silicified. 164.7 165.1 Very broken core. 167.0 167.1 Very broken core. 170.0 Foliation 47 dca. 173.9 174.1 Broken core.

From (m)	To (m)	Geology
		180.0 Foliation 45 dca. 190.0 Foliation 49 dca. 195.1 195.7 20% garnets. 1% pyrrhotite. 196.0 197.0 15% garnets. 1% quartz stringers. 197.9 198.4 Garnetiferous. 199.5 1 mm fault gouge. 200.0 Foliation 52 dca. D68730 196.00 197.00 DUPLICATE 0.14 NS NS. 200.1 200.5 Garnetiferous.
205.7	208.5	BRECCIA ZONE Bx Z. 7% 2 Mm to 4 cm stretched white rounded to subrounded quartz boudins in a dark green, fine grained amphibole, biotite and garnet matrix. Non-magnetic. Hard. Well foliated at 53 dca. Locally calcareous. 2% Disseminated pyrrhotite. Lower contact gradual. 205.7 206.7 Breccia zone. 206.7 208.5 Breccia zone.
208.5	219.9	GARNETIFEROUS BASALT AND INTERMEDIATE TO MAFIC VOLCANICS Intercalated GtB, BVOL. GtB is fine grained with 30% 3 to 5 mm subhedral garnets. Non-magnetic. Hard. BVOL is fine grained, dark green-grey. Non-magnetic. Foliation at 50 to 57 dca. Fractures perpendicular to foliation at 60 dca. Parallel to foliation at 29 dca. 0 to 1% disseminated and blebs pyrrhotite. Lower contact sharp at 48 dca. 208.5 209.5 GtB. 209.8 210.6. Foliated 57 dca. 215.4 217.4. Foliated 57 dca.
219.9	222.4	BRECCIA ZONE Bx Z. 10% 2 Mm to 5 cm stretched white quartz boudins in a fine grained amphibole-biotite matrix. Locally 5% garnets. Foliation at 55 dca. Weakly calcareous. 2% Pyrrhotite. Disseminated and along foliation planes. Lower contact sharp at 45 dca. 219.9 220.4. Contacts 48 dca. 220.4 221.0. Foliation 50 dca. 220.8 220.9 15 cm white barren quartz stringers at 55 dca. 221.0 222.4.
222.4	223.8	GARNETIFEROUS BASALT GtB. Lower contact sharp at 45 dca.

From (m)	To (m)	Geology
223.8	225.6	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Foliated at 50 dca. Lower contact sharp at 52 dca.
225.6	226.6	GARNETIFEROUS BASALT GtB. Lower contact sharp at 50 dca.
226.6	230.4	FELSIC TO INTERMEDIATE VOLCANICS AVOL - Intermediate. Fine grained, medium grey. Moderately soft. Sericitic. Barren. Lower contact sharp at 45 dca.
230.4	259.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderately hard. Well foliated at 41 to 46 dca. Fractures perpendicular to foliation at 33 to 60 dca. Minor fractures subparallel to foliation at 32 dca. Barren to trace pyrrhotite and pyrite. Up to 1% quartz-calcite stringers parallel to foliation. Lower contact sharp at 44 dca. 230.4 231.6 Biotitic. Foliation 41 dca. 238.0 238.7 Blocky. 239.0 240.4 5% garnets. 5% quartz-calcite stringers parallel to foliation. 240.0 Foliation 40 dca. 248.9 251.3 Possible 24. 248.9 249.9 1% pyrrhotite. 5% quartz stringers. 249.9 250.0. 10% stringers pyrrhotite. 250.0 Foliation 41 dca. 250.0 251.0 20% garnets. 251.1 251.3. 10% stringers pyrrhotite. 251.9 252.2 22 cm barren quartz-carbonate vein at 49 dca. 252.2 253.0 18% quartz veining.
259.4	260.8	INTRAFORMATIONAL IRON FORMATION 24E. 60% 24e Beds. 30% Quartz veining. 10% Garnetiferous beds. Bedding 55 dca. 5% Stringers and disseminated pyrrhotite. Lower contact sharp at 50 dca. 259.4 260.8 24E. 30% quartz veining.
260.8	287.0	INTERMEDIATE TO MAFIC VOLCANICS

From (m)	To (m)	Geology
		BVOL. Similar to 230.35 to 259.40. Foliated at 30 to 50 dca. Fractures subparallel to foliation at 50 dca and perpendicular at 41 dca. 0 To trace pyrrhotite. 1% to 5% quartz-calcite stringers parallel to foliation. Lower contact indistinct. 270.0 Foliation 45 dca. 275.0 Foliation 50 dca. 280.0 Foliation 30 dca.
287.0	288.6	GARNET-BIOTITE SCHIST 4F. Fine grained, dark grey to black. Non-magnetic. Moderately soft. 25% 1 mm to 1 cm garnets. Foliation at 50 dca. Unit locally folded. Trace pyrrhotite. Locally up to 3% quartz stringers. Lower contact sharp at 47 dca. 287.0 288.0 4f. 3% quartz stringers. Foliation 51 dca. 288.0 288.6 4f. At 288.35 M folds with axial plane at 47 dca. Foliation 50 dca.
288.6	306.8	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. 70% 4ea And/or 4eab beds. 1 to 3 cm. Strong grunerite. Non to weakly magnetic. 20% Chert beds. 10% 4e Beds. 1 to 3 cm. 25% garnets. Bedding moderately developed except in areas of strong quartz flooding where beds are disrupted. Bedding from 10 to 43 dca. Unit is folded from 288.60 to 301.00 with axial plane at 17 to 47 dca. Unit moderately to strongly gruneritized. Weakly to moderately calcareous. 1% to 15% disseminated and stringer pyrrhotite. Numerous specks of VISIBLE GOLD. Trace ARSENOPYRITE. 1% to 25% quartz stringers and quartz flooding. Lower contact sharp at 40 dca. 288.6 301.0 Bedding folded. 288.6 289.3 4ea. Strong grunerite. 5% quartz flooding. Bedding 37 dca. D68739 STANDARD II 10.49 10.90 NS. D68740 BLANK 0.27 NS NS. 289.3 290.0 40 cm BVOL. 30 cm 4ea. 1% quartz veining. 290.0 291.0 4eab. Strong grunerite. 3% quartz veining. Bedding 43 dca. A 1 metre fracture at 0 dca. Beds offset 3 mm. 291.0 292.0 4eab. Strong grunerite. 20% quartz flooding. Bedding 53 dca. At 291.00 right limb folding with axial plane at 17 dca. 292.0 293.0 4ea. Strong grunerite. 15% quartz flooding. 10 specks VISIBLE GOLD. Bedding 17 dca. 293.0 294.0 4ea. Strong grunerite. Trace ARSENOPYRITE. Folded. 294.0 295.0 4ea. Strong grunerite. 3% quartz flooding. <1% ARSENOPYRITE. Bedding 40 dca. 294.0 294.1 1 cm fault gouge at 54 dca. D68750 298.00 299.00 DUPLICATE 2.43 ns ns. 295.0 296.0 4ea. Strong grunerite. 5% quartz flooding. At 295.15 axial plane at 30 dca. Bedding 25 to 35 dca. 296.0 297.0 4eab. Strong grunerite. 5% quartz veining. Bedding 20 dca. At 296.50 axial plane 40 dca. 297.0 298.0 4eab. Strong grunerite. 10% quartz flooding. 1 speck VISIBLE GOLD. Bedding 10 dca. 298.0 299.0 4eab. Strong grunerite. 7% quartz flooding. Trace ARSENOPYRITE. Bedding 41 dca. At 298.25 axial plane at 30 dca.

From (m)	To (m)	Geology
		299.0 300.0 4eab. Strong grunerite. 5% quartz veining. Bedding 31 dca. Axial plane at 34 dca. 300.0 301.0 4eab. Strong grunerite. 3% quartz flooding. <1% ARSENOPYRITE. Bedding 41 dca. 301.0 302.0 4eab. Strong grunerite. 1% quartz veining. <1% ARSENOPYRITE. Bedding 17 dca. 302.0 303.0 4ea. Strong grunerite. 25% quartz flooding. 3 specks VISIBLE GOLD. 303.0 304.0 4ea. Strong grunerite. 20% quartz flooding. Bedding 32 dca. 304.0 305.0 4eb. Weak grunerite. Bedding 32 dca. 305.0 306.0 4ea. 3% quartz stringers. Trace ARSENOPYRITE and chalcopyrite. Very weak grunerite. Bedding 35 dca. 306.0 306.8 4ea. 3% quartz stringers. Very weak grunerite. Bedding 40 dca.
306.8	321.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderately hard. Foliation at 45 to 53 dca. Fractures perpendicular to foliation at 53 to 60 dca. Trace disseminated pyrrhotite. 1% to 25% quartz-calcite stringers parallel to foliation. Lower contact sharp at 48 dca. D68760 STANDARD II 10.29 ns ns. D68761 BLANK 0.10 ns ns. 306.8 308.0 BVOL. 10% quartz-calcite stringers.
321.5	329.4	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. 80% 4b Beds. 1 to 3 cm. Very weak to weak grunerite alteration. 20% 4e Beds. Up to 1 cm. 15% to 30% 1 mm garnets. Unit strongly magnetic. Bedding 10 to 46 dca. Left limb folding with axial planes at 34 to 46 dca. Barren to trace disseminated pyrrhotite. Rare quartz stringer. Lower contact gradual at 35 dca. 321.5 322.0 W or M folds with axial plane at 55 dca. 321.5 323.0 4be. 3% quartz stringers. Weak grunerite. Bedding 46 dca. 323.0 324.0 Bedding 30 dca. 324.0 325.0 Axial planes at 47 and 30 dca. Bedding at 10 dca. 326.0 327.0 4be. Left limb folding with axial plane at 46 dca. Bedding 40 dca. 328.0 329.0 Bedding 10 dca. 328.0 329.4 4be. Very weak grunerite. 329.0 329.4 Bedding 30 dca.
329.4	397.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab and 4ea. 75% 4eab Beds. Moderate to strong grunerite. Non to moderately magnetic. 1 to 3 cm wide. 20% 4B And/or chert beds. 1 cm. 5% 4e Beds. 30% 1 mm garnets. Bedding from 0 to 40 dca. Minor folding between 390.00 and 397.00 metres with axial planes at 36 to 60 dca. Dominant fracture set perpendicular to bedding at 36 to 60 dca. Minor fractures subparallel to bedding at 37 to 44 dca. 1% to 15% disseminated and stringer pyrrhotite. Trace pyrite, chalcopyrite and ARSENOPYRITE. Numerous specks of VISIBLE GOLD. Up to 50% quartz flooding and quartz veining. Lower contact sharp at 46 dca.

From (m)	To (m)	Geology
		D68770 333.00 334.00 DUPLICATE 5.38 NS NS. D68782 STANDARD II 9.60 9.91 NS. D68783 BLANK 0.17 NS NS. D68790 350.00 351.00 DUPLICATE 3.22 NS NS. D68800 STANDARD II 9.81 NS NS. D68801 BLANK 0.17 NS NS. D68810 367.00 368.00 DUPLICATE 0.55 NS NS. 329.4 330.0 4eab. Trace pyrite. 20% quartz flooding. Bedding 30 dca. Weak grunerite. 330.0 331.0 4eab. 20% quartz veining. Weak grunerite. Bedding 30 dca. 331.0 332.0 4eab. 1% quartz veining. Bedding 26 dca. 332.0 333.0 4eab. Strong grunerite. 2% quartz veining. Bedding 21 dca. At 332.75 axial plane 65 dca. M fold. 333.0 334.0 4eab. Strong grunerite. 3% quartz veining. 4 specks VISIBLE GOLD. Bedding 25 dca. 334.0 335.0 4eab. 61 specks VISIBLE GOLD. 5% quartz veining. Strong grunerite. At 334.5 bedding 29 dca. At 335 bedding 7 dca. 335.0 336.0 4eab. 3% quartz veining. Strong grunerite. Bedding 0 dca. Axial plane at 50 dca. 336.0 337.0 4ea. 35% quartz flooding. Strong grunerite. 1 speck VISIBLE GOLD. Bedding 25 dca. 337.0 338.0 4eab. 5% quartz veining. Strong grunerite. Bedding folded. 338.0 339.0 4eab. 35% quartz flooding and quartz veining. 3 specks VISIBLE GOLD. Strong grunerite. Bedding 29 dca. 339.0 340.0 4be. Weak grunerite. Bedding 25 dca. 340.0 341.0 4be. Weak grunerite. Bedding 30 dca. 341.0 342.0 4eab. Moderate grunerite. 48 specks VISIBLE GOLD. 15% quartz veining. Bedding 37 dca. 342.0 343.0 4eab. Strong grunerite. 10% quartz veining. 2 specks VISIBLE GOLD. Bedding 30 dca. 343.0 344.0 4eab. Strong grunerite. 1% quartz veining. Bedding 31 dca. 344.0 345.0 4be. Very weak grunerite. 2% quartz veining. Bedding 25 dca. 345.0 346.0 4be. Very weak grunerite. Bedding 26 dca. 346.0 347.0 4be. Weak grunerite. 2% quartz flooding. Axial plane at 36 dca. Bedding 35 dca. 347.0 348.0 4eab. Moderate grunerite. 2% quartz flooding. Bedding 37 dca. 348.0 349.0 4eab. 3% quartz stringers. Strong grunerite. Bedding 35 dca. 349.0 350.0 4ea. 45% quartz flooding. 13 specks VISIBLE GOLD. 1% chalcopyrite. Strong grunerite. 350.0 351.0 4ea. 20% quartz flooding. 6 specks VISIBLE GOLD. Strong grunerite. Bedding 40 dca. 351.0 352.0 4eab. 5% quartz flooding. Strong grunerite. Bedding 35 dca. 352.0 353.0 4eab. 1% quartz stringers. Strong grunerite. Bedding 32 dca. 353.0 354.0 4eab. 2% quartz stringers. Strong grunerite. Bedding 35 dca. 354.0 355.0 4eab. 2% quartz stringers. Strong grunerite. Bedding 34 dca. 355.0 356.0 4eab. Strong grunerite. Bedding 40 dca. 356.0 357.0 4eab. Strong grunerite. Bedding 41 dca. 357.0 358.0 4eab. Strong grunerite. Bedding 38 dca. 358.0 359.0 4eab. Strong grunerite. Bedding 40 dca. 359.0 360.0 4ea. 50% quartz flooding. 10 specks VISIBLE GOLD. Strong grunerite. Bedding 40 dca. 360.0 361.0 4ea. 30% quartz flooding. Strong grunerite. Bedding 40 dca. 361.0 362.0 4eab. 5% quartz stringers. Strong grunerite. Bedding 40 dca. 362.0 363.0 4eab. 1% quartz stringers. Strong grunerite. Bedding 37 dca. 363.0 364.0 4eab. Strong grunerite. Bedding 45 dca. 364.0 365.0 4eab. 30% quartz flooding. Strong grunerite. 2 specks VISIBLE GOLD. 365.0 366.0 4eab. Strong grunerite. 1% quartz stringers. Bedding 40 dca. 366.0 367.0 4eab. Strong grunerite. 5% quartz flooding. Bedding 40 dca. 367.0 368.0 4eab. Strong grunerite. 2% quartz flooding. Bedding 39 dca. 368.0 369.4 4eab. Strong grunerite. 3% quartz stringers. Trace ARSENOPYRITE. Bedding 37 dca. 369.4 370.0. Contacts at 40 dca. Foliated at 43 dca. 369.4 370.0 BVOL. 370.0 371.1 4eab. 2% quartz stringers. 2 specks VISIBLE GOLD. Strong grunerite. Bedding 34 dca.

From (m)	To (m)	Geology
		371.1 371.9 BVOL. 371.9 373.0 4eab. 12 specks VISIBLE GOLD. 5% quartz stringers. Trace ARSENOPYRITE. Strong grunerite. Bedding 30 dca. 373.0 374.0 4ea. 4 specks VISIBLE GOLD. 25% quartz flooding. Strong grunerite. Bedding 37 dca. 374.0 375.0 4ea. 2 specks VISIBLE GOLD. Trace chalcopyrite. 5% quartz flooding. Strong grunerite. Bedding 32 dca. 375.0 376.0 4ea. 1 speck VISIBLE GOLD. Trace ARSENOPYRITE. Trace pyrite. 15% quartz veining and quartz flooding. Strong grunerite. Bedding 36 dca. 376.0 377.0 4ea. 5 specks VISIBLE GOLD. Trace ARSENOPYRITE. 25% quartz flooding. Strong grunerite. Bedding 29 dca. 377.0 378.0 4ea. 14 cms BVOL. 8 specks VISIBLE GOLD. Trace ARSENOPYRITE. 25% quartz flooding. Bedding 25 dca. 377.1 377.2. Contacts 35 dca. 377.5 Contacts 35 dca. D68821 STANDARD II 10.05 NS NS. D68822 BLANK 0.21 NS NS. 378.0 379.0 4eab. 2 specks VISIBLE GOLD. Trace ARSENOPYRITE. 8% quartz veining. Strong grunerite. Bedding 40 dca. 379.0 380.0 4eab. Strong grunerite. 2% quartz veining. Bedding 34 dca. 380.0 381.0 4eab. 15% BVOL. Strong grunerite. 1% quartz flooding. Bedding 20 dca. 380.4 380.5. Contacts 25 dca. D68830 384.00 385.00 DUPLICATE 8.19 NS NS. 381.0 382.0 4eab. 5% quartz stringers. Trace ARSENOPYRITE. Strong grunerite. Bedding 25 dca. 382.0 383.0 4ea. 5% quartz veining. Trace ARSENOPYRITE. Strong grunerite. Bedding 37 dca. 383.0 384.0 4ea. 30% quartz flooding. Strong grunerite. 384.0 385.0 4ea. 10% quartz flooding. Strong grunerite. 6 cm QUARTZ-VEIN at 384.85 with contacts at 50 dca. Bedding 20 dca. 385.0 386.0 4ea. 30% quartz flooding. Strong grunerite. Bedding 30 dca. 386.0 387.0 4ea. 15% quartz stringers. Strong grunerite. Bedding 30 dca. 387.0 388.0 4ea. 10% quartz stringers. Strong grunerite. Bedding 30 dca. 388.0 389.0 4eab. 15% quartz flooding. Strong grunerite. Bedding 30 dca. 389.0 390.0 4ea. 25 cm BVOL. 5% quartz stringers. Strong grunerite. Bedding 40 dca. D68841 STANDARD II 9.81 10.05 NS. D68842 BLANK 0.14 NS NS. 390.0 391.0 4ea. 3% quartz veining. Strong grunerite. At 390.25 a 9 cm quartz-calcite vein with 1 speck VISIBLE GOLD at 36 dca. Bedding 40 dca. 391.0 392.0 4ea. 3% quartz veining. Strong grunerite. Bedding 40 dca. 392.0 393.0 4ea. 25% quartz flooding. Strong grunerite. Bedding 36 dca. 393.0 394.0 4ea. 25% quartz flooding. Strong grunerite. Bedding 40 dca. At 393.70 axial plane 56 dca. 394.0 395.0 4ea. 15% quartz flooding. Strong grunerite. Bedding 39 dca. 395.0 396.0 4ea. A 8 cm QUARTZ-VEIN at 395.00. 10% quartz flooding. Strong grunerite. Bedding 40 dca. 396.0 397.0 4ea. 10% quartz veining. Strong grunerite. Bedding 35 dca.
397.0	398.5	GARNET-BIOTITE SCHIST 4F. 60% 1 Cm black 4f beds with 20% 1 mm garnets. 40% 2 Mm chert beds. Left limb folding with axial plane at 60 dca. Bedding at 35 dca. Fractures parallel to bedding at 30 dca. Trace pyrrhotite. 3% quartz veining. Lower contact sharp at 42 dca. 397.0 398.5 4eaf. 3% quartz veining. Trace pyrite. At 397.50 left limb folding with axial plane at 60 dca. Bedding 35 dca. 398.1 1 cm fault gouge at 30 dca. Chloritic.
398.5	402.1	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF.

From (m)	To (m)	Geology
		60% 4b Beds. 40% 4f Beds with 20% 1 mm garnets. Unit strongly magnetic. Hard. Bedding at 36 dca. Very weak grunerite alteration. Barren. Minor quartz-calcite stringers parallel to foliation. Lower contact sharp at 50 dca. 398.5 399.0 4bf. Very weak grunerite. Bedding 36 dca. 399.0 400.0 4bf. Very weak grunerite. Bedding 36 dca. 400.0 401.0 4bf. 15 cm BVOL. Moderate grunerite. 3% quartz stringers. Bedding 30 dca. D68850 401.00 402.10 DUPLICATE 0.03 NS NS. 401.0 402.1 4bf. 25 cm BVOL. Moderate grunerite. 10% quartz-calcite stringers. Bedding 29 dca.
402.1	402.6	GARNET-BIOTITE SCHIST 4f. Foliation 48 dca. Lower contact sharp at 45 dca.
402.6	419.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Hard. Foliated at 47 to 50 dca. Fractures subparallel to bedding at 30 and 45 dca. Barren. 1% Quartz-calcite stringers. Lower contact sharp at 52 dca. 405.0 Foliation 50 dca. 410.0 Foliation 47 dca.
419.0	422.8	GARNET-BIOTITE SCHIST 4F. 70% black 4f beds with 30% 1 mm garnets. Up to 2 cm. 30% Medium grey chert beds. 1 cm. Bedding at 55 to 67 dca. Minor folding. Fractures perpendicular to bedding at 45 dca. Trace disseminated pyrrhotite. Up to 1% quartz stringers parallel to bedding. Lower contact sharp at 60 dca. 421.0 422.0 W and M folds with axial plane at 75 dca. 422.0 422.4 Broken core.
422.8	426.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to 402.60 to 418.95 metres. Lower contact sharp at 50 dca.
426.0	428.7	GARNET-BIOTITE SCHIST 4F.

From (m)	To (m)	Geology
		70% black 4f beds. 1 to 3 cm. 30% 1 mm garnets. 30% Chert beds. 1 cm. Unit non-magnetic. Moderately hard. Bedding at 49 dca. Minor W folds at 427.70 with axial plane at 65 dca. Fractures subparallel to bedding at 29 and 45 dca. Trace disseminated pyrrhotite. 1% Quartz stringers parallel to bedding. Lower contact 57 dca. 426.0 428.7 Moderately fractured core. 426.0 427.0 4f. 8% quartz stringers. Bedding 49 dca. 427.0 428.0 4f. 1% quartz stringers. W folds with axial plane at 65 dca. Core moderately fractured.
428.7	455.0	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. 60% 4b Beds. 1 mm to 1 cm. Non to moderately gruneritized. 40% 4f Beds. 5 mm to 6 cm. 20% 1 mm garnets. Unit strongly magnetic. Well bedded at 36 to 65 dca. Folding throughout unit with axial planes at 50 to 64 dca. Fractures subparallel to bedding at 40 to 45 dca. Perpendicular at 45 dca. Barren. Rare quartz stringer. 428.7 430.0 Blocky core. 428.7 430.0 4bf. 2% quartz stringers. Bedding 54 dca. 430.0 431.0 W folds with axial planes at 55 dca. Bedding 53 dca. 431.0 432.0 4bf. 2% quartz stringers. Bedding 40 dca. 432.0 433.0 Bedding 50 dca. 433.0 434.0 Bedding folded with axial plane at 53 dca. Beds at 50 dca. 435.0 436.0 4bf. Bedding 40 dca. 436.0 437.0 Bedding 36 dca. 437.0 448.0 4b beds moderately gruneritized. 437.0 438.5 Bedding open folded with axial plane at 55 dca. D68861 STANDARD II 9.53 9.98 NS. D68862 BLANK 0.07 NS NS. 438.0 439.0 4bf. Moderate grunerite. Bedding 67 dca. 439.0 440.0 4bf. Moderate grunerite. W folds with axial planes at 62 dca. 440.0 441.0 4bf. Moderate grunerite. Bedding 61 dca. 441.0 442.0 4bf. Moderate grunerite. Bedding 50 dca. 442.0 443.0 4bf. 8% quartz veining. Bedding 55 dca. 443.0 444.0 4bf. 1% quartz stringers. Moderate grunerite. Bedding 50 dca. 445.0 446.0 Bedding 49 dca. 446.0 447.0 4bf. Bedding 65 dca. 447.0 448.0 Bedding 60 dca. 448.0 449.0 Bedding 60 dca. W folds with axial plane at 52 dca. 449.0 450.0 Bedding 56 dca. W folds with axial plane at 64 dca. 450.0 451.0 Right limb folding with axial plane at 60 dca. 452.0 453.0 Bedding 50 dca. Core fractured along core axis.
455.0		END OF HOLE

From (m)	To (m)	Geology
		DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken. Samples stored at Musselwhite Camp. DRILLING HISTORY:. 0.00 21.30 Metres. Tricone Bit. NW Casing. 21.30 455.00 Metres. Two Hexagon Core Barrels. Dimatec Inc. MX10 Bit. Casing pulled. 1 hour. Hole cemented - 6.5 hours. 93 bags of 20 kg Type 50 cement used. SURVEYING HISTORY:. Gyroscopic Directional Survey by CBC Welnav, North Bay, Ontario used for Class 2 Data. Survey took 1.5 hours. Downhole Dip Tests:. 19 M -61 Acid. 52 M -60 Acid. 82 M -59.5 Acid. 109 M -59 Acid. 145 M -59 Acid. 175 M -59 Acid. 238 M -56 Acid. 268 M -55 Acid. 298 M -55 Acid. 331 M -54 Acid. 361 M -53 Acid. 391 M -52 Roto. 397 M -52 Roto. 409 M -52.5 Roto. 421 M -52.5 Roto. 427 M -52 Roto. 439 M -51.5 Roto.

Date: 14 Nov, 1993

PLACER DOME EXPLORATION

DRILL HOLE RECORD

Northing: 10150.09
Easting: 8957.47
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -63.00

Hole Length: 389
Core Size: NQ
Date Started: FEB. 27, 1993
Logged by: B.J. McKay

*** Depth	Dip Tests Azi.	*** Dip
15.2	226.6	-63.5
30.5	226.9	-63.5
45.7	227.3	-64.0
61.0	227.0	-62.8
76.2	227.4	-64.0
91.4	228.5	-63.5
106.7	228.8	-62.3
121.9	229.7	-62.3
137.2	230.0	-61.3
152.4	229.7	-60.8
167.6	228.9	-60.0
182.9	229.8	-60.3
198.1	229.4	-60.3
213.4	228.2	-60.0
228.6	227.0	-59.5
243.8	228.3	-61.0
259.1	228.3	-60.5
274.3	227.0	-59.0
289.6	228.1	-59.0
304.8	223.4	-58.3
320.0	224.0	-58.3
335.3	225.8	-59.0
350.5	225.8	-58.8

Drill Hole: 506-623

Northing: 10150N
Easting: 8957E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10150N
Completed: MAR. 4, 1993
Date(s) Logged: FEB. 28 - MAR. 5, 1993

Claim: Pa529826: 29.5m; Pa529497: 70.5m; Pa529500: 289m.
Comments: 8.2mW, 291.3mS to WP of #1 post, Claim# Pa529500
Purpose: to test C, T and WA Zones.

From (m)	To (m)	Geology
		REVISED LOG, 22 APRIL, 1993. Includes assay data. Includes revised Gyro-dip data. Missing sample numbers (STANDARDs, BLANKs and DUPLICATEs) are listed at the end of the drill log. Highlights of 506-623:. S-Zone:. C-Zone:. T-Zone:. WA-Zone:. All fold orientations are looking southward, up plunge. This orientation is the same as the strip log.
.0	31.4	OVERBURDEN

From (m)	To (m)	Geology
		0.0 31.6 Casing. 0.0 1.4 Ice and Water. 1.4 31.35 Sand, gravel and boulders.
31.4	153.0	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, grey, dark grey-black, non-magnetic, hard. Locally silicified, carbonatized (<40 cm sections) and finer-grained. These bleached sections are light grey. Unit contains 3-5% minute quartz phenocrysts < 2 mm wide. Well developed foliation, averages 25-40 dca, locally contorted. Two sets of fracturing/jointing: one fracture set parallel to foliation the second set perpendicular to foliation. The second set are often healed. Faulting as noted. Pervasive weak carbonatization, locally very weak. Carbonate is locally concentrated near the perpendicular set of fractures. POTASSIC alteration as noted. Occasional sericitized section, up to 5 cm, with trace to 2% pyrite. Occasional quartz and quartz-carbonate veins, larger (>5 cm) veins as noted. 32.0 Foliation, 41 dca. 33.0 Foliation and fracture, 36 dca. Perpendicular fracture, 50 dca. 36.0 Fracture, 13 dca. 37.0 Foliation and fracture, 38 dca. Perpendicular fracture 53 dca. 37.1 40.2 Section with potassic alteration, fracture controlled by perpendicular set of fractures also strong carbonatization associated with the fractures. 43.0 Fault, 40 dca. 46.0 An 8 cm quartz-carbonate vein with 1% pyrite parallel foliation and fracture, 34 dca. 48.0 Foliation, 32 dca. 48.6 A 10 cm QUARTZ-VEIN, parallel to foliation. 52.5 Fractured and microbrecciated section, 10 cm wide, with a quartz-carbonate biotite matrix. 53.0 Foliation, 27 dca. Perpendicular fracture, 61 dca. 58.0 Foliation and fracture, 32 dca. Perpendicular fracture, 60 dca. 63.0 Foliation and fracture, 38 dca. Perpendicular fracture, 62 dca. 68.0 A 15 cm quartz-carbonate vein parallel to foliation, 38 dca. 70.0 A 12 cm quartz-carbonate vein, parallel to foliation, with 2% pyrite and sericitized wall rock and wall rock fragments. 70.7 Perpendicular fracture, 43 dca. 73.0 Foliation, 33 dca. 78.0 Foliation and fracture, 36 dca. Perpendicular fracture, 72 dca. 83.0 Foliation, 36 dca. 85.0 82.5 Broken section. 88.0 Foliation and fracture, 35 dca. Perpendicular fracture, 60 dca. 93.0 Foliation, 45 dca. 93.5 A 5 cm quartz-carbonate vein, parallel to foliation, with 5% ARSENOPYRITE as irregular masses up to 1 cm across. 95.0 Perpendicular fracture, 65 dca. 98.0 Foliation, 44 dca. 98.3 A 5 cm quartz-carbonate vein parallel to foliation. 100.1 101.2 Bull QUARTZ-VEIN with minor carbonate. Intensely sericitized and weakly biotized wallrock and wallrock fragments. 100.1 101.2 Quartz vein. 101.2 133.0 Unit becomes light grey and finer-grained with increase in carbonate and sericite. 103.0 Axial plane, right limb folding, 45 dca. 103.8 104.2 Network of quartz-carbonate vein with sericite and biotite alteration. 108.0 Foliation, 43 dca.

From (m)	To (m)	Geology
		108.7 A 10 cm quartz-carbonate vein, parallel to foliation. 113.0 Foliation, 40 dca. 115.2 115.6 Minor quartz-carbonate flooding with sericite alteration. 117.0 Perpendicular fracture, 13 dca. 118.0 Foliation, 45 dca. 120.0 Perpendicular fracture, 60 dca. 123.1 A 8 cm quartz-carbonate vein, parallel to foliation, 41 dca. 128.0 Foliation and fracture, 42 dca. Perpendicular fracture, 69 dca. 130.0 Perpendicular fracture, 65 dca. 131.3 An irregular 8 cm quartz-carbonate vein with minor tourmaline. 133.0 Foliation, 38 dca. 133.0 153.0 Unit is dark grey, locally silicified, non-magnetic, weakly carbonatized, moderately hard. 136.0 141.0 3-5% rounded bluish-white qtz eyes, averaging 3-5 mm in diameter with garnetiferous centers. 138.0 Foliation, 55 dca. 138.3 Perpendicular fracture, 42 dca. 143.0 Foliation, 60 dca. Perpendicular fracture, 55 dca. 144.3 An 8 cm QUARTZ-VEIN with chlorite seams. 145.6 A 5 cm quartz-carbonate vein with minor tourmaline. 147.0 153.0 Numerous perpendicular fractures with a halo of potassic alteration. 148.0 Foliation, 40 dca. Perpendicular fracture, 55 dca. Lower contact, sharp, 55 dca.
153.0	158.3	GARNETIFEROUS BASALT GtB with BVOL. Fine grained, black, dark green, matrix, non-magnetic to very weakly magnetic, moderately hard to soft. 40-95% Garnet. Poorly developed foliation. Locally weak carbonatization. Strong pervasive biotitic alteration. Local strong chloritic alteration. 153.9 154.4 BVOL interbed. 153.9 Contact, sharp, 60 dca. 154.4 Contact, sharp, 65 dca. 156.0 Foliation, 60 dca. 156.6 157.4 BVOL interbed. 156.6 Contact, sharp, 64 dca. 157.4 Contact, 44 dca. 157.5 157.6 BVOL interbed. Lower contact, sharp, 40 dca.
158.3	159.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above, without garnets. Lower contact, sharp, 40 dca.
159.9	164.8	GARNETIFEROUS BASALT GtB with BVOL. Similar to above. 162.6 163.1 BVOL interbed. 162.6 Contact, sharp, 63 dca. 163.1 Contact, sharp, 54 dca.

From (m)	To (m)	Geology
		163.3 163.5 BVOL interbed. Lower contact, sharp, 45 dca.
164.8	165.7	BRECCIA ZONE BRECCIA ZONE. Fine grained, dark green, brownish-white, locally weakly magnetic, moderately hard. 20% Subrounded to angular qtz and qtz-carb clasts up to 4x2 cm across. Well developed foliation, draped around clasts. Matrix is 60:40 chloritic and biotitic. Occasional garnet. Lower contact, sharp, 40 dca.
165.7	179.5	GARNETIFEROUS BASALT GtB with BVOL. Similar to above. Unit has nil to 3% pyrrhotite, concentrated within 30 cm of lower contact pyrrhotite occurs as minute seams parallel to foliation. 166.7 Perpendicular fracture, 32 dca. 168.0 Foliation, 41 dca. 173.0 Foliation, 43 dca. 175.1 176.0 Zone of gradual decrease in garnet content to nil. 176.0 176.8 BVOL interbed. 176.0 Contact, sharp, 38 dca. 176.8 Contact, sharp, 32 dca. Lower contact, gradual over 25 cm, 55 dca.
179.5	272.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. Fine grained to very fine grained, green, chloritic, non-magnetic, poorly developed foliation. Occasional quartz-carbonate vein, < 3 cm wide. Numerous hairline quartz-carbonate fractures perpendicular to foliation becoming fewer in number and wider (<5mm) below 196 m. 181.0 182.0 AVOL interbed. 181.0 Contact, sharp, 51 dca. 182.0 Contact, sharp, 42 dca. 185.0 Foliation, 34 dca. 187.6 Perpendicular fracture, 46 dca. 190.0 Foliation, 45 dca. 192.0 Foliation, 42 dca. Perpendicular fracture. 193.4 195.4 Altered zone consisting of bleached, strongly biotized and moderately sericitized BVOL with quartz garnet pyrrhotite veins at contacts. Upper contact, sharp, 50 dca. 193.4 194.0 Altered GtB with 60% quartz flooding, 4% pyrrhotite, minor chlorite, trace pyrite. 194.0 Contact, sharp, 40 dca. 194.6 Foliation, 50 dca. 195.1 195.4 Similar to other contact above. 195.1 Contact, sharp, 44 dca. 195.4 Contact, sharp, 46 dca. 197.0 Foliation, 36 dca. 200.0 Foliation, 40 dca. 205.0 Foliation, 35. Perpendicular fracture, 50. 208.0 228.4 Section with locally moderate biotitic alteration. Local brownish tint. 210.0 Foliation, 33.

From (m)	To (m)	Geology
		211.0 211.3 Section with 15% 4B beds, 3% pyrrhotite, locally strongly magnetic. 215.0 Foliation, 29 dca. 218.8 Perpendicular fracture, 51 dca. 220.0 Foliation, 35 dca. 221.0 224.8 Section with GtB beds, parallel to foliation, with sharp contacts. 221.0 221.6 GtB interbed. 222.3 223.2 GtB interbed. 223.9 224.0 GtB interbed. 224.4 224.8 GtB interbed. 225.0 Foliation, 45 dca. 228.4 428.0 Section with pervasive moderate to strong carbonatization and pervasive moderate biotitic alteration. Brownish-green to green. Biotite locally up to 60%. Also an increase in quartz-carbonate seams and veins, locally up to 30% over 1 metre lengths, averages 5 to 8%. Veins are up to 15 cm wide. 230.0 Foliation, 35 dca. 235.0 Foliation, 33 dca. 240.0 Foliation, 32 dca. 246.0 Foliation, 40 dca. 247.0 Perpendicular fracture, 40 dca. 250.0 Foliation, 50 dca. 255.0 Foliation, 47 dca. 258.0 Perpendicular fracture, 23 dca. 260.0 Foliation, 38 dca. 265.0 Foliation, 45 dca. 270.0 Foliation, 36 dca. 271.0 Perpendicular fracture, 66 dca. Lower contact, undulating, sharp, 23 dca.
272.5	279.5	GARNET-BIOTITE SCHIST 4F. Fine grained, round, black, non-magnetic to locally moderately magnetic, hard. 3-60% Quartz flooding and quartz-carbonate flooding. 0-20% Garnets. Poorly to moderately developed, contorted, foliation. Pervasive weak to strong carbonatization. Strong pervasive chloritic alteration. Tr-5% pyrrhotite. Trace chalcopyrite. 272.5 273.3 4F, 30%qf, 5%gar. 273.3 274.4 4F, 3%qcd, occ gar. 273.6 Perpendicular fracture, 46 dca. 274.0 Foliation, 24 dca. Contact, sharp, 29 dca. 274.4 275.0 4F, 50%qf, 15%gar, tr cpy. 275.0 275.8 4F, 10%qcb, 20%gar, tr cpy. 275.6 Perpendicular fracture, 50 dca. 275.8 276.9 4F, 20%qcb, 15%gar. 276.9 277.7 4F, 60%qf, 25%gar. 277.7 279.1 4F, 2%qcb seams. 278.4 Perpendicular fracture, 32 dca. 279.0 Foliation, 33 dca. Lower contact, sharp, 43 dca. 279.1 279.5 4F, 30%qf, 15%gar.

From (m)	To (m)	Geology
279.5	283.6	CHERT - MAGNETITE IRON FORMATION 4B. Fine grained, grey and white, strongly magnetic, very hard, with minor 4F. Bedding contorted, with numerous axial plane fractures and fractures parallel to axial planes of drag-folds. The orientation of fractures remains unchanged with change in bedding angle. 279.5 280.1 4b. 279.8 Axial plane, right limb folding, 45 dca. 280.3 Axial plane fracture, 45 dca. 280.4 Axial plane, right limb folding with fracture, 45 dca. This fracture and the down hole adjacent one, each CONTAIN A MINUTE SEAM of pyrrhotite. The pyrrhotite is confined to a folded, 1 cm chert bed even though the structure continues into the adjoining 4F beds. There is no mineralization in the axial plane fracture in the synform between the two mineralized antiform structures. However there is mineralization in the synformal axial plane in 4F beds in the up hole direction. 281.4 Bedding, 90 dca. Axial plane fracture, 40. 283.4 Axial plane, right limb folding, and fracture, 45 dca. Lower contact, gradual over 50 cm, 38 dca.
283.6	376.6	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA. C-ZONE MINERALIZATION: 287m-320m. T & WA-ZONES MINERALIZATION: 337m-367.6m. Fine to medium grained, dark green, black, white, moderately to strongly magnetic, hard. Well developed foliation, consisting of alternating beds of B and F or B and E. Beds VARY in thickness up to 3 cm. Foliation is contorted in mineralized and veined sections as noted. Unit is fractured perpendicular to foliation and locally parallel to foliation. Pervasive weak to strong grunerite alteration. Very weak local carbonatization. 0-70% Translucent bluish-white quartz flooding as noted. Occasional quartz-carbonate vein. Trace to 5% pyrrhotite as disseminated specks and irregular seams, VISIBLE GOLD as noted. 283.6 284.7 4EF, w grun. 284.6 Axial plane, right limb folding, 30 dca. 284.7 286.0 4EF, w grun. 286.0 Foliation, 36 dca. 286.0 287.0 4EF, 15%qf, m grun. 287.0 Foliation, 20 dca. 287.0 288.0 4BE, 20%qf, m-s grun. 288.0 Foliation, 27 dca. 288.0 289.0 4BE, 5%qf, m grun. 289.0 Foliation, 33 dca. 289.0 290.0 4EB, <1%qcb, m grun. 290.0 Foliation, 24 dca. 290.0 291.0 4BE, 30%qf, m-s grun. 290.4 Perpendicular fracture, 55 dca. 291.0 Foliation, 21 dca. 291.0 292.0 4BE, m grun. 292.0 Foliation, 18 dca. Perpendicular fracture, 32 dca. 292.0 293.0 4EB, 5%qf. 293.0 Foliation, 0 dca. 293.0 293.8 4EB.

From (m)	To (m)	Geology
		293.8 294.5 4BE, 5%qf, m-s grun.
		294.0 Foliation, 13 dca.
		294.5 295.6 4BE, 20%qf, m grun.
		295.0 Foliation, 11 dca.
		295.6 296.7 4BE, 30%qf, m-s grun.
		296.0 Foliation, 22 dca.
		296.7 298.0 4BE, 10%qf, m grun.
		297.0 Foliation, 20 dca.
		298.0 Foliation, 35 dca : perpendicular to normal trend. (Possible fold.).
		298.0 299.0 4BE, m grun.
		299.0 Foliation, 10 dca : perpendicular to normal trend. (Possible fold.).
		299.0 300.0 4BE, m-s grun.
		300.0 Foliation, 0 dca.
		300.0 301.0 4BE, 15%qf, m-s grun.
		301.0 Foliation, 0 dca.
		301.0 302.0 4BE, 20%qf, m-s grun.
		302.0 Foliation, 47 dca. Perpendicular fracture, 62 dca.
		302.0 303.0 4BE, 15%qf, m-s grun.
		303.0 Foliation, 40 dca.
		303.0 304.0 4BE, m-s grun.
		304.0 Foliation, 32 dca.
		304.0 305.0 4BE, w-m grun.
		304.5 Perpendicular fracture, 67 dca.
		305.0 Foliation, 33 dca.
		305.0 306.0 4BF, 20%qf, w-m grun.
		306.0 Foliation, 45 dca.
		306.0 307.0 4BE, 20%qf, w grun.
		306.5 Fault: very sharp, well defined structure. Abrupt change in foliation, 50 dca.
		307.0 Foliation, 10 dca.
		307.0 308.0 4BE, 5%qcb, w grun.
		307.8 Axial plane, right limb folding, and fracture, 45 dca.
		308.0 Foliation, 23 dca. Perpendicular fracture, 50 dca.
		308.0 309.0 4BE, 4%qf.
		309.0 Foliation and fracture, 35 dca. Perpendicular fracture, 60 dca.
		309.0 310.0 4BE, 1%qcb, w grun.
		310.0 Foliation, 40 dca.
		310.0 311.3 4BE, w grun.
		311.0 Foliation, 36 dca. Perpendicular fracture, 60 dca.
		311.3 311.9 4B, 70%qf, s grun., tr asp.
		311.9 313.0 4BF, w-m grun.
		312.0 Foliation, 25 dca.
		313.0 Foliation, 27 dca.
		313.0 314.0 4BF, w grun.
		314.0 Foliation, 27 dca.
		314.0 315.0 4BF, w grun.
		315.0 Foliation, 27 dca.
		315.0 316.0 4BF, w grun.
		316.0 Foliation, 29 dca.
		316.0 317.0 4BE, w grun.
		317.0 Foliation, 29 dca.
		317.0 318.0 4BE.

From (m)	To (m)	Geology
		317.5 Perpendicular fracture, 68 dca. 318.0 Foliation, 26 dca. 318.0 319.0 4BE, w grun. 319.0 Foliation, 32 dca. 319.0 320.0 4EB, 15%qf, w grun. 320.0 Foliation, 30 dca. 320.0 321.0 4BE, 5%qf, w grun. 320.7 Perpendicular fracture, 60 dca. 321.0 Foliation, 28 dca. 321.0 322.0 4BE, 10%qf, w-m grun. 322.0 Foliation, 35 dca. 322.0 323.0 4BE, w-m grun. 323.0 Foliation, 34 dca. 323.0 324.0 4BE, 20%qf, w-m grun. 324.0 Foliation, 27 dca. 324.0 325.0 4BE, 15%qf, m grun. 325.0 Foliation, 35 dca. 325.0 326.0 4BE. 326.0 Foliation, 34 dca. 326.0 327.0 4BE. 327.0 Foliation, 31 dca. 327.0 328.0 4BE. 328.0 Foliation, 39 dca. 328.0 329.0 4BE. 329.0 Foliation, 37 dca. 329.0 330.0 4BE, 15%qf, w grun. 330.0 Foliation, 39 dca. 330.0 331.0 4BE, w grun. 331.0 Foliation, 32 dca. 331.0 332.0 4BE, 5%qf, w-m grun. 332.0 Foliation, 32 dca. 332.0 333.0 4BE, 15%qf, w-m grun. 332.3 Perpendicular fracture, 53 dca. 333.0 Foliation, 32 dca. 333.0 334.0 4BE, 10%qf, w grun. 334.0 Foliation, 31 dca. 334.0 335.0 4BE, w grun. 335.0 Foliation, 40 dca. 335.0 335.9 4BE, 5%qcb. 335.9 337.0 90 cm BVOL, 25 cm 4BE. 336.0 Foliation, 24 dca. 336.4 Perpendicular fracture, 27 dca. 337.0 Foliation, 30 dca. 337.0 337.9 4BE. 40%qf. M-s grun. 337.9 338.6 4BE, 20%qf, m-s grun. 338.0 Foliation, 32 dca. 338.6 339.4 BVOL. 339.0 Foliation, 37 dca. 339.4 340.1 4BE, 40%qf, m grun. 340.0 Foliation, 36 dca. 340.1 340.8 4BE, 2%qcb, m-s grun.

From (m)	To (m)	Geology
		340.5 Perpendicular fracture, 30 dca.
		340.8 341.5 4BE, 2%QCB, M GRUN.
		341.0 Foliation, 41 dca.
		341.5 342.3 4BE, 30%qf, m-s grun.
		342.0 Foliation, 30 dca.
		342.3 343.3 4BE, 30%qf, w-m grun., VG.
		343.0 Foliation, 39 dca.
		343.3 343.5 BVOL interbed.
		343.3 344.1 4BE, 10%qf, w-m grun.
		344.0 Foliation, 30 dca. Perpendicular fracture, 46 dca.
		344.1 345.0 4BE, 20%qf, w-m grun.
		345.0 Foliation, 29 dca.
		345.0 345.1 BVOL interbed.
		345.0 345.6 4BE, w grun, 30 cm BVOL.
		345.4 345.6 BVOL interbed.
		345.6 346.5 4BE, 3%qcb, m grun.
		346.0 Foliation, 32 dca.
		346.5 347.5 4EB, w grun.
		347.0 Foliation, 21 dca.
		347.5 348.5 4EB, w grun.
		348.0 Foliation, 14 dca.
		348.5 349.4 4EB, m-s grun.
		349.0 Foliation 31 dca. Two sets of perpendicular fractures, at an oblique to each other, 30 and 20 dca.
		349.4 350.4 4EB, 35%qf, s grun., VG.
		350.0 Foliation, 22 dca.
		350.4 351.4 4EB, 50%qf, s grun., VG.
		351.0 Foliation, 25 dca.
		351.4 352.4 4EB, 30%QF, S GRUN., TR ASP, TR CPY.
		352.0 Foliation, 29 dca.
		352.4 353.4 4EB, 25%qf, s grun., tr-1%asp.
		353.0 Foliation, 36 dca. Perpendicular joint with pyrrhotite, 58 dca.
		353.4 354.3 4EB, 25%qf, m-s grun.
		353.4 Perpendicular fracture, 53 dca.
		354.0 Foliation, 40 dca.
		354.3 355.2 4EB, 3%qf, m-s grun.
		355.0 Foliation, 22 dca.
		355.2 356.0 4EB, 3%qf, m-s grun.
		356.0 Foliation, 22 dca.
		356.0 357.0 4E, 70%qf, s grun.
		357.0 Foliation, 26 dca. Perpendicular fracture, 53 dca.
		357.0 358.0 4E, 50%qf, m-s grun., tr-1% asp, VG.
		358.0 Foliation, 33 dca.
		358.0 358.8 4E, 70%qf, s grun., tr-1% asp.
		358.8 359.5 4EB, 5%qcb, m grun.
		359.0 Foliation, 15 dca.
		359.5 360.0 4EB, 10%qf, s grun.
		359.9 Axial plane, right limb folding, 30 dca.
		360.0 Foliation, 23 dca.
		360.0 360.4 Two BVOL interbeds.
		360.0 360.9 4EB, m grun, 35 cm BVOL.
		360.6 360.9 BVOL interbed.

From (m)	To (m)	Geology
		360.9 361.6 4EB, s grun. 361.0 Foliation, 35 dca. Perpendicular fracture, 36 dca. 361.6 362.4 4EB, m-s grun. 362.0 Foliation, 30 dca. 362.4 363.1 4EB, m grun. 363.0 Foliation, 20 dca. 363.1 363.5 BVOL interbed. 363.1 363.8 4EB, m-s grun., 50 cm BVOL. 363.4 Perpendicular fracture, 38 dca. 363.7 363.9 BVOL interbed. 363.8 364.8 4EB, 15%qf, m-s grun., VG. 364.0 Foliation, 23 dca. 364.8 365.5 4EB, 60%qf, s grun., VG. 365.0 Foliation, 35 dca. 365.5 366.4 4EB, 50%qf, s grun. 366.0 Foliation, 27 dca. 366.4 367.6 4E, 50%qf, s grun., tr asp. 367.0 Foliation, 25 dca. 367.6 368.7 4EB, 25%qf, m-s grun. 368.7 369.6 4E, 5%qf, 10%qv. 369.0 Foliation, 31 dca. 369.6 370.5 4E, 20 cm GtB. 370.0 FAULT ZONE : 50 cm wide. 370.5 371.8 4EB, w grun. 371.0 Foliation and fracture, 26 dca. Perpendicular fracture, 68 dca. 371.8 372.8 4EB, 15%qf, 2%qcb. 372.0 Foliation, 23 dca. 372.8 374.0 4EB, m grun. 373.0 Foliation, 20 dca. 374.0 Foliation, 21 dca. 374.0 375.0 4EB, 3%qf, w-m grun. 375.0 Foliation, 30 dca. 375.0 376.0 4EB, 10%qf, m-s grun. 376.0 Foliation, 25 dca. Lower contact, sharp, 25 dca. 376.0 376.6 4E, 30%qf, m grun.
376.6	388.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, green, brownish-green, non-magnetic, moderately hard. Moderately developed foliation. 3-5% Quartz-carbonate veinlets and seams parallel to foliation. Locally moderate to strong biotitic alteration. Nil to very weak carbonatization except in biotized sections which is moderate to strong. 380.0 Foliation, 37 dca. 381.4 Perpendicular fracture, 33 dca. 384.5 Perpendicular fracture, 32 dca. 385.0 Foliation, 42 dca. Lower contact, sharp, 55 dca.
388.5	389.0	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F.

From (m)	To (m)	Geology
		4FB. Typical unit with 15% garnets in black, biotitic matrix.
389.0		END OF HOLE
		DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.
		DRILLING HISTORY and HOLE CONTROL EQUIPMENT. .0 31.9 Tricone. .0 31.6 NW casing. 31.6 107.0 Two hex-corebarrels and MX-10 drill bit. 107.0 185.0 Single standard corebarrel and MX-5 drill bit. 185.0 389.0 Single standard corebarrel and MX-10 drill bit.
		Hole stopped at 7:45 am, 4 March. Gyro survey: 8:35 - 10:30 am.
		Hole cemented. Casing cut under lake.
		80 Bags of #10 Cement. 5 Hours required to cement the hole.
		CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. No water return. No sludge samples taken.
		Sample STANDARDs, BLANKs and DUPLICATEs.
		E36299 STANDARDI 7.51 7.78 NS. E36300 BLANK 0.17 ns ns. E36310 is a DUPLICATE of E36309 0 0.72 ns ns. E36319 STANDARD I 7.17 7.58 NS. E36320 BLANK 0.14 ns ns. E36330 is a DUPLICATE of E36329 0 0.07 ns ns. E36340 STANDARD I 7.54 ns ns. E36341 BLANK 0.07 ns ns. E36350 is a DUPLICATE of E36349 tr 0.17 ns ns. E36361 STANDARD I 7.44 7.58 NS. E36362 BLANK 0.21 ns ns. E36370 is a DUPLICATE of E36369 7 14.23 14.91 NS. E36379 STANDARD I 7.37 ns ns. E36380 BLANK 0.38 ns ns. E36390 is a DUPLICATE of E36389 6 4.46 ns ns. E36399 STANDARD I 7.82 7.99 NS. E36400 BLANK 0.14 ns ns. E36411 is a DUPLICATE of E36410 2 1.65 ns ns. E36421 STANDARD I 7.54 7.89 NS. E36422 BLANK 0.17 ns ns.

From (m)	To (m)	Geology
		Hole dip tests not used as Code 2 data. Code 2 used Gyro-dip (Inrun Survey) by CBC WELLNAV, NORTH BAY, ONTARIO. Depth Dip Type. 0.0m -62 Brunton. 32m -63 Acid. 41m -62 Roto-dip. 53m -62 Roto-dip. 65m -62 Roto-dip. 89m -67? Roto-dip. 101m -62 Roto-dip. 107m -62 Roto-dip. 131m -61 Roto-dip. 143m -61 Roto-dip. 155m -60 Roto-dip. 161m -59.5 Roto-dip. 167m -59.5 Roto-dip. 170m -59 Roto-dip. 173m -59 Roto-dip. 185m -58.5 Roto-dip. 191m -59 Roto-dip. 197m -58.5 Roto-dip. 209m -59 Roto-dip. 221m -64? Roto-dip: stuck tube. 227m -59 Roto-dip. 236m -58 Roto-dip. 242m -58 Roto-dip. 248m -58 Roto-dip. 260m -58 Roto-dip. 272m -57.5 Roto-dip. 278m -57.5 Roto-dip. 287m -57.5 Roto-dip. 299m -59? Roto-dip. 305m -57 Roto-dip. 314m -57 Roto-dip. 326m -58 Roto-dip. 332m -58 Roto-dip. 338m -57 Roto-dip. 344m -57 Roto-dip. 350m -56.5 Roto-dip. 359m -56.5 Roto-dip. 371m -56.5 Roto-dip. 383m -56 Roto-dip. Miscellaneous:. The hole required; 83 core boxes, 124 assay tags, 248 sample bags, and 14 sample boxes for 104 core samples. The average daily temperature, @ 7:00 am, was -5 degrees Celsius.

DRILL HOLE RECORD

Northing: 10349.65
Easting: 9016.98
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -60.50

Hole Length: 476
Core Size: NQ
Date Started: FEBRUARY 28, 1993
Logged by: DENISE INGS

*** Depth	Dip Tests Azi.	*** Dip
15.2	230.9	-60.0
30.5	231.3	-59.8
45.7	231.1	-60.5
61.0	229.7	-59.0
76.5	229.0	-59.3
91.4	227.0	-58.0
106.7	226.8	-58.0
121.9	226.6	-57.3
137.2	226.9	-58.0
152.4	225.4	-57.0
167.6	226.2	-56.8
182.9	226.1	-56.8
198.1	227.1	-57.0
213.4	226.3	-56.5
228.6	224.3	-56.8
243.8	226.8	-55.3
259.1	227.2	-56.0
274.3	227.0	-55.0
289.6	226.8	-54.5
304.8	225.9	-54.0
320.0	228.2	-54.3
335.3	227.4	-55.0
350.5	228.4	-53.3
365.7	227.7	-55.0
381.0	229.6	-52.0
396.2	230.1	-53.8
411.5	230.5	-53.5
426.7	230.9	-53.0
441.9	230.0	-52.0
467.2	230.1	-51.0
474.8	230.4	-52.0

Drill Hole: 506-624

Northing: 10350N
Easting: 9008E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10350N
Completed: MARCH 8, 1993
Date(s) Logged: MARCH 1 - 8, 1993

Claim: PA-529497: 476.0m
Comments: 46.2m W and 3.9m N to WP of #1 post of Pa-529497.
Purpose: TO INTERSECT S,C,T, AND WA ZONES

From (m)	To (m)	Geology
		Samples E11782-11800, E12001-12220 inclusive.
		NOTE: All references to folding - both right and left limb folds - are looking down the plunge of the deposit (ie. Northwest). For detailed structural data see attached STRIP LOG.
.0	10.0	OVERBURDEN
10.0	26.0	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST

From (m)	To (m)	Geology
		4BF - NORTHERN IRON FORMATION. Fine to medium grained. Grey, pink, and brown mottled. Moderately to strongly magnetic. Hardness of 7. Composed of: 50% 4B beds, 45% 4F beds, and 5% 4E beds. Bedding is poorly developed at 55 dca. Beds are generally 2 to 10 cm in width. Chert beds are commonly boudinaged and contorted. Predominant fracture set is at 60 dca. Several minor folds with axial planes oriented 20 to 35 dca. Weak alteration to grunerite, very weak carbonate alteration and minor quartz flooding locally. Rare 5 to 30 cm milky QUARTZ-VEINs and quartz-chlorite veins are unmineralized. Minor 1 to 2 mm carbonate stringers. Generally trace to nil pyrrhotite. Up to 3% locally. Lower contact is sharp at 50 dca. 10.0 11.1 Weakly magnetic biotite garnet rich iron formation / sediment. 14.4 15.0 BVOL (/WACKE) non-magnetic, fine grained, green, massive, very weak carbonate alteration. 15.0 24.1 Weak to moderate grunerite alteration. CHECK SAMPLES:. E11782 STANDARD II 9.98. E11783 BLANK 0.07. 15.0 16.5 4bf, 10% quartz flooding, 2% carbonate stringers, very weak grunerite alteration. 19.0 20.0 4bea. 20.0 21.0 4bf, 15% quartz flooding, 1% carbonate stringers, weak grunerite alteration. 21.0 22.0 4bf, 10% quartz veining, 5% quartz flooding, trace pyrite, weak carbonate alteration. 25.0 26.0 4be, 2% quartz flooding.
26.0	34.0	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4BE. Fine to medium grained. Grey and green banded. Strongly magnetic. Hardness of 7. Composed of: 60% 4b beds, and 40% 4e beds. Contorted bedding locally with core angles ranging from 20 to 50 dca. Weak carbonate alteration locally. Trace to 2% pyrrhotite. Minor QUARTZ-VEINs at 20 to 40 dcas. Lower contact is sharp at 35 dca. 29.0 30.0 4be, very weak grunerite alteration. 30.0 31.0 4be. 31.0 32.0 4be, 20% quartz veining, very weak grunerite alteration, pyrrhotite associated with QUARTZ-VEINs. 32.0 33.0 4be. 33.0 34.0 Bedding appears weakly sheared with 5% carbonate alteration of matrix along foliation. Unmineralized. CHECK SAMPLES:. E11790 DUPLICATE OF E11789 0.10.
34.0	53.3	CHERT - MAGNETITE IRON FORMATION 4B. Composed of: 90% 4B beds, and 10% 4E beds. Well bedded at 30 to 40 dca. Chert beds are pervasively boudinaged.

From (m)	To (m)	Geology
		Lower contact is sharp at 30 dca. 35.9 47.0 1 to 5% pyrrhotite, trace to 1% pyrite, 5 to 10% quartz flooding, local quartz veining. 35.9 37.0 4b, 10% quartz flooding, 1% quartz-carbonate veins. 37.0 38.0 4b, 15% quartz flooding, trace quartz-carbonate veins. 38.0 39.0 4b, 10% quartz flooding, 1% quartz-carbonate veins, trace pyrite. 39.0 40.0 4b, 10% quartz flooding, 1% quartz-carbonate veins. 40.0 41.0 4bf, 10% quartz flooding, 5% quartz veining, 1% quartz-carbonate veins, trace pyrite. 41.0 42.0 4bf, 7% quartz flooding, trace quartz-carbonate veins. CHECK SAMPLES:. E12001 STANDARD I 7.58 7.89 NS. E12002 BLANK 0.17. 42.0 43.0 4f, 2% quartz flooding, 1% pyrite. 43.0 44.0 4f, 1% pyrite, pyrrhotite and pyrite are primary. 44.0 44.6 4f, trace pyrite, pyrrhotite and pyrite are primary. 44.6 46.0 4b, 20% quartz flooding, 10% quartz veining. 46.0 47.0 4b, 5% quartz flooding, very weak grunerite alteration, trace carbonate stringers. 49.4 50.2 4b, 10% quartz flooding, 3% quartz veining.
53.3	61.4	GARNET-AMPHIBOLE / CHERT-MAGNETITE I.F. 4eb. Composed of: 80% 4E beds, and 20% 4B beds. Moderately developed bedding, at 30 dca. Locally folded to m-type fold with axial planes oriented 20 to 30 dca. Lower contact is along micro-faults at 45 dca. 55.0 56.0 4eb, 20% quartz flooding. 56.0 57.0 4eb, 30% quartz flooding. 57.0 58.0 4eb, 10% quartz flooding. 58.0 59.0 Strong foliation at 40 dca and strong carbonate alteration indicate possible fault. CHECK SAMPLES:. E12010 DUPLICATE OF E12009 0.10. 58.0 59.0 4eb, 10% quartz veining, strong carbonate alteration, strongly foliated. 59.0 59.6 Q-po-chl vein in strongly foliated, carbonate altered 4eb, pyrrhotite in foot wall. 59.6 60.5 4eb, 5% quartz flooding. 60.5 61.4 4eb, 20% quartz flooding, minor carbonate.
61.4	100.6	CHERT - MAGNETITE IRON FORMATION 4b. Composed of: 90% 4B beds, and 10% 4E beds. Fractures are more abundant than usual and are at various angles to the core axis. Blocky sections. Lower contact is microfaulted at 45 dca. 61.4 62.0 Several minor microfaults at 40 dca offset the bedding on cm - scale. Minor local carbonate alteration and minor quartz-carbonate stringers.

From (m)	To (m)	Geology
		63.0 63.9 4b. 63.9 64.4 40 cm q-po-chl vein in 4b at 30 dca, pyrrhotite fracture-filling. 64.4 65.0 4b, strong foliation, carbonate alteration. 65.0 66.0 4b, 15% quartz flooding, weak carbonate alteration. 66.0 67.5 4b, 25% quartz flooding, weak carbonate alteration. 67.5 68.5 Strongly foliated chlorite rich matrix with minor garnet porphyroblasts and local phlogopite bands. 15% chert beds. 67.5 68.5 4b, strongly foliated, strong chlorite alteration, locally brecciated, minor phlogopite. 68.5 70.0 4be, 10% quartz flooding, 18% e-beds. 70.0 71.0 4e, 5% quartz flooding. 71.0 72.0 4b, 2% quartz flooding, very weak carbonate alteration. 72.0 73.0 4b, weak pervasive silicification, weak carbonate alteration, trace pyrite, trace very fine grained ARSENOPYRITE. 73.0 74.2 4b, weak pervasive silicification, weak carbonate alteration, trace pyrite, trace ARSENOPYRITE. 74.2 81.2 Mineralized zone consisting of weak silicification, weak to moderate carbonate alteration, trace 1% pyrrhotite, trace pyrite, and trace ARSENOPYRITE, with minor quartz veining. 74.2 75.0 4b, weak pervasive silicification, moderate carbonate alteration, trace pyrite, 1% very fine grained ARSENOPYRITE. 75.0 76.0 4b, weak pervasive silicification, weak carbonate alteration, trace ARSENOPYRITE, 5% quartz veining. 76.0 77.0 4b, weak pervasive silicification, weak carbonate alteration, trace ARSENOPYRITE, 10% quartz flooding. 77.0 78.0 4b, 15% quartz flooding, boudinaged chert beds, weak carbonate alteration, trace ARSENOPYRITE. 78.0 79.0 4b, weak silicification, weak carbonate alteration, 30 cm Q-CHL-PO vein. 79.0 80.0 4b, weak silicification, weak carbonate alteration, 10% quartz veining, trace pyrite. 80.0 81.2 4b, weak silicification, weak carbonate alteration, 5% quartz veining. 81.2 83.0 2% e- beds containing 30% garnets in a chlorite rich matrix. Bedding is very contorted and boudinaged about very tight, small scale m-type folds. Axial planes at 40 dca. Moderate carbonate alteration, weak to moderate sericite alteration, minor chlorite. 81.2 82.0 4b, moderate carbonate alteration, weak to moderate sericite alteration, minor chlorite. 82.0 83.0 4b, 10 cm QUARTZ-VEIN, 5% quartz flooding, moderate carbonate, weak sericite, and weak chlorite alteration. 83.0 84.0 4b, strong silicification (50% QF), 15 cm Q-CHL vein, moderate carbonate alteration. 84.0 85.0 4b, 5% quartz veining, moderate silicification, weak carbonate alteration, folded. 85.0 86.1 4b, abundant microfaults, strong silicification, 10% quartz veining, trace chlorite, trace ARSENOPYRITE. 86.1 87.0 4be, 20% e-beds, refolded?, moderate carbonate, moderate chlorite alteration. 87.0 88.0 4be, 20% e-beds, refolded?, moderate carbonate, moderate chlorite alteration. 88.0 89.0 4be, 20% e-beds, boudinaged chert beds, moderate carbonate chlorite alteration, trace ARSENOPYRITE. 89.0 90.0 4b, 5cm q-po veins, moderate carbonate alteration, weak silicification and chlorite alteration, trace ARSENOPYRITE. 90.0 91.0 4b, moderate carbonate alteration, weak pervasive silicification, 10 cm 4f bed with concentrated pyrrhotite, 1 speck VISIBLE GOLD. 91.0 92.0 4b, weak pervasive silicification, weak to moderate carbonate alteration, boudinaged chert beds. 92.0 93.0 4b, weak pervasive silicification, weak to moderate carbonate alteration, trace to 1% ARSENOPYRITE. 93.0 94.0 4b, includes a 40 cm q-chl vein with 55 very fine grained specks of VISIBLE GOLD, minor sericite. 93.7 94.0 Quartz chlorite vein with 55 specks of VISIBLE GOLD, moderate carbonate alteration of WALL ROCK and vein, suggest that carbonate alteration may be a later event. CHECK SAMPLES:. E12022 STANDARD I 7.41 7.65 NS. E12023 BLANK 0.10. E12030 DUPLICATE OF E12029 0.07. E12041 STANDARD I 7.41 7.68 NS. E12042 BLANK 0.10. E12050 DUPLICATE OF E12049 1.10. 94.0 95.0 4b, 1 speck VISIBLE GOLD, weak pervasive silicification, moderate carbonate alteration, moderate chlorite alteration. 95.0 96.0 4b, 14 specks VISIBLE GOLD ?, weak pervasive silicification, moderate carbonate alteration, moderate chlorite alteration, trace pyrite, trace ARSENOPYRITE.

From (m)	To (m)	Geology
		96.0 97.0 4b, 5 specks VISIBLE GOLD ?, 15 cm Q-PO vein, weak silicification, moderate carbonate alteration, moderate chlorite alteration, trace ARSENOPYRITE, trace pyrite. 97.0 98.0 4b, moderate carbonate alteration, minor quartz-carbonate stringers, 10% e-beds, boudinaged bedding. 98.0 99.0 4b, pyrrhotite in 2 cm QUARTZ-VEIN, weak carbonate alteration, minor chlorite. 99.0 100.0 4be, very weak carbonate alteration, 20% e-beds. 100.0 100.6 4b, 3 specks VISIBLE GOLD ?, 30 cm zone of strong silicification, strong carbonate alteration, rounded chert fragments, minor sericite, trace pyrite.
100.6	107.0	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. Consists of: 60% b-beds, 30% e-beds, and 10% f-beds. Moderately well developed bedding, locally boudinaged and contorted. Minor left limb folding, m-type folds and right limb folding with axial planes oriented 30 to 55 dca. Lower contact is gradual at 45 dca. CHECK SAMPLES:. E12063 STANDARD II 10.11. E12064 BLANK 0.17. 100.6 102.0 4be, 10% quartz flooding, weak carbonate alteration. 102.0 103.0 4be, 2% quartz flooding, weak carbonate alteration. 103.0 104.0 4be, 10% quartz flooding, weak to moderate carbonate alteration. 104.0 105.0 4be, 5% quartz flooding, weak patchy grunerite alteration. 105.0 106.0 4be, 10% quartz flooding, very weak grunerite alteration, very weak carbonate alteration. 106.0 107.0 4be, 5% quartz flooding, weak to moderate grunerite alteration, very weak carbonate alteration.
107.0	112.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. Medium grained. Grey and yellowish banded. Weakly to moderately magnetic. Hardness 7. Consists of: 65% a-beds, 20% b-beds, and 10% e-beds. Bedding is well developed with core angles ranging from 10 to 40 dca. Fractures are predominantly at 10 to 40 dca parallel to bedding, others are generally perpendicular to bedding. M-type folds and left limb folding are common with axial planes at 35 to 55 dca. CHECK SAMPLES:. E12070 DUPLICATE OF E12069 0.27. 107.0 108.0 4eab, moderate grunerite alteration, weak carbonate alteration, trace ARSENOPYRITE. 108.0 109.0 4eab, moderate grunerite alteration, 20% quartz flooding, 5% carbonate stringers, 10% chlorite. 109.0 110.0 4eab, moderate grunerite alteration, 3 specks VISIBLE GOLD, 1% ARSENOPYRITE, 10% quartz flooding, 25 cm quartz chlorite pyrrhotite vein. 110.0 111.0 4eab, moderate grunerite alteration, 1% ARSENOPYRITE, 3% quartz flooding, minor carbonate stringers, minor chlorite. 111.0 112.0 4eab, moderate grunerite alteration, trace ARSENOPYRITE, minor quartz flooding, minor carbonate stringers.
112.0	116.0	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Fine to medium grained. Grey and green banded. Strongly magnetic. Hardness 6+. Consists of: 70% b-beds and 30% e-beds. Well developed bedding at 35 dca. Minor folds with axial planes at 45 dca.

From (m)	To (m)	Geology
		Fractures are generally parallel to bedding or perpendicular to bedding. Ground core at lower contact. 112.0 113.0 4be, trace ARSENOPYRITE, 5 cm QUARTZ-VEIN, weak carbonate alteration. 113.0 114.0 4be, 50% pyrrhotite over 10 cm. 5% quartz flooding, weak carbonate alteration. 114.0 115.0 4be, trace ARSENOPYRITE, 2% quartz flooding, very weak carbonate alteration. 115.0 116.0 4be, trace ARSENOPYRITE, 5% quartz flooding, very weak carbonate alteration.
116.0	118.2	INTERMEDIATE TO MAFIC VOLCANICS AND GARNETIFEROUS BASALT BVOL / GTB. Fine grained. Brown. Non-magnetic. Moderately hard. Generally aphyric textured. 20% garnet porphyroblasts locally. Moderately foliated at 40 to 45 dca. Fractures are generally parallel to foliation. Moderately altered to biotite, minor sericite. Trace to nil sulphides. Lower contact is sharp at 25 dca.
118.2	120.3	INTRAFORMATIONAL IRON FORMATION 2-4BE. Fine to medium grained. Green, grey and pink mottled. Moderately magnetic. Hardness of 7. Consists of: 50% b-beds, 40% e-beds and 10% f-beds. Generally well bedded at 25 dca. Lower contact is sharp at 35 dca. 118.2 119.2 2-4be, 10% quartz flooding, 1% pyrite, 1% carbonate stringers, 5% chlorite. 119.2 120.3 2-4be, 30 cm bed of biotite carbonate altered BVOL, 10% quartz flooding, 1% pyrite.
120.3	122.2	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained. Light grey. Non-magnetic. Hardness of 2 to 7. 5% 1-2 Mm fragmental feldspar laths in a very fine grained ashy matrix. Poorly developed bedding. Moderate foliation at 40 dca. Weak to moderate sericite alteration. Lower contact with BVOL is gradual over 2 metres. 120.3 121.3 AVOL. Sericitized.
122.2	144.9	INTERMEDIATE TO MAFIC VOLCANICS AND GARNETIFEROUS BASALT BVOL / GTB with minor 2-4be. Similar to above. Fine grained. Medium grey-green and brown. Non-magnetic. Hardness of 5. Moderately foliated at 45 dca. Trace to 1% 1 to 2 mm carbonate stringers parallel to foliation. Minor phlogopite alteration along thin bands parallel to foliation. Rare zones with minor sericite alteration. Minor folds noted locally with axial planes at 45 dca. Rare 2-5 cm QUARTZ-VEIN with minor sericite alteration of wall rock. Lower contact is sharp at 50 dca. 126.0 127.3 Consists of 70% b-beds and 30% e-beds.

From (m)	To (m)	Geology
		129.0 130.3 BVOL. 5% quartz-calcite stringers. 130.3 132.2 20% subhedral to euhedral garnet porphyroblasts in a moderately phlogopite altered matrix. 5% chlorite alteration. Occasional 10 to 20 cm bands of fine grained quartz, as quartz flooding. 130.3 131.0 GTB, 2% quartz flooding, 20% garnet, 25% biotite, minor chlorite. 131.0 132.0 BVOL. Locally garnetiferous. 140.8 140.9 5 cm quartz-carbonate vein with pyrrhotite and chalcopyrite at 35 dca. 144.1 144.9 Consists of 70% b-beds and 30% e-beds.
144.9	246.3	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Probable bedded felsic crystal-ash tuffs. Fine grained. Light grey. Locally weakly magnetic. Hardness of 4 to 7. Trace to 3% 1 to 2 mm quartz blebs locally and 1 to 5% fragmental feldspar laths in an ashy matrix. Well bedded or flow banded at 40 to 50 dca. Moderate to strong foliation developed parallel to bedding at 40 to 50 dca. Predominant fractures parallel to foliation, others at 60 to 70 dca. Weak to moderate sericite alteration (8 to 10%). Minor biotite alteration (3-5%). Sericite alteration typically occurs in 0.5-2cm wide bands parallel to foliation. Rare 1 to 2 cm anhedral garnets. Minor bleached hairline fractures locally. Local potassic staining along edges of carbonate stringers. Trace to 1% fracture-filling pyrrhotite and pyrite throughout. Minor molybdenite noted on fractures. Less than 1% quartz and quartz-calcite veins. Veins are generally 0.3 to 2 cm wide and are oriented parallel to foliation. Contacts are sharp and parallel to foliation at 50 dca. 171.3 203.2 Felsic volcanics appear more massive and may be of flow origin. Alteration, foliation and bedding are poorly developed. Rare opalescent blue quartz eyes are noted. 174.8 175.4 10 cm QV in AVOL, strong sericite alteration of wall rock over 20 cm, 2 to 3% fine grained disseminated pyrite, trace chalcopyrite, trace ARSENOPYRITE. 175.4 176.0 20 cm q-ser-?amphibole vein in AVOL, strong sericite alteration of wall rock over 10 cm, 2 to 3% fine grained disseminated pyrite. 185.0 185.1 10 cm quartz-carbonate vein with 20% pyrrhotite, 1% amphibole? / tourmaline? weak sericite alteration of wall rock over 5 cm. 187.0 187.1 5 cm bleached zone with minor FAULT GOUGE at 50 dca. 234.1 240.5 Sedimentary component in the felsic tuffs as indicated by mineralogy: 5% garnet, 10-15% staurolite, 15% biotite. Locally weakly magnetic. Garnets are anhedral and flattened parallel to foliation at 60 dca. Local strong to intense sericite alteration and quartz flooding with minor staurolite at 238.5 239.0. Upper contact is sharp at 60 dca. Lower contact is gradual over 1.5 metres 241.7 241.9 RQD=0 fine grained angular FAULT GOUGE over 15 cm. Fragments average 1-3 mm. 245.1 246.3 Trace garnets in AVOL. CHECK SAMPLES:. E12080 STANDARD II 0.10. E12081 BLANK 0.17.
246.3	253.6	INTRAFORMATIONAL IRON FORMATION 2-4f. Fine to medium grained. Brown, pink, and green mottled. Locally weakly magnetic. Hardness of 4 to 6. Consists of 90% 4f-beds and 10% 4e-beds. Crudely bedded at 60 dca. Contains 20 garnets in a biotite rich matrix. Local 5 to 20 cm bands with amphibole rich matrix, reflect a difference in origional

From (m)	To (m)	Geology
		mineralogy (before alteration). Foliation and fractures are parallel to bedding, minor fractures are perpendicular to bedding. Trace to nil sulphides. 1% 1 To 20 cm QUARTZ-VEINs with trace pyrrhotite and ARSENOPYRITE at 60 dca. Lower contact is sharp at 65 dca. Upper contact is more gradual over 1 metre. 248.3 249.3 2-4f, with 20 cm and 40 cm Q-chl-po veins, 3% quartz flooding between veins.
253.6	262.7	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Medium grey-green. Non-magnetic. Hardness of 5. Moderately foliated at 50 to 55 dca. Fractures are generally parallel to foliation. Weak phlogopite chlorite alteration locally. < 1% carbonate stringers parallel to foliation. Rare 10 to 20 cm quartz-carbonate veins at 60 dca. Trace to nil sulphides. Lower contact is fairly sharp at 45 dca.
262.7	265.1	INTRAFORMATIONAL IRON FORMATION 2-4ef. Fine to medium grained. Green, pink, and brown mottled. Locally weakly magnetic. Hardness of 3 to 6. Consists of: 80% e-beds with 40% garnet porphyroblasts and 20% f-beds with 20% garnet porphyroblasts. Bedding is poorly developed. Weak foliation at 60 dca. Fractures are sub - parallel to foliation. 20% Quartz flooding throughout, often concentrated in bands. 3% Pyrrhotite as fine grained stringers. Lower contact is sharp at 45 dca. 262.7 264.0 2-4ef, 10% quartz flooding, fine grained pyrrhotite stringers, trace pyrite. 264.0 265.1 2-4ef, 10% quartz flooding, fine grained pyrrhotite stringers, trace pyrite.
265.1	333.1	INTERMEDIATE TO MAFIC VOLCANICS AND GARNETIFEROUS BASALT WITH MINOR INTRAFORMATIONAL IRON FORMATION BVOL and GTB with minor 24BE. Generally fine grained. Grey-green. Non-magnetic. As above. Local 0.1 to 1.5 metre patches of GTB indicate hydrothermal alteration of the BVOL's. GTB consists of 25% 2 to 5 mm garnet porphyroblasts in a homogeneous biotite rich matrix. Contacts between BVOL and GTB are generally sharp, but have bleached margins, suggesting origin from well channeled hydrothermal fluids. BVOL locally contains 5 to 10% adhedral garnets in an amphibole rich matrix. Minor bleaching sometimes occurs in the matrix around the porphyroblasts. 3 to 5% phlogopite occurs in the BVOL along thin bands parallel to foliation. 1% Quartz-carbonate veins 1 to 3 mm wide throughout. Generally trace to nil sulphides. Trace chalcopyrite blebs locally. Lower contact is sharp at 45 dca. 281.8 288.3 BVOL medium grey to grey blue, massive. 290.4 290.5 Quartz-carbonate vein at 30 dca. Trace pyrrhotite over 2 cm in wall rock. 292.7 297.0 Strongly foliated at 50 dca and strongly breccia zones. BLOCKY zones with minor slickensides on fractures and 2% carbonate and quartz-carbonate stringers as fracture-filling. 294.7 295.0 20% pink garnet and minor sericite, 2% pyrrhotite associated with quartz-carbonate veins. 299.0 300.2 BVOL. 300.2 300.8 2-4b, moderately to strongly magnetic, contains 30% garnet, moderate grunerite alteration, 20% quartz flooding, 3% pyrrhotite,

From (m)	To (m)	Geology
		trace chalcopyrite. 300.8 Lower contact of 2-4b is folded with axial plane at 15 dca. 300.8 301.8 BVOL. 5% quartz-calcite stringers parallel to foliation. 305.9 307.4 BVOL. At 305.90 a 30 cm barren quartz stringer with contacts at 33 dca. 307.4 308.4 2-4b, strongly magnetic, 20% quartz flooding, 5% chlorite, 10% garnet, minor carbonate, brecciated and blocky. 307.6 307.8 Blocky core with minor slickensides on fractures. 308.4 309.5 BVOL. 5% quartz stringers. At 309.30 20 cms of garnetiferous metasediment with 50% quartz veining and 5% pyrrhotite. 309.3 309.5 30% quartz flooding, 5% pyrrhotite. 310.5 311.0 10% quartz flooding, trace pyrrhotite. 332.6 333.1 Strong biotite alteration of matrix with 30% quartz-carbonate stringers.
333.1	366.5	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. Fine grained. Medium grey to green and pink mottled. Strongly magnetic. Hardness of 7+. Consists of: 60 to 90% ea-beds with 20 to 50% garnet porphyroblasts and 10 to 40% b-beds. Magnetic susceptibility generally in the 20 to 40 range. Banded, with 25 to 30% garnet porphyroblasts. Bedding is moderately developed and contact at various angles to the core axis. Folds are common throghout with axial planes oriented at 35 to 50 dca. All types of folds are present including: left limb folding, right limb folding and m-type folds. Rare fold patterns locally suggest soft sediment deformation or refolded folds. Weak to moderate grunerite alteration. Trace to 20% quartz flooding and minor chlorite alteration. Trace to 1% carbonate stringers throughout. Rare quartz sericite chlorite veins parallel to bedding. VISIBLE GOLD locally as indicated below. Trace to 8% pyrrhotite as stringers and blebs. Trace ARSENOPYRITE and chalcopyrite locally. Lower contact is sharp at 60 dca. CHECK SAMPLES:. E12090 DUPLICATE 0.14 0.17 NS. E12101 STANDARD 11 10.18. E12102 BLANK 0.17. E12110 DUPLICATE 0.75. E12123 STANDARD I 7.30 7.47 NS. E12124 BLANK 0.17. 333.1 334.0 4ea, trace chalcopyrite, 10% biotite, 5% quartz flooding, 10% chlorite, minor carbonate stringers. 334.0 335.0 4ea, trace chalcopyrite, 5% quartz flooding, weak grunerite alteration, 1% quartz veining. 335.0 336.0 4ea, trace ARSENOPYRITE, 5% quartz flooding, weak grunerite alteration, trace carbonate fracture-filling. 336.0 337.0 4eab, weak grunerite alteration, 5% chlorite, trace carbonate fracture-filling. 337.0 338.0 4eab, weak grunerite alteration, 5% quartz flooding, 1% quartz-carbonate veins. 338.0 339.0 4eab, trace ARSENOPYRITE, trace chalcopyrite, weak grunerite alteration, 10% quartz flooding, 1% quartz-carbonate veins. 339.0 339.5 4eab, trace chalcopyrite, minor biotite chlorite alteration. 339.5 341.0 4eab, 1 speck VISIBLE GOLD, trace pyrite, ARSENOPYRITE and chalcopyrite, weak grunerite alteration, 40% quartz flooding. 341.0 342.0 4eab, 1 speck VISIBLE GOLD, weak grunerite alteration, 10% quartz flooding, 2% quartz-carbonate veins. 342.0 343.0 4eab, weak grunerite alteration, trace quartz-carbonate veins. 343.0 344.0 4eab, weak grunerite alteration, minor carbonate stringers. 344.0 345.0 4eab, weak grunerite alteration, 5% quartz flooding, minor carbonate stringers. 345.0 346.0 4eab, 12 specks very fine grained VISIBLE GOLD, trace ARSENOPYRITE, 30 cm translucent q-ser-chl vein, weak grunerite alteration. 346.0 347.0 4eab, 10% quartz flooding, weak grunerite alteration, minor carbonate stringers. 347.0 348.0 4eab, 5% quartz flooding, weak grunerite alteration, 20% chlorite, minor carbonate stringers.

From (m)	To (m)	Geology
		348.0 349.0 4eab, 3% quartz flooding, weak grunerite alteration, 20% chlorite, minor carbonate stringers. 349.0 350.0 4eab, 4% quartz flooding, weak grunerite alteration, minor chlorite. 350.0 351.0 4eab, 1% quartz flooding, minor biotite. 351.0 352.0 4eab, trace chalcopyrite, 2% quartz flooding, weak patchy grunerite alteration, 1% carbonate stringers. 352.0 353.0 4eab, weak grunerite alteration, 5% quartz flooding, 30% garnets. 353.0 354.0 4eab, weak grunerite alteration, 2% quartz flooding, folded. 354.0 355.0 4eab, trace chalcopyrite, weak grunerite alteration, 10% biotite. 355.0 356.0 4eab, moderate grunerite alteration, 30% garnets. 356.0 357.0 4eab, moderate grunerite alteration, 50% garnets. 357.0 358.0 4eab, moderate grunerite alteration, 2% quartz flooding, minor carbonate stringers. 358.0 359.0 4eab, moderate grunerite alteration, 2% quartz flooding. 359.0 360.0 4eab, moderate grunerite alteration, 5% quartz flooding. 360.0 361.0 4eab, trace ARSENOPYRITE, trace chalcopyrite, moderate grunerite alteration, 5% quartz flooding, minor carbonate. 361.0 362.0 4eab, moderate grunerite alteration, 2% quartz flooding, 10% carbonate veins. 362.0 363.0 4eab, trace ARSENOPYRITE, moderate grunerite alteration, 10% quartz flooding, trace carbonate stringers. 363.0 364.0 4eab, moderate grunerite alteration, 15% quartz flooding, 1% carbonate stringers. 364.0 365.0 4eab, trace ARSENOPYRITE, moderate grunerite alteration, 25% quartz flooding, 10% q-chl-ser veins. 365.0 366.0 4eab, moderate grunerite alteration, 5% quartz flooding, minor carbonate stringers. 366.0 366.5 4eab, moderate grunerite alteration, 10% quartz flooding, 5% chlorite.
366.5	367.7	GARNET-BIOTITE SCHIST 4f. Fine to medium grained. Brown and pink mottled. Non-magnetic. Hardness of 4.5. Consists of: 95% f-beds with 25% 2 to 5 mm garnet porphyroblasts and 5% B-beds. Well bedded / foliated at 55 dca. Unmineralized. Lower contact is sharp at 55 dca. 366.5 367.7 4f. 3% quartz stringers parallel to bedding.
367.7	371.5	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. Fine to medium grained. Grey, pink and light green mottled. Locally weakly magnetic. Hardness of 7. Consists of 80% gruneritized b-beds and 20% f-beds. Bedding is moderately developed. Core is generally massive with rare fractures at 60 dca. Folds are common with axial planes at 35 to 50 dca. Rare folding with axial plane at various angles to the core axis suggest soft-sediment deformation or re-folded folds. Moderate grunerite alteration and 10 to 15 % quartz flooding. 3% Pyrrhotite as fine grained disseminated grains folded with bedding and as bleb -like fracture-filling. Trace pyrite. Lower contact is sharp at 50 dca. CHECK SAMPLES:. E12130 DUPLICATE 0.14. 367.7 368.7 4bf, 5% quartz flooding, weak grunerite alteration, rare carbonate fracture-filling. 368.7 369.7 4bf, 5% quartz flooding, weak grunerite alteration, rare carbonate fracture-filling. 369.7 370.4 4e, medium green amphibole rich matrix with 25% garnets. 370.4 371.5 4bf, trace pyrite, weak grunerite alteration, 5% quartz flooding, weak carbonate alteration, minor sericite.

From (m)	To (m)	Geology
371.5	380.0	GARNET-BIOTITE SCHIST 4f. Similar to above. Fine to medium grained. Brown and pink mottled. Non-magnetic. Hardness of 4.5. Consists of: 90% f-beds with 25% 2 to 5 mm garnet porphyroblasts and 10% B-beds. Well bedded / foliated at 55 dca. 2-3% Staurolite, weak grunerite locally. 5 to 10% quartz flooding throughout. Lower contact is sharp at 25 dca in folded sequence with axial plane at 55 dca. 371.5 372.5 4f, 10% b-beds, 20% garnet in a biotite rich matrix. 372.5 377.2 With 1-8% pyrrhotite, trace chalcopyrite, 2 to 3 specks VISIBLE GOLD. 10 to 30% quartz flooding, minor sericite and chlorite in quartz flooded areas. 372.5 373.5 4fb, weak grunerite alteration, 10% quartz flooding, minor sericite. 373.5 374.3 80 cm translucent to smokey quartz with pyrrhotite and trace pyrite, 2% sericite seams. 374.3 375.0 4f, 2 specks VISIBLE GOLD, trace chalcopyrite, 10% quartz flooding. 375.0 376.0 4f, 1 speck VISIBLE GOLD, trace chalcopyrite, 20% quartz flooding, minor sericite and chlorite in quartz flooding. 376.0 377.2 4f, 30% quartz flooding. 377.2 380.0 100% 4f beds. Unmineralized.
380.0	385.0	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4fb. Fine to medium grained. Brown and pink. Locally weakly magnetic. Hardness 4. Consists of: 80 % 4f beds with 30% 2 to 5 mm garnet porphyroblasts in a biotite rich matrix. And 20% gruneritized 4b beds. Bedding is well developed at various angles to the core axis. Weak grunerite alteration, 2% patchy quartz flooding. Trace to 1% pyrrhotite, trace chalcopyrite, trace ARSENOPYRITE. Lower contact is sharp at 30 dca. CHECK SAMPLES:. E12139 STANDARD I 7.10 7.28 NS. E12140 BLANK 0.14. 380.0 381.0 4fb, weak grunerite alteration, minor carbonate stringers. 381.0 382.0 4fb, trace chalcopyrite, weak grunerite alteration, 2% quartz flooding. 382.0 383.0 4fb, 1% ARSENOPYRITE, weak grunerite alteration, 5% quartz flooding. 383.0 384.0 4fb, weak grunerite alteration, 2% quartz flooding. 384.0 385.0 4fb.
385.0	386.7	INTERMEDIATE TO MAFIC VOLCANICS WITH MINOR GARNET-BIOTITE SCHIST BVOL with minor 4fb. Typical BVOL's as above. 385.7 386.0 Minor 4FB folded into BVOL unit. Lower contact is sharp at 45 dca.
386.7	392.0	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4fb. Similar to above. 10 to 40% quartz flooding, weak grunerite alteration.

From (m)	To (m)	Geology
		Trace to 2% pyrrhotite generally. Up to 10% locally. Trace chalcopyrite. Lower contact is sharp at 45 dca. CHECK SAMPLES:. E12150 DUPLICATE OF E12149 0.14. 386.7 388.0 4fb, 10% quartz flooding, weak grunerite alteration. 388.0 389.0 4fb, 20% quartz flooding, weak grunerite alteration. 389.0 390.0 4fb, trace chalcopyrite, 25% quartz flooding, weak grunerite alteration. 390.0 391.1 4fb, trace chalcopyrite, 40% quartz flooding, weak grunerite alteration. 391.1 392.0 4fb, 10% quartz flooding, weak grunerite alteration.
392.0	412.4	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained. Black and white. Strongly magnetic. Hardness of 7. Consists of: 90% b-beds and 10% e-beds. Well bedded at 20 to 35 dca. Beds are generally 3 mm to 2 cm in width and locally thinly laminated. Fractures are generally parallel to or perpendicular to bedding. Left limb foldings occur locally with axial planes oriented at 35 to 40 dca. 392.0 393.0 Zone with abundant microfaults at 30 to 45 dca. Bedding apparantly offset on cm-scale. Trace to nil sulphides. Patchy blebs of pyrrhotite locally. Lower contact is gradual over 5 metres at 25 dca. 397.4 399.4 Mineralized zone. 397.4 398.4 4b, 40% quartz flooding, weak grunerite alteration, minor chlorite, folded. 398.4 399.4 4b, trace pyrite, 40% quartz flooding, 20 cm Q-CHL vein, weak grunerite chlorite alteration. 399.4 400.4 4b. 404.7 405.9 4b, 20 cm q-chl-po vein, 1 cm pyrrhotite seam with quartz-carbonate. 405.9 406.6 4b, trace ARSENOPYRITE, weak grunerite alteration, 20% quartz flooding, 10 cm quartz vein, minor chlorite. 406.6 408.0 4b, 10% quartz flooding, weak grunerite alteration, minor chlorite. 411.4 412.4 4b.
412.4	466.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained. Medium grey to green and pink mottled. Strongly magnetic. Hardness of 7+. Magnetic susceptibility generally in the 20 to 40 range. Well bedded with bedding at 30 to 35 dca. Consists of: 90% ea-beds with 20-50% garnet porphyroblasts and 10% b-beds. Banded, with 25-30% garnet porphyroblasts. Fractures are generally parallel to bedding. Rare fractures perpendicular to bedding. Rare folds occur with axial planes oriented at 35 to 55 dca. Weak to moderate grunerite alteration. 5-30% quartz flooding and minor chlorite alteration. Rare QUARTZ-VEINs at 70 dca. Tr-10% pyrrhotite as stringers and blebs. ARSENOPYRITE and chalcopyrite locally. Lower contact is sharp at 45 dca. 412.4 415.0 Mineralized zone with VISIBLE GOLD ?C/T ZONE. 412.4 413.0 4ea, 1 speck VISIBLE GOLD, 10 cm QUARTZ-VEIN, weak grunerite alteration, 5% quartz flooding. 413.0 414.0 4ea, weak grunerite alteration, minor carbonate stringers, minor chlorite. 414.0 415.0 4ea, 3 specks VISIBLE GOLD, trace pyrite, trace ARSENOPYRITE, moderate grunerite alteration, 10% quartz flooding.

From (m)	To (m)	Geology
		415.0 416.0 4ea, moderate grunerite alteration, 5% quartz flooding. 416.0 417.0 4ea, trace chalcopyrite, weak grunerite alteration, 1% quartz-carbonate stringers. 417.0 418.0 4ea, 10% quartz flooding, weak grunerite alteration, 1% carbonate stringers. 418.0 419.0 4ea, 10% quartz flooding, moderate grunerite alteration, trace carbonate stringers. 419.0 420.0 4ea, 10% quartz-carbonate veins, weak grunerite alteration, 5% quartz flooding. 420.0 425.0 Mineralized zone with VISIBLE GOLD T-ZONE. 420.0 421.0 4ea, 6 specks VISIBLE GOLD, 10% quartz flooding, moderate grunerite alteration, trace carbonate stringers. 421.0 421.8 4ea, 2 specks VISIBLE GOLD, trace ARSENOPYRITE, 10% quartz veining, weak grunerite alteration, 5% quartz flooding. 421.8 423.0 4ea, 31 specks and 1 3 mm gob of VISIBLE GOLD, trace ARSENOPYRITE, 12% quartz flooding, weak to moderate grunerite. 423.0 424.0 4ea, 4 specks VISIBLE GOLD, 5% quartz flooding, 6% quartz veining, very weak grunerite alteration. 424.0 425.0 4ea, 3 specks VISIBLE GOLD, trace ARSENOPYRITE, 30% quartz flooding, weak to moderate grunerite alteration. 425.0 426.0 4ea, trace ARSENOPYRITE, 2 cm quartz pyrrhotite vein, weak to moderate grunerite. 426.0 427.0 4ea, trace ARSENOPYRITE, 5% quartz flooding, weak to moderate grunerite alteration. 427.0 428.0 4ea, trace ARSENOPYRITE, 10 cm quartz-carbonate vein, 15% quartz flooding, weak grunerite. 428.0 429.0 4ea, trace ARSENOPYRITE, 20% quartz flooding, weak grunerite. 429.0 430.0 4ea, 2 cm quartz pyrrhotite vein, 5% quartz flooding, weak grunerite. 430.0 431.0 4ea, 2 5 cm QUARTZ-VEIN, 3% quartz flooding, weak grunerite. 431.0 432.0 4ea, 20% quartz veining, very weak grunerite. 432.0 433.0 4ea, 30 cm BVOL, weak phlogopite alteration, 1% carbonate stringers. 433.0 434.0 4ea, trace pyrite, weak grunerite alteration, trace carbonate hairline fracture-filling. 434.0 438.0 Mineralized zone with VISIBLE GOLD T-ZONE. 434.0 435.0 4ea, trace ARSENOPYRITE, 2% quartz flooding, weak grunerite alteration. 435.0 436.0 4ea, 50% quartz flooding, weak grunerite alteration. 436.0 437.0 30% mineralized 4ea & 70% BVOL, 5% quartz flooding, trace chalcopyrite, weak grunerite in 4ea. 437.0 438.0 4eab, 1 speck VISIBLE GOLD, trace ARSENOPYRITE, chalcopyrite, 40% quartz flooding, weak grunerite. 438.0 439.0 4eab, 15% quartz flooding, weak grunerite alteration, 1% carbonate stringers. 439.0 440.0 4eab, 10 cm pure 4b, weak grunerite alteration. 440.0 441.0 4eab, weak grunerite alteration. 441.0 442.0 4eab, weak grunerite alteration. 442.0 443.0 4eab, weak grunerite alteration, 2% quartz flooding. 443.0 444.5 4eab, trace ARSENOPYRITE, 10% quartz flooding, weak to moderate grunerite alteration. 444.5 455.0 Mineralized zone with VISIBLE GOLD WA-ZONE. CHECK SAMPLES:. E12159 STANDARD I 7.68 7.78 NS. E12160 BLANK 1.75. E12170 DUPLICATE OF E12169 8.23. E12183 STANDARD II 10.42. E12184 BLANK 0.10. E12190 DUPLICATE OF E12189 0.10. E12202 STANDARD I 7.58 8.19 NS. E12203 BLANK 0.10. E12210 DUPLICATE OF E12209 0.96. E12217 STANDARD I 7.65 7.65 NS. E12218 BLANK 0.17. 444.5 445.5 4ea, 27 specks VISIBLE GOLD, 25% quartz flooding, 20% chlorite. 445.5 446.0 4ea, 10% quartz flooding, 1% quartz-carbonate veins, minor chlorite. 446.0 447.0 4ea, 10 specks VISIBLE GOLD, trace ARSENOPYRITE, 15% quartz flooding, weak grunerite alteration, minor carbonate stringers, minor chlorite.

From (m)	To (m)	Geology
		447.0 448.0 4ea, 10 cm bedding of BVOL, moderate grunerite, 10% sericite. 448.0 449.0 4ea, 3 specks VISIBLE GOLD, trace ARSENOPYRITE, 10 cm BVOL, 15 cm q-ser-chl vein, moderate grunerite, 10% sericite. 449.0 450.0 4ea, trace ARSENOPYRITE, moderate grunerite, 10% sericite, minor chlorite. 450.0 451.0 4ea, trace ARSENOPYRITE, moderate grunerite, 15% BVOL, minor chlorite, minor sericite. 451.0 452.0 4ea, moderate grunerite, 5% quartz flooding, minor chlorite, minor sericite. 452.0 453.0 4ea, moderate grunerite, 20% quartz flooding, minor chlorite, minor sericite, trace carbonate stringers. 453.0 454.0 4ea, trace chalcopyrite stringers, moderate grunerite alteration, 15% quartz flooding, 10% chlorite. 454.0 455.0 4ea, moderate grunerite alteration, 15% quartz flooding, 1% carbonate stringers. 455.0 456.3 4ea/BVOL, 70% BVOL with minor phlogopite alter, trace ARSENOPYRITE, moderate grunerite in 4ea. 456.3 457.0 4eab, moderate grunerite alteration, 10% quartz flooding. 457.0 458.0 4eab, moderate grunerite alteration, rare carbonate stringers. 458.0 459.0 4eab, moderate grunerite alteration, 5% quartz flooding. 459.0 460.0 4eab, moderate grunerite alteration, 10% quartz flooding. 460.0 461.5 4eab, weak grunerite alteration, 1% quartz-carbonate stringers. 461.5 462.4 BVOL, trace chalcopyrite, pyrrhotite. 462.4 463.0 4eab, weak grunerite alteration. 463.0 464.0 4eab, weak grunerite alteration, 3% quartz flooding. 464.0 465.0 4eab, 10% q-po veins, 3% quartz flooding. 465.0 466.0 4eab, 15% chlorite, weak grunerite alteration, 5% q-po veins.
466.0	469.9	CHERT - MAGNETITE IRON FORMATION 4b. Similar to above. Fine grained. Black and grey banded. Strongly magnetic. Hardness of 7. Composed of: 90% 4B beds, and 10% 4E beds. Well bedded on cm scale. Locally thinly laminated. Rare minor folds with axial planes at 45 dca. Minor local carbonate alteration and minor quartz-carbonate stringers. Trace to nil sulphides. Lower contact is faulted at 45 dca. 466.0 467.0 4b.
469.9	476.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical BVOL. Fine grained. Green. Massive. Non-magnetic. Hardness of 5. Well foliated at 50 dca. Fractures are generally parallel to foliation. Minor phlogopite alteration along thin bands parallel to foliation. Trace to 1% quartz-carbonate veins. Unmineralized.
476.0		END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken from 320m to 476 m. Samples stored at Musselwhite camp. DRILLING HISTORY:. 0.0 10.0 TRICONE bit. 12.2m NW casing.

From (m)	To (m)	Geology
		10.0 476.0 MX10 bit, double hex core barrel. Hole cemented - 6 hours. 95 20kg Bags of Type 50 cement. Casing pulled. SURVEYING HISTORY:. Gyroscopic Directional Survey by CBC Welnav, North Bay, Ontario used for Class 2 data. Survey time: 2.5 hours. DIP TESTS. 14 -61 ACID. 38 -59.5 ROTODIP. 56 -57 ROTODIP. 83 -58 ROTODIP. 95 -57 ROTODIP. 104 -57 ROTODIP. 128 -56.5 ROTODIP. 140 -56 ROTODIP. 158 -56 ROTODIP. 170 -55 ROTODIP. 191 -55 ROTODIP. 203 -55 ROTODIP. 212 -55 ROTODIP. 230 -55 ROTODIP. 248 -55 ROTODIP. 260 -55 ROTODIP. 272 -54.5 ROTODIP. 284 -53 ROTODIP. 296 -54 ROTODIP. 305 -54 ROTODIP. 317 -54 ROTODIP. 335 -54 ROTODIP. 344 -54 ROTODIP. 368 -53.5 ROTODIP. 377 -53 ROTODIP. 389 -54 ROTODIP. 410 -53 ROTODIP. 419 -52 ROTODIP. 431 -52 ROTODIP. 443 -52 ROTODIP. 455 -52 ROTODIP. 476 -52 ROTODIP.

Date: 14 Nov, 1993

PLACER DOME EXPLORATION

DRILL HOLE RECORD

Northing: 10200.02
Easting: 8963.13
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -61.00

Hole Length: 407
Core Size: NQ
Date Started: MARCH 4, 1993
Logged by: T. TENNENT

*** Depth	Dip Tests Azi.	*** Dip
15.2	228.1	-60.0
30.5	228.2	-61.0
45.7	228.3	-61.0
61.0	227.2	-61.0
76.2	227.3	-60.3
91.4	228.5	-60.0
106.7	227.4	-59.5
121.9	226.3	-59.0
137.2	225.4	-58.5
152.4	223.7	-58.0
167.6	223.2	-58.0
182.9	223.3	-58.0
198.1	222.1	-58.0
213.4	222.2	-58.0
228.6	222.9	-57.8
243.8	222.9	-57.3
259.1	222.4	-57.0
274.3	221.3	-58.0
289.6	220.7	-57.0
304.8	220.2	-56.8
320.0	220.2	-56.0
335.3	220.8	-55.5
350.5	220.5	-56.0
365.7	220.6	-56.0
381.0	219.3	-55.0

Drill Hole: 506-625

Northing: 10200N
Easting: 8955E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10200N
Completed: MARCH 10, 1993
Date(s) Logged: MARCH 6 - MARCH 11, 1993

Claim: PA 529497: 202.0m; PA 529500: 205.0m
Comments: 106.7m W and 150.8m N TO WP of #1 post, CLAIM PA 529497
Purpose: TO TEST C,T AND WA ZONES

From (m)	To (m)	Geology
		NOTE: All references to folding - both right and left limb folds- are looking down the plunge of the deposit (ie. Northwestly).
.0	2.1	ICE AND WATER
2.1	21.3	OVERBURDEN 2.1 12.1 Muck. 12.1 Hardpan, sand. 12.1 16.8 Soil, Sand, intermitant boulders. 16.8 21.3 Clay, large boulders.
21.3	164.1	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, medium and light grey. Non-magnetic. Moderate hardness. Ash tuff has 10% to 15% sericite laminae, 1 mm to 2 cm wide, and 5% stretched white 1 mm feldspar phenocrysts. Crystal tuff has 10% 1 mm feldspar phenocrysts and 5% sericite bands.

From (m)	To (m)	Geology
		Well foliated at 29 to 50 dca. Dominant fracture set perpendicular to foliation at 50 to 60 dca. Minor sets parallel to foliation at 30 to 40 dca and perpendicular at 25 dca. Calcareous. Fractures locally bleached and potassic altered. Weak sericite alteration throughout unit. Trace disseminated pyrrhotite and pyrite. 1% Quartz stringers and quartz-calcite stringers parallel to foliation. Lower contact sharp at 50 dca. 21.3 52.0 10% to 15% sericite bahds. 5% stretched white feldspar phenocrysts. 21.3 23.0 70 cms LOST CORE. Very fractured core. 23.0 24.0 Very fractured core. 23.0 26.0 1 metres LOST CORE. 24.5 26.1. 26.1 34.3 Very fractured core. 30.0 Foliation 35 dca. Fractures perpendicular to bedding at 36 dca and parallel at 30 dca. 40.0 Foliation 35 dca. Fractures parallel to foliation at 35 dca and perpendicular at 65 dca. 44.9 45.0 Very fractured core. 45.7 45.9 Very fractured core. 46.0 47.0 AVOL. At 46.4 and 46.7 two 10 cm quartz veins with 2% coarse grained pyrite. 50.0 Foliation 35 dca. Fractures parallel to foliation at 30 dca and perpendicular at 60 dca. 51.0 52.0 An 85 cm QUARTZ-VEIN with 2% disseminated pyrite. Contacts at 36 dca. 52.0 101.0 10% 1 mm stretched feldspar crystals. Up to 5% sericite bands. 60.0 Foliation 43 dca. Fractures parallel to foliation at 39 and perpendicular at 62 dca. 68.0 Fracture perpendicular to foliation at 25 dca. 70.0 Foliation 35 dca. Fractures parallel to foliation at 35 and perpendicular at 42 dca. 80.0 Foliation 40 dca. Fractures parallel to foliation at 40 and perpendicular at 55 dca. 90.0 Foliation 45 dca. Fractures parallel to foliation at 45 and perpendicular at 56 dca. 100.0 Foliation 45 dca. 101.0 129.0 5% to 15% sericite bands. 109.4 110.1 Very fractured core. 110.0 Foliation 47 dca. Fractures parallel to foliation at 55 and perpendicular at 44 dca. 114.5 115.0 Very fractured core. 115.0 116.6 25 cm QUARTZ-VEIN at 115.25 with contacts at 60 dca. 60 cm quartz-calcite vein at 115.70 with contacts at 50 dca. 120.0 Foliation 44 dca. Fractures parallel to foliation at 59 and perpendicular at 55 dca. 129.0 148.0 10% 1 mm feldspar phenocrysts. <5% sericite bands. 130.0 Foliation 50 dca. Fractures parallel to foliation at 49 and perpendicular at 52 dca. 140.0 Foliation 40 dca. Fractures parallel to foliation at 45 dca and perpendicular at 15 dca. 145.3 146.0 Extremely fractured core. 148.0 156.0 3% to 5% 5 mm anhedral garnets. 150.0 Foliation 50 dca. Fractures parallel to foliation at 52 dca and perpendicular at 55 dca. 157.6 157.9 10 cms extremely fractured core. 160.0 Foliation 45 dca. Fractures parallel to foliation at 68 and perpendicular at 58 dca.
164.1	169.1	GARNETIFEROUS BASALT GtB. Fine grained to medium grained. Dark green-grey to black. Non-magnetic. Moderately soft. 10% to 30% 1 to 2 mm garnets in a biotite-muscovite-amphibole-chorite matrix. Well foliated at 57 dca. Minor fractures subparallel to bedding at 50 dca and perpendicular at 40 dca. Fractures locally calcareous. Trace disseminated pyrite and pyrrhotite.

From (m)	To (m)	Geology
		1% Barren white quartz stringers parallel to foliation. Barren to trace pyrrhotite. Lower contact sharp at 45 dca. 168.0 168.1 BVOL. Contacts 62 dca.
169.1	169.5	BRECCIA ZONE Bx Z. 15% 3 Mm to 5 cm long and 1 mm to 5 mm wide, subrounded white quartz clasts or boudins stretched parallel to foliation in a fine grained biotite-chlorite matrix. Non-magnetic. Moderately hard. Sheared at 50 dca. 2% Disseminated pyrrhotite. Lower contact sharp at 35 dca.
169.5	171.5	GARNETIFEROUS BASALT GtB. Similar to 164.10 to 169.10 metres. Foliated at 35 dca. Fractures subparallel to bedding at 20 dca. Trace pyrrhotite. Lower contact sharp at 40 dca. 170.7 170.8. Contacts at 40 dca.
171.5	171.9	BRECCIA ZONE BX Z. Similar to 169.10 to 169.50 metres. Foliated and possibly sheared at 46 dca. 2% Pyrrhotite. Lower contact sharp at 45 dca.
171.9	183.3	GARNETIFEROUS BASALT GtB. Similar to 164.10 to 169.10 metres. Fine grained to medium grained. Dark green-grey to black. Non-magnetic. Moderately soft to hard. Up to 30% 1 mm to 2 mm garnets. Well foliated at 35 to 60 dca. Fractures parallel to foliation at 47 to 50 dca and 20 dca. Perpendicular at 40 dca. Trace disseminated pyrrhotite. 1% Quartz stringers parallel to foliation. Lower contact sharp at 42 dca. 173.1 173.7 55 cms of quartz veining with <1% po. Contacts at 55 dca. 175.0 Foliation 42 dca. Fractures perpendicular to foliation at 40 dca. 180.0 180.2 20 cm QUARTZ-VEIN. Contacts at 46 dca. 180.5 Foliation 60 dca. Fractures 50 dca.
183.3	184.3	BRECCIA ZONE Bx Z. 15% 2 Mm to 4 cm long subrounded quartz boudins stretched parallel to foliation. Matrix fine grained biotite-amphibole-chlorite. 3% garnets. Foliated and possibly sheared at 50 dca.

From (m)	To (m)	Geology
		2% Disseminated pyrrhotite. Lower contact sharp at 43 dca.
184.3	187.7	GARNETIFEROUS BASALT GtB. Similar to 164.10 to 169.10 metres. Lower contact sharp at 40 dca. 186.4 186.7. Contacts 50 dca. 186.9 187.1. Contacts 50 dca.
187.7	189.5	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, medium grey. Non-magnetic. Moderately hard. Foliated at 50 dca. Trace disseminated pyrrhotite. 3% Quartz stringers parallel to foliation. Lower contact sharp at 42 dca.
189.5	190.7	GARNETIFEROUS BASALT GTB. Similar to 164.10 to 169.10 metres. Foliated at 44 dca. Fractures parallel to foliation at 40 dca. Lower contact broken.
190.7	225.3	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderately hard. Well foliated at 45 dca. Dominant fracture set perpendicular to foliation 40 to 69 dca. Minor set parallel to foliation at 65 dca. Trace disseminated pyrrhotite. 1% Quartz-calcite stringers parallel to foliation. Lower contact sharp at 40 dca. 200.0 Foliation 45 dca. Fractures subparallel to foliation at 65 and perpendicular at 46 dca. 204.2 204.9. 1% pyrrhotite. 204.9 205.1. 5% quartz veining and 5% pyrrhotite. 210.0 Fractures perpendicular to foliation at 42 and 69 dca. 218.4 219.0 70% quartz veining. Contacts 45 dca. 220.0 Foliation 35 dca. Fractures perpendicular at 40 dca.
225.3	230.1	INTRAFORMATIONAL IRON FORMATION AND INTERMEDIATE TO MAFIC VOLCANICS 70% 24EA, 30% BVOL. BVOL fine grained, dark green, trace pyrrhotite. 24E Is garnetiferous. Weakly magnetic. Locally calcareous. 3% to 5% pyrrhotite and 15% quartz veining. Folded. 225.3 226.0 24EA. Weak grunerite. Bedding 39 dca. Lower contact 44 dca. 226.0 227.3. Trace pyrrhotite. 10% quartz-calcite stringers. Lower contact 47 dca. 227.3 228.1. Lower contact 45 dca. D68870 227.30 228.15 DUPLICATE 0.07 NS NS.

From (m)	To (m)	Geology
		227.3 228.1 24EA. 5% quartz veining. Weak grunerite. Bedding 45 dca. 228.1 228.6. Lower contact 43 dca. 228.6 228.8. Lower contact 43 dca. 228.8 228.9. Lower contact 40 dca. 228.9 229.9 24EA. 15% quartz veining. Moderate grunerite. Folded. Lower contact at 44 dca. 229.9 230.4. Lower contact sharp at 44 dca.
230.1	281.6	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Very fine grained, dark green-grey. Non-magnetic. Moderately hard. Finely foliated at 30 to 46 dca. Fractures parallel to foliation at 22 and 35 dca. Perpendicular at 40 to 65 dca. Biotitic and chloritic. Zones of strong biotite alteration. Trace disseminated pyrrhotite. From 230.05 to 257.00 3% quartz-calcite stringers parallel to foliation. From 257.00 to 273.00 25% quartz-calcite stringers. From 273.00 to 281.60 1% quartz-calcite stringers. Lower contact sharp at 47 dca. 230.4 231.1 24EA. 15% quartz veining. Folded. Lower contact folded. 240.0 260.0 Foliation 30 dca. Fractures perpendicular to foliation at 65 dca. 260.0 Foliation 33 dca. Fractures perpendicular at 51 dca. 263.0 264.0 BVOL - 60% Qtz-calcite stringers. At 50 dca. 264.0 265.2 BVOL - 60% Qtz-calcite stringers. At 50 dca. 270.0 Foliation 46 dca. Fractures perpendicular at 40 dca. 280.0 Foliation 40 dca. Fractures perpendicular at 56 dca.
281.6	315.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea and 4eab. Strongly gruneritized 4ea and 4eab beds. 1 to 4 cm wide. Up to 30% amorphous garnets. Very weakly to strongly magnetic. Hard. Bedding from 0 to 57 dca. Folding with axial planes at 40 to 52 dca. Fractures perpendicular to bedding at 54 to 64 dca. Trace to 25% pyrrhotite and up to 40% quartz flooding and quartz veining. Trace ARSENOPYRITE. Numerous specks of VISIBLE GOLD throughout unit. Lower contact gradual at 35 dca. D68881 STANDARD II 9.46 NS NS. D68882 BLANK 0.17 NS NS. D68890 294.00 295.00 DUPLICATE 5.45 NS NS. 281.6 283.0 4eab. 10% quartz stringers. Trace ARSENOPYRITE. Strong grunerite. Bedding 39 dca. 283.0 284.0 4eab. 25% quartz stringers. Strong grunerite. Bedding 57 dca. 284.0 285.0 4eab. 25% quartz stringers. Moderate grunerite. Bedding 55 dca. At 284.05 folding with axial plane at 54 dca. 285.0 286.0 4eab. 3% quartz stringers. Strong grunerite. Bedding folded. 286.0 287.0 4eab. 1% quartz stringers. Strong grunerite. Bedding 9 dca. 287.0 288.0 4ea. 40% quartz flooding. 1 speck VISIBLE GOLD. Strong grunerite. Trace ARSENOPYRITE. Bedding 24 dca. 288.0 289.0 4ea. 40% quartz flooding. Strong grunerite. Folding with axial plane at 50 dca. Bedding 35 dca. 289.0 290.0 4ea. 2 specks VISIBLE GOLD. Strong grunerite. 30% quartz flooding. Bedding 35 dca. 290.0 291.0 4ea. 30% quartz flooding. Strong grunerite. Bedding 24 dca. 291.0 292.0 4ea. 3% quartz stringers. Strong grunerite. Bedding 25 dca. 292.0 293.0 4eab. 50% quartz flooding. Strong grunerite. Bedding 28 dca. 293.0 294.0 4eab. 40% quartz flooding. Trace ARSENOPYRITE. Strong grunerite. Bedding folded with axial plane at 22 dca. 294.0 295.0 4ea. 2 specks VISIBLE GOLD. 50% quartz flooding. Strong grunerite. Bedding 42 dca.

From (m)	To (m)	Geology
		295.0 296.0 4ea. 30% quartz flooding. Strong grunerite. Folding with axial plane 37 dca. 296.0 297.0 4ea. 3% quartz flooding. Strong grunerite. Folded with axial plane 42 dca. 297.0 298.0 4ea. 3% quartz stringers and quartz flooding. Strong grunerite. Left limb folding with axial plane at 25 dca. Bedding 23 dca. 298.0 299.0 4ea. Strong grunerite. Bedding 0 dca. 299.0 300.0 4ea. Strong grunerite. 10% quartz flooding. Bedding 25 dca. Left limb folding with axial plane 40 dca. 300.0 301.0 4ea. Strong grunerite. Bedding 22 dca. Left limb folding with axial plane at 60 dca. 301.0 302.0 4ea. Strong grunerite. Bedding 14 dca. Axial plane 25 dca. 302.0 303.0 4ea. Strong grunerite. Bedding 28 dca. Left limb folding with axial plane at 37 dca. 303.0 Mafic Dyke. Contacts 35 dca. D77601 STANDARD II 10.49 9.94 NS. D77602 BLANK 0.17 NS NS. D77610 310.00 311.00 DUPLICATE 25.20 23.62 NS. 303.0 304.0 4ea. Strong grunerite. Bedding 24 dca. 304.0 305.0 4ea. Strong grunerite. Bedding 15 dca. 305.0 305.5 4ea. Strong grunerite. Bedding 15 dca. 305.5 306.5 4ea. 6 specks VISIBLE GOLD. 10% quartz flooding. Strong grunerite. 306.5 307.0 4ea. Strong grunerite. Bedding 23 dca. Axial plane 45 dca. 307.0 308.0 4ea. Strong grunerite. Bedding 29 dca. At 307.20 right limb folding with axial plane at 39 dca. At 307.8 axial plane 61 dca. 308.0 309.0 4ea. 1% quartz stringers. Moderate grunerite. Bedding 25 dca. 309.0 310.0 4ea. 2% quartz stringers. Strong grunerite. Bedding 30 dca. 310.0 311.0 4ea. 40% quartz flooding. 40 specks VISIBLE GOLD. Strong grunerite. Bedding 37 dca. 311.0 312.0 4ea. 10% quartz stringers. Strong grunerite. Bedding 32 dca. 312.0 313.0 4ea. 13 specks VISIBLE GOLD in total. At 312.00 a 10 cm QUARTZ-VEIN at 39 dca -includes 8 specks VISIBLE GOLD. Strong grunerite. Bedding 29 dca. 313.0 314.0 4eab. Strong grunerite. Bedding 29 dca. 314.0 315.0 4eab. Strong grunerite. 3 specks VISIBLE GOLD. 5% quartz veining. Bedding 25 dca.
315.0	316.3	GARNET-BIOTITE SCHIST 4f. 70% 1 To 5 cm 4f beds with 20% 1 mm garnets. 25% Chert beds. 5% Quartz stringers. Bedding 30 dca. 3% Disseminated pyrrhotite. Lower contact sharp at 31 dca. 315.0 316.3 4f. 5% quartz stringers. Bedding 30 dca.
316.3	318.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark grey. 10% garnets. Non-magnetic. Foliated at 34 dca. Biotitic. Trace pyrrhotite. Lower contact sharp at 44 dca. 316.3 317.1 BVOL. 317.1 317.4. Contacts 30 dca. 317.1 318.0 30 cm 4ea. 62 cm BVOL.
318.0	320.2	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F.

From (m)	To (m)	Geology
		4ea. Lower contact sharp at 39 dca. D77620 STANDARD II 10.29 NS NS. D77621 BLANK 0.14 NS NS. 318.0 319.0 4ea. 5% quartz stringers. Bedding 34 dca. 319.0 320.2 4ea. 5% quartz flooding. Bedding 34 dca.
320.2	322.0	GARNET-BIOTITE SCHIST AND INTERMEDIATE TO MAFIC VOLCANICS 4f And BVOL. 320.2 320.9. Lower contact 36 dca. 320.2 320.9 4f. 320.9 321.3. Lower contact 36 dca. 320.9 321.3 BVOL. 321.3 322.0. Lower contact 30 dca. 321.3 322.0 4f.
322.0	348.5	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Interbanded 4ea and 4eaf bedding. Hard. Strongly gruneritized. Bedding at 19 to 40 dca. 1% to 10% pyrrhotite. Up to 40% quartz veining and quartz flooding. Trace ARSENOPYRITE and chalcopyrite. Several specks of VISIBLE GOLD - disseminated and along foliation planes. Several short intervals of fine grained intermediate dykes. Lower contact sharp at 40 dca. 322.0 323.0 4ea. 40% quartz flooding. Strong grunerite. Bedding 19 dca. 323.0 324.0 4ea. 30% quartz flooding. Strong grunerite. Bedding 32 dca. 324.0 325.0 4ea. 1% quartz stringers. 1 speck VISIBLE GOLD. Strong grunerite. Bedding 30 dca. 325.0 325.5 4ea. 5% quartz flooding. Strong grunerite. Bedding 30 dca. 325.5 325.9 Intermediate Dyke. Fine grained. Weakly magnetite. Contacts 35 dca. D77630 325.45 325.90 DUPLICATE 0.03 NS NS. 325.5 325.9 7H. 325.9 327.0 4ea. 2% quartz stringers. Strong grunerite. Bedding 26 dca. 327.0 328.0 4eaf. 1% quartz stringers. Strong grunerite. Trace ARSENOPYRITE. Bedding 32 dca. 328.0 329.1 4eaf. 1% quartz stringers. 2 specks VISIBLE GOLD. Moderate grunerite. Bedding 39 dca. 328.7 328.8. Contacts 40 dca. 329.1 329.4. Contacts 40 dca. 329.1 329.9 4eaf and 7H. 329.4 329.5. Contacts 40 dca. 329.5 329.6. Contacts 40 dca. 329.8 329.9. Contacts 40 dca. D77640 STANDARD II 10.15 10.46 NS. D77641 BLANK 0.07 NS NS. 329.9 331.0 4eaf. 7% quartz stringers. Strong grunerite. Bedding 37 dca. 331.0 332.0 4eaf. 5% quartz stringers. Strong grunerite. Bedding 33 dca. 332.0 333.0 4eaf. 7 specks VISIBLE GOLD. 25% quartz flooding. Strong grunerite. Bedding 38 dca. 333.0 334.0 4eaf. Trace ARSENOPYRITE. 2% quartz stringers. Strong grunerite. Bedding 34 dca. 334.0 335.0 4eaf. Bedding 35 dca. 335.0 336.0 4eaf. 10% quartz flooding. Weak grunerite. Bedding 40 dca.

From (m)	To (m)	Geology
		336.0 337.0 4eaf. 20% quartz flooding. Strong grunerite. Bedding 37 dca. 337.0 338.0 4eaf. 10% quartz flooding. Strong grunerite. Bedding 38 dca. 338.0 339.0 4eaf. 5% quartz stringers. Strong grunerite. Bedding 36 dca. 339.0 340.0 4eaf. 30% quartz flooding. Strong grunerite. Bedding 25 dca. 340.0 341.0 4eaf. 10% quartz stringers. Strong grunerite. Bedding 27 dca. 341.0 342.0 4eaf. 20% quartz flooding. Trace ARSENOPYRITE. Strong grunerite. Bedding 32 dca. D77650 342.00 343.50 DUPLICATE 0.27 NS NS. 342.0 343.5 4f. 5% quartz stringers. Bedding 26 dca. 343.5 344.0 4ea. 10% quartz flooding. Bedding 34 dca. 344.0 345.0 4ea. 5% quartz flooding. Strong grunerite. Bedding 35 dca. 345.0 346.0 4ea. Trace ARSENOPYRITE and chalcopyrite. 5% quartz veining. 10% quartz flooding. Strong grunerite. At 345.60 a 5 cm QUARTZ-VEIN at 49 dca with 1% pyrrhotite and ARSENOPYRITE. Bedding folded. 346.0 347.0 4ea. 30% quartz flooding. Trace chalcopyrite. Strong grunerite. Interval appears brecciated. 347.0 348.0 4ea. Strong grunerite. Chloritic. Fractured. 347.0 348.5 Fractured and chloritic core. Fractures at 10 dca. 347.9 350.0 Very broken core (shattered by drillers). 348.0 348.5 4ea. 20% quartz flooding. 1% ARSENOPYRITE.
348.5	354.5	GARNET-BIOTITE SCHIST 4f. 35% 1 Mm subhedral garnets in a medium grained biotitic matrix. Non-magnetic. Moderately hard to hard. Foliation weakly developed at 26 to 50 dca. Unit fractured throughout. Fractures parallel to foliation at 39 dca and perpendicular at 17 dca. Up to 2% disseminated pyrrhotite. Up to 8% quartz stringers parallel to foliation. Lower contact sharp at 21 dca. D77661 STANDARD II 10.47 10.66 NS. D77662 BLANK 0.07 NS NS. 348.5 349.0 4f. 8% 1 mm quartz stringers. 349.0 350.0 4f. 8% quartz stringers. Foliation 26 dca. 350.0 351.0 4f. 5% quartz stringers. Foliation 50 dca. 351.0 352.0 4f. 352.0 353.0 4f. Foliation 39 dca. 353.0 354.0 4f. Foliation 28 dca. 354.0 354.5 4f.
354.5	356.9	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. 80% 4ea Beds. Strongly gruneritized with amorphous clusters of garnets. Non-magnetic. Hard. 20% Quartz stringers and quartz flooding. Bedding 30 dca. 3% to 5% pyrrhotite disseminated and along foliation planes. Lower contact sharp at 30 dca. 354.5 355.0 4ea. 10% quartz stringers. Strong grunerite. Bedding 30 dca. 355.0 356.0 4ea. 20% quartz flooding. Strong grunerite. 356.0 356.9 4ea. 10% quartz flooding. Strong grunerite.
356.9	361.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL.

From (m)	To (m)	Geology
		Fine grained, dark green-grey. Non-magnetic. Moderate hardness. Foliated at 40 dca. Trace disseminated pyrrhotite. 5% Quartz-calcite stringers parallel to foliation. Lower contact sharp at 36 dca. D77670 356.85 358.00 DUPLICATE 0.07 NS NS. 356.9 358.0 BVOL. 10% quartz-calcite stringers parallel to foliation.
361.5	362.4	GARNET-AMPHIBOLE-CHERT-GRUNERITÉ I.F. 4ea. Lower contact sharp at 34 dca. 361.5 362.4 4ea. 5% quartz stringers. Strong grunerite. Left limb folding with axial plane at 35 dca.
362.4	364.8	GARNET-BIOTITE SCHIST 4f. 25% 1 Mm garnets in black, biotitic, medium grained matrix. Non-magnetic. Hard. Foliation 27 dca. Trace disseminated pyrrhotite. Minor quartz stringers parallel to foliation. Lower contact sharp at 31 dca. 362.4 363.4 4f. 5% quartz stringers. Foliation 27 dca. 363.4 364.8 4f.
364.8	365.5	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Lower contact sharp at 39 dca. 364.8 365.5 4ea. Strong grunerite. Bedding 37 dca.
365.5	402.3	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderately hard. Foliation at 42 to 45 dca. Chloritic and biotitic. Trace disseminated pyrrhotite. 1% Quartz-calcite stringers parallel to foliation. Lower contact sharp at 48 dca. 370.0 Foliation 44 dca. Fractures subparallel at 73 dca. 379.2 379.3 12 cm white quartz-calcite stringer at 47 dca. 380.0 Foliation 62 dca. Minor fractures subparallel at 19 dca and perpendicular at 55 dca. 387.0 387.9 Blocky core. 387.4 387.9 50 cm quartz-calcite veining with trace pyrrhotite. Contacts 50 dca. 390.0 Fractures subparallel to foliation at 27 and 52 dca and perpendicular at 32 dca. 390.6 390.8 30 cm quartz-calcite vein at 44 dca. 391.2 391.4 20 cm quartz-calcite vein at 54 dca. 400.0 Foliation at 42 dca.

From (m)	To (m)	Geology
402.3	403.4	GARNET-BIOTITE SCHIST 4f. 80% black, 1 cm 4f beds. Medium grained with 25% 1 mm garnets. Non-magnetic. Hard. 20% Medium grey 5 mm chert beds. Bedding 53 dca. Fractures perpendicular to bedding at 27 dca. Trace pyrrhotite. 1% Quartz stringers parallel to bedding. Lower contact sharp at 61 dca. 402.3 403.4 4f. 1% quartz stringers.
403.4	407.0	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4fb. 60% black 4f beds with 25% 1 mm garnets. Moderately soft. 30% Medium grey to yellowish, 1 to 3 cm, 4b beds. Up to 2 cm. Non to strongly gruneritized. Hard. Unit weak to moderately magnetic. Bedding at 29 to 60 dca. Minor folding with axial planes at 53 to 60 dca. Fractures subparallel to bedding at 50 dca. <1% pyrrhotite. Minor quartz stringers. 403.4 404.0 Bedding 49 dca. 403.4 404.4 4bf. 5% quartz stringers with 1% pyrrhotite. 404.0 405.0 Bedding 56 dca. At 404.25 U shaped fold with axial plane at 60 dca. 405.0 406.0 Bedding 60 dca. 406.0 407.0 Bedding 52 dca. At 406.15 left limb folding with axial plane at 53 dca.
407.0		END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken from 270.00 to 407.00 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY:. 0.00 21.30 Tricone Bit. 21.3 metres of NW Casing. 21.30 407.00 Two Hexagon core barrels. Dimatec MX 9 and MX10 bits. Hole cemented - 6 hours. 88 bags of 20 kg Type 50 cement used. Casing pulled. SURVEYING HISTORY:. Gyroscopic Directional Survey by CBC Welnav, North Bay, Ontario used for Class 2 data. Survey took 2.5 hours. Dip Tests. 21.3 -61 Acid. 31.0 -60 Rotodip. 37.0 -60 Rotodip. 43.0 -61 Rotodip. 58.0 -61 Rotodip. 67.0 -61 Rotodip. 82.0 -60 Rotodip. 94.0 -60 Rotodip.

From (m)	To (m)	Geology
		106.0 -60 Rotodip. 115.0 -59.5 Rotodip. 124.0 -59.0 Rotodip. 133.0 -59.0 Rotodip. 142.0 -73.0 Rotodip - bad reading. 154.0 -56.0 Rotodip - bad reading. 166.0 -59.0 Rotodip. 178.0 -58.5 Rotodip. 187.0 -58.0 Rotodip. 199.0 -57.0 Rotodip. 211.0 -76.0 Rotodip - bad reading. 217.0 -57.0 Rotodip. 226.0 -57.5 Rotodip. 238.0 -57.5 Rotodip. 250.0 -57.0 Rotodip. 262.0 -57.0 Rotodip. 274.0 -56.5 Rotodip. 283.0 -56.5 Rotodip. 295.0 -57.0 Rotodip. 304.0 -56.0 Rotodip. 316.0 -56.5 Rotodip. 328.0 -55.0 Rotodip. 340.0 -62.5 Rotodip -bad reading. 343.0 -54.5 Rotodip. 352.0 -56.5 Rotodip. 364.0 -54.0 Rotodip. 376.0 -54.0 Rotodip. 400.0 -54.5 Rotodip.

DRILL HOLE RECORD

Northing: 10250.11
Easting: 8985.25
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -61.00

Hole Length: 431
Core Size: NQ
Date Started: MARCH 4, 1993
Logged by: B.J. McKay

*** Depth	Dip Tests Azi.	*** Dip
15.2	228.3	-62.0
30.5	228.8	-60.0
45.7	228.3	-60.8
61.0	227.1	-60.5
76.2	227.1	-58.8
91.4	225.9	-58.0
106.7	225.9	-57.8
121.9	227.1	-58.8
137.2	225.9	-58.0
152.4	225.3	-57.0
167.6	225.4	-58.0
182.9	226.0	-58.5
198.1	225.3	-57.5
213.4	224.7	-56.5
228.6	224.8	-58.0
243.8	225.3	-57.0
259.1	224.7	-55.8
274.3	224.7	-56.8
289.6	224.6	-55.0
304.8	224.6	-54.0
320.0	224.6	-54.8
335.3	224.6	-54.8
350.5	223.4	-54.5
365.7	224.0	-54.3
381.0	224.6	-54.0
396.2	224.6	-54.0
411.5	224.6	-54.0
419.1	225.2	-53.3

Drill Hole: 506-626

Northing: 10250N
Easting: 8985E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10250N
Completed: MARCH 9, 1993
Date(s) Logged: MARCH 5-10, 1993

Claim: Pa529497: 342.5m; Pa529500: 88.5m
Comments: 89.7mW, 99.2mN to WP of #1 post, Claim# Pa529497
Purpose: to test S, C, T and WA Zones.

From (m)	To (m)	Geology
		REVISED LOG, 22 APRIL, 1993. Includes assay data. Includes revised Gyro-dip data. Missing sample numbers (STANDARDs, BLANKs and DUPLICATEs) are listed at the end of the drill log. Highlights of 506-626:. S-Zone:. C-Zone:. T-Zone:. WA-Zone:.

From (m)	To (m)	Geology
		All fold orientations are looking southward, up plunge. This orientation is the same as the strip log.
.0	21.8	OVERBURDEN 0.0 21.75 Casing. 0.0 1.4 Ice and Water. 1.4 21.75 Sand, gravel and boulders. NORTHERN IRON FORMATION: 21.75m-55.6m.
21.8	26.2	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Fine grained, black, non-magnetic to moderately magnetic. Well developed bedding. 40-90% Garnets. Alternating B beds and F beds up to 3 cm thick. There are two main sets of fractures throughout the hole: One set parallel to foliation and one set perpendicular to foliation. 22.0 Foliation, 15 dca. 22.0 22.6 FAULT ZONE : with grey clayey gouge. 23.3 Perpendicular fracture, 42 dca. 25.0 Foliation, 30 dca. Lower contact, sharp, 32 dca.
26.2	29.1	GARNETIFEROUS BASALT GtB. Typical GtB with 40-80% garnets in a chloritic biotitic matrix. Well developed foliation. Non-magnetic to moderately magnetic. 28.0 Fault: 67 dca. Lower contact, sharp, 23 dca.
29.1	33.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical BVOL. Fine grained, brownish-green, green, non-magnetic to very weakly magnetic, moderately soft. Well developed foliation. Locally strong biotitic alteration. Local weak to strong carbonatization. 30.0 Foliation and fault, 20 dca. 31.0 Perpendicular fracture, 57 dca. 31.4 Perpendicular fracture, oblique to above fault, 27 dca. 32.6 Perpendicular fracture, 35 dca. Lower contact, 35 dca.
33.4	35.1	GARNETIFEROUS BASALT GtB. Similar to above. 35.0 Foliation, 33 dca. Lower contact, sharp, 38 dca.

From (m)	To (m)	Geology
35.1	37.6	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Similar to above. Lower contact, irregular, sharp, 40 (?) dca.
37.6	48.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above with weak to strong carbonatization. Locally strong biotitic alteration. Non-magnetic. 3-5% Quartz-carbonate as seams and veinlets. 39.5 Perpendicular fracture, 52 dca. 40.0 Foliation, 23 dca. 41.0 Foliation and fracture, 37 dca. Perpendicular fracture, 47 dca. 44.0 Perpendicular fracture, 60 dca. 45.0 Foliation, 37 dca. Perpendicular fracture, 54 dca. 54.4 Perpendicular fracture 54 dca. Lower contact, sharp, 43 dca.
48.1	50.1	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Similar to above with 20-30% chloritic matrix, 15% garnets, 20% B beds. Locally weakly to moderately magnetic. Trace pyrite, 1% pyrrhotite. Lower contact, sharp, 45 dca. Perpendicular fracture, 53 dca.
50.1	53.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. Pervasive strong carbonatization. Lower contact, sharp, 21 dca. Perpendicular fracture, 58 dca.
53.0	55.6	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Similar to above. Lower contact, sharp, 29 dca.
55.6	76.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. First 3 meters silicified with 5% quartz flooding and minor veining. This interval is finer grained and lighter grey than remainder of unit. 60.0 Foliation, 35 dca. 60.4 Perpendicular fracture, 60. 62.0 63.0 BVOL. 63.0 64.2 BVOL. 64.2 64.7 Silicified section with quartz flooding, pyrrhotite, chalcopyrite and pyrite. 64.2 64.7 BVOL, 80%qf, 1%cpy, tr py. 64.7 65.1 Silicified GtB. 64.7 65.3 45 cm GtB, 20 cm BVOL. 64.7 Contact, 65 dca.

From (m)	To (m)	Geology
		65.0 Foliation, 33 dca. 65.1 65.3 Silicified section with quartz flooding, pyrrhotite, chalcopyrite and pyrite. 65.3 66.3 BVOL. 7% quartz stringers. 66.3 67.3 BVOL. 3% quartz-calcite stringers. 66.6 Perpendicular fracture, 47 dca. 69.1 69.4 GtB with 15% garnets. 75.0 Foliation, 30 dca. Lower contact, sharp, 1 cm seam of massive, vuggy, pyrite, 30 dca.
76.4	197.4	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Very fine grained to fine grained, blue grey, grey, non-magnetic, hard. Well developed foliation. 4-6% Minute quartz clasts aligned parallel to foliation. Two sets of fractures : one set parallel to foliation the other perpendicular to foliation. 3-5% Quartz-carbonate as veinlets and seam parallel to foliation. Occasionally with blebs of pyrite and or chalcopyrite. Fractures perpendicular to foliation have bleached, carbonatized alteration halos up to 4 mm wide. Locally trace to 1% disseminated pyrite. Other occurences as notes. 76.4 76.9 Quartz-carbonate flooding with 3-5% pyrite as vuggy seams and irregular masses up to 1 cm. 5% garnet. 77.2 Fault, 35 dca. 77.3 Perpendicular fracture, 57 dca. 78.0 Perpendicular fracture, 68 dca. 80.0 Foliation, 52 dca. 84.0 84.3 Quartz-carbonate flooding with vuggy pyrite, similar to above. 85.0 Foliation, 43 dca. 85.5 Perpendicular fracture, 65 dca. 90.0 Foliation and fracture, 35 dca. 91.7 Perpendicular fracture, 55 dca. 95.0 Foliation and fracture, 38 dca. Perpendicular fracture, 68 dca. 100.0 Foliation and fracture, 42 dca. 104.0 Perpendicular fracture, 60 dca. 105.0 Foliation, 42 dca. 110.0 Foliation and fracture, 44 dca. Perpendicular fracture, 63 dca. 115.0 Foliation, 40 dca. 115.2 Fault, 40 dca. 115.6 Fault, 40 dca. 120.0 Foliation and fracture, 39 dca. Perpendicular fracture, 60 dca. 120.1 A 10 cm quartz-carbonate vein. 120.2 120.6 Broken core. 121.8 122.2 Broken core. 122.3 A 15 cm silicified, carbonatized, microbrecciated section. 124.0 Perpendicular fracture, 45 dca. 125.0 Foliation, 47 dca. 130.0 Foliation, 44 dca. 135.0 Foliation and fracture, 47 dca. Perpendicular fracture, 55 dca. 140.0 Foliation and fracture, 47 dca. Perpendicular fracture, 47 dca. 142.2 A 10 cm, silicified, carbonatized, section with coarse grained biotite. 145.0 Foliation and fracture, 48 dca. Perpendicular fracture, 60 dca. 150.0 Foliation, 47 dca. 155.0 Foliation, 44 dca. Perpendicular fracture, 52 dca. 155.8 160.0 Semi-massive pyrite - quartz vein, 55 dca.

From (m)	To (m)	Geology
		160.0 Foliation, 42 dca. 165.0 Foliation, 44 dca. 167.0 Perpendicular fracture, 60 dca. 170.0 Foliation, 46 dca. 170.5 Perpendicular fracture, 60 dca. 175.0 Foliation, 47 dca. 176.0 Perpendicular fracture, 50 dca. 180.0 Foliation and fracture, 53 dca. Perpendicular fracture, 59 dca. 184.3 184.6 Fracture controlled, potassic altn. Fractures perpendicular to foliation. Some with quartz-carbonate. 185.0 Foliation and fracture, 50 dca. 186.0 Perpendicular fracture, 58 dca. 190.0 Foliation, 55 dca. 190.5 Perpendicular fracture, 55 dca. 195.0 Foliation, 53 dca. Lower contact, sharp, 57 dca.
197.4	203.6	GARNETIFEROUS BASALT GtB with BVOL. Typical unit, fine grained, black, dark green, non-magnetic to weakly magnetic, hard. Biotitic and chloritic matrix with 20-50% euhedral garnets up to 1 cm across. Poorly to moderately developed foliation. Occasional interbed of BVOL as noted. Minor disseminated pyrite. 199.9 200.3 BVOL interbed. 200.0 Foliation and fracture, 65 dca. 200.4 201.1 BVOL interbed. 202.9 203.3 BVOL interbed. 203.3 Perpendicular fracture, 49 dca. Lower contact, sharp, 45 dca.
203.6	208.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical unit, similar to above. 205.0 Foliation, 50 dca. 206.2 Perpendicular fracture, 48 dca. Lower contact, sharp, 38 dca.
208.4	212.1	GARNETIFEROUS BASALT GtB with BVOL. Typical unit similar to above with chloritic and locally biotitic matrix with 20-80% garnets. 210.0 Foliation, 35 dca. 210.3 Perpendicular fracture, 67 dca. Lower contact, sharp, 51 dca. 210.6 210.8 BVOL interbed.
212.1	214.3	INTRAFORMATIONAL IRON FORMATION 24F. Medium to coarse grained, brown, brownish-green, non-magnetic, moderately soft to hard. 60-95% Garnets in a biotitic matrix. Poorly to well developed bedding. 213.0 Bedding, 38 dca.

From (m)	To (m)	Geology
		Lower contact, sharp, 36 dca.
214.3	215.1	BRECCIA ZONE BRECCIA ZONE. Fine grained, green, non-magnetic, moderately soft to hard. 15-30% Angular, subrounded and elongated qtz clasts in a chloritic matrix. Clasts up to 3x.2 cm and larger(>core diameter). Lower contact, sharp, 39 dca.
215.1	218.8	INTRAFORMATIONAL IRON FORMATION . 24F. Similar to above with up to 5% quartz flooding and trace to 2% pyrrhotite. 216.0 217.0 24F, 5%qf, tr-2% po. 217.0 Bedding, 35 dca. Lower contact, sharp, 32 dca.
218.8	222.6	GARNETIFEROUS BASALT GtB with BVOL. Similar to above. 219.3 220.1 BVOL interbed. 220.1 Contact, sharp, 42 dca. Lower contact, sharp, 53 dca.
222.6	233.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical unit similar to above with 5-8% quartz-carbonate as seams, veinlets and fracture filler. Locally biotitic. Weak pervasive carbonatization. Trace disseminated pyrite. 225.0 Foliation, 28 dca. Perpendicular fracture, 37 dca. 230.0 Foliation, 30 dca. Perpendicular fracture, 36 dca. 233.4 Perpendicular fracture, 48 dca. Lower contact, sharp, 38 dca.
233.9	237.2	GARNETIFEROUS BASALT GtB. 235.0 Foliation, 35 dca. Lower contact, sharp, 29 dca. A 10 cm zone of quartz flooding with 3% pyrrhotite at contact. 235.2 235.4 BVOL interbed, very fine grained, bleached, silicified, blue-grey, blue-green, brown, non-magnetic, very hard. 235.6 235.9 BVOL interbed, similar to above.
237.2	249.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above except as noted. Foliation distorted. 5-8% Quartz-carbonate seams and veinlets. Local weak carbonatization, local biotite alteration. 237.2 238.9 Very fine grained to fine grained, dark blue grey, silicified, very hard section, with occasional garnet. 240.0 Foliation, 26 dca. 242.0 Foliation, 34 dca. 242.3 Perpendicular fracture, 38 dca. 243.4 249.0 Fine grained, blue-grey, blue-green, grey, non-magnetic, hard moderate developed foliation. Silicified locally sericitic. Locally biotitic.

From (m)	To (m)	Geology
		243.4 Contact, gradual over 2 metres, 30 dca. 245.0 Foliation, 32 dca. Perpendicular fracture, 47 dca. 248.5 Perpendicular fracture, 46 dca. Lower contact, sharp, 40 dca.
249.0	250.4	INTRAFORMATIONAL IRON FORMATION 24BE. Fine grained, green, white, non-magnetic to strongly magnetic, moderately soft to moderately hard. 70% Chloritic matrix with 5% garnets, and 25-40% quartz flooding with trace to 10% pyrrhotite. 249.0 249.6 BVOL, 25%qf. 249.6 249.8 GtB interbed. 249.8 Contact, sharp, 45 dca. 249.8 250.4 24EA, 40%qf, loc s grun. 250.1 250.4 Zone with 10% pyrrhotite. Lower contact, sharp, 52 dca.
250.4	258.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above with local increase in quartz-carbonate up to 20% over 1 metre lengths. Individual quartz-carbonate veins up to 10 cm wide. 251.0 Foliation, 41 dca. 254.0 Perpendicular fracture, 42 dca. 256.6 Perpendicular fracture, 38 dca. 257.0 Foliation, 42 dca. Lower contact, sharp, 48 dca. 257.4 258.4 BVOL. 7% quartz-calcite stringers.
258.4	261.3	INTRAFORMATIONAL IRON FORMATION 24BE With BVOL. Similar to above with 10% F beds, trace to 3% pyrrhotite. Weakly to strongly magnetic. 258.4 259.0 24BE, 15%qf. 259.0 Contact, sharp, 50 dca. 259.0 259.4 BVOL. 2% quartz-calcite stringers. 259.0 259.4 BVOL interbed. 259.4 Contact, sharp, 52 dca. 259.4 259.9 24BE, 10%qf. 259.9 Contact, sharp, 62 dca. 259.9 260.7 BVOL. 259.9 260.7 BVOL interbed. 260.0 Foliation, 55 dca. Lower contact, sharp, 46 dca. 260.7 Contact, sharp, 40 dca. 260.7 261.3 24BE, 5%qf.
261.3	288.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above, I.E., 250.35M-258.4M. Unit is locally strongly biotitic and carbonatized. 263.0 Perpendicular fracture, 56 dca. 265.0 Foliation, 35 dca. 270.0 Foliation, 35 dca. Perpendicular fracture, 47 dca.

From (m)	To (m)	Geology
		275.0 Foliation, 26 dca. 278.0 288.1 Increase in quartz-carbonate up to 40% over 1 medium lengths with veins up to 30 cm. 280.0 Foliation, 22 dca. 284.0 Foliation, 28 dca. 284.9 285.3 Quartz-carbonate vein. Lower contact, sharp, undulating, 32 dca.
288.1	300.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA: S-ZONE MINERALIZARTION. Fine to medium grained, dark green, black, white, non-magnetic to moderately magnetic, hard. 10-80% F bed, 5-75% B beds, 0-10% E beds, 5-60% quartz flooding, trace to 6% pyrrhotite. Moderate to strong grunerite alteration. 288.1 289.0 4F, 15%qf, w grun. 289.0 Foliation, 10. 289.0 290.0 4F, 60%qf, s grun., VG. 289.8 VISIBLE GOLD : 5 specks. 290.0 Foliation, 55 dca. 290.0 291.0 4F, 5%qf, w grun. 291.0 Foliation, 69 dca. 291.0 292.0 4FB, w-m grun. 291.4 Axial plane, right limb folding, 37 dca. 292.0 Foliation and fault, 65 dca. 292.0 293.0 4FB, w grun. 293.0 Foliation, 35 dca. 293.0 294.0 4BF, 5%qf, m-s grun. 293.7 Axial plane, right limb folding, 10 dca. 294.0 Foliation, 20 dca. 294.0 295.0 4BF, 5%qf, m-s grun. 295.0 Foliation, 75 dca. 295.0 296.0 4BF, 5%qf, m-s grun. 296.0 Foliation, 52 dca. 296.0 297.0 4BF, 10%qf, 5%qcb, m-s grun. 297.0 Foliation, 21 dca. Perpendicular fracture, 55 dca. 297.0 298.0 4BF, 10%qf, 5%qcb, m-s grun. 298.0 Foliation, 18 dca. 298.0 299.0 4BF, 15%qf, 5%qcb, m-s grun. 299.0 Foliation, 24 dca. Lower contact, sharp, 25 dca. Perpendicular fracture, 54 dca. 299.0 300.0 4BF, 5%qf, 10%qcb, m-s grun.
300.0	317.3	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. Fine to medium grained, brownish-white, green, grownish-green, non-magnetic, moderately soft. Well developed foliation. Pervasive moderate to strong carbonatization, local pervasive biotitic alteration. Quartz-carbonate, 3-5%, as seams, veinlets and veins up to 6 cm. 302.0 Foliation, 36 dca. 305.0 Foliation, 45 dca. Perpendicular fracture, 60 dca. 310.0 Foliation, 42 dca. Perpendicular fracture, 23 dca. 312.9 Perpendicular fracture, 53 dca.

From (m)	To (m)	Geology
		314.0 Foliation, 42 dca. Lower contact, sharp, 69 dca.
317.3	318.0	GARNETIFEROUS BASALT GtB. Fine grained, green, non-magnetic, moderately soft. Well developed distorted foliation. Unit contains 5 to 8% garnets. Locally biotitic alteration. Pervasive weak to strong carbonatization. A 25 cm interval in center of unit is 35% quartz and quartz-carbonate flooding with 1% pyrite. Lower contact, sharp, 68 dca.
318.0	318.6	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above with a 45 cm translucent white QUARTZ-VEIN at upper contact. Vein contains fragments and irregular masses of BVOL wallrock. Lower contact, sharp, 50 dca.
318.6	319.3	GARNET-AMPHIBOLE / CHERT-MAGNETITE I.F. 4EB. Fine grained, blue-grey, grey-green, green, white, weakly magnetic, moderately hard. 50% Microbrecciated B beds up to 1.5 cm thick in a chloritized E matrix (40%). 10% Quartz flooding. Trace pyrrhotite. Lower contact, sharp, 45 dca.
319.3	320.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above with pervasive strong biotitic alteration and carbonatization. Well developed distorted foliation. 30% Quartz-carbonate. Trace pyrrhotite and pyrite. Lower contact, sharp, 39 dca.
320.1	325.0	CHERT - MAGNETITE IRON FORMATION 4B. Fine grained, grey and white, very hard, moderately to strongly magnetic. Well developed bedding. Bedding is micro-faulted, folded and brecciated throughout the unit. Bedding is at all angles to core axis except in lower 60 cm which is a uniform 25 to 30 dca. Orientation of fractures, axial planes and faults (open and healed) is 30 to 35 dca. Lower contact, gradual over 50 cm, 27 dca. 324.0 325.0 4b.
325.0	384.5	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA: C-ZONE MINERALIZATION;. T-ZONE MINERALIZATION;. WA-ZONE MINERALIZATION;. Typical 4EA unit with quartz flooding, grunerite alteration, pyrrhotite, pyrite, chalcopyrite and VISIBLE GOLD as noted. 325.0 326.0 4FB, 5%qf, w grun. 326.0 Foliation, 51 dca. 326.0 327.0 4BF, 15%qf, 5%qv, m grun. 326.8 Axial plane, right limb folding, 45 dca.

From (m)	To (m)	Geology
		327.0 Foliation, 37 dca.
		327.0 328.0 4BF, 10%qf.
		328.0 Perpendicular fracture, 63 dca.
		328.0 329.0 4BF, 20%qf, m grun.
		329.0 Perpendicular fracture, 60 dca.
		329.0 330.0 4BF, 20%qf, s grun.
		330.0 Foliation, 62 dca.
		330.0 331.0 4BF, 15%qf, s grun.
		331.0 Foliation, 27 dca.
		331.0 332.0 4BF, 15%qf, s grun., VG.
		331.1 VISIBLE GOLD : 1 speck.
		332.0 Foliation, 45 dca.
		332.0 333.0 4BF, 20%qf, s grun.
		333.0 Foliation, 40 dca.
		333.0 334.0 4B, 40%qf, m-s grun., VG.
		333.2 VISIBLE GOLD : 1 speck.
		334.0 Foliation, 35 dca.
		334.0 335.0 4BF, w grun.
		335.0 Perpendicular fracture, 52 dca.
		335.0 336.0 4BF, w-m grun.
		336.0 337.0 4B, 55%qf, m-s grun., VG.
		336.6 VISIBLE GOLD : 1 speck.
		337.0 338.0 4B, 40%qf, s grun., VG.
		337.5 VISIBLE GOLD : 3 specks.
		338.0 339.0 4BF, 10%qf, 3%qcb, m grun.
		339.0 Foliation, 30 dca.
		339.0 340.0 4FB, 10%qf, m grun.
		340.0 Foliation, 73 dca.
		340.0 341.0 4BF, 50%qf, s grun., tr asp, VG.
		340.1 VISIBLE GOLD : 1 speck.
		340.3 VISIBLE GOLD : 3 specks.
		341.0 Foliation, 30 dca.
		341.0 342.0 4B, 40%qf, s grun.
		341.0 BVOL interbed.
		342.0 Foliation, 54 dca.
		342.0 343.0 4BF, 20%qf, m-s grun.
		343.0 344.0 4B, 40%qf, s grun.
		343.6 Perpendicular fracture, 50 dca.
		344.0 Foliation and fracture, 40 dca.
		344.0 345.0 4BF, 20%qf, m-s grun.
		345.0 Foliation, 28 dca.
		345.0 346.0 4BF, 15%qf, w-m grun.
		345.6 Perpendicular fracture, 59 dca.
		346.0 Foliation, 40 dca.
		346.0 347.0 4BF, w grun.
		347.0 Foliation, 38 dca. Oblique fault, perpendicular to foliation, 0 dca.
		347.0 348.0 4FB, w grun.
		348.0 Foliation, 30 dca. Oblique fault, perpendicular to foliation, 6 dca.
		348.0 349.0 4FB, 15%qf, w-m grun.
		349.0 Foliation, 42 dca.
		349.0 350.0 4FB, 20%qf, w-m grun.

From (m)	To (m)	Geology
		350.0 Foliation, 30 dca. Perpendicular fracture, 50 dca.
		350.0 351.0 4FB, 10%qf, w-m grun.
		350.8 351.0 BVOL interbed, contacts parallel to foliation.
		351.0 Foliation, 31 dca.
		351.0 352.0 4FB, m grun.
		352.0 Foliation, 32 dca.
		352.0 353.0 20 cm BVOL, 4FB, 30%qf, m-s grun., tr py.
		352.0 352.3 BVOL interbed, contacts parallel to foliation.
		353.0 Foliation, 37 dca. Perpendicular fault, 20 dca.
		353.0 354.0 4BF, 10%qf, m grun., tr py.
		354.0 Foliation, 28 dca.
		354.0 355.0 4BF, 20%qf, s grun.
		355.0 Foliation, 32 dca.
		355.0 356.0 4BFE, 15%qf, m-s grun.
		355.4 Perpendicular fracture, 63 dca.
		356.0 Foliation, 40 dca.
		356.0 357.0 4FB, m grun.
		357.0 Foliation and fracture, 40 dca.
		357.0 358.0 4BF, 25%qf, 5%qcb, w-m grun.
		358.0 Foliation, 42 dca.
		358.0 359.0 45 cm BVOL, 4BF, 20%qf, m-s grun.
		358.2 358.6 BVOL interbed, contacts parallel to foliation.
		359.0 Foliation, 35 dca.
		359.0 360.0 4F, 70%qf, s grun., tr asp.
		359.0 359.3 BVOL interbed, contacts parallel to foliation.
		359.5 Perpendicular fracture, 60 dca.
		359.6 Perpendicular fracture with 1 mm seam of pyrrhotite, 53 dca.
		360.0 Foliation, 42 dca.
		360.0 361.0 4BFE, 20%qf, m-s grun.
		361.0 Foliation, 36 dca. Perpendicular fracture, 16 dca.
		361.0 362.0 4BFE, 15%qf, 2%qcb, m-s grun.
		362.0 Foliation, 31 dca.
		362.0 363.0 4BFE, 10%qf.
		363.0 Foliation, 33 dca.
		363.0 364.0 35 cm BVOL, 4FEB, m grun.
		363.6 364.0 BVOL interbed, contacts parallel to foliation.
		364.0 Foliation and fault, 33 dca.
		364.0 365.0 4FEB, m grun.
		365.0 Foliation, 28 dca. Parallel fault, 30 dca.
		365.0 366.0 4EFB, m-s grun.
		366.0 Foliation, 29 dca.
		366.0 367.0 4BEF, 10%qf, s grun.
		366.7 Fault, 30 dca.
		367.0 Foliation, 32 dca.
		367.0 368.0 4FEB, 10%qf, m grun.
		368.0 Foliation, 23 dca.
		368.0 369.0 4FEB, m-s grun.
		369.0 Foliation, 30 dca.
		369.0 370.0 4FB, 10%qf, 10%qv, m-s grun.
		370.0 Foliation, 35 dca.
		370.0 371.0 4EFB, 10%qf, m-s grun.

From (m)	To (m)	Geology
		371.0 Foliation, 38 dca. 371.0 372.0 4EFB, 15%qf, s grun. 372.0 Foliation, 40 dca. 372.0 373.0 15 cm BVOL, 4FEB, 15%qf, m-s grun. 373.0 Foliation, 35 dca. 373.0 374.0 4EF, 25%qf, s grun. 374.0 Foliation, 39 dca. 374.0 375.0 4EF, 25%qf, s grun. 375.0 Foliation, 49 dca. 375.0 376.0 4EFB, 20%qf, m-s grun. 376.0 Fault, 13 dca. 376.0 377.0 4EF, 15%qf, s grun. 377.0 Fault, 26 dca. 377.0 378.0 4EFB, 15%qf, s grun., VG. 377.5 VISIBLE GOLD : 2 specks. 378.0 Foliation, 25 dca. 378.0 379.0 4EF, 20%qf, s grun. 379.0 Perpendicular fracture, 30 dca. 379.0 380.0 4E, 25%qf, s grun. 380.0 Foliation, 33 dca. 380.0 381.0 4E, 35%qf, s grun. 381.0 Foliation, 41 dca. 381.0 382.0 4FE, 60%qf, s grun. 382.0 Foliation, 35 dca. 382.0 383.0 4, 75%qf, m-s grun. 383.0 Foliation, 32 dca. 383.0 384.0 25 cm BVOL, 4EFB, 15%qf, m grun. 384.0 Foliation, 33 dca. Lower contact, sharp, 30 dca. 384.0 384.5 4FEB, w grun.
384.5	385.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical unit. Lower contact, sharp, 28 dca. 384.5 385.5 BVOL.
385.5	399.1	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA. Mineralized unit continued from above. 385.5 387.0 4FEB. 386.0 Foliation and fracture, 28 dca. 386.7 Perpendicular fracture, 46 dca. 387.0 Foliation, 31 dca. 387.0 388.0 4FE, 15%qf. 388.0 Foliation, 43 dca. 388.0 389.0 4EF, 80%qf, s grun. 389.0 Foliation, 42 dca. 389.0 390.0 4EF, 20%qf, s grun. 389.8 Perpendicular fracture, 44. 390.0 Foliation, 30 dca.

From (m)	To (m)	Geology
		390.0 391.0 4BEF, w grun. 391.0 Foliation, 28 dca. 391.0 392.0 4F, w grun. 391.8 392.6 Fault: 28 dca. 392.0 393.0 4F. 393.0 394.0 4F. 394.0 Foliation, 28 dca. 394.0 395.0 4FB, w grun. 395.0 Foliation, 36 dca. Perpendicular fracture, 40 dca. 395.0 396.0 4FB. 396.0 Foliation, 25 dca. 396.0 397.0 4FB, w grun. 397.0 Foliation, 29 dca. 397.0 398.0 4BEF, w grun. 398.0 Foliation, 32 dca. 398.0 399.1 4BF, 15 cm qv. 399.0 Foliation, 34 dca. Lower contact, sharp, undulating and faulted, 25 dca.
399.1	425.7	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical unit, similar to above. 400.0 Foliation, 29 dca. 401.0 Foliation, 33 dca. 404.0 Perpendicular fracture, 58 dca. 405.0 Foliation, 38 dca. 407.4 Perpendicular fracture, 39 dca. 410.0 Foliation, 46 dca. 412.0 Foliation, 52 dca. 415.0 Foliation, 47 dca. 416.0 Perpendicular fracture, 47 dca. 420.0 Foliation, 50 dca. Perpendicular fracture, 48 dca. 425.0 Foliation, 47 dca. Lower contact, sharp, 52 dca.
425.7	429.5	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4FB. Typical unit, with nil to 20% quartz flooding and trace to 2% pyrrhotite. Interbeded biotized and carbonatized BVOL as noted. 425.7 426.7 4fb. 10% quartz flooding and quartz stringers parallel to bedding at 42 dca. 426.0 Perpendicular fracture, 47 dca. 426.7 427.5 4fb. 15% quartz stringers and quartz flooding. At 427.0 axial plane 62 dca. 427.0 Axial plane, right limb folding, 60 dca. 427.5 428.6 4FBE, 15%qf. 428.6 429.5 4fb* 20% qs' and qfg. 429.4 431.0 BVOL interbed. 429.4 Contact, sharp, 50 dca. 430.0 foliation, 60 dca.
429.5	431.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL.

From (m)	To (m)	Geology
		Locally garnetiferous. Well foliated at 60.00 dca. 429.5 431.0 BVOL.
431.0		END OF HOLE
		DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.
		DRILLING HISTORY and HOLE CONTROL EQUIPMENT. .0 20.7 Tricone. .0 21.3 NW casing. 21.3 431.0 Two hex-corebarrels and MX-10 drill bit.
		Hole stopped at 7:00 pm, March 9. Gyro-dip survey started at 7:00 pm.
		Hole cemented. Casing cut under the lake.
		90 Bags of #10 Cement. 6 Hours required to cement the hole.
		CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO.
		Sludge samples (280m to EOH) taken. Sludge samples stored on the site.
		Sample STANDARDs, BLANKs and DUPLICATEs.
		E36430 is a DUPLICATE of E36429 4 0.27 ns ns. E36440 STANDARD I 7.51 7.54 NS. E36441 BLANK 0.17 ns ns. E36450 is a DUPLICATE of E36449 tr 4.46 ns ns. E36459 STANDARD I 7.41 7.47 NS. E36460 BLANK 0.07 ns ns. E36470 is a DUPLICATE of E36469 tr 1.44 ns ns. E36481 STANDRAD I 7.27 7.47 NS. E36482 BLANK 0.38 ns ns. E36490 is a DUPLICATE of E36489 0 0.07 ns ns. E36499 STANDARD I 7.17 7.58 NS. E36500 BLANK 0.17 ns ns. E36510 is a DUPLICATE of E36509 7 7.03 ns ns. E36520 STANDARD I 7.41 7.71 NS. E36521 BLANK 0.34 ns ns. E36530 is a DUPLICATE of E36529 0 0.10 ns ns.
		Hole dip tests not used as Code 2 data. Code 2 used Gyro-dip (Inrun Survey) by CBC WELLNAV, NORTH BAY, ONTARIO.
		Depth Dip Type. 0.00 -60.5 Brunton. 23m -60 Acid. 32m -60 Roto-dip. 44m -60 Roto-dip. 57m -60 Roto-dip.

From (m)	To (m)	Geology
		69m -59 Roto-dip. 81m -59 Roto-dip. 95m -59 Roto-dip. 119m -58 Roto-dip. 131m -57.5 Roto-dip. 143m -57 Roto-dip. 155m -57 Roto-dip. 189m -57 Roto-dip. 209m -56 Roto-dip. 221m -56 Roto-dip. 230m -56.5 Roto-dip. 239m -57 Roto-dip. 260m -56 Roto-dip. 272m -55.5 Roto-dip. 290m -55 Roto-dip. 308m -55 Roto-dip. 320m -55 Roto-dip. 341m -53.5 Roto-dip. 359m -53.5 Roto-dip. 371m -53 Roto-dip. 401m -53 Roto-dip. 413m -52 Roto-dip. 425m -51 Roto-dip. Miscellaneous:. The hole required: 96 core boxes, 110 assay tags, 220 sample bags, and 12 sample boxes for 94 core samples. The average daily temperature, @ 7:00am, was -9 degrees Celsuis.

Date: 14 Nov, 1993

PLACER DOME EXPLORATION

DRILL HOLE RECORD

Northing: 10399.33
Easting: 9047.25
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -61.00

Hole Length: 530
Core Size: NQ
Date Started: MARCH 9, 1993
Logged by: DENISE INGS

*** Depth	Dip Tests Azi.	*** Dip
15.2	227.3	-59.0
30.5	224.0	-58.3
45.7	222.5	-57.5
61.0	222.3	-57.0
76.2	221.4	-56.0
91.4	220.8	-57.0
106.7	221.0	-55.8
121.9	220.8	-55.0
137.2	220.4	-55.0
152.4	218.9	-53.0
167.6	218.3	-53.0
182.9	218.3	-52.5
198.1	219.1	-53.0
213.4	218.4	-51.8
228.6	216.5	-51.0
243.8	215.5	-52.0
259.1	216.9	-51.0
274.3	215.7	-51.0
289.6	215.2	-51.0
304.8	214.4	-50.0
320.0	213.7	-49.0
335.3	214.4	-49.0
350.5	214.7	-49.0
365.7	214.8	-48.8
381.0	215.0	-48.3
396.2	215.1	-48.0
411.5	215.9	-47.5
426.7	215.4	-47.8
441.9	217.1	-46.0
457.2	218.8	-47.0
472.4	217.3	-45.0

Drill Hole: 506-627

Northing: 10400N
Easting: 9038E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10400N
Completed: MARCH 19, 1993
Date(s) Logged: MARCH 10 - 19, 1993

Claim: PA-529497: 530.0m
Comments: 33.9m W and 53.5m S to WP of #1 post of Pa-529497.
Purpose: TO INTERSECT C,T, AND WA ZONES

From (m)	To (m)	Geology
		Samples E12221-12300, E15301-15500, E47101-47114 inclusive.
		NOTE: All references to folding - both right and left limb folds - are looking down plunge of the deposit (ie. Northwest). For detailed structural data see attached STRIP LOG.
.0	9.1	OVERBURDEN
9.1	38.0	CHERT - MAGNETITE IRON FORMATION 4b - NORTHERN IRON FORMATION.

From (m)	To (m)	Geology
		Fine grained. Black and white banded. Strongly magnetic. Hardness of 7+. Composed of: 90 to 95% b-beds, and 5 to 10% e-beds. Well bedded with contorted bedding at various angles to the core axis. Beds are generally 3 mm to 2 cm in width. Bedding is locally boudinaged and brecciated. Thin wispy yellowish carbonate coating on chert bedding fragments. Texture similar to mineralized zone in 506-620 with VISIBLE GOLD. Abundant fractures at 60 dca (perpendicular to bedding). Drag-folding at 12.7 metres with axial plane at 45 dca. 9.1 18.1 Fault zone. Bedding is strongly faulted with 5-10 cm bedded fragments. Moderate silicification locally with associated pyrrhotite mineralization. Weak to moderate carbonate altération throughout. Trace to 1% pyrrhotite generally, locally concentrated to 15% over 10 cm. Trace fine grained ARSENOPYRITE. > 1% QUARTZ-VEINs sub- parallel to bedding. Lower contact is gradual at 45 dca. 9.1 9.7 4b,ftz, 1% pyrite, trace to 1% ARSENOPYRITE, moderate pervasive silicification. 9.7 10.7 4b,ftz, 1% pyrite, trace to 1% ARSENOPYRITE, moderate pervasive silicification, weak carbonatization. 10.7 11.7 4b,ftz, 20 cm quartz chlorite vein with minor pyrite at 55 dca, alteration as above. 11.7 12.7 4b,ftz, trace pyrite, moderate pervasive silicification, weak carbonatization. 12.7 13.7 4b,ftz, trace pyrite, moderate pervasive silicification, weak carbonatization. 13.7 14.7 4b,ftz, trace pyrite, semi-massive pyrrhotite over 15 cm, 20 cm q-po vein, strong silicification, weak carbonatization. 14.7 15.7 4b,ftz, trace pyrite, moderate silicification, moderate carbonatization, minor chlorite. 15.7 16.9 4b,ftz, moderate carbonatization, weak silicification. 16.9 18.1 4b,ftz, trace pyrite, ARSENOPYRITE, 15 cm semi-massive pyrrhotite, moderate carbonatization, weak silicification, 5% quartz-carbonate veins. 18.1 19.0 4b, moderate carbonate alteration, weak silicification, well bedded, pyrrhotite as fine grained disseminated in chlorite garnet beds. 19.0 20.0 4b, moderate carbonate alteration, weak silicification, chert beds are brecciated and boudinaged, fragments with carbonate coating 20.0 21.0 4b, moderate carbonate alteration, weak silicification, chert beds are brecciated and boudinaged, fragments with carbonate coating 23.0 25.5 Bedding at very low angles to ca. CHECK SAMPLES:. E12230 DUPLICATE OF E12229 0.51. 29.0 30.0 4b. 30.0 31.0 4b, moderate carbonate alteration, weak pervasive silicification, minor chlorite. 31.0 32.0 4b, moderate carbonate alteration, weak pervasive silicification, brecciated and boudinaged chert beds. 32.0 33.0 4b, moderate carbonate alteration, weak pervasive silicification, brecciated and boudinaged chert beds. 33.0 34.0 4b, trace ARSENOPYRITE, moderate carbonate alteration, weak pervasive silicification, brecciated and boudinaged chert beds, 10% quartz-carbonate vein. 34.0 35.0 4b, trace ARSENOPYRITE, moderate carbonate alteration, weak pervasive silicification, 10% quartz veining, 2% quartz-carbonate veins. 35.0 36.0 4b, trace pyrite, weak pervasive silicification, moderate carbonate alteration, brecciated bedding. 36.0 37.0 4b, trace pyrite along fracture-filling carbonate stringers, weak pervasive silicification, 2% carbonate stringers. 37.0 38.0 4b, weak pervasive silicification, 2% carbonate stringers.
38.0	45.1	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Fine grained. Black, and grey banded. Strongly magnetic. Consists of: 70-75% b-beds and 25-30% e-beds. Well bedded and locally finely laminated. Chert beds are often boudinaged. Fractures are commonly parallel to bedding. Rare fractures perpendicular to bedding are present.

From (m)	To (m)	Geology
		Fold with axial plane at 55 dca at 42.3 metres. 1-2% Quartz-carbonate veins throughout. Rare quartz pyrrhotite chlorite veins up to 5 cm wide with VISIBLE GOLD. 58 Specks VISIBLE GOLD, trace to 1% pyrrhotite. Lower contact is sharp at 45 dca. CHECK SAMPLES:. E12243 STANDARD II 7.85. E12244 BLANK 0.24. E12250 DUPLICATE OF E12249 0.07. 38.0 39.0 4be, 5% quartz flooding, minor boudinaged beds, 3% carbonate stringers. 39.0 40.0 4be, 10% quartz flooding, 2% quartz veining, 1% quartz-carbonate veins. 40.0 41.0 85% pure 4b, minor boudinaged chert beds, 1% quartz-carbonate stringers. 41.0 42.0 4be, 57 specks VISIBLE GOLD in two 5 cm q-po veins, trace pyrite, minor chlorite. 42.0 43.0 4be, 1 speck VISIBLE GOLD in a q-po-chl vein, 1% quartz-carbonate veins. 43.0 44.0 4be, minor carbonate stringers. 44.0 45.1 4be, very weak grunerite alteration.
45.1	55.6	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained. Light green and grey. Locally weakly to moderately magnetic. Consists of: 85% ea-beds,10% b-beds and 5% f-beds. Well bedded on cm scale. M-type folds are common with axial planes at 60 dca. Moderate grunerite alteration. 5 to 20% quartz flooding. 43 Specks VISIBLE GOLD, trace to 3% pyrrhotite. Trace ARSENOPYRITE. Trace chalcopyrite. Lower contact is sharp at 40 dca. 45.1 46.0 4ea, 5% quartz flooding, moderate grunerite alteration, 20% f-beds. 46.0 47.0 4ea, 5% quartz flooding, moderate grunerite alteration, 1% carbonate stringers, axial plane at 60 dca. 47.0 48.0 4ea, trace fine grained pyrite, 5% quartz flooding, 10% quartz veining, moderate grunerite alteration, weak carbonate alteration. 48.0 49.0 4ea, 1 speck VISIBLE GOLD, trace pyrite, 10% quartz flooding, 2% quartz veining, moderate grunerite. 49.0 50.0 4ea, 10 specks VISIBLE GOLD, trace ARSENOPYRITE, 5% quartz veining, 10% quartz flooding, moderate grunerite. 50.0 51.0 4ea, 31 specks VISIBLE GOLD, trace ARSENOPYRITE, 20% quartz flooding, moderate grunerite, minor chl-ser. 51.0 52.0 4ea, trace ARSENOPYRITE, trace chalcopyrite, 5% quartz flooding, 5% quartz-carbonate veins, 10% quartz veins, moderate grunerite, minor chlorite. 52.0 53.0 4ea, 1 speck VISIBLE GOLD, trace ARSENOPYRITE, minor chlorite sericite, 2% quartz veining, 3% quartz flooding, moderate grunerite. 53.0 54.0 4ea, 10% BVOL, 3% quartz flooding, very weak grunerite. 54.0 55.0 4ea, trace ARSENOPYRITE, 10% quartz veining, minor chlorite, weak grunerite. 55.0 55.6 4ea, moderate grunerite, 1% quartz-carbonate veins.
55.6	57.5	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Fine to medium grained. Black and grey. Strongly magnetic. Consists of: 60% b-beds and 40% e-beds. Well bedded on mm to cm scale at 40 dca. Fractures are generally parallel to bedding. Rare fractures are perpendicular to bedding. Very weak to no grunerite alteration. Trace QUARTZ-VEINs and quartz-carbonate veins are parallel to bedding. Lower contact is gradual at 40 dca.

From (m)	To (m)	Geology
		CHECK SAMPLES:. E12263 STANDARD I 8.02 8.16 NS. E12264 BLANK 0.10. 55.6 56.5 4be, 1% quartz veining, very weak grunerite. 56.5 57.5 4be, 1% quartz-carbonate stringers, very weak grunerite alteration.
57.5	69.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Similar to above. Generally well bedded at 40 to 60 dca. 13 Specks VISIBLE GOLD. Trace to 3% pyrrhotite. Trace ARSENOPYRITE, pyrite, and chalcopyrite. Moderate grunerite alteration. 2 to 5% quartz flooding. Rare quartz chlorite sericite veins. Lower contact is gradual at approximately 45 dca. CHECK SAMPLES:. E12270 DUPLICATE OF E12269 0.75. 57.5 59.0 4ea, weak to moderate grunerite alteration, minor carbonate stringers. 59.0 60.0 4ea, 12 specks VISIBLE GOLD, trace ARSENOPYRITE, 10% q-chl-ser vein, 1% quartz-carbonate stringers, moderate grunerite. 60.0 61.0 4ea, trace chalcopyrite, 4% quartz flooding, 2% quartz-carbonate veins, moderate grunerite alteration. 61.0 62.0 4ea, trace chalcopyrite, 10 cm q-chl vein, 5% quartz flooding, moderate grunerite, trace carbonate stringers. 62.0 63.0 4ea, 1% very fine grained disseminated pyrite, trace chalcopyrite, trace ARSENOPYRITE, 35% quartz flooding, minor chl-ser, moderate grunerite. 63.0 64.0 4ea, trace fine grained pyrite, 5% quartz flooding, weak grunerite alteration. 64.0 65.0 4ea, 1 speck VISIBLE GOLD, 1% very fine grained disseminated pyrite, 10% quartz flooding, weak grunerite alteration. 65.0 66.0 4ea, trace pyrite, 5% quartz flooding, moderate grunerite alteration. 66.0 67.0 4ea, 2% quartz flooding with trace pyrite, moderate grunerite alteration. 67.0 68.0 4ea, 3% quartz flooding with trace pyrite, moderate grunerite alteration, 1% quartz-carbonate stringers. 68.0 69.0 4ea/4f, 90% biotite garnet rich beds, 10% grunerite altered beds, 3% quartz flooding, trace pyrite.
69.0	79.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE / CHERT-MAGNETITE I.F. 4eab. Fine to medium grained. Black, grey, green and pink mottled. Moderately to strongly magnetic. Hardness of 7+. Consists of 80% gruneritized beds and 20% magnetite rich b-beds. Well developed bedding at 45 dca. Minor folds with axial planes at 35 dca. Weak to moderate grunerite alteration. 2 to 10% quartz flooding. Minor quartz-carbonate stringers parallel to bedding. Trace to 2% pyrrhotite. Trace pyrite. Trace ARSENOPYRITE. Lower contact is gradual at approximately 35 dca. CHECK SAMPLES:. E12281 STANDARD II 9.91 10.32 NS. E12282 BLANK 0.14. E12290 DUPLICATE OF E12289 0.17.

From (m)	To (m)	Geology
		69.0 70.0 4eab, moderate grunerite, 3% quartz-carbonate stringers. 70.0 71.0 4eab, trace pyrite, moderate grunerite, 5% quartz flooding, 2% quartz-carbonate stringers. 71.0 72.0 4eab, moderate grunerite alter, trace quartz-carbonate stringers. 72.0 73.0 4eab, 7% quartz flooding, moderate grunerite alteration, 1% carbonate stringers. 73.0 74.0 4eab, trace ARSENOPYRITE, 10% quartz flooding, moderate grunerite alteration, 5% quartz-carbonate stringers. 74.0 75.0 4eab, trace ARSENOPYRITE, 10% quartz flooding, moderate grunerite, 3% quartz-carbonate stringers. 75.0 76.0 4eab, 10% quartz flooding, moderate grunerite alteration, 1% quartz-carbonate stringers. 76.0 77.0 4eab, weak grunerite alteration, weak carbonatization. 77.0 78.0 4eab, weak grunerite alteration, weak pervasive silicification, weak carbonate alteration. 78.0 79.0 4be, weak pervasive silicification, moderate carbonatization, folded with axial plane at 30 dca.
79.0	92.6	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Fine to medium grained. Grey, green and yellowish bands with pink garnets. Strongly magnetic. Hardness of 7+. Consists of 70% b-beds and 30% e-beds. Moderately well developed bedding at various angles to the core axis. Locally finely laminated. Minor folds with axial planes at 35-45 dca. Weak pervasive silicification throughout with thin bands of yellowish carbonate within chert beds. Weak grunerite alteration locally. Trace to 1% pyrrhotite. Trace pyrite locally. Ground core at lower contact of altered stratigraphy. Contact at approximately 65 dca. 79.0 80.0 4be, weak silicification, moderate carbonatization, weak grunerite alteration. 80.0 81.0 4be, trace pyrite, weak silicification, moderate carbonatization, weak grunerite. 85.0 86.0 4be, weak grunerite, 2% quartz veining, 2% carbonate stringers. 88.0 89.0 4be, 2% quartz flooding, 2% carbonate veins. 91.0 92.0 4be, 5% quartz flooding.
92.6	136.7	CHERT - MAGNETITE IRON FORMATION 4b. Typical 4b. Fine grained. Black and grey. Strongly magnetic. Contains 90% b-beds and 10% e-beds. Locally folded to m-type folds with axial planes at 50-65 dca. Fractures are generally parallel to bedding or perpendicular to bedding. 95.0 96.0 4be, 3% quartz flooding. 100.0 101.0 4b, unaltered, unmineralized. 102.0 103.0 4be, 10% quartz veining, 2% quartz-carbonate stringers. 103.0 136.7 Minor VISIBLE GOLD locally. Trace to 1% pyrrhotite. Trace to 2% ARSENOPYRITE. Trace to 1% pyrite. Up to 30% quartz flooding. Trace to 60% quartz veining. Minor sericite. Minor chlorite. Weak to strong carbonatization. Weak pervasive silicification. 103.0 104.0 4b, trace ARSENOPYRITE, trace pyrite, 20% quartz flooding, 15% quartz veining, minor chl-ser, weak carbonate alteration. 104.0 105.0 4b, trace ARSENOPYRITE, trace pyrite, 10% quartz veining, 2% quartz flooding, weak carbonatization. 105.0 106.0 4b, 11 specks VISIBLE GOLD, trace ARSENOPYRITE, 40% quartz flooding, 10% quartz veining, minor chlorite and sericite, weak carbonatization. 106.0 107.0 4b, trace ARSENOPYRITE, trace pyrite, 40% quartz flooding, 3% quartz veining, 1% carbonate stringers, minor chlorite and sericite. 107.0 108.0 4b, trace ARSENOPYRITE, trace pyrite, 20% quartz flooding, 10% q-chl-ser veins, minor carbonate stringers. 108.0 109.0 4b, trace ARSENOPYRITE, 3% quartz flooding, 5% quartz veining, 2% quartz-carbonate stringers. 109.0 110.0 4b, trace ARSENOPYRITE, 5% quartz flooding, 3% quartz-carbonate stringers. 110.0 Minor microfaults at 10 dca. Bedding offset on a mm-scale.

From (m)	To (m)	Geology
		110.0 111.0 4b, trace ARSENOPYRITE, trace fine grained disseminated pyrite, 15% quartz flooding, 5% carbonatization. 111.0 112.0 4b, trace ARSENOPYRITE, trace chalcopyrite, 80% quartz flooding, minor chlorite and sericite, 5% carbonate stringers. 112.0 113.0 4b, trace ARSENOPYRITE, 20% quartz flooding, 30% e-beds. 113.0 114.0 4b, trace ARSENOPYRITE, trace pyrite, 35% quartz flooding, weak grunerite, 3% carbonate stringers. 114.0 115.0 4b, trace ARSENOPYRITE, trace pyrite, 30% f-beds, 15% boudinaged quartz flooded chert beds, minor sericite, weak carbonatization 115.0 116.0 4f, 1% chalcopyrite, trace ARSENOPYRITE, trace pyrite, 20% quartz veining. 116.0 117.4 4bf, trace chalcopyrite, trace ARSENOPYRITE, 10% quartz veining, minor carbonatization. 117.4 118.0 4b, 1% fine grained disseminated pyrite, moderate pervasive silicification, 2 to 3% sericite, moderate carbonatization. 118.0 119.0 4b, 1% fine grained disseminated pyrite, moderate pervasive silicification, 20% quartz veining, moderate carbonatization, minor sericite. 119.0 120.0 4b, magnetite rich, 20% quartz veining, 2% sericite. 120.0 121.0 4b, magnetite rich, weak pervasive silicification, weak carbonatization. 121.0 122.0 4b, 15% quartz veining, strong pervasive carbonatization. 122.0 123.0 4b, trace ARSENOPYRITE, pyrrhotite as 1 cm stringers, brecciated chert beds, strong carbonatization, 10% quartz veining. 123.0 124.0 4b, trace ARSENOPYRITE, fine grained disseminated pyrrhotite and 1 to 3 mm stringers, moderate carbonatization, 5% quartz flooding. 124.0 125.0 4b, trace ARSENOPYRITE, moderate carbonatization, bedding runs down core axis with minor folds at 30 dca. 125.0 126.0 4b, moderate carbonatization, 10% 4f, folds at 35 dca, bedding is brecciated locally. 126.0 127.0 4b, trace ARSENOPYRITE, moderate carbonatization, brecciated and rotated chert beds. 127.0 128.0 4b, trace ARSENOPYRITE, moderate carbonatization, tightly folded and brecciated chert beds. 128.0 129.0 4b, trace ARSENOPYRITE, moderate carbonatization, weak pervasive silicification, 5% sericite, 2% quartz veining. 129.0 130.0 4b, trace ARSENOPYRITE, weak pervasive silicification, 3% carbonate stringers, 2% quartz veining. 130.0 131.0 Qv in 4b, 60 cm q-chl vein with trace ARSENOPYRITE, pyrite at 50 dca, altered 4b as above. 131.0 132.0 4b, trace ARSENOPYRITE, weak pervasive silicification, 20% quartz veining, moderate carbonatization. 132.0 133.0 4b, trace ARSENOPYRITE, moderate carbonatization, weak pervasive silicification, 30% quartz flooding. 133.0 135.7 3 to 10% pyrrhotite and 1 to 2% ARSENOPYRITE as semi-massive to massive stringers. Texturally very similar to replacement-type massive sulphides. CHECK SAMPLES:. E15302 STANDARD I 7.51 7.82 NS. E15303 BLANK 0.17. E15310 DUPLICATE OF E15309 0.10. E15319 STANDARD I 7.51 7.61 NS. E15320 BLANK 0.17. E15330 DUPLICATE OF 315329 0.14. 133.0 134.0 4b, 2% ARSENOPYRITE, trace pyrite, moderate pervasive silicification, moderate carbonatization. 134.0 135.0 4b, 1% ARSENOPYRITE, moderate carbonatization, weak pervasive silicification, minor sericite. 135.0 135.8 4b, trace ARSENOPYRITE, strong carbonatization, 10% q-chl veins, minor chlorite. 135.8 136.7 4b, well bedded, strong banded carbonatization, weakly boudinaged beds.
136.7	142.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical BVOL. Fine grained. Grey-green. Non-magnetic. Hardness of 6. Massive, aphyric textured. Well foliated at 45 dca. Weak chlorite and phlogopite alteration. Trace to 2% carbonate stringers parallel to foliation. Unmineralized.

From (m)	To (m)	Geology
		Lower contact is sharp at 60 dca.
142.9	163.9	CHERT - MAGNETITE IRON FORMATION 4b. Similar to above. Green, black and grey banded. Strongly magnetic. Hardness 7+. Consists of 95;100% b-beds and up to 5% e-beds. Well bedded at 50 to 60 dca. Bedding is weakly to moderately boudinaged with rotated fragments. Core is generally massive with few fractures parallel to or perpendicular to bedding. Folded sections are very rare with axial planes at 55 dca. Alteration consists of weak pervasive silicification, moderate pervasive carbonatization (sometimes coatings on chert fragments), very weak grunerite locally, up to 5% garnets, and 20 to 40% quartz flooding. Lower contact is sharp at 25 dca. 150.2 to 153.2 Mineralized section with 3 to 15% pyrrhotite, trace to 1% ARSENOPYRITE, and trace pyrite. 40% quartz flooding. Quartz is very SMOKEY blue and very fine grained to SUGARY. Minor chlorite and sericite. Weak carbonatization locally. Rare 5 cm quartz - chlorite - sericite - pyrrhotite veins. 142.9 144.0 4b, trace ARSENOPYRITE, weak pervasive silicification (qf), moderate carbonatization, minor sericite. 144.0 145.0 4b, trace ARSENOPYRITE, moderate carbonatization, minor sericite, 10 cm QUARTZ-VEIN. 145.0 146.0 4b, moderate carbonatization as coating on boudinaged fragments, minor sericite. 146.0 147.0 4b, moderate carbonatization as coating on boudinaged fragments, 5% e-beds, minor sericite. 147.0 148.0 4b, trace ARSENOPYRITE, moderate carbonatization, boudinaged chert fragments. 148.0 149.0 4b, trace ARSENOPYRITE, moderate carbonatization, boudinaged chert fragments. 149.0 150.2 4b, 20 cm q-chl-po vein, weak to moderate carbonatization. 150.2 151.0 4b, 70 specks VISIBLE GOLD, trace to 1% ARSENOPYRITE, 10 cm q-ser-chl vein, 40% quartz flooding, weak carbonatization. 151.0 152.0 4b, 51 specks VISIBLE GOLD, trace to 1% ARSENOPYRITE, 10% 5 cm QUARTZ-VEINs, 40% quartz flooding, weak carbonatization. 152.0 153.2 4b, 141 specks VISIBLE GOLD, trace ARSENOPYRITE, trace pyrite, strong to intense silicification (80% quartz flooding) over 50 cm with VISIBLE GOLD, 70 cm 4be, 1% carbonate stringers, 2% chlorite, trace sericite. 153.2 154.0 4b, 10% e-beds, trace to 1% carbonate stringers. 154.0 155.0 4b, 5% e-beds, trace carbonate stringers, very weak carbonatization. 158.4 163.9 Weak grunerite alteration. CHECK SAMPLES:. E15340 STANDARD I 7.30 7.99 NS. E15341 BLANK 0.38. E15350 DUPLICATE 83.42. 160.0 161.0 4b, very weak grunerite, 25 cm q-ser-chl vein, 20% quartz flooding, minor carbonate stringers. 161.0 162.0 4b, very weak grunerite, 20% quartz flooding, minor carbonate stringers. 162.0 163.0 4b. 10% quartz stringers parallel to bedding.
163.9	193.7	INTERMEDIATE TO MAFIC VOLCANICS WITH GARNETIFEROUS BASALT AND MINOR IRON FORMATION BVOL with GTB and minor 2-4be. 50% BVOL, 50% GTB. Fine grained, green-grey, locally brown. Non-magnetic. Moderately soft. Well foliated at 55 dca. BVOL is aphyric. The predominant fracture set is parallel to foliation. Moderate biotite, chlorite, sericite alteration is banded sub- parallel to foliation. Trace to 2 % quartz - carbonate stringers.2-10 cm wide locally.

From (m)	To (m)	Geology
		Lower contact is sharp at 45 dca. 163.9 164.5 Moderate to strong biotite alteration, 10% garnets, >1% qs. Lower contact is gradual over 30 cm. 167.0 167.5 Weak grunerite alteration, 10% quartz flooding, 1% pyrrhotite. Bedding at 45 dca. 167.5 168.8 Intermediate tuff. Moderate sericite alteration. Well foliated at 50 dca. Lower contact is gradual. 175.0 175.6 50% quartz flooding, 3% pyrrhotite, trace chalcopyrite, moderate grunerite alteration. 175.6 176.2 5% 2 to 5 mm garnets in biotite rich matrix. 179.0 180.6 3% quartz veins parallel to foliation, 15% 2 to 10 mm garnet porphyroblasts in biotite rich matrix. 184.0 193.0 Fine grained green or brown matrix with 5 to 25% 2 to 10 mm garnets. 193.0 193.7 Moderately to strongly magnetic, 20% chert beds, 2 cm seam of pyrrhotite at the contact.
193.7	200.5	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Probable bedded felsic crystal-ash tuffs. Fine grained. Light grey. Non-magnetic. Trace to 3 % 1 to 2 mm quartz blebs locally and 1 to 5 % feldspar phenocrysts. Well bedded or flow banded, finely laminated at 35 to 45 dca. Predominant fractures parallel to bedding. Weak to moderate sericite alteration (8 to 10%). Minor biotite alteration (3-5%). Sericite alteration typically occurs in 0.5-2cm wide bands parallel to foliation. Minor bleached hairline fractures locally. Local potassic staining. Trace to 1% fracture-filling pyrrhotite and pyrite throughout, locally concentrated to 5% over 5 cm. Less than 1% quartz and quartz-calcite veins. Veins are generally 0.3 to 2 cm wide and are oriented parallel to foliation. Lower contact is sharp at 55 dca. 194.3 194.4 60% pyrrhotite as stringers near 5 cm QUARTZ-VEIN.
200.5	202.9	INTERMEDIATE TO MAFIC VOLCANICS AND INTRAFORMATIONAL IRON FORMATION BVOL and 2-4be. Typical BVOL. Strong biotite alteration with 3% carbonate stringers parallel to foliation at 40 dca. 200.5 200.9. Locally weakly to moderately magnetic, 10% quartz flooding, 1% pyrrhotite concentrated at the contact. Contacts are sharp at 55 dca. 20% garnet.
202.9	204.7	INTRAFORMATIONAL IRON FORMATION 2-4e. Upper contact is approximately due to blocky core at 202.7 202.9. Consists of: 95% e-beds and 5% f-beds. 5% garnets throughout from 2 to 20 mm. 30% Quartz flooding. 3% quartz-carbonate stringers. 3% chlorite. 2% pyrrhotite. Magnetic susceptibility ranges from 0.9 to 3.12. Lower contact is sharp at 45 dca. 202.9 203.7 2-4e, 30% quartz flooding, minor chlorite, 3% carbonate stringers. 203.7 204.7 2-4e, 30% quartz flooding, minor chlorite, 3% carbonate stringers, 10 cm QUARTZ-VEIN.
204.7	282.7	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Similar to above. Probable bedded felsic crystal-ash tuffs. Fine grained. Light grey. Non-magnetic. Trace 1 to 2 mm quartz blebs locally and 1 to 5% feldspar phenocrysts. Minor tourmaline crystals locally. Trace 1 to 3 mm garnet porphyroblasts are present locally.

From (m)	To (m)	Geology
		Well bedded or flow banded, finely laminated at 55 dca. Predominant fractures parallel to bedding. Weak to moderate sericite alteration (8 to 10%). Minor biotite alteration (3-5%). Sericite alteration typically occurs in 0.5-2cm wide bands parallel to foliation. Minor bleached hairline fractures locally. Local potassic staining. Trace to 1% fracture-filling pyrrhotite and pyrite throughout. Minor molybdenite on fractures. Less than 1% quartz and quartz-calcite veins. Veins are generally 0.3 to 2 cm wide and are oriented parallel to foliation. Lower contact is sharp at 60 dca. 211.2 211.5 Intermediate dyke.' Medium grained, crystalline, massive, dyke with 70% feldspar 30% amphibole. Contact is sharp and chilled at 45 dca. 211.8 212.2 Blocky core. 212.2 212.4 20% quartz flooding, 2% pyrrhotite, minor chlorite, 3% garnet. 217.0 247.4 Felsic volcanics appear more massive and may be a flow. Very weak sericite alteration. Foliation and bedding are less well developed. 219.0 222.0 Blocky zone. 251.0 255.9 Trace pyrite along fractures. Moderate sericite alteration. 260.2 Moderate sericite alteration. 265.2 2% 1 to 2 mm blue quartz eyes. 266.5 Minor sedimentary component in the felsic tuffs as indicated by mineralogy: 5% garnet, 5-10% biotite and 10% chlorite. 5% quartz-carbonate stringers. Locally weakly magnetic.
282.7	284.2	INTRAFORMATIONAL IRON FORMATION 2-4f. Medium grained. Brown, green and pink mottled. Locally weakly magnetic. Contains 35% 2-15 mm garnet porphyroblasts in biotite rich matrix. 5% 0.5 to 5 cm beds with amphibole rich matrix. Poorly bedded at 65 dca. Minor carbonate and quartz-carbonate coating fractures. Fractures are generally parallel to bedding. Lower contact is sharp at 65 dca.
284.2	285.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Brown and green, locally blue grey. Locally weakly magnetic. Hard. Well foliated at 55 dca. Fractures are generally parallel to foliation. Blue grey areas are moderately silicified and contain minor phlogopite. Trace to 1% quartz-carbonate veins. Lower contact is gradual at approximately 65 dca.
285.5	287.9	INTRAFORMATIONAL IRON FORMATION 2-4f. Typical 2-4f as above. Lower contact is sharp at 60 dca. 285.5 286.4 GTB or 2-4f?: 5 to 40 cm garnet and biotite rich beds with 30% good BVOL. Contacts are gradual within the unit.
287.9	296.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL.

From (m)	To (m)	Geology
		Typical BVOL. Fine grained. Grey. Non-magnetic. Soft to moderately soft. Well foliated at 45 to 50 dca. Fractures are generally parallel to or perpendicular to foliation. Abundant quartz-carbonate healed fractures at various angles to the core axis from 291.5 292.4. Angular fragments are generally 0.5 to 1 cm. Minor chlorite. Blocky core from 292.2 to 292.4. 3 to 5% quartz-carbonate stringers throughout. Lower contact is sharp at 65 dca.
296.9	298.5	INTRAFORMATIONAL IRON FORMATION 2-4f. As above. Lower contact is sharp at 50 dca.
298.5	299.5	BRECCIA ZONE Breccia zone - marker horizon. Fine to coarse grained. Grey-green and brown. Locally weakly magnetic. Strongly foliated zone with 50% rounded fragments of QUARTZ-VEINs in a chlorite biotite rich matrix. Fragments are elongated sub - parallel to foliation, indicating stretching and rotation parallel to foliation. Trace pyrite. Lower contact is sharp at 40 dca.
299.5	311.3	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Grey. Aphyric. Poorly foliated at 55 to 65 dca. 1% Quartz-carbonate stringers parallel to foliation. Very weak phlogopite alteration locally. Lower contact is sharp at 35 dca. 307.3 310.3 Medium grained intermediate flow / tuff. Texture appears fragmental rather than medium gained flow textured. 310.3 311.3 Moderate to strong carbonate alteration.
311.3	312.9	INTRAFORMATIONAL IRON FORMATION 2-4f. 30% 2 To 15 mm pink garnet porphyroblasts in massive biotite rich matrix. Garnets are anhedral to euhedral. 2-4% Fine grained staurolite in the matrix. Trace pyrite. Lower contact is sharp at 35 dca.
312.9	335.8	INTERMEDIATE TO MAFIC VOLCANICS Similar to above. Intermediate composition. Fine grained. Light grey. Massive to weakly foliated at 30 to 55 dca. 1% Quartz-carbonate stringers parallel to foliation. Lower contact is sharp at 55 dca. 316.0 316.3. As above.

From (m)	To (m)	Geology
		324.5 325.0. 7% garnet in a BVOL matrix. 326.6 329.6 Strong phlogopite alteration. 5 to 10% carbonate stringers. 327.6 327.8 Strongly magnetic. Poorly bedded. Unmineralized. 331.0 335.3 Mafic composition. Green, fine grained massive BVOL. Trace chalcopyrite 335.2. 334.3 335.3 BVOL. 3% quartz-calcite stringers. 334.3 335.8 Gtb. 5% quartz-calcite stringers. 335.3 335.8 GTB green and brown banded biotite altered INTERMEDIATE TO MAFIC VOLCANICS with 5% garnet porphyroblasts and 5% quartz-carbonate flooding.
335.8	337.2	INTRAFORMATIONAL IRON FORMATION 2-4eaf. Fine to medium grained. Brown, green, and pink mottled. Locally weakly magnetic. Contains 70% ea-beds with 30% garnet porphyroblasts in grunerite rich matrix, 10% f-beds with 3% staurolite and 1% cordierite, and 20% strongly quartz flooded zones. Poorly to moderately bedded at 55 dca. 8 to 10% pyrrhotite. Trace ARSENOPYRITE. Trace chalcopyrite. Lower contact is sharp at 55 dca. Note: Sample E15359 checked July 18, 1993. Sample split from 335.8 to 337.2 metres. Sample interval changed from 335.8 to 336.4 in original log to 335.8 to 337.2 metres. 335.8 337.2 2-4eaf, trace chalcopyrite, trace ARSENOPYRITE, 20% quartz flooding, moderate grunerite alteration.
337.2	365.0	INTERMEDIATE TO MAFIC VOLCANICS WITH MINOR INTRAFORMATIONAL IRON FORMATION BVOL with minor 2-4ea. Typical BVOL with 10 to 50 cm beds of 24ea. Finely foliated / bedded at 45 dca. 3% Zones with strong biotite alteration and 10% carbonate stringers. < 1% quartz-carbonate stringers. 337.2 338.2 BVOL. 25% quartz-calcite stringers. 341.3 341.7 2 specks VISIBLE GOLD, 5% pyrrhotite, 40% quartz flooding, 5% chlorite, weak grunerite. 341.3 342.6 2-4ea and BVOL, 25% BVOL, 2 specks VISIBLE GOLD in IF, 30% quartz flooding, moderate grunerite. 342.0 342.6 2% pyrrhotite, 10% quartz veining, 5% quartz flooding, weak grunerite. 342.6 343.4 BVOL. 1% quartz-calcite stringers. 343.4 344.4 Zone of quartz veining. White, fine grained, sugary quartz with minor chlorite and phlogopite bands. 5% pyrrhotite over 10 cm at contacts. Contacts at 40 dca. 343.4 344.4 QV in BVOL, trace ARSENOPYRITE, sulphides at contacts, bands of phlogopite and chlorite. 344.4 345.4 BVOL. At 344.18 and 344.5 6 cms and 20 cms of metasediment with up to 50% quartz stringers, garnets and 5% pyrrhotite. 344.5 344.6 40% quartz flooding, 2% pyrrhotite. 345.0 345.2 20% quartz flooding, 1% pyrrhotite. 358.5 365.0 Moderate phlogopite alteration. 5% quartz-carbonate veining. 363.3 364.0 2% pyrrhotite, trace chalcopyrite, trace ARSENOPYRITE. 363.3 364.4 2-4ea, 35% phlogopite altered BVOL, trace ARSENOPYRITE, chalcopyrite, moderate grunerite, minor carbonate, axial plane at 65 dca 364.4 364.8 1% pyrrhotite, trace chalcopyrite, trace ARSENOPYRITE. CHECK SAMPLES:. E15362 STANDARD II 10.29 10.01 NS. E15363 BLANK 0.10. 364.4 365.0 2-4ea, 30% BVOL, trace ARSENOPYRITE, chalcopyrite, moderate grunerite, 2% quartz flooding, weak carbonate.

From (m)	To (m)	Geology
365.0	379.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea - S-zone. Fine to coarse grained. Green, grey and pink. Weakly magnetic. Hard. Contains 95% 1;3 cm ea-beds with 15% garnet porphyroblasts and 5% f-beds with 20% garnet porphyroblasts. Moderate grunerite alteration. 5 to 50% quartz flooding. Minor 1 to 3 cm carbonate stringers locally. Trace to 4% pyrrhotite as wispy stringers. Trace chalcopyrite blebs. Trace ARSENOPYRITE needles. Lower contact is sharp at 60 dca. CHECK SAMPLES:. E15370 DUPLICATE OF E15369 0.17. E15377 STANDARD II 9.81 9.53 NS. E15378 BLANK 0.07. 365.0 365.9 4ea, trace chalcopyrite, weak grunerite alteration, 5% quartz flooding, 2% carbonate stringers, minor chlorite. 365.9 367.0 4ea, trace chalcopyrite, moderate grunerite alteration, 25% quartz flooding, minor sericite and chlorite, 3% quartz veining. 367.0 368.0 4ea, trace ARSENOPYRITE, moderate grunerite alteration, 15% quartz flooding. 368.0 369.0 4ea, strong grunerite alteration, 5% quartz flooding, minor carbonate stringers. 369.0 370.0 4ea, moderate grunerite alter, 5% quartz flooding, minor carbonate stringers, minor chlorite, 2% quartz veining. 370.0 371.0 4ea, moderate grunerite alteration, 10% quartz flooding, trace carbonate stringers, 2% quartz veining. 371.0 372.0 4ea, moderate grunerite alteration, 35% quartz flooding, 5% quartz veining. 372.0 373.0 4ea, trace chalcopyrite stringers, moderate grunerite alteration, 50% quartz flooding, minor chlorite, minor ?tremolite. 373.0 374.0 4ea, trace ARSENOPYRITE, moderate grunerite alteration, 20% quartz flooding, 3% quartz veining, 5% e-beds. 374.0 375.0 4ea, trace pyrite, moderate grunerite alteration, 12% quartz flooding, trace carbonate stringers. 375.0 376.0 4ea, weak to moderate grunerite alteration, 10% quartz flooding. 376.0 377.0 4ea, weak to moderate grunerite alteration, 5% quartz flooding. 377.0 378.0 4ea, weak to moderate grunerite alteration, 15% quartz flooding, minor chlorite. 378.0 379.0 4ea, weak grunerite alteration, 15% quartz veining, 5% quartz flooding, 40% f-beds.
379.0	385.4	CHERT - MAGNETITE IRON FORMATION 4b - S-zone core. Fine grained. Black and grey banded. Strongly magnetic. Pure b-beds. Well developed bedding and thinly laminated at various angles to the core axis. Fractures are sub - parallel to bedding. Minor folds with axial planes at 40 to 45 dca. Unmineralized. Lower contact is sharp at 65 dca.
385.4	389.9	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be - S-zone core. Fine grained. Grey and green banded. Strongly magnetic. Contains 80% b-beds and 20% e-beds. Weak grunerite alteration increasing down hole to moderate. Trace to 5% quartz flooding. Lower contact is gradual over 4 metres at approximately 45 dca.
389.9	422.5	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea - S-zone. Fine to medium grained, grey, yellowish green and pink mottled. Locally weakly to strongly magnetic.

From (m)	To (m)	Geology
		Contains 85% 1 to 5 cm ea-beds with 50% 0.2-1.5 cm garnets in a grunerite rich matrix and 15% b-beds. Moderately well bedded at various angles to the core axis. Strongly folded sections with axial planes at 40 to 70 dca. Moderate to strong grunerite alteration. 5 to 40% quartz flooding. Minor chlorite locally. Trace to 8% pyrrhotite as 2 to 4 mm blebs, finely disseminated grains or fracture-filled stringers, typically 2 to 3mm in length.. Trace chalcopyrite associated with pyrrhotite blebs and as thin stringers. Trace to 1% ARSENOPYRITE needles. 2 to 20% quartz veining. Rare quartz-carbonate veins. Lower contact is sharp at 55 dca. CHECK SAMPLES:. E15390 DUPLICATE 0.41. E15398 STANDARD II 9.77 10.18 NS. E15399 BLANK 0.10. E15410 DUPLICATE OF E15409 7.06. 389.9 391.0 4ea, moderate grunerite alteration, 1% quartz veining, 2% quartz flooding. 391.0 392.0 4ea, moderate grunerite alteration, 3% quartz flooding, 5% quartz veining, 5% f-beds. 392.0 393.0 4ea, moderate grunerite alteration, 3% quartz flooding, 5% f-beds. 393.0 393.9 4ea, moderate grunerite alteration, 2% quartz flooding, minor chlorite. 393.9 395.0 4ea, trace ARSENOPYRITE, strong grunerite alteration, 18% quartz flooding. 395.0 396.0 4ea, strong grunerite alteration, 10% quartz flooding. 396.0 397.0 4ea, trace ARSENOPYRITE, 2% quartz veining, 5% quartz flooding. 397.0 398.0 4ea, 7 specks VISIBLE GOLD, trace ARSENOPYRITE, moderate grunerite alteration, 5% quartz veining, 3% quartz flooding. 398.0 399.0 4ea, trace chalcopyrite, strong grunerite alteration, 3% quartz flooding, 3% quartz-carbonate veining, minor chlorite. 399.0 400.0 4ea, trace ARSENOPYRITE, trace chalcopyrite, very fine grained pyrrhotite, strong grunerite alteration, 13% quartz veining, 5% quartz flooding. 400.0 401.0 4ea, trace ARSENOPYRITE, trace chalcopyrite, coarse grained pyrrhotite, strong grunerite alteration, 10% quartz flooding, 15% quartz veining. 401.0 402.0 4ea, trace chalcopyrite, strong grunerite alteration, 3% quartz flooding, 7% quartz veining, minor chlorite. 402.0 403.0 4ea, trace chalcopyrite, strong grunerite alteration, 10% quartz flooding, 10% quartz veining. 403.0 404.0 4ea, trace chalcopyrite, trace ARSENOPYRITE, strong grunerite alteration, 2% quartz flooding, 5% quartz veining. 404.0 405.0 4ea, moderate grunerite alteration, 5% quartz flooding. 405.0 406.0 4ea, moderate grunerite alteration, 4% quartz flooding. 406.0 407.0 4ea, moderate grunerite alteration, 3% quartz flooding. 407.0 408.0 4ea, moderate grunerite alteration, 1% quartz flooding, 2% quartz veining. 408.0 409.0 4ea, strong grunerite alteration, 20% quartz veining, 15% quartz flooding, minor chlorite. 409.0 410.0 4ea, strong grunerite alteration, 15% quartz flooding, minor chlorite. 410.0 411.0 4ea, very fine grained pyrrhotite, strong grunerite alteration, 5% quartz flooding, 5% quartz veining, minor chlorite. 411.0 412.0 4ea, very fine grained pyrrhotite, strong grunerite alteration, 70% quartz flooding. 412.0 412.7 4ea\BVOL, 20 cm of staurolite altered BVOL, moderate grunerite alteration, 5% quartz flooding. 412.7 413.7 4ea, 31 specks VISIBLE GOLD, trace ARSENOPYRITE, trace chalcopyrite, 30% quartz flooding, strong grunerite, 3% quartz veining. 413.7 415.0 4ea, strong grunerite alteration, 5% quartz flooding, 5% quartz veining. 415.0 416.0 4ea, trace ARSENOPYRITE, strong grunerite, 3% quartz veining, 2% quartz flooding. 416.0 417.0 4ea, 1% ARSENOPYRITE, strong grunerite alteration, 5% quartz veining, 20% quartz flooding. 417.0 418.0 4ea, strong grunerite alteration, 10% quartz flooding. 418.0 419.0 4ea, strong grunerite alteration, 20% quartz flooding. 419.0 419.8 4ea, trace ARSENOPYRITE, strong grunerite, 30% quartz flooding. 419.8 420.5 4f, 2% b-beds, 25% garnets. 420.5 421.5 4ea, trace ARSENOPYRITE, strong grunerite alteration, 2% quartz-carbonate stringers, 15% quartz flooding. 421.5 422.5 4ea, 1% ARSENOPYRITE, 25% quartz veining, 15% quartz flooding.

From (m)	To (m)	Geology
422.5	442.6	CHERT - MAGNETITE IRON FORMATION 4b. Typical unaltered chert-magnetite iron formation. Fine grained. Black and grey banded. Strongly magnetic. Hard. Composed of: 80 to 95% b-beds and 5 to 20% e-beds. Well bedded at 20 to 40 dca. Beds are generally 3 mm to 2 cm in width and locally thinly laminated. Predominant fracture set is sub- parallel to bedding. M-type folds occur at 412.0 to 417.0 metres with axial planes at 40 dca. Minor carbonate stringers parallel to axial planes. Trace to 7% pyrrhotite. Lower contact is sharp at 40 dca. 424.0 425.0 4b, 5% quartz flooding. 427.5 428.0 4b, unaltered. 428.0 430.1 Mineralized zone with 3% pyrrhotite, 60% quartz flooding, minor chlorite, and 7% garnet. 428.0 429.0 4b, 70% quartz flooding, minor chlorite, 3% garnets. 429.0 430.1 4b, 50% quartz flooding, minor chlorite, 10% garnets. 430.1 430.6 4b, unaltered. 436.6 437.1 4b, minor boudinaged bedding, 10% quartz flooding of chert beds. 437.1 440.3 Mineralized zone with 1 to 7% pyrrhotite, 20% quartz flooding, and weak grunerite alteration. CHECK SAMPLES:. E15420 STANDARD II 10.08 9.98 NS. E15421 BLANK 0.21. E15430 DUPLICATE OF E15429 0.34. 437.1 437.8 4b, 20% quartz flooding, weak grunerite alteration, 10% garnet. 437.8 439.1 4b, 2% quartz flooding. 439.1 440.3 4b, 20% quartz flooding.
442.6	445.1	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Fine grained. Grey and black banded. Strongly magnetic. Contains 70% b-beds and 30% e-beds with 5% garnet. Bedding is well developed and generally planar at 30 to 40 dca. Beds generally 0.5 1 cm wide and locally thinly laminated. Fractures are parallel to bedding. Unaltered to weak grunerite alteration. Very weak carbonate alteration locally. Several thin mineralized lenses with quartz flooding. Up to 5% pyrrhotite locally. Trace ARSENOPYRITE locally. 443.0 444.3 4be, trace ARSENOPYRITE, 10 cm QUARTZ-VEIN, 30% quartz flooding, very weak grunerite. 444.3 445.1 4be, 2 specks VISIBLE GOLD, trace ARSENOPYRITE, 20% quartz flooding, minor chlorite, very weak grunerite.
445.1	493.6	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Similar to above. Well bedded at 30 to 40 dca. Moderate to strong grunerite alteration. Local patches with minor carbonate alteration. 445.1 446.0 4ea, 10% quartz flooding, moderate grunerite alteration.

From (m)	To (m)	Geology
		446.0 447.3 4ea, 1% quartz veining, 5% quartz flooding, moderate grunerite alteration. 447.3 448.3 4ea, trace ARSENOPYRITE, 15% quartz flooding, 5% quartz veining, moderate grunerite. 448.3 449.3 4ea, weak grunerite alteration, weak wispy carbonate halos on chert beds. 449.3 450.0 4ea, 51 specks VISIBLE GOLD, trace ARSENOPYRITE, moderate grunerite alteration, 40% quartz veining, 10% quartz flooding. 450.0 451.0 4ea, 2 specks VISIBLE GOLD, trace ARSENOPYRITE, moderate grunerite, 12% quartz veining, 5% quartz flooding. 451.0 452.0 4ea, 7 specks VISIBLE GOLD, trace ARSENOPYRITE, moderate grunerite alteration, 60% quartz flooding. 452.0 453.0 4ea, 6 specks VISIBLE GOLD, trace ARSENOPYRITE, weak grunerite alteration, 10% quartz veining, 10% quartz flooding. 453.0 454.0 4ea, very weak grunerite, 1% quartz veining. 454.0 455.0 4ea, trace ARSENOPYRITE, moderate grunerite, 5% quartz veining, 10% quartz flooding. 455.0 456.0 4ea, 2% quartz flooding, moderate grunerite. 456.0 457.0 4ea, trace ARSENOPYRITE, moderate grunerite, 3% quartz veining, 5% quartz flooding. 457.0 458.0 4ea, 11 specks VISIBLE GOLD, trace ARSENOPYRITE, moderate grunerite, 5% quartz veining, 70% quartz flooding, minor quartz-carbonate stringers. 458.0 458.5 4ea, trace ARSENOPYRITE, moderate grunerite, 5% quartz veining, 80% quartz flooding, trace quartz-carbonate stringers. 458.5 459.5 4ea, moderate grunerite, 5% quartz veining, 2% quartz flooding. 459.5 460.5 50% BVOL, 50% 4ea, 10% quartz veining, 20% quartz flooding. 460.5 461.8 4ea, moderate grunerite, 5% quartz veining, 20% quartz flooding. 461.8 463.0 4ea, weak grunerite alteration, 7% quartz veining, 15% quartz flooding. 463.0 463.5 BVOL. 463.5 464.8 4ea, weak grunerite alteration, 50% quartz flooding, 15% quartz veining. 464.8 466.0 4ea, weak grunerite alteration, 1% quartz veining, 5% quartz flooding. 466.0 467.0 4ea, weak grunerite alteration, 5% quartz veining, 50% carbonate rich blocky FAULT ZONE. 466.6 467.0 Blocky core. 467.0 468.0 4ea, weak grunerite alteration, 5% quartz veining, 5% quartz flooding. 468.0 469.0 4ea, 4 specks VISIBLE GOLD, trace ARSENOPYRITE, 20% quartz veining, minor chlorite. 469.0 470.0 4ea, 14 specks VISIBLE GOLD, trace ARSENOPYRITE, moderate grunerite 10% quartz flooding, 5% quartz veining. 470.0 471.1 4ea, 1 speck VISIBLE GOLD, trace ARSENOPYRITE, moderate grunerite, 20% quartz flooding, 5% quartz veining. 471.1 472.0 4ea, trace ARSENOPYRITE, moderate grunerite, 15% quartz veining, 5% quartz flooding. 472.0 473.5 4ea, moderate grunerite, 10% quartz flooding, 10% BVOL. 473.5 474.1 4ea, 60 cm q-chl-ser-po-aspy vein. 474.1 475.0 4ea, moderate grunerite, 2% quartz-carbonate veining, 15% quartz flooding. 475.0 476.0 4ea, 4 specks VISIBLE GOLD, trace ARSENOPYRITE, moderate grunerite, 20% quartz flooding. 476.0 477.0 4ea, trace ARSENOPYRITE, moderate grunerite alteration, 20% quartz flooding. 477.0 477.8 4ea, moderate grunerite alteration, 30% quartz flooding. 477.8 479.0 BVOL/GTB, strongly foliated with 10% quartz flooding, moderate phlogopite alteration. 478.4 479.0 Fault indicated by strongly foliated BVOL with moderate phlogopite alteration, 10% quartz flooding, and slickensides on fractures. Foliation at 30 dca. CHECK SAMPLES:. E15442 STANDARD I 7.65 7.75 NS. E15443 BLANK 0.10. E15450 DUPLICATE OF E15449 12.93. E15458 STANDARD I 7.65 7.89 NS. E15459 BLANK 0.17. E15470 DUPLICATE OF E15469 7.61 7.85 NS. E15482 STANDARD I 7.89 7.95 NS. E15483 BLANK 0.10. 479.0 480.0 4ea, 1 speck VISIBLE GOLD, weak to moderate grunerite alteration, 1% quartz-carbonate stringers. 480.0 481.2 4ea, 25% BVOL, 30% quartz flooding, moderate grunerite alteration, 1% quartz-carbonate stringers.

From (m)	To (m)	Geology
		481.2 482.7 4ea, 75% BVOL, 2% quartz flooding, moderate grunerite alteration. 482.7 484.0 4ea, weak grunerite alteration, 20% quartz flooding, 2% quartz-carbonate stringers. 484.0 485.3 4ea, 40% GTB, 15% quartz veining, moderate grunerite alteration. 485.3 486.0 4ea, 10% quartz flooding, moderate grunerite alteration, minor chlorite. 486.0 487.0 4ea, moderate grunerite alteration, 5% quartz flooding. 487.0 488.0 4ea, moderate grunerite alteration, 10% quartz veining, 3% quartz flooding. 488.0 488.9 4ea, moderate grunerite alteration, 10% quartz flooding. 488.9 490.1 4ea, 32 specks VISIBLE GOLD, trace chalcopyrite, trace ARSENOPYRITE, 30% quartz flooding, 20% quartz veining, 3% chlorite stringers, minor sericite. 490.1 491.0 4be, unaltered. 491.0 492.5 4be, 10% quartz-carbonate veining, 15% quartz flooding. 492.6 493.6 4ea, weak to moderate grunerite alteration, 20% quartz flooding, 1% quartz-carbonate veining.
493.6	504.7	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Grey-green and brown. Non-magnetic. Moderately soft. Moderately foliated at 60 dca. Patchy alteration to phlogopite, chlorite, carbonate, and silicification with trace pyrite, pyrrhotite and chalcopyrite throughout. Chalcopyrite is observed on foliation planes within phlogopite - carbonate altered zones. Trace pyrite and pyrrhotite are associated with chlorite stringers in quartz-carbonate veins. 1% Quartz-carbonate stringers throughout. 495.7 496.0 White, milky, fine grained, quartz chlorite vein with trace pyrite and pyrrhotite. 495.7 496.2 QV in BVOL, trace pyrite, pyrrhotite, 1% chlorite fracture-filling. 496.2 497.3 BVOL, strong patchy phlogopite carbonate silicification alteration, trace chalcopyrite on foliation planes. 497.3 498.4 QV in BVOL, trace chalcopyrite, pyrite, pyrrhotite, 1% chlorite fracture-filling. 497.5 498.1 White, milky, fine grained, quartz chlorite vein with trace chalcopyrite, pyrite and pyrrhotite. Wall rock is strongly carbonate phlogopite altered. CHECK SAMPLES:. E15490 DUPLICATE OF E15489 0.17.
504.7	522.5	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea - West limb of the syncline. Similar to above. Moderately developed bedding at 45 dca. Minor 0.3 to 0.9 metre 4f beds locally. Moderate to strong grunerite alteration. 5 to 40% quartz flooding. Minor chlorite stringers locally and e-beds with strongly chloritized matrix. 2 Specks VISIBLE GOLD at 515.0 metres in quartz flooded sections. Trace to 2% pyrrhotite as fracture-filling stringers and blebs. Trace fine grained ARSENOPYRITE. Trace chalcopyrite blebs. Lower contact is sharp at 60 dca. 504.7 506.0 4ea, moderate grunerite alteration, 2% quartz veining, trace quartz-carbonate stringers, 40% quartz flooding. 506.0 507.0 4ea, weak grunerite alteration, 2% quartz-carbonate stringers, 5% quartz flooding, 40% 4f beds. 507.0 508.0 4ea, weak grunerite alteration, 30% 4f beds. 507.9 509.3 Blocky core. 508.0 509.0 4ea, trace ARSENOPYRITE, strong grunerite alteration, 20% f-beds, 5% quartz veining. 509.0 510.0 4ea, moderate to strong grunerite alteration, 10% quartz flooding, 1% quartz-carbonate stringers.

From (m)	To (m)	Geology
		510.0 511.0 4ea, trace ARSENOPYRITE, strong grunerite alteration, 15% quartz flooding, 2% quartz-carbonate stringers. 511.0 512.0 4ea, strong grunerite alteration, 10% f-beds, 10% quartz flooding. 512.0 513.0 4ea, strong grunerite alteration, 5% quartz flooding. 513.0 514.0 4ea, trace ARSENOPYRITE, strong grunerite alteration, 5% quartz flooding, 10% chlorite rich beds. 514.0 515.0 4ea, 2 specks VISIBLE GOLD, trace ARSENOPYRITE, strong grunerite alteration, 30% quartz flooding. 515.0 516.0 4ea, strong grunerite alteration, 15% quartz flooding, 2% carbonate stringers. 516.0 517.0 4ea, trace chalcopyrite, ARSENOPYRITE, moderate grunerite, 10% quartz-carbonate stringers. 517.0 518.0 4ea, strong grunerite, 10% quartz veining, minor chlorite. 518.0 518.9 4ea, strong grunerite, 10% quartz flooding. 518.9 522.5 Marked increase in alteration of matrix of e-beds to chlorite and biotite. Wispy halos of carbonate and grunerite on the chert beds. CHECK SAMPLES:. E47102 STANDARD I 7.06 7.44 NS. E47103 BLANK 0.17. E41110 DUPLICATE OE E47109 0.41. 518.9 520.0 4ea, trace ARSENOPYRITE, moderate grunerite alteration, 40% quartz flooding, 10% chlorite rich beds. 520.0 521.0 4ea, trace ARSENOPYRITE, weak to moderate grunerite, 20% quartz flooding, 2% carbonate as wispy halos on chert beds. 521.0 522.5 4ea, moderate grunerite, 5% quartz flooding, 1% quartz-carbonate stringers.
522.5	530.0	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. Fine to medium grained. Black and grey banded. Strongly magnetic. Contains 50% b-beds and 50% e-beds with strongly chloritized or biotite altered matrix and 10% garnet porphyroblasts. Well developed bedding on mm scale at 65 to 75 dca. Minor right limb folding locally with axial planes at 50 to 55 dca. Minor quartz flooding locally up to 2%. Very weak thin wispy carbonate grunerite halos on chert beds locally. Trace to nil sulphides. 525.0 526.0 4bf, 2% quartz flooding, minor carbonate. 527.0 528.1 4bf, very weak carbonate and grunerite coatings on chert beds.
530.0		END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples not taken because there was no return from the hole. DRILLING HISTORY:. 0.0 6.0 TRICONE bit sheared off at 6m. Had to move drill foreward 1m and recollar. 0.0 9.1 TRICONE bit. 9.4m NW casing. 9.1 530.0 MX10 bit, double hex core barrel. Hole cemented - 6.5 hours. 110 20kg bags of Type 50 cement. CASING PULLED. NOTE: 150.2 to 155.0m (E15349-E15354) shipped out to Dona Lake to be sawn. SURVEYING HISTORY.

From (m)	To (m)	Geology
		Gyroscopic Directional Survey by CBC Welnav, North Bay, Ontario used for Class 2 data. Survey time: 2.5 hours. Lightlog survey by PDI personnel (P. Lindsay). Survey time: 3 hours. Survey read by ????. DIP TESTS. 11 -61 ACID. 20 -60 ROTODIP. 40 -56.5 ROTODIP. 50 -57 ROTODIP. 56 -58 ACID. 62 -57 ROTODIP. 74 -56.5 ROTODIP. 86 -56 ROTODIP. 98 -56 ROTODIP. 110 -55.5 ROTODIP. 119 -55 ROTODIP. 131 -55 ROTODIP. 140 -55 ROTODIP. 149 -54 ROTODIP. 164 -53 ROTODIP. 182 -53 ROTODIP. 194 -53 ROTODIP. 218 -53 ROTODIP. 233 -51.5 ROTODIP. 245 -52 ROTODIP. 257 -52 ROTODIP. 278 -51.5 ROTODIP. 290 -51 ROTODIP. 305 -51 ROTODIP. 314 -51 ROTODIP. 323 -51 ROTODIP. 338 -52 ROTODIP. 350 -51 ROTODIP. 362 -51 ROTODIP. 374 -50 ROTODIP. 386 -49.5 ROTODIP. 398 -49 ROTODIP. 425 -48 ROTODIP. 464 -48 ROTODIP. 476 -47 ROTODIP. 488 -47 ROTODIP. 518 -46 ROTODIP. LIGHTLOG SURVEY. DEPTH AZIMUTH DIP. 0.00 228.00 -61.50. 3.05 228.60 -61.01. 6.10 228.80 -60.72.

From (m)	To (m)	Geology
		9.15 228.80 -60.72. 12.20 228.60 -60.62. 15.25 228.41 -60.53. 18.30 228.21 -60.43. 21.35 228.21 -60.43. 24.40 228.01 -60.43. 27.45 227.81 -60.33. 30.50 227.81 -60.33. 33.55 227.62 -60.23. 36.60 227.42 -60.14. 39.65 227.23 -60.04. 42.70 227.03 -59.94. 45.75 226.65 -59.75. 48.80 226.45 -59.45. 51.85 226.07 -59.16. 54.90 225.88 -59.06. 57.95 225.51 -58.87. 61.00 225.32 -58.77. 64.05 225.13 -58.67. 67.10 225.13 -58.58. 70.15 224.95 -58.28. 73.20 224.76 -58.19. 76.25 224.58 -57.99. 79.30 224.39 -57.89. 82.35 224.39 -57.80. 85.40 224.03 -57.50. 83.45 223.85 -57.21. 91.50 223.67 -57.21. 94.55 223.49 -57.21. 97.60 223.31 -57.21. 100.65 223.13 -57.21. 103.70 223.13 -57.11. 106.75 223.13 -56.92. 109.80 223.13 -56.72. 112.85 222.95 -56.72. 115.90 222.95 -56.63. 118.95 222.78 -56.53. 122.00 222.60 -56.43. 125.05 222.42 -56.43. 128.10 222.25 -56.24. 131.15 222.07 -55.94. 134.20 221.90 -55.75. 137.25 221.90 -55.65. 140.30 221.90 -55.55. 143.35 221.90 -55.55. 146.40 221.90 -55.46. 149.45 221.90 -55.36. 152.50 221.90 -55.26. 155.55 221.73 -55.26. 158.60 221.73 -55.26. 161.65 221.73 -55.16.

From (m)	To (m)	Geology
		164.70 221.73 -55.16. 167.75 221.73 -55.16. 170.80 221.73 -55.07. 173.85 221.73 -55.07. 176.90 221.73 -55.07. 179.95 221.56 -55.07. 183.00 221.56 -54.97. 186.05 221.56 -54.97. 189.10 221.56 -54.97. 192.15 221.56 -54.97. 195.20 221.39 -54.87. 198.25 221.39 -54.77. 201.30 221.39 -54.77. 204.35 221.39 -54.68. 207.40 221.39 -54.58. 210.45 221.22 -54.38. 213.50 221.06 -54.29. 216.55 220.89 -54.29. 219.60 220.89 -54.19. 222.65 220.72 -54.19. 225.70 220.72 -54.19. 228.75 220.72 -54.19. 231.80 220.72 -54.09. 234.85 220.72 -54.09. 237.90 220.72 -54.09. 240.95 220.72 -53.99. 244.00 220.72 -53.99. 247.05 220.72 -53.90. 250.10 220.72 -53.90. 253.15 220.72 -53.80. 256.20 220.72 -53.80. 259.25 220.56 -53.70. 262.30 220.56 -53.70. 265.35 220.39 -53.70. 268.40 220.39 -53.70. 271.45 220.39 -53.70. 274.50 220.39 -53.60. 277.55 220.23 -53.51. 280.60 220.23 -53.51. 283.65 220.23 -53.51. 286.70 220.23 -53.41. 289.75 220.07 -53.31. 292.80 219.74 -53.12. 295.85 219.58 -52.92. 298.90 219.42 -52.82. 301.95 219.26 -52.73. 305.00 219.10 -52.53. 308.05 218.94 -52.34. 311.10 218.78 -52.14. 314.15 218.78 -51.95. 317.20 218.78 -51.85.

From (m)	To (m)	Geology
		320.25 218.62 -51.75.
		323.30 218.62 -51.75.
		326.35 218.46 -51.65.
		329.40 218.46 -51.65.
		332.45 218.46 -51.56.
		335.50 218.31 -51.46.
		338.55 218.31 -51.36.
		341.60 218.31 -51.26.
		344.65 218.15 -51.17.
		347.70 218.15 -50.97.
		350.75 218.15 -50.97.
		353.80 218.15 -50.87.
		356.85 218.15 -50.68.
		359.90 218.00 -50.68.
		362.95 217.84 -50.58.
		366.00 217.84 -50.48.
		369.05 217.84 -50.39.
		372.10 217.84 -50.39.
		375.15 217.84 -50.39.
		378.20 217.84 -50.39.
		381.25 217.69 -50.29.
		384.30 217.84 -50.19.
		387.35 217.69 -50.09.
		390.40 217.69 -50.09.
		393.45 217.69 -49.90.
		396.50 217.54 -49.70.
		399.55 217.54 -49.41.
		402.60 217.54 -49.22.
		405.65 217.39 -49.02.
		408.70 217.24 -48.92.
		411.75 217.10 -48.83.
		414.80 216.95 -48.63.
		417.85 216.80 -48.44.
		420.90 216.65 -48.34.
		423.95 216.65 -48.24.
		427.00 216.65 -47.95.
		430.05 216.51 -47.85.
		433.10 216.36 -47.75.
		436.15 216.36 -47.66.
		439.20 216.22 -47.66.
		442.25 216.22 -47.56.
		445.30 216.08 -47.36.
		448.35 216.08 -47.27.
		451.40 215.93 -47.07.
		454.45 215.93 -46.97.
		457.50 215.93 -46.88.
		460.55 215.79 -46.58.
		463.60 215.79 -46.58.
		466.65 215.79 -46.39.
		469.70 215.79 -46.39.
		472.75 215.79 -46.39.

From (m)	To (m)	Geology
		475.80 215.79 -46.39. 478.85 215.79 -46.39. 481.90 215.79 -46.29. 484.95 215.79 -46.19. 488.00 215.79 -46.10. 491.05 215.79 -46.00.

DRILL HOLE RECORD

Northing: 10299.49
Easting: 9015.84
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -61.50

Hole Length: 500
Core Size: NQ
Date Started: MARCH 10, 1993
Logged by: T. TENNENT

*** Depth	Dip Tests Azi.	*** Dip
15.2	230.6	-62.0
30.5	229.5	-61.0
45.7	227.9	-62.0
61.0	226.9	-62.0
76.2	226.9	-61.5
91.4	227.5	-61.0
106.7	226.9	-60.0
121.9	226.9	-59.0
137.2	226.6	-59.0
152.4	226.6	-58.0
167.6	226.7	-59.0
182.9	224.9	-57.3
198.1	225.5	-57.0
213.4	226.2	-57.5
228.6	225.0	-56.5
243.8	224.5	-56.5
259.1	224.0	-57.0
274.3	224.6	-56.0
289.6	224.7	-56.5
304.8	227.1	-55.8
320.0	225.9	-56.0
335.3	225.3	-55.0
350.5	225.5	-56.0
365.7	227.3	-55.0
381.0	226.4	-55.8
396.2	227.6	-56.0
411.5	227.1	-56.0
426.7	225.1	-54.0
441.9	226.6	-55.0
457.2	225.9	-54.0
472.4	226.6	-54.0
480.0	225.8	-54.0

Drill Hole: 506-628

Northing: 10300N
Easting: 9007E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10300N
Completed: MARCH 19, 1993
Date(s) Logged: MARCH 12-20, 1993

Claim: PA 529497: 455.5m; PA 529500: 44.5m
Comments: 78.2m W AND 41.4m N TO WP of #1 post, CLAIM PA 529497
Purpose: TO TEST THE S,C,T AND WA ZONES

From (m)	To (m)	Geology
		NOTE: All references to folding - both right and left limb folds - are looking down the plunge of the deposit (i.e. Northwest).
.0	2.1	ICE AND WATER
2.1	15.7	OVERBURDEN 2.1 9.1 Muck. 9.1 12.2 Small boulders, till. 12.2 Hardpan.

From (m)	To (m)	Geology
		12.2 14.6 Boulders. 14.6 15.7 Broken bedrock.
15.7	20.6	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4BE. Fine grained. Moderately to strongly magnetic. 4b beds hard. 4e beds soft. 25% Medium grey chert beds. Non to moderately magnetic. 45% Dark grey to yellowish green 4b beds. Non to strongly gruneritized with up to 15% garnets. 25% Dark green 4e beds. 5% 1 mm garnets. 5% black 4f beds with 20% 1 mm garnets. Well bedded at 29 to 33 to dca. Beds from 2 mm to 3 cm wide. Dominant fracture set perpendicular to bedding at 47 dca. Minor set subparallel to bedding at 32 dca. Moderate to strong grunerite alteration. Minor biotite. Locally weakly calcareous. Nil to trace pyrrhotite. Rare barren white quartz stringer parallel to bedding. Lower contact gradual at 52 dca. 15.7 17.0 4be. Moderate grunerite. Bedding 29 dca. 19.0 20.0 Moderately broken core. 20.0 20.6 4be. Moderate grunerite. A 4 cm quartz stringer at 37 dca. Bedding 32 dca. At 20.50 axial plane 39 dca.
20.6	27.4	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. 30% Medium grey chert beds. 5 mm wide. 30% Dark grey to greenish-yellow 4b beds. Non to strongly gruneritized. 35% black 4f beds. 1 cm to 4 cm wide. 25% 1 mm garnets. 5% Dark green 4e beds. Unit moderately to strongly magnetic. Well bedded at 41 to 47 dca. Rare right limb fold looking down-plunge with axial plane at 12 dca. Dominant fracture set perpendicular to bedding at 62 dca. Minor fractures parallel at 40 dca. Overall weak grunerite alteration. Locally weakly calcareous. Trace pyrrhotite. Lower contact sharp at 38 dca. 22.2 Right limb folding looking down-plunge with axial plane at 12 dca. D77680 STANDARD II 10.22 10.25 NS. D77681 BLANK 0.21 NS NS. 24.0 25.0 4bf. Bedding 37 dca.
27.4	35.0	CHERT - MAGNETITE IRON FORMATION 4b. Very fine grained, black and white banded. Strongly magnetic. Hard. Beds finely laminated, 1 to 3 mm wide at 35 to 44 dca. Fractures perpendicular to bedding at 57 dca. Pervasive carbonatae alteration haloes around 4b beds. 1% Disseminated pyrrhotite. 3% 1 Cm boudinaged barren white quartz stringers parallel to bedding. Lower contact 41 dca. 27.4 28.0 4b. 28.0 29.0 4b. 2% quartz-calcite stringers. Bedding 40 dca.

From (m)	To (m)	Geology
		28.0 29.0 4b. 5% quartz stringers parallel to bedding at 35 dca. 30.0 31.0 Bedding 35 dca. Fractures perpendicular to bedding at 57 dca. 32.0 33.0 4b. 5% boudinaged quartz stringers. Bedding 44 dca.
35.0	40.0	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. 55% 4b Beds. 1 cm wide. Very weakly gruneritized. 30% 4f Beds. 5 mm to 1 cm wide. 15% to 25% 1 mm garnets. 15% Boudinaged quartz stringers and quartz flooding which may be replacing chert beds. Unit moderately to strongly magnetic. Bedding 35 to 44 dca. Very minor folding. Fractures perpendicular to bedding at 55 dca. Moderate carbonate alteration along and within 4b beds. Trace to 1% disseminated pyrrhotite. Lower contact at 40 dca. 35.0 36.0 4bf. 15% quartz stringers. Bedding 44 dca. 36.0 37.0 4bf. 15% quartz stringers. Bedding 40 dca. At 36.5 axial plane 26 dca. 37.0 38.0 4bf. 20% quartz stringers. Bedding 35 dca. 38.0 39.0 4bf. 15% quartz stringers. Bedding 38 dca. 39.0 40.0 4bf. 15% quartz stringers. Bedding 37 dca.
40.0	49.0	CHERT - MAGNETITE IRON FORMATION 4b. 80% 4b Beds. Very fine grained, black and white. Strongly magnetic. 20% Boudinaged quartz stringers. Beds 1 mm to 2 cm wide. From 40.00 to 46.00 bedding 43 to 49 dca. From 46.00 to 49.00 bedding 22 to 27 dca. Fractures parallel to bedding at 42 dca and perpendicular at 64 dca. Unit is strongly carbonatized. Trace to 4% disseminated pyrrhotite. Trace ARSENOPYRITE. Lower contact gradual. D77690 40.00 41.00 DUPLICATE 0.48 NS NS. 40.0 41.0 4b. Trace ARSENOPYRITE. 30% quartz stringers. Bedding 43 dca. 41.0 42.0 4b. 15% quartz stringers. Bedding 45 dca. 42.0 43.0 4b. 25% quartz stringers. Bedding 45 dca. 43.0 44.0 4b. 35% quartz veining. Bedding 49 dca. 44.0 45.0 4b. 12% quartz veining. Bedding 49 dca. 45.0 46.0 4b. Trace ARSENOPYRITE. 30% quartz flooding. Bedding 42 dca. 46.0 47.0 4b. Trace ARSENOPYRITE. 5% quartz stringers. Unit very finely folded. 47.0 48.0 4b. 1% ARSENOPYRITE. 5% quartz flooding. Unit very finely folded. 48.0 49.0 4b. 30% quartz veining. Trace ARSENOPYRITE. Bedding 27 dca.
49.0	54.3	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. 70% 4b Beds. 20% 4e Beds. 5% 4f Beds. 5% Quartz stringers. Unit strongly magnetic. Well bedded at 22 to 40 dca.

From (m)	To (m)	Geology
		Fractures perpendicular to bedding at 45 dca. Carbonatized along bedding planes. Up to 1% disseminated pyrrhotite. Lower contact 42 dca. D77700 STANDARD II 10.46 9.84 NS. D77701 BLANK 0.10 NS NS. 49.0 50.0 4be. 20% quartz flooding. Bedding 22 dca. 50.0 51.0 4be. 5% quartz flooding. Bedding 29 dca. 51.0 52.0 4be. Bedding 33 dca. 52.0 53.0 4be. Bedding 40 dca. 53.0 54.3 4be. Bedding 25 dca.
54.3	94.6	CHERT - MAGNETITE IRON FORMATION 4b. Similar to 40.00 to 49.00 metres. Strongly magnetic. Hard. Bedding finely LAMINATED at 0 to 30 dca. Minor small scale left limb folds with axial planes at 34 to 41 dca. From 58.00 to 84.00 metres bedding is disrupted, fractured and micro-faulted, offsetting bedding on a mm scale. Dominant fractures perpendicular to bedding at 42 to 63 dca. Minor fractures at 27 dca and subparallel to bedding at 15 dca. Unit strongly carbonatized with pale yellow calcite halos around 4b beds. Trace to 3% pyrrhotite. Trace ARSENOPYRITE. Up to 15% boudinaged quartz stringers and quartz veining which may be and/or replace chert beds. Lower contact gradual at 50 dca. D77710 57.00 58.00 DUPLICATE 0.41 0.45 NS. 54.3 55.0 4b. Bedding 26 dca. 55.0 56.0 4b. 15% quartz veining. Bedding 25 dca. 56.0 57.0 4b. 5% quartz veining. Trace ARSENOPYRITE. Bedding 22 dca. 57.0 58.0 4b. 5% quartz veining. Bedding 22 dca. 58.0 59.0 4b. 10% quartz veining. Silicified. Bedding 10 dca. Bedding disrupted. 59.0 60.0 4b. 10% quartz flooding. Silicified. Bedding brecciated and disrupted. 60.0 61.0 4b. 1% quartz stringers. Silicified. Bedding disrupted. 61.0 62.0 Blocky core. 61.0 62.0 4b. 10% quartz veining. Silicified. 62.0 63.0 4b. Bedding 0 dca. 66.0 67.0 4b. 67.0 68.0 4b. 5% quartz stringers. Bedding 20 dca. 68.0 79.0 Bedding disrupted, faulted and folded. D77721 STANDARD II 9.67 10.05 NS. D77722 BLANK 0.10 NS NS. D77742 STANDARD II 11.21 12.31 NS. D77743 BLANK 0.14 NS NS. 68.0 69.0 4b. 3% quartz stringers. Bedding disrupted and folded at 21 dca. Axial plane at 47 dca. 69.0 70.0 4b. 2% quartz flooding. Bedding 20 dca. Bedding disrupted. 70.0 71.0 4b. Trace ARSENOPYRITE. Bedding 10 dca. At 70.25 left limb folding with axial plane at 45 dca. Bedding disrupted and faulted. 71.0 72.0 4b. 2% quartz flooding. Bedding 15 dca. At 71.75 left limb folding with axial plane at 41 dca. Bedding micro-faulted. 72.0 73.0 4b. 5% quartz flooding. Trace ARSENOPYRITE. Bedding disrupted. Axial plane at 35 dca. 73.0 74.0 4b. 5% quartz flooding. Trace ARSENOPYRITE. Bedding disrupted. Bedding 21 dca. 74.0 75.0 4b. 15% quartz flooding. Bedding 23 dca. 75.0 76.0 4b. 5% quartz veining. Trace ARSENOPYRITE. Bedding 26 dca. 76.0 77.0 4b. 15% quartz flooding. Bedding 24 dca.

From (m)	To (m)	Geology
		77.0 78.0 4b. 78.0 79.0 4b. Bedding brecciated and disrupted. 79.0 80.0 4b. At 79.45 left limb folding with axial plane at 34 dca. 80.0 81.0 4b. Bedding 20 dca. 81.0 82.0 4b. Bedding 27 dca. Left limb folding with axial plane at 40 dca. 82.0 83.0 4b. Trace ARSENOPYRITE. Bedding 22 dca. 83.0 84.0 4b. Trace ARSENOPYRITE. Bedding disrupted and brecciated at 23 dca. 84.0 85.0 4b. 5% quartz veining. Bedding 30 dca. 85.0 86.0 4b. Bedding 19 dca. At 85.2 axial plane at 36 dca. 86.0 87.0 4b. Bedding 25 dca. 87.0 88.0 4b. 5% quartz veining. Bedding 30 dca. 88.0 89.0 4bf. 3% quartz veining. Bedding 30 dca. 89.0 90.0 4b. 3% quartz veining. Bedding 25 dca. 90.0 91.0 4b. 5% quartz veining. Bedding 30 dca. 91.0 92.0 4b. Bedding 27 dca. 92.0 93.0 4b. Bedding 26 dca. 93.0 94.0 4b. Bedding 35 dca. 94.0 94.6 4b. Bedding 36 dca. Beds locally faulted.
94.6	113.5	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. 75% 4b Beds. 5 mm to 1 cm. 20% 4e Beds. Up to 1 cm. 10% 1 mm garnets. 5% 4f Beds. 5% 2 mm garnets. Up to 2 cm. Unit moderately magnetic. Well bedded at 20 to 40 dca. Dominant fracture set perpendicular to bedding at 52 to 57 dca. Minor fractures parallel to bedding at 30 dca. From 104.00 to 109.00 metres strong grunerite alteration. Trace pyrrhotite. Lower contact sharp at 32 dca. D77750 95.00 96.00 DUPLICATE 0.24 NS NS. 94.6 96.0 4be. Bedding 28 dca. At 95.55 U shaped folds with axial plane at 35 dca. 96.0 97.0 4be. Bedding 30 dca. Folded and faulted. 97.0 98.0 4be. At 97.20 left limb folding with axial plane at 47 dca. Millimetre micro-shearing parallel to axial plane. 98.0 99.0 4be. Bedding 26 dca. Folded and sheared. 99.0 100.0 4be. Bedding 36 dca. At 99.45 left limb folding with axial plane at 45 dca. 100.0 101.0 4be. Bedding 30 dca. 101.0 102.0 4bf. Bedding 40 dca. Blocky core. 102.0 103.0 4bf. Bedding 37 dca. 103.0 104.0 4bf. Bedding 40 dca. Left limb folding with axial plane at 39 dca. 104.0 109.0 Strong grunerite alteration. D77761 STANDARD II 9.74 10.56 NS. D77762 BLANK 0.17 NS NS. 104.0 105.0 4bf. Strong grunerite. 5% quartz veining. Bedding 24 dca. 105.0 106.0 4bf. Strong grunerite. 5% quartz veining. Bedding 30 dca. Folding with axial plane at 50 dca. 106.0 107.0 4be. Strong grunerite. Folded. 107.0 108.0 4be. Strong grunerite. 25% quartz flooding. At 107.70 left limb folding with axial plane at 45 dca. 108.0 109.0 4be. Strong grunerite. 25% quartz flooding. Bedding 31 dca. 109.0 110.0 4be. 1% quartz veining. Bedding 34 dca. 110.0 111.0 4be. Bedding 31 dca.

From (m)	To (m)	Geology
		111.0 113.5 Bedding 40 dca. 112.5 Folding with axial plane at 60 dca.
113.5	115.5	GARNET-BIOTITE SCHIST 4f. Black and pink. 25% 1 mm garnets. Non-magnetic. Moderately soft. Foliation at 42 dca. Weakly calcareous. Fractures perpendicular to bedding at 60 dca and parallel at 40 dca. Barren. Lower contact sharp at 37 dca.
115.5	116.3	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Lower contact sharp at 36 dca.
116.3	117.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Hard. Weakly magnetic. Bedding 42 dca. 5% Disseminated pyrrhotite. 5% quartz veining. Lower contact sharp at 47 dca. 116.4 117.0 4ea. 5% quartz stringers.
117.0	142.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey and brown. Non-magnetic. Moderately hard. Well foliated at 41 to 45 dca. Fractures subparallel to foliation at 54 dca and perpendicular at 56 dca. Moderate banded biotite and chlorite alteration. Moderate carbonatization. Trace pyrrhotite. <1% quartz-calcite stringers parallel to foliation. Minor intervals of GtB with quartz veining and up to 5% pyrrhotite. Lower contact 50 dca. 117.0 118.0 Fractured core. 120.0 121.0 Foliation 45 dca. Fractures subparallel to foliation at 54 dca and perpendicular at 56 dca. D77770 125.35 126.70 DUPLICATE 0.10 NS NS. 125.3 126.7 GtB. 3% quartz stringers. Upper contact 34 dca. Lower contact 47 dca. 130.0 131.0 Foliation 43 dca. Fractures perpendicular at 57 dca. 130.8 131.2. Trace pyrrhotite. 138.8 139.0 GtB. 140.0 141.0 Foliation 41 dca. Fractures perpendicular to foliation at 47 dca. 141.0 142.0. Contacts 35 dca. 141.0 142.0 GtB. 10% quartz veining.
142.0	242.8	FELSIC TO INTERMEDIATE VOLCANICS AVOL - Interbanded Ash and Crystal Ash Tuffs. Fine grained, medium and light grey. Non-magnetic. Moderately soft to hard. Rare garnet.

From (m)	To (m)	Geology
		Alternating zones of ash tuff with 5% to 15% sericite laminae and 5% 1 mm feldspar phenocrysts and crystal ash tuff with up to 10% stretched, 1 mm feldspar crystals. Foliation at 41 to 50 dca. Dominant fracture set perpendicular to foliation at 50 to 62 dca. Second set parallel to foliation at 45 to 54 dca. Trace disseminated pyrrhotite. 2% Quartz and quartz-calcite stringers parallel to foliation. Lower contact at 44 dca. 142.0 167.0 Ash tuff with 5% to 15% sericite laminae and <5% feldspar crystals. 142.0 152.0 Core is moderately fractured. 150.0 151.0 Foliation 37 dca. Fractures parallel to foliation at 37 dca and perpendicular at 55 dca. 160.0 161.0 1% quartz stringers. Foliation 41 dca. Fractures parallel to foliation at 45 dca and perpendicular at 45 dca. 167.0 186.0 Crystal tuff. 5% to 10% 1 mm stretched feldspar crystals. 170.0 171.0 Foliation 46 dca. Fractures parallel to foliation at 45 dca and perpendicular at 60 dca. 180.0 181.0 Foliation 41 dca. Fractures parallel to foliation at 50 dca and perpendicular at 49 dca. 186.0 Ash tuff. 188.0 201.0 Crystal tuff. 190.0 191.0 Fractures parallel to foliation at 45 dca and perpendicular at 65 dca. 200.0 201.0 Foliation 50 dca. Fractures parallel at 50 dca and perpendicular at 67 dca. 210.0 211.0 Foliation 50 dca. Fractures parallel at 54 dca and perpendicular at 55 dca. 220.0 221.0 Foliation 46 dca. Fractures perpendicular to foliation at 60 dca. 220.5 221.0 Blocky core. 230.0 231.0 Foliation 45 dca. Fractures perpendicular to foliation at 62 dca. 240.0 241.0 Foliation 44 dca. Fractures subparallel to foliation at 19 dca and perpendicular at 55 dca.
242.8	246.4	INTRAFORMATIONAL IRON FORMATION 24f. Medium grained, dark grey to black and pink. Moderate hardness. Non-magnetic. Foliated at 51 dca. Strongly biotitic. Minor chlorite. Weakly calcareous along foliation planes. 1% Disseminated pyrrhotite. 1% Quartz stringers parallel to foliation with trace pyrrhotite. Lower contact at 50 dca. 244.0 245.0 24f. 4% quartz veining.
246.4	247.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Moderately hard. Non-magnetic. Foliated at 41 dca. 10% Banded phlogopite alteration. Weakly calcareous along foliation planes. Trace pyrrhotite. 2% Quartz-calcite stringers parallel to foliation. Lower contact at 50 dca.
247.9	248.7	INTRAFORMATIONAL IRON FORMATION 24f. Similar to 242.80 to 246.35. Lower contact sharp at 47 dca.
248.7	256.1	INTERMEDIATE TO MAFIC VOLCANICS

From (m)	To (m)	Geology
		BVOL. Fine grained, dark green-grey. Hard. Non-magnetic. Foliated at 50 dca. Fractures subparallel to foliation at 46 dca. Trace pyrrhotite. 2% Quartz-calcite stringers parallel to foliation. Lower contact sharp at 59 dca.
256.1	257.6	INTRAFORMATIONAL IRON FORMATION 24E. 25% 5 Mm anhedral garnets in a fine grained, dark green, amphibole-biotite matrix. Garnets often in amorphous clusters. Non-magnetic. Moderately hard. Poorly defined foliation at 54 dca. Fractures perpendicular to foliation at 47 dca. Locally calcareous. Moderately biotitic. 1% Fine grained disseminated pyrrhotite. Lower contact irregular. 256.1 257.6 24e.
257.6	258.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Lower contact sharp at 32 dca.
258.5	259.7	INTRAFORMATIONAL IRON FORMATION 24E. Similar to 256.10 to 257.60. Lower contact sharp at 45 dca. 258.5 259.7 24e.
259.7	261.0	BRECCIA ZONE Bx Z. 20% 1 Mm to 5 cm subrounded white quartz boudins stretched parallel to foliation in a fine grained, dark green-grey matrix. Rare garnet. Hard. Non-magnetic. Well foliated to sheared at 39 dca. Locally biotitic. Calcareous along foliation planes. 1% Disseminated pyrrhotite. Lower contact sharp at 40 dca. 259.7 261.0 Breccia Zone.
261.0	275.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Hard. Foliated at 52 dca. Fractures parallel to foliation at 55 dca. Weak biotite and phlogopite alteration. Banded. Trace pyrrhotite. 1% to 2% quartz-calcite and calcite stringers parallel to foliation. Lower contact sharp at 39 dca.

From (m)	To (m)	Geology
275.4	276.5	INTRAFORMATIONAL IRON FORMATION 24F. 20% 5 Mm mottled anhedral garnets in a medium grained, black, biotite-quartz matrix. Non-magnetic. Hard. Foliation very poorly defined at 35 dca. Locally weakly calcareous. 1% Disseminated pyrite. Lower contact at 39 dca.
276.5	278.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Lower contact 45 dca.
278.0	281.4	INTRAFORMATIONAL IRON FORMATION 24F. Similar to 275.40 to 276.50 metres. 1% Pyrite. Trace pyrrhotite. Lower contact at 51 dca.
281.4	301.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Hard. Foliation 35 to 50 dca. Dominant fracture set perpendicular to foliation at 43 to 50 dca. Second set parallel to foliation at 32 to 36 dca. Weak biotite and phlogopite alteration. Lightly banded. Trace pyrrhotite. 1% to 2% quartz-calcite and calcite stringers parallel to foliation. 1 mm to 1 cm. Lower contact 32 dca. 283.0 Foliation 50 dca. 2% quartz-calcite stringers. 290.0 Foliation 42 dca. Dominant fracture set perpendicular to foliation at 50 dca. Minor fractures parallel at 32 dca. 300.0 Foliation 35 dca. Dominant fracture set perpendicular to foliation at 43 dca. Minor fractures parallel to foliation at 36 dca.
301.1	302.9	INTRAFORMATIONAL IRON FORMATION 24FE and 24EA. 25% 2 Mm anhedral garnets in 24eaf matrix. Local weak grunerite alteration. Weakly magnetic. Hard. Bedding at 45 dca. Fractures perpendicular to bedding at 62 dca. Up to 5% wispy pyrrhotite. 10% Quartz veining and quartz flooding. Lower contact at 45 dca. 301.1 301.9 24fe. 2% quartz stringers. 301.9 302.9 24ea. 10% quartz flooding and quartz veining. At 302.75 a 6 cm QUARTZ-VEIN at 40 dca.
302.9	307.7	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to 281.40 to 301.10 metres. Lower contact at 44 dca. 302.9 303.9 BVOL. 1% calcite stringers.

From (m)	To (m)	Geology
307.7	309.0	INTRAFORMATIONAL IRON FORMATION 24ea. 15% 1 Cm anhedral garnets in 24ea. Strong grunerite alteration. Non-magnetic. Hard. Bedding 37 dca. At 308.50 right limb folding with axial plane at 53 dca. Fractures perpendicular to bedding at 60 dca. 2% Disseminated pyrrhotite. 10% quartz stringers parallel to bedding. Lower contact at 48 dca. 307.7 309.0 24ea. 10% quartz veining. Strong grunerite.
309.0	332.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Hard. Foliation 30 to 40 dca. Dominant fracture set perpendicular to foliation at 47 dca. Weakly laminated biotite and phlogopite alteration. Trace pyrrhotite. 5% Quartz-calcite stringers parallel to foliation. Lower contact sharp at 33 dca. 310.0 Foliation 40 dca. Fractures subparallel to foliation at 20 and perpendicular at 47 dca. 320.0 Foliation 30 dca. Fractures perpendicular at 52 dca. D77780 STANDARD II 9.98 9.67 NS. D77781 BLANK 0.10 NS NS. 331.9 332.9 BVOL. 3% quartz-calcite stringers.
332.9	346.2	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. 80% Poorly to well developed 4ea beds. Amorphous garnets to 1 cm in grunerite matrix. 20% Chert or remobilized quartz beds. From 332.90 to 340.00 2% 4f beds. From 340.00 to 346.20 up to 10% 4f beds. Unit generally strongly gruneritized. Locally weakly calcareous. Weakly to moderately magnetic. Bedding 25 to 65 dca. Right limb folding with axial planes at 57 dca. Fractures perpendicular to bedding at 40 dca. Trace to 5% blebs pyrrhotite. From 332.90 to 341.00 up to 1% quartz stringers. From 341.00 to 346.20 3% to 5% quartz stringers. Lower contact gradual at 56 dca. 332.9 340.0 Weakly magnetic. Bedding poorly developed. Strong grunerite alteration. 332.9 334.0 4ea. Very weak grunerite. Bedding 49 dca. 334.0 335.0 4ea. Very weak grunerite. Bedding 25 dca. 335.0 335.6 4ea. Strong grunerite. Bedding 49 dca. 335.6 337.0 4ea. Strong grunerite. 35% quartz flooding. Bedding folded. 337.0 338.0 4ea. Strong grunerite. At 337.20 bedding folded with axial plane at 29 dca. At 337.65 possible left limb folding at 19 dca. At 337.80 axial plane at 41 dca. 338.0 339.0 4ea. Strong grunerite. 1% quartz flooding. Bedding 40 to 60 dca. 339.0 340.0 4ea. Strong grunerite. 1% quartz stringers. Bedding 57 dca. Folded. Fracture cleavage subparallel at 25 dca.

From (m)	To (m)	Geology
		340.0 346.2 Moderately magnetic. Bedding well developed. Moderate to strong grunerite alteration. D77790 340.00 341.00 DUPLICATE 0.58 NS NS. 340.0 341.0 4ea. Strong grunerite. 1% quartz stringers. Bedding 59 dca. 341.0 342.0 4eaf. Strong grunerite. 3% quartz stringers. Bedding 60 dca. At 341.25 right limb folding with axial plane at 45 dca. 342.0 343.0 4eaf. Strong grunerite. 3% quartz stringers. Bedding 65 dca. At 342.40 folding with axial plane at 56 dca. 343.0 344.0 4eaf. 5% quartz stringers. Strong grunerite. Bedding 60 dca. At 343.20 right limb folding with axial plane at 57 dca. 344.0 345.0 4ea. 1% quartz stringers. Strong grunerite. Bedding 50 dca. Right limb folding with axial plane at 36 dca. 345.0 346.2 4ea. Strong grunerite. 5% quartz stringers. Bedding 56 dca.
346.2	347.6	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. 80% 1 Mm to 1 cm 4b beds. Lightly gruneritized. 20% 5 Mm 4e beds with 30% 1 mm garnets. Unit strongly magnetic. Bedding 60 dca. Trace to 1% disseminated pyrrhotite. Minor quartz flooding. Lower contact at 59 dca. 346.2 347.0 4be. Weak grunerite. 10% quartz flooding. Bedding 60 dca. 347.0 347.6 4be. Bedding 60 dca.
347.6	359.5	CHERT - MAGNETITE IRON FORMATION 4b. 85% 1 Cm to 3 cm dark grey 4b beds. 5% Medium grey 5 mm chert beds. 10% Very fine grained, dark green amphibole beds. Up to 3 cm. With 5% 1 mm garnets. Bedding 12 to 60 dca. Folding throughout unit. From 335.00 to 359.52 left limb folding with axial planes at 30 to 47 dca. Microfaulting of beds with 3 mm offsets. Dominant fracture set perpendicular to bedding at 43 to 45 dca. Minor fractures parallel to bedding at 30 dca. Trace pyrrhotite except for 7% to 15% pyrrhotite and up to 60% quartz flooding between 348.85 to 349.35 and 350.15 to 352.30 metres. Lower contact gradual at 36 dca. D77800 STANDARD II 10.59 10.32 NS. D77801 DUPLICATE 0.07 NS NS. 347.6 348.9 4b. 3% quartz-calcite stringers. Bedding 60 dca. 348.9 349.4 4b. 5% quartz flooding. Folded. 349.4 350.1 4b. Bedding 57 dca. 350.1 351.1 4b. 60% quartz flooding. Folded. At 351.10 axial plane at 47 dca. 351.1 352.3 4b. 40% quartz flooding. Bedding 12 dca. 352.3 353.0 4b. Bedding 19 dca. 353.0 354.0 4b. Bedding 32 dca. Microfaulting with 3 mm offsets. At 353.90 axial plane at 40 dca. 354.0 355.0 4b. At 354.50 left limb folding with axial plane at 46 dca. Bedding 32 dca. 355.0 356.0 Bedding 34 dca. At 355.80 left limb folding with axial plane at 46 dca. 356.0 357.0 Bedding 36 dca. 357.0 358.0 Bedding 50 dca. At 358.0 M folds with axial plane at 35 dca. 358.0 359.5 4b. Bedding 35 dca.
359.5	383.8	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. 80% 4ea Beds with up to 1 cm amorphous garnets. Strong grunerite. 10% 1 Cm, light grey chert beds.

From (m)	To (m)	Geology
		5% Dark green amphibole beds. Unit non to weakly magnetic. Bedding 0 to 41 dca. Minor folding, both right and left limb with axial planes at 37 to 41 dca. Dominant fracture set perpendicular to bedding at 46 to 52 dca. Minor fractures subparallel to bedding at 28 dca. 0 to 5% pyrrhotite. Trace ARSENOPYRITE. Several specks of VISIBLE GOLD. Up to 25% quartz flooding. Lower contact at 41 dca. D77810 359.52 360.00 DUPLICATE 0.07 NS NS. D77820 STANDARD II 10.46 11.01 NS. D77821 BLANK 0.17 NS NS. D77830 376.00 377.00 DUPLICATE 1.41 NS NS. 359.5 360.0 4ea. Strong grunerite. Bedding 29 dca. 360.0 361.0 4ea. Strong grunerite. Bedding 29 dca. 361.0 362.0 4ea. Strong grunerite. Bedding 31 dca. 362.0 363.0 4ea. Strong grunerite. 5% quartz stringers. Bedding 37 dca. 363.0 364.0 4ea. Trace ARSENOPYRITE. 30% quartz flooding. Strong grunerite. Bedding 39 dca. 364.0 365.0 4ea. 25% quartz flooding. Strong grunerite. Bedding 31 dca. 365.0 366.0 4ea. 20% quartz flooding. 6 specks VISIBLE GOLD. Strong grunerite. Bedding 36 dca. 366.0 367.0 4ea. 15% quartz flooding. 3 specks VISIBLE GOLD. Trace ARSENOPYRITE. Strong grunerite. Bedding 41 dca. 367.0 368.0 4ea. 5% quartz flooding. Strong grunerite. Bedding 30 dca. 368.0 369.0 4ea. 5% quartz flooding. Strong grunerite. 369.0 370.0 4ea. Strong grunerite. Bedding 5 dca. 370.0 371.0 4ea. Strong grunerite. Bedding 13 dca. 371.0 372.0 4ea. Strong grunerite. Bedding 25 dca. Axial plane 35 dca. 372.0 373.0 4ea. Strong grunerite. Right limb folding with axial plane at 41 dca at 272.50. Bedding 50 dca. 373.0 374.0 4ea. 5% quartz flooding. Strong grunerite. Bedding 35 dca. 374.0 375.0 4ea. 1% quartz flooding. Strong grunerite. Bedding 38 dca. 375.0 376.0 4ea. 10% quartz flooding. Strong grunerite. Bedding 25 dca. 376.0 377.0 4ea. 20% quartz flooding. Strong grunerite. 377.0 378.0 4ea. 15% quartz flooding. Strong grunerite. Bedding 33 dca. 378.0 379.0 4ea. Strong grunerite. Bedding 13 dca. 379.0 380.0 4ea. 3% quartz flooding. Strong grunerite. Bedding 11 dca. 380.0 381.2 4ea. Strong grunerite. Bedding 30 dca. 381.2 382.0 4ea. 5% quartz flooding. Strong grunerite. Bedding 32 dca. 382.0 383.0 4ea. 5% quartz flooding. Strong grunerite. Bedding 0 dca. 383.0 383.8 4ea. Strong grunerite. Bedding 54 dca. Left limb folding with axial plane at 37 dca.
383.8	386.5	METASEDIMENT OR INTERMEDIATE TO MAFIC VOLCANICS Possible BVOL or Metasediment. Fine grained, dark green-grey. 1% scattered garnets. Non-magnetic. Hard. Finely laminated foliation or bedding at 52 dca. Folded. Fractures perpendicular to foliation at 35 dca. Trace pyrrhotite. Lower contact sharp at 47 dca. 383.8 385.2 Fractured core.
386.5	392.4	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Similar to 359.53 383.80 metres. Weakly to moderately magnetic.

From (m)	To (m)	Geology
		Bedding poorly to moderately developed at 30 to 41 dca. Dominant fracture set perpendicular to bedding at 50 dca. Minor fractures perpendicular at 38 dca and parallel at 41 dca. Unit strongly gruneritized. Weakly calcareous along fractures. From 386.55 to 387.00 trace disseminated pyrrhotite. From 387.00 to 392.40 2% to 5% wispy stringers and blebs pyrrhotite. Trace ARSENOPYRITE. 0% to 15% quartz flooding. Lower contact 43 dca. D77842 STANDARD II 10.01 9.39 NS. D77843 BLANK 0.07 0.07 NS. 386.5 387.0 4ea. Strong grunerite. At 386.80 right limb folding with axial plane at 23 dca. Bedding 27 dca. 387.0 388.0 4ea. Strong grunerite. Right limb folding with axial plane 32 dca. Bedding 30 dca. 388.0 388.9 4ea. Strong grunerite. At 385.90 axial plane at 37 dca. Bedding 35 dca. 388.9 390.0 4ea. 5% quartz flooding. Strong grunerite. Bedding 35 dca. 390.0 391.0 4ea. 15% quartz flooding. Strong grunerite. Bedding 34 dca. 391.0 392.0 4ea. Trace ARSENOPYRITE. 40% quartz flooding. Strong grunerite. Bedding 41 dca. 392.0 392.4 4ea. 10% quartz flooding. Strong grunerite.
392.4	402.1	CHERT - MAGNETITE IRON FORMATION 4b. Very fine grained, dark grey, light grey and pale yellow. Strongly magnetic. Hard. 70% 1 Mm to 4 cm magnetite beds. 30% 5 Mm to 2 cm weakly magnetic, boudinaged chert or quartz-flooded chert beds. Unit strongly calcareous with 0.5 mm wide pale yellow calcite halos surrounding magnetite beds. Bedding from 13 to 35 dca. Chert beds and quartz veining are boudinaged and often rotated. Fracture cleavage 56 to 62 dca. Trace to 1% pyrrhotite in blebs and wispy stringers. Trace ARSENOPYRITE. Locally up to 10% quartz flooding and quartz veining. Lower contact 35 dca. D77850 394.00 395.00 DUPLICATE 0.48 NS NS. 392.4 393.0 4b. Bedding 42 dca. 393.0 394.0 4b. 5% quartz veining. Bedding 36 dca. Hairline fractures 35 dca. 394.0 395.0 4b. Bedding 13 dca. 395.0 396.0 4b. 3% quartz veining. Bedding 20 dca. 396.0 397.0 4b. 3% quartz veining. Bedding 20 dca. Fracture cleavage 56 dca. 397.0 398.0 4b. 5% quartz veining. Bedding 30 dca. Fracture cleavage 62 dca. 398.0 399.0 4b. 10% quartz flooding. Trace ARSENOPYRITE. Bedding 32 dca. 399.0 400.0 4b. 5% quartz veining. Bedding 30 dca. 400.0 401.0 4b. Bedding 35 dca. 401.0 402.1 4b. Bedding 32 dca.
402.1	404.0	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. 65% 4b Beds. 1 mm to 1 cm. 30% 4e Beds. 1 mm to 5 mm. 10% 1 mm garnets. Unit strongly magnetic. Bedding well developed at 34 dca. Minor fractures perpendicular to bedding at 43 dca. Lower contact gradual at 35 dca. 402.1 403.0 4be. Bedding 34 dca. 403.0 404.0 4bd. 5% quartz veining with 1% pyrrhotite. Bedding 34 dca.

From (m)	To (m)	Geology
404.0	410.0	CHERT - MAGNETITE IRON FORMATION 4b. Similar to 392.40 to 402.14 metres. Up to 5% 4e beds. Bedding well developed at 32 to 36 dca. Dominant fractures perpendicular to bedding at 47 dca. Minor fractures parallel at 44 dca. Unit barren except for zone of 50% quartz flooding with 5% pyrrhotite at 406.30 to 407.30 metres. Lower contact sharp at 36 dca. D77863 STANDARD II 9.81 9.81 NS. D77864 BLANK 0.07 NS NS. 404.0 405.0 4b. Bedding 32 dca. 405.0 406.3 4b. Bedding 32 dca. 406.3 407.3 4b. 50% quartz flooding. Bedding disrupted. At 407.30 axial plane at 30 dca. Fracture cleavage at 37 dca. 407.3 408.3 4b. Bedding 32 dca.
410.0	415.5	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Similar to 402.15 to 404.00 metres. Lower contact sharp at 39 dca. D77870 414.45 415.45 DUPLICATE 0.21 NS NS. 410.0 410.8 4be. Bedding 35 dca. 410.8 411.1 30 cms quartz veining. Contacts 31 dca. 411.1 412.0 4be. 7 cm QUARTZ-VEIN with 5% pyrrhotite. Bedding 36 dca. 414.5 415.5 4be. At 414.75 15 cms of white quartz veining. Contacts 45 dca.
415.5	424.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab and 4ea. Mottled light green, dark green, pink, light grey, dark grey. Non to moderately magnetic. Hard. 85% Ea beds with amorphous garnets up to 1 cm. 5% E beds. Up to 10% 4b beds. Bedding well to poorly developed at 34 to 40 dca. At 422.90 left limb folding with axial plane at 37 dca. Fractures perpendicular to bedding at 52 dca. From 415.45 to 417.00 trace disseminated pyrrhotite. From 417.00 to 423.00 metres up to 5% pyrrhotite. Minor specks of VISIBLE GOLD. Up to 15% quartz flooding and quartz stringers. Lower contact 46 dca. D77880 STANDARD II 9.70 9.77 NS. D77881 BLANK 0.07 NS NS. 415.5 416.0 4eab. Strong grunerite. Bedding 40 dca. 416.0 417.0 4eab. Strong grunerite. Bedding 38 dca. 417.0 418.0 4eab. 5% quartz veining and quartz flooding. Strong grunerite. Bedding 41 dca. 418.0 419.0 4eab. 5% quartz flooding. Strong grunerite. Bedding 40 dca. 419.0 420.0 4ea. 7% quartz veining. Strong grunerite. Bedding 40 dca. 420.0 421.0 4ea. 15% quartz flooding. 1 speck VISIBLE GOLD. Strong grunerite. Bedding 34 dca. 421.0 421.5 4ea. 1% quartz veining. Strong grunerite. Bedding 34 dca. 421.5 422.0 4ea. 10% quartz veining. Strong grunerite. Bedding 29 dca. 422.0 423.0 4ea. 10% quartz veining. Strong grunerite. At 422.90 left limb folding with axial plane at 37 dca. Bedding 40 dca. 423.0 424.0 4ea. 5 specks VISIBLE GOLD. 15% quartz veining. Strong grunerite. Bedding 40 dca.

From (m)	To (m)	Geology
424.0	425.6	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Similar to 402.15 to 404.00. Bedding 39 dca. Fractures perpendicular to bedding at 47 dca. Trace disseminated pyrrhotite. Lower contact sharp at 42 dca. 424.0 425.0 4be. Bedding 38 dca. 425.0 425.6 4be. Bedding 39 dca.
425.6	432.6	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Similar to 415.45 to 424.05 metres. Unit weakly magnetic. Strong grunerite alteration. Bedding 36 to 42 dca. Fractures perpendicular to bedding at 46 dca. Trace to 5% blebs and wispy stringers pyrrhotite. 3% to 60% quartz flooding. Lower contact 42 dca. D77890 430.00 431.00 DUPLICATE 0.14 NS NS. 425.6 427.0 4ea. 60% quartz flooding. Strong grunerite. Bedding 42 dca. 427.0 428.5 4ea. 60% quartz flooding. Strong grunerite. Bedding 41 dca. 428.5 429.0 4ea. Strong grunerite. 429.0 430.0 4ea. 10% quartz veining. Strong grunerite. Bedding 40 dca. 430.0 431.0 4ea. 10% quartz veining. Strong grunerite. Bedding 37 dca. 431.0 432.0 4ea. 3% quartz veining. Strong grunerite. Bedding 36 dca. 432.0 432.6 4ea. 10% quartz veining. Strong grunerite. Bedding 36 dca.
432.6	437.0	CHERT - MAGNETITE IRON FORMATION AND CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4b and 4be. Bedding 30 to 35 dca. Trace disseminated pyrrhotite. Lower contact at 39 dca. 432.6 435.2 4b. 432.6 434.0 4b. Bedding 30 dca. 435.2 436.0 4be. 436.0 437.0 4b. 436.0 437.0 4b. Bedding 35 dca.
437.0	461.5	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. Bedding poorly to well developed at 30 to 42 dca. Dominant fracture set perpendicular to bedding at 46 dca. Minor fractures parallel to bedding at 40 dca. Strong grunerite alteration throughout unit. From 437.05 to 447.97 and 457.00 to 461.45 trace pyrrhotite and 1% to 15% quartz stringers and quartz flooding. From 447.97 to 457.00 3% to 7% pyrrhotite and up to 30% quartz flooding and quartz stringers. Trace ARSENOPYRITE. Lower contact sharp at 40 dca.

From (m)	To (m)	Geology
		D77900 STANDARD II 10.63 9.91 NS. D77901 BLANK 0.21 NS NS. 437.0 438.0 4eab. 1% quartz stringers. Strong grunerite. Bedding 39 dca. 438.0 439.0 4eab. 10% quartz stringers. Strong grunerite. Bedding 37 dca. 439.0 440.0 4eab. Strong grunerite. Bedding 36 dca. 440.0 441.0 4eab. Strong grunerite. Bedding 34 dca. 441.0 442.0 4eab. 10% quartz veining. Strong grunerite. Bedding 33 dca. 442.0 443.0 4eab. 15% quartz flooding. Strong grunerite. Bedding 25 dca. 443.0 443.4. Contacts 40 dca. 443.0 443.4 BVOL or 7H. 443.4 444.0 4eab. 1% quartz veining. Strong grunerite. Bedding 30 dca. 444.0 445.0 4eab. 3% quartz veining. Strong grunerite. Bedding 33 dca. 445.0 446.0 4eab. 5% quartz veining. Strong grunerite. Bedding 40 dca. 446.0 447.0 4eab. Strong grunerite. Bedding 35 dca. 447.0 447.5 4eab. 3% quartz flooding. Strong grunerite. Bedding 35 dca. 447.5 448.0. Contacts 45 dca. D77910 447.45 447.97 DUPLICATE 0.03 NS NS. 447.5 448.0 BVOL or 7H. 448.0 449.0 4ea. Trace ARSENOPYRITE. 10% quartz flooding. Strong grunerite. Bedding 40 dca. 449.0 450.0 4ea. Trace ARSENOPYRITE. 35% quartz flooding. Strong grunerite. Bedding 40 dca. 450.0 451.0 4ea. Trace ARSENOPYRITE. 25% quartz flooding. Strong grunerite. Bedding 35 dca. 451.0 452.0 4ea. 8% quartz flooding. Strong grunerite. Bedding 43 dca. 452.0 453.0 4ea. 15% quartz flooding. Strong grunerite. Bedding 40 dca. 453.0 454.0 4ea. 30% quartz flooding. Strong grunerite. Bedding 42 dca. 454.0 455.0 4ea. 20% quartz flooding. Strong grunerite. Bedding 40 dca. 455.0 456.0 4ea. 20% quartz flooding. Strong grunerite. Bedding 45 dca. 456.0 457.0 4ea. 10% quartz flooding. Strong grunerite. Bedding 40 dca. 457.0 458.0 4ea. Strong grunerite. Bedding 39 dca. 458.0 459.0 4ea. 10% quartz flooding. Strong grunerite. Bedding 44 dca. 459.0 460.0 4eab. 5% quartz stringers. Strong grunerite. Bedding 38 dca. 460.0 461.0 4eab. 3% quartz stringers. Strong grunerite. Bedding 37 dca. 461.0 461.5 4eab. 3% quartz stringers. Strong grunerite. Bedding 38 dca.
461.5	463.4	CHERT - MAGNETITE IRON FORMATION AND CHERT-MAGNETITE / GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 90% 4b And 10% 4eab. Lower contact 49 dca. 461.5 462.0. Lower contact 44 dca. 461.5 462.0 4b. Bedding 41 dca. 462.0 462.7. Lower contact 41 dca. 462.0 462.7 4bea. Moderate to strong grunerite. Bedding 40 dca. 462.7 463.4. Lower contact 40 dca.
463.4	466.8	CHERT-MAGNETITE / GARNET-AMPHIBOLE-BIOTITE I.F. 4bef. 20% 2 Mm to 1 cm fine beds with 20% 1 mm garnets. 20% 1 Mm to 2 cm fine grained, dark green E beds. 20% Medium grey, 1 cm boudinaged chert beds with minor magnetite. 40% Dark grey, 1 mm to 1 cm magnetite beds. Bedding well developed from 35 to 40 dca.

From (m)	To (m)	Geology
		Unit weakly gruneritized. Strongly magnetic. Trace disseminated pyrrhotite. Lower contact 39 dca. D77930 465.35 466.35 DUPLICATE <0.03 NS NS. 463.4 464.4 4be. 1% quartz-calcite and quartz stringers. Weak grunerite. Bedding 40 dca. 464.4 465.4 4be. Bedding 39 dca. At 465.85 a 5 cm QUARTZ-VEIN with 3% pyrrhotite. Contacts 30 dca. 465.4 466.4 4be. Bedding 36 dca. 466.4 466.8 4be. Bedding 35 dca.
466.8	467.9	CHERT - MAGNETITE IRON FORMATION 4b. Very fine grained, laminated 1 mm to 1 cm medium and dark grey, chert and magnetite beds. Bedding 35 dca. Minor micro-shearing of beds. At 466.90 left limb folding with axial plane at 44 dca. Trace disseminated pyrrhotite. Lower contact at 50 dca.
467.9	474.4	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. 20% Light grey chert-minor magnetite beds. 10% F beds with 20% garnets. 15% Dark grey B beds. Some beds weakly gruneritzed. 55% 4ea Beds. Unit strongly magnetic. Hard. Bedding well developed at 32 to 60 dca. At 471.55 left limb folding with axial plane at 50 dca. Dominant fracture set perpendicular to bedding at 55 to 60 dca. From 467.86 to 473.00 3% blebs and wisps of pyrrhotite. 5% to 30% quartz flooding. Lower contact sharp and folded. Approximately 39 dca. 467.9 469.0 4eab. 5% quartz stringers. Strong grunerite. Bedding 40 dca. 469.0 470.0 4eab. 5% quartz stringers. Strong grunerite. Bedding 35 dca. 470.0 471.0 4eab. 30% quartz flooding. Strong grunerite. Bedding 32 dca. 471.0 472.0 4eab. 5% quartz flooding. Strong grunerite. Bedding 32 dca. At 471.55 left limb folding with axial plane at 50 dca. 472.0 473.0 4eab. 10% quartz flooding. Strong grunerite. Bedding 60 dca. 473.0 474.0 4eab. 1% quartz flooding. Strong grunerite. Bedding 49 dca. 474.0 474.4 4eab. 5% quartz flooding. Strong grunerite. Bedding 43 dca.
474.4	477.6	GARNET-BIOTITE SCHIST 4f. 70% black, 5 mm to 1 cm 4f beds with 30% 1 mm garnets. 15% Dark green, very fine grained E beds. 15% 1 Mm to 5 mm chert beds. Unit non-magnetic. Moderate hardness. Strongly biotitic. Bedding at 53 to 55 dca. Fractures perpendicular to bedding at 42 and 33 dca. 1% to 2% disseminated pyrrhotite. Lower contact 45 dca. D77940 STANDARD II 10.32 NS NS. D77941 BLANK 0.41 NS NS.

From (m)	To (m)	Geology
		474.4 475.4 4f. 477.2 477.6. Upper contact 56 dca. Lower contact 45 dca. Bedding 50 dca.
477.6	479.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderately hard. Foliation at 57 dca. Fractures perpendicular to foliation at 40 dca. Strongly calcareous and moderately chloritic. Barren. Lower contact 50 dca. 477.9 478.4 Core very fractured (shattered).
479.0	489.3	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea and 4eaf. From 479.05 to 482.30 and 486.30 to 489.30 metres 1% to 2% pyrrhotite and up to 10% quartz stringers. From 482.30 to 486.30 7% to 10% pyrrhotite and up to 75% quartz flooding. 1 speck of VISIBLE GOLD. <1% ARSENOPYRITE. Lower contact gradual. Approximately 47 dca. D77950 486.30 487.30 DUPLICATE 0.31 NS NS. 479.0 480.0 4ea. 1% quartz stringers. Strong grunerite. Bedding 47 dca. 480.0 481.0 4ea. 10% quartz stringers. Strong grunerite. Bedding 40 dca. 481.0 482.3 4ea. 3% quartz stringers. Strong grunerite. Bedding 50 dca. 482.3 483.3 4ea. 60% quartz flooding. 1 speck VISIBLE GOLD. Strong grunerite. Bedding 52 dca. 483.3 484.3 4ea. 70% quartz flooding. Strong grunerite. Bedding 46 dca. 484.3 485.3 4ea. <1% ARSENOPYRITE. 75% blueish coloured quartz flooding. Strong grunerite. Bedding 52 dca. 485.3 486.3 4eaf. Trace ARSENOPYRITE. 30% blueish coloured quartz flooding. Strong grunerite. Bedding 56 dca. 486.3 487.3 4eaf. 10% quartz flooding. Strong grunerite. 50 dca. 487.3 488.3 4eaf. 1% quartz stringers. Strong grunerite. Bedding 52 dca. 488.3 489.3 4eaf. Strong grunerite. Bedding 42 dca.
489.3	490.5	CHERT - MAGNETITE IRON FORMATION 4b. 60% Magnetite beds. Weakly gruneritized. 30% Chert beds. 10% F beds. Bedding at 37 dca. At 489.65 W fold with axial plane at 39 dca. At 490.10 axial plane at 40 dca. Fractures at 67 dca. Trace pyrrhotite. Lower contact at 47 dca.
490.5	493.1	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. Bedding 40 to 55 dca. Fractures perpendicular to bedding at 50 dca. Right limb folding at 491.20 with axial plane at 45 dca. Trace pyrrhotite. Minor quartz stringers and quartz flooding. Lower contact at 57 dca. 490.5 491.5 4eab. 1% quartz stringers. Strong grunerite. Bedding 40 dca. At 491.20 right limb folding with axial plane at 45 dca. 491.5 492.5 4eab. Strong grunerite. Bedding 55 dca.

From (m)	To (m)	Geology
		492.5 493.1 4eab. 10% quartz flooding. Strong grunerite. Bedding 55 dca.
493.1	498.0	CHERT - MAGNETITE IRON FORMATION 4b. Bedding 50 dca. Unit folded with axial planes at 55 dca. W and M type folds. Dominant fracture set perpendicular to bedding at 40 to 50 dca. Minor fractures perpendicular to bedding at 10 dca. Moderately calcareous along bedding planes and hairline fractures parallel to bedding. Trace pyrrhotite. Lower contact 70 dca. 493.1 494.1 4b. 1% quartz stringers. Bedding 55 dca. 495.6 W fold with axial plane at 53 dca. 497.1 M fold with axial plane at 55 dca.
498.0	499.2	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. 70% 4b Beds. Up to 1 cm. Weakly gruneritized. 30% 4e Beds. 1 cm. 15% 1 mm garnets. Bedding 67 dca. Lower contact 60 dca. 498.0 499.2 4be.
499.2	500.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderately soft. Foliation at 60 dca. Trace pyrrhotite. 1% Quartz-calcite stringers.
500.0		END OF HOLE
		DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.
		CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge Samples taken.
		DRILLING HISTORY:. 0.00 15.70 Tricone Bit. 15.70 239.00 Two Hexagonal Core Barrels. 239.00 500.00 Two Standard 10' Core Barrels with Blank Backend. 16.00 62.00 Dimatec MX10 Bit. 62.00 111.00 Hobic 7 Bit. 111.00 500.00 MX10 Bit. Casing pulled. Hole cemented - 7.5 hours. 103 bags of 20 kg Type 50 cement used.
		SURVEYING HISTORY:. Gyroscopic Directional Survey by CBC Welnav, North Bay, Ontario used for Class 2 Data. Survey took 2.5 hours.
		Dip Tests. 16.0 -61.5 Acid.

From (m)	To (m)	Geology
		28.0 -61.5 Rotodip. 40.0 -60.5 Rotodip. 55.0 -61.0 Rotodip. 67.0 -61.0 Rotodip. 79.0 -60.5 Rotodip. 91.0 -60.5 Rotodip. 106.0 -60.0 Rotodip. 115.0 -59.5 Rotodip. 124.0 -59.0 Rotodip. 136.0 -59.0 Rotodip. 142.0 -58.5 Rotodip. 151.0 -59.0 Rotodip. 160.0 -58.5 Rotodip. 172.0 -58.0 Rotodip. 175.0 -57.5 Rotodip. 184.0 -57.5 Rotodip. 196.0 -58.5 Rotodip. 220.0 -58.0 Rotodip. 232.0 -57.5 Rotodip. 244.0 -56.5 Rotodip. 268.0 -56.5 Rotodip. 274.0 -56.5 Rotodip. 280.0 -56.5 Rotodip. 286.0 -56.0 Rotodip. 292.0 -56.0 Rotodip. 304.0 -55.5 Rotodip. 316.0 -55.5 Rotodip. 322.0 -55.0 Rotodip. 328.0 -55.0 Rotodip. 334.0 -55.0 Rotodip. 340.0 -55.5 Rotodip. 346.0 -55.0 Rotodip. 352.0 -55.0 Rotodip. 364.0 -55.0 Rotodip. 379.0 -55.0 Rotodip. 385.0 -52.0 Rotodip. 397.0 -55.0 Rotodip. 418.0 -55.0 Rotodip. 430.0 -55.0 Rotodip. 439.0 -55.0 Rotodip. 445.0 -54.5 Rotodip. 463.0 -54.5 Rotodip.

DRILL HOLE RECORD

Northing: 10249.51
Easting: 9017.30
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -60.50

Hole Length: 203
Core Size: NQ
Date Started: MARCH 10, 1993
Logged by: B.J. McKay

Claim: Pa529497: 203.0m
Comments: 113.6mW, 75.4mN to WP of #1 post, Claim# Pa529497
Purpose: to test S, C, T and WA Zones.

*** Depth	Dip Tests Azi.	*** Dip
15.0		-62.5
24.0		-62.0
38.0		-61.5
104.0		-59.0
150.0		-57.0
191.0		-57.0

Drill Hole: 506-629

Northing: 10250N
Easting: 9017E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10250N
Completed: MARCH 13, 1993
Date(s) Logged: MARCH 11-13, 1993

From (m)	To (m)	Geology
		REVISED LOG, 22 April, 1993. Includes assay data. No Gyro-dip survey. Missing sample numbers (Standards, Blanks and Duplicates) are. Listed at the end of the drill log. Highlights of 506-629:. Island Zone:. All fold orientations are looking southward, up plunge. This orientation is the same as the strip log.
.0	15.3	OVERBURDEN 0.0 1.4 Ice. 1.4 15.25 Sand, gravel and boulders. NORTHERN IRON FORMATION: 15.25M-118.4m.
15.3	102.1	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Very fine grained, fine grained, black, white, moderately to strongly magnetic, very hard to moderately soft. Well developed bedding / foliation with finely bedded, <1 mm, units in the 4B sections and alternating beds of B and F up to 3 cm thick in the 4BF sections. Bedding varies from undeformed and very uniform to complete brecciation and fragmentation. This latter texture is common in veined and altered, mineralized, sections. Unit exhibits minute drag-folding, which is typical. Fracturing parallel to and perpendicular to bedding is common. Faulting, parallel to bedding is common. 4B Units are locally boudinaged with partial movement and rounding of individual boudins. Micro-faulting and micro-brecciation is common in 4B beds.

From (m)	To (m)	Geology
		Unit is weakly to strongly carbonatized. Strongest carbonatization occurs in mineralized sections. Moderate to strong silicification. Quartz and quartz-carbonate veining occurs as noted. Pyrrhotite, pyrite, ARSENOPYRITE and VISIBLE GOLD as noted. 15.3 Foliation, 30 dca. Perpendicular fracture, 62 dca. 15.3 16.0 4FB. 15.8 Axial plane, right limb folding, 28 dca. 16.0 Foliation, 37 dca. 16.0 17.0 4FB, w grun. 17.0 Foliation, 27 dca. Perpendicular fracture, 63 dca. 17.0 18.0 4FB, w grun. 18.0 Foliation, 39 dca. 18.0 19.0 4FB, w grun. 19.0 Foliation, 40 dca. 19.0 20.0 4FBE, <5%qf, w grun. 20.0 Foliation, 38 dca. 20.0 21.0 4FBE. 20.5 Perpendicular fracture, 52 dca. 21.0 Foliation, 39 dca. 21.0 22.0 4FB, 20%qf, w grun. 22.0 Foliation, 43 dca. 22.0 23.0 4BF, 5%qf, w grun. 22.7 Axial plane, right limb folding, 38 dca. 23.0 Foliation, 45 dca. 23.0 24.0 4FB, w grun. 24.0 Foliation, 43 dca. 24.0 25.0 4BF. 25.0 Foliation, 38 dca. Perpendicular fracture, 58 dca. 25.0 26.0 4BF, 15%QF. 26.0 Foliation, 38 dca. 26.0 27.0 4BF, 10%qf. 26.5 Perpendicular fault, 16 dca. 27.0 Foliation, 39 dca. 27.0 28.0 4BF. 28.0 Foliation, 42 dca. Perpendicular fracture, 62 dca. 28.0 29.0 4BF, 15%qf, tr py. 29.0 Foliation, 49 dca. Perpendicular fault, 17 dca. 29.0 30.0 4BF, 5%qf. 30.0 Foliation, 32 dca. Perpendicular fracture, 58 dca. 30.0 31.0 4BF, 15%qf, tr py. 31.0 Foliation, 41 dca. 31.0 32.0 4BF, 15%qf. 32.0 Foliation, 50 dca. 32.0 33.0 4BF, 15%qf. 33.0 Foliation and fracture, 28 dca. Perpendicular fracture, 54 dca. 33.0 34.0 4BF, 15%qf, w grun. 34.0 Foliation, 36 dca. 34.0 35.0 4BF, 15%qf, w-m grun. 35.0 Foliation, 37 dca. 35.0 36.0 4FB, 10%qf, w grun. 36.0 Foliation and fracture, 36 dca.

From (m)	To (m)	Geology
		36.0 37.0 4B, 25%qf, tr asp, tr py, m grun., VG.
		36.5 VISIBLE GOLD : 1 speck.
		37.0 Foliation, 31 dca. Perpendicular fracture, 45 dca.
		37.0 38.0 4B, 15%qf, tr asp, tr py, w grun.
		38.0 Foliation and fracture, 30 and 28 dca. Perpendicular fracture, 51 dca.
		38.0 39.0 4B, 15%qf, w grun.
		39.0 Foliation, 50 dca.
		39.0 40.0 4FB, loc w grun.
		40.0 Foliation, 25 dca.
		40.0 41.0 4FB.
		40.7 Perpendicular fracture, 55 dca.
		41.0 Foliation, 40 dca.
		41.0 42.0 4B, 10%qf, tr asp, m grun.
		42.0 Foliation, 30 dca.
		42.0 43.0 4B, tr asp, s grun.
		43.0 Foliation, 30 dca.
		43.0 44.0 4B, w grun.
		44.0 Foliation, 32 dca.
		44.0 45.0 4B, <5%qf.
		45.0 Foliation, 43 dca. Perpendicular fracture, 61 dca.
		45.0 46.0 4B, <5%qf, w grun.
		46.0 Foliation, 35 dca.
		46.0 47.0 4B, 10%qf, loc w grun.
		47.0 Foliation, 34 dca.
		47.0 48.0 4B, 15%qf, m grun.
		48.0 Foliation, 28 dca. Perpendicular fracture, 60 dca.
		48.0 49.0 4B, 10%qf, w-m grun.
		49.0 Foliation, 22 dca. Perpendicular fracture, 62 dca.
		49.0 50.0 4B, 10%qf, m grun.
		50.0 Foliation, 25 dca.
		50.0 51.0 4B, 5%qf, m grun.
		50.4 Axial plane, right limb folding, 45 dca.
		51.0 Foliation, 32 and 90 dca.
		51.0 52.0 4B, 5%qf, w grun.
		51.6 Axial plane, right limb folding, 38 dca.
		52.0 53.0 4B, 10%qf, m-s grun.
		53.0 Foliation, 40 dca.
		53.0 54.0 4BF, 3%qf, loc w grun.
		53.7 Fault, 50 dca.
		54.0 Foliation, 26 dca.
		54.0 55.0 4BF, 5%qf, loc w grun.
		55.0 Foliation, 38 dca. Perpendicular fracture, 50 dca.
		55.0 56.0 4B, loc w grun.
		56.0 Foliation, 23 dca.
		56.0 57.0 4B.
		57.0 Foliation, 37 dca. Perpendicular fracture, 66 dca.
		57.0 58.0 4B.
		58.0 Foliation, 18 dca.
		58.0 59.0 4BF, <5%qf, loc w grun.
		59.0 Foliation, 20 dca.
		59.0 60.0 4B, loc w grun.

From (m)	To (m)	Geology
		60.0 Foliation, 0 dca. 60.0 61.0 4B, 5%qf, m grun. 60.4 Perpendicular fracture, 57 dca. 61.0 Foliation, 25 dca. 61.0 62.0 4B, m grun. 62.0 Foliation, 45 dca. 62.0 63.0 4B, w grun. 63.0 Foliation, 32 dca. 63.0 64.0 4BF, w-m grun. 64.0 Foliation, 32 dca. Perpendicular fracture, 58 dca. 64.0 65.0 4B, 2%qcb, m grun. 65.0 Foliation, 23 dca. 65.0 66.0 4B, 5%qf, w-m grun. 66.0 Foliation, 22 dca. Perpendicular fracture, 43 dca. 66.0 67.0 4B, <5%qf, m grun. 67.0 Foliation, 22 dca. 67.0 68.0 4B, 35cm qv, tr asp, m grun. 68.0 Foliation, 26 dca. 68.0 69.0 4BF, w-m grun. 69.0 Foliation, 32 dca. 69.0 70.0 4F, w-m grun. 70.0 Foliation, 30 dca. Perpendicular fracture, 71 dca. 70.0 71.0 4BF, <1%qf, w grun. 71.0 Foliation, 18 dca. 71.0 72.0 4BF, 10%qf, m grun. 72.0 Foliation, 30 dca. 72.0 73.0 4BF, w-m grun. 73.0 Foliation, 28 dca. 73.0 74.0 4BF, 10%qf, w grun. 74.0 Foliation, 27 dca. 74.0 75.0 4B, m grun. 75.0 Foliation, 29 dca. Perpendicular fracture, 42 dca. 75.0 76.0 4B, m grun. 76.0 Foliation and fracture, 27 dca. 76.0 77.0 4B, w grun. 77.0 Fault, 30 dca. 77.0 78.0 4B, w grun. 78.0 Foliation, 30 dca. 78.0 79.0 4B, 10%qv, w grun. 78.3 Perpendicular fracture, 63 dca. 79.0 Foliation, 32 dca. Perpendicular fracture, 46 dca. 79.0 80.0 4B, 60%qf, w grun. 80.0 Foliation, 32 dca. 80.0 81.0 4B, 30%qf, m grun. 81.0 82.0 4B, 25%qf, w grun. 82.0 Foliation, 51 dca. 82.0 83.0 4BF, 15%qf, w grun. 83.0 Foliation, 50 dca. 83.0 84.0 4B, 10%qf, v w grun. 84.0 Foliation, 43 dca. 84.0 85.0 4B, 20%qf, w grun.

From (m)	To (m)	Geology
		85.0 Foliation, 50 dca. Perpendicular fracture, 64 dca. 85.0 86.0 4B, v w grun. 86.0 Axial plane, right limb folding, 39 dca. 86.0 87.0 4B. 86.3 Perpendicular fracture, 53 dca. 87.0 Foliation, 31 dca. 87.0 88.0 4B. 88.0 Foliation, 29 dca. 88.0 89.0 4B, w grun. 89.0 Foliation, 20 dca. 89.0 90.0 4BF, w grun. 90.0 Foliation and fracture, 30 dca. 90.0 91.0 4B. 91.0 Foliation, 25 dca. 91.0 92.0 4BF, v w grun. 92.0 Foliation, 24 dca. 92.0 93.0 4FB. 93.0 Foliation, 30 dca. 93.0 94.0 4FB, w grun. 94.0 Foliation, 34 dca. Perpendicular fracture, 60 dca. 94.0 95.0 4BF, w-m grun. 94.7 Perpendicular fracture, 30 dca. 95.0 Foliation and fracture, 35 dca. 95.0 96.0 4FB, 10%qf, loc w grun. 96.0 Foliation, 34 dca. 96.0 97.0 4FB, 3%qf, w grun. 97.0 Foliation, 38 dca. 97.0 98.0 4FB, loc w grun. 98.0 Foliation, 34 dca. 98.0 99.0 4FB, 15%qf. 99.0 Foliation, 35 dca. 99.0 100.0 4B, w grun. 100.0 Foliation, 30 dca. Perpendicular fracture, 57 dca. 100.0 101.0 4B, w grun. 101.0 Foliation, 26 dca. Perpendicular fracture, 54 dca. Lower contact, sharp, 33 dca. 101.0 102.1 4FB, loc w grun.
102.1	103.7	GARNETIFEROUS BASALT GtB. Typical GtB with 10-90% garnets. Moderately developed foliation. Non-magnetic. Non carbonatized. Lower contact, sharp, 28 dca.
103.7	104.8	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical BVOL. Fine grained, brownish-green, green, non-magnetic to very weakly magnetic, moderately soft. Well developed foliation.

From (m)	To (m)	Geology
		Local biotitic alteration. Local weak carbonatization. Lower contact, 32 dca.
104.8	105.5	GARNETIFEROUS BASALT GtB with BVOL. Similar to units above. 105.1 105.5 BVOL interbed. Lower contact, sharp, 30 dca.
105.5	106.7	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4FB. Similar to above with minor chlorite in F beds. Very fine grained to fine grained, moderately magnetic, very hard. 5% Pyrrhotite. Lower contact, sharp, 40 dca. 105.5 106.7 4FB.
106.7	112.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above with weak to strong carbonatization. Locally strong biotitic alteration. Non-magnetic. 3-5% Quartz-carbonate as seams and veinlets. Lower contact, sharp, 44 dca.
112.1	114.0	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF With GtB. Similar to above with 5-10% chloritic matrix, locally up to 15% garnets, 15% B beds, 10% quartz flooding. Moderately to strongly magnetic, moderate to strong grunerite alteration. Trace pyrite, 6% pyrrhotite. 112.1 113.4 4EB, 10%qf, m-s grun. 113.4 113.8 GtB interbed. Lower contact, sharp, 38 dca.
114.0	116.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. Pervasive moderate to strong carbonatization. Strong pervasive biotitic alteration. Lower contact, sharp, 46 dca.
116.4	118.4	GARNET-AMPHIBOLE / GARNET-BIOTITE / CHERT-MAGNETITE I.F. 4EFB. Similar to above 4BF unit with strong pervasive chlorite and biotite alteration, 10% B beds, 20-40% garnets. Locally weakly to moderately magnetic. Trace pyrrhotite. Lower contact, sharp, 45 dca.
118.4	121.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above strong silicification, with 10% quartz flooding and minor veining. This interval is finer grained and lighter grey than

From (m)	To (m)	Geology
		above unit. Lower contact, sharp, 42 dca.
121.5	122.8	GARNETIFEROUS BASALT GtB. Similar to 116.4 118.4 with <5% B beds. Locally silicified, locally strong biotite alteration, 60% GtB with 40-60% garnets. Trace pyrite. Lower contact, sharp, 50 dca.
122.8	126.6	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above with decrease in biotitic alteration and carbonatization with depth. Becoming typical green and well foliated below 124.5 m. Lower contact, sharp, undulating, 44 dca.
126.6	127.7	GARNETIFEROUS BASALT GtB. Similar to above. Lower contact, sharp, undulating, 39 dca.
127.7	128.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. Lower contact, gradual over 30 cm, 45 dca.
128.4	203.0	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Very fine grained to fine grained, blue grey, grey, non-magnetic, hard. Well developed foliation. 4-6% Minute quartz clasts aligned parallel to foliation. Two sets of fractures : one set parallel to foliation the other perpendicular to foliation. Fractures perpendicular to foliation have bleached, carbonatized alteration halos up to 4 mm wide. 3-5% Quartz-carbonate as veinlets and seam parallel to foliation. Occasionally with blebs of pyrite and or chalcopyrite. Occasional quartz-carbonate vein up to 10 cm. Locally trace to 1% disseminated pyrite. Pyrite and pyrrhotite as minute irregular seams parallel to foliation. Local weak carbonatization. Very strong carbonatization confined to narrow, <5 mm, alteration halos along parallel and perpendicular fractures. Wider zones of alteration as noted. 135.0 Foliation, 40 dca. 138.0 Perpendicular fracture, 48 dca. 139.3 Fractured 10 cm QUARTZ-VEIN with pyrite. 140.0 Foliation, 35 dca. 143.0 Perpendicular fracture, 29 dca. 144.6 Strong carbonatization and bleaching 3 cm wide along a parallel and a perpendicular fracture. 145.0 Foliation, 44 dca. 150.0 Foliation, 45 dca. Perpendicular fracture, 48 dca. 155.0 Foliation, 45 dca. 159.0 Foliation, 65 dca. 160.0 Perpendicular fracture, 47 dca. 165.0 Foliation, 47 dca. 166.6 A 10 cm zone of carbonatization along a closely spaced set of perpendicular fractures.

From (m)	To (m)	Geology
		170.0 Foliation, 46 dca. Perpendicular fracture, 46 dca. 175.0 Foliation, 51 dca. Perpendicular fracture, 62 dca. 180.0 Foliation, 54 dca. 185.0 Foliation, 58 dca. 190.0 Foliation, 50 dca. Perpendicular fracture, 55 dca. 195.0 Foliation, 47 dca. Perpendicular fracture, 60 dca. 195.0 195.1 Brecciated section with quartz-carbonate and 10% pyrrhotite and pyrite. 200.0 Foliation, 54.
203.0		END OF HOLE
		DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DRILLING HISTORY and HOLE CONTROL EQUIPMENT. .0 15.3 Tricone. .0 15.4 NW casing. 15.3 203.0 Two hex-corebarrels and MX-10 drill bit. Hole stopped at 10:00 p.m., March 12,. Gyro-dip survey not done. Wedging, at 150m, started at 10:30 pm, completed at 6:12 am, March 13. Hole abandoned at 10:00 am, March 13. Unable to drill past the wedge. Hole cemented. Casing pulled. 27 Bags of #10 Cement. 1.5 Hours required to cement the hole. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. No sludge samples taken. Sample STANDARDs, BLANKs and DUPLICATEs. E36539 STANDARD I 7.41 7.44 NS. E36540 BLANK 0.34 ns ns. E36550 is a DUPLICATE of E36549 1 0.41 ns ns. E36560 STANDARD I 7.41 7.47 NS. E36561 BLANK 0.17. E36570 is a DUPLICATE of E36569 0 0.41 ns ns. E36579 STANDARD I 7.23 7.41 NS. E36580 BLANK 0.24 ns ns. E36590 is a DUPLICATE of E36589 0 0.86 ns ns. E36599 STANDARD I 7.27 7.54 NS. E36600 BLANK 0.17 ns ns. E36610 is a DUPLICATE of E36610 5 5.38 ns ns. E36621 STANDARD I 7.44 7.47 NS.

From (m)	To (m)	Geology
		E36622 BLANK 0.10 ns ns. E36630 is a DUPLICATE of E36629 0 1.44 ns ns. Hole dip tests not used as Code 2 data. Code 2 used only the Acid tests below. Gyro-dip (Inrun Survey) not completed. Depth Dip Type. 0.00 -60.5 Brunton. 15m -62.5 Acid. 24m -62 Acid. 29m -59.5 Roto-dip. 35m -59 Roto-dip. 38m -61.5 Acid. 50m -59 Roto-dip. 56m -58 Roto-dip. 80m -56 Roto-dip. 83m -58 Roto-dip. 104m -59 Acid. 104m -55.5 Roto-dip. 131m -55.5 Roto-dip. 143m -55.5 Roto-dip. 150m -57 Acid. 167m -55 Roto-dip. 191m -57 Acid. Roto-dip stuck at -55. Out for repair. Miscellaneous:. The hole required; 45 core boxes, 103 assay tags, 206 sample bags, and 11 sample boxes for 88 core samples. The average daily temperature, @ 7:00 am, was -29 degrees Celsius.

DRILL HOLE RECORD

Northing: 10249.61
Easting: 9016.25
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -60.00

Hole Length: 447
Core Size: NQ
Date Started: MARCH 13, 1993
Logged by: B.J. McKay

Drill Hole: 506-630

Northing: 10250N
Easting: 9016E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10250N
Completed: MARCH 20, 1993
Date(s) Logged: MARCH 14-20, 1993

*** Dip Tests ***

Depth	Azi.	Dip
15.2	228.3	-60.0
30.5	228.3	-59.0
45.7	227.1	-57.5
61.0	227.1	-57.5
76.2	225.9	-56.0
91.4	226.0	-57.0
106.7	225.9	-55.0
121.9	224.8	-56.0
137.2	224.2	-56.0
152.4	223.5	-54.0
167.6	222.2	-53.3
182.9	223.5	-53.8
198.1	223.4	-53.0
213.4	220.8	-51.5
228.6	221.4	-50.8
243.8	220.7	-50.5
259.1	220.7	-50.0
274.3	219.9	-49.0
289.6	220.7	-50.0
304.8	220.6	-49.0
320.0	222.1	-50.0
335.3	221.9	-48.0
350.5	222.1	-49.0
365.7	223.3	-48.0
381.0	222.1	-48.5
396.2	221.9	-47.0
411.5	221.7	-46.0
426.7	224.0	-47.8

Claim: Pa529497: 360.7m; Pa529500: 86.0m
Comments: 112.9mW, 77.3mN to WP of #1 post, Claim# Pa529497
Purpose: to test S, C, T and WA Zones.

From (m)	To (m)	Geology
		REVISED LOG, 22 APRIL, 1993. Includes assay data. Includes revised Gyro-dip data. Missing sample numbers (Standards, Blanks and Duplicates) are. Listed at the end of the drill log. Highlights of 506-630:. Island Zone:. S-Zone:. C-Zone:. T-Zone:.

From (m)	To (m)	Geology
		WA-Zone:. All fold orientations are looking southward, up plunge. This orientation is the same as the strip log.
.0	12.8	CASING 0.0 1.4 Ice. 1.4 12.8 Sand and gravel. NORTHERN IRON FORMATION: 12.8m-114.6m.
12.8	98.3	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Very fine grained, fine grained, black, white, moderately to strongly magnetic, very hard to moderately soft. Well developed bedding / foliation with finely bedded, <1mm, units in the 4B sections and alternating beds of B and F up to 3 cm thick in the 4BF sections. Bedding varies from undeformed and very uniform to complete brecciation and fragmentation. This latter texture is common in veined and altered, mineralized, sections. Unit exhibits minute drag-folding, which is typical. Fracturing parallel to and perpendicular to bedding is common. Faulting, parallel to bedding is common. 4B Units are locally boudinaged with partial movement and rounding of individual boudins. Micro-faulting and micro-brecciation is common in 4B beds. Unit is weakly to strongly carbonatized. Strongest carbonatization occurs in mineralized sections. Moderate to strong silicification. Locally strong grunerite alteration. Quartz and quartz-carbonate veining occurs as noted. Pyrrhotite, pyrite, ARSENOPYRITE and VISIBLE GOLD as noted. 13.0 Foliation, 30 dca. Perpendicular fracture, 57 dca. 14.0 Foliation, 43 dca. 15.0 Foliation, 40 dca. Perpendicular fracture, 55 dca. 16.0 Foliation, 30 dca. 17.0 Foliation, 38 dca. Perpendicular fracture, 55 dca. 18.0 Foliation, 30 dca. 19.0 Foliation, 34 dca. 20.0 Foliation and fracture, 40 dca. Perpendicular fracture, 16 dca. 21.0 Foliation, 46 dca. 22.0 Foliation, 38 dca. 23.0 Foliation, 35 dca. 24.0 Foliation, 36 dca. Perpendicular fracture, 50 dca. 25.0 Foliation, 38 dca. 26.0 Foliation, 38 dca. Perpendicular fracture, 17 dca. 27.0 Axial plane, right limb folding, 28 dca. 27.6 Fault, 30 dca. 28.0 Foliation, 36 dca. 28.7 Perpendicular fracture, 60 dca. 29.0 Foliation, 40 dca. 30.0 Foliation, 30 dca. Perpendicular fracture, 65 dca. 30.4 30.5 QUARTZ-VEIN parallel to foliation. 31.0 Foliation, 30 dca. 32.0 Foliation, 40 dca.

From (m)	To (m)	Geology
		33.0 Foliation and Fault, 31 dca. 33.0 34.0 4bf. 3% quartz stringers. 33.8 Perpendicular fracture, 45 dca. 34.0 Foliation, 35 dca. 34.0 35.0 4B, 15%qf, m grun. 34.0 50.0 Pervasive strong carbonatization and silicification. Up to 30% quartz flooding and trace to 3% pyrrhotite. Alterations, veining and pyrrhotite decreasing with depth. 35.0 Foliation, 32 dca. 35.0 36.0 4B, 20%qf, m-s grun. 36.0 Foliation, 35 dca. 36.0 37.0 4B, 15%qf, m grun. 37.0 Foliation, 40 dca. 37.0 38.0 4FB, 20%qf, w grun. 37.6 Axial plane, right limb folding, 27 dca. 38.0 Foliation and Fault, 30 dca. 38.0 39.0 4B, 5%qf, m grun. 39.0 Foliation, 55 dca. 39.0 40.0 4B, 20%qf, m grun. 40.0 Foliation, 42 dca. Perpendicular fracture, 50 dca. 40.0 41.0 4B, 15%qf, w-m grun. 41.0 Foliation, 43 dca. 41.0 42.0 4B, 10%qf, w-m grun. 42.0 Foliation, 37 dca. Perpendicular fracture, 40 dca. 42.0 43.0 4B, w grun. 43.0 Foliation, 46 dca. 43.0 44.1 4B, 25 cm qv, 10%qf, w grun. 44.0 Foliation and fracture, 23 dca. Parallel fault, 25 dca. 44.1 45.0 4B, 10%qf, w-m grun. 45.0 Foliation, 26 dca. 45.0 46.0 4B, 10%qf, w-m grun. 46.0 Foliation, 30 dca. Perpendicular fracture, 60 dca. 46.0 47.0 4B, 30%qf, m-s grun. 47.0 Foliation, 34 dca. 47.0 48.0 4B, w grun. 48.0 Foliation and fault, 20 dca. 48.0 49.0 4B, w grun. 49.0 Foliation, 28 dca. 49.0 50.0 4B, 5%qf, w-m grun. 49.4 Perpendicular fracture, 50 dca. 50.0 Foliation, 28 dca. 50.4 Axial plane, right limb folding, 45 dca. 51.0 Foliation, 40 dca. 52.0 Foliation, 24 dca. 53.0 Foliation, 12 dca. 54.0 Foliation, 16 dca. 55.0 Foliation, 19 dca. Perpendicular fracture, 53 dca. 56.0 Foliation, 20 dca. Perpendicular fracture, 53 dca. 56.1 56.3 Two faults, 22 and 13 dca. 57.0 Foliation, 22 dca. 58.0 Foliation, 23 dca. 59.0 Foliation, 37 dca.

From (m)	To (m)	Geology
		59.0 64.0 Section with 10-30% quartz flooding, trace pyrrhotite and trace ARSENOPYRITE. Strong pervasive carbonatization, strong pervasive silicification, strong grunerite alteration, VISIBLE GOLD.
		60.0 Foliation, 20 dca.
		60.0 61.0 4B, 10%qf, loc s grun.
		60.1 60.6 Fault, 20 dca.
		61.0 Foliation, 21 dca.
		61.0 62.0 4B, 15%qf, loc s grun.
		62.0 Foliation, 20 dca.
		62.0 62.9 4B, 30%qf, loc s grun., tr py.
		62.9 64.0 4B, 30%qf, loc s grun., tr asp, VG.
		63.0 VISIBLE GOLD : 2 specks.
		63.0 Foliation, 38 dca.
		63.3 VISIBLE GOLD : 31 specks.
		63.3 Perpendicular fracture, 64 dca.
		63.5 VISIBLE GOLD : 3 specks.
		63.8 64.0 QUARTZ-VEIN with trace pyrrhotite.
		64.0 Foliation, 24 dca.
		64.0 65.0 4B, 10%qf, loc s grun.
		65.0 Foliation, 30 dca. Perpendicular fracture, 73 dca.
		65.0 66.0 4bf.
		66.0 Foliation, 18 dca.
		67.0 Foliation, 25 dca.
		68.0 Foliation, 18 dca.
		69.0 Foliation, 18 dca. Parallel fault, 38 dca.
		70.0 Foliation, 70 dca.
		71.0 Foliation, 23 dca.
		72.0 Foliation, 22 dca.
		73.0 Foliation, 25 dca. Perpendicular fracture, 59 dca.
		73.8 74.0 QUARTZ-VEIN with 2% pyrrhotite.
		74.0 Foliation, 30 dca.
		75.0 Foliation, 24 dca. Parallel fault, 36 dca.
		76.0 Foliation, 24 dca. Perpendicular fracture, 55 dca.
		77.0 Fault, 20 dca.
		78.0 Foliation, 32 dca.
		79.0 Foliation, 30 dca.
		80.0 Foliation, 35 dca.
		81.0 Foliation, 32 dca.
		81.0 81.7 4B, 40qv, 40%qf, loc w grun, 1%py.
		81.0 81.7 80% quartz veining and quartz flooding with 5% pyrrhotite and 1% pyrite.
		82.0 Foliation and fault, 40 dca.
		83.0 Foliation, 44 dca. Perpendicular fracture, 50 dca.
		84.0 Axial plane, right limb folding, 35 dca.
		84.5 Fault, 27 dca. Perpendicular fracture, 34 dca.
		85.0 Foliation, 28 dca. Fault, 12 dca.
		86.0 Foliation, 31 dca.
		87.0 Foliation, 27 dca. Perpendicular fracture, 67 dca.
		88.0 Foliation, 27 dca.
		89.0 Foliation, 30 dca.
		89.0 90.0 4bf. Moderate grunerite alteration.
		90.0 Foliation, 27 dca. Perpendicular fracture, 42 dca.
		90.0 91.0 4B, 5%qf, m-s grun.

From (m)	To (m)	Geology
		91.0 Foliation, 30 dca. 91.0 92.0 4BF, 5%qf, w grun. 92.0 Foliation, 23 dca. 92.0 93.0 4BF, 15%qf, w-m grun. Tr asp. 92.3 VISIBLE GOLD : 1 speck. 92.9 VISIBLE GOLD : 2 specks. 93.0 Foliation, 35 dca. 93.0 94.0 4BF, w grun. 94.0 Foliation, 34 dca. 94.0 95.0 4BF, w grun. 95.0 Fault, 16 dca. 95.2 Axial plane, right limb folding, 30 dca. 96.0 Foliation and fracture, 29 dca. 97.0 Foliation, 34 dca. 98.0 Foliation, 30 dca. Lower contact, sharp, undulating, 27 dca.
98.3	99.6	GARNETIFEROUS BASALT GtB. Typical GtB with 10-90% garnets, moderately developed foliation, non-magnetic, non carbonatized. 99.0 Foliation, 32 dca. Lower contact, sharp, 33 dca.
99.6	101.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical BVOL. Fine grained, brownish-green, green, non-magnetic to very weakly magnetic, moderately soft. Well developed foliation. Local biotitic alteration, weak to moderate carbonatization. 100.0 Foliation, 36 dca. Lower contact, 35 dca.
101.5	102.1	GARNETIFEROUS BASALT GtB with BVOL. Similar to units above. 101.4 101.7 BVOL interbed. Lower contact, sharp, 35 dca.
102.1	102.9	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4FB. Similar to above with minor chlorite in F beds. Very fine grained to fine grained, moderately magnetic, very hard. 5% Pyrrhotite, quartz veining up to 4 cm. 102.2 Perpendicular fracture, 60 dca. Lower contact, sharp, seam of pyrrhotite, 25 dca.
102.9	108.6	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above with weak to strong carbonatization, non-magnetic. Locally strong biotitic alteration. 3-5% Quartz-carbonate as seams and veinlets. 105.0 Foliation, 40 dca.

From (m)	To (m)	Geology
		108.0 Perpendicular fracture, 58 dca. Lower contact, sharp, 35 dca.
108.6	110.2	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF With GtB. Similar to above with 5-10% chloritic matrix, locally up to 15% garnets, 15% B beds 10% quartz flooding. Moderately to strongly magnetic, moderate to strong grunerite alteration. Trace pyrite, 6% pyrrhotite. 109.4 109.7 GtB interbed. Lower contact, sharp, 44 dca.
110.2	114.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. Pervasive moderate to strong carbonatization. Strong pervasive biotitic alteration. 110.4 Perpendicular fracture, quartz-carbonate, 55 dca. Lower contact, sharp, 23 dca.
114.0	114.6	GARNET-AMPHIBOLE / GARNET-BIOTITE / CHERT-MAGNETITE I.F. 4EFB. Similar to above 4BF unit with strong pervasive chlorite and biotite alteration, 10% B beds, 20-40% garnets. Locally weakly to moderately magnetic. Trace pyrrhotite. Lower contact, sharp, 40 dca.
114.6	115.2	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above unit. Strong silicification, with 10% quartz flooding and minor veining. This interval is finer grained and lighter grey than above unit. Lower contact, sharp, 41 dca.
115.2	115.8	GARNETIFEROUS BASALT GtB. Similar to above with <5% B beds. Locally silicified, locally strong biotite alteration, 60% GtB with 40-60% garnets. Trace pyrite. Lower contact, sharp, 40 dca. Perpendicular fracture with pyrrhotite, 53 dca.
115.8	118.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above with decrease in biotitic alteration and carbonatization with depth. Becoming typical unit to green and well foliated, below 124.5m. Lower contact, sharp, 44 dca.
118.9	119.4	GARNETIFEROUS BASALT GtB. Similar to above. Lower contact, sharp, 45 dca. Perpendicular fracture, 52 dca.
119.4	123.6	INTERMEDIATE TO MAFIC VOLCANICS BVOL.

From (m)	To (m)	Geology
		Similar to above. Lower contact, sharp, 47 dca.
123.6	124.9	GARNETIFEROUS BASALT GtB. Similar to above. Lower contact, sharp, 39 dca. Numerous perpendicular fractures, up to 3 mm wide, with pyrite, 42 dca.
124.9	127.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. Lower contact, sharp, 40 dca.
127.0	127.4	GARNETIFEROUS BASALT GtB. Typical GtB with 25% quartz flooding and 4% pyrrhotite. Unit is locally weakly magnetic. 127.2 A 5mm irregular, seam of massive pyrrhotite, parallel to foliation. Lower contact, sharp, 41 dca.
127.4	225.6	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Very fine grained to fine grained, blue grey, grey, non-magnetic, hard. Well developed foliation. 4-6% Minute quartz clasts aligned parallel to foliation. Two sets of fractures : one set parallel to foliation the other perpendicular to foliation. Fractures perpendicular to foliation have bleached, carbonatized alteration halos up to 1 cm wide. 3-5% Quartz-carbonate as veinlets and seam parallel to foliation. Occasionally with blebs of pyrite and or chalcopyrite. Occasional quartz-carbonate vein up to 35 cm. Locally trace to 1% disseminated pyrite. Pyrite and pyrrhotite also as minute irregular seams parallel to foliation. Local weak carbonatization. Very strong carbonatization confined to narrow, <5mm, alteration halos along parallel and perpendicular fractures. Wider zones of alteration as noted. Occasional strongly silicified section with 30% creamy white quartz flooding over 1 metre intervals. 129.0 Perpendicular fracture, 42 dca. 130.0 Foliation, 46 dca. 134.5 Perpendicular fracture, 52 dca. 135.0 Foliation, 39 dca. 139.0 Perpendicular fracture, 39 dca. 140.0 Foliation, 47 dca. 145.0 Foliation, 54 dca. Perpendicular fracture, 52 dca. 147.2 Perpendicular fracture, 21 dca. 150.0 Foliation, 45 dca. 151.7 Perpendicular fracture, 40 dca. 155.0 Foliation, 45 dca. 159.0 Perpendicular fracture, 49 dca. 160.0 Foliation, 49 dca. 162.0 Perpendicular fracture, 50 dca. 164.9 165.1 Quartz-carbonate vein. 165.0 Foliation, 39. 170.0 Foliation, 48 dca. 171.7 171.9 Quartz-carbonate vein. 173.4 Perpendicular fracture, 50 dca.

From (m)	To (m)	Geology
		173.7 173.9 Quartz-carbonate vein. 175.0 Foliation, 50 dca. 180.0 Foliation, 43 dca. Perpendicular fracture, 45 dca. 185.0 Foliation, 50 dca. 185.4 185.8 Quartz-carbonate vein. 190.0 Foliation, 52 dca. Perpendicular fracture, 49 dca. 195.0 Foliation, 52 dca. Perpendicular fracture, 49 dca. 196.0 Perpendicular fracture, 60 dca. 198.9 Quartz-carbonate vein. 199.0 Perpendicular fracture, 64 dca. 200.0 Foliation, 54 dca. 203.5 Perpendicular fracture, 46 dca. 205.0 Foliation, 60 dca. 209.0 217.0 Up to 5% garnets. Locally silicified and bleached with minor epidote alteration. 209.0 Perpendicular fracture, 48 dca. 210.0 Foliation, 65 dca. 214.5 Perpendicular fracture, 45 dca. 215.0 Foliation, 57 dca. 220.0 Foliation, 50 dca. 222.0 Perpendicular fracture, 60 dca. 225.0 Foliation, 53 dca. Perpendicular fracture, 59 dca. Lower contact, sharp, 58 dca.
225.6	230.0	GARNETIFEROUS BASALT GtB. Fine grained, green black, brownish-green, brown, locally weakly magnetic, hard. Poorly to moderately well developed foliation. Strong biotitic and chloritic alteration, locally weak carbonatization and silicification. 40-80% Garnets up to 1 cm wide. Trace to 1% pyrite. Occasional QUARTZ-VEIN up to 3 cm wide. 230.0 Foliation 57 dca. Lower contact, sharp, 63 dca.
230.0	253.2	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, green, non-magnetic, moderately hard. Well developed foliation. Locally fractured, parallel to and perpendicular to foliation. 3-5% Quartz-carbonate veins, stringers and seams, up to 1 cm wide, parallel to foliation. Occasional stringer perpendicular to foliation. Quartz-carbonate veins occasionally with trace chalcopyrite. 235.0 Foliation, 42 dca. 235.3 Perpendicular fracture, 45 dca. 240.0 Foliation, 50. Perpendicular fracture, 52 dca. 245.0 Foliation, 53 dca. 245.4 245.6 GtB interbed. Contacts parallel to foliation. 245.4 Perpendicular fracture, 55 dca. 247.0 Perpendicular fracture, 47 dca. 250.0 Foliation, 38 dca. Perpendicular fracture, 61 dca. Lower contact, sharp, 33 dca.
253.2	257.0	GARNETIFEROUS BASALT

From (m)	To (m)	Geology
		GtB with BVOL. Typical units. 254.1 255.6 BVOL interbed. 254.1 Contact, sharp, 50 dca. 255.6 Contact, sharp, 45 dca. Lower contact, sharp, 44 dca.
257.0	275.7	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical unit except as noted. 259.0 264.0 Very fine grained to fine grained, grey-green, moderately soft, non-magnetic, very poorly developed foliation (massive flow texture??). 261.0 Perpendicular fracture, 60 dca. 264.4 264.6 Quartz-carbonate vein. 265.0 Foliation, 48 dca. 267.0 Foliation, 57 dca. 269.9 Perpendicular fracture, 48 dca. 269.9 270.6 GtB interbed with quartz-carbonate flooding and 1% pyrrhotite. 269.9 Contact, sharp, 54 dca. 270.6 Contact, sharp, 51 dca. 274.7 275.7 BVOL. 275.0 Foliation, 52 dca. Lower contact, sharp, 59 dca.
275.7	277.8	INTRAFORMATIONAL IRON FORMATION 24EA With BVOL. Very fine grained to fine grained, green, black, brown, white, weakly magnetic, hard to very hard. Moderately to well developed foliation, contorted. Strong chloritic and biotitic alteration, strong silicification, local moderate grunerite alteration. 40-60% Quartz flooding, <5% garnets, 3-8% pyrrhotite, trace ARSENOPYRITE, trace chalcopyrite. BVOL interbeds as noted. 275.7 276.5 24EA, 30%qf, loc m grun. 276.0 Perpendicular fracture, 42 dca. 276.5 277.0 BVOL interbed. 276.5 277.0 BVOL. 276.5 Contact, sharp, 54 dca. 277.0 Contact, sharp, 42 dca. 277.0 277.8 24EA, sito abo. 277.3 277.5 BVOL interbed. Lower contact, sharp, 40 dca.
277.8	284.8	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. 277.8 278.8 BVOL. 1% calcite stringers. 283.0 Foliation, 41 dca. 283.4 Perpendicular fracture, 56 dca. Lower contact, sharp, 52 dca.
284.8	287.3	INTRAFORMATIONAL IRON FORMATION 24EA.

From (m)	To (m)	Geology
		Similar to above. Weakly to strongly magnetic, trace pyrrhotite, trace chalcopyrite. Lower contact, sharp, 46 dca. 284.8 286.0 24EA, 15%qf. 286.0 287.3 24EA, 20%qf, loc s grun, tr cpy.
287.3	309.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above. 287.3 288.3 BVOL. 1% calcite stringers. At 287.7 13 cms of garnetiferous 2-4. 287.7 287.9 24EA interbed. 288.0 Perpendicular fracture, 40 dca. 290.0 Foliation, 50 dca. 292.0 Perpendicular fracture, 43 dca. 294.0 298.0 Section with moderate to strong biotitic alteration and strong pervasive carbonatization. 295.0 Foliation, 38 dca. Perpendicular fracture, 37 dca. 298.0 Perpendicular fault, with minor gouge, 30 dca. 300.0 Foliation, 25 dca. 300.7 Perpendicular fracture, 65 dca. 304.0 Perpendicular fracture, 41 dca. 305.0 Foliation, 50 dca. 309.0 Foliation, 53 dca. Perpendicular fracture, 50 dca. Lower contact, sharp, 55 dca.
309.9	311.9	GARNET-BIOTITE SCHIST 4F. Fine to medium grained, black, brown, non-magnetic, moderately soft. 60% Biotitic matrix with 40% garnets up to 8 mm wide. First 30 cm with quartz flooding. Trace pyrrhotite. Poorly to moderately developed foliation. Lower contact, irregular, sharp, 40 dca.
311.9	327.6	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA: S-ZONE MINERALIZATION. Typical unit with very fine grained blue grey B beds, alternating with fine grained, green, E beds. Minor F beds, locally up to 15%. Weakly to strongly magnetic. Well developed foliation / bedding, locally contorted. Unit is fractured parallel to and perpendicular to foliation. Pervasive moderate to strong grunerite alteration, strong pervasive silicification of B beds. 20-50% Garnets in E beds. 10-40% Quartz flooding, occasional quartz-carbonate stringers and irregular seams. Minor quartz veining, up to 5 cm wide. Trace to 5% pyrrhotite, trace ARSENOPYRITE, VISIBLE GOLD. 311.9 313.0 4BE, 20%qf, 5%qcb, m-s grun. 313.0 Foliation, 43 dca. 313.0 314.0 4BE, 20%qf, s grun. 314.0 Foliation, 40 dca. Perpendicular fracture, 43 dca. 314.0 315.0 4EB, 20%qf, 3%qcb, m-s grun. 315.0 Foliation, 45 dca. 315.0 316.0 4EB, 15%qf, s grun. 316.0 Foliation, 47 dca.

From (m)	To (m)	Geology
		316.0 317.0 4E, 25%qf, tr asp, m-s grun. 317.0 Foliation, 28 dca. 317.0 318.0 4EB, 20%qf, tr asp, s grun. 318.0 Foliation, 25 dca. 318.0 319.0 4BE, 10%qf, m-s grun. 319.0 Foliation, 32 dca. 319.0 320.0 4BE, 15%qf, m-s grun. 320.0 Foliation, 17 dca. 320.0 321.0 4B, 20%qf, m grun., VG. 320.6 Axial plane, right limb folding, 26 dca. 321.0 Foliation, 54 dca. 321.0 322.0 4B, 15%qf, m grun. 321.3 Perpendicular fracture, 55 dca. 322.0 Foliation, 30 dca. 322.0 323.0 4BE, 10%qf, m grun. 323.0 Foliation, 58 dca. 323.0 324.0 4BE, 15%qf, m-s grun. 324.0 Foliation, 20 dca. 324.0 325.0 4EB, 10%qf, w-m grun. 325.0 Foliation, 42 dca. Perpendicular fracture, 56 dca. 325.0 326.0 4EB, 15%qf, 3%qc, m grun. 326.0 Foliation, 44 dca. 326.0 327.0 4BE, 10%qf, m grun. 327.0 Foliation, 40 dca. 327.0 327.6 4EB, 15%qf, s grun, VG. 327.1 VISIBLE GOLD : 2 specks. 327.4 VISIBLE GOLD : 1 speck. 327.5 VISIBLE GOLD : 2 specks. Lower contact, sharp, 45 dca.
327.6	343.7	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical unit. Fine grained, biotized with pervasive strong carbonatization. Lower 4m contains 5% garnets up to 1 cm wide. 327.6 328.6 BVOL, bitd, 20%qc fldg. 328.0 Foliation, 40 dca. 329.0 Foliation, 40 dca. 330.0 Foliation, 50 dca. Perpendicular fracture, 66 dca. 335.0 Foliation, 47 dca. 335.3 Perpendicular fracture, 50 dca. 340.0 Foliation, 45 dca. 341.0 Perpendicular fracture, 60 dca. 342.0 Foliation, 57 dca. Lower contact, sharp, 46 dca.
343.7	413.3	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA; C-ZONE MINERALIZATION:. 4EA; T-ZONE MINERALIZATION:. 4EA; WA-ZONE MINERALIZATION:. Typical unit. Fine grained, grey, green, brown, white, black, weakly to strongly magnetic, very hard to moderately soft.

From (m)	To (m)	Geology
		Well developed bedding / foliation, locally contorted. Folding is very common. Axial plane fracturing parallel to bedding. A second set of fractures perpendicular to bedding / foliation. Unit is locally SHEARED and faulted parallel to bedding. Unit consists of B and E beds up to 3 cm thick. E beds with 30-60% garnets. Pervasive strong silicification of B beds with partial and complete remobilization of chert. Minor quartz veining. Ut 40% qf. Quartz flooding INCLUDES COMPLETELY REMOBILIZED chert. Weak to strong grunerite alteration. Minor weak carbonatization. Nil to 5% pyrrhotite, trace ARSENOPYRITE, VISIBLE GOLD as noted. 343.7 345.0 4B, 5%qf, loc w grun. 344.0 Foliation, 49 dca. Perpendicular fracture, 54 dca. 344.6 Axial plane, right limb folding, 55 dca. 345.0 Foliation, 34 dca. 345.0 346.0 4B, 4%qf, loc w grun. 346.0 347.0 4B, v w grun. 346.3 Axial plane, right limb folding, 45 dca. 347.0 Foliation, 0 dca. 347.0 348.0 4B, v w grun. 348.0 Foliation, 22 dca. 348.0 349.0 4BF, 3%qf, w grun. 349.0 Foliation, 38 dca. Perpendicular fracture, 50 dca. 349.0 350.0 4BE, 25%qf, w-m grun. 350.0 Foliation 44 dca. 350.0 351.0 4EB, 25%qf, m grun., tr asp, VG. 351.0 VISIBLE GOLD : 1 speck. 351.0 Foliation, 55 dca. 351.0 352.0 4EB, 20%qf, 10%qv, m-s grun., VG. 351.5 VISIBLE GOLD : 4 specks. 352.0 Foliation, 55 dca. 352.0 353.0 4EB, 20%qf, s grun., VG. 353.0 VISIBLE GOLD : 8 specks. 353.0 Foliation, 54 dca. Perpendicular fracture, 47 dca. 353.0 354.0 4EB, 10%qf, s grun., VG. 353.9 VISIBLE GOLD : 1 speck. 354.0 VISIBLE GOLD : 1 speck. 354.0 Foliation, 27 dca. 354.0 355.0 4EB, 5%qf, m grun., VG. 354.2 VISIBLE GOLD : 2 specks. 355.0 Foliation, 45 dca. 355.0 356.0 4EB, 15%qf, w grun. 356.0 357.0 Foliation, contorted. 356.0 357.0 4EB, 15%qf, w grun., VG. 356.9 VISIBLE GOLD : 2 specks. 357.0 358.0 4E, 20%qf, m grun. 358.0 Foliation, 43 dca. 358.0 359.0 4E, 20%qf, m grun., VG. 358.4 VISIBLE GOLD : 1 speck. 358.5 Perpendicular fracture, 52 dca. 359.0 Foliation, 34 dca. 359.0 360.0 4EF, w grun.

From (m)	To (m)	Geology
		360.0 Foliation, 39 dca.
		360.0 361.0 4BF, 10%qf, w grun., VG.
		360.5 VISIBLE GOLD : 1 speck.
		361.0 Foliation, 35 dca. Perpendicular fracture, 48 dca.
		361.0 362.0 4BF, 5%qf, w grun.
		362.0 Foliation, 30 dca.
		362.0 363.0 4BF, w grun.
		363.0 364.0 4EB, 5 cm BVOL, 10%qf, m grun., VG.
		363.4 VISIBLE GOLD : 5 specks.
		363.5 VISIBLE GOLD : 2 specks.
		363.7 Axial plane, right limb folding, 57 dca.
		364.0 Foliation, 20 dca.
		364.0 365.0 4EB, 10%qf, m grun., VG.
		364.4 VISIBLE GOLD : 67 specks, (in a cluster 1 cm in dia.).
		365.0 Foliation, 32 dca.
		365.0 366.0 4EB, 15%qf, 5%qv, w grun., VG.
		365.8 VISIBLE GOLD : 6 specks.
		366.0 Foliation, 33 dca. Perpendicular fracture, 65 dca.
		366.0 367.0 4EB, 20%qf, m-s grun., VG.
		366.4 VISIBLE GOLD : 5 specks.
		367.0 Foliation, 33 dca.
		367.0 368.0 4EB, 15%qf, m-s grun.
		368.0 Foliation, 44 dca.
		368.0 369.0 4BE, w grun.
		369.0 Foliation, 38 dca. Perpendicular fracture, 45 dca.
		369.0 370.0 4BE, loc w grun,.
		370.0 Foliation, 49 dca.
		370.0 371.0 4EB, 25%qf, s grun., tr asp, VG.
		370.4 VISIBLE GOLD : 2 speck, trace ARSENOPYRITE.
		371.0 Foliation, 36 dca.
		371.0 372.0 15 cm BVOL, 4EB, 15%qf, m grun.
		371.9 372.0 BVOL interbed, contacts parallel to foliation.
		372.0 Foliation, 43 dca.
		372.0 373.0 15 cm BVOL, 4EB, 10%qf, w-m grun.
		372.3 372.5 BVOL interbed, contacts parallel to foliation.
		373.0 Foliation, 37 dca.
		373.0 374.0 4EB, 20%qf, s grun., tr asp.
		374.0 Foliation, 49 dca.
		374.0 375.0 4E, 30%qf, s grun., tr asp.
		375.0 Foliation, 36 dca. Perpendicular fracture, 34 dca.
		375.0 376.0 4EB, 25%qf, s grun., VG.
		375.5 VISIBLE GOLD : 6 specks.
		376.0 Foliation, 36 dca. Perpendicular fracture, 43 dca.
		376.0 377.0 4EB, 10%qf, m grun.
		377.0 Foliation, 37 dca.
		377.0 378.0 4BEF, 5%qf, w-m grun.
		378.0 Foliation, 48 dca.
		378.0 378.5 4EB, 50%qf, s grun.
		378.5 379.0 BVOL interbed, contacts parallel to foliation.
		378.5 379.0 BVOL.
		379.0 Foliation, 50 dca. Perpendicular fracture, 23 dca.

From (m)	To (m)	Geology
		379.0 380.0 4E, 40%qf, s grun., VG.
		379.5 VISIBLE GOLD : 5 specks.
		380.0 Foliation, 38 dca.
		380.0 381.0 4EB, 15%qf, m grun.
		380.4 Perpendicular fracture, 48 dca.
		381.0 Foliation, 40 dca.
		381.0 382.0 4EB, 15%qf, 5%qcb, m-s grun.
		382.0 Foliation, 41 dca.
		382.0 382.6 4EBF, w grun.
		382.6 383.6 BVOL interbed with minor GtB, contacts parallel to foliation.
		382.6 383.6 BVOL.
		383.6 384.5 4FEB, loc w grun.
		384.0 Foliation, 40 dca. Perpendicular fracture, 50 dca.
		384.5 384.7 BVOL interbed with minor GtB, contacts parallel to foliation.
		384.5 385.6 4FEB, loc w grun.
		385.0 Foliation, 34 dca.
		385.6 386.5 4E, 30%qf, s grun., VG.
		385.9 VISIBLE GOLD : 3 specks.
		386.0 Foliation, 48 dca.
		386.0 VISIBLE GOLD : 7 specks.
		386.3 VISIBLE GOLD : 2 specks.
		386.5 387.4 4EB, w-m grun., VG.
		386.6 VISIBLE GOLD : 2 specks.
		387.0 Foliation, 40 dca.
		387.4 VISIBLE GOLD : 8 specks.
		387.4 388.5 4E, 20%qf, m grun.
		388.0 Foliation, 37 dca.
		388.5 389.8 15 cm BVOL, 4EBF, w grun.
		389.0 Foliation, 40 dca.
		389.6 389.8 BVOL interbed, contacts parallel to foliation.
		389.8 390.6 4EB, 10%qf, s grun.
		390.0 Foliation, 38 dca.
		390.6 391.4 4E, 15%qf, s grun., VG.
		390.7 VISIBLE GOLD : 2 specks.
		390.8 VISIBLE GOLD : 24 specks.
		391.0 Foliation, 34 dca.
		391.3 VISIBLE GOLD : 2 specks.
		391.4 392.1 4EBF, 10%qf, m-s grun.
		392.0 Foliation, 43 dca.
		392.1 393.1 10 cm BVOL, 4E, 10%qf, w-m grun.
		392.7 392.8 BVOL interbed, contacts parallel to foliation.
		393.0 Foliation, 45 dca.
		393.1 394.0 4EB, 15%qf, m-s grun., VG.
		393.3 VISIBLE GOLD : 1 speck.
		394.0 394.6 5 cm BVOL, 4EB, w-m grun.
		394.0 Foliation, 32 dca.
		394.6 395.3 4E, 20%qf, s grun., VG.
		394.8 VISIBLE GOLD : 2 specks.
		395.0 Foliation, 35 dca.
		395.3 396.0 4EB, 10%qf, m-s grun.
		396.0 Foliation, 40 dca.

From (m)	To (m)	Geology
		396.0 397.0 4E, 20%qf, s grun.
		396.6 Perpendicular fracture, 55 dca.
		397.0 Foliation, 43 dca.
		397.0 398.0 4E, 25%qf, s grun.
		397.5 Perpendicular fracture, 23 dca.
		398.0 Foliation, 55 dca.
		398.0 399.0 4E, 30%qf, s grun., 1% asp.
		399.0 Foliation, 50 dca.
		399.0 399.6 4E, 30%qf, 2%qcb, s grun., tr asp, VG.
		399.3 VISIBLE GOLD : 1 speck.
		399.5 Perpendicular fracture, 24 dca.
		399.6 400.4 20 cm qv w/cpy, 4E, 15%qf, s grun., VG.
		399.6 299.8 QUARTZ-VEIN with trace chalcopyrite.
		399.7 VISIBLE GOLD : 1 speck.
		400.0 Foliation, 52 dca.
		400.4 400.8 BVOL interbed, contacts parallel to foliation.
		400.4 401.0 35 cm BVOL, 4E, 40%qf, s grun.
		401.0 Foliation, 42 dca.
		401.0 402.0 60% BVOL, 4E, 40%qf, s grun.
		401.4 402.0 BVOL interbed, contacts parallel to foliation.
		402.0 Foliation, 43 dca.
		402.0 403.0 4E, 15%qf, w grun.
		403.0 Foliation, 25 dca.
		403.0 404.0 4E, 15%qf, w-m grun.
		403.2 Fault, 43 dca.
		403.7 Parallel fracture, 60 dca.
		404.0 Foliation, 38 dca.
		404.0 405.0 4E, 15%qf, w-m grun., VG.
		404.5 VISIBLE GOLD : 1 speck.
		405.0 Foliation, 32 dca.
		405.0 406.0 4FB, w grun.
		406.0 Foliation, 32 dca.
		406.0 407.0 4F.
		406.6 Fault, 33 dca.
		407.0 Foliation and fault, 33 dca.
		407.0 408.0 4F.
		407.6 Parallel fracture, 40 dca.
		408.0 Foliation, 31 dca.
		408.0 409.0 4F, 5%qf.
		408.4 Perpendicular fracture, 45 dca.
		409.0 Foliation, 40 dca.
		409.0 410.0 4EBF, w-m grun.
		410.0 Foliation, 36 dca.
		410.0 411.0 4EBF, w-m grun.
		411.0 Foliation, 40 dca.
		411.0 412.0 4EB, 15%qf, m grun.
		411.3 Perpendicular fracture, 40 dca.
		412.0 Foliation, 34 dca.
		412.0 413.2 10 cm BVOL, 4E, 10%qf, m grun.
		412.3 Perpendicular fracture, 35 dca.
		412.9 413.0 BVOL interbed, contacts parallel to foliation.

From (m)	To (m)	Geology
		413.0 Foliation, 32 dca. Lower contact, sharp, 42 dca.
413.3	445.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical unit. Fine to medium grained, brown, green, blue grey, non-magnetic, moderately soft to hard. Well developed foliation. Locally biotized, pervasive weak to strong carbonatization, strongest carbonatization in biotitic sections. Locally silicified. 3-5% Quartz-carbonate as irregular seams and veins up to 3 cm wide. Larger veins as noted. 414.7 Fault, with minor gouge, 23 dca. 415.0 Foliation, 60 dca. Perpendicular fracture, 45 dca. 420.0 Foliation, 60 dca. 421.0 Perpendicular fracture, 44 dca. 422.9 423.4 Quartz-carbonate vein with irregular fragments of wallrock and wisps of chlorite. 425.0 Foliation, 64 dca. 428.4 Perpendicular fracture, 33 dca. 430.0 Foliation, 68 dca. 435.0 Foliation, 55 dca. 439.0 Perpendicular fracture, 55 dca. 439.7 445.9 Bleached, silicified, biotitic section with minor quartz flooding occasional F bed and minor GtB. 440.0 Foliation, 60 dca. 441.2 Perpendicular fault, 15 dca. 445.0 Foliation, 60 dca. Lower contact, sharp, 60 dca.
445.9	446.7	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4FB. Fine grained, black, grey, weakly to moderately magnetic, hard. Occasional B bed, predominantly F beds. Well developed bedding. Fractured parallel to and perpendicular to bedding. Occasional fault. 446.6 Foliation, 70 dca.
446.7		END OF HOLE
		DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.
		DRILLING HISTORY and HOLE CONTROL EQUIPMENT. .0 12.8 Tricone. .0 12.9 NW casing. 12.8 89.0 20ft stabilized corebarrel and MX-10 drill bit. 89.0 203.0 Standard corebarrel and MX-10 drill bit. 203.0 446.7 Double hex-corebarrel, with reamer and MX-10 drill bit.
		Hole stopped at 7:40am, March 20. Light-log survey completed at 11:00am. Gyro-dip survey completed at 1:00pm.

From (m)	To (m)	Geology
		Hole cemented. Casing pulled. 90 Bags of #10 Cement. 5 Hours required to cement the hole. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples (280m to EOH) taken. Sludge samples stored on the site. Sample STANDARDs, BLANKs and DUPLICATEs. E36639 STANDARD I 0.38 ns ns. E36640 BLANK 0.17 ns ns. E36650 is a DUPLICATE of E36649 2 0.41 ns ns. E36660 STANDARD I 7.47 7.61 NS. E36661 BLANK 0.07 ns ns. E36670 is a DUPLICATE of E36669 0 0.03 ns ns. E36681 STANDARD I 8.06 7.47 NS. E36682 BLANK 0.17 ns ns. E36690 is a DUPLICATE of E36689 1 0.45 ns ns. E36699 STANDARD I 7.78 7.75 NS. E36700 BLANK 0.27 ns ns. E36719 STANDARD I 7.99 7.65 NS. E36720 BLANK 0.31 ns ns. E36730 is a DUPLICATE of E36729 4 3.12 ns ns. E36740 STANDARD I 7.10 7.23 NS. E36741 BLANK 0.17 ns ns. E36750 is a DUPLICATE of E36749 5 4.77 ns ns. E36759 STANDARD I 7.27 7.65 NS. E36760 BLANK 0.17 ns ns. E36770 is a DUPLICATE of E36769 0 3.67 4.35 NS. Roto-dip repaired and returned near the end of the hole. Acid tests were used to monitor the hole. Code 2 data is the results of Gyro-dip (Inrun Survey) survey by CBC WELLNAV, NORTH BAY, ONTARIO. DEPTH DIP TYPE. 0.0 -60 Brunton. 12m -60.5 Acid. 27m -60 Acid. 32m -60 Acid. 62m -60 Acid. 92m -59 Acid. 122m -58 Acid. 152m -56.5 Acid. 182m -56 Acid. 212m -56 Acid. 242m -54.5 Acid. 272m -54 Acid.

From (m)	To (m)	Geology
		322m -52 Acid. 362m -50.5 Acid. 413m -47 Roto-dip. 422m -46 Roto-dip. 437m -46 Roto-dip. The following results are from the Light-log survey. Depth Az. Dip. 0.00 228.00 -59.00. 2.93 227.39 -59.80. 5.86 226.77 -60.60. 8.79 226.57 -60.50. 11.72 226.98 -60.30. 14.65 227.79 -59.90. 17.58 228.40 -59.90. 20.51 228.40 -59.80. 23.44 228.40 -59.70. 26.37 228.40 -59.50. 29.30 228.40 -59.30. 32.23 228.40 -59.20. 35.16 228.40 -59.10. 38.09 228.40 -58.90. 41.02 228.20 -58.60. 43.95 228.20 -58.40. 46.88 228.20 -58.20. 49.81 228.01 -58.10. 52.74 228.01 -58.10. 55.67 228.01 -58.00. 58.60 228.01 -57.90. 61.53 228.01 -57.80. 64.46 228.01 -57.60. 67.39 228.01 -57.40. 70.32 228.01 -57.30. 73.25 227.82 -57.20. 76.18 227.63 -57.00. 79.11 227.45 -56.90. 82.04 227.45 -56.80. 84.97 227.45 -56.70. 87.90 227.45 -56.70. 90.83 227.45 -56.70. 93.76 227.45 -56.70. 96.69 227.45 -56.70. 99.62 227.45 -56.70. 102.55 227.45 -56.60. 105.48 227.45 -56.60. 108.41 227.45 -56.60. 111.34 227.45 -56.60. 114.27 227.45 -56.50. 117.20 227.45 -56.50. 120.13 227.45 -56.40. 123.06 227.08 -56.20.

From (m)	To (m)	Geology
		125.99 227.08 -56.10.
		128.92 227.08 -56.10.
		131.85 226.90 -55.90.
		134.78 226.54 -55.80.
		137.71 226.36 -55.80.
		140.64 226.36 -55.80.
		143.57 226.36 -55.80.
		146.50 226.36 -55.80.
		149.43 226.36 -55.80.
		152.36 226.36 -55.80.
		155.29 226.54 -55.70.
		158.22 226.54 -55.60.
		161.15 226.54 -55.60.
		164.08 226.54 -55.50.
		167.01 226.54 -55.50.
		169.94 226.54 -55.40.
		172.87 226.72 -55.30.
		175.80 226.72 -55.30.
		178.73 226.72 -55.20.
		181.66 226.72 -55.20.
		184.59 226.72 -55.10.
		187.52 226.72 -55.10.
		190.45 226.72 -55.10.
		193.38 226.72 -55.00.
		196.31 226.54 -54.70.
		199.24 226.37 -54.50.
		202.17 226.19 -54.40.
		205.10 226.02 -54.20.
		208.03 225.67 -53.90.
		210.96 225.33 -53.60.
		213.89 224.99 -53.20.
		216.82 224.99 -53.10.
		219.75 224.99 -53.00.
		222.68 224.99 -52.90.
		225.61 224.99 -52.70.
		228.54 224.99 -52.70.
		231.47 224.99 -52.60.
		234.40 224.99 -52.40.
		237.33 224.99 -52.30.
		240.26 224.99 -52.10.
		243.19 224.99 -51.90.
		246.12 224.99 -51.80.
		249.05 224.99 -51.60.
		251.98 224.83 -51.40.
		254.91 224.83 -51.20.
		257.84 224.83 -51.10.
		260.77 224.83 -51.00.
		263.70 224.83 -50.90.
		266.63 224.83 -50.80.
		269.56 224.83 -50.70.
		272.49 224.83 -50.60.

From (m)	To (m)	Geology
		275.42 224.67 -50.50. 278.35 224.67 -50.40. 281.28 224.67 -50.30. 284.21 224.67 -50.20. 287.14 224.67 -50.20. 290.07 224.67 -50.10. 293.00 224.67 -50.00. 295.93 224.67 -50.00. 298.86 224.51 -49.90. 301.79 224.51 -49.90. 304.72 224.51 -49.80. 307.65 224.51 -49.80. 310.58 224.51 -49.50. 313.51 224.51 -49.50. 316.44 224.51 -49.40. 319.37 224.51 -49.30. 322.30 224.51 -49.20. 325.23 224.51 -49.51. 328.16 224.35 -49.10. 331.09 224.20 -49.10. 334.02 224.20 -49.10. 336.95 224.20 -49.00. 339.88 224.20 -48.90. 342.81 224.20 -48.80. 345.74 224.20 -48.80. 348.67 224.20 -48.70. 351.60 224.20 -48.60. 354.53 224.20 -48.60. 357.46 224.35 -48.50. 360.39 224.35 -48.50. 363.32 224.35 -48.40. 366.25 224.20 -48.30. 369.18 224.35 -48.20. 372.11 224.35 -48.10. 375.04 224.35 -48.10. 377.97 224.35 -48.00. 380.90 224.20 -48.00. 383.83 224.20 -48.00. 386.76 224.20 -48.00. 389.69 224.20 -47.90. 392.62 224.20 -47.90. 395.55 224.20 -47.80. 398.48 224.20 -47.80. 401.41 224.20 -47.70. 404.34 224.20 -47.70. 407.27 224.20 -47.60. 410.20 224.20 -47.60. 413.13 224.20 -47.60. 416.06 224.20 -47.50. 418.99 224.20 -47.50. 421.92 224.20 -47.40.

From (m)	To (m)	Geology
		424.85 224.05 -47.20. 427.78 224.05 -47.20. 430.71 224.05 -47.20. 433.64 224.05 -47.20. 436.57 224.05 -47.20. 439.50 224.05 -47.20. Miscellaneous:. The hole required; 101 core boxes, 141 assay tags, 282 sample bags, and 17 sample boxes for 121 core samples. The average daily temperature, @ 7:00 am, was -23 degrees Celsius.

Date: 14 Nov, 1993

PLACER DOME EXPLORATION

DRILL HOLE RECORD

Northing: 10300.01
Easting: 8964.73
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -60.50

Hole Length: 372
Core Size: NQ
Date Started: MARCH 19, 1993
Logged by: T. TENNENT

*** Depth	Dip Tests Azi.	*** Dip
15.2	226.4	-59.3
30.5	227.7	-60.0
45.7	226.6	-58.5
61.0	226.7	-58.0
76.2	225.9	-58.0
91.4	226.0	-57.5
106.7	226.1	-57.5
121.9	226.3	-57.5
137.2	226.4	-58.0
152.4	226.5	-58.0
167.6	224.8	-57.5
182.9	224.4	-57.5
198.1	223.2	-57.0
213.4	222.2	-57.0
228.6	222.2	-56.5
243.8	222.3	-56.5
259.1	222.4	-56.0
274.3	221.3	-56.0
289.6	221.4	-56.0
304.8	222.1	-55.8
320.0	222.0	-55.5
335.3	221.0	-56.0
350.5	222.1	-55.0

Drill Hole: 506-631

Northing: 10300N
Easting: 8956E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10300N
Completed: MARCH 25, 1993
Date(s) Logged: MARCH 21 - 25, 1993

Claim: PA 529497: 372.1m
Comments: 41m W and 79.5m N TO WP of #1 post, CLAIM PA 529497
Purpose: TO TEST THE C, T AND WA ZONES

From (m)	To (m)	Geology
		Note: All reference to folding - both right and left limb folds - are looking down the plunge of the deposit (ie. Northwest).
.0	25.8	ICE AND WATER AND OVERBURDEN 10 Cm of granodiorite boulders.
25.8	35.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderate hardness. Foliation 35 to 41 dca. Core extremely fractured throughout unit. Fractures perpendicular to foliation at 35 to 45 dca and parallel to foliation at 35 to 56 dca. Lower contact broken. 30.0 31.5 Fault Gouge. Rusty coloured.
35.0	179.2	FELSIC TO INTERMEDIATE VOLCANICS AVOL - Interbedded Intermediate to Felsic Ash and Crystal Tuffs. Fine grained, finely laminated, medium to light grey and buff. Moderately hard. Non-magnetic.

From (m)	To (m)	Geology
		Alternating zones of felsic tuff with 5% to 15% sericite laminae and up to 5% 1 mm feldspar phenocrysts and crystal tuff with up to 10% stretched feldspar phenocrysts and minor sericite laminae. From 35.00 to 50.00 metres foliation at 26 to 35 dca. From 50.00 to 179.18 metres foliation 40 to 51 dca. Dominant fracture set perpendicular to foliation at 40 to 60 dca*. Minor set subparallel to foliation at 35 to 60 dca. Fractures commonly calcareous. Locally fracture selvages are bleached. Unit is siliceous and strongly sericitic. Trace to 1% disseminated pyrite and pyrrhotite. 1% 5 Mm to 1 cm quartz and quartz-calcite stringers parallel to foliation. Lower contact sharp at 49 dca. 35.0 41.5 Extremely fractured core. 35.0 36.0 Foliation 26 dca. Fractures perpendicular to foliation at 47 dca. 35.0 59.5 Ash tuff with 5% to 15% sericite laminae and 5% 1 mm feldspar phenocrysts. 38.0 41.0 Two metres lost core. 41.0 42.0 Foliation 30 dca. Fractures subparallel to foliation at 37 and perpendicular at 42 dca. 41.5 43.8 Moderately fractured core. 43.8 44.7 Strongly fractured core. 44.7 49.9 Moderately fractured core. 49.9 50.3 Extremely fractured core. 50.0 51.0 Foliation 37 dca. Fractures subparallel at 45 dca and perpendicular at 53 dca. 50.2 50.3. Contacts 42 dca. 59.5 63.5 Crystal tuff. 3% sericite laminae. 10% 1 mm feldspar phenocrysts. 60.0 61.0 Foliation 42 dca. Fractures perpendicular to bedding at 48 dca and subparallel to bedding at 30 dca. 62.0 72.0 1% to 3% pyrite. Trace to 15% quartz stringers. 63.5 72.0 Ash tuff. 70.0 71.0 Foliation 37 dca. Fractures perpendicular to bedding at 24 and 55 dca. 72.0 124.5 Crystal tuff. 10% feldspar phenocrysts and 5% sericite laminae. 80.0 81.0 Foliation 40 dca. Fractures perpendicular to bedding at 55 dca and subparallel at 33 dca. 90.0 91.0 Foliation 40 dca. Fractures perpendicular to bedding at 54 dca. 100.0 101.0 Foliation 40 dca. Fractures subparallel to bedding at 55 dca. 110.0 111.0 Foliation 40 dca. Fractures perpendicular to foliation at 67 dca and parallel at 40 dca. 120.0 121.0 Foliation 40 dca. Fractures perpendicular and parallel to foliation at 50 dca. 124.5 145.9 Ash tuff with up to 15% sericite laminae. 125.6 126.0 Extremely shattered core. 130.0 131.0 Foliation 47 dca. Fractures perpendicular at 64 dca and parallel at 40 dca. 140.0 141.0 Foliation 51 dca. Fractures perpendicular to 50 dca and parallel at 47 dca. 145.9 163.7 Crystal tuff. 150.0 151.0 Foliation 50 dca. Fractures parallel to foliation at 41 dca. 160.0 161.0 Foliation 45 dca. Fractures perpendicular at 60 dca. 163.7 172.8 5% to 8% 2 mm to 4 cm stretched augen shaped to wispy white masses of quartz flooding with 1 mm to 1 cm anhedral garnet centres. Augens range from 5 mm long and 2 mm wide to 5 cm long and 5 mm wide. Zone has 3% 1 mm brownish coloured staurolite crystals concentrated in bands up to 5 cm long. Sericitic. Foliation and possible shearing at 50 dca. 172.8 179.2 Ash tuff. 178.2 179.2 AVOL.
179.2	179.8	INTRAFORMATIONAL IRON FORMATION 24E. 25% amorphous 1 cm garnets in a fine grained, mafic matrix. Weakly magnetic. Biotitic. Bedding 52 dca. Fractures parallel to bedding at 49 dca.

From (m)	To (m)	Geology
		8% Blebs and wisps of pyrrhotite and 10% quartz flooding. Lower contact 62 dca. 179.2 179.8 4e. 10% quartz flooding.
179.8	201.7	INTRAFORMATIONAL IRON FORMATION 24f. Medium grained, black and pink. Non-magnetic. Moderate hardness. 30% 1 Mm anhedral to subhedral garnets in a biotitic matrix. Foliation 40 to 67 dca. Fractures subparallel to foliation at 32 to 57 dca. Minor fractures perpendicular at 34 dca. Trace disseminated pyrrhotite. 1% quartz stringers parallel to foliation with minor po. Lower contact 43 dca. 179.8 180.8 24f. 3% quartz stringers. 181.9 182.4. Upper contact 43 dca. Lower contact 37 dca. 183.1 183.8. Contacts 42 dca. D77960 STANDARD II 9.60 10.25 NS. D77961 BLANK 0.17 NS NS. 192.4 193.7 4f. 3% quartz stringers. Amorphous garnets.
201.7	202.8	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Locally garnetiferous. Foliation at 57 dca. Lower contact at 50 dca.
202.8	206.9	INTRAFORMATIONAL IRON FORMATION 24f. Similar to 179.80 to 201.70 metres. Lower contact 43 dca.
206.9	211.7	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Biotitic. Foliation at 40 dca. Dominant fracture set perpendicular to foliation at 62 dca. 3% Calcareous hairline fractures at various angles to the core axis. Lower contact at 53 dca.
211.7	215.7	INTRAFORMATIONAL IRON FORMATION 24eaf. 20% 2 Mm to 1 cm pink, anhedral to euhedral garnets in a fine grained to medium grained, dark grey to black, amphibole-biotite-grunerite matrix. Very weakly magnetic. Hard. Bedding at 66 to 70 dca. Folded. Fractures 57 dca. Trace to 4% pyrrhotite and locally up to 15% quartz veining. Lower contact 55 dca. 211.7 212.7 24ef. Bedding 66 dca. 212.7 213.7 24ef. 7% quartz veining with 2% pyrrhotite.

From (m)	To (m)	Geology
		213.7 214.7 24eaf. 2% quartz veining. Moderate grunerite. Folded. Bedding 54 dca. 214.7 215.7 24eaf. 15% quartz veining. Moderate grunerite. Folded. Bedding 70 dca.
215.7	217.2	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Foliated 45 dca. Fractures perpendicular to foliation at 55 dca. Lower contact 57 dca.
217.2	218.6	INTRAFORMATIONAL IRON FORMATION 24eaf. Similar to 211.67 to 215.70 metres. Lower contact 57 dca. 217.2 218.6 24ea. 5% quartz flooding. Moderate grunerite. Bedding 47 dca.
218.6	252.7	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Hard. Well foliated at 36 to 50 dca. Dominant fracture set perpendicular to foliation at 50 to 60 dca. Minor sets subparallel to foliation at 35 to 52 dca and 16 dca. Moderately chloritic and biotitic. Trace pyrrhotite. 1% to 5% white quartz and quartz-calcite stringers parallel to foliation. Lower contact irregular. 219.3 220.3 BVOL. 2% calcite stringers. 220.0 221.0 Foliation 50 dca. Fractures subparallel to foliation at 35 and perpendicular at 60 dca. 220.3 221.1 BVOL and 24ea. 10% quartz flooding. 221.1 222.1 BVOL. 230.0 231.0 Foliation 36 dca. 240.0 241.0 BVOL. 30% quartz veining. Foliation 40 dca. 250.0 251.0 Foliation 50 dca. Fractures subparallel at 67 dca and perpendicular at 50 dca. 250.2 5 cms of 4ea. Top of right limb fold with ap at 55 dca.
252.7	256.8	INTRAFORMATIONAL IRON FORMATION AND INTERMEDIATE TO MAFIC VOLCANICS 24eab And BVOL. 24eab Unit contains:. 30% 4b Beds. 30% 4ea Beds with amorphous garnets. 30% Quartz-calcite veining. Bedding is strongly folded throughout. Up to 5% disseminated and wispy pyrrhotite. 1 speck VISIBLE GOLD. Up to 30% quartz-calcite veining and flooding. BVOL is typical. Lower contact 23 dca. 252.7 253.4. Lower contact 46 dca. D77970 252.67 253.40 DUPLICATE 0.03 NS NS. 252.7 253.4 24eab. 30% quartz veining. Folding with axial plane at 60 dca. Lower contact 46 dca. 253.4 253.8. Lower contact 60 dca. 253.4 253.8 BVOL. 253.8 254.1. 5% pyrrhotite and 10% quartz-calcite veining. Lower contact 43 dca. 253.8 254.4 4eab and BVOL.

From (m)	To (m)	Geology
		254.1 254.4. Lower contact 50 dca. 254.4 256.8. Lower contact irregular at 23 dca. 254.4 255.4 4eab. 2 specks VISIBLE GOLD. 30% quartz-calcite veining. Bedding 18 and 60 dca. 255.4 256.8 4eab. 15% quartz flooding. Bedding folded.
256.8	259.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Foliated at 39 dca. Lower contact 43 dca. 256.8 257.8 BVOL. 257.8 259.0 BVOL.
259.0	263.5	GARNETIFEROUS BASALT GtB. 30% 5 Mm anhedral garnets in a black and dark green, medium grained, biotite-amphibole matrix. Non-magnetic. Hard. Poorly foliated at 45 dca. Dominant fracture set perpendicular to foliation at 40 to 45 dca. Second set at 30 dca. Trace to 3% pyrrhotite. Minor quartz veining. Lower contact 52 dca. 259.0 260.1 GtB. 5% quartz veining. Foliation 36 dca. 260.1 260.3. Lower contact 38 dca. D77980 STANDARD II 9.63 10.18 NS. D77981 BLANK 0.07 NS NS. 260.3 261.3 GtB. 261.3 262.3 GtB. 262.3 263.4 GtB.
263.5	266.5	INTRAFORMATIONAL IRON FORMATION 24ea. Non-magnetic. Bedding 0 dca. Fractures 67 dca. 1% to 3% disseminated pyrrhotite. Lower contact at 26 dca. 263.5 264.5 4ea. Bedding 0 dca. 264.5 265.5 4ea. Bedding 0 dca. 265.5 266.5 4eaf. Bedding 0 dca.
266.5	290.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark greenish-brown. Non to weakly magnetic. Hard. Biotitic. Calcareous. Minor garnets. Strong foliation at 17 to 39 dca. Fractures subparallel to foliation at 29 to 38 dca and perpendicular at 51 dca. Overall approximately 10% to 15% quartz and quartz-calcite stringers with up to 1% pyrrhotite. 1 mm to 4 cm wide and parallel to foliation. Lower contact 26 dca. 269.0 270.0 BVOL. 20% quartz-calcite veining. 270.0 271.0 Foliation and fractures at 29 dca.

From (m)	To (m)	Geology
		D77990 272.00 273.00 DUPLICATE 1.58 NS NS. 270.0 271.0 BVOL. 20% quartz-calcite veining. Foliation 29 dca. Fractures parallel at 29 dca. 271.0 272.0 BVOL. 15% quartz-calcite veining. 272.0 273.0 BVOL. 15% quartz-calcite veining. 273.0 274.0 BVOL. 5% creamy quartz veining. 274.0 275.0 BVOL. 20% boudinaged quartz stringers. 275.0 276.0 BVOL. 25% quartz flooding. 276.0 277.0 BVOL. 1% quartz-calcite stringers. 277.0 278.0 BVOL. 20% quartz flooding and quartz-calcite veining. 278.0 279.0 BVOL. 20% quartz veining. 279.0 280.0 BVOL. 15% quartz-calcite stringers. 280.0 281.0 Foliation 33 dca. Fractures parallel at 38 dca. Trace pyrrhotite. 5% quartz-calcite stringers. 290.0 290.4 BVOL. 10% quartz-calcite stringers. Foliation 39 dca.
290.4	309.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. 70% Ea beds. 1 cm to 3 cm wide. Strongly gruneritized. Anhedral garnets. Weakly to moderately magnetic. 25% Dark grey chert beds. Many of the beds may be partially replaced by quartz flooding. 5% Dark green E beds. 1 mm to 4 mm wide. Bedding 11 to 35 dca. At 295.55 right limb folding with axial plane at 36 dca. At 304.70 left limb folding with axial plane at 25 dca. One fracture set perpendicular to bedding at 47 to 55 dca. Second set subparallel to bedding at 21 to 36 dca and a third set at 13 dca. From 290.40 to 298.00 trace to 1% pyrrhotite and up to 2% quartz stringers. From 298.00 to 309.05 3% to 8% pyrrhotite and up to 10% quartz flooding. Lower contact sharp at 34 dca. E53001 STANDARD II 9.67 9.57 NS. E53002 BLANK 0.17 NS NS. 290.4 291.0 4ea. 1% quartz stringers. Strong grunerite. Bedding 35 dca. 291.0 292.0 4ea. 2% quartz stringers. Strong grunerite. Bedding 22 dca. 292.0 293.0 4ea. Strong grunerite. Bedding 25 dca. 293.0 294.0 4ea. Strong grunerite. 2% quartz stringers. Bedding 25 dca. 294.0 295.0 4ea. Strong grunerite. Bedding 20 dca. 295.0 296.0 4ea. Strong grunerite. Bedding 11 dca. At 295.55 right limb folding with axial plane at 36 dca. 296.0 297.0 4ea. Strong grunerite. 1% quartz stringers. Bedding 14 dca. 296.6 297.2 Core fractured core at 22 dca. E53010 298.00 299.00 DUPLICATE 2.37 NS NS. 297.0 298.0 4ea. Strong grunerite. 1% quartz stringers. Bedding 22 dca. 298.0 299.0 4ea. Strong grunerite. 3% quartz flooding. Bedding 25 dca. 299.0 300.0 4ea. Strong grunerite. 5% quartz flooding. Bedding 26 dca. 300.0 301.0 4ea. Strong grunerite. 3% quartz flooding. Bedding 29 dca. 301.0 302.0 4ea. Strong grunerite. 5% quartz flooding. Bedding 25 dca. 302.0 303.0 4ea. Strong grunerite. 3% quartz flooding. Bedding 34 dca. 303.0 304.0 4ea. 10% quartz flooding. Strong grunerite. Bedding 22 dca. 304.0 305.0 4ea. 3% quartz flooding. Strong grunerite. Bedding 20 dca. At 304.70 left limb folding with axial plane at 25 dca. 305.0 306.0 4ea. 10% quartz flooding. Strong grunerite. Bedding 29 dca. 306.0 307.0 4ea. 1 speck VISIBLE GOLD. 10% quartz flooding. Strong grunerite. Bedding 22 dca. 307.0 308.0 4ea. Trace ARSENOPYRITE. 5% quartz flooding. Strong grunerite. Bedding 29 dca. 308.0 309.0 4ea. 5% quartz flooding. Strong grunerite. Bedding 31 dca.
309.0	314.4	GARNET-BIOTITE SCHIST 4f.

From (m)	To (m)	Geology
		70% 4f Beds with 30% 1 mm garnets. 1 to 2 cm thick. 30% Chert or quartz flooded chert beds. 5 mm to 1 cm. Well bedded at 17 to 30 dca. At 310.10 left limb folding with axial plane at 70 dca. Fractures subparallel to bedding at 13 dca and perpendicular at 40 dca. Lower contact sharp at 31 dca. E53022 STANDARD II 10.22 10.08 NS. E53023 BLANK 0.17 NS NS. 309.0 310.0 4f. 10% quartz flooding. Bedding 27 dca. 310.0 311.0 4f. 10% quartz stringers. Bedding 30 dca. At 310.10 left limb folding with axial plane at 70 dca. 311.0 312.0 4f. 10% quartz stringers. Bedding 17 dca. 312.0 313.0 4f. 5% quartz flooding. Bedding 28 dca. 313.0 314.4 4f. Bedding 26 dca.
314.4	320.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderately hard. Foliation 37 dca. Fractures perpendicular to foliation at 53 dca and parallel at 35 dca. Minor quartz-calcite stringers. Lower contact at 36 dca.
320.0	321.0	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Bedding 38 dca. 5% Blebs and wisps pyrrhotite. 15% quartz flooding. Strong grunerite alteration. Lower contact 16 dca. 320.0 321.0 4ea. 15% quartz flooding. Strong grunerite. 320.5 320.6 BVOL. Contacts 31 dca.
321.0	322.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to 314.35 to 319.95. Lower contact at 34 dca. E53030 321.00 322.00 DUPLICATE 0.03 NS NS. 321.0 322.0 BVOL.
322.0	347.5	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eaf, 4ea And 4f. 65% 1 Cm to 5 cm ea beds. Strongly gruneritized. 10% to 30% 5 mm to 1 cm f beds. 30% 1 mm garnets. 5% 5 Mm e beds. From 322.00 to 328.00 4eaf. From 328.00 to 331.50 4ea. From 331.50 to 335.00 4f. From 335.00 to 347.53 4eaf. Unit hard to moderately soft. Non-magnetic. Bedding moderately to well developed at 23 to 34 dca. Right limb folding with axial plane at 43 to 53 dca. Dominant fracture set perpendicular to bedding at 56 dca. Minor fractures subparallel to bedding at 13 to 21 dca. Mineralized zone from 322.00 to 331.18 metres with trace to 20% pyrrhotite in blebs and wisps. Several intervals with VISIBLE GOLD. Up to 40% quartz flooding. Lower contact 26 dca.

From (m)	To (m)	Geology
		E53040 STANDARD II 9.57 NS NS. E53041 BLANK 0.34 NS NS. 322.0 323.0 4eaf. 15% quartz flooding. Bedding 27 dca. 323.0 324.0 4eaf. 15% quartz flooding. Bedding 24 dca. 324.0 325.0 4eaf. 5% quartz flooding. Bedding 25 dca. At 324.40 right limb folding with axial plane at 55 dca. 325.0 326.0 4eaf. Bedding 27 dca. 326.0 327.0 4eaf. 5% quartz flooding. Bedding 23 dca. At 326.8 axial plane at 43 dca. 327.0 328.0 4eaf. 40% quartz flooding. Bedding 28 dca. At 327.0 axial plane at 43 dca. 328.0 329.0 4ea. 1 speck VISIBLE GOLD. 40% quartz flooding. Bedding 34 dca. 329.0 330.0 4ea. 1 speck VISIBLE GOLD. 20% quartz flooding. Bedding 30 dca. 330.0 331.2 4ea. 24 specks VISIBLE GOLD. 20% quartz flooding. Bedding 29 dca. 331.2 331.5. Contacts 24 dca. From 331.50 to 336.75 metres 4f with 70% black and pink f beds. 1 mm to 2 cm wide. 30% 1 mm garnets. 30% chert or quartz replacing chert beds. 5 mm wide. E53050 337.00 338.00 DUPLICATE 0.34 NS NS. E53061 STANDARD II 10.01 9.84 NS. E53062 BLANK 0.24 NS NS. 331.2 331.5 BVOL. 331.5 332.0 4f. Bedding 25 dca. 332.0 333.0 4fea. Weak grunerite. Bedding 26 dca. 333.0 334.0 4f. Bedding 25 dca. 334.0 335.0 4f. Bedding 12 dca. 335.0 336.0 4eaf. Bedding 26 dca. 336.0 337.0 4eaf. 15% quartz flooding. Bedding folded. 337.0 338.0 4eaf. 5% quartz stringers. Bedding 20 dca. 338.0 339.0 4eaf. 5% quartz stringers. Bedding 22 dca. 339.0 340.0 4eaf. 10% quartz veining at 30 dca. Healed fracture with 8 cm offset of QUARTZ-VEIN. 340.0 341.0 4eaf. Bedding 19 dca. 341.0 342.0 4eaf. 5% quartz flooding. Bedding 19 dca. 342.0 343.0 4eaf. 5% quartz flooding. Bedding 25 dca. 343.0 344.0 4f. 5% sheared quartz stringers. Bedding 20 dca. At 343.40 left limb folding with axial plane at 36 dca. 344.0 345.0 4eaf. Bedding 30 dca. 345.0 346.0 4eaf. Bedding 21 dca. 346.0 347.0 4eaf. Bedding 25 dca. 347.0 347.5 4eaf. Bedding 27 dca.
347.5	354.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained dark green-grey and brown. Moderate hardness. Non-magnetic. Locally biotitic and chloritic. Foliation 40 dca. Fractures perpendicular to bedding at 55 and 64 dca. Trace pyrrhotite. Lower contact 42 dca. 353.0 354.0 BVOL. 1% quartz-calcite stringers.
354.0	357.7	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eaf and 4ea. Similar to 322.00 to 347.53 metres.

From (m)	To (m)	Geology
		From 353.95 to 356.00 4eaf with 1% pyrrhotite. From 356.00 to 357.70 4ea with 2% to 8% pyrrhotite. Lower contact 30 dca. 354.0 355.0 4eaf. Moderate grunerite. 5% quartz flooding. Bedding 40 dca. 355.0 356.0 4eaf. Weak grunerite. Bedding 40 dca. 356.0 357.0 4ea. Strong grunerite. 8% quartz flooding. Bedding 33 dca. 357.0 357.7 4e. Moderate grunerite. 2% quartz flooding. Bedding 39 dca.
357.7	372.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to 347.53 to 353.95 metres. Foliation 33 to 37 dca. Fractures perpendicular to foliation at 52 dca. Second set perpendicular at 35 dca. Trace pyrrhotite. 1% to 3% quartz-calcite stringers parallel to foliation. Locally up to 30% quartz veining with 1% pyrrhotite. 357.7 358.7 BVOL. 359.8 360.8 BVOL. 5% quartz stringers parallel to foliation with 1% pyrrhotite. 360.0 361.0 Foliation 33 dca. Fractures perpendicular at 52 dca. E53070 359.80 360.80 DUPLICATE 0.69 NS NS. 360.8 361.8 BVOL. 25% quartz stringers with 1% pyrrhotite. 370.0 371.0 Foliation 37 dca. Fractures perpendicular to foliation at 52 dca.
372.1		END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken between 290.00 and 372.10 metres. DRILLING HISTORY:. 0.00 25.75 Tricone. 25.75 272.10 Two Hexagon Core Barrels - Dimatec MX10 and MX9 bits. Casing pulled - 2.5 hours. Hole cemented - 5.5 hours. 83 bags of 20 kg Type 50 cement used. SURVEYING HISTORY. Gyroscopic Directional Survey by J. Stringer, CBC Welnav, North Bay, Ontario used for Class 2 Data. Survey took 2 hours. Dip Tests:. 26.0 -60.5 Acid. 40.0 -60.0 Rotodip. 52.0 -59.5 Rotodip. 61.0 -59.0 Rotodip. 70.0 -59.0 Rotodip. 76.0 -59.0 Rotodip. 79.0 -58.0 Rotodip. 91.0 -58.0 Rotodip. 103.0 -58.0 Rotodip. 115.0 -58.0 Rotodip. 127.0 -58.0 Rotodip.

From (m)	To (m)	Geology
		133.0 -58.0 Rotodip. 151.0 -58.0 Rotodip. 163.0 -57.5 Rotodip. 175.0 -57.5 Rotodip. 187.0 -57.0 Rotodip. 199.0 -57.0 Rotodip. 217.0 -56.5 Rotodip. 229.0 -56.0 Rotodip. 241.0 -56.0 Rotodip. 253.0 -56.0 Rotodip. 265.0 -55.5 Rotodip. 283.0 -55.5 Rotodip. 295.0 -55.5 Rotodip. 304.0 -55.5 Rotodip. 316.0 -55.5 Rotodip. 325.0 -55.5 Rotodip. 337.0 -55.0 Rotodip. 355.0 -55.0 Rotodip.

Date: 14 Nov, 1993

PLACER DOME EXPLORATION

DRILL HOLE RECORD

Northing: 10400.20
Easting: 9001.34
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -60.75

Hole Length: 449
Core Size: NQ
Date Started: MARCH 20, 1993
Logged by: DENISE INGS

*** Depth	Dip Tests Azi.	*** Dip
15.2	228.0	-60.0
30.5	228.3	-60.0
45.7	228.0	-60.5
61.0	228.2	-57.5
76.2	226.5	-58.8
91.4	226.7	-57.0
106.7	226.9	-56.0
121.9	227.2	-55.8
137.2	227.5	-55.8
152.4	227.1	-55.5
167.6	227.6	-56.0
182.9	226.1	-55.3
198.1	226.6	-56.0
213.4	225.6	-54.0
228.6	225.4	-55.0
243.8	225.8	-54.0
259.1	224.9	-54.0
274.3	224.8	-55.0
281.9	224.6	-55.0
289.6	224.9	-56.0
304.8	221.8	-55.0
320.0	224.9	-55.0
335.3	226.1	-55.0
350.5	227.6	-55.0
365.7	228.0	-54.0
381.0	227.9	-54.0
396.2	226.5	-54.0
411.5	226.9	-53.0
426.7	229.2	-54.0
434.3	227.2	-53.3

Drill Hole: 506-632

Northing: 10400N
Easting: 8992E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10400N
Completed: MARCH 27, 1993
Date(s) Logged: MARCH 20 - 28, 1993

Claim: PA-529497: 448.8m
Comments: 0m E and 22.8m S to WP of #1 post of 529497.
Purpose: TO INTERSECT S,C,T, AND WA ZONES

From (m)	To (m)	Geology
		Samples E47115-47278 inclusive.
		NOTE: All references to folding - both right and left limb - are looking down plunge of the deposit (ie. Northwest). For detailed structural data see attached STRIP LOG.
.0	12.0	OVERBURDEN
12.0	16.0	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be - NORTHERN IRON FORMATION. Fine grained. Black and white banded. Strongly magnetic. Moderately hard to hard.

From (m)	To (m)	Geology
		Consists of: 70-75% b-beds and 25-30% e-beds. Well bedded with contorted bedding at various angles to the core axis. Beds are generally 3 mm to 2 cm in width. Chert beds are commonly boudinaged with thin wispy yellowish carbonate coating on bedding fragments. Bedding generally at 30 dca. Texture similar to mineralized zone in 506-620 with VISIBLE GOLD. Fractures are commonly parallel to bedding. Rare fractures perpendicular to bedding are present. Moderate silicification locally with associated pyrrhotite mineralization. Weak to moderate carbonate alteration throughout. Trace to 1% pyrrhotite. Trace ARSENOPYRITE. > 1% QUARTZ-VEINs sub- parallel to bedding. Lower contact is sharp at 40 dca. 12.8 13.8 4be, 3% carbonate stringers, boudinaged cherty beds. 13.8 14.5 Healed breccia zone with minor chlorite phlogopite alteration and 15% quartz-carbonate stringers. 13.8 14.9 4be, brecciated with minor chlorite and phlogopite alteration, 15% quartz-carbonate stringers. 14.9 15.2 Ground core. 15.2 15.5 Quartz pyrrhotite chalcopyrite pyrite vein. Smokey blue grey fine grained quartz. 15.2 16.0 4be, 30 cm quartz chalcopyrite pyrite vein trace ARSENOPYRITE in wall rock.
16.0	22.0	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained. Black and grey banded. Strongly magnetic. Contains 95 to 100% b-beds and up to 5% e-beds. Well bedded and thin laminated at 35 to 45 dca. Fractures are generally parallel to bedding. Occasional fractures are perpendicular to bedding. Moderate carbonatization locally as thin wispy halos on chert bed fragments. 9 Specks VISIBLE GOLD. Trace to 5% pyrrhotite. Trace to 2% quartz veining. Lower contact is sharp at 45 dca. 17.0 18.0 4b* 3% qs' para to bdg. 18.0 19.0 4be 40% e-beds. 18.0 19.0 4be, 15% quartz flooding, trace carbonate stringers, minor chlorite in e-beds. 19.0 20.0 4b, 9 specks VISIBLE GOLD, 20% quartz flooding, moderate carbonate as thin coating on chert beds. 20.0 21.0 4b, moderate carbonatization, boudinaged chert beds, 10% quartz flooding. 21.0 22.0 4b, moderate carbonatization, boudinaged chert beds, 10% quartz flooding.
22.0	25.8	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Similar to above. 50% B-beds and 40% e-beds. Lower contact is sharp at 35 dca. CHECK SAMPLES:. E47122 STANDARD I 7.82 8.23 NS. E47123 BLANK 0.03. 22.0 23.0 4be, weak carbonatization, strongly boudinaged, 25% quartz flooding, 10% chlorite in e-bed matrix.

From (m)	To (m)	Geology
		23.0 24.0 4be, pyrrhotite as fracture-filling, weak carbonatization, moderately boudinaged, 30% quartz flooding, minor chlorite and biotite. 24.0 25.0 4bef, pyrrhotite as coarse grained blebs and fracture-filling, 30% f-beds 10% quartz flooding. 25.0 25.8 4bf, pyrrhotite as coarse grained fracture-filling, 80% f-beds, 20% quartz flooding, minor carbonatization.
25.8	57.1	CHERT - MAGNETITE IRON FORMATION 4b. Similar to above. Fine grained. Black and grey banded. Strongly magnetic. Contains 95 to 100% b-beds and up to 5% e-beds. Well bedded and thin laminated at 10 to 30 dca. Fractures are generally parallel to bedding. Occasional fractures are perpendicular to bedding. Moderate to strong carbonatization as thin wispy halos on chert bed fragments. Trace to 3% pyrrhotite as very finely disseminated grains and coarse grained blebs. Trace fine grained disseminated ARSENOPYRITE. Trace chalcopyrite stringers. Trace to 20% quartz veining. Lower contact is sharp at 20 dca. CHECK SAMPLES:. E47130 DUPLICATE OF E47129 0.10. E47142 STANDARD I 7.20 7.54 NS. E47143 BLANK 0.14. E47150 DUPLICATE OF E47149 0.93. 25.8 27.0 4b, trace ARSENOPYRITE, 80% quartz flooding, 3% carbonatization, minor chlorite and sericite. 27.0 28.0 4b, trace ARSENOPYRITE, 30% quartz flooding, moderate carbonatization, minor chlorite. 28.0 29.0 4b, trace ARSENOPYRITE, 20% quartz flooding, moderate carbonatization, minor chlorite. 29.0 30.0 4b, trace ARSENOPYRITE, 20% quartz flooding, moderate carbonatization. 30.0 31.0 4b, trace ARSENOPYRITE, 10% quartz flooding, moderate carbonatization. 31.0 32.0 4b, 5% quartz veining, 20% quartz flooding, moderate carbonatization. 32.0 33.0 4b, 5 cm quartz chlorite pyrrhotite vein, 35% quartz flooding, moderate carbonatization. 33.0 34.0 4b, 10% quartz flooding, moderate carbonatization, 5% chlorite. 34.0 35.0 4b, 30% quartz chlorite sericite vein, moderate carbonatization, 1% epidote along fractures. 35.0 36.0 4b, 10 cm quartz vein, 5% quartz flooding, moderate carbonatization, pyrrhotite as coarse grained fracture-filling. 36.0 37.0 4b, 20% quartz veining, 30% quartz flooding, moderate carbonatization. 37.0 38.0 4b, moderate pervasive silicification, moderate carbonatization, brecciated core. 38.0 39.0 4B, trace chalcopyrite, weak pervasive silicification, moderate carbonatization, 5% quartz veining. 45.0 46.0 4be, 20% quartz flooding, moderate carbonatization, 30% e-beds. 46.0 47.0 4b, weak pervasive silicification, 2% quartz veining, moderate carbonatization. 47.0 48.0 4b, weak pervasive silicification, 20% quartz veining, moderate carbonatization. 50.0 51.0 4b, 10% quartz veining, 20% quartz flooding, moderate carbonatization. 54.4 55.4 4b, 30% quartz veining, 15% quartz flooding, moderate carbonatization. 55.4 56.4 4b, 10% quartz veining, 20% quartz flooding, trace ARSENOPYRITE, moderate to strong carbonatization. 56.4 57.1 4b, 20% quartz veining, 30% quartz flooding, trace ARSENOPYRITE, moderate to strong carbonatization.
57.1	60.2	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. Fine grained biotite rich matrix with 25% 2 mm garnet porphyroblasts. 5 to 10% b-beds are moderately to strongly magnetic. Chert beds are moderately boudinaged and rotated relative to bedding planes, suggesting shearing parallel to bedding. Trace pyrrhotite throughout as fracture-filling and finely disseminated grains. Pyrrhotite locally as fracture-filling on microfaults.

From (m)	To (m)	Geology
		Trace chalcopyrite stringers locally. 10 to 20% quartz flooding. Weak carbonatization. Lower contact is sharp at 25 dca. 59.0 60.0 4b, 20% quartz flooding, weak carbonatization.
60.2	70.8	CHERT - MAGNETITE IRON FORMATION 4b. Similar to above. Moderate to strong carbonatization. 30% quartz flooding. Trace to nil sulphides. Lower contact is sharp at 15 dca. 63.9 65.0 4b, trace pyrite, 30% quartz flooding, 5% quartz veining, strong carbonatization. 69.0 70.0 4b, trace chalcopyrite, 5% quartz veining, weak carbonatization.
70.8	80.4	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. Typical 4be. 60% B-beds and 40% e-beds. Well developed bedding at 25 to 40 dca. Occasional fractures perpendicular to bedding at 55 to 60 dca. Weak carbonatization locally. Minor quartz flooding. Matrix of e-beds is altered to masses of fine grained blue green chlorite. Trace to 2% pyrrhotite as coarse grained blebs and fracture-filling. Trace to 1% pyrite as coarse grained blebs in quartz veins. Lower contact is gradual at approximately 25 dca. 70.8 72.0 4be, 1% quartz flooding, 40% e-beds. 72.0 73.0 4be, 1% pyrite, 35% q-po-py-chl vein with 4 specks VISIBLE GOLD. 72.5 74.2 Several 30 to 40 cm quartz pyrrhotite pyrite chlorite veins at 20 dca. 87.0 Left limb folding with axial plane at 40 dca. 73.0 74.2 4be, 1% pyrite, 60% q-po-py-chl vein with 3 specks VISIBLE GOLD, 2% quartz flooding. 74.2 75.0 4be, 30% quartz flooding, chlorite altered e-beds. 76.0 77.0 4be, trace pyrite, 10% quartz veining, 20% quartz flooding. 78.0 79.0 4be, trace chalcopyrite, pyrite, 5% quartz veining, 15% quartz flooding, weak carbonatization.
80.4	86.7	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. / GARNET-BIOTITE SCHIST 4eaf. Fine to medium grained. Yellowish green, grey and pink mottled. Moderately to strongly magnetic. Contains 50% ea- beds, 30% f- beds with chlorite rich matrix and 15 to 25% 2 to 3 mm garnets and 20% b-beds. Well developed bedding at various angles to the core axis. M-type folds and left limb folding throughout with axial planes at 35 to 50 dca. Weak to strong patchy grunerite alteration. Abundant chlorite stringers along hairline fractures is restricted to the f-beds. Nil to 3% pyrrhotite. Trace pyrite in quartz veins. Trace chalcopyrite on fractures. Lower contact is sharp at 30 dca. CHECK SAMPLES:. E47161 STANDARD I 7.03 7.13 NS. E47162 BLANK 0.24.

From (m)	To (m)	Geology
		82.0 83.0 4eaf, 3% quartz flooding, weak grunerite alteration. 83.0 84.0 4eaf, trace pyrite, trace chalcopyrite, 2% quartz flooding, weak grunerite alteration. 84.0 85.3 4eaf, trace pyrite, trace chalcopyrite, 3% quartz flooding, moderate grunerite alteration. 85.3 86.7 4eaf, 9 specks VISIBLE GOLD, trace pyrite, trace chalcopyrite, trace ARSENOPYRITE, 3% quartz flooding, weak grunerite alteration.
86.7	94.5	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. Contains 70% b-beds and 30% f-beds. Moderately well bedded at 40 to 45 dca. Minor left limb folding at 35 dca. Fractures are generally perpendicular to bedding at 50 to 70 dca. Patchy weak grunerite alteration. 2 to 7% quartz flooding. 2 Specks VISIBLE GOLD at 91.8 metres. Trace to 2% pyrrhotite as fine grained wispy stringers. Trace chalcopyrite stringers locally. Trace ARSENOPYRITE. Trace to 2% quartz-carbonate stringers throughout. Lower contact is sharp at 35 dca. CHECK SAMPLES:. E47170 DUPLICATE OF E47169 0.51. 86.7 88.0 4bf, very weak grunerite alteration, 5% quartz flooding. 88.0 89.0 4bf, very weak grunerite alteration, 5% quartz flooding, trace chalcopyrite, trace carbonate stringers. 89.0 90.0 4bf, 7% quartz flooding, trace carbonate stringers. 90.0 91.0 4bf, 2 specks VISIBLE GOLD, trace chalcopyrite, 5% quartz flooding, 2% quartz-carbonate stringers. 91.0 92.0 4bf, 2% quartz flooding, trace carbonate stringers.
94.5	99.2	GARNET-BIOTITE SCHIST 4f. Typical. 5 to 25% 2 to 3 mm garnet porphyroblasts in biotite rich matrix. Trace to 2% b-beds. Generally nil sulphides. Lower contact is sharp at 30 dca. 98.7 99.2 85% b-beds and 15% e-beds. 98.7 99.2 4b, trace chalcopyrite, 20% quartz flooding.
99.2	123.8	INTERMEDIATE TO MAFIC VOLCANICS WITH MINOR GARNETIFEROUS BASALT AND INTRAFORMATIONAL IRON FORMATION BVOL with minor GTB and 2-4be and 2-4bf. Typical BVOL. Fine grained. Grey-green, non-magnetic. Hardness of 6. Massive, aphyric textured. Well foliated at 30 to 35 dca. Weak to moderate chlorite and phlogopite alteration. Trace to 2% carbonate stringers parallel to foliation. Generally unmineralized. Lower contact is sharp at 35 dca.

From (m)	To (m)	Geology
		104.5 104.9 Trace pyrrhotite, 20% e-beds. 105.2 105.6 As above. 109.9 111.4 Similar to above. 40% quartz flooding, trace pyrrhotite fracture-filling, minor chlorite. 109.9 111.4 2-4be, 40% quartz flooding, minor chlorite along e-beds. 111.5 111.7 As above. 114.7 115.4 As above. 116.2 116.7 As above. 117.1 118.1 20% garnet in biotite rich matrix. Trace pyrrhotite and chalcopyrite stringers. 1% pyrite blebs. 117.1 118.1 2-4be, 1% pyrite, trace chalcopyrite, minor quartz flooding. 121.5 122.3 As above. 122.8 123.8. Mineralized section at 123.2 123.4 with 3 cm pyrrhotite stringers and 1 cm pyrite stringers. 122.8 123.8 2-4be, 1% pyrite, sulphides as thick stringers parallel to bedding, minor AVOL.
123.8	240.5	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Probable bedded felsic crystal-ash tuffs. Fine grained. Light grey. Non-magnetic. Trace to 3% 1 to 2 mm quartz blebs and euhedral quartz eyes locally and 1 to 5 % feldspar phenocrysts. Rare ragged garnet porphyroblasts locally. Well bedded or flow banded, finely laminated at 30 to 35 dca. Predominant fractures parallel to bedding. Weak to moderate sericite alteration (8 to 10%). Minor biotite alteration (3-5%). Sericite alteration typically occurs in 0.5-2cm wide bands parallel to foliation. Minor bleached hairline fractures locally. Local potassic staining. Trace to 1% fracture-filling pyrrhotite and pyrite throughout, locally concentrated to 5% over 5 cm. Less than 1% quartz and quartz-calcite veins. Veins are generally 0.3 to 2 cm wide and are oriented perpendicular to foliation. Trace pyrite with carbonate on fractures. Lower contact is sharp at 55 dca. 129.6 129.8 Very blocky core. 139.0 20% quartz veining and 10% quartz flooding with trace pyrite and pyrrhotite. 139.9 141.9 1% ragged garnets flattened parallel to foliation. Minor quartz flooding as augen-shaped beards around the garnets. Possible sedimentary component in the tuffs. 142.8 143.1 15 cm quartz carbonate vein with 1% pyrite, 1% pyrrhotite and trace ARSENOPYRITE in vein and wall rock. 149.1 149.3 Carbonate chlorite biotite alteration vein sub - parallel to foliation at 45 dca. 151.5 152.0 Very blocky core. 153.7 179.0 Felsic volcanics appear more massive and may be a flow. Very weak sericite alteration. Foliation and bedding are less well developed. 171.2 174.2 Moderate pervasive sericite alteration. Moderate potassic staining around carbonate and chlorite stringers. 225.7 240.5 Minor sedimentary component in the felsic tuffs as indicated by mineralogy: 5% garnet, 5-10% biotite up to 10% staurolite locally and 10% chlorite. 5% quartz-carbonate stringers. Locally weakly magnetic.
240.5	247.9	INTRAFORMATIONAL IRON FORMATION WITH MINOR INTERMEDIATE TO MAFIC VOLCANICS 2-4f With minor BVOL. Medium grained. Brown, green and pink mottled. Locally weakly magnetic. Contains 35% 2-15 mm garnet porphyroblasts in biotite rich matrix. 5% 0.5 to 5 cm beds with amphibole rich matrix. Poorly bedded at 55 dca. Minor carbonate coating fractures. Fractures are generally parallel to bedding. Lower contact is sharp at 60 dca.

From (m)	To (m)	Geology
		243.5 244.9. Fine grained. Brown and green, locally blue grey. Well foliated at 60 dca. Fractures are generally parallel to foliation. Trace to 1% quartz-carbonate veins. Contacts are sharp at 60 dca.
247.9	249.5	BRECCIA ZONE Breccia zone - marker horizon. Fine to coarse grained. Grey-green and brown. Locally weakly magnetic. Strongly foliated zone with 50% rounded fragments of QUARTZ-VEINs in a chlorite biotite rich matrix. Fragments are elongated sub - parallel to foliation, indicating stretching and rotation parallel to foliation. Trace pyrite. Lower contact is sharp at 50 dca.
249.5	259.5	INTRAFORMATIONAL IRON FORMATION 2-4f. 30% 2 To 15 mm pink garnet porphyroblasts in massive biotite and sericite rich matrix. Garnets are anhedral to euhedral. Strong to intense biotite sericite alteration of the matrix. 2 to 4% fine grained staurolite in the matrix. Trace to 1% quartz veins and quartz-carbonate veins up to 10 cm. Lower contact is sharp at 35 dca.
259.5	276.1	INTERMIXED INTERMEDIATE TO MAFIC VOLCANICS AND GARNETIFEROUS BASALT BVOL and GTB. 55% BVOL and 45% GTB. BVOL is fine grained. Medium grey with local brown patches. 1% quartz-carbonate stringers parallel to foliation. GTB is fine to coarse grained. Brown, green and pink mottled with 5 to 25% 2 mm to 2 cm garnets in a biotite chlorite rich matrix. Massive to weakly foliated at 30 to 45 dca. Lower contact is sharp at 30 dca. 259.5 259.6 Texture similar to breccia zone marker horizon. 10% rounded and boudinaged QUARTZ-VEIN fragments flattened parallel to foliation. Chlorite rich matrix with 5% 3 to 4 mm garnets. 260.0 260.3 Similar to above. 263.7 263.9 Similar to above. 272.4 272.9 Trace pyrrhotite, 5% quartz flooding.
276.1	277.9	INTRAFORMATIONAL IRON FORMATION 2-4f. Fine to medium grained. Brown, green, and pink mottled. Locally weakly magnetic. 90% F-beds with 3% staurolite and 1% cordierite, and 10% e-beds. Poorly to moderately bedded at 30 dca. Lower contact is sharp at 25 dca.
277.9	328.4	INTERMEDIATE TO MAFIC VOLCANICS WITH MINOR INTRAFORMATIONAL IRON FORMATION BVOL with minor 2-4be. Typical BVOL. Finely foliated / bedded at 30 dca. 3% Zones with strong biotite alteration and 10% carbonate stringers. < 1% quartz-carbonate stringers.

From (m)	To (m)	Geology
		289.7 290.7 BVOL. 290.7 291.4 4 specks VISIBLE GOLD, 5% wispy pyrrhotite stringers, trace chalcopyrite, 30% quartz flooding, 5% chlorite. 290.7 291.4 2-4be, 4 specks VISIBLE GOLD, trace chalcopyrite, 30% quartz flooding, 5% chlorite. 291.4 292.4 BVOL. 2% quartz-calcite stringers. 295.4 296.5 Trace pyrrhotite, 10% quartz-carbonate veins, 5% quartz flooding, weak grunerite. 296.8 297.2 Zone of quartz veining. White, fine grained, sugary quartz with minor chlorite and phlogopite bands. 299.0 299.9 20% quartz flooding, trace pyrrhotite. 301.4 302.0 10% quartz flooding, trace pyrrhotite. 303.6 304.0 2% staurolite, 5% quartz flooding. 306.8 307.0 Quartz carbonate chlorite alteration vein. 316.2 316.8 Quartz-carbonate vein at 50 dca. 327.9 328.4 90% quartz-carbonate veining parallel to foliation.
328.4	332.3	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4fb. Fine to medium grained. Black and grey banded. Weakly magnetic. Contains 80% f-beds and 20% b-beds with biotite rich matrix and 20% garnet porphyroblasts. Poorly developed bedding at 40 to 65 dca. Minor m-type fold locally with axial planes at 50 dca. Local ?refolding with axial planes at 25 dca. Trace to nil sulphides.
332.3	350.9	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea - S-zone. Fine to coarse grained. Green, grey and pink. Weakly magnetic. Hard. Contains 95% 1 to 3 cm ea-beds with 15% garnet porphyroblasts and 5% f-beds with 20% garnet porphyroblasts. Moderate grunerite alteration. 5 to 50% quartz flooding. Minor 1 to 3 cm carbonate stringers locally. Trace to 4% pyrrhotite as wispy stringers. Trace to 1% chalcopyrite stringers. Rare ARSENOPYRITE. A 30 cm quartz-carbonate vein marks the lower contact 35 dca. 332.3 333.0 4ea, 10% quartz flooding, weak grunerite alteration. 333.0 334.0 4ea, 10% quartz flooding, moderate grunerite alteration. 334.0 335.0 4ea, 5% quartz flooding, strong grunerite alteration. 335.0 336.0 4ea, 2% quartz flooding, strong grunerite alteration. 336.0 343.5 S-ZONE with 116 specks VISIBLE GOLD. Trace to 4% pyrrhotite. Trace chalcopyrite stringers. Trace ARSENOPYRITE locally. Strong grunerite alteration, 10 to 60% quartz flooding. Minor quartz chlorite veining. CHECK SAMPLES:. E47180 STANDARD I 7.23 7.41 NS. E47181 BLANK 0.03. E47190 DUPLICATE OF E47189 1.27. E47199 STANDARD I 7.06 7.47 NS. E47200 BLANK 0.27. 336.0 337.0 4ea, trace chalcopyrite stringers, 25% quartz veining, 40% quartz flooding, strong grunerite alteration. 337.0 338.0 4ea, trace chalcopyrite stringers, 30% quartz veining, 40% quartz flooding, strong grunerite alteration. 338.0 339.0 4ea, 7 specks VISIBLE GOLD, trace chalcopyrite stringers, 30% quartz veining, 30% quartz flooding, strong grunerite alteration. 339.0 340.0 4ea, 14 specks VISIBLE GOLD, trace ARSENOPYRITE, trace chalcopyrite stringers, 2% quartz veining, 60% quartz flooding, strong grunerite alteration. 340.0 341.0 4ea, 81 specks VISIBLE GOLD, trace ARSENOPYRITE, trace chalcopyrite stringers, 1% quartz veining, 50% quartz flooding, strong

From (m)	To (m)	Geology
		grunerite alteration. 341.0 342.0 4ea, 2 specks VISIBLE GOLD, trace ARSENOPYRITE, trace chalcopyrite stringers, 10% quartz veining, 20% quartz flooding, strong grunerite alteration. 342.0 343.0 4ea, 5 specks VISIBLE GOLD, trace chalcopyrite stringers, 5% quartz veining, 30% quartz flooding, strong grunerite alteration. 343.0 343.5 4ea, 20% quartz veining, 2% quartz flooding, strong grunerite alteration. 343.5 345.0 4ea, 5% quartz flooding, strong grunerite alteration. 345.0 346.0 4ea, 2% quartz flooding, strong grunerite alteration. 346.0 347.0 4ea, 5% quartz veining, 1% quartz flooding, strong grunerite alteration. 347.0 348.0 4ea, 5% quartz flooding, strong grunerite alteration. 348.0 349.0 4ea, trace chalcopyrite stringers, 1% quartz flooding, strong grunerite alteration. 349.0 350.3 4ea, trace ARSENOPYRITE, 5% quartz flooding, strong grunerite alteration.
350.9	373.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Grey-green and brown. Non-magnetic. Moderately soft. Moderately foliated at 25 to 35 dca. Patchy alteration to phlogopite and chlorite. 5% Quartz-carbonate stringers parallel to foliation throughout. 358.8 366.0 Strong phlogopite alteration. 30% quartz-carbonate stringers. 2 to 3% garnet locally. Trace pyrrhotite. Lower contact is sharp at 30 dca. 360.0 361.0 BVOL. 20% quartz-calcite quartz stringers. 361.0 362.0 BVOL. 10% quartz-calcite stringers. 362.0 363.0 BVOL. 15% quartz-calcite stringers. 363.0 364.0 BVOL. 20% quartz-calcite stringers. 364.0 364.4 BVOL. 3% quartz-calcite stringers. 364.4 365.7 BVOL with 70% quartz veining, strong phlogopite alteration, trace ARSENOPYRITE and pyrite in vein, minor chlorite fracture-filling. 365.7 366.7 BVOL. 3% quartz-calcite stringers.
373.9	404.1	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Similar to above. Well bedded at various angles to the core axis. Minor folds with axial planes at 45 to 60 dca. Rare folds with axial planes at 25 dca and 70 dca. Moderate to strong grunerite alteration. Local patches with minor carbonate alteration. 373.9 374.9 4ea, weak grunerite alteration, 50% quartz flooding, trace ARSENOPYRITE, minor chlorite stringers. 374.9 375.4 4ea, weak grunerite alteration, 40% quartz flooding, trace ARSENOPYRITE and chalcopyrite, minor chlorite stringers. 375.4 376.9 4ea, weak grunerite alteration, 3% quartz veining, 2% quartz flooding, minor chlorite. 376.9 377.9 4ea, moderate grunerite alteration, 2% quartz flooding, minor chlorite. 377.9 378.9 4ea, moderate grunerite alteration, 1% quartz-carbonate veining, 10% quartz flooding, minor chlorite. 378.9 379.9 4ea, strong grunerite alteration, 10% quartz flooding, trace chalcopyrite, minor chlorite. 379.9 380.7 4ea, strong grunerite alteration, 2% quartz-carbonate stringers, 5% quartz flooding, minor chlorite. 380.7 381.8 4ea, strong grunerite alteration, 15% quartz-carbonate stringers, 10% quartz flooding, minor chlorite. 381.8 382.8 4ea, 3 specks VISIBLE GOLD, strong grunerite alteration, 3% quartz-carbonate stringers, 40% quartz flooding, trace pyrite. 382.8 383.8 4ea, 7 specks VISIBLE GOLD, strong grunerite alteration, 3% quartz-carbonate stringers, 60% quartz flooding. 383.8 384.8 4ea, 19 specks VISIBLE GOLD, strong grunerite alteration, 50% quartz flooding, minor chlorite, trace ARSENOPYRITE. 384.8 385.8 4ea, strong grunerite alteration, 5% quartz-carbonate stringers, 30% quartz flooding, minor chlorite, trace ARSENOPYRITE. 385.8 387.0 4ea, 2 specks VISIBLE GOLD, strong grunerite alteration, 20% quartz flooding, minor chlorite, trace ARSENOPYRITE. 387.0 388.0 4ea, strong grunerite alteration, 5% quartz flooding, minor chlorite.

From (m)	To (m)	Geology
		388.0 389.0 4ea, strong grunerite alteration, 5% quartz flooding, strong carbonatization. 389.0 390.0 4ea, strong grunerite alteration, 2% quartz flooding. 390.0 391.0 4ea, moderate grunerite alteration, 2% quartz flooding. 391.0 392.0 4ea, moderate grunerite alteration, 2% quartz flooding. 392.0 393.0 4ea, moderate grunerite alteration, 5% quartz-carbonate stringers. 393.0 394.0 4ea, weak grunerite alteration, trace quartz-carbonate stringers, 10% quartz flooding, trace ARSENOPYRITE. 394.0 395.0 4ea, weak grunerite alteration, 15% quartz flooding, trace chalcopyrite. 395.0 395.7 4ea, weak grunerite alteration, 2% quartz flooding. CHECK SAMPLES:. E47210 DUPLICATE OF E47209 0.31. E47217 STANDARD I 7.61 7.68 NS. E47218 BLANK 0.07. E47230 DUPLICATE OF E47229 9.70. 395.7 397.0 4ea, 6 specks VISIBLE GOLD, moderate grunerite alteration, 2% quartz-carbonate stringers, 35% quartz flooding, minor chlorite. 397.0 398.0 4ea, 9 specks VISIBLE GOLD, trace ARSENOPYRITE, strong grunerite alteration, 1% quartz-carbonate stringers, 60% quartz flooding, minor chlorite. 398.0 399.4 4ea, 7 specks VISIBLE GOLD, strong grunerite alteration, 10% quartz chlorite stringers, 25% quartz flooding, minor chlorite. 399.4 400.4 4ea, strong grunerite alteration, 2% quartz flooding. 400.4 401.0 4ea, 16 specks VISIBLE GOLD, trace chalcopyrite, moderate grunerite alteration, 2% quartz flooding, minor chlorite. 401.0 402.0 4ea, 16 specks VISIBLE GOLD, trace chalcopyrite, moderate grunerite alteration, 30% quartz flooding, minor chlorite. 402.0 403.2 4ea, 6 specks VISIBLE GOLD, trace ARSENOPYRITE, moderate grunerite alteration, 2% quartz flooding, minor chlorite. 403.2 404.1 4ea, 35% INTERMEDIATE TO MAFIC VOLCANICS, trace chalcopyrite, moderate grunerite alteration, 20% quartz flooding.
404.1	408.3	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. / GARNET-BIOTITE SCHIST 4eaf. Contains 60% ea-beds, 30% f-beds and 10% b-beds. Moderately well developed bedding at 20 to 30 dca. Fractures are generally parallel to bedding or locally perpendicular to bedding. Moderate grunerite alteration. 5 to 15% quartz flooding. Trace to 1% pyrrhotite throughout. Trace ARSENOPYRITE. Trace chalcopyrite. Lower contact is sharp at 20 dca. 404.1 405.0 4eaf, weak to moderate grunerite alteration, 5% quartz flooding, 40% 4f beds. 405.0 406.0 4eaf, weak to moderate grunerite alteration, 10% quartz flooding, trace ARSENOPYRITE. 406.0 407.0 4eaf, 5 specks VISIBLE GOLD, weak to moderate grunerite alteration, 15% quartz flooding, trace ARSENOPYRITE, trace chalcopyrite. 407.0 408.3 4eaf, 5 specks VISIBLE GOLD, weak to moderate grunerite alteration, 10% quartz veining, 10% quartz flooding, trace ARSENOPYRITE.
408.3	416.3	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Similar to above. Moderately well developed bedding at 20 to 30 dca. Moderate to weak grunerite alteration. 5 to 40% quartz flooding. Trace to 4% pyrrhotite. Trace ARSENOPYRITE. Rare interbedded BVOL. Lower contact is sharp at 30 dca. CHECK SAMPLES:. E47241 STANDARD I 7.23 7.37 NS.

From (m)	To (m)	Geology
		E47242 BLANK 0.58. E47250 DUPLICATE OF E47249 8.47. 408.3 409.5 4ea, 29 specks VISIBLE GOLD, trace ARSENOPYRITE, 40% quartz flooding, moderate grunerite alteration. 409.5 410.5 BVOL with 30% 4ea, 10% quartz flooding in 4ea. 410.5 411.6 4ea, 1 specks VISIBLE GOLD, trace ARSENOPYRITE, 40% quartz flooding, minor chlorite stringers, moderate grunerite. 411.6 412.2 4ea, 30% quartz flooding, moderate grunerite. 412.2 413.0 4ea, 1 speck VISIBLE GOLD, 30% quartz flooding, 5% quartz veining, minor chlorite, moderate grunerite. 413.0 414.0 4ea, weak grunerite, 2% quartz-carbonate stringers, 5% quartz flooding. 414.0 415.0 4ea, weak grunerite. 415.0 416.3 4ea, 7 specks VISIBLE GOLD, trace ARSENOPYRITE, chalcopyrite, moderate grunerite, 15% quartz flooding.
416.3	419.3	GARNET-BIOTITE SCHIST 4f. Contains 95% f-beds and 5% b-beds. Poorly developed bedding at 15 dca. Trace to nil sulphides. Lower contact is sharp at 10 dca. 416.3 417.3 4f, 2% quartz flooding. 417.3 418.3 4f, 2% quartz flooding. 418.3 419.3 4f, 2% quartz flooding.
419.3	424.4	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Similar to above. Poorly developed bedding at 20 to 25 dca. Trace to 1% pyrrhotite. Trace ARSENOPYRITE. Trace chalcopyrite. Lower contact is sharp at 20 dca. 419.3 420.0 4ea, 4 specks VISIBLE GOLD, trace ARSENOPYRITE, weak grunerite, 5% quartz veining, 5% quartz flooding, minor chlorite. 420.0 421.0 4ea, moderate grunerite, 4% quartz veining, 10% quartz flooding, trace ARSENOPYRITE, trace chalcopyrite, minor chlorite. 421.0 422.0 4ea, moderate grunerite, 20% quartz flooding, trace chalcopyrite, minor chlorite. 422.0 423.0 4ea, weak grunerite, 10% quartz flooding, 70% 4f. 423.0 424.4 4ea, moderate grunerite, 30% quartz flooding, trace ARSENOPYRITE, minor chlorite.
424.4	426.0	GARNET-BIOTITE SCHIST 4f. Similar to above. Contains 90% 4f and 10% 4b. Moderately well developed bedding at 20 dca. Trace to nil sulphides. Lower contact is sharp at 20 dca. 424.4 426.0 4f, 10% quartz veining, trace pyrite in QUARTZ-VEIN.
426.0	431.7	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Contains 85% ea-beds and 15% f-beds. Well developed bedding at 10 to 20 dca. Weak to moderate grunerite alteration. 5 to 10% quartz flooding.

From (m)	To (m)	Geology
		Trace pyrrhotite. Lower contact is sharp at 20 dca. CHECK SAMPLES:. E47262 STANDARD I 7.44 7.89 NS. E47263 BLANK 0.17. 426.0 427.0 4ea, moderate grunerite alteration, 10% quartz flooding. 427.0 428.0 4ea, weak grunerite alteration, 5% quartz flooding. 428.0 429.0 4ea, weak grunerite alteration, 10% quartz flooding. 429.0 430.2 4ea, 30% quartz flooding, moderate grunerite, trace ARSENOPYRITE, 10% BVOL. 430.2 431.7 4ea, 25% quartz flooding, moderate grunerite, 30% 4f.
431.7	434.1	GARNET-BIOTITE SCHIST 4f. Typical 4f. 35% 2 To 5 mm garnet porphyroblasts in biotite rich matrix. 2 to 5% b-beds. Trace to nil pyrrhotite. Lower contact is sharp at 10 dca.
434.1	440.9	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Similar to above. Contains 70% e-beds and 30% quartz flooded b-beds. Well developed bedding on cm -scale at various angles to the core axis. 20% Garnet porphyroblasts. M-type folds are common with axial planes at 30 to 45 dca. Trace to 4% pyrrhotite as wispy stringers and coarse grained blebs. Trace chalcopyrite stringers. Trace ARSENOPYRITE crystals and stringers. Lower contact is sharp at 40 dca. CHECK SAMPLES:. E47270 DUPLICATE OF E47269 2.91. 434.1 435.0 4ea, weak to moderate grunerite, minor chlorite. 435.0 436.0 4ea, weak to moderate grunerite, 20% quartz flooding, minor chlorite. 436.0 437.0 4ea, weak grunerite, 30% quartz flooding, 1% ARSENOPYRITE, trace chalcopyrite. 437.0 438.0 4ea, weak grunerite, 2% quartz-carbonate stringers, 30% quartz flooding, trace ARSENOPYRITE, trace chalcopyrite. 438.0 439.0 4ea, 5% quartz veining, 20% quartz flooding, trace ARSENOPYRITE, trace chalcopyrite. 439.0 439.5 4ea, 75 specks VISIBLE GOLD, trace ARSENOPYRITE, trace chalcopyrite, 10% quartz flooding, 7% quartz veining, minor chlorite. 439.5 440.9 4ea, trace ARSENOPYRITE, trace chalcopyrite, 10% quartz veining, minor chlorite.
440.9	444.6	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical BVOL. Fine grained. Green to locally brown mottled. Well developed foliation at 35 to 40 dca. Minor phlogopite alteration as thin wispy lenses in the matrix. 1% Quartz-carbonate stringers throughout up to 20 cm in width.

From (m)	To (m)	Geology
		Trace to nil sulphides. Lower contact is sharp at 30 dca.
444.6	448.4	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4fb. 70% F-beds and 30% quartz flooded b-beds. F-beds contain 30% 2 to 4 mm garnets in biotite rich matrix. Moderately well developed bedding at 15 to 20 dca. M-type folds are common throughout with axial planes at 30 to 45 dca. Very weak grunerite alteration locally. 5 to 20% quartz flooding. Trace pyrrhotite blebs. Trace chalcopyrite stringers locally. Lower contact is sharp at 20 dca along folded bedding plane. 444.6 445.4 4fb, 70% 4f, 5% quartz flooding. 445.4 446.6 4fb, 20% quartz veining, 50% BVOL. 446.6 447.6 4fb, 5% quartz flooding, trace chalcopyrite. 447.6 448.4 4fb, very weak grunerite, 20% quartz flooding.
448.4	448.8	GARNET-BIOTITE SCHIST 4f. Typical 4f. 30% 2 To 4 mm garnet porphyroblasts in biotite rich matrix. Bedding is poorly developed at 20 dca. Trace to nil sulphides.
448.8		END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken from ??? to ??? upper zone. (CHECK IN JUNE) Sludge samples taken from 360m to 449m lower zone. Samples stored at Musselwhite camp. DRILLING HISTORY:. 0.0 12.0 TRICONE bit. 12.8m NW casing. 12.0 80.0 MX10 bit, double hex core barrel. 80.0 119.0 MX8 bit, standard 10 foot core barrel with blank back end. 119.0 174.0 MX10 bit, double hex core barrel. 174.0 448.8 MX7 bit, standard 10 foot core barrel with blank back end. Hole cemented - 6 hours. 90 20kg bags of Type 50 cement. Casing pulled. Ore zone shipped out to Dona Lake for cutting. SURVEY HISTORY:. Gyroscopic Directional Survey by CBC Welnav, North Bay, Ontario used for Class 2 data. Survey time: 2 hours. DIP TESTS. 13 -61 ACID.

From (m)	To (m)	Geology
		50 -60 ROTODIP. 54 -61 ROTODIP. 74 -60 ACID. 89 -59 ACID. 113 -58 ACID. 140 -57 ACID. 167 -57 ACID. 191 -57 ACID. 215 -56 ACID. 239 -56 ACID. 263 -55 ACID. 287 -56 ACID. 293 -56 ACID. 314 -55 ACID. 341 -56 ACID. 365 -56 ACID. 389 -55 ACID. 407 -55 ACID. 437 -54 ACID.

Date: 14 Nov, 1993

PLACER DOME EXPLORATION

DRILL HOLE RECORD

Northing: 10449.68
Easting: 9024.32
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -60.00

Hole Length: 13
Core Size: NQ
Date Started: MARCH 20, 1993
Logged by: B.J. McKay

Claim: Pa529497: 12.8m.
Comments: 16.8mE, 74.4mS to WP of #1 post, Claim# Pa529497
Purpose: to test S, C, T and WA Zones.

*** Dip Tests ***

Depth	Azi.	Dip
12.8		-61.5

Drill Hole: 506-633

Northing: 10450N
Easting: 9024E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10450N
Completed: MARCH 20, 1993
Date(s) Logged: MARCH 21, 1993

From (m)	To (m)	Geology
		REVISED LOG, 22 APRIL, 1993.
.0	12.8	CASING 0.0 1.4 Ice. 1.4 12.8 Sand, gravel and boulders. Hole abandoned due to improper Acid Test at bedrock.
12.8		END OF HOLE
		DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.
		DRILLING HISTORY and HOLE CONTROL EQUIPMENT. .0 12.8 Tricone. .0 12.8 NW casing.
		CASING PULLED.

DRILL HOLE RECORD

Northing: 10449.57
Easting: 9023.18
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -59.00

Hole Length: 515
Core Size: NQ
Date Started: MARCH 21, 1993
Logged by: B.J. McKay

*** Depth	Dip Tests Azi.	*** Dip
15.2	225.6	-59.0
30.5	225.1	-59.0
45.7	222.3	-58.0
61.0	225.4	-58.5
76.2	226.6	-57.0
91.4	226.3	-59.0
106.7	226.9	-57.0
121.9	225.8	-57.0
137.2	224.6	-55.0
152.4	226.0	-55.8
167.6	226.1	-55.0
182.9	227.0	-57.0
198.1	226.1	-55.8
213.4	225.9	-55.8
228.6	224.5	-55.0
243.8	224.9	-55.0
259.1	225.3	-54.5
274.3	225.2	-55.0
289.6	225.1	-55.0
304.8	224.2	-54.0
320.0	224.1	-55.0
335.3	223.8	-54.0
350.5	224.2	-53.0
365.7	224.0	-52.5
381.0	224.5	-53.5
396.2	224.3	-52.5
411.5	224.1	-53.0
426.7	224.3	-53.0
441.9	224.1	-53.0
457.2	223.8	-51.5

Drill Hole: 506-634

Northing: 10450N
Easting: 9023E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10450N
Completed: MARCH 29, 1993
Date(s) Logged: MARCH 22-30, 1993

Claim: Pa529497: 515.1m.
Comments: 17.6mE, 73.8mS to WP of #1 post, Claim# Pa529497
Purpose: to test S, C, T and WA Zones.

From (m)	To (m)	Geology
		REVISED LOG, 22 APRIL, 1993. Includes some assay data. Includes revised Gyro-dip data. Missing sample numbers (Standards, Blanks and Duplicates) are. Listed at the end of the drill log. Highlights of 506-634:. Island Zone:.

From (m)	To (m)	Geology
		S-Zone:. C-Zone:. T-Zone:. WA-Zone:. All fold orientations are looking southward, up plunge. This orientation is the same as the strip log.
.0	13.4	CASING 0.0 1.4 Ice. 1.4 13.4 Sand, gravel and boulders. NORTHERN IRON FORMATION: 13.4m - 172.05m.
13.4	34.0	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4FB. Fine grained, black, blue white, weakly to moderately magnetic, locally strongly magnetic, hard to moderately soft. Unit is predominantly F beds with <15% B beds. Well developed bedding / foliation. B beds less THAN 2 cm thick. Fractured throughout. Fractures parallel to and perpendicular to bedding. Locally faulted. Faults parallel to and perpendicular to bedding. Some of the perpendicular faults are healed. Occasional drag-folding. Locally weak grunerite, locally moderate silicification, locally very weak carbonatization. 13.4 Foliation, 30 dca. 13.5 Perpendicular fault, 21 dca. 16.0 Foliation, 28 dca. Perpendicular fracture, 30 dca. 16.0 17.0 4FB. 20.0 Foliation, 33 dca. Perpendicular fracture, 45 dca. 20.0 21.0 4FB. 20.1 Perpendicular fault, 23 dca. 23.0 Perpendicular fracture, 60 dca. 23.7 Axial plane, right limb folding, 40 dca. 24.0 Foliation, 30 dca. 24.0 25.0 4FB. 28.0 Foliation, 30 dca. 28.0 29.0 4F. 28.7 Perpendicular fracture, 50 dca. 32.0 Foliation, 30 dca. 32.0 33.0 4F. 33.0 Foliation, 40 dca. Perpendicular fracture, 52 dca. 33.0 34.0 4FB. 33.5 Axial plane, right limb folding, 40 dca. Lower contact and foliation, 35 dca. Contact gradual over 2 metres.
34.0	138.2	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4BF. Gradual change, over 2 m, from unit above to typical altered N.I.F. Very fine grained, fine grained, black, white, moderately to strongly magnetic, hard to moderately soft. Well developed bedding / foliation with finely bedded, <1mm, units in the 4B sections and alternating beds of B and F up to 3cm thick in

From (m)	To (m)	Geology
		the 4BF sections. Bedding varies from undeformed and very uniform to complete brecciation and fragmentation. This latter texture is common in veined and altered, mineralized, sections. Unit exhibits minute drag-folding, which is typical. Fracturing parallel to and perpendicular to bedding is common. Faulting, parallel to bedding is common. Faulting is also perpendicular to bedding. 4B Units are locally boudinaged with partial movement and rounding of individual boudins. Micro-faulting and micro-brecciation is common in 4B beds. Unit is weakly to strongly carbonatized. Strongest carbonatization occurs in mineralized sections. Moderate to strong silicification. Locally strong grunerite alteration. Quartz and quartz-carbonate veining occurs as noted. Pyrrhotite, pyrite, ARSENOPYRITE and VISIBLE GOLD as noted. Pyrrhotite as disseminated specks, irregular masses and as fracture filler. Fractures are perpendicular to bedding. 34.0 35.0 4FB. 34.7 Axial plane, right limb folding, 27 dca. 35.0 Foliation, 38 dca. Perpendicular fracture, 60 dca. 35.0 36.0 4FB, w grun. 36.0 Foliation, 44 dca. 36.0 37.0 4FB, 5%qf, 3cm qv, w-m grun. 36.6 Perpendicular fracture, 47 dca. 37.0 Foliation, 38 dca. 37.0 38.0 4FE, 3cm qcbv, w-m grun. 38.0 Foliation, 30 dca. 38.0 39.0 4FEB, w grun. 39.0 Foliation, 35 dca. 39.0 40.0 4EB, 5%qf, 3%qcb, w-m grun. 40.0 Foliation, 36 dca. 40.0 41.0 4BE, 4%qcb, w grun. 41.0 Foliation, 40 dca. Perpendicular 65 dca. 41.0 42.0 4EB, 3%qcb, w grun. 42.0 Foliation, 36 dca. 42.0 43.0 4EB, w-m grun. 43.0 Foliation, 37 dca. 43.0 44.0 4EB, 2%qcb, w-m grun. 44.0 Foliation, 31 dca. 44.0 45.0 4EB, 3%qcb, w grun. 45.0 Foliation, 40 dca. Perpendicular fracture 53 dca. 45.0 46.0 4E, m grun. 46.0 Foliation, 28 dca. 46.0 47.0 4EF, 5%qcb, w grun. 47.0 Foliation, 36 dca. 47.0 48.0 4EB, 20%qf, 15%qcb, w grun. 48.0 Foliation, 30 dca. 48.0 49.0 4EB, 8%qcb, w grun. 49.0 Foliation, 36 dca. Perpendicular fracture, 54 dca. 49.0 50.0 4EF, v w grun. 50.0 Foliation, 36 dca. Perpendicular fracture, 52 dca. 50.0 51.0 4FB, v w grun. 51.0 Foliation, 28 dca. 51.0 52.0 4FB, v w grun. 52.0 Foliation, 30 dca.

From (m)	To (m)	Geology
		52.0 53.0 4FB, w grun. 52.6 Axial plane, right limb folding, 16 dca. 53.0 Foliation, 35 dca. 53.0 54.0 4FB, w grun. 54.0 Foliation, 10 dca. 54.0 55.0 4FB, w grun. 55.0 Foliation, 19 dca. Perpendicular fracture, 68 dca. 55.0 56.0 4BF, w-m grun. 56.0 Foliation, 16 dca. Perpendicular fracture, 60 dca. 56.0 57.0 4BF, w grun. 57.0 Foliation, 19 dca. 57.0 58.0 4BF, v w grun. 58.0 Foliation, 20 dca. 58.0 59.0 4BF, 5%qcbv. 59.0 Foliation, 16 dca. Perpendicular fracture, 50 dca. 59.0 60.0 4BF, 15%qf, 10%qcb, w grun. 60.0 Foliation, 15 dca. 60.0 61.0 4BF, 5%qf, w grun. 61.0 Foliation, 20 dca. 61.0 62.0 4BE, 10%qf, loc m grun. 61.2 Perpendicular fracture, 58 dca. 62.0 Foliation and fracture, 30 dca. 62.0 63.0 4BE, 10%qf, w grun. 62.3 Axial plane, right limb folding, 20 dca. 63.0 Foliation, 25 dca. 63.0 64.0 4B, 10%qf, w grun. 64.0 Foliation, 21 dca. 64.0 65.0 4B, 15%qf, loc m grun. 65.0 Foliation, 20 dca. 65.0 66.0 4BE, 20%qf, loc m grun. 66.0 Foliation, 20 dca. 66.0 67.0 4B, 15%qf, m-s grun., tr asp. 66.2 Perpendicular fracture, 51 dca. 67.0 Foliation, 25 dca. 67.0 68.0 4BF, 10%qf, loc m-s grun. 68.0 Foliation, 30 dca. 68.0 69.0 4BF, 15%qf, loc m grun., tr asp. 69.0 Foliation, 34 dca. Perpendicular fracture, 65 dca. 69.0 70.0 5BF, w grun. 70.0 Foliation, 18 dca. Perpendicular fracture, 58 dca. 70.0 71.0 4FB, loc w grun. 71.0 Foliation, 18 dca. 71.0 72.0 4BF, loc w grun. 72.0 Foliation, 0 dca. 72.0 73.0 4FB, 10%qf, loc w grun. 73.0 Foliation, 18 dca. 73.0 74.0 4FB, w grun. 74.0 75.0 4FB, 2%qcb. 74.2 Axial plane, right limb folding, 14 dca. 74.7 Perpendicular fracture, 60 dca. 75.0 Foliation, 28 dca.

From (m)	To (m)	Geology
		75.0 76.0 4FB, w grun. 76.0 Foliation, 35 dca. Perpendicular fracture, 60 dca. 76.0 77.0 4BF, 10%qf, w grun. 77.0 Foliation, 42 dca. 77.0 78.0 4FB. 78.0 Foliation, 42 dca. 78.0 79.0 4FB. 78.9 Axial plane, right limb folding, 32 dca. 79.0 Foliation, 36 dca. 79.0 80.0 4FB. 79.4 Axial plane, right limb folding, 36 dca. 80.0 Foliation, 37 dca. Perpendicular fracture, 51 dca. 80.0 81.0 4B. 80.4 Perpendicular fault, 73 dca. 81.0 Foliation, 43 dca. 81.0 82.0 4B. W grun. 82.0 Foliation, 38 dca. Perpendicular fracture, 58 dca. 82.0 83.0 4B, w grun. 83.0 113.0 Section with medium to strong carbonatization, strong silicification and remobilization of chert quartz flooding and pyrrhotite as noted in individual sample descriptions. 83.0 84.0 4B, w grun. 83.0 Foliation, 40 dca. 84.0 Foliation, 38 dca. 84.0 85.0 4B, 1%qcb, w grun. 85.0 Foliation, 33 dca. Perpendicular fracture, 52 dca. 85.0 86.0 4B, 10%qf, w-m grun. 86.0 Foliation, 45 dca. 86.0 87.0 4BF, 15%qf, w-m grun. 87.0 Foliation, 42 dca. 87.0 88.0 4B, 30%qf, v w grun. 88.0 Foliation, 53 dca. 88.0 89.0 4B, 40%qf, v w grun. 89.0 Foliation, 45 dca. 89.0 90.0 4B, 20%qf, 20%qcb, v w grun. 90.0 Foliation, 47 dca. Perpendicular fracture, 61 dca. 90.0 91.0 4B, 20%qf, v w grun. 91.0 Foliation, 50 dca. 91.0 92.3 4B, 20%qf, v w grun. 92.0 Foliation, 37 dca. 92.3 93.5 4B, 35%qf. 93.0 Foliation, 54 dca. 93.5 94.7 4B, 5%qf, v w grun. 94.0 Foliation, 50 dca. Axial plane, right limb folding, 31 dca. 94.7 95.4 4B, 15%qf, w-m grun. 95.0 Foliation, 40 dca. ISLAND ZONE MINERALIZATION. 95.4 103.9 Section with very strong silicification, complete remobilization of chert, quartz veining, strong carbonatization, moderately to strongly magnetic, 1 to 10% pyrrhotite and trace to 1% ARSENOPYRITE. 95.4 96.1 95%qf, m-s grun. 95.5 Perpendicular fracture, 62 dca.

From (m)	To (m)	Geology
		96.0 Foliation, 48 dca. 96.1 96.8 4B, 25%qf, m-s grun., tr asp. 96.8 97.9 4B, 30%qf, s grun., tr asp. 97.0 Foliation, 45 dca. 97.9 99.0 4B, 20%qf, s grun. 98.0 Foliation, 42 dca. 98.7 Axial plane, right limb folding, 23 dca. 99.0 Foliation, 38 dca. 99.0 100.0 4B, 30%qf, s grun. 100.0 Foliation, 31 dca. Perpendicular fracture, 60 dca. 100.0 101.0 4B, 20%qf, s grun. 100.2 Fault, 35 dca. 101.0 Foliation, 30 dca. 101.0 101.6 4B, 10%qf, s grun., 1% asp. 101.6 102.4 4B, 20%qf, m-s grun. 102.0 Foliation, 30 dca. 102.4 103.3 20%qf, 8%qv, w grun., tr asp. 103.0 Foliation, 38 dca. END of ISLAND ZONE MINERALIZATION. 103.3 103.9 4B, 20%qf, s grun, 1% asp. 103.9 105.0 4B, 15%qf, m-s grun. 104.0 Foliation, 35 dca. 105.0 Foliation, 38 dca. Perpendicular fracture, 55 dca. 105.0 106.0 4B, 10%qf, m-s grun., tr asp. 106.0 Foliation, 33 dca. 106.0 107.0 4B, 15%qf, m-s grun. 107.0 Foliation, 25 dca. 107.0 108.0 10%qf, 10%qv, m grun., tr asp. 107.3 Axial plane, right limb folding, 45 dca. 108.0 Foliation, 33 dca. Perpendicular fracture, 58 dca. 108.0 109.0 4B, 15%qf, m-s grun. 109.0 Foliation, 29 dca. Perpendicular fracture, 78 dca. 109.0 110.0 4BF, m grun. 110.0 Foliation, 36 dca. 110.0 111.0 4B, w-m grun. 110.7 Perpendicular fracture, 60 dca. 111.0 Foliation, 27 dca. 111.0 112.0 4B, 5%qf, w grun. 111.0 Foliation, 32 dca. 112.0 113.0 4B, 15%qf, w grun. 113.0 Foliation, 16 dca. Perpendicular fracture, 60 dca. 113.0 114.0 4B, 20%qf, w grun. 114.0 Foliation, 18 dca. 114.0 115.0 4FB, w grun. 114.4 Axial plane, right limb folding, 38 dca. 115.0 Foliation, 38 dca. 115.0 116.0 4B, 10%qf, w grun. 116.0 Foliation, 31 dca. Parallel fault, 38 dca. 116.0 117.0 4B, 15%qf, 5%qcb. 117.0 Foliation, 0 dca.

From (m)	To (m)	Geology
		117.0 118.0 4B, 5%qf, 1%qcb, loc w grun. 118.0 Foliation, 49 dca. Perpendicular fracture, 61 dca. 118.0 119.0 4B, 10%qf, loc w grun. 119.0 Foliation, 45 dca. 119.0 120.4 4B. 119.5 Perpendicular fracture, 55 dca. 120.0 Foliation, 0 dca. 120.4 121.2 4B, 40%qf. 121.0 Foliation, 48 dca. 121.2 122.0 5%qf, w grun. 122.0 Foliation, 45 dca. 122.0 123.0 4B, w grun. 122.2 Axial plane, right limb folding, 51 dca. 123.0 Foliation and fracture, 35 dca. 123.0 124.0 4FB, 3%qcb. 124.0 Foliation, 38 dca. Axial plane, right limb folding, 43 dca. 124.0 125.0 4FB, 4%qcb, loc w grun. 124.6 Perpendicular fracture, 60 dca. 125.0 Foliation, 23 dca. 125.0 126.0 4FB, w grun. 125.2 Axial plane, right limb folding, 32 dca. 126.0 Foliation, 35 dca. 126.0 127.0 4FB, w grun. 127.0 Foliation, 38 dca. 127.0 128.0 4FB, m grun. 127.1 Fault, 40 dca. 128.0 Foliation, 34 dca. 128.0 129.0 4FB, m grun. 129.0 Foliation, 25 dca. Perpendicular fracture, 55 dca. 129.0 130.0 4FB, 15%qf, w grun. 129.8 Axial plane, right limb folding, 32 dca. 130.0 Foliation, 38 dca. 130.0 131.0 4FB, 10%qf, 2%qcb, w grun. 131.0 Foliation, 27 dca. 131.0 132.0 4FB, w-m grun. 132.0 Foliation, 33 dca. Perpendicular fracture, 68 dca. Axial plane, right limb folding, 47 dca. 132.0 133.0 4FB, w-m grun. 133.0 Foliation, 43 dca. 133.0 134.0 4FB, v w grun. 134.0 Foliation, 38 dca. 134.0 135.0 4BF, w grun. 135.0 Foliation, 43 dca. 135.0 136.0 4BF, v w grun. 136.0 Foliation, 33 dca. Perpendicular fracture, 56 dca. 136.0 137.0 4BF,. 136.6 Fault, 32 dca. 137.0 Foliation, 38 dca. 137.0 138.2 4FB, w grun. 138.0 Foliation, 38 dca. Lower contact, 138.2, sharp, 37 dca.

From (m)	To (m)	Geology
138.2	139.3	GARNETIFEROUS BASALT GtB. Typical GtB with 10-90% garnets, moderately developed foliation, non-magnetic, non carbonatized. 138.7 Perpendicular fault, 16 dca. 139.0 Foliation, 40 dca. Lower contact, sharp, 36 dca.
139.3	141.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL with GtB. Typical BVOL. Fine grained, brownish-green, green, non-magnetic to very weakly magnetic, moderately soft. Well developed foliation. Local biotitic alteration, weak to moderate carbonatization. 139.8 Contact, sharp, 39 dca. 139.8 140.1 GtB interbed, contacts parallel to foliation. 140.0 Foliation, 37 dca. Perpendicular fracture, 68 dca. 140.3 140.4 GtB interbed, contacts parallel to foliation. 140.9 141.1 GtB interbed, contact, parallel to foliation. 141.0 Foliation, 38 dca. Lower contact, sharp, 34 dca.
141.1	141.8	CHERT - MAGNETITE IRON FORMATION 4FB. Very fine grained to fine grained, green, white, brown, mm, very hard to hard. With chlorite in F beds. 2% Pyrrhotite, quartz flooding (20%). Strong silicification, moderate grunerite alteration. Lower contact, sharp, 38 dca.
141.8	149.8	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to above with weak to strong carbonatization in brown green, biotitic sections. Very weak to nil carbonatization in silicified, very fine grained, blue grey, sections. Non-magnetic. 3-5% Quartz-carbonate as seams and veinlets. 145.0 Foliation and fracture, 46 dca. Perpendicular fracture, 50 dca. Lower contact, sharp, 35 dca.
149.8	150.9	CHERT-MAGNETITE / GARNET-BIOTITE-AMPHIBOLE I.F. 4BFE With GtB. Similar to above 4B, chlorite seams, up to 20% garnets, 15% B beds 20% quartz flooding, moderately magnetic. Very hard to hard. Moderate to strong grunerite alteration, silicified. 1% Pyrrhotite as irregular seams and disseminated specks. 149.9 Perpendicular fracture, 55 dca. 150.0 Foliation, 34 dca. Lower contact, sharp, 36 dca.
150.9	172.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL with minor GtB. Similar to above.

From (m)	To (m)	Geology
		Pervasive moderate to strong carbonatization. Strong pervasive biotitic alteration. 154.8 Perpendicular fracture, 58 dca. 155.0 Foliation, 48 dca. 157.4 157.9 GtB interbed, contacts parallel to foliation. 159.6 Perpendicular fracture, 39 dca. 160.0 Foliation, 46 dca. 161.9 162.2 GtB interbed, contacts parallel to foliation. 162.7 163.1 GtB interbed, contacts parallel to foliation. 165.0 Foliation, 44 dca. Perpendicular, oblique, fracture, 25 dca. 165.4 Perpendicular fracture, 45 dca. 166.2 166.4 GtB interbed, contacts parallel to foliation. 170.0 Foliation, 42 dca. 171.3 172.1 GtB interbed, with minor 4B, contacts, sharp, parallel to foliation. Unit is weakly to moderately magnetic, 2% pyrrhotite, trace ARSENOPYRITE, 5% quartz flooding. Lower contact, sharp, 43 dca.
172.1	260.3	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Very fine grained to fine grained, blue grey, grey, non-magnetic, hard. Well developed foliation. 4-6% Minute quartz clasts aligned parallel to foliation. Two sets of fractures : one set parallel to foliation the other perpendicular to foliation. Fractures perpendicular to foliation have bleached, carbonatized alteration halos up to 1 cm wide. 3-5% Quartz-carbonate as veinlets and seams parallel to foliation. Occasionally with blebs of pyrite and or chalcopyrite. Occasional quartz-carbonate vein up to 25 cm. Locally trace to 1% disseminated pyrite and ARSENOPYRITE. Pyrite and pyrrhotite also as minute irregular seams parallel to foliation. Local weak carbonatization. Very strong carbonatization confined to narrow, <5mm, alteration halos along parallel and perpendicular fractures. Occasional strongly silicified section. Locally weak to moderate sericite alteration. 175.0 Foliation, 43 dca. Perpendicular fracture, 60 dca. 180.0 Foliation, 47 dca. Perpendicular fracture, 53 dca. 184.8 Perpendicular fracture, 60 dca. 185.0 Foliation, 38 dca. 188.0 Fault, 30 dca. 190.0 Foliation and fracture, 37 dca. Perpendicular fracture, 50 dca. 195.0 Foliation, 40 dca. Perpendicular fracture, 50 dca. 200.0 Foliation, 45 dca. Perpendicular fracture, 45 dca. 201.8 202.5 Silicified section with 5% pyrite. 203.0 Perpendicular FAULT ZONE, 33 dca. 204.0 Perpendicular FAULT ZONE, 33 dca. 205.0 Foliation, 40 dca. Perpendicular fracture, 30 dca. 206.0 Perpendicular FAULT ZONE, 22 dca. 210.0 Foliation, 50 dca. Perpendicular fracture, 46 dca. 211.0 Perpendicular fault, 30 dca. 215.0 Foliation, 48 dca. 219.0 Perpendicular fracture, 44 dca. 220.0 Foliation, 46 dca. 224.8 Perpendicular fracture, 52 dca. 225.0 Foliation, 36 dca. 226.5 Perpendicular fracture, 57 dca.

From (m)	To (m)	Geology
		230.0 Foliation, 48 dca. 232.3 Quartz-carbonate vein, 10 cm wide. 233.0 Perpendicular fracture, 52 dca. 234.6 Perpendicular fracture, 51 dca. 235.0 Foliation, 50 dca. 237.2 237.4 Quartz-carbonate vein. 240.0 Foliation, 40 dca. 245.0 Foliation, 50 dca. Perpendicular fracture, 32 dca. 250.0 Foliation, 47 dca. Perpendicular fracture, 50 dca. 252.0 257.0 Silicified, sericitic, section with trace ARSENOPYRITE. 252.3 252.4 Quartz-carbonate vein. 253.4 Perpendicular fracture, 44 dca. 255.0 Foliation, 53 dca. 259.0 Perpendicular fracture, 57 dca. 260.0 Foliation, 55 dca. Lower contact, gradual over 2 medium, 55 dca. Occasional to 2% garnets in lower 1 metre of unit.
260.3	266.7	GARNETIFEROUS BASALT GtB. Fine grained, green black, brownish-green, brown, locally weakly magnetic, hard. Poorly to moderately well developed foliation. Strong biotitic and chloritic alteration, locally weak carbonatization and silicification. 5-20% Garnets up to 1 cm wide. Trace to 2% pyrite as disseminated specks and irregular seams. Occasional QUARTZ-VEIN up to 2 cm wide. 262.8 Perpendicular fracture, 49 dca. 265.0 Foliation, 57 dca. 266.0 Perpendicular fracture, 50 dca. Lower contact, gradual over 10 cm, 50 dca.
266.7	274.6	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, green, brown green, non-magnetic, moderately hard. Well developed foliation. Unit is fractured, parallel to and perpendicular to foliation. 2-3% Quartz-carbonate veins, stringers and seams, up to 1 cm wide, parallel to foliation. Occasional stringer perpendicular to foliation. Local strong biotitic alteration. Locally strongly silicified. Very fine grained, very hard. Fractured subparallel to core axis. 270.0 Foliation, 52. Perpendicular fracture, 58 dca. Lower contact, sharp, 50 dca.
274.6	278.1	GARNETIFEROUS BASALT GtB. Typical unit, similar to above. 274.9 Perpendicular fracture, 40 dca. 275.0 Foliation, 60 dca. Lower contact, sharp, 60 dca.
278.1	280.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical unit, similar to above.

From (m)	To (m)	Geology
		280.4 An irregular seam of pyrrhotite, up to 1 cm wide, 65 dca. 280.4 Perpendicular fracture, 60 dca. 281 foliation, 63 dca. Lower contact, irregular, 40 dca.
280.9	282.9	GARNETIFEROUS BASALT GtB. Typical unit, similar to above. Lower contact, sharp, 54 dca.
282.9	292.5	INTERMEDIATE TO MAFIC VOLCANICS BVOL with GtB. Similar to above. With 5-8% quartz-carbonate with irregular veins up to 4 cm wide. 285.0 Foliation, 52 dca. 286.6 Perpendicular fracture, 30 dca. 290.0 Foliation, 42 dca. 291.2 Perpendicular fracture, 38 dca. Lower contact, sharp, 54 dca.
292.5	293.9	GARNETIFEROUS BASALT GtB. Typical unit, similar to above. Lower contact, sharp, 41 dca.
293.9	295.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL with GtB. Units similar to above. 295.0 Foliation, 58 dca. Lower contact, sharp, 55 dca.
295.9	297.5	GARNETIFEROUS BASALT GtB. Typical unit, similar to above. Lower contact, sharp, 48 dca.
297.5	302.8	INTERMEDIATE TO MAFIC VOLCANICS BVOL with GtB. Units similar to above. 299.1 Perpendicular fault, 26 dca. 299.2 Perpendicular fracture, 53 dca. 299.3 300.1 GtB interbed, contacts parallel to foliation. 299.3 Contact, sharp, 42 dca. 300.0 Foliation, 32 dca. 300.1 Contact, sharp, 30 dca. Lower contact, sharp, 45 dca.
302.8	304.5	GARNETIFEROUS BASALT BVOL with GtB. Typical units, similar to above. Trace to 1% pyrrhotite, weakly magnetic.

From (m)	To (m)	Geology
		304.0 Perpendicular fracture, 43 dca. Lower contact, sharp, 50 dca.
304.5	305.0	BRECCIA ZONE BRECCIA ZONE. Fine grained, green, white, non-magnetic, moderately soft. Chloritic matrix with 20% subrounded and elongated, creamy white and translucent white quartz clasts. Lower contact, sharp, 40 dca.
305.0	308.1	INTERMEDIATE TO MAFIC VOLCANICS´ BVOL with GtB. Units, similar to above. With 5-8% quartz-carbonate with irregular veins up to 4 cm wide. 306.0 Perpendicular fracture, 43 dca. Lower contact, sharp, 55 dca.
308.1	310.5	GARNETIFEROUS BASALT GtB. Typical unit, similar to above. Lower contact, sharp, 60 dca.
310.5	320.3	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Typical unit, similar to above. 315.0 Foliation, 43 dca. Perpendicular fracture, 52 dca. 320.0 Foliation, 25 dca. Lower contact, sharp, 30 dca.
320.3	321.8	GARNETIFEROUS BASALT GtB and 4EBF. Typical unit, similar to, except as noted, with tr-2% disseminated pyrrhotite. Lower 15cm is weakly magnetic 4EBF with 50%QF, 8%PO, S GRUN., AND 1 BLEB OF VG. 320.3 321.3 GtB. 4% quartz stringers. 321.2 Perpendicular fracture, 48 dca. 321.3 321.8 35cm GtB, 15cm 4EBF, 50%qf, 8%po, s grun., VG. 321.7 VISIBLE GOLD : 1 bleb. Lower contact, sharp, 43 dca.
321.8	360.8	INTERMEDIATE TO MAFIC VOLCANICS BVOL with 4EBF and 4EB. Typical unit, similar to above, except as noted. A subunit of mineralized 4EBF similar to 4EBF, in above unit. Several subunits of 4EB with translucent white quartz flooding, quartz-carbonate veining, biotitic alteration, weak to moderate carbonatization, weak magnetism and nil to 2% pyrrhotite. These units may represent upper limits of the S-ZONE. 321.8 322.8 BVOL. 325.0 Foliation, 28 dca. Perpendicular fracture, 52 dca. 325.6 326.6 BVOL. Minor garnets. 326.6 327.5 Mineralized subunit with bi, chl and grun altn, quartz flooding and pyrrhotite. 326.6 327.5 4E, 50%qf, s grun. 327.5 328.5 BVOL.

From (m)	To (m)	Geology
		330.0 Foliation, 28 dca. 331.0 Perpendicular fracture, 36 dca. 333.8 334.1 4EB, 30%qf, w grun. 335.0 Foliation, 38 dca. Perpendicular fracture, 38 dca. 336.0 336.5 4EB, 60%qf, w-m grun. 336.5 337.0 BVOL. 337.0 337.8 10cm BVOL, 70cm 4EB with 15%qf, w-m grun. 337.8 338.1 BVOL. 1% calcite stringers. 338.1 339.4 4EB and BVOL, 50:50, numerous interbedded subunits. 338.5 Perpendicular fracture, 42 dca. 340.0 Foliation, 42 dca. 340.1 341.2 4EB and BVOL, 50:50, 5%qf, 8%qcb. 344.0 Perpendicular fracture, 49 dca. 344.4 Perpendicular fracture, 44 dca. 345.0 Foliation, 34 dca. 350.0 Foliation, 34 dca. 354.6 Perpendicular fracture, 55 dca. 355.0 Foliation, 45 dca. 359.0 Perpendicular fracture, 73 dca. 360.0 Foliation, 39 dca. Lower contact, sharp, 44 dca.
360.8	362.1	GARNET-BIOTITE SCHIST 4F. Fine to medium grained, black, brown, non-magnetic, moderately soft. 60% Biotitic matrix with 40% garnets up to 8 mm wide. Occasional irregular seam of quartz-carbonate, up to 5 mm wide, parallel to foliation. Poorly to moderately developed foliation. 361.0 Foliation, 32 dca. 361.8 Perpendicular fracture, 16 dca. 362.0 Foliation, 52 dca. Lower contact, irregular, sharp, 43 dca.
362.1	491.5	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. C-ZONE MINERALIZATION:. T-ZONE MINERALIZATION:. WA-ZONE MINERALIZATION:. Typical unit. Fine grained, grey, green, brown, white, black, weakly to strongly magnetic, very hard to moderately soft. Well developed bedding / foliation, locally contorted. Folding is very common.fracturing, parallel to bedding / foliation. A second set of fractures perpendicular to bedding / foliation. Unit is locally SHEARED and faulted parallel to bedding. Unit consists of B and E beds up to 3 cm thick. E beds with 30-70% garnets. Pervasive strong silicification of B beds with partial and complete remobilization of chert. Minor quartz veining. Up to 40% quartz flooding. Quartz flooding includes completely remobilized chert. With to strong grunerite alteration. Minor weak carbonatization. Nil to 5% pyrrhotite, trace ARSENOPYRITE, VISIBLE GOLD as noted. BVOL interbeds in lower portion of unit, as noted. 362.1 363.0 4EB, 5%qf, 1%qcb, w grun.

From (m)	To (m)	Geology
		363.0 Foliation, 48 dca.
		363.0 364.0 4E, 10%qf, 10%qv, w-m grun.
		364.0 Foliation, 36 dca.
		364.0 365.0 4EB, 10%qf, w-m grun.
		365.0 Foliation, 42 dca. Perpendicular fracture, 53 dca.
		365.0 366.0 4E, 15%qf, 8%qv, m grun.
		366.0 Foliation, 0 dca.
		366.0 367.0 4EB, 15%qf, 5%qv, w-m grun., tr asp.
		366.2 Perpendicular fracture, 49 dca.
		366.3 Axial plane, right limb folding, 30 dca.
		367.0 Foliation, 0 dca.
		367.0 368.0 4E, 20%qf, m-s grun., tr asp.
		368.0 Foliation, 30 dca.
		368.0 369.0 4E, 30%qf, s grun., tr asp.
		369.0 Foliation, 68 dca.
		369.0 370.0 4E, 20%qf, 10%qv, s grun., tr asp.
		370.0 Foliation, 70 dca. Perpendicular fracture, 53 dca.
		370.0 371.0 4E, 20%qf, m-s grun.
		370.1 Fault, 23 dca.
		370.4 Parallel fracture, 21 dca.
		371.0 Foliation, 74 dca.
		371.0 372.0 4EB, 20%qf, w-m grun.
		372.0 Foliation, 90 dca.
		372.0 373.0 4EB, 10%qf, m grun., tr asp.
		373.0 Foliation, 0 dca.
		373.0 374.0 4EFB, 10%qf, w grun.
		373.6 Perpendicular fracture, 40 dca.
		374.0 Foliation, 70 dca.
		374.0 375.0 4EBF, 10%qf, w-m grun.
		374.5 Fault, 10 dca, (subparallel to core axis).
		375.0 Foliation, 54 dca.
		375.0 376.0 4EF, 15%qf, m grun.
		376.0 Foliation, 60 dca. Perpendicular fracture, 55 dca.
		376.0 377.0 4EB, 20%qf, m grun.
		377.0 Foliation, 72 dca.
		377.0 377.8 4EFB.
		377.8 378.4 4EFB, 15%qf, w grun.
		378.0 Foliation, 63 dca. Perpendicular fracture, 50 dca.
		378.4 379.2 4E, 70%qf, w-m grun.
		379.0 Foliation, 65 dca.
		379.2 380.0 4BF, 10%qf, w grun.
		380.0 Foliation, 66 dca.
		380.0 381.0 4B, 5%qf, v w grun.
		381.0 Fault, 57 dca. Foliation up hole is 46 dca. Foliation down hole is 0 dca.
		381.0 382.0 4BE, w grun.
		381.1 Axial plane, right limb folding, 32 dca.
		382.0 Foliation, 15 dca.
		382.0 383.0 4E, 5%qf, w grun.
		382.5 Axial plane, right limb folding, 30 dca.
		383.0 Foliation, 45 dca.
		383.0 384.0 4E, 5%qf, w-m grun.

From (m)	To (m)	Geology
		384.0 Foliation, 50 dca.
		384.0 385.0 4EBF, m grun.
		385.0 Foliation, 27 dca.
		385.0 386.0 4EB, m grun.
		386.0 Foliation, 26 dca.
		386.0 387.0 4E, m grun.
		387.0 Foliation, 25 dca. Perpendicular fracture, 54 dca.
		387.0 388.0 4E, 5%qf, m grun., tr asp.
		388.0 Foliation, 49 dca.
		388.0 389.0 4E, m grun.
		389.0 Foliation, 23 dca.
		389.0 390.0 4E, w-m grun.
		390.0 Foliation, 19 dca.
		390.0 391.0 4EBF, m grun.
		391.0 Foliation, 30 dca.
		391.0 392.0 4EB, 15%qf, m-s grun.
		392.0 Foliation, 28 dca.
		392.0 393.0 4EB, 10%qf, m-s grun.
		393.0 Foliation, 33 dca. Perpendicular fracture, 56 dca.
		393.0 394.0 4E, 10%qf, m grun.
		394.0 Foliation, 30 dca.
		394.0 395.0 4E, 10%qf, m-s grun.
		395.0 Foliation, 22 dca.
		395.0 396.0 4E, 5%qf, s grun.
		396.0 Foliation, 30 dca.
		396.0 397.0 4EB, 5%qf, m grun.
		396.3 Perpendicular fracture, 73 dca.
		397.0 Foliation, 40 dca. Perpendicular fracture, 60 dca.
		397.0 398.0 4EF, 15%qf, w-m grun., tr asp.
		398.0 Foliation, 32 dca.
		398.0 399.0 4E, 5%qf, m-s grun., tr asp.
		399.0 Foliation, 21 dca.
		399.0 400.0 4E, 15%qf, s grun., tr asp.
		399.3 VISIBLE GOLD : 1 speck.
		400.0 Foliation, 40 dca. Perpendicular fracture, 48 dca.
		400.0 401.0 4E, 10%qf, m-s grun.
		401.0 Foliation, 23 dca.
		401.0 402.0 4E, 15%qf, s grun.
		402.0 Foliation, 0 dca.
		402.0 403.0 4E, 15%qf, s grun., tr asp.
		403.0 Foliation, 30 dca.
		403.0 404.0 4E, 5%qf, m-s grun., tr asp.
		404.0 Foliation, 44 dca.
		404.0 405.0 4F.
		405.0 Foliation, 45 dca.
		405.0 406.0 4F.
		405.7 Perpendicular fracture, 70 dca.
		406.0 Foliation, 50 dca.
		406.0 407.0 4F.
		406.3 Foliation, 74 dca.
		406.6 Axial plane, right limb folding, 37 dca.

From (m)	To (m)	Geology
		407.0 Foliation, 30 dca.
		407.0 408.0 4FE, 8%qf, w-m grun.
		408.0 Foliation, 0 dca, contorted.
		408.0 409.0 4E, 20%qf, m-s grun.
		408.6 VISIBLE GOLD : 1 speck.
		409.0 Foliation, 0 dca, contorted.
		409.0 410.0 4E, 20%qf, s grun.
		409.5 VISIBLE GOLD : 2 specks.
		410.0 Foliation, 40 dca.
		410.0 411.0 4FE, 5%qf, loc w grun.
		411.0 Foliation, 40 dca.
		411.0 412.0 4F, 10%qf.
		411.4 Perpendicular fracture, 50 dca.
		412.0 Foliation, 27 dca.
		412.0 413.0 4FE, 15%qf, w grun., tr asp.
		413.0 Foliation, 33 dca.
		413.0 414.0 4EFB, 10%qf, w-m grun., tr asp.
		414.0 Foliation, 50 dca.
		414.0 415.0 4EF, 15%qf, m grun.
		414.4 Axial plane, right limb folding, 50 dca.
		415.0 Foliation, 45 dca.
		415.0 416.0 4F, 15cm BVOL, loc w grun.
		415.5 Perpendicular fracture, 60 dca.
		416.0 Foliation, 36 dca.
		416.0 417.0 4F, 5cm qv.
		417.0 Foliation, 29 dca.
		417.0 418.0 4F.
		418.0 Foliation, 19 dca.
		418.0 419.0 4FEB, loc m grun.
		419.0 Foliation, 27 dca.
		419.0 420.0 4FEB, loc m grun.
		419.7 Perpendicular fracture, 50 dca.
		420.0 Foliation, 22 dca.
		420.0 421.0 4F, loc w grun.
		421.0 Foliation, 34 dca.
		421.0 422.0 4F, 5cm qv.
		422.0 Foliation, 14 dca.
		422.0 423.0 4F, 5cm qv, loc w grun.
		423.0 Foliation, 15 dca.
		423.0 424.0 4F, 20%qf.
		424.0 Foliation, 26 dca.
		424.0 425.0 4EF, 30%qf, m grun.
		424.5 Perpendicular fracture, 66 dca.
		425.0 Foliation, 24 dca.
		425.0 426.0 4B, w grun.
		426.0 Foliation, 0 dca, contorted. Several parallel healed faults with mm scale displacement, 50 dca.
		426.0 427.0 4B, 20%qf.
		427.0 Foliation, 40 dca.
		427.0 428.0 4E, 20%qf, m grun.
		428.0 Foliation, 31 dca.
		428.0 429.0 4E, 25%qf, m grun.

From (m)	To (m)	Geology
		429.0 Foliation, 0 dca, contorted.
		429.0 430.0 4E, 20qf, m grun.
		429.7 Axial plane, right limb folding, 43 dca.
		430.0 Foliation, 0 dca, contorted.
		430.0 431.1 4E, 30%qf, s grun., tr asp.
		431.1 Contact, sharp, 40 dca.
		431.1 432.0 4B.
		432.0 Foliation, 32 dca.
		432.0 433.0 4B, 5%qf.
		433.0 Foliation, 40 dca. Perpendicular fracture, 50 dca.
		433.0 434.0 4B, 3%qf.
		434.0 Foliation, 32 dca.
		434.0 435.0 4B, 5%qf.
		434.4 Perpendicular fracture, 50 dca.
		435.0 Foliation, 33 dca.
		435.0 436.0 4B, 5%qf.
		436.0 Foliation, 34 dca.
		436.0 437.0 4BF.
		437.0 Foliation, 29 dca.
		437.0 438.0 4B, 10cm qv.
		437.4 Perpendicular fracture, 53 dca.
		438.0 Foliation, 29 dca.
		438.0 439.0 4BF, 4%qf.
		439.0 Foliation, 30 dca.
		439.0 440.0 4B, 3%qf, VG.
		439.6 Pyrrhotite seam, 4 cm wide, 25 dca. 1 bleb VISIBLE GOLD.
		440.0 Foliation, 20 dca.
		440.0 441.0 4BF.
		441.0 Foliation, 31 dca.
		441.0 442.0 4BF.
		442.0 Foliation, 25 dca.
		442.0 443.0 4BE, w-m grun.
		442.7 Perpendicular fracture, 60 dca.
		443.0 Foliation, 30 dca.
		443.0 444.0 4BEF, 15%qf, m-s grun.
		444.0 Foliation, 30 dca.
		444.0 445.0 4BE, 10%qf, m-s grun.
		445.0 Foliation, 23 dca.
		445.0 446.0 4EBF, m grun.
		446.0 Foliation, 26 dca. Perpendicular fracture, 57 dca.
		446.0 447.0 4BFE, 5%qf, w grun.
		447.0 Foliation, 25 dca.
		447.0 448.0 4EB, 20%qf, m grun.
		448.0 Foliation, 30 dca.
		448.0 448.9 4E, 15%qf, m grun.
		448.5 BVOL interbed, contacts parallel to foliation.
		448.9 450.0 4E, 15%qf, m-s grun.
		449.0 Foliation, 30 dca.
		449.1 Pyrrhotite seam, 2 cm, 31 dca.
		450.0 451.0 4E, 20%qf, s grun.
		450.0 Foliation, 21 dca.

From (m)	To (m)	Geology
		451.0 Foliation, 38 dca.
		451.0 452.0 10cm BVOL, 4BE, 10%qf, w-m grun.
		451.2 451.3 BVOL interbed, contacts parallel to foliation.
		452.0 Foliation, 40 dca.
		452.0 453.0 10cm BVOL, 4EB, 5%qf, w-m grun.
		452.2 452.3 BVOL interbed, contacts parallel to foliation.
		453.0 Foliation, 37 dca.
		453.0 454.0 4EB, 10%qf, m grun.
		454.0 Foliation, 38 dca.
		454.0 455.0 4E, 20%qf, m-s grun.
		454.7 Perpendicular fracture, 50 dca.
		455.0 Foliation, 36 dca.
		455.0 456.0 4E, 15%qf, s grun.
		456.0 Foliation, 32 dca.
		456.0 457.0 4E, 15%qf, s grun.
		457.0 Foliation, 40 dca.
		457.0 458.0 20cm BVOL, 4E, 15%qf, w-m grun.
		457.1 457.3 BVOL interbed, contacts parallel to foliation.
		457.4 Perpendicular fracture, 66 dca.
		458.0 Foliation, 35 dca.
		458.0 459.0 3cm BVOL, 4EB, 15%qf, w-s grun.
		458.7 3 cm BVOL interbed, contacts parallel to foliation.
		459.0 Foliation, 42 dca.
		459.0 459.9 4EB, 20%qf, m-s grun.
		459.9 460.1 BVOL interbed, contacts parallel to foliation.
		459.9 460.7 65cm BVOL, 4BE, 30%qf, s grun., po in 4EB.
		460.1 Contact, 43 dca.
		460.3 460.7 BVOL interbed, contacts parallel to foliation.
		460.7 462.0 4EB, m-s grun.
		461.0 Foliation, 29 dca.
		462.0 Foliation, 35 dca. Perpendicular fracture, 55 dca.
		462.0 463.0 10cm BVOL, 4EBF, 4%qf, m grun.
		462.2 462.3 BVOL interbed, contacts parallel to foliation.
		463.0 Foliation, 39 dca.
		463.0 464.3 4EBF, 10%qf, m grun., tr asp.
		464.0 Foliation, 38 dca.
		464.3 465.1 BVOL interbed, contacts parallel to foliation.
		464.3 465.1 BVOL.
		465.1 Contact, 40 dca.
		465.1 466.0 4FEB, w grun.
		466.0 Foliation, 30 dca. Perpendicular fracture, 52 dca.
		466.0 467.0 4EB, 10%qf, w grun.
		467.0 Foliation, 34 dca.
		467.0 468.0 4EBF, m grun.
		468.0 Foliation, 33 dca.
		468.0 469.0 4EB, m grun.
		469.0 Foliation, 34 dca.
		469.0 469.5 4EB, 30%qf, s grun.
		469.5 470.5 4BF, 5%qf, w-m grun.
		470.0 Foliation, 30 dca.
		470.5 471.6 4B, 20%qf, w-s grun., VG.

From (m)	To (m)	Geology
		471.0 Foliation, 35 dca. 471.5 Perpendicular fracture, 40 dca. 471.6 472.8 4EB, 20%qf, w-m grun. 472.0 Foliation, 40 dca. 472.8 474.2 19cm BVOL, 4EFB, 5%qf, w-m grun. 473.0 Foliation, 40 dca. 474.0 Foliation, 43 dca. 474.2 475.3 4EB, 10%qf, m grun. 475.0 Foliation, 40 dca. 475.3 476.0 4E, 25%qf, s grun. 476.0 Foliation, 42 dca. 476.0 477.0 4E, 15%qf, s grun. 477.0 Foliation, 37 dca. 477.0 478.0 4E, 20%qf, s grun. 478.0 Foliation, 43 dca. 478.0 479.0 4E, 25%qf, s grun. 478.4 Perpendicular fracture, 60 dca. 479.0 Foliation, 33 dca. 479.0 480.0 4E, 30%qf, s grun. 480.0 Foliation, 40 dca. 480.0 481.0 4E, 15%qf, s grun. 480.3 Perpendicular fracture, 62 dca. 481.0 Foliation, 45 dca. 481.0 482.0 20cm BVOL, 4EB, 10%qf, m grun. 482.0 Foliation, 38 dca. 482.0 483.0 4E, 15%qf, w-s grun. 483.0 Foliation, 51 dca. 483.0 484.0 4EBF, 10%qf, w-m grun. 484.0 Foliation, 33 dca. 484.0 485.0 4BEF, 10%qf, w grun. 485.0 Foliation, 30 dca. 485.0 486.0 4FB, 10%qf, w grun. 485.1 Fault, 20 dca. 486.0 Foliation, 49 dca. 486.0 487.0 4BEF, w-m grun. 486.9 Axial plane, right limb folding, 50 dca. 487.0 Foliation, 46 dca. 487.0 488.0 4BEF, 10%qf, w grun. 487.9 Fault, 45 dca. 488.0 Foliation, 45 dca. 488.0 489.0 4FB, 5%qf, loc w grun. 489.0 Foliation, 54 dca. 489.0 489.9 4F, loc w grun. 489.9 490.9 4BF. 490.0 Foliation, 45 dca. 490.3 Perpendicular fracture, 50 dca. 490.9 491.5 4BEF, w-m grun. 491.0 Foliation, 34 dca. Lower contact, sharp, 48 dca.
491.5	508.5	INTERMEDIATE TO MAFIC VOLCANICS

From (m)	To (m)	Geology
		BVOL. Fine to medium grained, brown, green, non-magnetic, moderately soft to hard. Well developed foliation. Locally biotized, pervasive weak to strong carbonatization, strongest carbonatization in biotitic sections. Locally silicified. 3-5% Quartz-carbonate as irregular seams and veins up to 3 cm wide. 492.0 Foliation, 47 dca. 493.0 Foliation, 41 dca. 495.0 Foliation, 46 dca. Perpendicular fracture, 48 dca. 500.0 Foliation, 53 dca. Perpendicular fracture, 40 dca. 505.0 Foliation, 55 dca. 505.4 Perpendicular fracture, 45 dca. Lower contact, sharp, 50 dca.
508.5	515.1	GARNET-BIOTITE SCHIST / GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4FEA and 4FB. Fine grained, black, grey, weakly to strongly magnetic, hard. Occasional B bed, up to 30%. Predominantly F beds. Well developed bedding. Weak to strong silicification. Fractured parallel to bedding and perpendicular to bedding. Occasional fault. 508.5 509.0 4FE, 15%qf, m grun. 509.0 Foliation, 36 dca. 509.0 510.0 4FE, w-m grun. 510.0 Foliation, 42 dca. 510.0 511.0 4FE, loc w grun. 511.0 Foliation, 18 dca. 511.0 512.0 4FEB, w grun. 512.0 Foliation, 38 dca. 512.0 513.0 4F. 512.3 Perpendicular fracture, 60 dca. 513.0 Foliation, 55 dca. 513.0 514.0 4FE, 3%qf, loc m grun. 514.0 Foliation, 78 dca. 514.0 515.1 4EBF, 10%qf, m grun. 515.0 Foliation, 58 dca.
515.1		END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DRILLING HISTORY and HOLE CONTROL EQUIPMENT. .0 13.4 Tricone. .0 13.4 NW casing. 13.4 161.0 20ft stabilized corebarrel, reamer and MX-10 drill bit. 161.0 515.1 Standard 10ft corebarrel and MX-10 drill bit. Hole stopped at 9:30 am, 29 March. Gyro-dip survey completed at 12:00am.

From (m)	To (m)	Geology
		Hole cemented. Casing pulled. 90 Bags of #10 Cement. 4 Hours required to cement the hole. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples (13.4m-185m and 250m to EOH) taken. Sludge samples stored on the site. Sample STANDARDs, BLANKs and DUPLICATEs. E36780 STANDARD I 7.44 7.75 NS. E36781 BLANK 0.07 ns ns. E36790 is a DUPLICATE of E36789 1 2.64 ns ns. E36799 STANDARD I 7.30 7.34 NS. E36800 BLANK 0.03 ns ns. E36810 is a DUPLICATE of E36809 0 0.03 ns ns. E36821 STANDARD I 7.71 7.23 NS. E36822 BLANK 0.03 ns ns. E36830 is a DUPLICATE of E36829 0 0.07 ns ns. E36839 STANDARD I 7.34 7.47 NS. E36840 BLANK 2.30 ns ns. E36850 is a DUPLICATE of E36849 1 1.58 ns ns. E36860 STANDARD I 7.68 ns ns. E36861 BLANK 0.03 ns ns. E36870 is a DUPLICATE of E36869 7 2.30 ns ns. E36881 STANDARD I 7.47 7.71 NS. E36882 BLANK 0.17 ns ns. E36890 is a DUPLICATE of E36889 2 0.96 ns ns. E36899 STANDARD I 7.34 7.71 NS. E36900 BLANK 0.10 ns ns. E36910 is a DUPLICATE of E36909 0 0.07 0.07 NS. Changed to plastic tags for core cutting in Pickle Lake. E56510 is a DUPLICATE of E56509 4 0.07. E56520 STANDARD I 7.17 7.51 NS. E56521 BLANK 0.07. E56530 is a DUPLICATE of E56529 0.24. E56539 STANDARD I 7.54 7.68 NS. E56540 BLANK 0.27. E56550 is a DUPLICATE of E56549 1 2.91 3.12 NS. E56560 STANDARD I 7.51 7.75 NS. E56561 BLANK 0.10. E56570 is a DUPLICATE of E56569 tr 1.13. E56580 STANDARD I 7.20 7.47 NS. E56581 BLANK 0.14. E56590 is a DUPLICATE of E56589 0 0.86. E56599 STANDARD I 7.34 7.65 NS. E56600 BLANK 0.07. E56610 is a DUPLICATE of E56609 tr 0.45. E56620 STANDARD I 7.51 7.68 NS. E56621 BLANK 0.07. E56630 is a DUPLICATE of E56629 8 19.82 19.82 NS.

From (m)	To (m)	Geology
		E56640 STANDARD I 7.34 7.41 NS. E56641 BLANK 0.07. E56650 is a DUPLICATE of E56649 0 0.03 0.03 NS. E56659 STANDARD I 7.68 NS NS. E56660 BLANK 0.07. Acid tests and Roto-dip were used to monitor the hole. Code 2 data is the results of Gyro-dip (Inrun Survey) survey by CBC WELLNAV, NORTH BAY, ONTARIO. DEPTH DIP TYPE. 0.0 -60 Brunton. 13.4m -60.5 Acid. 53m -60 Acid. 77m -58.5 Acid. 101m -57.5 Acid. 124m -57 Acid. 149m -57 Acid. 173m -56.5 Acid. 191m -56.5 Roto-dip. 203m -56.5 Roto-dip. 215m -56 Roto-dip. 227m -60(?) Roto-dip. 233m -56 Acid. 233m -54 Roto-dip. 239m -54.5 Roto-dip. 245m -54 Roto-dip. 260m -54.5 Roto-dip. 266m -54.5 Roto-dip. 284m -56 Acid. 314m -55 Acid. 338m -55 Acid. 368m -55 Acid. 392m -55 Acid. 422m -55 Acid. Miscellaneous:. The hole required; 117 core boxes, 282 assay tags, 564 sample bags, and 36 sample boxes for 237 core samples. The average daily temperature, @ 7:00 am, was -6 degrees Celsuis.

DRILL HOLE RECORD

Northing: 10100.32
Easting: 8954.41
Elevation: 5302.42

Collar Azi.: 228.00
Collar Dip: -60.75

Hole Length: 341
Core Size: NQ
Date Started: MARCH 25, 1993
Logged by: T.TENNENT

*** Depth	Dip Tests Azi.	*** Dip
15.2	228.3	-60.0
30.5	229.6	-62.0
45.7	228.8	-61.0
61.0	228.7	-60.0
76.2	229.3	-61.0
91.4	228.8	-61.0
106.7	228.3	-58.0
121.9	229.6	-59.0
137.2	228.6	-60.0
152.4	227.6	-59.0
167.6	227.6	-58.0
182.9	227.2	-58.5
198.1	228.9	-56.0
213.4	227.1	-56.3
228.6	227.6	-56.0
243.8	227.0	-57.0
259.1	226.9	-56.5
274.3	227.5	-57.5
289.6	226.7	-56.0
304.8	226.6	-55.5
320.0	225.9	-55.0

Drill Hole: 506-635
Northing: 10100N
Easting: 8947E
Survey: YES
Grid: EAST BAY
Property Name: PROJECT 506
Property: MUSSELWHITE
Measre: METRIC
Section: 10100N
Completed: MARCH 29, 1993
Date(s) Logged: MARCH 26 - 30, 1993

Claim: PA 529826: 114.0m; Pa529500: 227.0m.
Comments: 39.7mW and 252.7m S to WP of #1 post, CLAIM PA 529500
Purpose: TO TEST C,T AND WA ZONES

From (m)	To (m)	Geology
		Note: All references to folding - both right and left limb folds - are looking down the plunge of the deposit (i.e. Northwest).
.0	1.0	ICE AND WATER
1.0	17.0	OVERBURDEN
17.0	137.2	FELSIC TO INTERMEDIATE VOLCANICS AVOL - Interbedded Intermediate to Felsic Ash and Crystal Tuffs. Fine grained, finely laminated, medium to light grey and buff. Moderately hard to soft. Non-magnetic. Alternating zones of felsic tuff with 5% to 15% sericite laminae and up to 5% 1 mm feldspar phenocrysts and crystal tuff with up to 10% stretched feldspar phenocrysts and minor sericite laminae. From 17.00 to 80.00 metres foliation 39 to 47 dca. From 80.00 to 137.20 metres foliation 47 to 57 dca. Minor fracture set subparallel to foliation at 30 to 47 dca. Dominant set perpendicular at 42 to 65 dca. Locally fracture selvages display potassic alteration. Unit is sericitic and locally silicified. Generally trace disseminated pyrrhotite and pyrite. Locally up to 3% pyrrhotite. 1% Quartz stringers parallel to foliation. Usually barren but some stringers have up to 5% pyrrhotite. Lower contact 60 dca.

From (m)	To (m)	Geology
		17.0 36.0 Very fractured core. 17.0 68.0 Crystal tuff. 10% to 15% feldspar phenocrysts. 3% sericite laminae. 19.0 20.0 Foliation 42 dca. Fractures parallel to foliation at 42 dca and perpendicular at 59 dca. 30.0 31.0 Foliation 40 dca. Fractures subparallel to foliation at 30 dca and perpendicular at 42 dca. 36.0 44.0 Weakly to moderately fractured core. 39.0 Fracture perpendicular to foliation at 19 dca. 40.0 41.0 Foliation 47 dca. Fractures subparallel to foliation at 30 dca and perendicular at 56 dca. 50.0 51.0 Foliation 40 dca. Fractures parallel at 37 dca and perpendicular at 50 dca. 57.5 58.3 Fractures perpendicular to foliation at 55 dca with potassic alteration. 60.0 61.0 Foliation 45 dca. Fractures parallel at 47 dca. 68.0 97.0 Ash tuff. 10% to 15% sericite laminae. 70.0 71.0 Foliation 45 dca. Fractures parallel at 45 dca and perpendicular at 64 dca. 80.0 81.0 Foliation 31 dca. Fractures parallel at 44 dca and perpendicular at 66 dca. W fold with axial plane at 50 dca. 83.0 84.0 W folding with axial plane at 40 dca. 90.0 91.0 Foliation 47 dca. Fractures parallel at 47 dca and perpendicular at 54 dca. 90.8 92.4 AVOL. Pyrrhotite stretched along foliation planes. 97.0 120.4 Crystal tuff. 100.0 101.0 Foliation 47 dca. Fractures parallel at 44 dca. 109.0 Fracture perpendicular to foliation at 56 dca. 110.0 111.0 Foliation 49 dca. Fractures perpendicular at 65 dca. 112.0 113.0 AVOL. 1% pyrite. 5% quartz veining. 115.0 120.4 Crystal tuff. 120.4 132.4 5% to 8% 2 mm to 3 cm stretched, augen shaped to wispy white masses of quartz flooding with 1 mm to 1 cm, anhedral garnet centres. Augens range from 5 mm to 1 cm long and 2 mm to 5 mm wide. Zone has 3% 1 mm brownish coloured staurolite crystals. Sericitic. Foliation and possible shearing at 52 dca. 1% fine grained disseminated pyrrhotite. From 125.50 to 132.35 quartz augens less concentrated at 3%. 120.4 121.4 AVOL with quartz augens and garnets. 121.4 122.4 AVOL with quartz augens and garnets. 130.0 131.0 Foliation 57 dca. Fractures perpendicular at 54 and 46 dca. 130.0 131.0 AVOL. 1% irregular quartz-calcite stringers. 132.4 137.2 Ash tuff. 136.0 137.2 AVOL. 10% quartz flooding. Minor garnets.
137.2	143.1	GARNETIFEROUS BASALT GtB. Fine grained to medium grained, dark grey. Up to 30% 1 mm anhedral to subhedral garnets, pervasive to locally banded in a biotite-amphibole-muscovite-chlorite matrix. Soft. Non-magnetic. Foliation 65 dca. Fractures perpendicular to foliation at 39 dca. Trace to 1% disseminated pyrrhotite. 1% 1 Cm quartz stringers. Lower contact 50 dca. 134.45 Character sample. 137.2 138.2 GtB. 141.0 141.1. Contacts sharp at 62 dca.
143.1	147.1	BRECCIA ZONE Bx 2. 10% White, subrounded quartz boudins stretched parallel to foliation in a dark green, fine grained, chlorite-biotite matrix. Boudins are from 4 mm long and 2 mm wide to 5 cm long and 1 cm wide. Some boudins are calcareous. Matrix is locally calcareous.

From (m)	To (m)	Geology
		5% to 10% anhedral garnets. Well foliated to sheared at 46 to 52 dca. Lower contact 45 dca. E53080 STANDARD II 9.77 9.81 NS. E53081 BLANK 0.17 NS NS. 143.1 144.0 Breccia zone. 144.0 145.0 Breccia zone. 145.0 146.0 Breccia zone. 146.2 20 CM Character Sample.
147.1	156.0	GARNETIFEROUS BASALT GtB. Similar to 137.20 to 143.07 metres. 1% 1 Cm quartz stringers. Lower contact 47 dca.
156.0	158.3	BRECCIA ZONE Bx 2. Similar to 143.07 to 147.05 metres. Strongly calcareous. Foliation at 49 dca. Fractures perpendicular to foliation at 52 dca. Lower contact 60 dca. 156.6 157.3. Lower contact 41 dca.
158.3	160.2	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. 15% 1 mm to 5 mm subhedral garnets. 3% Fine grained disseminated pyrrhotite. Lower contact 56 dca.
160.2	162.1	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Intermediate composition. Possibly a bleached BVOL or metasediment. Fine grained, medium grey-green. Moderately soft. Non-magnetic. Foliation at 52 dca. Fractures subparallel to foliation at 38 dca. Lower contact 47 dca.
162.1	174.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Moderately hard. Non-magnetic. Foliation at 38 to 45 dca. Fractures subparallel to foliation at 59 dca and perpendicular at 18 dca. Barren to trace pyrrhotite. 1% Quartz-calcite stringers parallel to foliation. Lower contact 56 dca. 162.1 164.7 10% garnets. 169.6 170.0 Broken core.

From (m)	To (m)	Geology
		172.4 174.4 20% garnets.
174.4	179.3	INTRAFORMATIONAL IRON FORMATION 24e. 24e with 20% 1 cm anhedral and amorphous garnets. Moderately hard. Weakly magnetic. Bedding 45 to 56 dca. Minor folding at 178.00 metres with axial plane at 35 dca. Fractures perpendicular to bedding at 53 dca. 1% to 5% disseminated pyrrhotite. Locally up to 5% quartz flooding. Lower contact 43 dca. 174.4 175.4 24e. 5% quartz flooding. Bedding 56 dca. 175.4 176.3 24e. 5% quartz flooding. Bedding 45 dca. 176.3 176.8. Contacts 57 dca. E53090 178.75 179.25 DUPLICATE 0.48 NS NS. 176.3 176.8 BVOL. 176.8 177.8 24e. 177.8 178.8 24e. 10% quartz flooding. At 178.0 metres folding with axial plane at 35 dca. 178.8 179.3 24e. 10% quartz flooding.
179.3	197.9	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to 162.05 to 174.40 metres. Foliation 40 to 34 dca. Fractures subparallel to foliation at 40 to 50 dca and perpendicular at 50 dca. Trace pyrrhotite. 1% quartz-calcite stringers. Lower contact 61 dca. 180.0 181.0 Foliation 40 dca. Fractures parallel at 37 dca and perpendicular at 50 dca. 188.0 189.0 Fracture perpendicular to foliation at 50 dca. 190.0 191.0 Foliation 34 dca. Fractures subparallel at 40 dca. 192.0 193.0 Fracture subparallel to foliation at 50 dca.
197.9	199.7	INTRAFORMATIONAL IRON FORMATION 24eab. 15% Amorphous garnets in a 4eab matrix. Weakly to moderately magnetic. Hard. Bedding 45 to 55 dca. Weak grunerite alteration. 1% to 2% pyrrhotite. 7% to 15% quartz flooding. Lower contact 43 dca. 197.9 198.9 24ea. 7% quartz flooding and quartz veining. Weak grunerite. Bedding 45 dca. 198.9 199.7 24ea. 15% quartz flooding and quartz veining. Weak grunerite. Bedding 55 dca.
199.7	203.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to 162.05 to 174.40 metres. Foliation 44 dca. Fractures perpendicular at 63 and 55 dca. 5% calcareous hairline fractures. 3% Quartz-calcite stringers parallel to foliation. Lower contact 43 dca.

From (m)	To (m)	Geology
		201.0 202.0 Foliation 44 dca. Fracture perpendicular at 63 dca. 202.0 203.0 Fracture perpendicular to foliation at 55 dca.
203.4	204.7	INTRAFORMATIONAL IRON FORMATION 24eab. Similar to 197.95 to 199.70 metres. Calcareous. Weakly gruneritized. 3% pyrrhotite. 5% quartz flooding. Bedding 42 dca. 203.4 204.7 24eab. 5% quartz flooding.
204.7	205.3	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Foliation 42 dca. Lower contact 42 dca. 204.7 205.3 BVOL. 1% pyrite. 3% quartz-calcite stringers.
205.3	206.8	INTRAFORMATIONAL IRON FORMATION 24eab. Similar to 197.95 to 199.70 metres. Calcareous. Weakly gruneritized. Bedding folded at 33 dca. 8% pyrrhotite. 8% quartz-calcite flooding. Lower contact folded and irregular. 205.3 206.8 24eab. 10% quartz-calcite flooding.
206.8	209.1	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Lower contact folded and irregular. 206.8 207.8 BVOL. 207.0 208.0 Foliation 25 dca. 208.0 209.0 Fracture perpendicular to foliation at 47 dca.
209.1	209.9	INTRAFORMATIONAL IRON FORMATION 24eab. Similar to 197.95 to 199.70 metres. 8% pyrrhotite. 10% quartz flooding. Lower contact 27 dca. 209.1 209.9 24e. 10% quartz flooding.
209.9	240.8	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderately hard. Foliation 35 to 46 dca. Fractures perpendicular to foliation at 50 to 57 dca. Minor fractures parallel at 36 dca. Unit biotitic and weakly calcareous.

From (m)	To (m)	Geology
		From 209.90 to 230.00 metres 2% to 3% 1 cm to 2 cm quartz and quartz-calcite stringers. From 230.00 to 241.75 metres 10% to 20% quartz-calcite stringers. Trace pyrrhotite. Lower contact 46 dca. 210.0 211.0 Foliation 35 dca. Fracture perpendicular at 50 dca. 215.0 216.0 Foliation 43 dca. 220.0 221.0 Foliation 46 dca. 229.0 230.0 Fracture perpendicular to bedding at 57 dca. 230.0 231.0 Foliation 54 dca. Fracture parallel at 51 dca. 230.0 241.8 10% quartz-calcite stringers parallel to foliation. 230.5 230.8. Contacts 64 dca. 230.5 230.8 24ea. 20% quartz flooding. Moderate grunerite. Bedding 55 dca. 232.2 232.7. Contacts 49 dca. 232.2 232.7 24ea. 30% quartz flooding. Moderate grunerite. Bedding 40 dca. 236.0 237.0 Fracture parallel to bedding at 36 dca. 237.1 238.1 BVOL. 238.1 238.4. Upper contact 53 dca and lower contact 43 dca. 238.1 238.4 24ea. 10% quartz-calcite stringers. Bedding 34 dca. 238.4 239.4 BVOL. 15% quartz-calcite stringers. 240.0 240.8 BVOL. 30% quartz-calcite stringers. Foliation 35 dca.
240.8	241.8	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Moderately magnetic. Hard. Bedding 53 dca. Fractures perpendicular to bedding at 50 dca. Moderately to strongly calcareous. Moderate grunerite. 3% Pyrrhotite and 20% quartz flooding. Lower contact 40 dca. E53101 Standard II 10.15 ns ns. E53102 Blank 0.14 ns ns. 240.8 241.8 4ea. 20% quartz flooding.
241.8	243.4	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Foliation 32 dca. Fracture perpendicular at 62 dca. 15% Calcite stringers parallel to foliation. Barren. Lower contact 39 dca. 241.8 243.4 BVOL.
243.4	277.1	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea and 4eab. Bedding folded with axial planes at 7 to 38 dca. Trace to 25% blebs and wisps of pyrrhotite. Trace ARSENOPYRITE and chalcopyrite. Numerous specks of VISIBLE GOLD. Locally up to 70% quartz flooding. Lower contact 28 dca. E53110 248.00 249.00 DUPLICATE 0.10 ns ns.

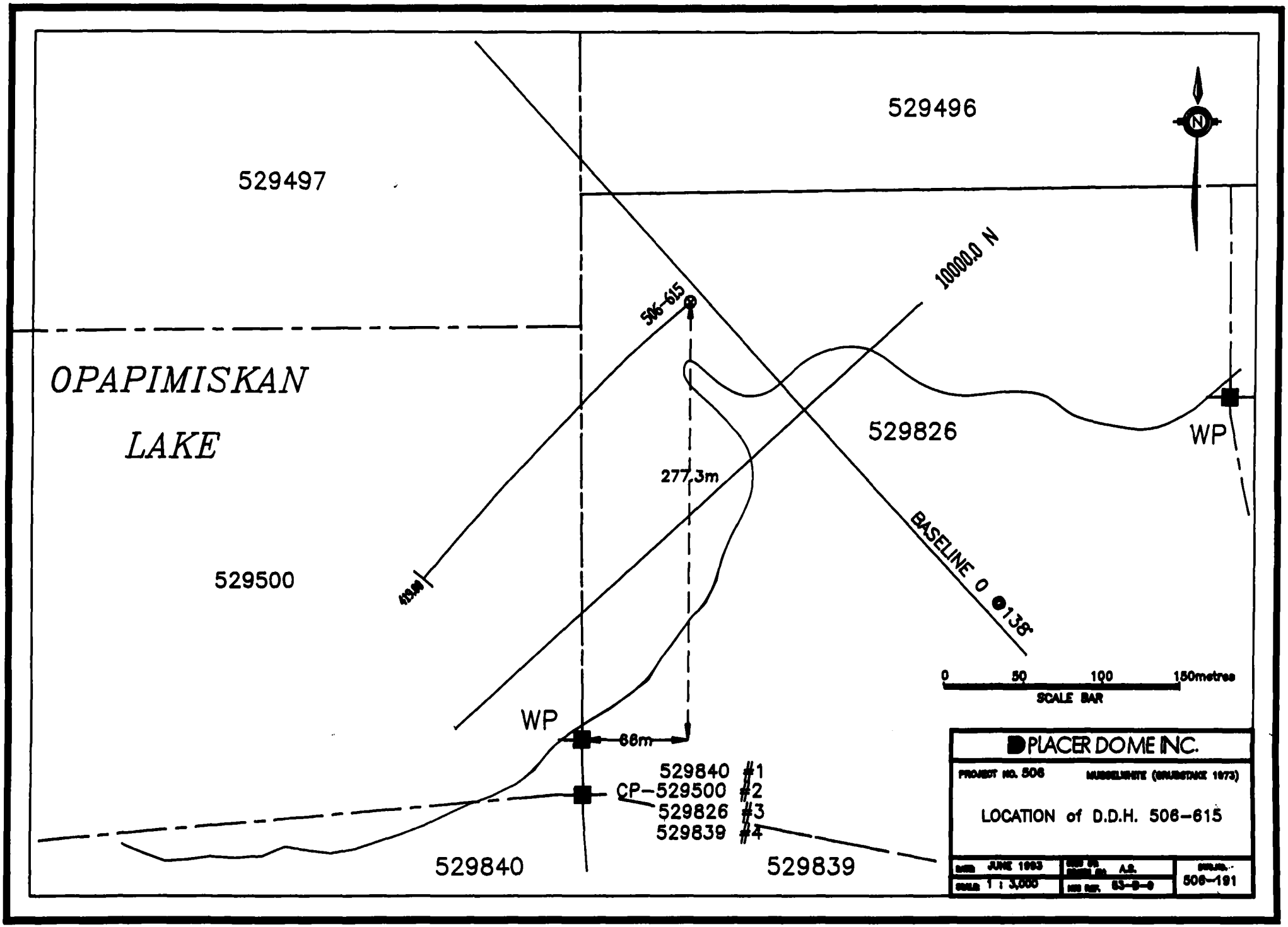
From (m)	To (m)	Geology
		E53121 STANDARD II 9.50 ns ns. E53122 BLANKO 0.07 ns ns. 243.4 244.0 4ea. 1 speck VISIBLE GOLD. <1% ARSENOPYRITE. 5% quartz flooding. Strong grunerite. From 243.75 to 243.90 metres BVOL. Bedding 38 dca. 244.0 245.0 4eab. <1% ARSENOPYRITE. 20% quartz flooding. Strong grunerite. Bedding 38 dca. 245.0 246.0 4eab. 3% quartz flooding. At 245.45 left limb folding (?) with axial plane at 30 dca. At 245.75 axial plane at 53 dca. Bedding 22 dca. 246.0 247.0 4eab. 2% quartz flooding. Strong grunerite. Bedding 12 dca. 247.0 248.0 4eab. 1% quartz flooding. Strong grunerite. Bedding 25 dca at 247.20. Bedding 17 dca at 247.60. At 247.90 right limb folding with axial plane at 34 dca. 248.0 249.0 4eab. Strong grunerite. At 248.20 bedding 67 dca. At 248.75 bedding 19 dca. At 248.40 axial plane at 38 dca. 249.0 250.0 4eab. Strong grunerite. At 249.25 bedding 22 dca. At 249.80 bedding 30 dca. 250.0 251.0 4eab. At 250.40 axial plane at 39 dca. At 250.85 axial plane 30 dca. At 250.30 bedding 53 dca. At 250.75 bedding 10 dca. 251.0 252.0 4ea. 3 specks VISIBLE GOLD. 35% quartz flooding. Strong grunerite. Bedding 6 dca. 252.0 253.0 4ea. 50% quartz flooding. Bedding disrupted. 253.0 254.0 4ea. 70% quartz flooding. Bedding disrupted. 254.0 255.0 4ea. 80% quartz flooding. Bedding disrupted. 255.0 256.0 4ea. 8 specks VISIBLE GOLD. 60% quartz flooding. Bedding disrupted. Foliation 28 dca. 256.0 257.0 4ea. 35 specks VISIBLE GOLD. 50% quartz flooding. Bedding 8 dca. 257.0 258.0 4ea. 3% quartz stringers. At 257.30 axial plane 35 dca. Bedding 7 dca. 258.0 259.0 4eab. Trace ARSENOPYRITE. 5% quartz stringers. Strong grunerite. Bedding 27 dca. 259.0 260.0 4eab. Trace ARSENOPYRITE. 5% quartz flooding. Strong grunerite. Bedding 20 dca. 260.0 261.0 4eab. At 260.23 axial plane at 30 dca. 20% quartz stringers and quartz flooding. Strong grunerite. Bedding 14 dca. 261.0 263.8 Core fractured along core axis for 2.8 metres. E53130 265.00 266.00 DUPLICATE 3.63 ns ns. 261.0 262.0 4eab. 15% quartz flooding. Bedding 20 dca. 262.0 263.0 4ea. 35% quartz flooding. Strong grunerite. 263.0 264.0 4ea. 1 speck VISIBLE GOLD. 70% quartz flooding. 264.0 265.0 4eab. Strong grunerite. Bedding 27 dca. 265.0 266.0 4eab. 2% quartz stringers. Bedding 29 dca. 266.0 267.0 4ea. 8 specks VISIBLE GOLD. 50% quartz flooding. Strong grunerite. Bedding 37 dca. 267.0 268.0 4ea. 10 specks VISIBLE GOLD. 50% quartz flooding. Strong grunerite. Bedding 27 dca. 268.0 269.0 4eab. 4 specks VISIBLE GOLD. 20% quartz flooding. Strong grunerite. Bedding 20 dca. 269.0 270.3 4eab. 6% quartz flooding. Strong grunerite. Bedding 27 dca. 270.3 271.0. Upper contact 30 dca. Lower contact 18 dca. E53142 STANDARD II 21.12 ns ns. E53143 BLANK 10.29 ns ns. 270.3 271.0 4b. Moderate grunerite. Bedding 33 dca. At 270.85 left limb folding with axial plane at 35 dca. 271.0 272.0 4b. Moderate grunerite. At 271.30 W folds with axial plane at 44 dca. At 271.65 broad M fold with axial plane at 37 dca. 272.0 273.0 4be. Strong grunerite. Bedding 16 dca. At 272.05 M fold with axial plane at 34 dca. 273.0 274.3 4bf. 1% quartz stringers. Strong grunerite. Bedding 24 dca. 274.3 275.0 4ea. 1 speck VISIBLE GOLD. 25% quartz flooding. Strong grunerite. Bedding 20 dca. 275.0 276.0 4ea. 12 specks VISIBLE GOLD. 25% quartz flooding. Strong grunerite. Bedding 25 dca. 276.0 277.1 4ea. 6 specks VISIBLE GOLD. 25% quartz flooding. Strong grunerite. Bedding 29 dca.
277.1	277.9	GARNET-BIOTITE SCHIST 4f. 20% 1 Mm garnets in a medium grained, black and medium grey, 1 cm to 10 cm banded biotite-chert matrix. Non-magnetic. Moderately soft. Bedding 30 dca. Fractures parallel to bedding at 35 dca. <1% pyrrhotite.

From (m)	To (m)	Geology
		Lower contact 36 dca. 277.1 277.9 4f.
277.9	278.7	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Foliation 33 dca. Fractures perpendicular to foliation at 36 dca. Locally garnetiferous. Lower contact sharp at 36 dca. 277.9 278.7 BVOL.
278.7	279.7	GARNET-AMPHIBOLE I.F. / GARNET-BIOTITE SCHIST 4ef. 30% 2 Mm subhedral garnets in an amphibole-biotite matrix. Bedding 1 cm to 5 cm wide at 20 dca. 3% Disseminated pyrrhotite. Lower contact 36 dca. 278.7 279.7 4ef.
279.7	280.7	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Foliation 26 dca. 1% Quartz-calcite stringers. Lower contact 32 dca. 279.7 280.7 BVOL.
280.7	308.4	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea and 4eab. Bedding at 16 to 36 dca. Fractures subparallel to bedding at 29 to 39 dca and 56 dca. Fractures perpendicular to bedding at 35 to 54 dca. Lower contact sharp at 36 dca. E53150 282.00 283.00 DUPLICATE 0.03 ns ns. 280.7 282.0 4ea. 20% quartz flooding. Strong grunerite. Bedding 36 dca. 282.0 283.0 4eab. 3% quartz stringers. Strong grunerite. Bedding 30 dca. 283.0 284.0 4eab. Strong grunerite. Bedding 28 dca. 284.0 284.7 4eab. Strong grunerite. Bedding 24 dca. 284.7 286.0 4ea. 4 specks VISIBLE GOLD. Strong grunerite. Bedding 21 dca. 286.0 287.0 4ea. 20% quartz flooding. Strong grunerite. Bedding 16 dca. 287.0 288.0 4ea. 25% quartz flooding. Strong grunerite. Bedding 27 dca. 288.0 289.0 4ea. 30% quartz flooding. Strong grunerite. Bedding 26 dca. 289.0 290.0 4ea. 40% BVOL. 289.2 289.4 BVOL or 7H. Contacts 35 dca. 289.5 289.6 BVOL or 7H. Contacts 35 dca. 289.7 289.9 BVOL or 7H. Contacts 35 dca. E53160 STANDARD II 9.70 ns ns. E53161 BLANK 0.07 ns ns.

From (m)	To (m)	Geology
		290.0 291.0 4eab. 2% quartz stringers. Strong grunerite. Bedding 30 dca. 291.0 292.0 4eab. 2% quartz stringers. Strong grunerite. Bedding 29 dca. 292.0 293.0 4eab. 10 specks VISIBLE GOLD. Strong grunerite. 40% quartz flooding. 293.0 294.0 4ea. 1 speck VISIBLE GOLD. 30% quartz flooding. Bedding 21 dca. 17 cms BVOL. 293.8 294.0 BVOL. Contacts 34 dca. 294.0 295.0 4ea. 1 speck VISIBLE GOLD. 30% quartz flooding. Bedding disrupted. 295.0 296.0 4ea. 5% quartz flooding. Strong grunerite. Bedding 28 dca. Fracture perpendicular at 47 dca. 296.0 297.0 4ea. Bedding 30 dca. 297.0 297.6. Upper contact 35 dca. Lower contact 51 dca. E53170 298.00 299.00 DUPLICATE 9.29 ns ns. E53180 STANDARD II 9.77 ns ns. E53181 BLANK 0.14 ns ns. 297.0 297.6 BVOL. 297.6 298.0 4ea. 35% quartz flooding. Strong grunerite. Bedding 29 dca. 298.0 299.0 4ea. 30% quartz flooding. Strong grunerite. Bedding 18 dca. 299.0 300.0 4ea. 20% quartz flooding. Strong grunerite. Bedding 32 dca. 300.0 301.0 4ea. 20% quartz flooding. Strong grunerite. Bedding 19 dca. 301.0 302.0 4ea. 25% quartz flooding. Strong grunerite. Bedding 36 dca. 302.0 303.0 4ea. <1% ARSENOPYRITE. 30% quartz flooding. Strong grunerite. Bedding 29 dca. 303.0 304.0 4ea. 25% quartz flooding. Strong grunerite. Bedding 34 dca. Fracture parallel at 39 dca. 304.0 305.0 4ea. 10% quartz stringers. Trace ARSENOPYRITE. Strong grunerite. Bedding 21 dca. Fracture perpendicular at 46 dca. 305.0 306.0 4ea. 30% quartz flooding. <1% ARSENOPYRITE. Strong grunerite. Bedding 30 dca. 306.0 307.0 4ea. 50% quartz flooding. Trace chalcopyrite. Strong grunerite. Bedding 32 dca. 307.0 308.0 4ea. 50% quartz flooding and quartz veining. Strong grunerite. Bedding 33 dca. 308.0 308.4 4ea. 30% quartz flooding. Strong grunerite. Bedding 27 dca. Fracture perpendicular at 45 dca.
308.4	312.0	GARNET-BIOTITE SCHIST 4f. Black, light grey and pink. Moderately soft. Non-magnetic. 80% 4f Beds with 25% 1 mm garnets. 1 to 2 cm wide. 20% Chert beds. 1 cm wide. Bedding 27 to 37 dca. Fractures parallel to bedding at 28 dca. 1% Pyrrhotite. Minor 1 cm quartz stringers parallel to bedding. Lower contact 47 dca. 308.4 309.0 4f. Bedding 27 dca. 309.0 310.0 4f. 5% quartz stringers. Bedding 37 dca. Fracture subparallel at 29 dca. 310.0 311.0 4f. Bedding 28 dca. 310.5 310.8 Shattered core. 311.0 312.0 4f. Bedding 37 dca.
312.0	317.8	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eaf. 80% 4ea Beds. Weak grunerite. 20% 4f Beds. Bedding poorly to well developed at 38 to 43 dca. 4% to 8% pyrrhotite. Up to 30% quartz flooding and quartz stringers. Lower contact 33 dca. E53190 314.00 315.00 DUPLICATE 4.05 ns ns.

From (m)	To (m)	Geology
		312.0 313.0 4eaf. 15% quartz flooding. Bedding disrupted. 313.0 314.0 4eaf. 20% quartz flooding. Bedding 40 dca. 314.0 315.0 4eaf. 20% quartz stringers. Bedding 43 dca. 315.0 316.0 4eaf. 15% quartz stringers. Bedding 38 dca. Fracture subparallel at 56 dca. 316.0 317.0 4eaf. 30% quartz flooding. Bedding disrupted. 317.0 317.8 4eaf. Bedding disrupted.
317.8	328.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Moderate hardness. Non-magnetic. Foliation 42 dca. 3% Quartz-calcite stringers parallel to foliation. Trace pyrrhotite. Lower contact 42 dca. 317.8 318.8 BVOL. 3% quartz-calcite stringers. Foliation 42 dca. 319.0 320.0 Fracture perpendicular to bedding at 54 dca. 320.0 321.0 Foliation 45 dca. Fracture perpendicular at 35 dca. 324.4 325.5 Core shattered.
328.0	331.2	GARNET-AMPHIBOLE I.F. / GARNET-BIOTITE SCHIST 4ef. 20% 1 Mm to 5 mm subhedral garnets banded in 4ef beds. Non-magnetic. Bedding 28 to 32 dca. Fractures 57 dca. 2% to 5% pyrrhotite. Lower contact 6 dca. 328.0 329.0 4ef. Bedding 28 dca. Fracture perpendicular at 58 dca. 329.0 330.0 4ef. Bedding 28 dca. 330.0 331.2 4ef. 2% quartz-calcite stringers. Bedding 32 dca.
331.2	341.0	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to 317.80 to 328.00 metres. Foliation 40 dca. Trace disseminated pyrrhotite. 2% Quartz-calcite stringers parallel to foliation. 331.2 332.2 BVOL. 5% quartz-calcite stringers. 333.0 333.2 4ef. Contacts 40 dca. 333.0 334.0 Foliation 41 dca. Fractures subparallel at 56 dca and perpendicular at 45 dca. 340.0 341.0 Foliation 41 dca. Fractures subparallel at 55 dca.
341.0		END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken from 240.0 to 341.0 metres. Samples stored at Musselwhite Camp.

From (m)	To (m)	Geology
		DRILLING HISTORY:. 0.00 17.00 Tricone Bit. 17.00 341.00 Two Hexagon Core Barrels. Dimatec MX10 and MX9 bits. 17 Metres of N Casing pulled. Hole cemented - 5 hours. 76 bags of 20 kg Type 50 cement used. 324 metres backfilled. SURVEYING HISTORY. Gyroscopic Directional Survey by CBC Welnav, North Bay, Ontario used for Class 2 data. Survey took 2 hours. Dip Tests. 19.0 -61 Rotodip, Acid. 31.0 -61 Rotodip. 58.0 -61 Rotodip. 70.0 -60.5 Rotodip. 82.0 -60.0 Rotodip. 94.0 -60.0 Rotodip. 112.0 -59.5 Rotodip. 133.0 -59.0 Rotodip. 145.0 -59.0 Rotodip. 166.0 -58.0 Rotodip. 178.0 -57.5 Rotodip. 196.0 -57.5 Rotodip. 205.0 -57.5 Rotodip. 214.0 -57.0 Rotodip. 226.0 -57.5 Rotodip. 238.0 -56.5 Rotodip. 250.0 -56.5 Rotodip. 259.0 -56.0 Rotodip. 283.0 -55.5 Rotodip. 295.0 -55.0 Rotodip. 304.0 -55.0 Rotodip. 316.0 -55.0 Rotodip.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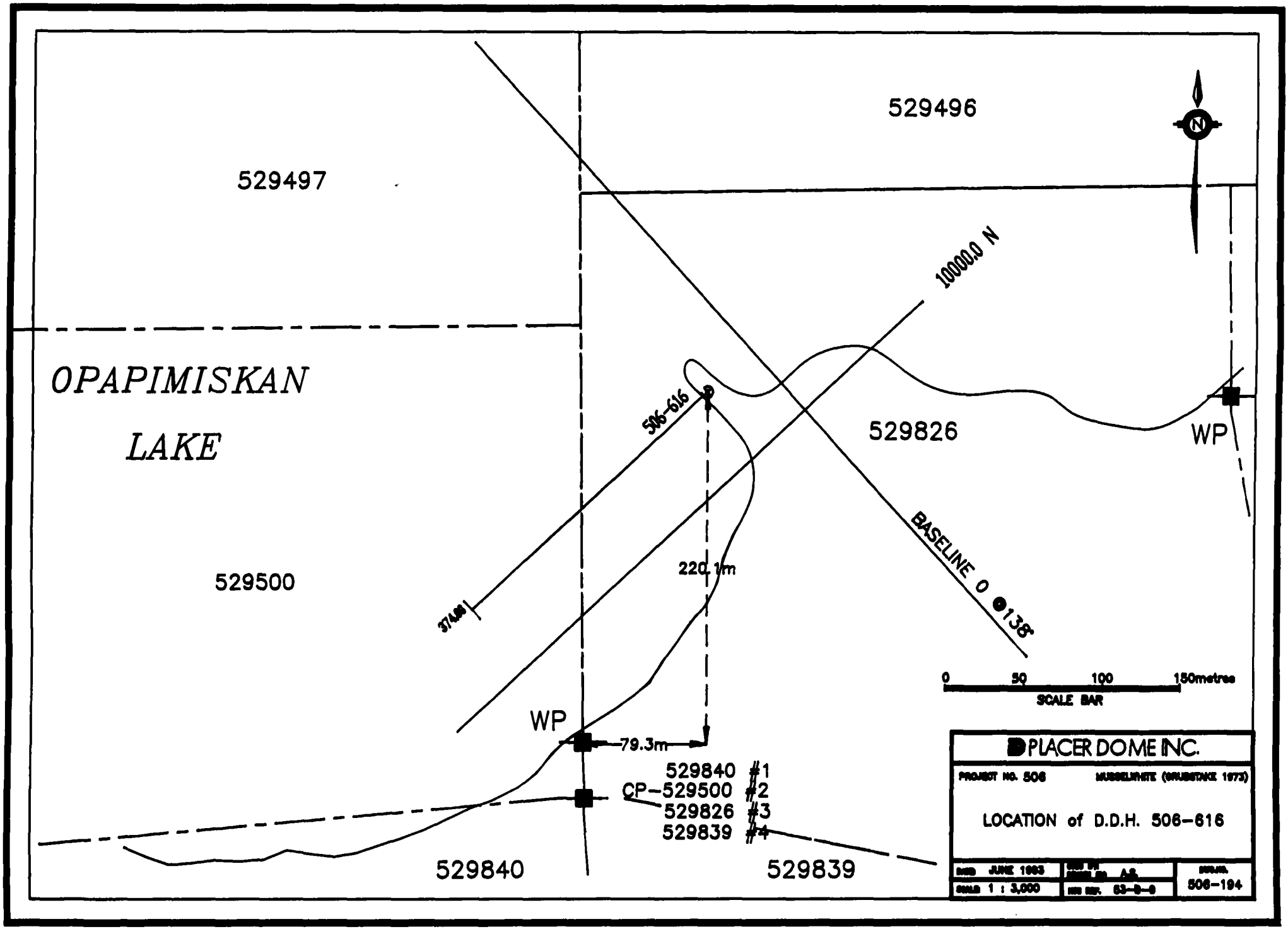
SCALE BAR
PLACER DOME INC.
PROJECT NO. 506
MUSSELWHITE (BRUSTINOF 1973)
LOCATION of D.D.H. 506-615
DATE JUNE 1993
SCALE 1 : 3,000
A.S.
506-191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BASELINE 0 @138°
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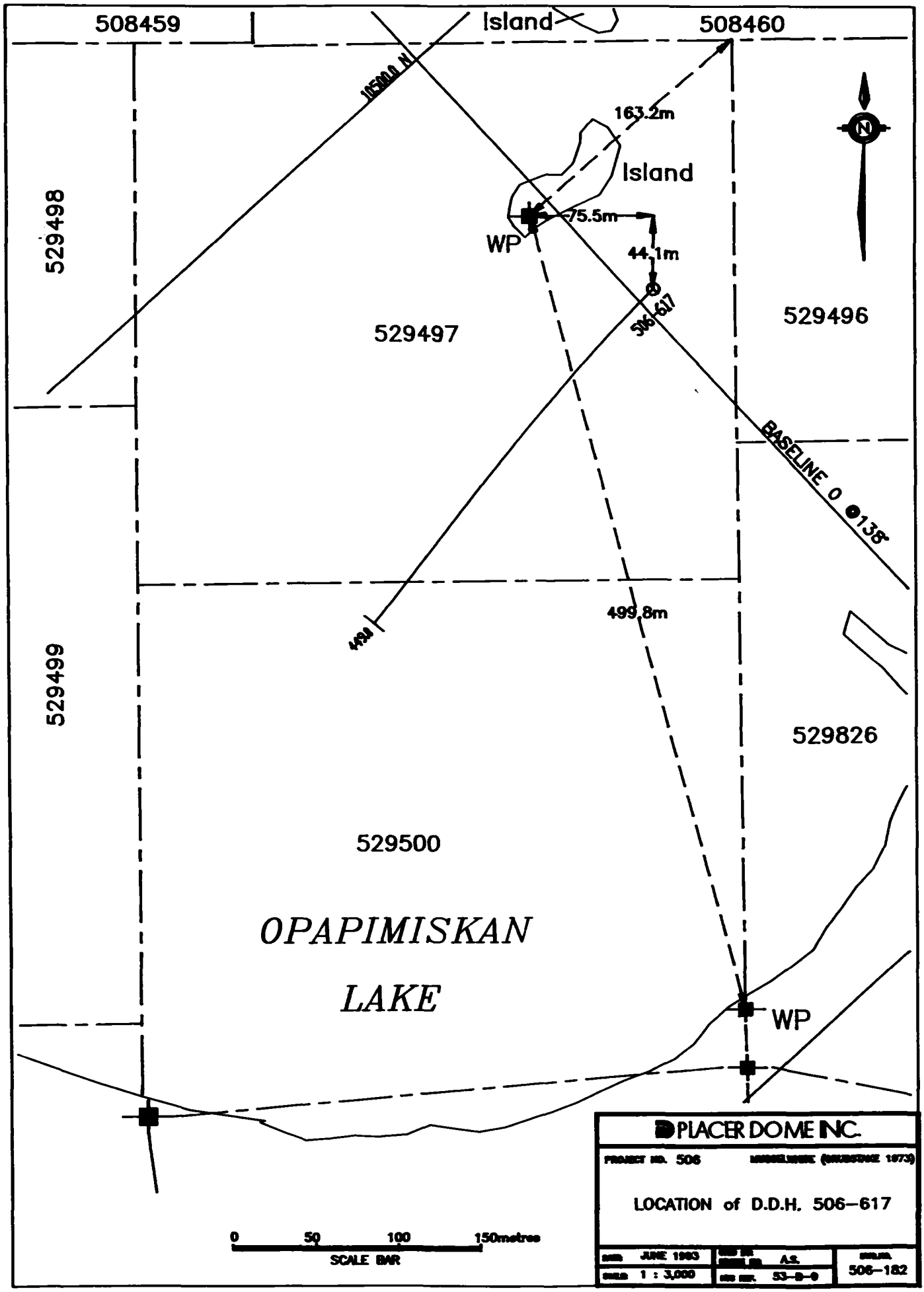
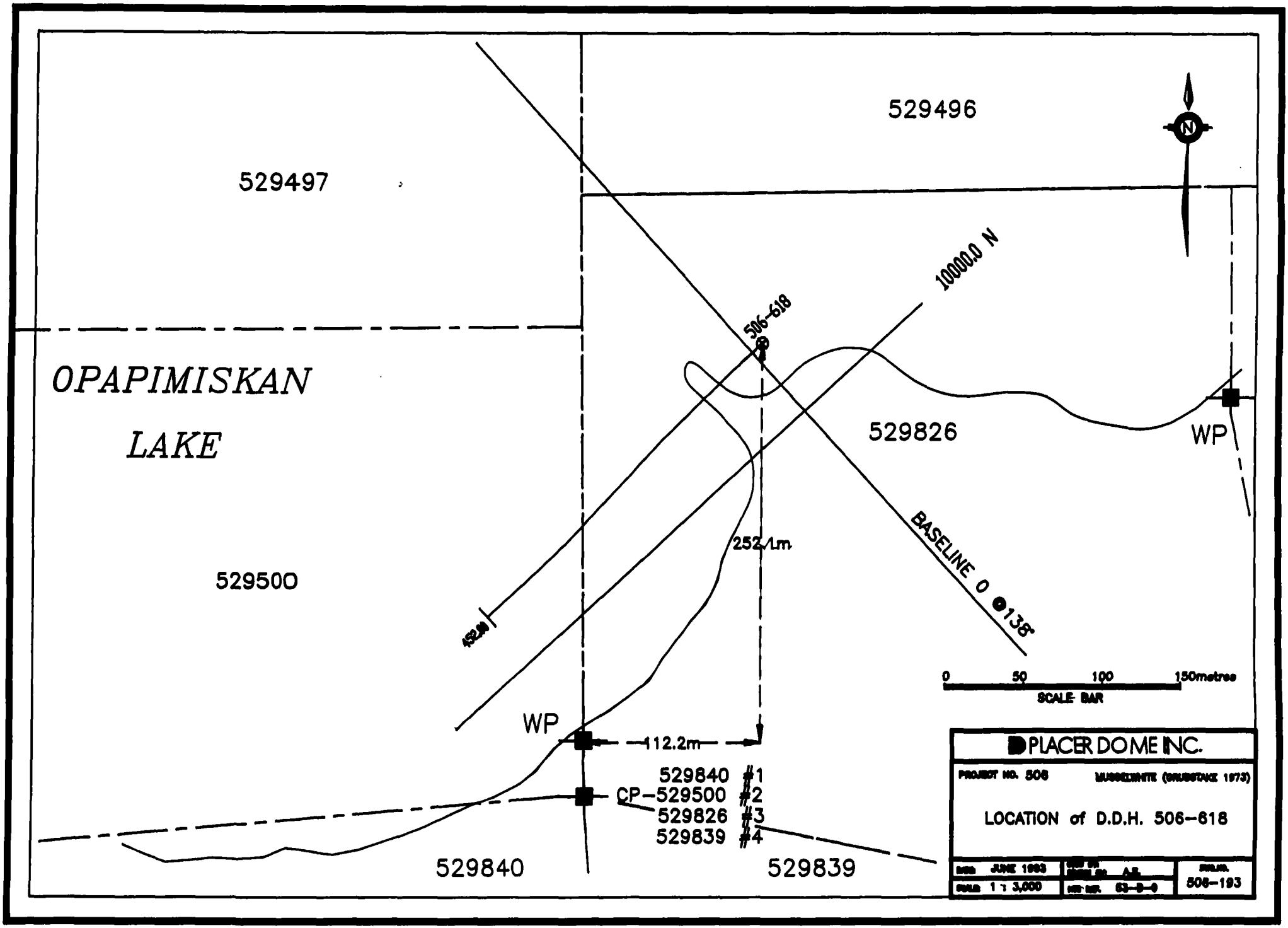
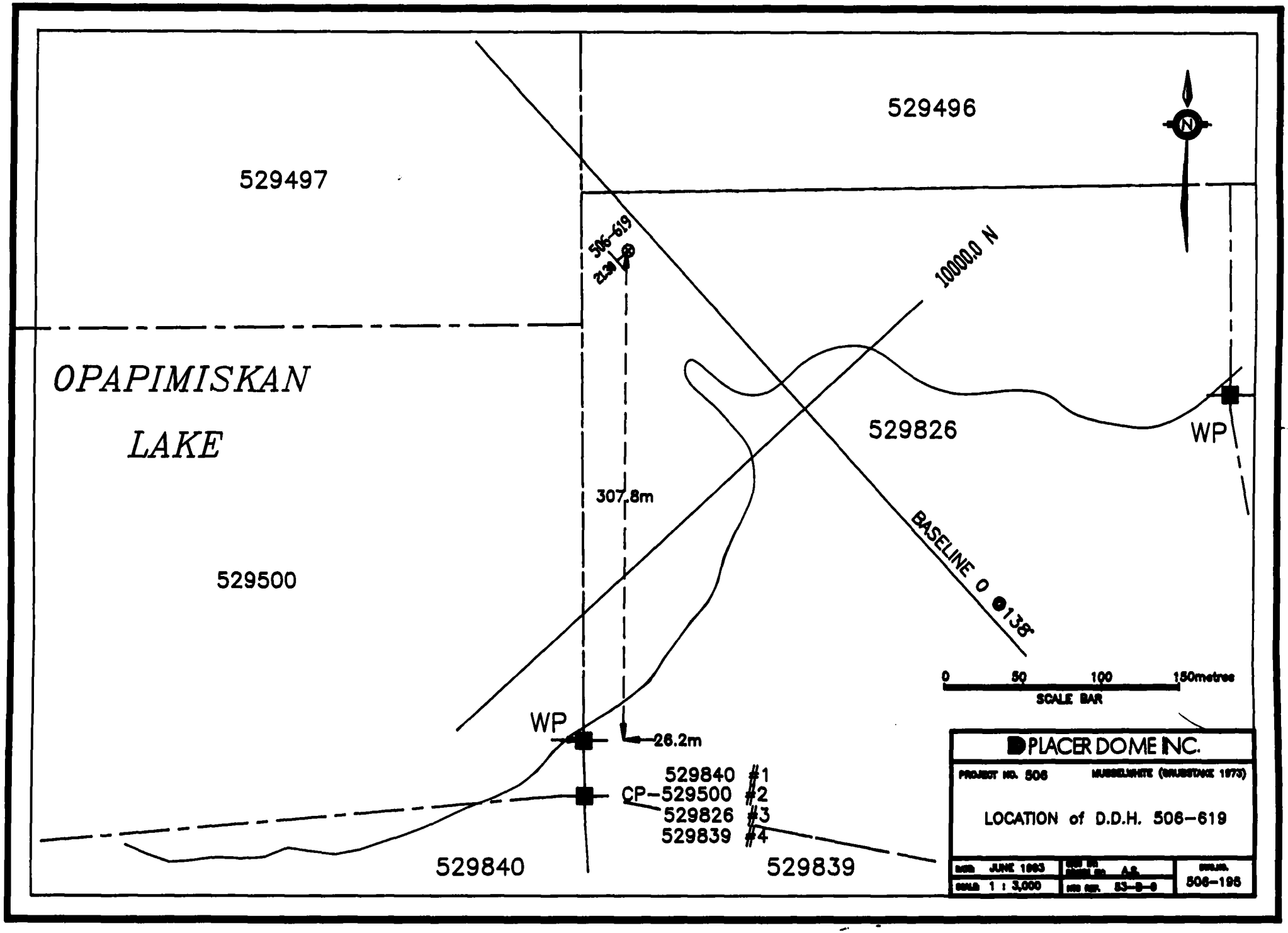
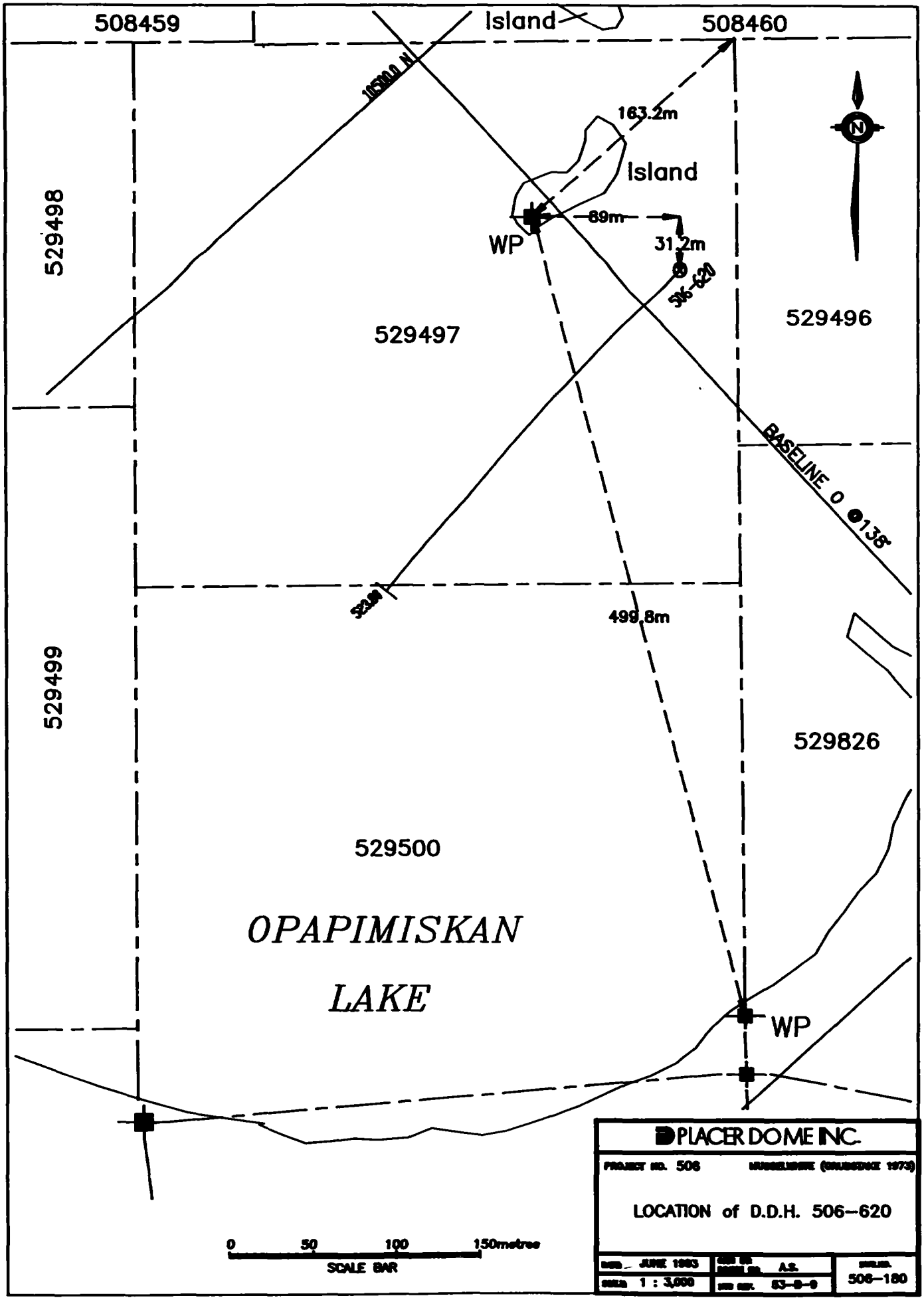
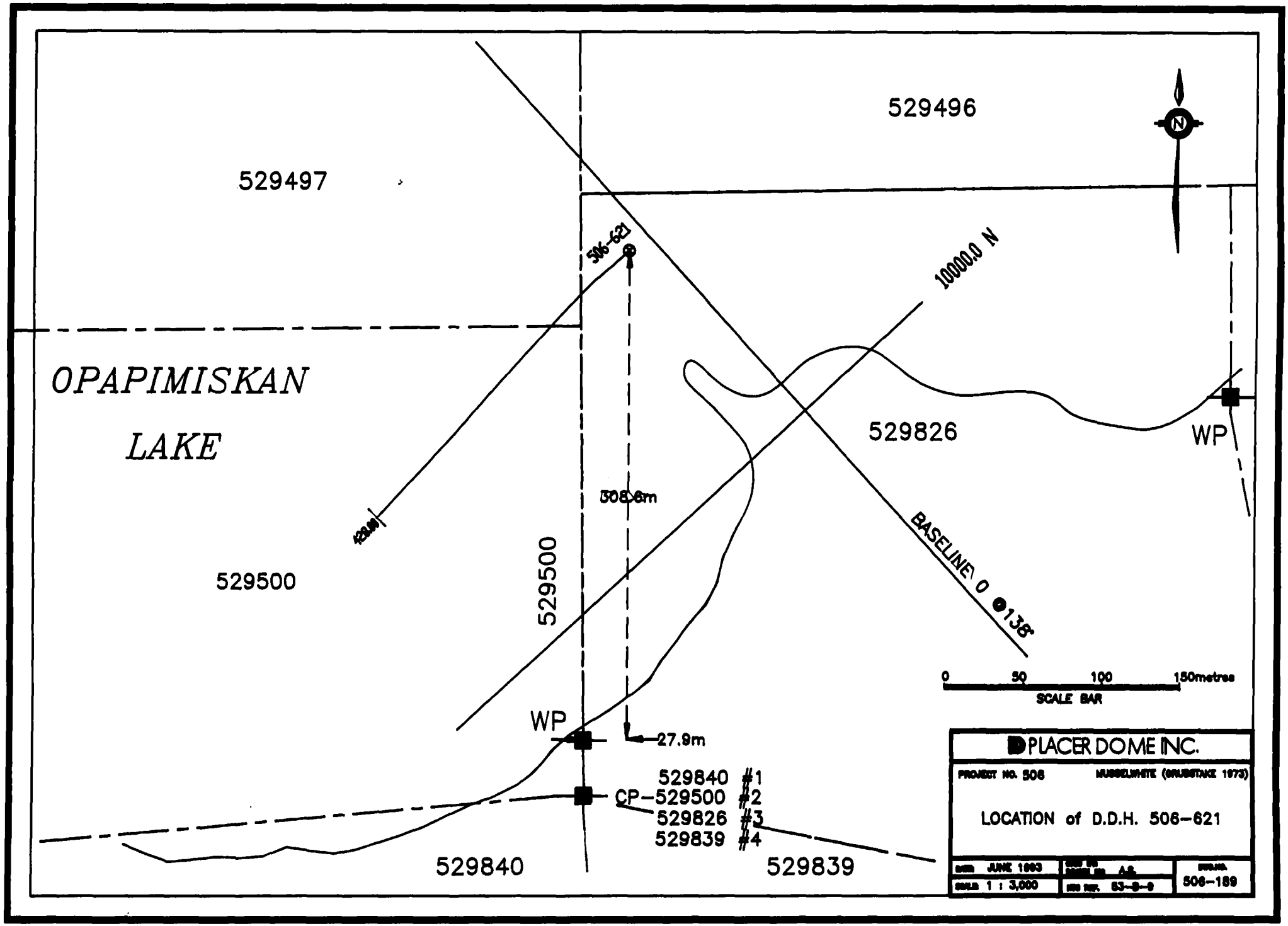
SCALE BAR
WP
79.3m
529840 #1
CP-529500 #2
529826 #3
529839 #4
529840
529839
PLACER DOME INC.
PROJECT NO. 506
MUSSELWHITE (GRUBSTAKE 1973)
LOCATION of D.D.H. 506-616
DATE JUNE 1993
DRAWN BY A.S.
DRAWING 506-194
SCALE 1 : 3,000
FILE REF. 53-9-8

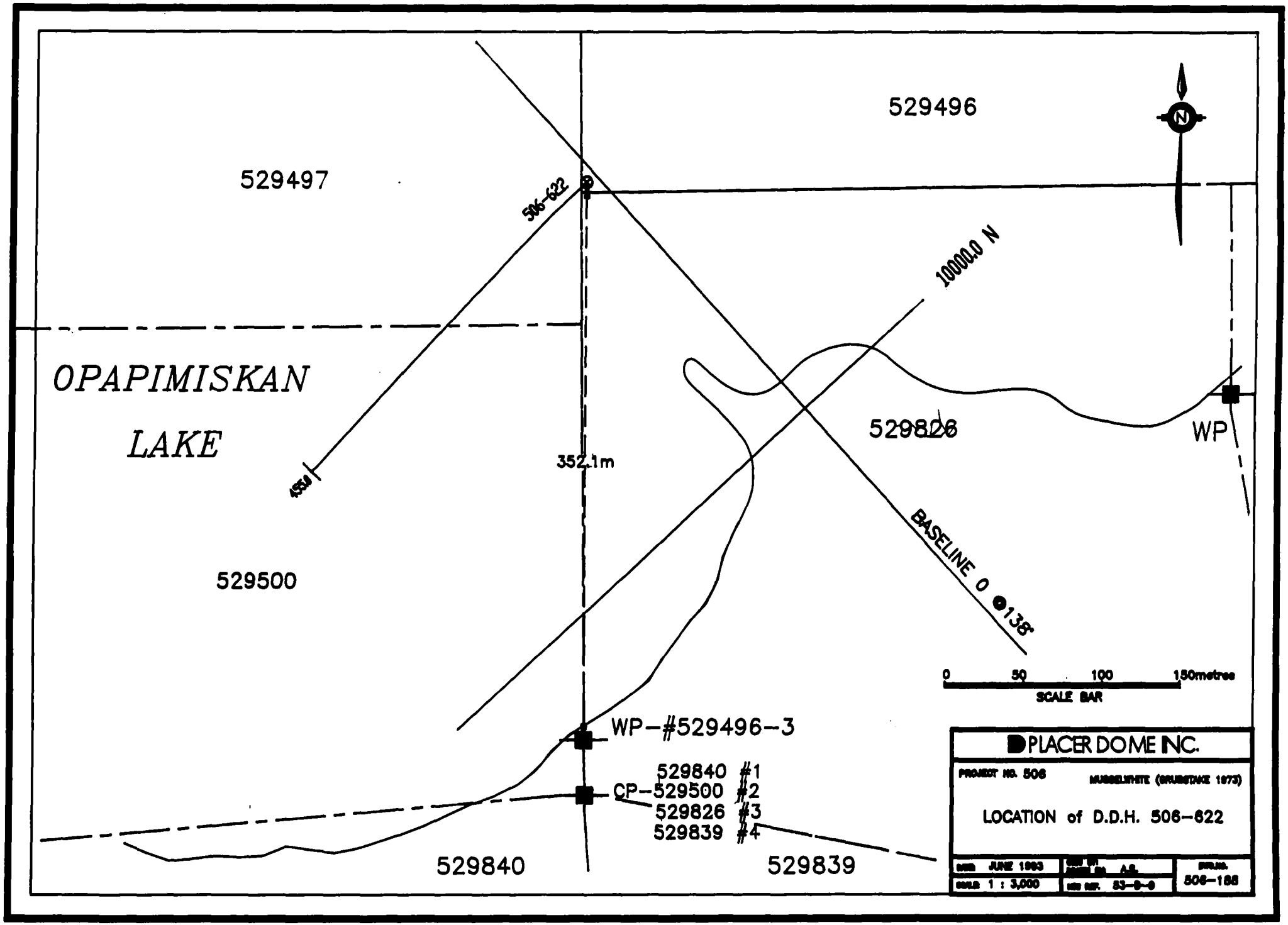

508459
Island
508460
10500.0 N
163.2m
Island
529498
75.5m
WP
44.1m
506-617
529497
529496
BASELINE 0 @138°
499.8m
449.8
529499
529826
529500
OPAPIMISKAN
LAKE
WP
0
50
100
150metres
SCALE BAR
PLACER DOME INC.
PROJECT NO. 506
LOCATION of D.D.H. 506-617
JUNE 1993
1 : 3,000
A.S.
53-B-9
506-182

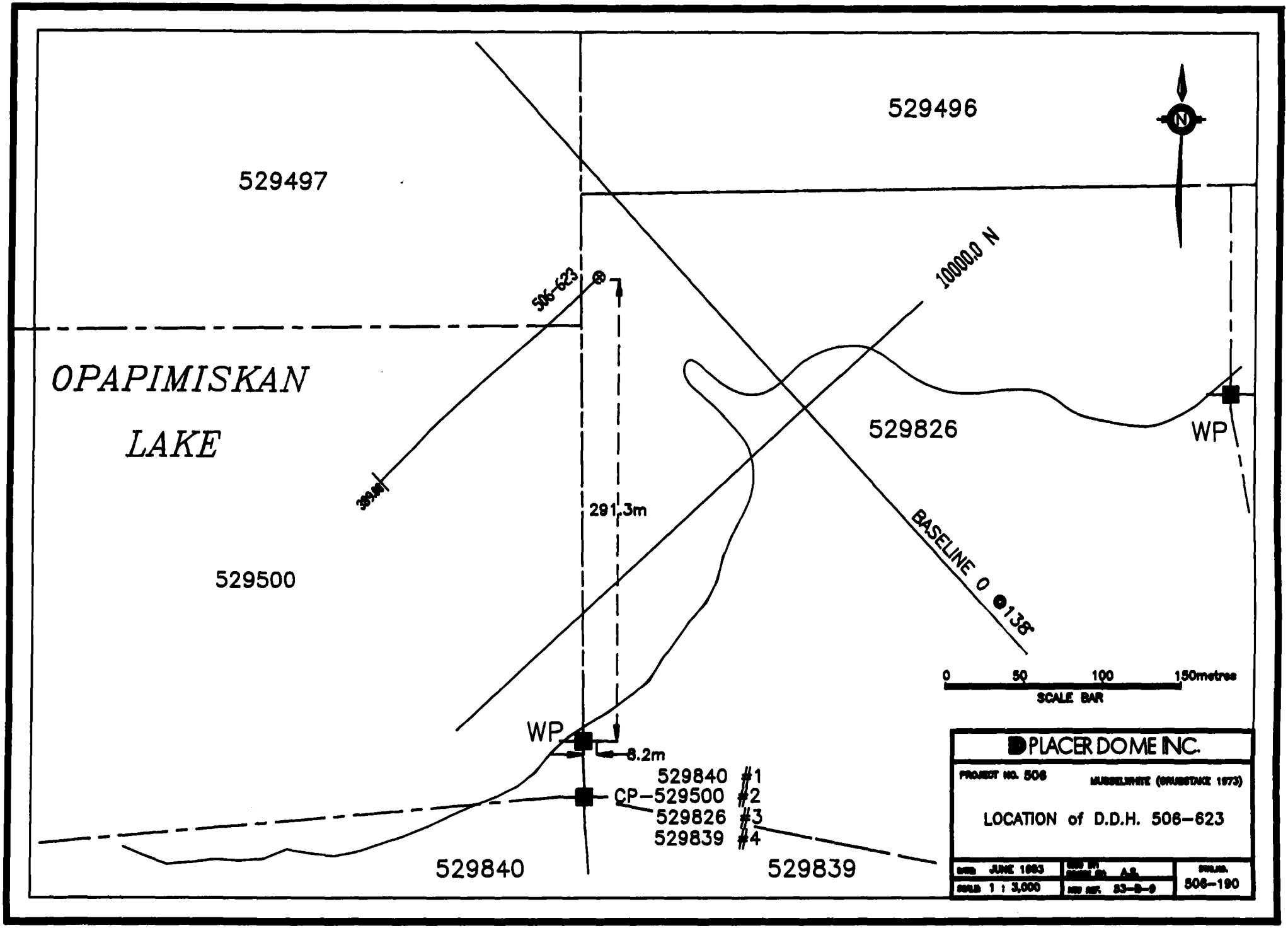

529496
529497
OPAPIMISKAN
LAKE
529500
529826
WP
10000.0 N
506-618
BASELINE 0 @138°
252.1m
452.0
WP
112.2m
529840 #1
CP-529500 #2
529826 #3
529839 #4
529840
529839
0 50 100 150metres
SCALE BAR
PLACER DOME INC.
PROJECT NO. 506
MUSSELWHITE (BRUSTINE 1973)
LOCATION of D.D.H. 506-618
JUNE 1993
1 : 3,000
506-193

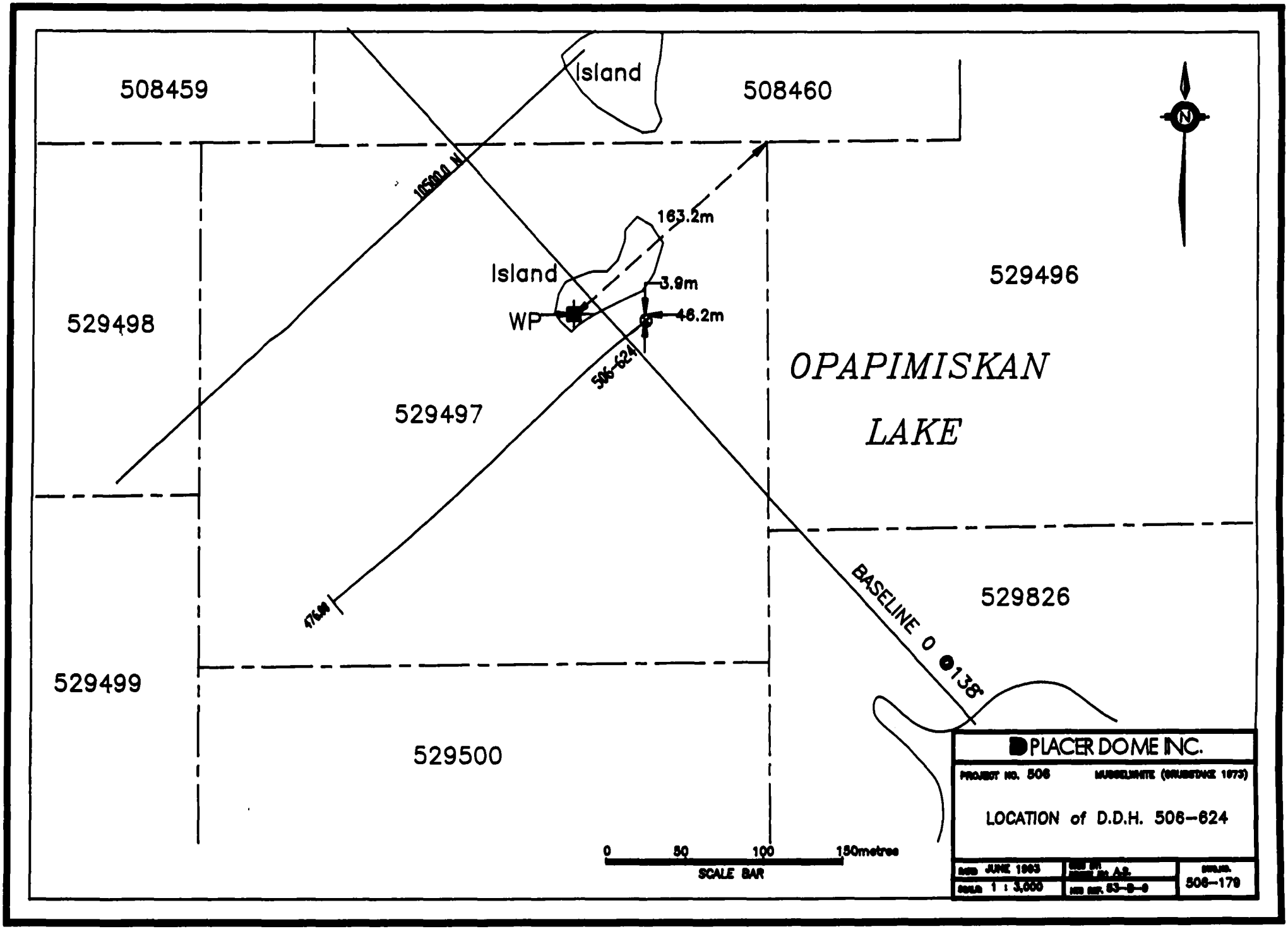

529496
529497
506-619
21.3
10000.0 N
OPAPIMISKAN
LAKE
529826
WP
307.8m
529500
BASELINE 0 @138
0 50 100 150metres
SCALE BAR
WP
26.2m
529840 #1
CP-529500 #2
529826 #3
529839 #4
529840
529839
PLACER DOME INC.
PROJECT NO. 506
MUSSELWHITE (BRUSSTONE 1973)
LOCATION of D.D.H. 506-619
DATE JUNE 1993
SCALE 1 : 3,000
506-195

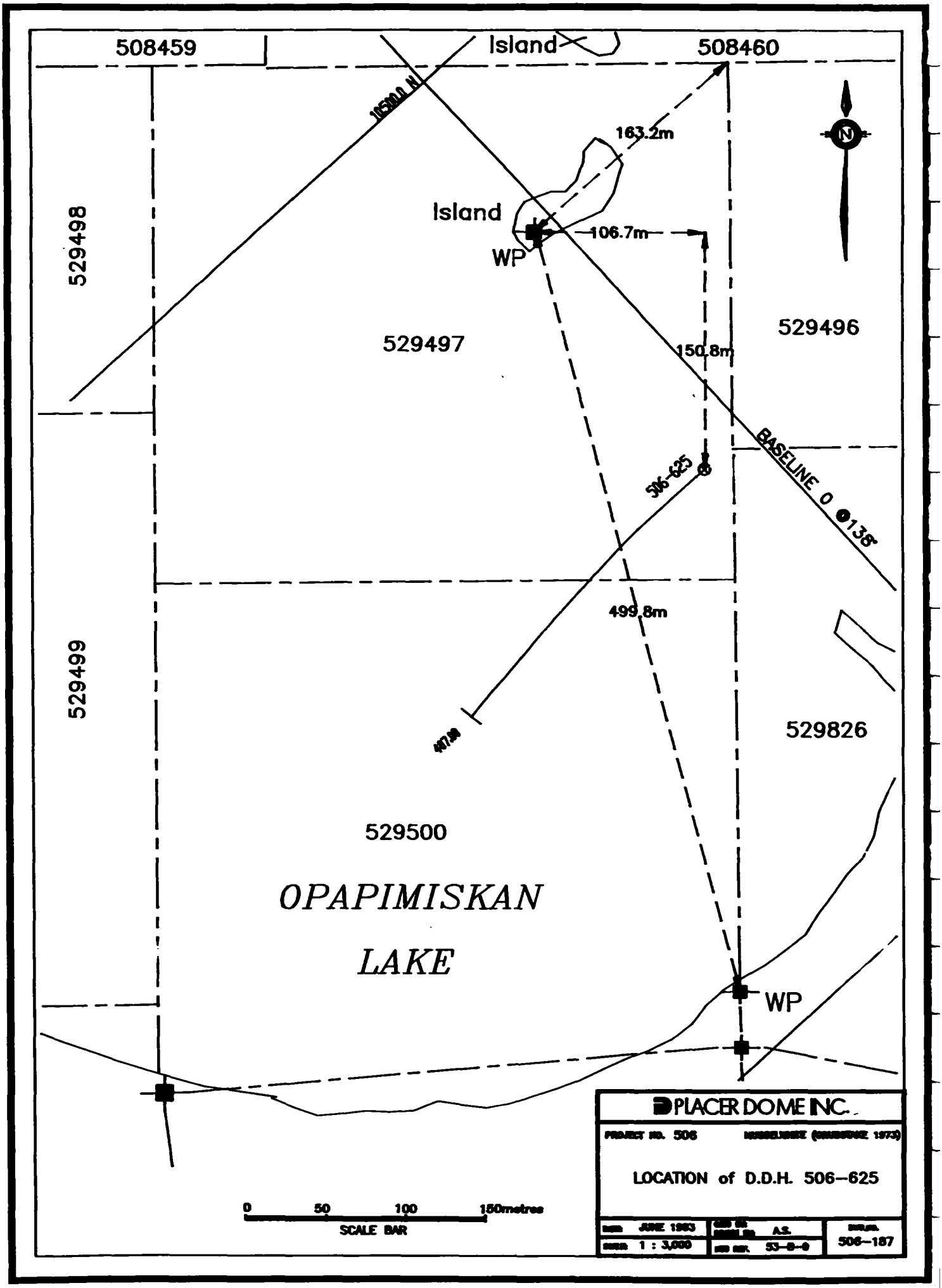

508459
Island
508460
10500.0 N
163.2m
Island
529498
89m
WP
31.2m
506-620
529497
529496
BASELINE 0 @138
529499
499.8m
529826
529500
OPAPIMISKAN
LAKE
WP
0 50 100 150metres
SCALE BAR
PLACER DOME INC.
PROJECT NO. 506
LOCATION of D.D.H. 506-620
JUNE 1993
A.S.
1 : 3,000
506-180

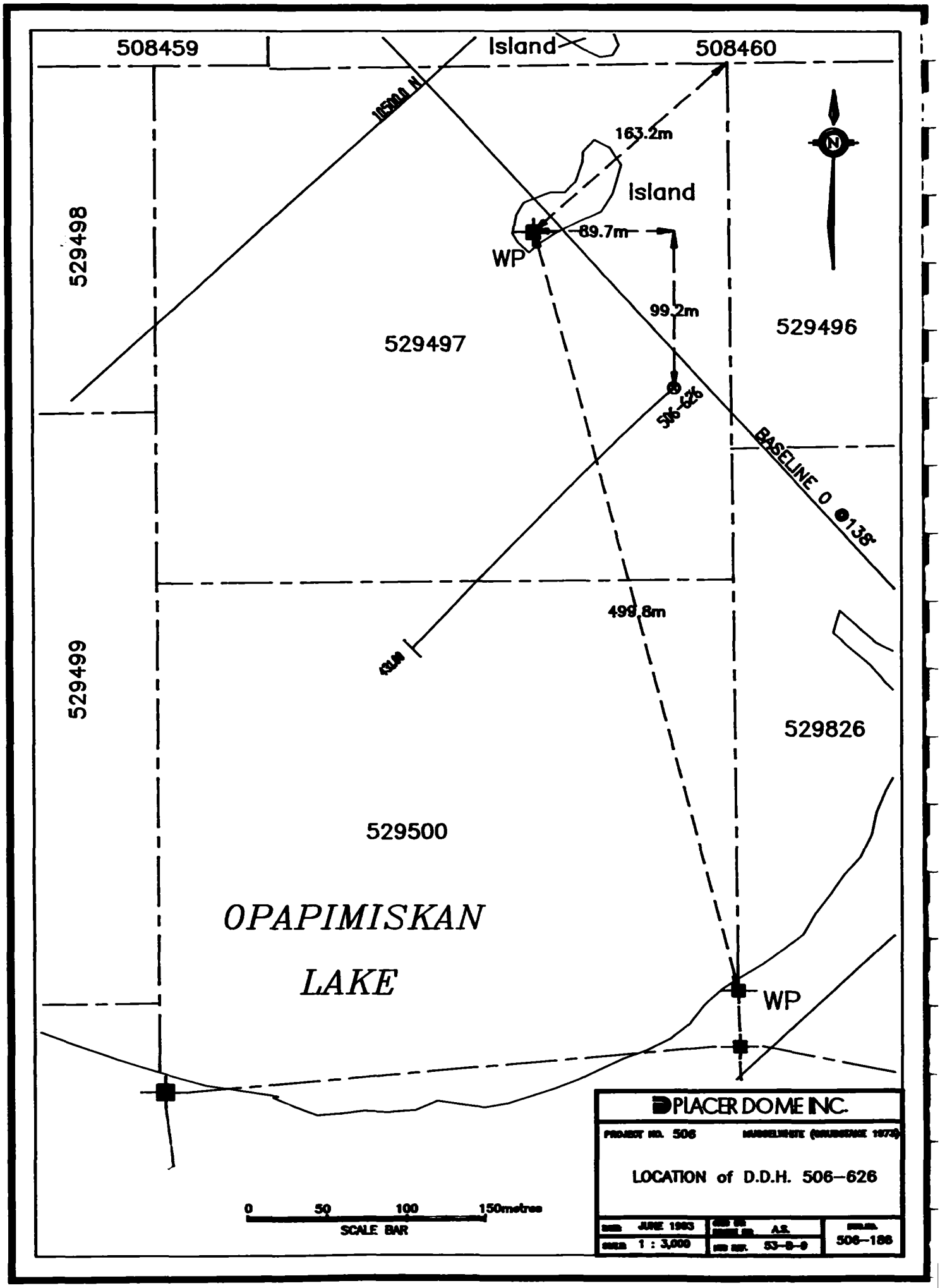

529496
529497
OPAPIMISKAN
LAKE
506-621
10000.0 N
529826
WP
308.6m
529500
529500
BASELINE 0 @135
0 50 100 150metres
SCALE BAR
WP
27.9m
529840 #1
CP-529500 #2
529826 #3
529839 #4
529840
529839
PLACER DOME INC.
PROJECT NO. 506
MUSSELWHITE (GRUBSTAKE 1973)
LOCATION of D.D.H. 506-621
DATE JUNE 1993
SCALE 1 : 3,000
506-189

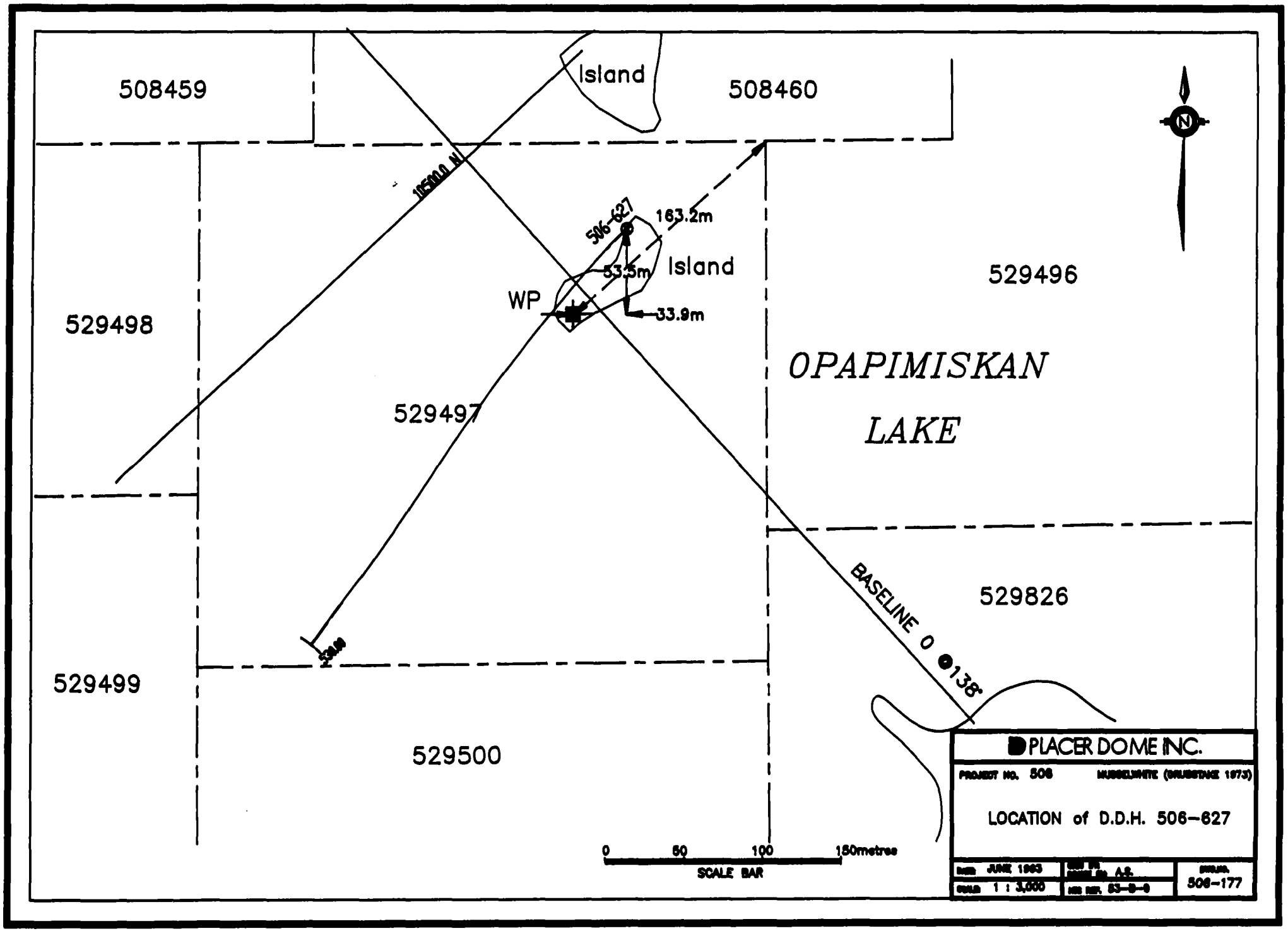

529496
529497
506-622
10000.0 N
OPAPIMISKAN
LAKE
352.1m
529826
WP
BASELINE 0 @135
529500
0 50 100 150metres
SCALE BAR
WP-#529496-3
529840 #1
CP-529500 #2
529826 #3
529839 #4
529840
529839
PLACER DOME INC.
PROJECT NO. 506
MUSSELWHITE (BRUSTINOV 1973)
LOCATION of D.D.H. 506-622
JUNE 1993
1 : 3,000
506-188

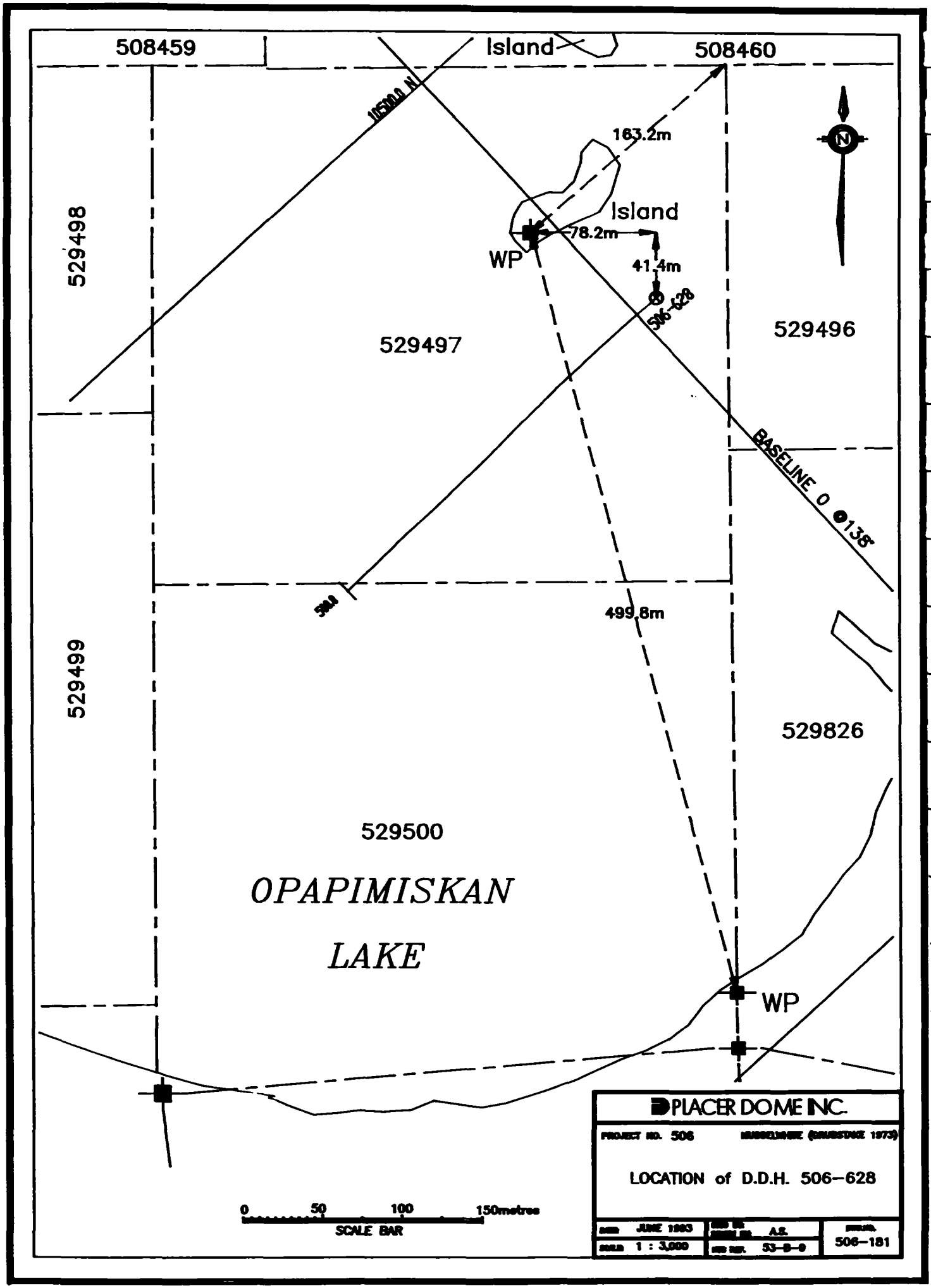

529496
529497
N
10000.0 N
506-623
OPAPIMISKAN
LAKE
529826
WP
291.3m
529500
BASELINE 0 @138
0 50 100 150metres
SCALE BAR
WP
8.2m
529840 #1
CP-529500 #2
529826 #3
529839 #4
529840
529839
PLACER DOME INC.
PROJECT NO. 506
MUSSELWHITE (GRUBSTAKE 1973)
LOCATION of D.D.H. 506-623
DATE JUNE 1993
SCALE 1 : 3,000
506-190

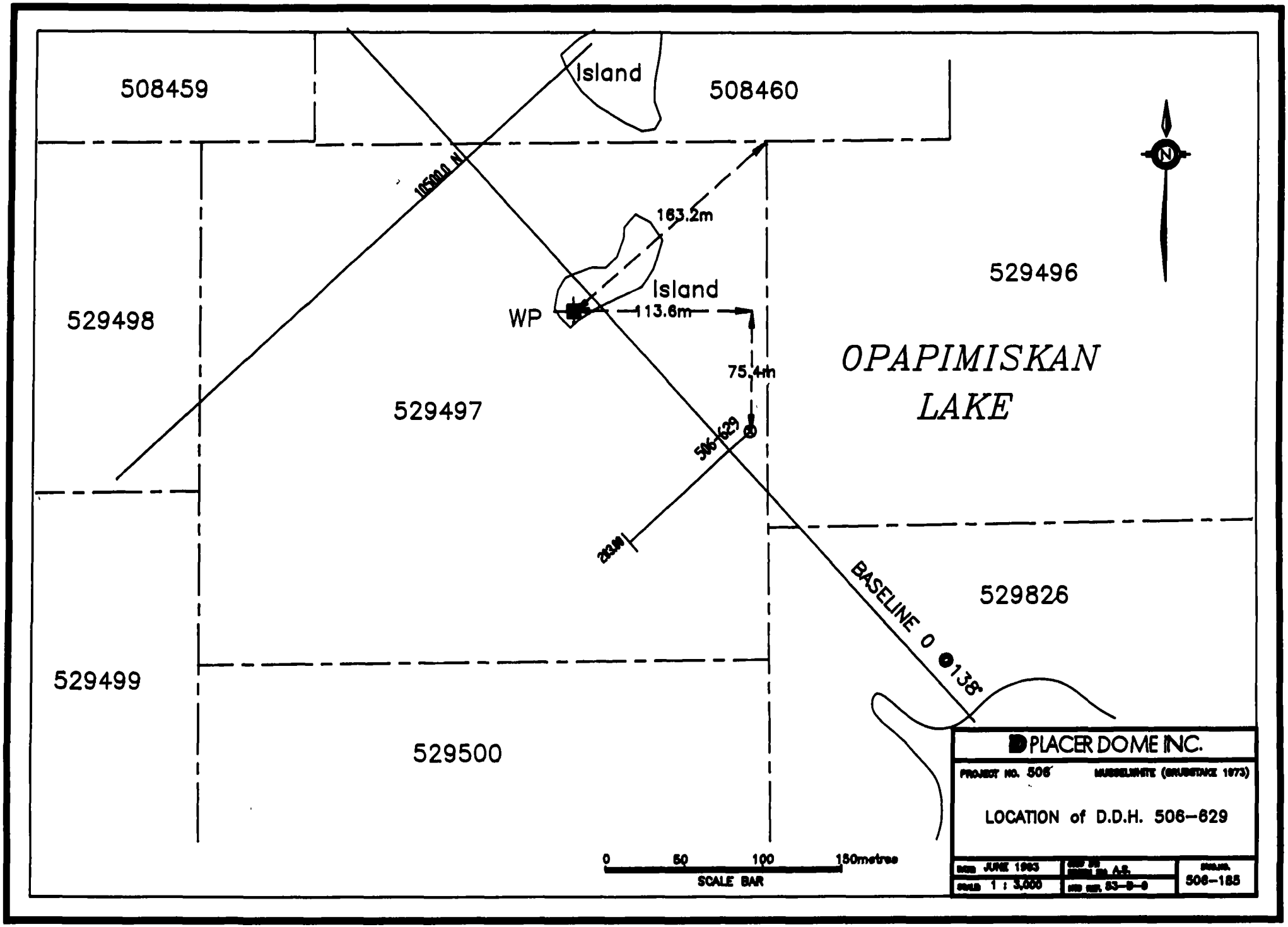

508459
Island
508460
105000 N
163.2m
Island
3.9m
WP
46.2m
529498
529496
506-624
529497
OPAPIMISKAN
LAKE
47600
BASELINE 0 @138
529826
529499
529500
0
50
100
150metres
SCALE BAR
PLACER DOME INC.
PROJECT NO. 506
MUSKELLUNGE (DRUMSTONE 1973)
LOCATION of D.D.H. 506-624
DATE JUNE 1993
SCALE 1 : 3,000
506-179

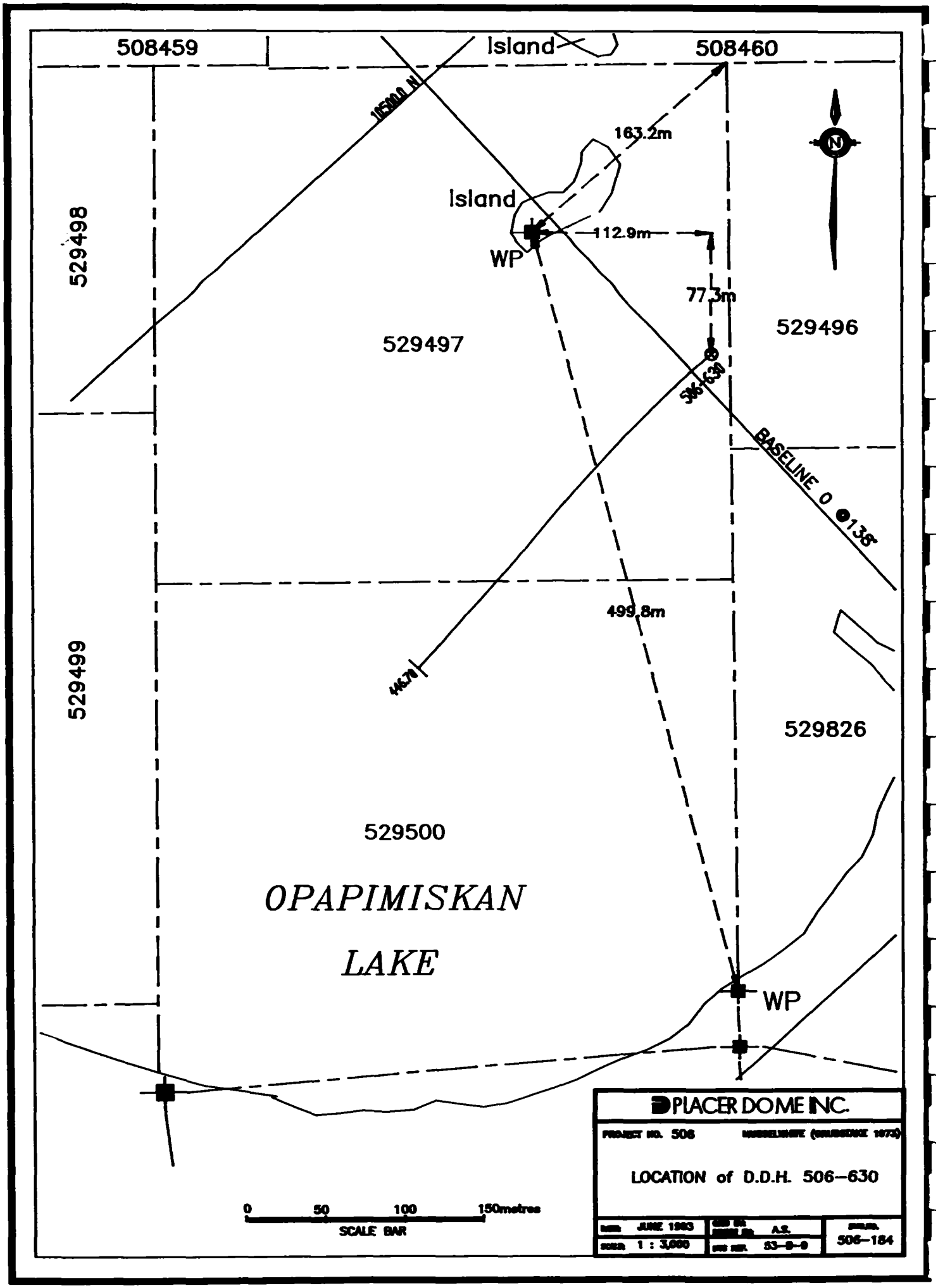

508459
Island
508460
10500.0 N
163.2m
Island
106.7m
WP
529498
529497
529496
150.8m
BASELINE 0 @135°
506-625
499.8m
529499
529826
529500
OPAPIMISKAN
LAKE
WP
0
50
100
150metres
SCALE BAR
PLACER DOME INC.
PROJECT NO. 506
LOCATION of D.D.H. 506-625
JUNE 1993
1 : 3,000
A.S.
53-8-8
506-187

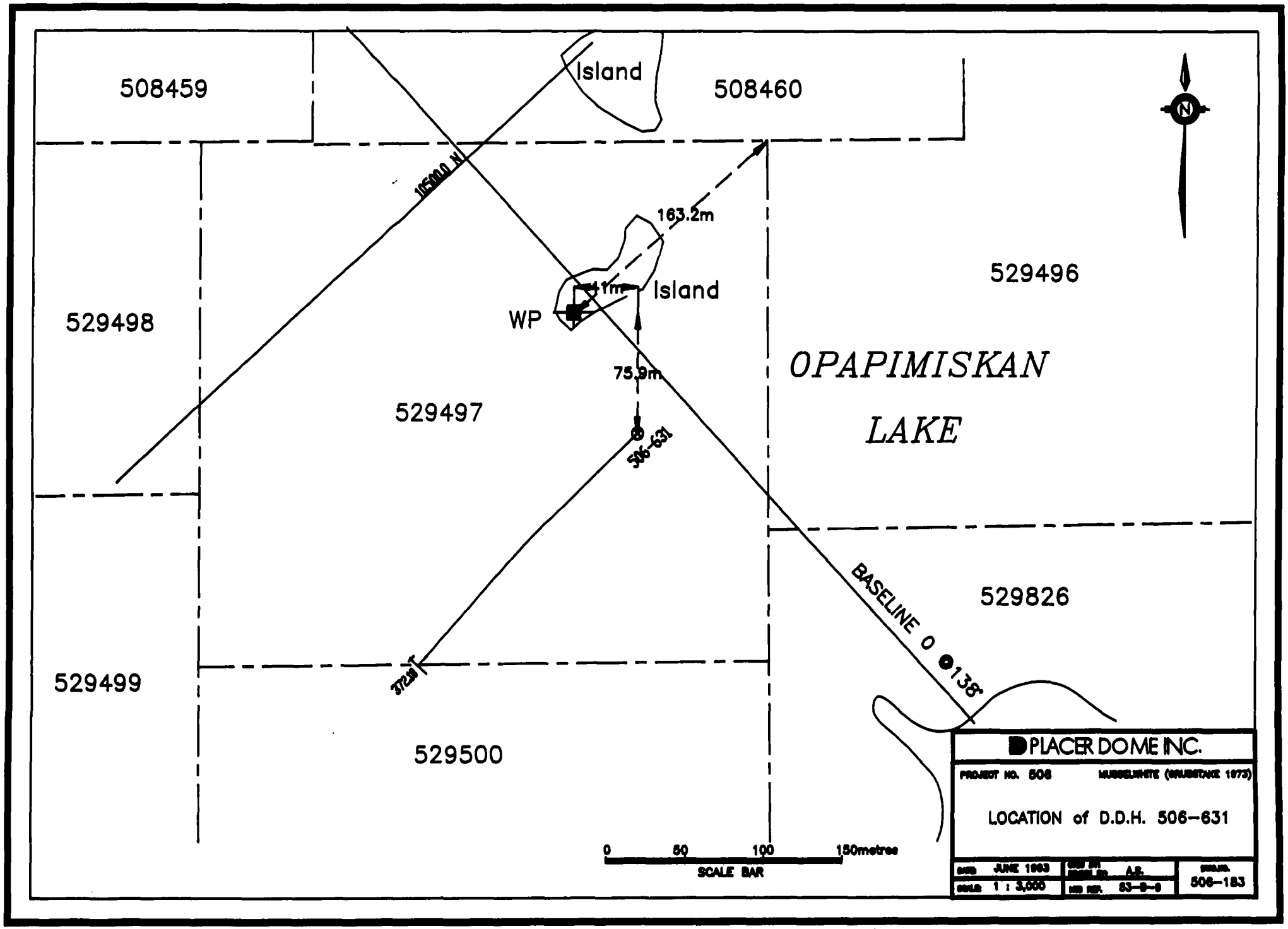

508459
Island
508460
10500.0 N
163.2m
Island
529498
89.7m
WP
99.2m
529497
529496
506-626
BASELINE 0 @138
499.8m
529499
529826
529500
OPAPIMISKAN
LAKE
WP
0 50 100 150metres
SCALE BAR
PLACER DOME INC.
PROJECT NO. 506
LOCATION of D.D.H. 506-626
JUNE 1993
A.S.
1 : 3,000
53-9-9
506-186

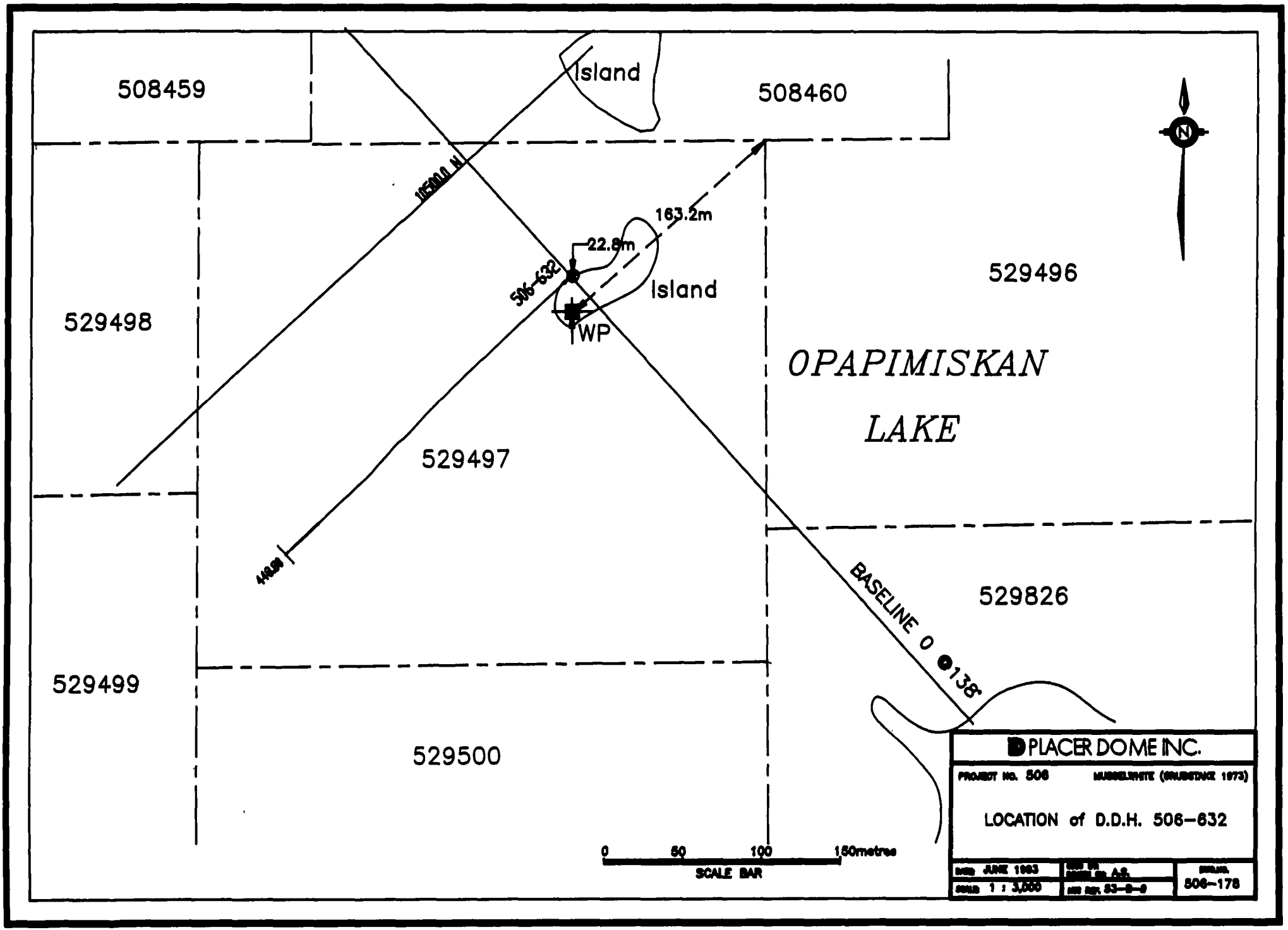

508459
Island
508460
529496
529498
529497
OPAPIMISKAN
LAKE
529826
529499
529500
506-627
163.2m
53.5m
Island
WP
33.9m
BASELINE 0 @138°
0
50
100
150metres
SCALE BAR
PLACER DOME INC.
PROJECT No. 506
MUSKELLUNGE (BRUSTAKE 1973)
LOCATION of D.D.H. 506-627
DATE JUNE 1983
SCALE 1 : 3,000
506-177

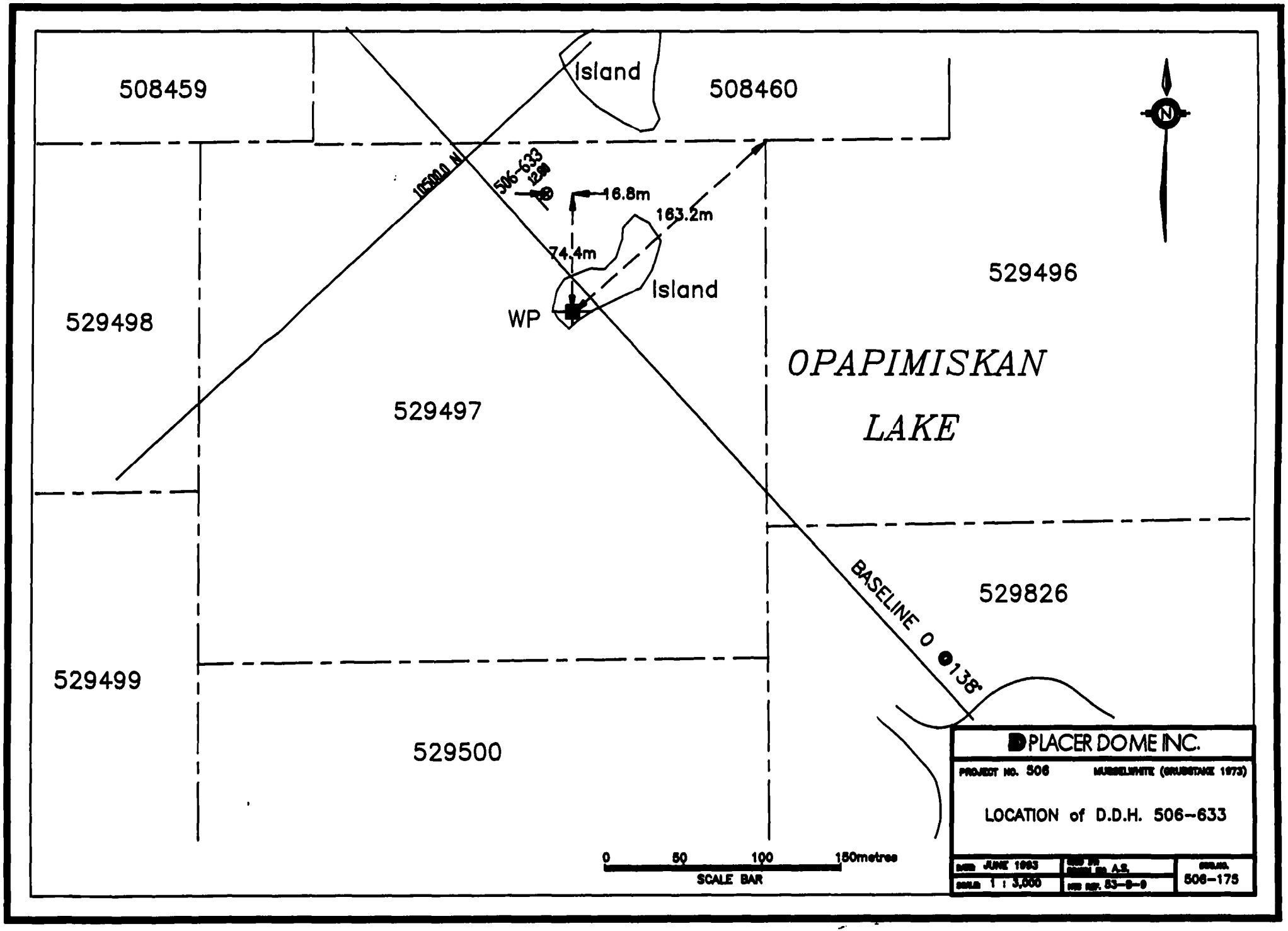

508459
Island
508460
163.2m
Island
78.2m
WP
41.4m
506-628
529498
529497
529496
BASELINE 0 @138°
499.8m
529499
529826
529500
OPAPIMISKAN
LAKE
WP
0 50 100 150metres
SCALE BAR
PLACER DOME INC.
PROJECT NO. 506
LOCATION of D.D.H. 506-628
JUNE 1993
A.S.
1 : 3,000
53-B-8
506-181


508459
Island
508460
10500n N
163.2m
Island
WP
113.6m
529496
529498
OPAPIMISKAN
LAKE
75.4m
529497
506-629
20m W
BASELINE 0
138
529826
529499
529500
0
50
100
150metres
SCALE BAR
PLACER DOME INC.
PROJECT NO. 506
MUSSELWHITE (BRUBSTAKE 1973)
LOCATION of D.D.H. 506-629
JUNE 1993
1 : 3,000
506-185


508459
Island
508460
165000 N
163.2m
Island
112.9m
WP
77.3m
529498
529497
529496
506-630
BASELINE 0 @136
499.8m
446.7m
529499
529826
529500
OPAPIMISKAN
LAKE
WP
0
50
100
150metres
SCALE BAR
PLACER DOME INC.
PROJECT NO. 506
LOCATION of D.D.H. 506-630
JUNE 1993
A.S.
1 : 3,000
53-9-9
506-184


508459
Island
508460
10500.0 N
163.2m
41m
Island
WP
529496
529498
75.9m
OPAPIMISKAN
LAKE
529497
506-631
BASELINE 0 @138
529826
529499
372.8
529500
0
50
100
150metres
SCALE BAR
PLACER DOME INC.
PROJECT NO. 506
MUSSELWHITE (BRUSTAKE 1973)
LOCATION of D.D.H. 506-631
DATE JUNE 1993
A.S.
SCALE 1 : 3,000
53-8-6
506-183


508459
508460
Island
105000 N
163.2m
22.8m
506-632
Island
WP
529496
529498
OPAPIMISKAN
LAKE
529497
440000
BASELINE 0 @138
529826
529499
529500
0 50 100 150metres
SCALE BAR
PLACER DOME INC.
PROJECT No. 506
MUSSELWHITE (BRUSTINOV 1973)
LOCATION of D.D.H. 506-632
DATE JUNE 1993
SCALE 1 : 3,000
506-178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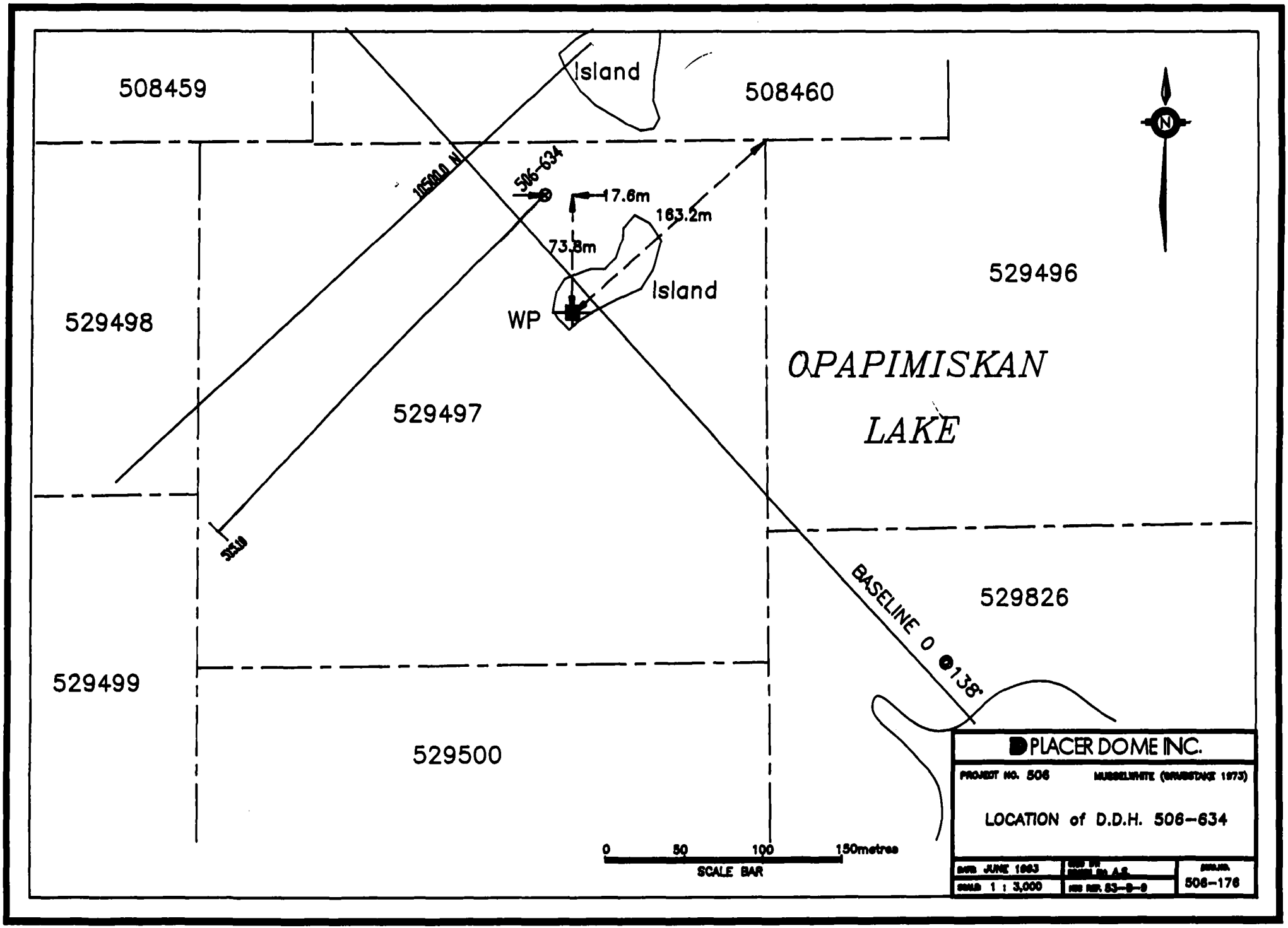
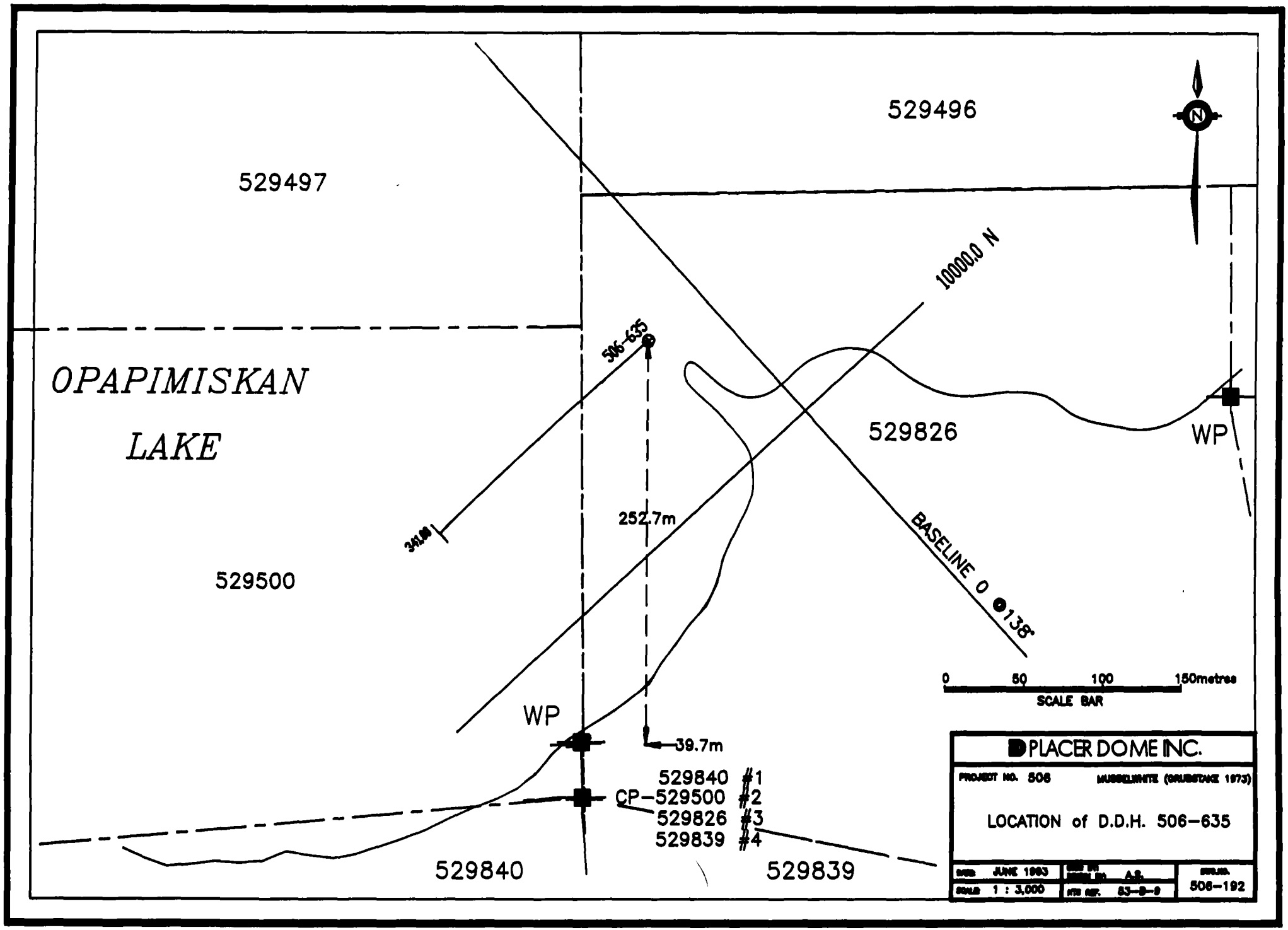
508460
Island
529496
529498
529497
529826
529499
529500
OPAPIMISKAN
LAKE
Island
WP
16.8m
163.2m
74.4m
506-633
BASELINE 0
138
0
50
100
150metres
SCALE BAR
PLACER DOME INC.
PROJECT No. 506
MUSSELWHITE (GRUBSTAKE 1973)
LOCATION of D.D.H. 506-633
JUNE 1993
1 : 3,000
506-175


508459
508460
Island
Island
506-634
17.6m
163.2m
73.8m
WP
10500.0 N
529498
529497
529496
OPAPIMISKAN
LAKE
529826
BASELINE 0 @138
529499
529500
0
50
100
150metres
SCALE BAR
PLACER DOME INC.
PROJECT NO. 506
MUSSELWHITE (GRUBSTAKE 1973)
LOCATION of D.D.H. 506-634
DATE JUNE 1993
SCALE 1 : 3,000
506-176


529496
529497
OPAPIMISKAN
LAKE
529500
529826
WP
10000.0 N
506-635
341.8m
252.7m
BASELINE 0 @138
0 50 100 150metres
SCALE BAR
WP
39.7m
529840 #1
CP-529500 #2
529826 #3
529839 #4
529840
529839
PLACER DOME INC.
PROJECT NO. 506
MUSSELWHITE (GRUBSTAKE 1973)
LOCATION of D.D.H. 506-635
DATE JUNE 1993
SCALE 1 : 3,000
DRAWN BY A.S.
NTS REF. 53-B-9
DWG.NO. 506-192

Musselwhite Drilling, 1993
DDH Collar Locations and Lengths

T – Antiform

	Collar Location				Total	Length per Claim					
DDH #	N/S to Post	E/W to Post	Post #	Claim #	Length	Claim	Length	Claim	Length	Claim	Length
655	57m S	5m E	2	529497	19 2*						
656	184m S	5m E	2	529497	334m	529497	184m	529500	150m		
657	132mS	70m E	2	529497	39*						
658	132m S	71m E	2	529497	361 4m	529497	322 4m	529500	39m		
659	137m N	36m E	1	529499	418m	529499	105m	529497	313m		
660	32m N	186m E	1	529497	439m	529497	434m	529498	5m		
661	2m S	140m W	3	508460	550m	508460	6m	529497	544m		
662	32m S	97m W	3	508460	496m	508460	87m	529497	345m		
663	47m S	115m W	3	508460	562m	508460	131m	529497	348m	529498	83m
675	5m S	67m W	3	508460	150.7m	508460	17m	529497	133 7		
686	76m S	73m w	3	508460	553m	508460	199m	508459	11m	529497	181m

* Hole Abandoned

RECEIVED
AUG - 3 '94
PATRICIA MINING DIVISION

53808SNW0012 W9430.00052 ZEEMEL LAKE

Date: 29 Mar, 1994 PLACER DOME CANADA LIMITED

DRILL HOLE RECORD

Northing: 10150.000
Easting: 8957.590
Elevation: 5302.520

Collar Azi.: 228.00
Collar Dip: -60.50

Hole Length: 19.20
Completed: JULY 24, 1993
Drilled by:
Logged by: DENISE INGS
Purpose: TO INTERSECT C,T, AND WA ZONES. HOLE ABANDONED IN OVERBURDEN. JULY 24, 1993

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529497
57 m south,5 m east to post 2 of Pa529497

Drill Hole: 506-655

Northing: 10150N
Easting: 8957.5E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JULY 22, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
.00	19.20	OB	OVERBURDEN OB.								
19.20		OB	END OF HOLE ----------. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. ----------. DRILLING HISTORY:. In first attempt to establish collar (-60.5), overburden was drilled to 19.2m and tricone bit sheared off at 12.19m. Collar was flattened to -59.5 degrees and redone successfully. New collar was called 506-656. 0.0 19.2 TRICONE bit.								

DRILL HOLE RECORD

Northing: 10149.740
Easting: 8958.677
Elevation: 5302.515

Collar Azi.: 229.67
Collar Dip: -59.50

Hole Length: 334.00
Completed: JULY 30, 1993
Drilled by:
Logged by: DENISE INGS
Purpose: TO INTERSECT C,T, AND WA ZONES

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529497 (184m),Pa529500 (150m)- 10M west and 52m north to WP#1
57 m south,5 m east to post 2 of Pa529497
Date(s) Logged: JULY 27 - AUG, 1, 1993

Drill Hole: 506-656

Northing: 10150N
Easting: 8957.6E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JULY 24, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
2.9	229.9	-59.6	86.4	233.5	-59.6	169.9	231.3	-57.5	253.4	230.5	-54.4
5.8	230.7	-59.5	89.3	233.5	-59.5	172.8	231.3	-57.4	256.3	230.5	-54.4
8.6	232.3	-60.0	92.1	233.3	-59.4	175.6	231.3	-57.3	259.1	230.7	-54.4
11.5	233.5	-60.2	95.0	233.1	-59.3	178.5	231.5	-57.2	262.0	230.7	-54.4
14.4	233.7	-60.4	97.9	232.9	-59.2	181.4	231.5	-57.2	264.9	230.7	-54.4
17.3	233.7	-60.7	100.8	232.5	-59.1	184.3	231.7	-57.2	267.8	230.7	-54.4
20.2	233.9	-60.8	103.7	232.1	-58.9	187.1	231.9	-57.1	270.6	230.7	-54.4
23.0	233.9	-60.7	106.5	231.7	-58.7	190.0	231.9	-57.1	273.5	230.7	-54.4
25.9	234.1	-60.7	109.4	231.2	-58.4	192.9	232.1	-57.1	276.4	230.7	-54.3
28.8	234.1	-60.7	112.3	231.0	-58.3	195.8	232.1	-57.1	279.3	230.5	-54.1
31.7	234.1	-60.7	115.2	230.8	-58.3	198.7	232.3	-57.0	282.2	230.5	-54.1
34.5	234.3	-60.7	118.1	230.8	-58.2	201.6	232.3	-57.0	285.0	230.5	-54.1
37.4	234.3	-60.6	120.9	230.6	-58.1	204.4	232.3	-57.0	287.9	230.5	-54.0
40.3	238.3	-60.6	123.8	230.6	-58.1	207.3	232.4	-56.9	290.8	230.5	-53.9
43.2	234.5	-60.5	126.7	230.8	-58.1	210.2	232.6	-56.8	293.7	230.5	-53.8
46.1	234.7	-60.4	129.6	230.8	-58.1	213.1	232.6	-56.8	296.6	230.3	-53.8
49.0	234.5	-60.3	132.4	230.8	-58.0	215.9	232.4	-56.6	299.5	230.2	-53.8
51.8	234.3	-60.2	135.3	230.6	-57.9	218.8	232.3	-56.5	302.3	230.2	-53.8
54.7	234.3	-60.1	138.2	230.6	-57.9	221.7	232.1	-56.4	305.2	230.2	-53.8
57.6	234.3	-60.0	141.1	230.6	-57.9	224.6	232.1	-56.4	308.1	230.2	-53.8
60.5	234.3	-59.9	144.0	230.6	-57.9	227.5	231.9	-56.3	311.0	230.0	-53.7
63.3	234.3	-59.9	146.8	230.6	-57.9	230.3	231.7	-56.2	313.8	230.0	-53.7
66.2	234.1	-59.8	149.7	230.6	-57.8	233.2	231.7	-56.1	316.7	229.8	-53.6
69.1	233.9	-59.8	152.6	230.6	-57.7	236.1	231.6	-55.8	319.6	229.8	-53.6
72.0	233.7	-59.7	155.5	230.8	-57.7	239.0	231.4	-55.4	322.5	230.0	-53.6
74.9	233.5	-59.8	158.4	230.8	-57.7	241.9	231.2	-55.2	325.4	230.0	-53.6
77.7	233.5	-59.8	161.2	231.0	-57.6	244.7	230.7	-54.9	328.2	230.0	-53.6
80.6	233.3	-59.8	164.1	231.2	-57.6	247.6	230.5	-54.6	331.1	230.0	-53.6
83.5	233.5	-59.7	167.0	231.3	-57.5	250.5	230.5	-54.5	334.0	230.0	-53.5

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Samples E56760-E56873 inclusive. NOTE: All references to folding - both right and left limb - are looking up plunge of the deposit (ie. South). This is the same as the strip logs. For detailed structural data see attached STRIP LOG.								
.00	17.90	OB	OVERBURDEN								
17.90	148.50	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Probable bedded felsic crystal-ash tuffs. Fine grained. Light grey. Non-magnetic. Rare 1 to 2 mm quartz blebs and euhedral quartz eyes locally and 1 to 5 % feldspar phenocrysts. Rare ragged garnet porphyroblasts locally. Well bedded or flow banded, 30 to 38 calcite. Rare isoclinal folds with axial plane parallel foliation. Predominant fractures parallel or perpendicular to bedding. Other sets at 22 to 25 and 45 to 48 dca. Weak to moderate sericite alteration (8 to 10%). Minor biotite alteration (3-5%). Sericite alteration typically occurs in 0.5-2cm wide bands parallel to foliation. Trace black accicular amphibole needles locally. Minor bleach hairline fractures locally. Local potassic staining generally associated with bleach fractures. Trace to 1% fracture-filling pyrrhotite and pyrite throughout commonly disseminateds locally in 1 to 3 mm stringers. Pyrite stringers commonly are surrounded by a sericite alteration halo. Minor chalcopyrite on fractures. Less than 1% quartz and quartz-calcite veins. Veins are generally 0.3 to 2 cm wide and are oriented parallel to foliation. Trace pyrite with carbonate on fractures. Lower contact is sharp at 55 calcite. 10 cm quartz, carbonate, garnet, chlorite and pyrrhotite vein at the contact. GEOLOG DATA:. Alteration:. 0% Grunerite, trace to 1% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 8 to 10% sericite, 3 to 5% biotite. Mineralization:. Trace to 1% pyrrhotite, 0 specks VISIBLE GOLD, trace to 1% pyrite, 0% arsenopyrite, trace to 1% chalcopyrite stringers locally. Veining and fracture coatings:. > 1% quartz, > 1% quartz-carbonate, trace calcite. 17.90 32.70 Very blocky core. 26.10 27.00 2 to 5% disseminated pyrite associated with quartz veining. 45.00 45.40 Chlorite rich MINERALIZED ZONE with 5% carbonate alteration. 2% disseminated pyrite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			68.50 Isoclinal fold with axial plane at 42 dca. MINERALIZED ZONE of moderate sericite alteration in fold hinges. 80.00 114.20 10-15% sericite alteration in 2-30 cm wide bands parallel foliation. 93.50 94.00 Left limb fold with axial plane at 37 to 45 dca. 96.50 100.00 Right limb fold with axial plane at 47 dca. 97.20 114.20 1% ragged garnets flattened parallel to foliation. 105.10 105.20 2% wispy pyrrhotite stringers along foliation. 106.00 106.50 50% 2 to 10 cm quartz veins with 30 cm of strong sericite alteration in footwall. 114.20 122.50 Felsic volcanics appear more massive and may be a flow. Very weak sericite alteration. Foliation and bedding are less well developed. 122.50 125.20 Moderate to strong sericite alteration, up to 20% sericite. 129.60 148.50 Minor sedimentary component in the felsic tuffs. Moderate alteration to 5 to 20% garnet, 5 to 10% biotite up to 10% staurolite locally and 10% chlorite, weak carbonate. 5% quartz-carbonate stringers. Garnet commonly have augen shaped halos of silica. Locally weakly magnetic. Minor 5 cm chlorite rich bands locally. Bands are parallel foliation. Probably sedimentary interbeds in the tuffs. 148.40 148.50 Quartz, carbonate, chlorite, garnet and pyrrhotite vein at the contact. 2% pyrrhotite as wispy stringers.								
148.50	174.60	GTB	GARNETIFEROUS BASALT GTB. Fine grained, well foliated matrix with 30% pink garnet porphyroblasts. Garnets are generally 1 to 3 mm in diameter and subhedral. Grey to brown, locally green. Non-magnetic. Moderately soft to soft. Moderately to well foliated at 47 calcite. There is a suggestion of folding throughout, but convincing folds may only be seen locally. Minor folds with axial plane at 40 dca. 1% 1 To 2 mm quartz stringers throughout. Minor 2 mm yellowish brown carbonate stringers locally. Strong to intense biotite alteration. Up to 30% garnets. 2 to 3% staurolite. Trace to 1% pyrrhotite in small disseminated blebs. Lower contact is gradual over 1 medium beginning at 174.6. Contact at 30 dca. GEOLOG DATA:. ALTERATION:. 0% grunerite, 30% garnet, 0% silicification, 2% carbonatization, 5% chlorite, 0% ankerite, 0% epidote, 0% sericite, up to 10% biotite locally. Mineralization:. Trace to 1% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 1% quartz, 0% quartz-carbonate, TR% calcite. 155.00 155.70 Green, fine grained, chlorite rich matrix with 10% garnet								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			porphyroblasts, 5% blue grey quartz flooding parallel to foliation. Minor carbonate stringers. Trace pyrrhotite. Similar to Breccia Zone texture but quartz is not as fragmented. 166.10 167.30 Breccia Zone: mineralogy and textures similar to above, but quartz is more fragmental. 170.90 171.70 Light grey-green finely laminated MINERALIZED ZONE with 10% sericite, 5% chlorite, carbonate filled stringers, and trace to 1% pyrite on fractures.								
174.60	184.85	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Light grey-green. Non-magnetic. Equigranular, homogeneous textured. Locally contains 1 to 3 mm oblong shaped fragments with in a matrix of thin anastomozing biotite bands. Moderately to weakly developed foliation or bedding at 35 dca. Rare suggestion of folding locally with axial plane at 50 dca. Predominant fracture set is perpendicular to foliation. Fractures also commonly parallel to foliation. Minor biotite locally concordant in bands. Trace to 1% quartz stringer up to 2 cm in width. Lower contact is sharp at 35 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 3% carbonatization, 5% chlorite, 0% ankerite, 0% epidote, 0% sericite, 1% biotite. Mineralization:. 0% pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 1% quartz, 0% quartz-carbonate, trace calcite on hairline fractures.								
184.85	191.05	IMXD	INTERMIXED GARNETIFEROUS BASALT AND INTERMEDIATE TO MAFIC VOLCANICS GTB and BVOL. 85% GTB and 15% BVOL. GTB is fine to coarse grained. Brown, green and pink mottled with 5 to 25% 2 mm to 2 cm garnets in a biotite and/or chlorite rich matrix. Massive to weakly foliated at 30 to 35 calcite. BVOL is fine grained. Medium grey with local brown biotite rich patches. 1% quartz-carbonate stringers parallel to foliation. Fractures are parallel and perpendicular to foliation. Lower contact is sharp at 30 calcite. GEOLOG DATA: GTB. Alteration:.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% grunerite, 15% garnet, trace silicification, 0% carbonatization, 5% chlorite, 0% ankerite, 0% epidote, trace sericite, 15% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 0% quartz, 1% quartz-carbonate, trace calcite on hairline fractures. GEOLOG DATA: BVOL. Alteration:. 0% grunerite, 0% garnet, 0% silicification, trace carbonatization, 3% chlorite, 0% ankerite, 0% epidote, trace sericite, 5% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, trace chalcopyrite. Veining and fracture coatings:. 0% quartz, 1% quartz-carbonate, trace calcite on hairline fractures. 189.00 191.05 MINERALIZED ZONE with minor quartz flooding parallel to foliation. 15% chlorite biotite sericite garnet alteration. Up to 1% pyrrhotite as 2 to 3 mm stringers. Not iron formation as massive is only 1 to 6 and lack of grunerite. 189.00 189.80 GTB, 1% quartz flooding, 30% garnet. 189.80 190.35 BVOL, 20% biotite, trace carbonate stringers. 190.35 191.05 GTB, trace chalcopyrite stringers, trace pyrite on fractures, 5% sericite, 5% chlorite.								
191.05	223.60	BVOL	INTERMEDIATE TO MAFIC VOLCANICS WITH MINOR INTRAFORMATIONAL IRON FORMATION BVOL with minor 2-4ea. Typical BVOL. Intermediate composition. Light grey, fine grained, locally bleach appearance. Finely foliated / bedded at 30 to 35 calcite. Local suggestion of folding, but few well defined fold axes. Contacts are very variable, reflecting folded contact. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, trace to 1% silicification, 1% calcite, 5% chlorite, 0% ankerite, trace to 1% epidote on fractures, trace sericite, trace biotite. Mineralization:. Trace to 1% pyrrhotite, 1 specks VISIBLE GOLD, trace pyrite on fractures, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 1% quartz, 1% quartz-carbonate, 0% calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			191.05 192.00 BVOL, footwall sample. 202.00 203.00 BVOL, hanging wall sample. 203.00 203.50 BVOL, includes mineralized MINERALIZED ZONE as described above, 1 speck VISIBLE GOLD, trace chalcopyrite. 203.09 203.27 Mineralized MINERALIZED ZONE with 5% wispy stringers of pyrrhotite, trace chalcopyrite stringers, 1 speck VISIBLE GOLD 5% quartz-carbonate stringers, 10% quartz flooding, trace to 1% garnet. Massive 20.2. 203.50 204.50 BVOL, footwall sample. 206.37 207.37 BVOL, hanging wall sample. 207.37 207.83 Mineralized zone with 5% quartz stringer, 8% quartz-calcite vein, 5% chlorite, 1% wispy stringers of pyrrhotite, trace chalcopyrite. Massive is 8.01. 207.37 207.83 BVOL, mineralized MINERALIZED ZONE as description above, trace chalcopyrite. 207.83 208.40 BVOL, 10% biotite, 10% quartz-carbonate stringers, 1% garnet, trace chlorite. 208.20 Folded quartz-carbonate stringers with axial plane at 28 dca. 208.40 209.85 BVOL, 2% biotite, 2% quartz-carbonate stringers parallel to foliation. 209.85 211.20 2-4ea, 10% garnet, 10% grunerite, 20% quartz-carbonate stringers, 10% chlorite, 5% quartz flooding, trace epidote on fractures, trace pyrite, massive is 88.1, folded. 210.20 Left limb fold with axial plane at 47 dca. 210.80 M-type fold with axial plane at 25 dca. LAB CHECK SAMPLES:. E56764 STANDARD I 7.30 7.03. E56765 BLANK 0.03. E56770 DUPLICATE OF E56769 0.07. 211.20 212.50 BVOL, 5% quartz-carbonate stringers, contains 20 cm bed of 2-4ea. 212.50 213.70 2-4ea, 30% garnet, 10% quartz flooding, 5% chlorite, 5% grunerite, massive is 171. 213.70 214.70 2-4ea, 30 cm of INTERMEDIATE TO MAFIC VOLCANICS included in sample, 2% garnet, 50% quartz-carbonate veins, 1% grunerite. 214.70 216.00 BVOL, 2% biotite altered bands, < 1% quartz-carbonate stringers, 20 cm bed of 2-4ea. 216.00 217.35 2-4e / altered BVOL, 10% garnet, 5% grunerite, 2% chlorite, 30% quartz-carbonate stringers, massive is 3.98. 222.60 223.60 BVOL, hanging wall sample.								
223.60	224.90	24EA	INTRAFORMATIONAL IRON FORMATION Well developed foliation at 29 dca. 2-4ea. 223.60 224.12 Mineralized 2-4ea unit. GEOLOG DATA: (for subunit). Alteration:. 5% grunerite, 10% garnet, 20% silicification, 2% carbonatization, 5% dark green								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite. Mineralization:. 5% Pyrrhotite lacy stringers, 11 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0.25% chalcopyrite wispy stringers. Veining and fracture coatings:. 0% quartz, 1% quartz-carbonate crosscutting foliation, 1% calcite on hairline fractures. 223.60 224.12 2-4ea, see desciption above. 224.12 224.90 2-4ea, pyrrhotite blebs concordant to 5% with in 20 cm of contact, see desciption. 224.14 224.90 2-4ea unit. GEOLOG DATA: (for subunit). Alteration:. 5% grunerite, 30% garnet, 0% silicification, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite. Mineralization:. 3% Pyrrhotite see sample, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, trace calcite on hairline fractures. LAB CHECK SAMPLES. E56781 STANDARD I 6.79 7.30. E56782 BLANK 0.21.								
224.90	233.30	GTB	GARNETIFEROUS BASALT GTB. 30% Garnet porphyroblasts in a fine grained biotite rich matrix of altered BVOL. Garnets are 3 to 10 mm pink, ragged and anhedral. Pyrrhotite occurs as anhedral wisps and blebs. Massive is 1.39. Hardness is 4 (matrix) to 7 (garnet). GEOLOG DATA:. Alteration:. 0% grunerite, 30% garnet, 0% silicification, 0% carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 0% sericite, 20% biotite. Mineralization:. Trace to 2% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coating:. < 1% quartz, 0% quartz-carbonate, 0% calcite. 224.90 225.90 GTB, footwall sample.								
233.30	242.80	BVOL	INTERMEDIATE TO MAFIC VOLCANICS WITH MINOR INTRAFORMATIONAL IRON FORMATION BVOL with minor 2-4ea. Fine grained. Mafic dyke to light grey-green. Non-magnetic.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Homogeneous, equigranular texture. Moderately developed foliation at 12 to 18 dca. Minor folding locally with axial plane at 35 dca. Few fractures. Sets are oriented 35, 45, and 60 dca. Unmineralized. Trace pyrrhotite, trace pyrite. Abundant calcite filled hairline fractures. Lower contact is sharp at 15 dca. GEOLOG DATA: (BVOL). Alteration:. 0% grunerite, 0% garnet, 0% silicification, 1% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 2% quartz, 2% quartz-carbonate, 1% calcite. SUBUNITS:. 235.40 235.70 Quartz-carbonate vein with 1% pyrrhotite, trace pyrite, 5% chlorite 239.15 239.90 2-4a. GEOLOG DATA:. Alteration:. 2% grunerite, 5% garnet, 30% silicification, 0% carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 3% sericite, 0% biotite. Mineralization:. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite Veining and fracture coatings:. 0% quartz, 3% quartz-carbonate, 1% calcite filled hairline fractures. 239.90 242.80 Biotite altered BVOL. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 3% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite. Mineralization:. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite Veining and fracture coatings:. 0% quartz, 1% quartz-carbonate, 2% calcite filled fractures. 241.80 242.80 BVOL, 15% biotite altered, 10% quartz-carbonate stringers.								
242.80	248.10	24EA	INTRAFORMATIONAL IRON FORMATION WITH MINOR INTERMEDIATE TO MAFIC VOLCANICS 2-4ea With minor BVOL. Alternating BVOL and 2-4ea because coring is along folded BVOL and 4ea contact. 62% 2-4ea And 38% BVOL. Units are as described above.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			242.80 243.30 2-4ea, 20% grunerite, 5% garnet, 30% silicification, 10% quartz-carbonate stringers, 2% chlorite. 243.30 244.45 BVOL, 20% quartz-carbonate veins, 15% biotite alteration, 10% carbonatization. 244.45 Right limb fold with axial plane at 32 dca. 244.45 245.80 62% 2-4ea and 38% BVOL, 2-4ea: pyrrhotite is coarse grained blebs, trace arsenopyrite, 5% garnet, 5% grunerite, 20% silicification, 1% quartz-carbonate. 245.80 247.05 81% 2-4ea and 28% BVOL, 2-4ea: 5% garnet, 20% silicification, 10% grunerite, 2% quartz-carbonate stringers. 247.00 Left limb fold with axial plane at 32 dca. BVOL units occur at: 243.3 to 244.45, 245 to 245.2, 245.6 to 245.7, 245.15 to 246.35, 247.85 247.05, 247.57 to 247.64, and 247.75 to 247.82. E56790 DUPLICATE OF E56789 0.17. 247.05 248.10 90% 2-4ea and 10% BVOL, 2-4ea: 15% grunerite, 10% garnet, 10% silicification, 5% chlorite, trace biotite, trace chalcopyrite stringers.								
248.10	249.80	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Brown. Non-magnetic. Homogeneous, equigranular texture. Well foliated at 43 dca. 5% carbonatization, 15% biotite alteration. 10% Quartz-carbonate stringers as fracture-filling. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 5% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite on fractures. Veining and fracture coatings:. 0% quartz, 10% quartz-carbonate, trace calcite. 248.10 249.10 BVOL, bi altd, qc strs. 249.10 249.80 BVOL, bi altd, qc strs.								
249.80	250.90	24EA	INTRAFORMATIONAL IRON FORMATION 2-4ea. Medium grained. Grey, green and pink mottled. Weakly magnetic. Massive is 2.88. Lower contact is sharp at 45 dca. GEOLOG DATA:. Alteration:. 10% grunerite, 5% garnet, 20% silicification, 5% carbonatization, 2% chlorite,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% ankerite, 0% epidote, trace sericite, 0% biotite. Mineralization:. 1% pyrrhotite, 1 speck VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite. Veining and fracture coatings:. Trace manganese fracture coating, 5% quartz, 2% quartz-carbonate, trace calcite on hairline fractures. SUBUNITS. 249.80 250.90 2-4ea, description as above. 250.10 250.55 10 cm bedding is pyrrhotite rich (up to 30% pyrrhotite) and folded about axial plane 21 dca at 250.2 medium. This beds contains trace arsenopyrite, 5% garnet, 10% biotite, 30% quartz. Massive is 11.5.								
250.90	252.97	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Grey-green. Non-magnetic. Homogeneous, equigranular texture. Well foliated at 35 dca. 1% Quartz-carbonate stringers parallel to foliation. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 2% biotite. Mineralization:. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite Veining and fracture coatings:. 0% quartz, 5% quartz-carbonate, 2% calcite.								
252.97	284.35	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine to coarse grained. Green, grey and pink. Weakly magnetic. Hard. Contains 95% 1 to 3 cm ea-beds with 15% garnet porphyroblasts and 5% e-beds with 20% garnet porphyroblasts. 10% Grunerite alteration. 5 to 50% quartz flooding. Minor 1 to 3 cm carbonate stringers locally. Trace to 4% pyrrhotite as wispy stringers and coarse grained blebs and stringers. Trace to chalcopyrite stringers. Rare arsenopyrite. Fold axial plane are at 33 to 35 and 45 dca. Box folds at 264.5 with axial plane at 45 dca. Lower contact is sharp at 32 dca. GEOLOG DATA:. Alteration:. 10% grunerite, 15% garnet, 5 to 50% silicification, 0% carbonatization, 1%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite. Mineralization:. 1 to 4% pyrrhotite, 8 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, trace chalcopyrite. Veining and fracture coatings:. Trace manganese on fractures, 0 to 30% quartz, trace to 5% quartz-carbonate, trace calcite on hairline fractures. 252.97 254.45 4ea, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 20% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 254.45 257.00 Mineralized MINERALIZED ZONE with 2 specks VISIBLE GOLD, 2 to 4% pyrrhotite, trace arsenopyrite, trace manganese, 10% grunerite, 20% garnet, 20 to 40% quartz flooding, 1-2% chlorite, up to 10% quartz vein, trace biotite. LAB CHECK SAMPLES:. E56800 STANDARD I 6.89. E56801 BLANK 0.10. E56810 DUPLICATE OF E56809 27.43 28.35 NS. E56818 STANDARD I 7.65 7.81 ns. E56819 DUPLICATE 0.07 ns ns. E56830 DUPLICATE OF E56829 7.61 NS NS. 254.45 255.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 30% quartz flooding, 0% carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 255.00 256.00 4ea, 2 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 5% grunerite, 30% garnet, 40% quartz flooding, 0% carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 0% sericite, > 1% biotite, 5% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 256.00 257.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 30% garnet, 30% quartz flooding, 0% carbonatization, 10% chlorite, 0% ankerite, 0% epidote, 0% sericite, > 1% biotite, 10% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 257.00 258.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% grunerite, 20% garnet, 10% quartz flooding, 0% carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 30% quartz vein, trace quartz-calcite stringer, trace calcite vein on hairline fractures. 258.00 259.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 30% garnet, 10% quartz flooding, 0% carbonatization, > 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 1% quartz-calcite stringer, trace calcite vein. 259.00 260.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 5% quartz flooding, 0% carbonatization, > 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			> 1% quartz-calcite stringer, trace calcite vein. 260.00 261.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% grunerite, 25% garnet, > 1% quartz flooding, 0% carbonatization, > 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, > 1% quartz vein, 3% quartz-calcite stringer, trace calcite vein. 261.00 262.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 5% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, trace epidote on fractures, 0% sericite, > 1% biotite, 0% quartz vein, 1% quartz-calcite stringer, trace calcite vein. 262.00 262.90 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 1% quartz flooding, 0% carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 0% sericite, 1% biotite, 0% quartz vein, > 1% quartz-calcite stringer, trace calcite vein. 262.90 263.90 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 25% garnet, 5% quartz flooding, 0% carbonatization, 2% chlorite, 0% ankerite, TR% epidote on fractures, 0% sericite, > 1% biotite, 5% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 263.90 264.40 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 5% quartz flooding, 0% carbonatization, 5% chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 5% quartz vein, trace quartz-calcite stringer, trace calcite vein hairline fractures. 264.40 265.40 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% grunerite, 20% garnet, 1% quartz flooding, 0% carbonatization, 3% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 2% quartz-calcite stringer, trace calcite vein. 265.40 266.40 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 5% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, trace epidote, 0% sericite, trace biotite, 1% quartz vein, 0.5% quartz-calcite stringer, trace calcite vein. 266.40 267.50 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% grunerite, 30% garnet, 0% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0.5% quartz-calcite stringer, trace calcite vein. 267.50 268.20 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 20% garnet, 5% quartz flooding, 0% carbonatization, > 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 10% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 268.20 269.20 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 25% garnet, 20% quartz flooding, 0% carbonatization, 5% chlorite, 0% ankerite, trace epidote, 0% sericite, 0% biotite, 10% quartz vein, 1% quartz-calcite stringer, trace calcite vein. 269.20 269.80 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 10% garnet, 2% quartz flooding, 0% carbonatization, > 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 2% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 269.80 270.40 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 20% garnet, 2% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, trace epidote, 0% sericite, 0% biotite, 2% quartz								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			vein, 0% quartz-calcite stringer, trace calcite vein. 270.40 271.40 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% grunerite, 25% garnet, 0% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 1% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 271.40 272.60 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 15% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, trace epidote, 0% sericite, 0% biotite, 2% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 272.60 273.60 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 30% garnet, 15% quartz flooding, 0% carbonatization, 3% chlorite, 0% ankerite, trace epidote, 0% sericite, 1% biotite, 5% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 273.60 274.60 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 5% grunerite, 30% garnet, 10% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, trace sericite, 0% biotite, 10% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 274.60 275.40 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 20% garnet, 5% quartz flooding, 0% carbonatization, 2% chlorite, 0% ankerite, trace epidote, 0% sericite, 0% biotite, 0% quartz vein, 1% quartz-calcite stringer, trace calcite vein. 275.40 276.40 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 4% quartz flooding, 0% carbonatization, 4% chlorite, 0% ankerite, trace epidote, 0% sericite, 0% biotite, 2% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 276.40 277.10 4ea, 4 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, trace chalcopyrite, 3% grunerite, 20% garnet, 20% quartz flooding, 0% carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 2% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 277.10 278.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 5% garnet, 5% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 3% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 278.00 279.00 4ea, 1 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite,, 15% grunerite, 15% garnet, 10% quartz flooding, 0% carbonatization, > 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 3% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 279.00 280.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 15% garnet, 5% quartz flooding, 0% carbonatization, 5% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 10% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 280.00 280.80 4ea, 2 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% grunerite, 5% garnet, 35% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 5% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 280.80 282.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 15% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 1% biotite,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			2% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 282.00 283.00 4ea, 2 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% grunerite, 10% garnet, 25% quartz flooding, 0% carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 0% sericite, 5% biotite, 3% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 283.00 284.35 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 8% grunerite, 20% garnet, 40% quartz flooding, 0% carbonatization, 1% chlorite on fractures, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 5% quartz vein, 3% quartz-calcite stringer, trace calcite vein.								
284.35	287.90	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Grey-green. Non-magnetic. Homogeneous, equigranular texture. Well foliated at 25 to 30 dca. 1% Quartz-carbonate stringers parallel to foliation. Lower contact is sharp at 17 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 5% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 2% biotite. Mineralization:. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite Veining and fracture coatings:. 0% quartz, 5% quartz-carbonate, 2% calcite. 284.35 285.35 BVOL, minor chlorite, massive, 1% garnet locally.								
287.90	313.30	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine to coarse grained. Green, grey and pink. Weakly magnetic. Hard. Contains 95% 1 to 3 cm ea-beds with 15% garnet porphyroblasts and 5% e-beds with 20% garnet porphyroblasts. Trace 4b beds and up to 1% BVOL beds locally. 5% Grunerite alteration. 5 to 35% quartz flooding. Minor 1 to 3 cm carbonate stringers locally. Trace to 4% pyrrhotite as wispy stringers and coarse grained blebs and stringers. Trace to chalcopyrite stringers. Rare arsenopyrite. Lower contact is gradual at 40 dca. GEOLOG DATA:. Alteration:. 5 to 10% grunerite, 20 to 30% garnet, 5 to 35% silicification, 0% carbonatization, trace to 1% chlorite, 0% ankerite, trace epidote, 0% sericite, trace to 8% biotite. Mineralization:. Trace to 5% pyrrhotite, 13 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			trace chalcopyrite. Veining and fracture coatings:. Trace quartz, trace quartz-carbonate, trace calcite. 287.90 288.70 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% grunerite, 10% garnet, 0% quartz flooding, 0% carbonatization, > 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 1% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 288.70 290.00 4ea, 1 speck VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% grunerite, 20% garnet, 10% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 290.00 Slickensides on fractures planes. 290.00 291.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% grunerite, 10% garnet, 5% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 291.00 292.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% grunerite, 8% garnet, 4% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 5% quartz vein, 1% quartz-calcite stringer, trace calcite vein. 292.00 293.10 68% BVOL and 32% 4ef:, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% grunerite, 3% garnet, 0% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 4% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 293.10 294.50 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% grunerite, 7% garnet, 5% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, > 1% biotite, 1% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 294.50 298.00 Mineralized zone. 294.50 295.40 4ea, 7 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, trace chalcopyrite, 5% grunerite, 10% garnet, 35% quartz flooding, 0% carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 4% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 295.40 296.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% grunerite, 8% garnet, 1% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 1% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 296.00 296.83 4ea, 4 specks VISIBLE GOLD associated with chalcopyrite stringers, 0% pyrite, trace arsenopyrite, trace chalcopyrite, 1% grunerite, 10% garnet, 20% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 10% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 296.83 298.00 4ea, 1 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 1% grunerite, 10% garnet, 15% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 0% quartz vein, 4% quartz-calcite stringer, trace calcite vein. 298.00 299.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			chalcopyrite, 5% grunerite, 10% garnet, 15% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 3% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 299.00 300.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 30% garnet, 3% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 2% quartz-calcite stringer, trace calcite vein. 300.00 301.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 3% grunerite, 20% garnet, 20% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 3% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 301.00 301.50 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% grunerite, 15% garnet, 15% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 301.50 302.30 BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 1% garnet, 0% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 302.30 303.30 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 15% garnet, 10% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 1% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 303.30 306.70 Mineralized zone. 303.30 304.40 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 30% garnet, 5% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, trace epidote, 0% sericite, 0% biotite, 1% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 304.40 305.80 4ea, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, trace chalcopyrite, 10% grunerite, 20% garnet, 30% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 20% quartz vein, 3% quartz-calcite stringer, trace calcite vein. 305.80 306.70 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite stringers, 3% grunerite, 10% garnet, 5% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, trace epidote, 0% sericite, 7% biotite, 10% quartz vein, 1% quartz-calcite stringer, trace calcite vein. 306.70 308.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 10% garnet, 10% quartz flooding, 0% carbonatization, TR% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 7% quartz vein, > 1% quartz-calcite stringer, trace calcite vein. 308.00 309.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 7% grunerite, 20% garnet, 10% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 2% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 309.00 310.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 20% garnet, 5% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 5% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			310.00 311.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 20% garnet, 10% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 5% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 310.60 313.30 Grunerite alteration is only patchy, over 10;30 cm. LAB CHECK SAMPLES:. E56842 STANDARD I 7.20. E56843 BLANK 0.07. E56850 DUPLICATE OF E56849 1.06 NS NS. E56863 STANDARD I 7.89 7.37. E56864 BLANK 0.10. 311.00 312.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 20% garnet, 5% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 7% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 312.00 313.30 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 20% garnet, 5% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 7% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein.								
313.30	315.65	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Grey-green. Non-magnetic. Homogeneous, equigranular texture. Well foliated at 44 dca. 1% Quartz-carbonate stringers parallel to foliation. Lower contact is sharp at 40 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, trace carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite. Mineralization:. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite Veining and fracture coatings:. 0% quartz, 5% quartz-carbonate, 2% calcite.								
315.65	318.30	4F	GARNET-BIOTITE SCHIST 4f. Fine to medium grained. Brown and pink. Non-magnetic. Porphyroblastic texture. Moderately well developed bedding and foliation at 26 dca. Fractures are perpendicular and parallel to foliation. Grunerite alteration is patchy over 10;30 cm bands.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact is sharp at 45 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 20% garnet, 25% silicification, 0% carbonatization, TR% chlorite, 0% ankerite, 0% epidote, 0% sericite, 20% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, 0% calcite. 315.65 317.00 4f, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace grunerite, 25% garnet, 2% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 20% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 317.00 318.30 4f, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace grunerite, 25% garnet, 0% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 20% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein.								
318.30	322.25	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine to coarse grained. Green, grey and pink. Weakly magnetic. Hard. Contains 80% 1 to 3 cm ea-beds with 15% garnet porphyroblasts and 15% e-beds with 20% garnet porphyroblasts. Trace 4b beds locally. Poorly developed bedding. Quartz flooding overprints bedding fabric. 318.30 319.50 4ea, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 5% grunerite, 25% garnet, 10% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 5% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 319.50 322.50 Mineralized zone. Pyrrhotite occurs as coarse grained blebs and stringers. Arsenopyrite occurs as fine grained needles. Chalcopyrite occurs as fine grained stringers. Lower contact is sharp at 35 dca. Fractures are rare generally at 30 dca. GEOLOG DATA:. Alteration:. Trace grunerite, 10% garnet, 30% silicification, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite. Mineralization:. Trace to 4% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, trace chalcopyrite. Veining and fracture coatings:. 1 to 30% quartz, trace quartz-carbonate, trace calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			LAB CHECK SAMPLES:. E56870 DUPLICATE OF E56869 3.98 4.25. 319.50 320.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0.5% arsenopyrite, trace chalcopyrite, 2% grunerite, 1% garnet, 60% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 1% biotite, 1% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 320.00 321.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 0% grunerite, 5% garnet, 5% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 5% biotite, 30% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 321.00 322.25 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0.5 arsenopyrite, trace chalcopyrite stringers, 0% grunerite, 30% garnet, 5% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, trace sericite, 1% biotite, 10% quartz vein, 0% quartz-calcite stringer, 0% calcite vein.								
322.25	334.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Grey-green and brown. Non-magnetic. Moderately soft. Moderately foliated at 30 to 44 calcite. Minor phlogopite alteration as thin wispy lenses in the matrix. Patchy alteration to phlogopite and chlorite. 5% Quartz-carbonate stringers parallel to foliation throughout up to 20 cm in width. Trace to nil sulphides. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 2% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, trace sericite, 2% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 0% quartz, 5% quartz-carbonate, trace calcite. 322.25 323.25 4ea, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, trace chalcopyrite, 0% grunerite, 0% garnet, 0% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, trace sericite, 0% biotite, 30% quartz vein, trace quartz-calcite stringer, trace calcite vein.								
334.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ontario. Samples analysed at Chemex.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			And Xral Labs Inc. 30 gram sample fire assay with gravimetric finish. Sludge samples taken from 17.9 to 334.0. Samples stored at Musselwhite camp. ----------. DRILLING HISTORY:. In first attempt to establish collar (-60.5), overburden was drilled to 19.2m and Tricone bit sheared off at 12.19m (HOLE 506-655). Collar was flattened to -59.5 deg. And redone successfully. 0.0 18.3 TRICONE bit. 18.3m NW casing. 18.3 ### MX10 bit, double hex core barrel. Hole cemented 6 hours and 65 - 20kg bags of Type 50 cement. Casing pulled. ----------. SURVEY HISTORY:. Acid tests and rotodip surveys used to 189m. Sperry Sun single shot camera with I.O.L. (low point indicator) used for dips. From 150m to E.O.H. DIP TESTS. M DIP SURVEY. 18.3 -60 ACID. 18.3 -60.25 ROTODIP. 22.0 -60 ROTODIP. 31.0 -60 ROTODIP. 37.0 -60 ACID. 37.0 -60 ROTODIP. 57.0 -60 ACID. 57.0 -60 ROTODIP. 69.0 -60 ROTODIP. 81.0 -59.5 ROTODIP. 99.0 -59 ACID. 99.0 -59 ROTODIP. 111.0 -58.5 ROTODIP. 117.0 -59 ACID. 123.0 -58 ROTODIP. 129.0 -57.5 ROTODIP. 135.0 -58.5 ACID. 141.0 -57 ROTODIP. 150.0 -57 SPERRY SUN - IOL. 153.0 -58 ACID. 153.0 -57 ROTODIP. 165.0 -57 ROTODIP. 171.0 -58 ACID. 183.0 -57 ROTODIP. 189.0 -58 ACID.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			195.0 -56.5 ROTODIP. 204.0 -54 ROTODIP -BAD READING. 216.0 -56.5 ROTODIP. 223.0 -56.5 SPERRY SUN - IOL. 228.0 -55.5 ROTODIP. 249.0 -55 ROTODIP. 250.0 -55 SPERRY SUN - IOL. 261.0 -55 ROTODIP. 270.0 -54 SPERRY SUN - IOL. 273.0 -54.5 ROTODIP. 279.0 -55 ROTODIP. 285.0 -54 ROTODIP. 295.0 -54 ROTODIP. 304.0 -53 SPERRY SUN - IOL. Light Log Survey conducted by Pat Lindsay. Survey took 2 hours. Survey data used for Code 2 azimuth and dip tests. Drill hole collar co-ordinates, azimuth and water elevation surveyed by D. Villeneuve, Dona Lake Mine, Pickle Lake, Ontario.								

Date: 29 Mar, 1994 PLACER DOME CANADA LIMITED

DRILL HOLE RECORD

Northing: 10250.000
Easting: 8959.500
Elevation: 5302.520

Collar Azi.: 228.00
Collar Dip: -60.75

Hole Length: 39.00
Completed: AUG 2, 1993
Drilled by:
Logged by: DENISE INGS
Purpose: TO INTERSECT C and T ZONES ABOVE 506-630. HOLE ABANDONED IN OVAUG 3, 1993

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529497
132 m south,70 m east to post 2 of Pa529497

Drill Hole: 506-657
Northing: 10250N
Easting: 8959.5E
Survey: NO
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: AUG 1, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
37.0		-57.0									

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
.00	24.38	OB	OVERBURDEN OB.								
24.38	39.00	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained. Light grey. Non-magnetic. Well banded at 30 dca. Weak sericite alteration. Potassic alteration locally. Core is extremely blocky to rubble. Core recovery is poor at the top. 50;70%. See geotechnical log. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0 to 20% silicification, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 1% sericite, trace biotite. Mineralization:. 0% pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 1 to 5% quartz, 0% quartz-carbonate, 0% calcite. 31.20 33.40 20% silicification, 2% sericite, trace pyrite. 338.20 10 cm quartz vein with trace coarse grained pyrite blebs. Trace chlorite and sericite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
39.00		AVOL	END OF HOLE ----------. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. ----------. DRILLING HISTORY:. In first attempt to establish collar (-60.5), hole flattened to -57 in overburden. Hole was abandoned at 39 metres. Collar was steepened to -64 degrees and redone. New hole called 506-658. 0.0 24.38 TRICONE bit. 24.38 39.00 Worn MX10 bit, 20 foot fluted core barrel.								

DRILL HOLE RECORD

Northing: 10248.520
Easting: 8959.610
Elevation: 5302.467

Collar Azi.: 228.65
Collar Dip: -63.46

Hole Length: 361.40
Completed: AUG 7, 1993
Drilled by:
Logged by: DENISE INGS
Purpose: TO INTERSECT C and T ZONES ON SECTION 10250N.

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529497 (322.4m),Pa529500 (39m)
132 m south,71 m east to post 2 Pa529497
Date(s) Logged: AUG 2 - 8, 1993

Drill Hole: 506-658

Northing: 10250N
Easting: 8959.5E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: AUG 2, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
3.1	228.6	-63.3	95.8	229.3	-60.4	188.4	227.1	-58.8	281.1	225.3	-56.7
6.2	228.8	-63.3	98.8	229.3	-60.4	191.5	227.1	-58.7	284.2	225.1	-56.7
9.3	229.0	-63.0	101.9	229.2	-60.3	194.6	227.1	-58.6	287.3	225.0	-56.6
12.4	229.6	-62.8	105.0	229.2	-60.2	197.7	227.1	-58.5	290.4	225.0	-56.6
15.4	230.2	-62.5	108.1	229.1	-60.2	200.8	227.1	-58.5	293.4	224.9	-56.5
18.5	230.4	-62.4	111.2	229.1	-60.2	203.9	227.0	-58.4	296.5	224.9	-56.5
21.6	230.4	-62.2	114.3	229.1	-60.2	207.0	227.0	-58.3	299.6	224.7	-56.4
24.7	230.4	-62.1	117.4	229.1	-60.1	210.0	226.8	-58.3	302.7	224.7	-56.4
27.8	230.5	-62.0	120.5	228.9	-60.1	213.1	226.7	-58.2	305.8	224.7	-56.3
30.9	230.5	-61.9	123.6	228.8	-60.1	216.2	226.6	-58.1	308.9	224.7	-56.2
34.0	230.5	-61.9	126.6	228.8	-60.0	219.3	226.4	-58.1	312.0	224.7	-56.2
37.1	230.5	-61.8	129.7	228.6	-60.0	222.4	226.3	-58.0	315.1	224.7	-56.1
40.2	230.4	-61.7	132.8	228.5	-59.9	225.5	226.3	-57.9	318.2	224.7	-56.1
43.2	230.4	-61.6	135.9	228.3	-59.8	228.6	226.2	-57.8	321.2	224.6	-56.0
46.3	230.2	-61.6	139.0	228.3	-59.7	231.7	226.2	-57.8	324.3	224.5	-56.0
49.4	230.2	-61.6	142.1	228.2	-59.7	234.8	226.0	-57.7	327.4	224.5	-55.9
52.5	230.2	-61.4	145.2	228.1	-59.6	237.8	226.0	-57.6	330.5	224.5	-55.8
55.6	230.2	-61.3	148.3	228.1	-59.5	240.9	225.9	-57.6	333.6	224.4	-55.7
58.7	230.2	-61.2	151.4	227.9	-59.5	244.0	225.9	-57.5	336.7	224.4	-55.7
61.8	230.2	-61.1	154.4	227.9	-59.4	247.1	225.8	-57.4	339.8	224.4	-55.7
64.9	230.2	-61.1	157.5	227.8	-59.3	250.2	225.8	-57.4	342.9	224.4	-55.7
68.0	230.1	-61.1	160.6	227.8	-59.3	253.3	225.8	-57.3	346.0	224.4	-55.7
71.0	230.1	-60.9	163.7	227.6	-59.2	256.4	225.8	-57.3	349.0	224.4	-55.6
74.1	229.9	-60.9	166.8	227.5	-59.1	259.5	225.6	-57.2	352.1	224.2	-55.6
77.2	229.9	-60.8	169.9	227.4	-59.0	262.6	225.6	-57.1	355.2	224.2	-55.5
80.1	229.8	-60.7	173.0	227.4	-59.0	265.6	225.6	-57.1	358.3	224.2	-55.5
83.4	229.6	-60.7	176.1	227.4	-59.0	268.7	225.6	-57.0	361.4	224.2	-55.5
86.5	229.6	-60.6	179.2	227.2	-58.9	271.8	225.6	-56.9			
89.6	229.5	-60.5	182.2	227.2	-58.8	274.9	225.5	-56.9			
92.7	229.3	-60.4	185.3	227.1	-58.8	278.0	225.4	-56.8			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Ausv g/t

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Samples E56874-E56993 inclusive. NOTE: All references to folding - both right and left limb - are looking up plunge of the deposit (ie. South). The same as the strip log. For detailed structural data see attached STRIP LOG.								
.00	32.70	OB	OVERBURDEN OB.								
32.70	169.35	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Probable bedded felsic crystal-ash tuffs. Fine grained. Light grey. Non-magnetic. Rare 1 to 2 mm quartz blebs and euhedral quartz eyes locally and 1 to 5% feldspar phenocrysts. Rare 1 to 3 mm ragged garnet porphyroblasts locally flattened parallel to foliation. Well bedded or flow banded, 25 to 32 calcite. Predominant fractures parallel (25-32) or perpendicular (45-52) to bedding. Another set at 63 dca. Weak to moderate sericite alteration (8 to 10%). Minor biotite alteration (3-5%). Sericite alteration typically occurs in 0.5-2cm wide bands parallel to foliation. Up to 5% pervasive carbonatization locally. Feldspar phenocrysts are altered to calcite. Trace black accicular amphibole needles locally. Calcite fracture-filling minor hairline fractures at 45 to 52 dca locally. Local potassic staining generally associated with calcite fracture-filling. Trace to 1% fracture-filling pyrrhotite and pyrite throughout, commonly disseminated, locally in 1 to 3 mm stringers. Pyrite stringers commonly are surrounded by a sericite alteration halo. Less than 1% quartz and quartz-calcite veins. Veins are generally 0.3 to 2 cm wide and are oriented parallel to foliation. Trace pyrite with carbonate on fractures. Rare 2 to 5 cm quartz veins with 10 to 20% coarse grained flakes of muscovite crosscutting the foliation. Sericite alteration halos around the veins. Lower contact is sharp at 55 calcite. GEOLOG DATA:. Alteration:. 0% Grunerite, trace garnet, trace to 5% silicification, trace to 5% carbonatization, trace chlorite, trace ankerite, 0% epidote, 8 to 10% sericite, 3 to 5% biotite. Mineralization:. 0% pyrrhotite, 0 specks VISIBLE GOLD, trace to 1% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. Trace quartz vein, 0% quartz-carbonate, trace calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			32.70 39.50 Very blocky core. 43.00 44.00 20% sericite alteration, 1% biotite, trace pyrite. 5 cm quartz pyrrhotite vein at 43.7 magnetites parallel to foliation. 1% coarse grained fracture-filling pyrite. Trace chlorite in vein. 43.00 44.00 AVOL, 0 specks VISIBLE GOLD, 1% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 0% garnet, 5% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 10% sericite, trace biotite, 5% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 51.40 52.40 AVOL, 0 specks VISIBLE GOLD, 2% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, trace garnet, 3% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 8% sericite, trace biotite, 3% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 62.50 86.25 Felsic volcanics appear more massive and may be a flow. Very weak sericite alteration. Foliation and bedding are less well developed. 64.00 64.70 40% potassic alteration as halos on carbonate stringers and as 20 cm bands of pervasive alteration about moderately carbonatized AVOL. 86.70 86.80 10 cm quartz-carbonate vein parallel to foliation. Trace fine grained pyrrhotite. Sericite alteration halo. 89.80 90.90 Core shattered in core tube. 101.40 5 cm diameter blob of quartz vein with 5% coarse grained pyrrhotite and pyrite blebs and stringers. 107.10 Tight isoclinally folded 2 mm quartz stringer. Axial plane at 35 dca. 107.60 2 cm quartz vein with 1% fine grained disseminated pyrite. 109.70 110.20 MINERALIZED ZONE of bleach core. 113.55 113.80 Quartz-calcite-chlorite stringer parallel to foliation. 118.35 118.75 Quartz carbonate sericite chlorite veins parallel to foliation. 118.80 122.00 M-type fold with axial plane at 40 to 42 dca. 30% sericite. Strong foliation at 42 dca. 123.50 124.00 Trace to 1% pyrrhotite and pyrite as coarse grained blebs and fine grained disseminated wisps. 127.80 129.00 Well developed bedding at 36 dca. 128.35 10 cm quartz sericite pyrrhotite vein parallel to foliation. 136.50 136.85 Quartz-calcite stringer. Trace pyrite. Trace sericite in vein. 149.80 M-type fold of quartz vein with axial plane at 37 dca. 152.00 162.10 Minor sedimentary component in the felsic tuffs. Moderate alteration to 5 to 20% garnet, 3% biotite up to 10% staurolite locally and 5% chlorite, trace calcite in hairline fractures. Garnet commonly have augen shaped halos of silica. Trace fine grained pale pinkish crystals in quartz flooding bands with garnet and staurolite. Possible andalusite. Minor 5 cm chlorite rich bands locally. Bands are parallel foliation. Trace fine grained disseminated pyrite. Locally weakly magnetic. Probably sedimentary interbeds in the tuffs. Bedding and foliation at 42 to 52 dca. 164.00 167.90 1% calcite fracture-filling of hairline fractures. Trace to 1% fine grained disseminated pyrite and pyrrhotite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. Alteration:. 0% grunerite, 5% garnet, 10% silicification, 0% carbonatization, 5% chlorite, 0% ankerite, 0% epidote, trace sericite, 3% biotite. Mineralization:. 0% pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. Trace quartz, trace quartz-carbonate, trace calcite.								
169.35	197.70	GTB	GARNETIFEROUS BASALT GTB. Fine grained, well foliated matrix with 30% pink garnet porphyroblasts and 5% honey yellowish brown staurolite porphyroblasts. Garnets are generally 1 to 5 mm in diameter and subhedral to ragged. Staurolite porphyroblasts are evenly disseminated subhedral crystals 0.5 to 1 mm in size. Grey to brown, locally green. Non-magnetic. There is a suggestion of bedding from thin .5 cm chlorite rich bands / beds, and more silica rich beds. Moderately to well foliated at 47 calcite. Lower contact is sharp at 52 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 30% garnet, 0% silicification, 0% carbonatization, 2% chlorite, 0% ankerite, trace epidote, trace sericite, 15% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. Trace quartz, trace quartz-carbonate, trace calcite. 181.90 Fine compositional banding at 52 dca. Possible bedding. 183.30 184.30 GTB, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% grunerite, 30% garnet, 1% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 183.80 184.00 Epidote rich vein parallel to foliation. 183.90 2.00 Cm seam of massive fine grained pyrrhotite parallel to foliation. 185.00 185.10 And 185.2 185.3 quartz vein parallel to foliation. 191.17 193.30 BVOL 5% pervasive carbonatization. 2% biotite. 2% sericite. 10% quartz veining. Very finely banded. 193.30 193.70 20% staurolite. 195.50 195.75 BVOL grey-green. Fine grained. 2% garnet. Trace hairline calcite fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
197.70	202.45	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Light grey-green. Non-magnetic. Intermediate in composition. Equigranular, homogeneous textured. Moderately to weakly developed foliation at 42 dca. Predominant fracture set is perpendicular to foliation. Fractures also commonly parallel to foliation. Minor biotite locally concordant in bands. Trace to 1% calcite stringers up to 2 cm in width. Lower contact is sharp at 60 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, trace carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace to 1% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. Trace quartz, trace quartz-carbonate, trace calcite.								
202.45	205.55	24EF	INTRAFORMATIONAL IRON FORMATION 2-4ef. Fine grained. Well foliated matrix with 30% pink garnet porphyroblasts and 5% honey yellowish brown staurolite porphyroblasts. Garnets are generally 1 to 5 mm in diameter and subhedral to ragged. Staurolite porphyroblasts are evenly disseminated subhedral crystals 0.5 to 1 mm in size. Brown matrix locally green. Non-magnetic. Well bedded at 47 dca. Moderately to well foliated at 47 calcite. 5% Grunerite alteration occurs in 10 cm wide band parallel to foliation. 3% pyrrhotite also in these bands. Minor fold with axial plane at 15 dca at 204.6. GEOLOG DATA:. Alteration:. 1% grunerite, 30% garnet, 5% silicification, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, trace sericite, 10% biotite. Mineralization:. Trace to 1% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 1% quartz, 0% quartz-carbonate, trace calcite. LAB CHECK SAMPLES:. E56877 STANDARD I 7.03 7.68.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			E56878 BLANK 0.07. 202.45 203.45 2-4ef, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 30% garnet, trace quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, trace quartz vein, trace quartz-calcite stringer, trace calcite vein. 203.45 204.25 2-4ef, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% grunerite, 30% garnet, 0% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 204.25 205.55 2-4ef, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% grunerite, 30% garnet, 8% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, trace to 1% sericite, 1% biotite, 3% quartz vein, 0% quartz-calcite stringer, trace calcite vein.								
205.55	234.84	BVOL	INTERMEDIATE TO MAFIC VOLCANICS WITH MINOR INTRAFORMATIONAL IRON FORMATION BVOL with minor intraformational Iron Formation. Fine grained. Massive. Grey-green. Equigranular. Well foliated at 33 dca. Fractures are commonly at 54 dca. 2% Calcite stringers as fracture-filling. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 2% carbonatization, trace chlorite, 0% ankerite, 0% epidote, trace sericite, trace biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, trace chalcopyrite on fractures. Veining and fracture coatings:. 0% Quartz, trace quartz-carbonate, 2% calcite. 205.55 206.55 BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 0% garnet, 0% quartz flooding, 3% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 5% biotite, trace quartz vein, trace quartz-calcite stringer, 2% calcite vein. 206.55 207.26 BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 0% garnet, 0% quartz flooding, 3% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 5% biotite, trace quartz vein, trace quartz-calcite stringer, 2% calcite vein. 207.26 207.29 GTB similar to above. 30% Garnet porphyroblasts 0.5 to 2.0 cm diameter in FELSIC TO INTERMEDIATE VOLCANICS brown biotite rich (15%) matrix. 207.26 207.79 GTB, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 30% garnet, 0% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 207.79 208.75 BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			chalcopyrite, 0% grunerite, 0% garnet, 1% quartz flooding, 2% carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 0% sericite, 5% biotite, 0% quartz vein, 4% quartz-calcite stringer, trace calcite vein. 208.75 209.50 20% garnet porphyroblasts, trace grunerite, 3 mm pyrrhotite seam at upper contact. 208.75 209.50 2-4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% grunerite, 10% garnet, 5% quartz flooding, trace carbonatization, 3% chlorite, 0% ankerite, 0% epidote, 0% sericite, 10% biotite, 0% quartz vein, 2% quartz-calcite stringer, trace calcite vein. 209.50 210.60 BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 0% garnet, 10% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 1% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 210.42 210.60 10% boudinaged quartz veins. 210.60 211.63 2-4ea, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite crystals, trace chalcopyrite stringers, 5% grunerite, 30% garnet, 5% quartz flooding, > 1% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 5% quartz vein, 10% quartz-calcite stringer, trace calcite vein. 211.63 212.63 BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 0% garnet, 0% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, trace quartz-calcite stringer, trace calcite vein. 215.00 215.36 Quartz carbonate K-feldspar veins crosscutting foliation at aproximately 26 dca. 218.65 218.80 Quartz carbonate K-feldspar veins crosscutting foliation. 225.17 225.55 2-4be locally strongly magnetic. Magnetic susceptibility 103. 1% wispy pyrrhotite stringers. 30% quartz veining. 1% carbonate stringers on hairline fractures, trace chalcopyrite stringers. Absolutely dead BVOL on either side. LAB CHECK SAMPLES:. E56890 DUPLICATE OF E56889 0.07. 225.17 225.55 2-4 OR ALT BVOL?, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 0% grunerite, 10% garnet, 10% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 30% quartz vein, 0% quartz-calcite stringer, 2% calcite vein. 233.84 234.84 BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 0% garnet, 0% quartz flooding, 10% carbonatization, 5% chlorite, 0% ankerite, 0% epidote, 0% sericite, 5% biotite, 0% quartz vein, 2% quartz-calcite stringer, trace calcite vein.								
234.84	237.10	24EA	INTRAFORMATIONAL IRON FORMATION 2-4ea Or altered BVOL?. Very inhomogenous MINERALIZED ZONE of quartz flooding with 10 to 40% 0.5 to 3 cm subhedral garnet porphyroblasts.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Bedding is poorly developed to absent. Contacts are irregular (not folded). 10% Carbonatization locally. Minor chlorite. 2 to 3% pyrrhotite throughout. Non-magnetic to weakly magnetic. Magnetic susceptibility 40.8 to 184. Sericite occurs as fine grained felty matrix of coarse grained garnet porphyroblasts. Concentrated in 10 cm bands. GEOLOG DATA:. Alteration:. 1 to 2% grunerite, 10% garnet, 30% silicification, 7% carbonatization, 3% chlorite, 0% ankerite, 0% epidote, 8% sericite, trace biotite. Mineralization:. 2% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, TR% chalcopyrite. Veining and fracture coatings:. 12% quartz, 1% quartz-carbonate, 1% calcite. 234.84 235.84 2-4ea?, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% grunerite, 20% garnet, 20% quartz flooding, 5% carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 10% sericite, trace biotite, 15% quartz vein, 2% quartz-calcite stringer, trace calcite vein. 235.84 237.10 2-4ea?, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 2% grunerite, 2% garnet, 40% quartz flooding, 8% carbonatization, 3% chlorite, 0% ankerite, 0% epidote, 5% sericite, 0% biotite, 10% quartz vein, 0% quartz-calcite stringer, 2% calcite vein along hairline fractures.								
237.10	247.64	BVOL	INTERMEDIATE TO MAFIC VOLCANICS WITH INTRAFORMATIONAL IRON FORMATION Intermixed BVOL and 2-4e. Intermixed on > 1.5 medium scale. Finely laminae on mm scale. Chert beds up to 5 cm wide are non-magnetic and do not contact magnetite. Garnet porphyroblasts occur in BVOL beds. Fractures are generally at 55 to 58 dca. Right limb fold with axial plane at 21 to 28 dca. Pervasive carbonatization preferentially along specific beds approximately 1 cm in width. 237.10 238.40 Coring along folded contact of BVOL and 2-4. LAB CHECK SAMPLES:. E56903 STANDARD I 7.65 7.37. E56904 BLANK 0.07. 237.10 238.40 BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 0% garnet, 5% quartz flooding, 10% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 1% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 238.40 239.45 Intermixed BVOL and 2-4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			arsenopyrite, 0% chalcopyrite, 0% grunerite, 5% garnet, 5% quartz flooding, 5% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 0% quartz vein, 0% quartz-calcite stringer, 1% calcite vein. 239.45 240.45 2-4e, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 20% garnet, 0% quartz flooding, 0% carbonatization, > 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 4% quartz-calcite stringer, 1% calcite vein. 240.45 241.62 2-4e, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% grunerite, 20% garnet, 2% quartz flooding, 1% carbonatization, > 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 1% quartz vein, 1% quartz-calcite stringer, 2% calcite vein. 241.62 242.60 Bvol, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 1% garnet, 10% quartz flooding, 0% carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 2% sericite, 4% biotite, 0% quartz vein, 2% quartz-calcite stringer, 1% calcite vein. 242.60 243.60 BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 2% garnet, 2% quartz flooding, 5% carbonatization, 5% chlorite, 0% ankerite, 0% epidote, 0% sericite, 1% biotite, 0% quartz vein, 2% quartz-calcite stringer, 1% calcite vein. 243.60 244.05 2-4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 20% quartz flooding, 5% carbonatization, > 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0% quartz-calcite stringer, 1% calcite vein. 244.05 244.48 BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 0% garnet, 0% quartz flooding, 5% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 5% biotite, 0% quartz vein, 2% quartz-calcite stringer, 1% calcite vein. 244.48 244.97 2-4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 2% grunerite, 1% garnet, 70% quartz flooding, 10% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 5% sericite, TR% biotite, 2% quartz vein, 1% quartz-calcite stringer, 1% calcite vein. 244.97 246.39 BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 0% garnet, 0% quartz flooding, 10% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 8% biotite, 2% quartz vein, 4% quartz-calcite stringer, 1% calcite vein. 246.39 247.64 2-4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 5% grunerite, 20% garnet, 10% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 1% sericite, trace biotite, 4% quartz vein, 2% quartz-calcite stringer, 1% calcite vein.								
247.64	250.30	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Light grey green. Equigranular, homogeneous textured. Medium grained. Non-magnetic. Moderately well foliated at 20 dca. 250.00 Folds with axial plane at 32 dca. Fractures are at 40 and 61 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. Alteration:. 0% grunerite, 1% garnet, 0% silicification, 1% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 2% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, 2% calcite.								
250.30	251.33	BX Z	BRECCIA MINERALIZED ZONE BX Z - MARKER HORIZON. Coarse grained. Fragmental textured. BVOL. Magnetic susceptibility 7.81. Vein quartz in subrounded fragments and breccia veins. Sericite and chlorite along fractures in quartz veins. Matrix is locally pervasive carbonatized. GEOLOG DATA: see sample. 250.30 251.33 BX Z, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite stringers, 0% grunerite, 5% garnet, 15% quartz flooding, 5% carbonatization, 3% chlorite, 0% ankerite, 0% epidote, 3% sericite, 0% biotite, 20% quartz vein, 3% quartz-calcite stringer, 1% calcite vein.								
251.33	271.95	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Grey. Non-magnetic. Intermediate in composition. Equigranular, homogeneous textured. Moderately to weakly developed foliation at 38 dca. Predominant fracture set is perpendicular to foliation. Fractures also commonly parallel to foliation. Minor biotite locally concordant in bands. Trace to 1% calcite stringers up to 2 cm in width. Lower contact is sharp at 60 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, trace carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 3 biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite stringers. Veining and fracture coatings:. 0% quartz, 1% quartz-carbonate, 2% calcite. 251.33 252.30 BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 0% garnet, 0% quartz flooding, 5% carbonatization,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 5% biotite, 0% quartz vein, 0% quartz-calcite stringer, 10% calcite vein. 252.30 253.30 Altered BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite stringers, 0% grunerite, 0% garnet, 2% quartz flooding, 5% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 3% biotite, 1% quartz vein, 0% quartz-calcite stringer, 3% calcite vein. 253.90 255.10 5% 1 cm quartz veining along bedding planes at 6 dca. 1% quartz-calcite stringer. Trace pyrrhotite. 5% carbonatization. 5% pervasive carbonatization and 1% quartz-calcite stringer continue to 261.5 medium. 253.90 255.10 Altered BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 0% garnet, 0% quartz flooding, 5% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 5% quartz vein, 1% quartz-calcite stringer, trace calcite vein. 265.25 Breccia altered BVOL 5% biotite. 5% carbonatization. 8% carbonate stringers. 1% 3 mm garnet porphyroblasts. 1% sericite bands. 3% Quartz-carbonate stringers. Trace pyrrhotite. LAB CHECK SAMPLES:. E56910 DUPLICATE OF E56909 0.07. 265.25 266.50 Altered BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 1% garnet, 1% quartz flooding, 5% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 1% sericite, 5% biotite, 1% quartz vein, 5% quartz-calcite stringer, trace calcite vein. 266.50 267.60 Altered BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 5% garnet, 20% quartz flooding, 3% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 5% sericite, 0% biotite, 3% quartz vein, 0% quartz-calcite stringer, 3% calcite vein.								
271.95	276.00	24EA	INTRAFORMATIONAL IRON FORMATION 2-4ea. Fine to coarse grained. Green, grey and pink. Weakly magnetic. Hard. 2 to 5% grunerite alteration. 10 to 20% quartz flooding. Minor 1 to 3 cm carbonate stringers locally. Bedding is poorly developed at 30 dca. Rare folds with axial plane at 44 dca. Pyrrhotite occurs as thin wispy stringers up to 4%. Rare arsenopyrite crystals. Lower contact is sharp at 55 dca. GEOLOG DATA:. Alteration:. 2 to 5% grunerite, 10 to 20% garnet, 10 to 20% silicification, trace carbonatization, trace chlorite, 0% ankerite, 0% epidote, 1 to 3% sericite, 1% biotite. Mineralization:.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			1 to 4% pyrrhotite, 1 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 2 to 15% quartz, trace to 3% quartz-carbonate, 1 to 2% calcite. 271.95 273.37 2-4ea and BVOL, 56% BVOL in sample, 1 speck VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% grunerite, 5% garnet, 10% quartz flooding, 3% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 1% sericite, 3% biotite, 2% quartz vein, 4% quartz-calcite stringer, 1% calcite vein 273.37 274.00 2-4ea, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 2% grunerite, 20% garnet, 20% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 2% sericite, 0% biotite, 15% quartz vein, 3% quartz-calcite stringer, 1% calcite vein. 274.00 275.00 2-4ea, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 5% grunerite, 20% garnet, 15% quartz flooding, 1% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 3% sericite, 1% biotite, 2% quartz vein, 0% quartz-calcite stringer, 1% calcite vein. 275.00 276.00 2-4ea with 10% BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% grunerite, 10% garnet, 15% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 2% sericite, 1% biotite, 0% quartz vein, 0% quartz-calcite stringer, 2% calcite vein.								
276.00	287.34	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Generally fine grained. Grey-green. Non-magnetic. Homogeneous equigranular textured. Moderately foliated at 40 to 41 dca. 1 to 5% pervasive carbonatization. 1 to 2% carbonate and quartz-carbonate stringers. Fractures are perpendicular and parallel foliation. Lower contact is sharp at 33 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, trace to 5% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace to 15% biotite locally. Mineralization:. TR% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 0% quartz, 1% quartz-carbonate, 1% calcite. 276.00 276.65 Biotite rich with pervasive carbonatization and 5% carbonate and quartz-carbonate stringers. 276.00 276.65 BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, > 1% garnet, 0% quartz flooding, 10% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Ausv g/t
			0% quartz vein, 3% quartz-calcite stringer, 2% calcite vein. 285.63 287.34 Biotite altered BVOL. 10% biotite. 5% carbonatization. 10% quartz-carbonate stringers parallel to foliation. LAB CHECK SAMPLES:. E56920 STANDARD I 7.17 6.99. E56921 BLANK 0.24.								
287.34	314.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine to coarse grained. Green, grey and pink. Weakly magnetic. Hard. Contains 90% 1 to 3 cm ea-beds with 15% garnet porphyroblasts, 5% e-beds and 5% b-beds. Fold axial planes are at 40 to 53 and 27 dca. Fractures are generally perpendicular to bedding at 49 to 60 dca. VISIBLE GOLD has been observed within garnets, pyrrhotite, quartz flooded bands, and along edges of fine chlorite stringers. Lower contact is faulted with 10 cm of brecciated core with quartz veining. Approximate 15 dca. GEOLOG DATA:. Alteration:. 5 to 20% grunerite, 20 to 25% garnet, up to 30% silicification, 0% carbonatization, trace chlorite, 0% ankerite, trace epidote, 0% sericite, trace biotite. Mineralization:. Trace to 5% pyrrhotite, 115 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. Trace quartz, trace quartz-carbonate, trace calcite. 287.34 288.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 10% quartz flooding, 2% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, > 1% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 288.00 289.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 10% quartz flooding, 3% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 10% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 289.00 290.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 25% garnet, 10% quartz flooding, 0% carbonatization, > 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, > 1% biotite, 0% quartz vein, 2% quartz-calcite stringer, trace calcite vein. 290.00 291.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 20% garnet, 10% quartz flooding, trace carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			biotite, 0% quartz vein, 3% quartz-calcite stringer, trace calcite vein. 291.00 292.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 20% grunerite, 20% garnet, 10% quartz flooding, trace carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 0% quartz vein, 1% quartz-calcite stringer, trace calcite vein. 292.00 293.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 20% garnet, 5% quartz flooding, trace carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 293.00 294.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 20% garnet, 30% quartz flooding, trace carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 294.00 295.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 20% garnet, 2% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, trace quartz-calcite stringer, trace calcite vein. 295.00 296.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 20% garnet, 5% quartz flooding, trace carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 5% quartz vein, 1% quartz-calcite stringer, trace calcite vein. 296.00 297.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 15% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 297.00 298.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 10% garnet, 5% quartz flooding, 2% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, trace quartz-calcite stringer, trace calcite vein. 298.00 299.00 4ea, 25 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 10% garnet, 20% quartz flooding, trace carbonatization, 4% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 2% quartz-calcite stringer, trace calcite vein. 299.00 300.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 4% quartz flooding, 0% carbonatization, 4% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 300.00 301.10 4ea, 12 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 10% garnet, 50% quartz flooding, 0% carbonatization, 3% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 3% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 301.10 302.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 20% garnet, 7% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 2% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 302.00 302.90 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% grunerite, 20% garnet, 25% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 302.90 304.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 30% garnet, 5% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 1% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 304.00 305.40 4ea, 3 specks VISIBLE GOLD, trace pyrite, trace arsenopyrite, 0% chalcopyrite, 10% grunerite, 10% garnet, 30% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 305.40 306.40 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% grunerite, 30% garnet, 5% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 1% quartz-calcite stringer, 0% calcite vein. 306.20 Box folds with axial plane at 42 dca. 306.40 307.30 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% grunerite, 20% garnet, 1% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 1% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 307.00 Bedding is slightly irregular due to large scale folding, but axial planes hard to determine. LAB CHECK SAMPLES:. E56930 DUPLICATE OF E56929 0.48. E56943 STANDARD I 7.65 7.95. E56944 BLANK 0.03. E56950 DUPLICATE OF E56949 1.47. 307.30 308.00 4ea, 75 specks VISIBLE GOLD in fine grained clusters along fractures, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 15% garnet, 10% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, trace epidote, 0% sericite, trace biotite, 1% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 308.00 309.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% grunerite, 20% garnet, 5% quartz flooding, 0% carbonatization, trace chlorite fracture-filling, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 2% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 309.00 310.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% grunerite, 20% garnet, 7% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, trace epidote, 0% sericite, 0% biotite, 5% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 310.00 311.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 25% garnet, 7% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 3% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 311.00 312.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 25% garnet, 8% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 7% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			312.00 313.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 25% garnet, 5% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 8% biotite, 2% quartz vein, 1% quartz-calcite stringer, trace calcite vein. 313.00 314.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% grunerite, 20% garnet, 2% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 1% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein.								
314.00	317.63	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Grey. Non-magnetic. Homogeneous, equigranular textured. Well foliated at 32 dca. Fractures at 32 and 58 dca. Lower contact is sharp at 32 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 1% carbonatization locally, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 1% Quartz, trace quartz-carbonate, trace calcite.								
317.63	323.25	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine to coarse grained. Green, grey and pink. Weakly magnetic. Hard. Contains 90% 1 to 3 cm ea-beds with 15% garnet porphyroblasts, 5% e-beds and 5% b-beds. Fold axial plane is at 45 dca. Fractures are generally perpendicular to bedding at 48 dca. Rare fractures at 32 dca parallel to bedding. BVOL interbeds at 320.2 to 320.4, 320.75 to 321.0 and 321.4 to 321.6. GEOLOG DATA:. Alteration:. 5 to 15% grunerite, 20 to 30% garnet, 2 to 7% silicification, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite. Mineralization:. Trace to 2% pyrrhotite, 6 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite stringers. Veining and fracture coatings:.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Trace quartz, trace quartz-carbonate, trace calcite. 317.63 318.70 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 10% garnet, 2% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 1% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 318.70 319.70 4ea, 6 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 8% grunerite, 20% garnet, 7% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 2% quartz vein, 1% quartz-calcite stringer, trace calcite vein. 319.70 320.20 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 5% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 1% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 320.20 321.60 54% 4ea and 46% BVOL, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 2% grunerite, 10% garnet, 3% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 321.60 322.60 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 8% grunerite, 30% garnet, 3% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 322.60 323.25 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% grunerite, 30% garnet, 5% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 3% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein.								
323.25	326.50	4FB	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4fb. Fine to medium grained. Brown and pink spotted. Well foliated matrix. Bedding and foliation at 18 to 22 dca. Fractures and parallel to bedding. Trace fine grained disseminated blebs of pyrrhotite. Trace calcite fracture-filling of hairline fractures. Lower contact is sharp at 25 dca. GEOLOG DATA:. Alteration:. Up to 3% grunerite, 25 to 30% garnet, 5% silicification, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 15 to 20% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. Trace quartz, trace quartz-carbonate, trace calcite. E56960 STANDARD I 7.75.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			E56961 BLANK 0.34. 323.25 324.00 4fb, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% grunerite, 30% garnet, 1% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 1% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 324.00 325.00 4fb, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% grunerite, 30% garnet, 6% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 25% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 325.00 326.00 4fb, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 30% garnet, trace quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 20% biotite, 3% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 326.00 326.50 4fb, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% grunerite, 30% garnet, 0% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 20% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein.								
326.50	327.50	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Light grey. Fine grained. Non-magnetic. Homogeneous, equigranular textured. Trace thin wisps of biotite along foliation. Fractures are parallel to foliation at 32 dca. Lower contact is sharp at 18 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, 0% calcite.								
327.50	333.70	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine to coarse grained. Grey, green and pink mottled. Moderately to strongly magnetic. 25 to 30% 3 to 10 mm garnet porphyroblasts in FELSIC TO INTERMEDIATE VOLCANICS moderately well bedded matrix. Bedding / foliation is at 19 to 25 dca. Lower contact is sharp at 28 dca. GEOLOG DATA:. Alteration:.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			5 to 20% grunerite, 20 to 30% garnet, 5 to 7% silicification, 0% carbonatization, 1 to 20% chlorite, 0% ankerite, 0% epidote, 0% sericite, 3% biotite. Mineralization:. Trace to 2% pyrrhotite, 1 speck VISIBLE GOLD, trace pyrite, trace arsenopyrite, trace chalcopyrite. Veining and fracture coatings:. Trace quartz, trace quartz-carbonate, trace calcite. 327.50 328.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 30% garnet, trace quartz flooding, 0% carbonatization, trace chlorite on fractures, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein 328.00 329.00 4ea, 1 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, trace chalcopyrite stringers, 5% grunerite, 20% garnet, 5% quartz flooding, 0% carbonatization, trace chlorite on fractures, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 1% quartz vein, 0% quartz-calcite stringer, 0% calcite vein 329.00 330.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% grunerite, 20% garnet, 7% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, trace quartz-calcite stringer, 0% calcite vein. 330.00 331.00 4ea with 20 cm chlorite rich fault gouge, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 3% quartz flooding, 0% carbonatization, 20% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 3% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 330.05 330.40 Chlorite rich fault gouge at 26 dca to FELSIC TO INTERMEDIATE VOLCANICS 90 degree rotation of the core. Chlorite rich fractures associated with the fault at 24 to 26 dca of rotated core and have slickensides indicating dextral strike-slip movement. LAB CHECK SAMPLES:. E56970 DUPLICATE OF E56969 0.96. 331.00 332.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 20% garnet, 10% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 2% quartz-calcite stringer, trace calcite vein. 332.00 333.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 20% garnet, 6% quartz flooding, 0% carbonatization, 2% chlorite, 0% ankerite, 0% epidote, 0% sericite, 3% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 333.00 333.70 4ea, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 30% garnet, 5% quartz flooding, 0% carbonatization, 1% chlorite, 0% ankerite, 0% epidote, 0% sericite, 10% biotite, 0% quartz vein, 1% quartz-calcite stringer, 0% calcite vein.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
333.70	337.15	4FB	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4fb. Fine to medium grained. Brown and pink spotted. Locally weakly magnetic. 30% 2 To 4 mm garnet porphyroblasts in FELSIC TO INTERMEDIATE VOLCANICS biotite rich matrix. Rare 10 to 20 cm bands with 1 to 5% quartz flooding, weak grunerite alteration, and trace pyrrhotite stringers. Bedding and foliation at 28 to 31 dca. Fractures at 20 to 31 dca and 45 dca. GEOLOG DATA:. Alteration:. 2 to 3% grunerite, 30% garnet, 3% silicification, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite. Mineralization:. Trace pyrrhotite, 1 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, 0% calcite. 333.70 334.70 4fb, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% grunerite, 30% garnet, 1% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 334.70 335.70 4fb, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% grunerite, 30% garnet, 5% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 335.70 337.15 4fb, 1 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% grunerite, 30% garnet, 2% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein.								
337.15	340.60	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine to coarse grained. Grey, green and pink mottled. Moderately to strongly magnetic. 25 to 30% 3 to 10 mm garnet porphyroblasts in FELSIC TO INTERMEDIATE VOLCANICS moderately well bedded matrix. Bedding at 30 to 31 dca. Lower contact is sharp at 42 dca. GEOLOG DATA:. Alteration:. 15 to 20% grunerite, 20% garnet, 5% silicification, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite. Mineralization:. Trace to 1% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			chalcopyrite. Veining and fracture coatings:. Trace quartz, 0% quartz-carbonate, trace calcite. 337.15 338.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 30% garnet, 5% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 338.00 339.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% grunerite, 20% garnet, 8% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 339.00 339.80 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% grunerite, 20% garnet, 1% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 339.80 340.60 4ea, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% grunerite, 20% garnet, 0% quartz flooding, 0% carbonatization, trace chlorite fracture-filling, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 15% quartz vein, 0% quartz-calcite stringer, trace calcite vein.								
340.60	342.60	4F	GARNET-BIOTITE SCHIST 4f. Fine to medium grained. Brown and pink spotted. Locally weakly magnetic. 30% 2 To 4 mm garnet porphyroblasts in FELSIC TO INTERMEDIATE VOLCANICS biotite rich matrix. Rare 10 cm bands with 1% quartz flooding, weak grunerite alteration, and trace pyrrhotite stringers. Bedding and foliation at 28 dca. Fractures at 32 dca. Lower contact is sharp at 28 dca. GEOLOG DATA:. Alteration:. Trace grunerite, 20% garnet, trace silicification, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, 0% calcite. 340.60 341.90 4F, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% grunerite, 30% garnet, 1% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			341.90 342.60 4f, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 30% garnet, 0% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein.								
342.60	344.83	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA. Similar to above. Bedding at 28 dca. Lower contact is sharp at 28 dca. GEOLOG DATA: see sample. E56982 STANDARD I 7.51 7.10. E56983 BLANK 0.14. 342.60 343.83 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% grunerite, 15% garnet, 5% quartz flooding, 1% carbonatization locally, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, trace quartz-calcite stringer, trace calcite vein.								
344.83	346.90	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Light grey. Non-magnetic. Equigranular, homogeneous textured. Weakly foliated at 25 dca. Fractures at 38 to 40 and 35 dca. 344.83 345.05 Brown. Weakly biotite altered. 5% biotite, 5% quartz-carbonate stringers. 3% pervasive carbonatization. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 3% pervasive carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 5% biotite to 344.05. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 0% quartz, 2% quartz-carbonate, trace calcite.								
346.90	348.57	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine to coarse grained. Grey, green and pink mottled. Moderately to strongly magnetic. 25 to 30% 3 to 10 mm garnet porphyroblasts in FELSIC TO INTERMEDIATE VOLCANICS moderately well bedded matrix. Bedding at 38 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact is sharp at 29 dca. GEOLOG DATA:. Alteration:. Trace grunerite, 10 garnet, 20% silicification, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 10% biotite. Mineralization:. 4% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite. Veining and fracture coatings:. 10% quartz, 0% quartz-carbonate, trace calcite. 346.90 347.90 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 5% grunerite, 20% garnet, 20% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 5% biotite, 12% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 347.90 348.57 4ea, 1 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% grunerite, 30% garnet, 5% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 5% quartz vein, 0% quartz-calcite stringer, trace calcite vein.								
348.57	350.95	4F	GARNET-BIOTITE SCHIST 4f. Fine to medium grained. Brown and pink spotted. Non-magnetic. 30% 2 To 5 mm garnet porphyroblasts in FELSIC TO INTERMEDIATE VOLCANICS biotite rich matrix. Moderately well bedded at 28 dca. Rare fractures at 32 dca. Rare 10 cm bands with weak grunerite alteration and trace pyrrhotite. Lower contact is sharp at 28 dca. GEOLOG DATA:. Alteration:. Trace grunerite, 30% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, 0% calcite. 348.57 350.00 4f, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace grunerite, 30% garnet, 0% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 350.00 350.95 4f, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace grunerite, 30% garnet, 0% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 15% biotite,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein.								
350.95	354.30	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine to coarse grained. Light grey, green and pink mottled. Moderately magnetic. Moderately to poorly bedded at 12 dca. Minor right limb fold along bedding planes with axial plane at 58 dca. Fractures at 44 and 60 dca. Lower contact is sharp at 37 dca. 10 cm quartz vein at contact. GEOLOG DATA:. Alteration:. 10 to 20% grunerite, 30% garnet, 5 to 30% silicification, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite. Mineralization:. Trace to 1% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, trace chalcopyrite. Veining and fracture coatings:. Trace quartz, 0% quartz-carbonate, trace calcite. E56990 DUPLICATE OF E56989 0.75. 350.95 352.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% grunerite, 20% garnet, 30% quartz flooding, 0% carbonatization, 0% chlorite, 0% ankerite, 0% epidote, 0% sericite, 0% biotite, 0% quartz vein, 0% quartz-calcite stringer, 0% calcite vein. 352.00 353.00 4ea, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, trace chalcopyrite, 20% grunerite, 30% garnet, 5% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, 1% biotite, 0% quartz vein, 0% quartz-calcite stringer, trace calcite vein. 354.00 354.30 4ea, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, trace chalcopyrite, 10% grunerite, 30% garnet, 20% quartz flooding, 0% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 10% quartz vein, 0% quartz-calcite stringer, trace calcite vein.								
354.30	361.40	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Grey green. Non-magnetic. Equigranular homogeneous textured. Poorly foliated at 36 dca. 5% Pervasive carbonatization. Trace biotite wisps along foliation until 356.2. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 5% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			chalcopyrite. Veining and fracture coatings:. 0% quartz, 2% quartz-carbonate, trace calcite. 354.30 355.30 4ea, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% grunerite, 0% garnet, 0% quartz flooding, 5% carbonatization, trace chlorite, 0% ankerite, 0% epidote, 0% sericite, trace biotite, 0% quartz vein, 2% quartz-calcite stringer, trace calcite vein.								
361.40		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. ----------. Sample prep at Chemex Labs in Thunder Bay, Ontario. Samples analysed at Chemex. And Xral Labs Inc. 30 gram sample fire assay with gravimetric finish. Sludge samples taken from 32.7 to EOH. Samples stored at Musselwhite camp. ----------. DRILLING HISTORY:. In first attempt to establish collar (-60.5), hole flattened to -57 in overburden (506-657). Hole was abandoned at 39 metres. Collar was steepened to -64 degrees and redone. A standard 10 foot core barrel with a blank back end and old MX10 bits were used to 52 metres to flatten the hole. At 52 metres the hole was at -61 degrees. The 20 foot fluted core barrel was put back on with an old MX10 bit and drilled with increased head pressure. 0.0 24.38 TRICONE bit. 24.38 52.00 WORN MX10 BIT, STANDARD 10 FOOT CORE BARREL WITH BLANK BACK END. 52.00 361.40 WORN MX10 BIT, 20 FOOT FLUTED CORE BARREL, UNSTABALIZED. Hole cemented 6 hours and #### - 20kg bags of Type 50 cement. Casing pulled. ----------. SURVEY HISTORY:. Light Log Survey conducted by P. Lindsay. Survey took 2 hours. Survey data used for used for Code 2 azimuths and dips. Sperry Sun single shot camera with I.O.L. (low point indicator) used for dips while drilling. Sperry Sun DIP TESTS. 36m -61 deg. 52m -61 deg. 79m -60 deg. 119m -59.5 deg. 155m -59 deg.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			203m -58.75 deg. 232.3m -58 deg. 258.3m -57.75 deg. 285.3m -57 deg. 309.3m -56.75. Drill hole collar co-ordinates, azimuth and water elevation surveyed by D. Villeneuve, Dona Lake Mine, Pickle Lake, Ontario.								

DRILL HOLE RECORD

Northing: 10350.820
Easting: 8608.551
Elevation: 5302.467

Collar Azi.: 50.62
Collar Dip: -60.75

Hole Length: 418.00
Completed: AUG 14, 1993
Drilled by:
Logged by: DENISE INGS
Purpose: TO INTERSECT C and T ZONES ON SECTION 10350N

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529499 (105m),Pa529497 (313m)
137 m south,36 m east to post 1 of Pa529499
Date(s) Logged: AUG 10 - 15, 1993

Drill Hole: 506-659

Northing: 10350N
Easting: 8606E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: AUG 9, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
3.0	50.9	-62.3	107.5	46.5	-60.5	212.0	44.2	-58.5	316.5	42.4	-55.9
6.0	50.6	-62.3	110.5	46.5	-60.5	215.0	44.2	-58.5	319.5	42.4	-55.8
9.0	49.7	-62.4	113.5	46.4	-60.4	218.0	44.0	-58.5	322.5	42.3	-55.6
11.9	48.5	-62.8	116.4	46.2	-60.3	220.9	44.0	-58.5	325.4	42.3	-55.5
14.9	48.2	-62.8	119.4	46.2	-60.2	223.9	43.9	-58.4	328.4	42.3	-55.4
17.9	48.2	-62.8	122.4	46.1	-60.2	226.9	43.9	-58.4	331.4	42.2	-55.3
20.9	48.2	-62.7	125.4	45.9	-60.1	229.9	43.9	-58.3	334.4	42.1	-55.3
23.9	48.2	-62.6	128.4	45.9	-59.9	232.9	43.7	-58.3	337.4	41.9	-55.2
26.9	48.2	-62.5	131.4	45.8	-59.9	235.9	43.7	-58.2	340.4	41.9	-55.2
29.9	48.2	-62.4	134.4	45.7	-59.8	238.9	43.7	-58.1	343.4	41.9	-55.1
32.8	48.2	-62.3	137.3	45.5	-59.7	241.8	43.6	-58.1	346.3	41.8	-55.0
35.8	48.5	-62.3	140.3	45.4	-59.7	244.8	43.6	-58.0	349.3	41.8	-54.9
38.8	48.3	-62.3	143.3	45.5	-59.5	247.8	43.5	-58.0	352.3	41.8	-54.8
41.8	48.2	-62.3	146.3	45.4	-59.5	250.8	43.5	-57.9	355.3	41.7	-54.7
44.8	48.0	-62.3	149.3	45.4	-59.4	253.8	43.3	-57.8	358.3	41.6	-54.6
47.8	47.8	-62.2	152.3	45.4	-59.4	256.8	43.3	-57.7	361.3	41.5	-54.5
50.8	47.7	-62.2	155.3	45.2	-59.3	259.8	43.2	-57.7	364.3	41.5	-54.4
53.7	47.7	-62.2	158.2	45.2	-59.2	262.7	43.1	-57.6	367.2	41.5	-54.4
56.7	47.7	-62.1	161.2	45.1	-59.1	265.7	43.1	-57.6	370.2	41.3	-54.4
59.7	47.5	-62.2	164.2	45.0	-59.0	268.7	43.0	-57.5	373.2	41.3	-54.3
62.7	47.4	-62.1	167.2	44.8	-59.0	271.7	43.0	-57.4	376.2	41.3	-54.3
65.7	47.1	-61.9	170.2	44.8	-58.8	274.7	43.0	-57.4	379.2	41.3	-54.3
68.7	47.1	-61.8	173.2	44.7	-58.8	277.7	43.0	-57.4	382.2	41.3	-54.3
71.7	47.0	-61.8	176.2	44.5	-58.7	280.7	43.0	-57.3	385.2	41.2	-54.2
74.6	47.0	-61.6	179.1	44.5	-58.7	283.6	43.0	-57.2	388.1	41.2	-54.2
77.6	47.0	-61.5	182.1	44.5	-58.7	286.6	43.0	-57.1	391.1	41.2	-54.2
80.6	46.8	-61.4	185.1	44.5	-58.7	289.6	43.0	-57.0	394.1	41.1	-54.1
83.6	46.8	-61.3	188.1	44.4	-58.7	292.6	43.0	-57.0	397.1	41.1	-54.1
86.6	46.8	-61.2	191.1	44.4	-58.7	295.6	43.0	-56.9	400.1	41.1	-54.1
89.6	46.8	-61.2	194.1	44.3	-58.7	298.6	42.8	-56.8	403.1	41.0	-54.1
92.6	46.8	-61.1	197.1	44.3	-58.7	301.6	42.8	-56.7	406.1	41.0	-54.1
95.5	46.7	-61.0	200.0	44.3	-58.7	304.5	42.8	-56.5	409.0	41.0	-54.1
98.5	46.7	-60.9	203.0	44.3	-58.7	307.5	42.7	-56.3	412.0	40.8	-54.0
101.5	46.7	-60.7	206.0	44.3	-58.7	310.5	42.6	-56.2	415.0	40.8	-54.0
104.5	46.7	-60.6	209.0	44.3	-58.7	313.5	42.4	-56.0	418.0	40.7	-54.0

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Samples E56994-E57000 and E42601-E42727 inclusive. NOTE: All references to folding - both right and left limb - are looking down plunge of the deposit (ie. Northwest). For detailed structural data see attached STRIP LOG.								
.00	20.20	OB	OVERBURDEN OB.								
20.20	55.52	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained. Medium grey. Non-magnetic. Well bedded crystal tuff. 5% 2 mm carbonate altered feldspar phenocrysts. Trace 2 mm bluish quartz eyes. Bedding / compositional banding at 22 to 34 dca. Minor right limb fold with axial plane at 25 dca. Fractures are parallel to foliation at 18 dca and perpendicular to foliation at 52 to 60 dca. 5% Pervasive carbonatization. Trace garnet porphyroblasts. Trace chlorite fracture-filling. Rare 5 cm sericite rich bands around 40 metre. Rare pyrrhotite stringers parallel to foliation. > 1% quartz-carbonate vein parallel to foliation. Trace black amphibole in quartz-carbonate vein. Trace quartz veins up to 10 cm in width parallel to foliation. Trace calcite fracture-filling of hairline fractures. Lower contact is sharp at 36 dca. GEOLOG DATA:. Alteration:. 0% Grunerite, trace garnet, 0% silicification, 3% carbonatization, trace chlorite, trace biotite. Mineralization:. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining and fracture coatings:. Trace quartz, trace quartz-carbonate, trace calcite.								
55.52	61.20	24FE	INTRAFORMATIONAL IRON FORMATION 2-4fe. Fine to medium grained. Brown and pink. Non-magnetic. 30% 3 Mm garnet porphyroblasts in FELSIC TO INTERMEDIATE VOLCANICS fine grained biotite rich matrix. Bedding is well developed at 50 to 57 dca. Fold at 56 metre at 32 dca. Fractures parallel to bedding at 46 to 55 dca. 15% Biotite in matrix. 30% garnet porphyroblasts. 2% chlorite preferentially along beds. Rare beds with 2% grunerite alteration. 20% quartz flooding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Trace pyrrhotite stringers. Trace arsenopyrite. Trace chalcopyrite stringers. 10% 3 To 5 cm quartz-carbonate veins. Trace carbonate fracture-filling hairline fractures. Lower contact is sharp at 35 dca. 60.00 61.20 4fe, trace arsenopyrite, trace chalcopyrite stringers, trace grunerite, 20% garnet. 61.00 Axial plane of m-type fold at 53 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 30% garnet, 20% silicification, 0% carbonatization, 2% chlorite, 15% biotite. Mineralization:. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, trace chalcopyrite, 0% magnetite. Veining and fracture coatings:. 0% quartz, 5% quartz-carbonate, trace calcite.								
61.20	63.80	24B	INTRAFORMATIONAL IRON FORMATION 2-4B. 77% Grey chert beds with thin yellowish carbonate laminaes. 23% biotite rich f-beds with 20% 2 to 3 mm pink garnet porphyroblasts. Bedding at 42 dca. Fractures at 45 to 50 dca parallel to bedding. Locally 10% carbonatization of f-beds. Two types of pyrrhotite present. The normal brassy yellow brown pyrrhotite occurs as stringers. There is also a darker brown fine grained bedded pyrrhotite with black fragments. This appears to become FELSIC TO INTERMEDIATE VOLCANICS very fine grained mixture of pyrrhotite and magnetite or pyrrhotite and sphalerite. Trace arsenopyrite crystals. Lower contact is sharp at 44 dca. GEOLOG DATA:. Alteration:. Trace grunerite, 20% garnet, 0% silicification, 5% carbonatization locally, trace chlorite, 10% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite crystals, 0% chalcopyrite, 1% bedded magnetite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, 0% calcite. 61.20 62.65 4c, 15% garnet, 10% carbonatization, trace chlorite, 10% biotite. 62.65 63.80 4c, pyrrhotite as stringers and bedded, 15% garnet, trace chlorite, 10% biotite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
63.80	68.90	24FE	INTRAFORMATIONAL IRON FORMATION 2-4fe. As above. Bedding at 44 dca. Pyrite coating fractures oriented 75 dca perpendicular to bedding. Lower contact is sharp at 35 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 20% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 25% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite as fracture coatings, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, 0% calcite.								
68.90	145.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Light grey. Non-magnetic. Equigranular textured. Dark and light bands at 24 dca are foliation / bedding planes. Fractures are parallel to foliation. Minor thin flattened green chlorite spots in FELSIC TO INTERMEDIATE VOLCANICS bleach matrix. Thin fine grained wisps of biotite locally. Trace microveins of quartz-carbonate parallel to foliation. Lower contact is sharp at 51 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace chlorite, trace biotite. Mineralization:. Trace pyrrhotite fracture-filling, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining and fracture coatings:. 0% Quartz, trace quartz-carbonate, trace calcite. 74.00 74.80 4e 10 cm quartz-carbonate vein with trace pyrrhotite stringers, trace arsenopyrite crystals, .25% chalcopyrite stringers, 20% garnet porphyroblasts. 10% chlorite. 10% biotite. 87.90 91.20 Very light grey BVOL with granular texture. 1% 1 to 2 mm wisps of magnetite flattened parallel to foliation. 5% chlorite and sericite coating fractures. 5% pervasive silicification. Trace chalcopyrite								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			coating fractures. Foliation is crenulated. Fault at 10 dca to 90 degrees rotated core. Appears to be a fault running at 10 deg to the plane of the sections and may offset the zones along strike. Long run from 94.0 97.0: 1.2 metres. Cannot find tags out of place to move it. 96.00 97.00 Very light green. 5% sericite alteration. 118.90 119.40 BVOL, trace pyrite, 5% carbonatization, 10% biotite, 30% quartz vein. 134.20 2.00 Cm faulting rubble at approximate 45 dca. Chloritized.								
145.00	146.50	24F	INTRAFORMATIONAL IRON FORMATION 2-4fe. Fine grained brown biotite rich matrix with 30% 1 to 2 mm pink garnet porphyroblasts. 10% e-beds. Bedding at 45 dca. Fractures are perpendicular to bedding at 40 dca. Trace chlorite in e-beds. 146.40 .50 Cm PRIMARY MASSIVE SULPHIDE BED. 90% pyrrhotite, 5% pyrite and 5% 1 mm quartz fragments. Lower contact is sharp at 49 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 30% garnet, 0% silicification, 0% carbonatization, trace chlorite, 15% biotite. Mineralization:. 0.5 pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, 0% calcite.								
146.50	147.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. 30. Pervasive carbonatized massive to banded BVOL. 5 Cm quartz-carbonate vein parallel to foliation. 3 cm bed with semi-massive pyrrhotite and pyrite at contact. Foliation at 52 dca. Trace 3 mm garnet porphyroblasts and 1% banded biotite. Lower contact is sharp at 46 dca. GEOLOG DATA:. Alteration:. 0% Grunerite, trace garnet, 0% silicification, 30% carbonatization, trace chlorite, 1% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			chalcopyrite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, 0% calcite.								
147.00	152.30	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained crystal tuff with 5% 1 mm feldspar phenocrysts. Poorly bedded at 58 dca. Fractures at 56 dca parallel to bedding. Lower contact is sharp at 68 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace chlorite, trace biotite. Mineralization:. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, trace calcite.								
152.30	154.60	24F	INTRAFORMATIONAL IRON FORMATION 2-4f: BIOTITE - GARNET - STAUROLITE SCHIST. Fine grained brown biotite rich matrix with 10% 4 to 5 mm clustered garnet porphyroblasts and 5% 2 to 3 mm disseminated staurolite. Trace pyrite and chalcopyrite coating with carbonate on fractures. Bedding at 75 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 10% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 15% biotite. Mineralization:. 0% pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, trace chalcopyrite, 0% magnetite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, 0% calcite. 152.45 153.00 BVOL trace carbonatization locally. 1% chlorite and 2% biotite in bands.								
154.60	182.70	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Green and grey. Non-magnetic.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Foliation at 53 dca, fractures at 47 dca. 1% Bedded carbonatization. 5% bands of chlorite. 1% wisps of biotite throughout. 1% Patchy alteration bands throughout containing biotite and calcite stringers. Trace pyrrhotite and chalcopyrite on fractures with carbonate. Trace pyrrhotite and chalcopyrite stringers. 1% Quartz-carbonate veins and trace calcite stringers as fracture-filling. Lower contact is sharp at 45 dca. 173.35 174.30 Appears bedded with 1% pyrrhotite stringers and fine grained disseminated grain. Trace 3 mm square crystals of ?andalusite. Carbonate alteration preferentially along beds. E56999 STANDARD I 7.65. E57000 BLANK 0.14. 173.35 174.30 ?BVOL, 2% carbonatization, 3% chlorite, trace andalusite crystals. 181.70 182.70 BVOL, trace quartz flooding, trace carbonatization, 2% chlorite, 10% biotite, 1% quartz-calcite stringer, trace calcite vein.								
182.70	192.20	BVOL	INTERMEDIATE TO MAFIC VOLCANICS WITH MINOR INTRAFORMATIONAL IRON FORMATION 90% BVOL \ SEDIMENT with 10% 2-4b. Fine grained. BVOL: brown green and grey bands or beds. Non-magnetic. Compositional layering of biotite, chlorite, and silica - calcite. May indicate bedding. Layering \ bedding at 33 to 50 dca. Minor m-type fold with axial planes at 34 to 42 dca. Fractures are at 48 to 55 dca parallel to foliation and 53 to 58 dca perpendicular to foliation. Microfault disrupts several layers at 183.3 metre at 12 dca, but doesn't continue into the overlying or underlying layers. Probably a soft sediment deformational feature. 10% Biotite concentrated in 5 to 10 cm bands parallel to foliation. With in bands biotite is in the form of thin wispy anastomosing stringers. 2% thin bands of chlorite parallel to foliation. 10% bands of pervasive carbonatization. Trace mm scale stringers of pyrrhotite parallel to foliation. 1% Quartz-carbonate veining parallel to foliation. Trace carbonate stringers. Lower contact is sharp at 33 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 10% carbonatization, 2% chlorite, 10% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining and fracture coatings:. 0% quartz, 1% quartz-carbonate, trace CAL%. 2-4f contains 10% 2 to 5 mm flattened garnet porphyroblasts in a green amphibole								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			matrix. 75% chert magnetite beds with thin laminae of yellowish carbonate and thin carbonate stringers. Minor folds with axial plane at 35 calcite. 5% Bedded and stringers calcite. 1% bedded chlorite. 2% Fine grained disseminated pyrrhotite along particular chert beds and trace stringers pyrrhotite. Trace chalcopyrite stringers. 10% bedded magnetite. Trace quartz veins. Trace quartz-carbonate veining. Trace calcite stringers. Contacts are sharp at 37 to 42 dca. E42610 DUPLICATE OF E42609 0.24. 182.70 183.10 24b, 10% garnet, 0% quartz flooding, 20% carbonatization, trace chlorite, 1% biotite, trace quartz-calcite stringer. 183.10 184.10 BVOL, pyrrhotite in stringers, trace chalcopyrite stringers, 2% banded carbonatization, trace chlorite, trace biotite, 1% quartz-calcite stringer 185.70 186.70 BVOL, 5% banded carbonatization, trace chlorite, 10% biotite, 2% quartz-calcite stringer. 186.70 187.10 24b, trace pyrite, 10% garnet, trace chlorite, 0% biotite. 187.10 187.80 BVOL, 5% banded carbonatization, trace chlorite, 10% biotite, 2% quartz-calcite stringer. 187.80 188.75 24b, trace chalcopyrite, 10% garnet, trace chlorite, 1% quartz vein 188.75 189.35 BVOL, 5% pervasive carbonatization, 2% chlorite, 10% biotite, 3% quartz-calcite stringer. 189.35 189.80 24b, 2% garnet, 5% carbonatization beds, 3% biotite. 189.80 190.80 BVOL, 10% carbonatization, trace chlorite, 10% biotite, 3% quartz-calcite stringer.								
192.20	200.05	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Green. Non-magnetic. Equigranular, homogeneous textured. Moderately to poorly foliated at 32 to 39 dca. Fractures are rare at 50 dca perpendicular to foliation. 5% Pervasive carbonatization. 2% banded chlorite. 5% biotite in a metre wide band 2% Quartz-carbonate stringers. Trace calcite stringers. Lower contact is sharp at 53 dca. 199.05 200.05 BVOL, 20% quartz vein, 2% chlorite.								
200.05	204.95	24EA	INTRAFORMATIONAL IRON FORMATION 2-4eaf. Fine grained to coarse grained. Grey, green and pink spotted. Moderately magnetic 30% Quartz flooding in moderately gruneritized iron formation consisting of roughly equal portions of f,e, and b-beds. Bedding and foliation at 42 to 50 dca. Minor folding at 200.5 to 201.5 with axial planes at 25 to 30 dca. 4% Stringer-like bands of black chlorite in the quartz flooding. 5% Pyrrhotite throughout as thin wispy to lacy stringers and coarse grained blebs. 0.5% arsenopyrite as fine to coarse grained crystals. Trace chalcopyrite								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			stringers to lacy blebs. Lower contact is sharp at 48 dca, but rich grunerite altered bands continue down hole. Mineralized zone at 200.05 202.55. 200.50 201.00 2-4eaf, 15 specks VISIBLE GOLD, trace pyrite, 0.5% arsenopyrite, trace chalcopyrite, 30% quartz flooding, 10% carbonatization, 3% chlorite, 2% quartz vein. 201.00 202.00 2-4eaf, 0 specks VISIBLE GOLD, trace arsenopyrite, trace chalcopyrite, 30% quartz flooding, trace carbonatization, 2% chlorite, 10% biotite, 0% quartz vein. 202.00 202.55 2-4eaf, 7 specks VISIBLE GOLD, trace arsenopyrite, trace chalcopyrite, 20% quartz flooding, 2% carbonatization, 5% chlorite, 5% biotite. 202.55 203.55 2-4eaf, 10% quartz flooding, 3% chlorite, 20% biotite, trace calcite vein. 203.55 204.95 2-4eaf, 4% quartz flooding, 0% carbonatization, 3% chlorite, 30% biotite.								
204.95	206.60	4B	CHERT - MAGNETITE IRON FORMATION 4b. Well bedded black and grey iron formation. 10% e-beds With 50% garnet porphyroblasts. Bedding is planar at 45 to 55 dca. Trace quartz-carbonate veins. Lower contact is sharp at 50 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 5% garnet, 0% silicification, 0% carbonatization, 2% chlorite, 0% biotite. Mineralization:. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% magnetite. Veining and fracture coatings:. 0% Quartz, trace quartz-carbonate, 0% calcite.								
206.60	214.80	4FB	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4fb. 90% F-beds with 20% 1 mm garnets in biotite rich matrix and 10% b-beds with patchy grunerite alteration. Bedding is complexly folded with axial planes at 30 dca. 207.0 213.0 left limb fold with axial plane at 30 dca. 209.60 And 213.5 214.5 Abundant vugs in the core are filled with calcite crystals. Minor CORE LOST. GEOLOG DATA:.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Alteration:. Trace grunerite, 20% garnet, 0% silicification, 0% carbonatization, trace chlorite, 25% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 1% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, 0% calcite. 210.60 213.35 4ea, 1% pyrite, 10% grunerite, 20% garnet, 20% quartz flooding, trace chlorite, 5% biotite. 210.60 213.35 4ea. 213.00 M-type fold with axial plane at 50 dca. 213.00 Right limb fold with axial plane at 55 dca. 3% patchy grunerite alteration along specific beds. 5% quartz flooding accompanies grunerite alteration. Trace to 1% carbonate veins.								
214.80	220.30	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine to coarse grained. Grey green and pink mottled. Locally moderately magnetic. Chaotically folded bedding disrupted by quartz flooding. Rare fractures at 55 dca. Up to 20% grunerite alteration. 30% 2 to 3 mm garnet porphyroblasts. Trace chlorite along beds. Trace to 1% pyrrhotite as interstitial grains in grunerite garnet beds and rare stringers. Trace to 1% pyrite as interstitial grains in grunerite beds and as spotty coating on fractures. Rare white carbonate veins. Lower contact is sharp at 65 dca. GEOLOG DATA:. Alteration:. 10% grunerite, 30% garnet, 5% silicification, trace chlorite, 5% biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 1% pyrite, 0% arsenopyrite, 0% chalcopyrite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, trace calcite. 214.80 215.80 4ea, 1% pyrite, 20% grunerite, 30% garnet, 2% quartz flooding. 215.80 216.80 4ea, trace pyrite, 5% grunerite, 30% garnet, 5% quartz flooding. 216.80 217.80 4ea, 1% pyrite, 8% grunerite, 30% garnet, 3% quartz flooding, 4% biotite. 217.80 218.80 4ea, 1% pyrite, 10% grunerite, 30% garnet, 5% quartz flooding, trace epidote, trace ksp stringers, 5% biotite, trace calcite vein.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			218.70 219.00 Core is brecciated with 2% yellowish white carbonate stringers and 1% potassic alteration in the form of stringers and blebs. 1% epidote along bands. E42619 STANDARD I 6.96 7.06. E42620 BLANK 0.10. 218.80 219.80 4ea, trace pyrite, 3% grunerite, 30% garnet, 2% quartz flooding, trace epidote, trace ksp stringers, trace calcite vein. 219.80 220.30 4ea, trace pyrite, 6% grunerite, 30% garnet, 10% quartz flooding, 2% chlorite, 10% biotite.								
220.30	226.55	24F	INTRAFORMATIONAL IRON FORMATION 2-4fb. 90% Fine grained brown biotite rich matrix with 30% 1 to 2 mm pink garnet porphyroblasts. 10% chert magnetite beds. Bedding is well developed on cm scale at 24 to 28 dca. Right limb fold with axial plane at 43 dca at 222 medium. Trace quartz flooding at 224 metre with trace pyrrhotite stringers. Rare carbonate veins with potassic altered halos. Trace epidote fracture-filling locally. Lower contact is sharp at 40 dca.								
226.55	228.20	QC VN	QUARTZ-CARBONATE VEIN QC VN. Contacts are sharp at 40 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 5% carbonatization, trace chlorite, trace epidote, trace biotite. Mineralization:. 5% pyrrhotite, 0 specks VISIBLE GOLD, 1% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining and fracture coatings:. 0% quartz, 90% quartz-carbonate, 0% calcite. 226.55 227.55 QCV, 1% pyrite, 5% carbonatization, 2% chlorite, trace epidote, trace biotite, 90% quartz-carbonate. 227.55 228.20 QCV, 1% pyrite, 2% carbonatization, trace chlorite, trace epidote, 90% quartz-calcite stringer.								
228.20	232.10	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL / sediment. Fine grained. Brown. Non-magnetic. Well developed compositional banding / bedding at 40 dca. Foliation is well developed at 50 dca. Fractures are at 45 dca parallel to foliation. 3% Boudinaged quartz veining.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			30% Pervasive biotite alteration. 20% pervasive carbonatization. 2% Quartz-carbonate veining parallel to foliation is boudinaged. Lower contact is sharp at 24 dca. 230.30 230.90 2-4e trace pyrrhotite stringers. 5% quartz flooding. 3% grunerite alteration. LAB CHECK SAMPLES:. E42630 DUPLICATE OF E42629 1.23. 231.10 232.10 BVOL, 30% carbonatization, 30% biotite, 2% quartz-calcite vein.								
232.10	234.10	QF BV	QUARTZ FLOODING INTERMEDIATE TO MAFIC VOLCANICS Quartz flooded BVOL \ sediment. Quartz is blue-grey in color and finely crystalline. Rare 1 cm anhedral garnets occur in the wall rock fragments. 8% Wall rock fragments are at random orientations and are strongly carbonatized. 2% Sericite stringers and 1% chlorite stringers. 1% biotite alteration of wall rock fragments. 10 Cm quartz vein with 1% coarse grained interstitial pyrrhotite and pyrite. Lower contact is sharp at 28 dca. 232.10 233.10 QF BVOL, 21 specks VISIBLE GOLD, trace pyrite, trace chalcopyrite stringers, trace garnet, 85% quartz flooding, 5% carbonatization, 1% chlorite, 2% sericite, 1% biotite, 10% quartz vein. 233.10 234.10 QF BVOL, 17 specks VISIBLE GOLD, trace pyrite, trace chalcopyrite, trace garnet, 85% quartz flooding, 5% carbonatization, 1% chlorite, 2% sericite, 1% biotite.								
234.10	244.65	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL / sediment. Similar to above. Well developed composition banding and grain size layering ie. Bedding at 34 to 38 dca. Foliation is well developed at 34 to 39 dca. Bedding is boudinaged stretched along the plane of the foliation. Bedding / foliation is tightly crenulated at 231.1 to 232.1. Fractures are at 45 dca parallel to foliation and 62 dca perpendicular to foliation. 2% Boudinaged quartz veining. 30% Pervasive biotite alteration. 20% pervasive carbonatization. Lower contact is sharp at 55 dca. 234.10 235.10 BVOL / SED with 20 cm bed of 2-4e, trace garnet, 5% carbonatization, 10% biotite, 3% calcite vein. 234.70 234.90 2-4be: Unmineralized. 235.10 236.10 BVOL / SED, 1 speck VISIBLE GOLD, trace pyrite crystals, trace chalcopyrite stringers,, 5% carbonatization, 2% chlorite, 10% biotite, 25%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			quartz vein, 1% quartz-carbonate stringers. 236.10 237.10 BVOL / SED, 0 specks VISIBLE GOLD, 5% carbonatization, 5% chlorite, 10% biotite, 1% quartz vein. 242.60 243.00 2-4ea trace pyrrhotite. 5% grunerite. 5% quartz flooding. 2% quartz-carbonate veins.								
244.65	246.45	4F	GARNET-BIOTITE SCHIST 4f. 30% 1 To 2 mm garnet porphyroblasts in FELSIC TO INTERMEDIATE VOLCANICS biotite rich matrix. 5% b-beds. Bedding is well developed at 26 dca. 5% Quartz flooding bands locally. Trace pyrrhotite in quartz flooding bands. Lower contact is sharp at 48 dca. 245.50 246.45 4f, trace pyrite smears on foliation, 30% garnet, 10% quartz flooding, trace chlorite, 5% sericite, 30% biotite, 3% quartz-calcite stringer. 246.30 246.45 Intense biotite sericite alteration and crenulated foliation. Trace pyrite smeared along foliation planes.								
246.45	249.70	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL / sediment. Grey green. Fine grained. Non-magnetic. Well developed bedding at 39 dca. Fractures are rare at 49 dca parallel to bedding. Trace wisps of biotite. Lower contact is sharp at 55 dca. GEOLOG DATA:. Alteration:. 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, trace biotite. Mineralization:. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining and fracture coatings:. 0% quartz, 1% quartz-carbonate, trace calcite.								
249.70	258.70	4F	GARNET-BIOTITE SCHIST 4f. 98% 1 To 2 mm garnet porphyroblasts in FELSIC TO INTERMEDIATE VOLCANICS biotite rich matrix. 2% b-beds. Bedding is well developed at 26 dca. Rare fractures at 63 dca perpendicular to bedding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			30% Pervasive biotite. Trace chlorite stringers locally. 5% pervasive sericite. 5% disseminated crystals of staurolite. 1% Quartz-carbonate veins parallel to bedding. Trace calcite fracture-filling hairline fractures. 250.90 251.20 Green fine grained BVOL bedding in the 4f. Trace wisps of biotite. 257.80 258.10 Green fine grained BVOL bedding in the 4f. GEOLOG DATA:. Alteration:. 0% grunerite, 30% garnet, 0% silicification, 0% carbonatization, trace chlorite, 30% biotite, 5% sericite. Mineralization:. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining and fracture coatings:. 0% quartz, 0% quartz-carbonate, 0% calcite.								
258.70	267.90	IMXD	INTERMIXED INTERMEDIATE TO MAFIC VOLCANICS AND GARNET-BIOTITE SCHIST Intermixed BVOL and 4f. 50% BVOL and 50% 4f. Interbedded on a regular 2 met interval. BVOL is green, fine grained, and moderately foliated to bedded. 2% biotite occurs along discrete bands / beds. Hairline fractures are bleach. Locally stockwork of carbonate fracture-filling of hairline fractures. 262.40 1 to 2 cm diabase megacrysts of a white and grey, subhedral cubic mineral. Appears to have gy cores with white rims. Minor calcite fracture-filling hairline fractures in the crystals. 4f Is brown, honey brown and pink mottled as before. 5% staurolite. Bedding contacts at 29 to 55 dca. Fractures range from 18 to 53 dca parallel to bedding and 63 dca perpendicular to bedding. Lower contact is sharp at 30 dca. 266.50 Small scale fault indicated by abrupt change in foliation measurements from 50 to 30 dca. Plane of the fault is oriented 43 dca.								
267.90	275.20	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Light grey green. Fine grained. Non-magnetic. Locally well banded on mm scale and appears bedded. Rare boudinaged quartz-carbonate vein fragments as augens parallel to foliation. Fractures are abundant at 18 dca parallel to foliation and 60 to 70 dca perpendicular to foliation. 274.00 275.00 Abundant calcite fracture-filling hairline fractures at 65 dca perpendicular to bedding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Axial plane oriented paralell to these fractures. Lower contact is sharp at 35 dca.								
275.20	279.50	4F	GARNET-BIOTITE SCHIST 4f. 30% 3 To 5 mm garnet porphyroblasts in FELSIC TO INTERMEDIATE VOLCANICS biotite rich matrix. Bedding is well developed at 35 to 48 dca. Fractures are perpendicular to foliation at 48 to 50 dca. 270.00 270.50 M-type fold with axial plane at 24 dca. 30% Biotite and 5% sericite alteration in matrix. 5% 2 to 3 mm honey brown staurolite crystals. Trace chlorite bands. Trace quartz-carbonate micro veins.								
279.50	281.50	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Green. Non-magnetic. Massive. Thin chlorite and/or biotite alteration bands. Lower contact is sharp at 42 dca. 279.50 280.00 Alteration vein with 5% pyrrhotite stringers. 279.50 280.00 BVOL, 1% arsenopyrite, 5% garnet, 10% chlorite, 50% quartz-calcite vein. 280.65 281.10 Strong carbonatization with 20% biotite, 5% chlorite.								
281.50	282.70	4F	GARNET-BIOTITE SCHIST 4f. 30% 2 Mm garnet porphyroblasts in a biotite rich matrix. Bedding at 42 to 57 dca. Left limb fold at 282.5 with axial plane at 35 dca. Trace chlorite bands and 30% biotite alteration. Fractures are perpendicular to bedding at 70 dca. Trace interstitial grain of pyrrhotite in the biotite matrix. 282.10 282.50 Quartz-carbonate vein parallel to foliation with trace epidote, trace carbonate fracture-filling, and trace chlorite.								
282.70	286.40	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Grey green. Fine grained. Non-magnetic. Massive. Well foliated at 38 dca. Fractures at 31 dca parallel to foliation.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Trace pervasive chlorite alteration. Trace wisps of biotite. 1% Quartz-carbonate up to 2 cm width. Trace calcite veins. 285.40 286.40 BVOL, trace chlorite, trace biotite, trace calcite vein.								
286.40	288.60	4FE	GARNET-BIOTITE SCHIST / GARNET-AMPHIBOLE I.F. 4fe. Fine to coarse grained. Brown, grey-green and pink mottled. Locally weakly to strongly magnetic. Well developed bedding at 43 dca. Rare fractures at 80 dca. Trace grunerite alteration. 30% quartz flooding. 1% chlorite stringers. 2% banded biotite. 13 Specks VISIBLE GOLD. 4% pyrrhotite as stringers and interstitial grain. Specks VISIBLE GOLD. Trace arsenopyrite crystals. Trace chalcopyrite stringers. 2% Quartz veins up to 2 cm. Trace hairline fracture-filling carbonate. E42641 STANDARD I 7.51 7.58. E42642 BLANK 0.27. 286.40 287.25 4F, 20% garnet, trace quartz flooding, trace chlorite, 30% biotite, 1% quartz vein, trace calcite vein. 287.25 288.60 4e, 13 specks VISIBLE GOLD, 1% pyrite, trace arsenopyrite, .5% chalcopyrite, 10% garnet, 60% quartz flooding, 3% chlorite, 2% quartz vein, 1% calcite vein.								
288.60	300.45	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Grain. Non-magnetic. Massive. Well developed foliation at 25 to 31 dca. Trace pervasive chlorite alteration. 288.60 289.60 BVOL, footwall sample trace chlorite, trace biotite, 2% quartz-calcite stringer, trace calcite vein. 293.17 293.40 QCV with trace pyrrhotite. 296.45 296.55 QV 1% pyrrhotite stringers over 10 cm in hanging wall. 298.00 298.60 BVOL, 10% chlorite, trace biotite, 2% quartz vein, 3% quartz-calcite stringer, trace calcite vein. 298.20 298.55 Pyrrhotite mineralization in.								
300.45	302.85	4E	GARNET-AMPHIBOLE IRON FORMATION 4e(a). Fine to coarse grained. Green, grey and pink mottled. Locally weakly to strongly magnetic. Well bedded at 34 to 48 dca. Fractures at 43 and 57 dca parallel to bedding. Up to 20% garnet porphyroblasts. 10% chlorite in bands. Trace grunerite								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			alteration along quartz flooding bands. 10% Of unit has patchy grunerite alteration. Up to 5% quartz-carbonate stringers. Trace quartz veins. Trace carbonate stringers. 300.45 301.65 4ea, trace pyrite, trace arsenopyrite, trace chalcopyrite, 1% garnet, 15% quartz flooding, 10% chlorite, 5% biotite, 5% quartz-calcite stringer, 2% calcite vein. 301.65 302.85 4ea, trace pyrite, trace arsenopyrite, trace chalcopyrite, trace grunerite, 20% garnet, 12% quartz flooding, 3% chlorite, trace calcite vein.								
302.85	329.08	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Grey green. Fine grained. Non-magnetic. Equigranular, homogeneous textured. Foliation is well developed at 42 to 45 dca. Fractures at 48 dca parallel to foliation. Lower contact is sharp at 45 dca. 305.50 308.00 10% carbonatization. 10% biotite alteration. 4% quartz-carbonate veins parallel to foliation. Trace carbonate stringers. 314.30 314.50 Quartz vein at 45 dca. 325.20 326.70 20 cm quartz vein with carbonatized, biotite altered halo. Barren. 328.55 328.70 Thin 4e unit in with BVOL. Trace pyrrhotite stringers. 5% quartz flooding. 20% garnet.								
329.08	337.20	4FB	GARNET-BIOTITE SCHIST / CHERT-MAGNETITE I.F. 4fb. 20% Garnet porphyroblasts in biotite rich matrix. 10% quartz flooding b-beds. Bedding is well developed at 38 to 47 dca. Fractures are rare at 45 dca perpendicular to bed. Rare 20 cm patches of grunerite alteration. Trace pyrrhotite throughout as stringers and interstitial grains in grunerite beds. Trace chalcopyrite stringers locally. Trace arsenopyrite crystals locally. 1% Quartz-carbonate veins. Lower contact is sharp at 36 dca. 4ea Occurs at 331.7 to 332.7 and 336.0 337.2. E42650 DUPLICATE OF E42649 0.55. 329.08 330.00 4fb, trace grunerite, 20% garnet, 5% quartz flooding, 20% biotite, trace quartz-calcite stringer. 330.00 331.00 4fb, trace grunerite, 20 garnet, 5% quartz flooding, trace chlorite, 10% biotite, trace quartz-calcite stringer. 331.00 331.70 4fb, trace grunerite, 20% garnet, 5% quartz flooding, 1% chlorite, 10% biotite, trace quartz-calcite stringer.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			331.70 332.70 4ea, 7 specks VISIBLE GOLD, pyrrhotite is stringers and interstitial, trace arsenopyrite, trace chalcopyrite, 10% grunerite, 20% garnet, 15% quartz flooding, trace chlorite, trace biotite, 10% quartz vein. 332.70 334.00 4fb, trace grunerite, 20 garnet, 5% chlorite, 3% biotite, 10% quartz vein. 334.00 335.00 4fb, trace grunerite, 20% garnet, 3% quartz flooding, trace chlorite, 15% biotite. 335.00 336.00 4fb, 3% grunerite, 20% garnet, 7% quartz flooding, 15% biotite. 336.00 337.20 4ea, trace arsenopyrite, trace chalcopyrite, 10% grunerite, 20% garnet, 20% quartz flooding, 2% chlorite, 5% biotite.								
337.20	342.90	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Green. Non-magnetic. Equigranular, homogeneous textured. Fractures at 68 to 75 dca. 5% Pervasive chlorite alteration. Trace biotite wisps. Trace to 1% quartz-carbonate veins parallel to foliation. 337.20 338.20 BVOL, 2% chlorite, trace biotite wisps, 4% quartz-calcite stringer.								
342.90	345.35	4F	GARNET-BIOTITE SCHIST 4f(ea). 20% Garnet porphyroblasts in biotite rich matrix. 4% Patchy grunerite alteration along bedding. 15% biotite. 5% quartz flooding. Trace interstitial pyrrhotite. Trace bedded magnetite. Trace calcite fracture-filling hairline fractures. 351.7 Axial plane of fold is not straight. Fold is either refolded of a soft sediment slump fold. 342.90 344.00 4f, trace grunerite, 20% garnet, 2% quartz flooding, 1% chlorite, 15% biotite. 344.00 345.35 4f, 3% grunerite, 20% garnet, 10% quartz flooding, trace chlorite, 15% biotite.								
345.35	365.55	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine to coarse grained. Grey, green, and pink mottled. Non-magnetic. Well bedded at 40 to 50 dca. Fractures at 55 to 58 dca. 20% biotite. 8% grunerite. 30% quartz flooding. 1 to 15% pyrrhotite. Trace pyrite on fractures. Faulted folds at 365.4 medium. Axial planes at 32 dca. Micro-faults at 38 dca. 345.35 346.00 4ea, 3% grunerite, 20% garnet, 25% quartz flooding, 1% chlorite, trace biotite, 3% quartz vein. 345.35 359.00 MINERALIZED ZONE: 1 to 15% pyrrhotite as stringers and interstitial grains, 174 specks of VISIBLE GOLD occuring with in								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			garnets, in quartz flooding MINERALIZED ZONEs and along chlorite stringers. 1 speck in carbonate vein. 30% Quartz flooding. 2% chlorite. 10% grunerite. LAB CHECK SAMPLES:. E42661 STANDARD I 7.30. E42662 BLANK 0.07. E42670 DUPLICATE OF E42669 20.91. E42678 STANDARD I 7.27 7.41. E42679 BLANK 0.34. 346.00 347.00 4ea, 20% grunerite, 20% garnet, 10% quartz flooding. 347.00 347.70 4ea, pyrrhotite as stringers and fracture-filling, 3 specks VISIBLE GOLD, 5% grunerite, 20% garnet, 6% quartz flooding, 5% chlorite. 347.70 348.30 4ea, pyrrhotite as stringers, 9 specks VISIBLE GOLD, trace grunerite, 5% garnet, 35% quartz flooding, 5% chlorite. 348.30 349.20 4ea, pyrrhotite as interstitial grain and stringers, 20% grunerite, 30% garnet, 20% quartz flooding, 2% chlorite. 349.20 350.30 4ea, pyrrhotite as interstitial grain and stringers, 23 specks VISIBLE GOLD, 3% grunerite, 20% garnet, 35% quartz flooding, 7% chlorite. 350.30 351.00 4ea, pyrrhotite as interstitial grain, 10% grunerite, 20% garnet, 3% quartz flooding, trace calcite vein on hairline fractures. 351.00 351.80 4ea, pyrrhotite as interstitial grain, 20% grunerite, 25% garnet, 5% quartz flooding, 2% chlorite, 2% biotite. 351.80 353.00 4ea, pyrrhotite as stringers, 3 specks VISIBLE GOLD, 5% grunerite, 20% garnet, 70% quartz flooding, 5% chlorite, trace biotite, 1% quartz vein. 353.00 354.00 4ea, pyrrhotite as stringers and interstitial grains, 102 specks VISIBLE GOLD in fine grained clusters, trace arsenopyrite, 5% grunerite, 10% garnet, 30% quartz flooding, 8% chlorite, trace quartz-calcite stringer. 354.00 355.00 4ea, pyrrhotite as stringers, fine grained disseminated, and interstitial grain, 3 specks VISIBLE GOLD, trace arsenopyrite, 15% grunerite, 20% garnet, 12% quartz flooding, 3% chlorite, trace quartz-calcite stringer. 355.00 356.00 4ea, pyrrhotite as stringers and interstitial grains, 4 specks VISIBLE GOLD, 5% grunerite, 20% garnet, 15% quartz flooding, 1% chlorite, trace quartz-calcite stringer. 356.00 357.00 4ea, pyrrhotite as stringers and interstitial grains, 20% grunerite, 30% garnet, 25% quartz flooding, 2% chlorite, 5% quartz vein. 357.00 357.50 4ea, pyrrhotite as interstitial grains, 10% grunerite, 20% garnet, 3% quartz flooding, trace chlorite. 357.50 359.00 4ea, pyrrhotite as stringers, 27 specks VISIBLE GOLD in fine grained clusters, 3% grunerite, 10% garnet, 50% quartz flooding, 5% chlorite, 1% calcite vein. 358.00 360.00 Abundant chlorite healed fractures parallel the plane of the section with mm scale offsets. Lineations are sub horizontal, plunging shallowly to the southwest. Lower contact is sharp at 38 dca. 359.00 360.00 4ea, pyrrhotite as interstitial grains, 1% grunerite, 15% garnet,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			15% quartz flooding, 10% chlorite, 2% quartz vein, 2% quartz-calcite stringer. 360.00 360.80 4ea, pyrrhotite as interstitial grains, 20% grunerite, 20% garnet, 4% quartz flooding, 3% chlorite, TR% quartz-calcite stringer. 360.80 362.00 4ea, pyrrhotite as stringers, trace pyrite on fractures, 20% grunerite, 20% garnet, 3% quartz flooding, 2% chlorite, 20% quartz vein, trace quartz-calcite stringer. 362.00 363.00 4ea, pyrrhotite as interstitial grains, 20% grunerite, 20% garnet, 3% quartz flooding, 2% INTERSTITIAL chlorite in grunerite beds, 4% quartz vein, trace quartz-calcite stringer. 363.00 364.00 4ea, pyrrhotite as interstitial grains, 10% grunerite, 10% garnet, 5% quartz flooding, 2% quartz-calcite stringer. 364.00 365.00 4ea, pyrrhotite as interstitial grains, 3% grunerite, 10% garnet, 5% quartz flooding, trace chlorite, 3% quartz vein, trace calcite vein. 365.00 365.55 4ea, pyrrhotite as interstitial grains, 1% grunerite, 10% garnet, 5% quartz flooding, trace chlorite, trace calcite vein.								
365.55	370.75	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Green. Non-magnetic. Well foliated at 30 dca. Trace pervasive chlorite alteration. 2 to 3% 1 to 2 cm carbonate veins parallel to foliation. 365.55 367.30 Brown with biotite alteration, 5% pervasive carbonatization and 2% carbonate stringers. 367.60 368.00 Coarse grained milky quartz vein at 35 dca. Barren.								
370.75	372.45	4E	GARNET-AMPHIBOLE IRON FORMATION 4e. Fine to coarse grained. Green,, brown and pink mottled. Non-magnetic. M-type fold throughout with axial plane at 45 dca. Foliation at 45 dca. 2% Pyrrhotite stringers. Trace chalcopyrite stringers. Trace ?bournite bleb at 372.3 purple, green, and blue hues. Lower contact is sharp at 43 dca. 370.75 371.50 4e, pyrrhotite as disseminated grains, 3% grunerite, 10% garnet, 10% quartz flooding, 5% chlorite, 5% biotite, 3% quartz vein. 371.50 372.45 4e, pyrrhotite as stringers, trace chalcopyrite stringers, 1% grunerite, 20% garnet, 20% quartz flooding, trace chlorite, 3% biotite.								
372.45	375.90	4F	GARNET-BIOTITE SCHIST 4f. 30% 3 Mm garnet porphyroblasts in FELSIC TO INTERMEDIATE VOLCANICS biotite rich matrix. Bedding is at 43 to 45 dca. Minor m-type fold with axial plane at 45 to 53 dca. Fractures at 45 dca parallel to bedding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Trace interstitial pyrrhotite. Lower contact is gradual over 1 metre at 70 dca. 372.45 373.45 4ea, pyrrhotite as blebs, trace grunerite, 30% garnet, 3% quartz flooding, 3% chlorite, 15% biotite.								
375.90	398.75	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. 90% ea-beds 5% b-beds and 5% f-beds. Well bedded on cm scale at various angles to the core axis. Locally thin laminated. Folded throughout with axial planes ORIENTED 15-25, 28-31, and 45 dca. Rare fractures are perpendicular to bedding at 52 to 63 dca. Rare fractures at 29-40 dca to core rotated 90 degrees. 10 to 20% grunerite throughout. 10 to 30% garnet porphyroblasts. 5 to 30% quartz flooding. Trace to 3% chlorite stringers. Rare quartz veins and quartz-carbonate veins. Lower contact is gradual over 1 medium. Approximate 50 dca. 375.90 377.00 4ea, pyrrhotite as interstitial grains, 20% grunerite, 30% garnet, 10% quartz flooding, trace chlorite, 3% quartz vein. 377.00 378.00 4ea, pyrrhotite as interstitial grains minor stringers, 10% grunerite, 30% garnet, 15% quartz flooding, trace chlorite, 3% quartz vein. 378.00 379.00 4ea, pyrrhotite as interstitial grains, 10% grunerite, 20% garnet, 30% quartz flooding, trace chlorite. 379.00 380.00 4ea, pyrrhotite as stringers, 20% grunerite, 30% garnet, 10% quartz flooding, 1% chlorite, 1% quartz-calcite stringer. 380.00 381.00 4ea, pyrrhotite as interstitial grains and blebs, 15% grunerite, 30% garnet, 15% quartz flooding, trace chlorite fracture-filling, trace quartz-calcite stringer. 381.00 382.00 4ea, pyrrhotite as interstitial grains and blebs, 20% grunerite, 35% garnet, 5% quartz flooding, trace chlorite fracture-filling, 5% biotite bedded. 382.00 383.10 4ea, pyrrhotite as interstitial grains fine grained disseminated grains and blebs, trace arsenopyrite crystals, 10% grunerite, 30% garnet, 20% quartz flooding, trace chlorite. 383.10 387.00 MINERALIZED ZONE: 26 specks VISIBLE GOLD. 1 to 15% pyrrhotite stringers and interstitial grains. Trace arsenopyrite locally. 20% grunerite alteration. 15% quartz flooding. E42690 DUPLICATE OF E42689 1.10. E42702 STANDARD I 7.27 7.23. E42703 BLANK 0.07. E42710 DUPLICATE OF E42709 0.31. 383.10 384.00 4ea, pyrrhotite as stringers and interstitial grains, 12 specks fine grained VISIBLE GOLD in cluster, trace pyrite, 10% grunerite, 20% garnet, 15% quartz flooding, 1% chlorite, trace quartz-calcite stringer. 384.00 385.00 4ea, pyrrhotite as interstitial and fine grained disseminated								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			grains, 10% grunerite, 25% garnet, 5% quartz flooding, 2% chlorite, 2% quartz-calcite stringer. 385.00 386.00 4ea, pyrrhotite as lacy stringers, 14 specks VISIBLE GOLD, 5% grunerite, 20% garnet, 35% quartz flooding, 5% chlorite stringers, 2% quartz vein, trace calcite vein fracture-filling. 386.00 387.00 4ea, pyrrhotite as interstitial grains, 20% grunerite, 20% garnet, 5% quartz flooding, 5% chlorite stringers, 3% quartz vein. 387.00 388.00 4ea, pyrrhotite as interstitial grains, 10% grunerite, 30% garnet, 10% quartz flooding, trace quartz-calcite stringer. 388.00 389.00 4ea, pyrrhotite as interstitial and fine grained disseminated grains, 10% grunerite, 30% garnet, 5% quartz flooding, trace chlorite bedded, trace biotite bedded, trace calcite vein. 389.00 390.00 4ea, pyrrhotite as interstitial and fine grained disseminated grains, 10% grunerite, 30% garnet, 5% quartz flooding, trace biotite, trace quartz-calcite stringer. 390.00 391.00 4ea, pyrrhotite as interstitial grains, 10% grunerite, 20% garnet, 10% quartz flooding, 3% biotite, trace calcite vein. 391.00 392.00 4ea, pyrrhotite as stringers and interstitial grains, 10% grunerite, 20% garnet, 20% quartz flooding, 3% chlorite, 5% quartz-calcite vein. 392.00 393.00 4ea, pyrrhotite as finely disseminated grains, 0.5 arsenopyrite, 10% grunerite, 20% garnet, 7% quartz flooding, 3% chlorite, 10% quartz vein. 393.00 394.00 4ea, pyrrhotite as finely disseminated and interstitial grains, 15% grunerite, 30% garnet, 5% quartz flooding, 3% chlorite, 10% quartz vein. 394.00 395.00 4ea, pyrrhotite as finely disseminated grains, 5% grunerite, 15% garnet, 10% quartz flooding, 3% chlorite, 5% quartz vein. 395.00 396.00 4ea, pyrrhotite as finely disseminated grains, 5% grunerite, 20% garnet, 10% quartz flooding, 5% chlorite, 5% quartz vein. 396.00 397.00 4ea, pyrrhotite as fault disseminated grains and stringers, trace chalcopyrite stringers, 5% grunerite, 10% garnet, 5% quartz flooding, 5% chlorite, 10% quartz vein. 397.00 398.00 4ea, pyrrhotite as interstitial grains, 15% grunerite, 15% garnet, 3% quartz flooding, 2% quartz vein. 398.00 398.75 4ea, pyrrhotite as interstitial grains, 10% grunerite, 10% garnet, 30% quartz flooding, 1% chlorite, 2% quartz vein.								
398.75	402.40	4BE	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be(a). Black and grey. Very fine grained to medium grained. Moderately to strongly magnetic. Well developed bedding at 41 to 55 dca. Bedding developed on cm scale with sub-mm laminaes of magnetite in chert beds. Commonly folded with axial planes at 28 dca. Trace to 1% grunerite alteration along the edges of e-beds. Minor thin laminaes of carbonate in the chert. 10% 1 To 2 mm garnet porphyroblasts. Trace quartz-carbonate veins. Lower contact is faulted at 50 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			398.75 399.75 4be, pyrrhotite as finely disseminated grains, 1% grunerite, 10% garnet, 30% quartz flooding, 2% chlorite in quartz flooding, trace calcite vein as hairline fracture-filling. 399.75 400.75 4be, pyrrhotite as finely disseminated grains, trace grunerite 10% garnet, 5% quartz flooding, 10% quartz vein. 400.75 401.75 4be, pyrrhotite as very finely disseminated grains, 10% garnet, 10% quartz flooding, 12% quartz vein, trace quartz-calcite stringer. 401.75 402.40 4be, pyrrhotite as very finely disseminated grains and stringers, 10% garnet, 30% quartz flooding, trace quartz-calcite stringer.								
402.40	406.85	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Well bedded at various angles to the core axis. M-type fold with axial planes at 33 to 50 dca. 10% grunerite. 10% garnet. 15% quartz flooding. Trace to 2% chlorite stringers in quartz veins. 50% Quartz veining. Lower contact is gradual over several mediums. E42721 STANDARD I 7.44 7.68. E42722 BLANK 0.14. 402.40 403.50 4ea, pyrrhotite as stringers, trace grunerite, 5% garnet, 40% quartz flooding, 5% chlorite, 30% quartz vein. 403.50 404.70 4ea, pyrrhotite as stringers, 20% garnet, 20% quartz flooding, 60% quartz vein. 404.70 406.00 4ea, pyrrhotite as interstitial grains, 10% grunerite, 20% garnet, 10% quartz flooding, 5% quartz vein. 406.00 406.85 4ea, trace grunerite, 5% garnet, 10% quartz flooding, 5% chlorite, 60% quartz vein.								
406.85	412.15	4BE	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. 80% B-beds and 20% e-beds. Bedding is well developed on cm scale at various angles to the core axis. Pervasive m-type fold with axial planes at 30 to 30 and 55 dca. Fractures are rare. 3% Grunerite alteration throughout. Locally up to 5% over 20 cm. Trace quartz veining. Trace quartz-carbonate veining. Trace calcite fracture-filling. Lower contact is gradual over 0.5 mediums. 406.85 408.00 4be, trace grunerite, 10% garnet, 5% quartz flooding, 1% quartz vein.								
412.15	418.00	4B	CHERT - MAGNETITE IRON FORMATION 4b. Black and grey. Fine grained. Strongly magnetic.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Well bedded on cm scale with very fine laminaes of magnetite in chert beds. Generally planar bedding with gentle variations in bedding angles reflecting large scale open folds. Minor folds noted with axial plane at 15 dca. Carbonate healed microfaults also at 15 dca. Trace pyrrhotite throughout as very finely disseminated grains. Offsets on mm scale. Trace carbonate alteration coating magnetite rich beds locally. 414.70 415.20 Chlorite rich. 414.70 415.70 4ea, pyrrhotite as blebs, trace carbonatization, trace chlorite, trace quartz-calcite stringer, trace calcite vein.								
418.00		4B	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. ----------. Sample prep at Chemex Labs in Thunder Bay, Ontario. Samples analysed at Chemex. And Xral Labs Inc. 30 gram sample fire assay with gravimetric finish. Sludge samples taken until 76m where return was lost. Samples stored at Musselwhite camp. ----------. DRILLING HISTORY:. 0.0 20.2 Tricone bit. 20.2 114.7 20 foot fluted core barrel. 114.7 301.0 10 foot standard core barrel with blank back end. Drilling with 301.0 418.0 (EOH) 20 foot standard core barral with blank back end. Increased head pressure to flatten the hole. Tags in boxes have XXX.7m to reflect the shorter run when switching to the 10 foot core barrel. Loss of return at 76m then regained. Lost again at 200m not recovered. Unable to pull casing. Cut at 50 feet. Plugged at 200m and cemented to surface. ----------. SURVEY HISTORY:. Sperry Sun single shot camera with I.O.L. (low point indicator) used for dips. Rotodip reading were erratic and were disregarded. Rotodip sent out for service. Survey data used to plot the hole (in header information) is from light log survey. Surveys by PDI technicians on site (ie P Lindsay). Interpretation by H.J. Ottie and Company, 31 Ripley Ave., Toronto, Ontario. DIP TESTS. M DIP SURVEY. 21 -62 Sperry Sun: IOL. 57 -61.5 Sperry Sun: IOL. 95 -60.5 Sperry Sun: IOL. 156.7 -59 Sperry Sun: IOL.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			201.7 -57.75 Sperry Sun: IOL. 242 -57.75 Sperry Sun: IOL. 286 -57 Sperry Sun: IOL. 319 -55.25 Sperry Sun: IOL. 352 -55 Sperry Sun: IOL. 388 -54.5 Sperry Sun: IOL. Drill hole collar co-ordinates, azimuth and water elevation surveyed by D. Villeneuve, Dona Lake Mine, Pickle Lake, Ontario.								

DRILL HOLE RECORD

Northing: 10448.840
Easting: 8984.859
Elevation: 5302.467

Collar Azi.: 228.00
Collar Dip: -61.00

Hole Length: 439.00
Completed: AUG. 23, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST C, T AND WA ZONES ON SECTION 10450N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529497 (434m),Pa529498 (5m)
32 m north, 186 m east to post 1 of Pa529497
Date(s) Logged: AUG. 18 - AUG. 24, 1993

Drill Hole: 506-660

Northing: 10450N
Easting: 8984E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: AUG. 17, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
3.0	226.8	-61.3	113.5	226.4	-58.7	224.0	228.1	-57.0	334.5	230.4	-54.8
6.0	227.0	-61.4	116.5	226.4	-58.7	227.0	228.1	-57.0	337.5	230.4	-54.8
9.0	227.4	-61.7	119.5	226.2	-58.6	229.9	228.1	-56.9	340.5	230.5	-54.8
11.9	227.6	-61.6	122.4	226.4	-58.6	232.9	228.1	-56.8	343.4	230.5	-54.7
14.9	227.6	-61.3	125.4	226.4	-58.5	235.9	228.4	-56.8	346.4	230.5	-54.7
17.9	227.6	-61.0	128.4	226.4	-58.5	238.9	228.4	-56.7	349.4	230.7	-54.7
20.9	227.6	-61.0	131.4	226.4	-58.4	241.9	228.4	-56.6	352.4	230.7	-54.6
23.9	227.6	-60.9	134.4	226.4	-58.3	244.9	228.4	-56.6	355.4	230.7	-54.6
26.9	227.6	-60.9	137.4	226.4	-58.3	247.9	228.3	-56.5	358.4	230.9	-54.5
29.9	227.6	-60.8	140.4	226.4	-58.2	250.9	228.3	-56.5	361.4	230.9	-54.6
32.8	227.4	-60.6	143.4	226.4	-58.2	253.8	228.1	-56.4	364.3	231.1	-54.6
35.8	227.4	-60.5	146.3	226.4	-58.1	256.8	228.3	-56.3	367.3	231.1	-54.5
38.8	227.4	-60.4	149.3	226.6	-58.1	259.8	228.3	-56.3	370.3	231.2	-54.5
41.8	227.4	-60.4	152.3	226.6	-58.1	262.8	228.3	-56.2	373.3	231.2	-54.5
44.8	227.2	-60.3	155.3	226.6	-58.1	265.8	228.3	-56.1	376.3	231.4	-54.5
47.8	227.0	-60.2	158.3	226.8	-58.0	268.8	228.3	-56.1	379.3	231.6	-54.4
50.8	227.0	-60.2	161.3	227.0	-57.9	271.8	228.3	-56.1	382.3	231.6	-54.4
53.8	227.0	-60.2	164.3	227.0	-57.9	274.8	228.4	-56.0	385.2	231.8	-54.3
56.7	226.8	-60.2	167.2	227.1	-57.8	277.7	228.6	-55.9	388.2	231.9	-54.3
59.7	226.8	-60.1	170.2	227.1	-57.8	280.7	228.6	-55.8	391.2	231.9	-54.2
62.7	226.8	-60.1	173.2	227.3	-57.8	283.7	228.8	-55.7	394.2	231.9	-54.2
65.7	226.8	-60.1	176.2	227.5	-57.8	286.7	228.8	-55.6	397.2	231.9	-54.2
68.7	226.8	-60.0	179.2	227.5	-57.8	289.7	228.8	-55.5	400.2	232.1	-54.2
71.7	226.8	-59.9	182.2	227.7	-57.8	292.7	228.8	-55.4	403.2	232.1	-54.2
74.7	227.0	-59.8	185.2	227.7	-57.7	295.6	228.8	-55.3	406.1	232.3	-54.2
77.7	227.0	-59.7	188.1	227.9	-57.6	298.6	228.8	-55.1	409.1	232.3	-54.2
80.6	226.8	-59.6	191.1	227.9	-57.6	301.6	229.0	-55.1	412.1	232.3	-54.2
83.6	226.8	-59.6	194.1	227.9	-57.5	304.6	229.1	-55.1	415.1	232.4	-54.2
86.6	226.6	-59.5	197.1	228.1	-57.4	307.6	229.3	-55.1	418.1	232.4	-54.2
89.6	226.6	-59.4	200.1	228.1	-57.4	310.6	229.3	-55.1	421.1	232.4	-54.2
92.6	226.4	-59.3	203.1	228.1	-57.4	313.6	229.5	-55.1	424.1	232.6	-54.2
95.6	226.4	-59.2	206.1	228.1	-57.3	316.6	229.5	-55.1	427.0	232.8	-54.2
98.6	226.4	-59.1	209.1	228.1	-57.4	319.5	229.7	-55.0	430.0	232.8	-54.3
101.5	226.4	-59.0	212.0	228.1	-57.3	322.5	229.7	-55.0	433.0	232.9	-54.2
104.5	226.4	-58.9	215.0	228.1	-57.3	325.5	229.9	-54.9	436.0	233.1	-54.1
107.5	226.4	-58.9	218.0	228.1	-57.2	328.5	230.0	-54.9	439.0	233.3	-54.0
110.5	226.4	-58.8	221.0	228.1	-57.1	331.5	230.2	-54.9			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). For detailed structural data see attached STRIP LOG. For geotechnical data see Geotechnical Log. Sample series E42728 to E42898.								
.00	15.25	OB	OVERBURDEN Granitic boulders.								
15.25	18.00	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained. Black and white banded. Strongly magnetic. Hard. Bedding well developed at 17 to 20 dca. Beds 1 mm to 1 cm wide. Locally boudinaged and contorted. Fractures perpendicular to bedding at 15 and 30 dca. Minor fractures parallel at 18 dca. Fractures calcite and chlorite coated. Axial planar cleavage at 59 dca. GEOLOG DATA:. 0% Grunerite, <1% disseminated garnets, 0% silicification, 3% pervasive calcite alteration, trace fracture coating chlorite, 0% biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 40% bedded magnetite. 1% Quartz and 4% quartz-calcite stringers parallel to bedding. Locally boudinaged. 0% quartz-carbonate. Lower contact gradual. 15.25 18.00 Moderately fractured core. 15.25 16.00 4b. 40% magnetite. <1% garnets. 10% sheared quartz-calcite stringers. Bedding contorted and boudinaged at 17 dca. 15.25 16.00 Axial planar cleavage at 59 dca. E42730 DUPLICATE OF E42729 0.07 ns ns. 16.00 17.00 4b. 40% magnetite. 2% quartz-calcite stringers. Bedding 18 dca. 17.00 18.00 4b. 50% magnetite. Bedding 20 dca.								
18.00	35.45	4BF	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. Fine grained. Black, dark grey, white and pink. Moderately to strongly magnetic. Hard. Composed of:. 70% to 80% 4b beds. 20% to 30% 4f beds with 10% to 20% 1 mm garnets. Bedding well developed at 10 to 30 dca. 1 mm to 1 cm wide. At 19.50 left limb fold with axial plane 25 dca. From 31.00 to 35.45 left limb fold with axial plane 24 to 37 dca. Fractures subparallel to bedding at 10 to 25 dca and perpendicular at 35 to 47								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			dca. GEOLOG DATA:. 0% grunerite, 15% bedded garnets, 0% silicification, 3% pervasive and bedded calcite alteration, trace fracture coating chlorite, 20% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% bedded magnetite. 0% Quartz veining. <1% boudinaged quartz-calcite stringers, 0% calcite. Lower contact 24 dca. E42740 STANDARD I 6.96 7.17. E42741 BLANK 0.10. E42750 DUPLICATE OF E42749 0.07. 18.00 19.00 4bf. 50% magnetite. 5% garnets. Bedding 15 dca. 19.00 20.00 4bf. 3% pyrrhotite along vein selvage and banded. 40% magnetite. 5% garnets. 5% irregular quartz blebs. At 19.80 left limb fold with axial plane 25 dca. 20.00 21.00 4bf. 40% magnetite. 8% garnets. Bedding 10 dca. 21.00 22.00 4bf. 40% magnetite. 8% garnets. 2% biotite. Bedding 10 dca. 22.00 23.00 4bf. 40% magnetite. 8% garnets. 2% biotite. Bedding 14 dca. 23.00 24.00 4bf. 40% magnetite. 3% garnets. Bedding 15 dca. 24.00 25.00 4bf. 40% magnetite. 8% garnets. 2% irregular quartz-calcite stringers. Bedding 11 dca. 25.00 26.00 4bf. 40% magnetite. 3% garnets. Bedding 13 dca. 26.00 27.00 4bf. 40% magnetite. 3% garnets. Bedding 13 dca. 27.00 28.40 4bf. 40% magnetite. 3% garnets. Bedding 13 dca. 28.40 29.00 4bf. 30% magnetite. 5% garnets. Bedding 12 dca. 29.00 30.00 4bf. 30% magnetite. 5% garnets. Bedding 22 dca. 30.00 31.00 4bf. 30% magnetite. 15% garnets. Bedding 25 dca. 31.00 32.00 4bf. 30% magnetite. 20% garnets. Bedding 25 dca. At 31.75 left limb fold with axial plane 37 dca. 32.00 33.00 4bf. 30% magnetite. Cherty. 10% calcite stringers. At 32.30 left limb fold with axial plane 27 dca. 33.00 33.45 4bf. 30% magnetite. 20% garnets. Bedding 30 dca. At 33.35 left limb fold with axial plane 36 dca. 33.45 34.45 4bf. 10% magnetite. 25% garnet. Bedding 30 dca. At 33.90 left limb fold with axial plane 42 dca. 34.45 35.45 4bf. 10% magnetite. 25% garnet. Bedding 22 dca.								
35.45	38.45	4E	GARNET-AMPHIBOLE IRON FORMATION 4e. Fine grained. Dark green, grey, black, white and pink. Weakly to moderately magnetic. Moderately hard to hard. Composed of:. 60% 4e Beds. 30% Metasediment beds. 10% 4f Beds. 2% 4b Beds.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Poorly to moderately bedded at 24 dca. Fractures parallel to bedding at 22 dca and perpendicular at 50 dca. GEOLOG DATA:. 0% grunerite, 15% 1 mm to 1 cm subhedral to anhedral bedded garnets, 0% silicification, 1% pervasive carbonatization, 1% pervasive chlorite, 10% bedded biotite. Trace blebs pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% bedded magnetite. 0% quartz, 0% quartz-carbonate, trace calcite stringers. Lower contact 39 dca. 35.45 36.45 4e. 2% magnetite. 15% garnet. Bedding 26 dca. 36.45 37.45 4e. 2% magnetite. 10% garnet. Bedding 24 dca. 37.45 38.45 4e. 1% magnetite. 15% garnets. Trace quartz-calcite stringers. At 38.20 bedding 50 dca.								
38.45	56.65	4BF	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. Fine grained. Black, dark grey, green, white and pink. Strongly magnetic. Composed of:. 78% 4b Beds. 20% 4f Beds. 2% 4e Beds. Bedding well developed at 9 to 34 dca. Minor left limb fold with axial plane 16 to 37 dca. Fractures subparallel to bedding at 5 and 34 to 55 dca and perpendicular at 30 to 65 dca. Fractures calcite and chlorite coated. MINERALIZED ZONES:. From 44.30 to 46.00 10% blebs and stringers of pyrrhotite. Locally 1% pyrite. 10 specks VISIBLE GOLD. 50% blue-grey quartz veining. Trace calcite stringers. From 55.00 to 56.00 5% fracture-filling, wisps and stringers of pyrrhotite. 16 specks VISIBLE GOLD. 20% quartz veining and quartz flooding. GEOLOG DATA:. Trace bedded grunerite, 10% bedded garnets, 0% silicification, 1% pervasive and fracture-filling carbonatization, 1% fracture coating and pervasive chlorite, 20% bedded biotite. 1% Blebs and wisps pyrrhotite, 26 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% bedded magnetite. 5% Quartz stringers parallel to bedding, 1% quartz-carbonate, trace calcite. Lower contact FELSIC TO INTERMEDIATE VOLCANICS quartz vein at 56 dca. 38.45 39.45 4bf. 5% magnetite. 20% garnets. 2% carbonatization. 17% quartz veining. Bedding 32 dca. At 39.40 left limb fold with axial plane 30 dca. 39.45 40.45 4bf. 15% magnetite. 10% garnets. 5% carbonatization. 25% quartz stringers. Bedding 32 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			40.00 41.00 Fractures subparallel to bedding at 34 dca. E42760 STANDARD II 8.13 8.43 ns. E42761 BLANK 0.24 ns ns. 40.45 41.45 4bf. 30% magnetite. 15% garnets. 1% quartz-calcite stringers. 1% quartz stringers. Bedding 23 dca. At 41.20 left limb fold with axial plane 34 dca 41.45 42.45 4b. 40% magnetite. 5% garnets. 1% quartz-calcite stringers. Bedding 23 dca. At 42.30 left limb fold with axial plane 37 dca. 42.45 43.45 4bf. 40% magnetite. 5% garnets. 1% quartz-calcite stringers. Bedding 21 dca. At 43.25 left limb fold with axial plane 36 dca. 43.45 44.30 4bf. 40% magnetite. 8% garnets. 1% quartz-calcite stringers. Bedding 21 dca. 44.30 45.15 4bf. 6 specks VISIBLE GOLD. 2% pyrite. 20% magnetite. 5% garnets. 30% blue-grey quartz veining parallel to bedding at 9 dca. 45.00 46.00 Fractures subparallel to bedding at 5 dca. 45.15 46.00 4bf. 4 specks VISIBLE GOLD. 2% pyrite. 2% magnetite. 1% garnets. 70% blue-grey quartz veining parallel to bedding at bedding 15 dca. 46.00 47.00 4bf. 40% magnetite. 3% garnets. 5% blue-grey quartz veining parallel to bedding at 15 dca. 47.00 48.00 4bf. 40% magnetite. 3% grunerite. 15% garnets. 1% quartz-calcite stringers. Bedding 8 dca. 48.00 49.00 4bf. 40% magnetite. 10% garnet. Bedding 14 dca. At 48.40 left limb fold with axial plane 16 dca. 49.00 54.00 Core moderately fractured. E42770 DUPLICATE OF E42769 4.87. 49.00 50.00 4bf. 1% pyrite. 25% magnetite. 5% garnets. 20% quartz veining. At 49.60 M folds with axial plane 25 dca. 50.00 51.00 4bf. 40% magnetite. 3% garnets. Bedding 30 dca. At 50.50 left limb fold with axial plane 26 dca. 51.00 52.00 4bf. 20% magnetite. 1% garnets. 52.00 53.00 4bf. 40% magnetite. 1% garnets. Bedding 9 dca. 53.00 54.00 4bf. 40% magnetite. 10% garnets. 2% quartz stringers parallel to bedding. Bedding 20 dca. 54.00 55.00 4bf. 40% magnetite. 5% garnet. 2% quartz stringers parallel to bedding. Bedding 26 dca. 55.00 56.00 4bf. 5% fracture-filling and wisps of pyrrhotite. 16 specks VISIBLE GOLD. 30% magnetite. 2% garnets. 20% quartz stringers and quartz flooding. Bedding 29 dca. At 55.95 left limb fold with axial plane 32 dca. 56.00 56.65 4bf. 30% magnetite. 3% garnets. Bedding 29 dca.								
56.65	59.03	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Light green, grey, dark green, black and pink. Weakly to moderately magnetic. Hard. Bedding 23 to 27 dca. Fractures parallel to bedding at 37 and perpendicular at 60 dca. MINERALIZED ZONE:. From 56.65 to 59.03 2% pyrrhotite, 8 specks VISIBLE GOLD, 15% quartz stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. 30% Bedded grunerite, 25% bedded garnet, 0% silicification, 0% carbonatization, trace fracture-filling chlorite, 2% bedded biotite. 2% Stringers and wisps pyrrhotite, 8 specks VISIBLE GOLD, 0% pyrite, trace blebs arsenopyrite, 0% chalcopyrite, 2% bedded magnetite. 15% Quartz stringers, 0% quartz-carbonate, trace calcite. Lower contact sharp at 23 dca. E42780 STANDARD I 7.65. E42781 BLANK 0.31. 56.65 57.00 4ea. 6 specks VISIBLE GOLD. 2% magnetite. 5% grunerite. 5% garnets. 25% quartz veining parallel to bedding at 30 dca. 57.00 58.00 4ea. 2 specks VISIBLE GOLD. 2% magnetite. 30% grunerite. 25% garnets. 5% quartz stringers parallel to bedding at 23 dca. 58.00 59.03 4ea. Trace arsenopyrite. 2% magnetite. 30% grunerite. 25% garnets. 10% quartz veining. Bedding 27 dca.								
59.03	60.70	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, black and pink. Non-magnetic. Moderately hard. Bedding 25 to 27 dca. Fractures parallel to bedding at 27 dca and perpendicular at 65 dca. Trace fracture-coating calcite. 25% 1 mm garnets. GEOLOG DATA:. 0% grunerite, 25% 1 mm bedded garnet, 0% silicification, trace fracture coating calcite alteration, 0% chlorite, 60% biotite. Trace stringers pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 3% Quartz stringers parallel to bedding, 0% quartz-carbonate, trace calcite. Lower contact sharp at 25 dca. 59.03 60.03 4f. 5% quartz stringers. Bedding 25 dca. 60.03 60.70 4f. 1% quartz stringers. Bedding 27 dca.								
60.70	65.08	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, medium grey. Non-magnetic. Moderate hardness. Trace 1 to 2 mm quartz blebs and quartz eyes. 1% to 5% 1 mm feldspar phenocrysts. Well foliated at 22 dca. Predominant fracture set perpendicular to foliation at 50 and 65 dca. Minor fractures subparallel at 29 dca. GEOLOG DATA:. 0% Grunerite, trace disseminated garnet, 1% 5 cm silicified bands, 3% pervasive calcite alteration. Trace disseminated chlorite. 5% disseminated and banded biotite. 10% pervasive and 5 mm wide banded sericite alteration.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% quartz, 1% quartz-calcite stringers parallel to foliation, trace calcite stringers. Lower contact sharp at 25 dca. 60.70 61.70 AVOL. Trace calcite stringers.								
65.08	67.90	4F	GARNET-BIOTITE SCHIST 4f. 77% 4f And 23% AVOL. Similar to 59.03 to 60.70 metres. Bedding 26 to 30 dca. Fractures parallel to bedding at 26 dca and perpendicular at 30 and 60 dca. GEOLOG DATA:. 0% grunerite, 25% bedded garnet, 0% silicification, 0% carbonatization, trace fracture coating chlorite, 60% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% quartz, 0% quartz-carbonate, trace calcite stringers. Lower contact sharp at 31 dca. 65.08 66.90 4f. Lower contact 40 dca. 65.08 66.08 4f. Bedding 26 dca. 66.08 66.90 4f. Bedding 30 dca. 66.90 67.25 AVOL. Lower contact 27 dca. 66.90 67.90 70% AVOL, 30% 4f. 67.25 67.60 4f. Lower contact 25 dca. 67.60 67.90 AVOL. Lower contact 31 dca.								
67.90	69.90	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Similar to 56.65 to 59.03 metres. Bedding 25 dca. Fractures perpendicular to bedding at 55 dca. GEOLOG DATA:. 30% Bedded grunerite, 20% amorphous bedded garnet, 0% silicification, 3% pervasive carbonatization, trace fracture coating chlorite, 5% bedded biotite. <1% wisps pyrrhotite, 0 specks, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% bedded magnetite. 5% Quartz stringers parallel to bedding, 0% quartz-carbonate, 0% calcite. Lower contact sharp at 31 dca. E42790 DUPLICATE OF E42789 2.23. 67.90 68.90 4ea. 3% magnetite. 20% grunerite. 20% garnets. 5% quartz stringers parallel to bedding at 25 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			68.90 69.90 4ea. 3% magnetite. 20% grunerite. 20% garnets. 5% quartz stringers parallel to bedding at 25 dca.								
69.90	73.00	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Similar to 60.70 to 65.08 metres. Fine grained, medium to light grey and buff. Non-magnetic. Moderate hardness. Well foliated at 25 to 31 dca. Fractures perpendicular to foliation at 61 dca and parallel at 26 dca. GEOLOG DATA:. 0% grunerite, 0% garnets, 0% silicification, <1% pervasive calcite alteration, trace disseminated chlorite, 5% pervasive biotite, 15% pervasive and banded sericite alteration. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz stringers, 0% quartz-carbonate, 0% calcite. Lower contact 27 dca.								
73.00	87.15	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green, non-magnetic, moderate hardness. Well foliated at 27 to 33 dca. Dominant fracture set perpendicular to foliation at 54 to 60 dca. Minor fractures parallel to foliation at 30 to 35 dca. Fractures calcite and chlorite coated. GEOLOG DATA:. 0% grunerite, 0% garnet, 0% silicification, 5% pervasive calcite alteration. 5% pervasive chlorite, 20% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veining, 0% quartz-carbonate, 3% calcite stringers parallel to foliation. Lower contact sharp at 25 dca. 78.57 79.13 24ea. Upper contact 30 dca. Lower contact 25 dca. 78.57 79.13 24e. 2% wisps pyrrhotite. 2% magnetite. 10% grunerite. 15% garnets. 20% quartz-calcite stringers. Bedding 23 dca. 80.10 80.65 24ea. Upper contact 34 dca. Lower contact 27 dca. 80.10 80.65 24e. 2% magnetite. 5% grunerite. 15% garnets. 10% quartz-calcite stringer. Bedding 30 dca.								
87.15	88.12	24E	INTRAFORMATIONAL IRON FORMATION 24e. Dark green and pink. Weakly magnetic. Hard. Well bedded at 20 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fractures perpendicular to bedding at 60 dca. GEOLOG DATA:. 5% Bedded grunerite. 10% bedded and amorphous garnets. 0% silicification, 5% pervasive calcite alteration, trace fracture-filling chlorite, 7% disseminated biotite. 3% Stringers and blebs pyrrhotite. 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% bedded magnetite. 3% Quartz veining parallel to bedding, 0% quartz-carbonate, 0% calcite. Lower contact at 22 dca. 87.15 88.12 24e. 3% quartz veining parallel to bedding.								
88.12	100.35	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Similar to 73.00 to 87.15 metres. Foliated at 34 to 42 dca. Dominant fracture set perpendicular to foliation at 58 to 65 dca and 30 dca. Minor fractures subparallel to foliation at 34 to 37 dca. Fractures calcite and/or chlorite coated. GEOLOG DATA:. 0% grunerite, 0% garnet, 0% silicification, 5% pervasive and fracture-filling calcite alteration, 5% pervasive chlorite, 15% pervasive biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, trace disseminated pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz stringers and 3% calcite stringers parallel to foliation. 0% quartz-carbonate stringers. Lower contact at 40 dca. 98.00 98.50 Garnetiferous band with 15% 1 mm to 5 mm garnets. 100.00 100.35 24e. Upper contact 30 dca. Lower contact 40 dca. 100.00 100.35 24e. 1% fracture-filling and stringers pyrrhotite. 5% magnetite. 5% garnets. 5% quartz stringers parallel to bedding. Bedding 27 dca.								
100.35	235.53	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Probable bedded felsic crystal-ash tuffs. Fine grained, light grey, non-magnetic. Moderately hard to moderately soft. 1% 1 To 2 mm quartz eyes and blebs stretched parallel to foliation. 1% to 5% <1 mm feldspar phenocyrsts. Bedded at 31 to 55 dca. Fracture sets parallel to bedding at 33 to 66 dca and perpendicular to bedding at 53 to 68 dca. Fractures occasionally calcite coated. Locally bleach fractures with potassic staining. GEOLOG DATA:. 0% Grunerite, trace to 1% anhedral disseminated garnets locally, trace								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			silicified band to 10 cms, trace fracture-filling carbonatization, 0% chlorite, trace fracture-filling calcite, trace disseminated biotite, 10% banded and disseminated sericite. Trace to 1% disseminated, stringers and fracture coating pyrrhotite, 0 specks VISIBLE GOLD, trace to 1% disseminated pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz stringers with 0% to 1% pyrrhotite. Locally up to 20% pyrite. 2 mm to 3 cm wide. 1% Quartz-calcite stringers. Trace calcite stringers. Lower contact 47 dca. 100.55 100.70 15 cm quartz vein with trace fracture-filling pyrrhotite. Contacts 37 dca. 100.55 132.00 15% to 25% 1 mm to 5 cm wide sericite bands parallel to bedding. 1% quartz eyes and blebs. 1% to 3% <1 mm feldspar phenocyrsts. <1% anhedral 2 mm to 5 mm garnets. 110.80 111.50 Sericitic band with 3% pyrite and trace pyrrhotite. 114.90 115.10 Shattered core. 132.00 182.00 Felsic volcanics more massive. 2% sericite -disseminated and banded. 5% feldspar phenocrysts. 1% quartz and quartz-calcite stringers. 150.30 150.50 Cherty band. 151.45 151.75 30 cm barren quartz vein. 174.50 176.40 Numerous hematite stained fractures perpendicular to bedding at 50 dca. 182.00 235.53 5% to 10% 1 mm to 5 cm sericite bands. Up to 5% feldspar phenocrysts. 190.17 190.50 50% 1 cm to 9 cm bands of lacey pyrrhotite. 203.90 205.00 AVOL. 60% quartz-calcite veining. 205.00 206.00 AVOL. 50% quartz-calcite veining. 205.50 235.53 Minor sedimentary component to AVOL. From 205.50 to 227.50 5% garnet and 5% biotite. From 205.50 to 235.50 1% garnet and 2% to 5% biotite. Locally siliceous. 2% quartz stringers parallel to bedding. 229.40 230.20 80% QVG. 20% AVOL. 1% pyrrhotite. 5% sericite. Contacts 55 dca.								
235.53	256.17	24F	INTRAFORMATIONAL IRON FORMATION 24f. Fine grained, well foliated matrix. Dark grey, brown, black and pink. Non-magnetic. Moderate hardness. Bedding 50 to 62 dca. Fractures subparallel to foliation at 30 to 55 dca. Perpendicular at 29, 41, 75 dca. GEOLOG DATA:. 0% grunerite, 30% pink 1 mm to 3 mm subhedral garnet porphyroblasts. 0% silicification, 0% carbonatization, 2% pervasive chlorite, 40% laminated biotite, 2% disseminated staurolite. 2% pervasive sericite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Trace to 1% disseminated pyrrhotite. 0 VISIBLE GOLD, trace disseminated pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 3% Quartz stringers parallel to foliation, 0% quartz-carbonate, 0% calcite. Lower contact 43 dca. 239.33 240.25 AVOL. Upper contact 54 dca. Lower contact 48 dca.								
256.17	257.25	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Similar to 100.35 to 235.53 metres. Bedding 54 dca. Lower contact 47 dca.								
257.25	258.13	24F	INTRAFORMATIONAL IRON FORMATION 24f. Similar to 235.53 to 256.17 metres. GEOLOG DATA:. 0% grunerite, 30% bedded garnets, 0% silicification, 0% carbonatization, 2% pervasive chlorite, 40% laminated biotite alteration, 3% disseminated staurolite. 2% pervasive sericite. Trace to 1% disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz stringers parallel to foliation, 0% quartz-carbonate, 0% calcite. Lower contact 60 dca.								
258.13	261.13	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey, non-magnetic, moderately hard. Foliation at 40 dca. Fractures subparallel to foliation at 26 and 35 dca. Calcite and chlorite coated. GEOLOG DATA:. 0% grunerite, 0% garnet, 0% silicification, trace blebs and fracture-filling calcite, 5% pervasive chlorite, 10% wisps biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veining, 0% quartz-carbonate, 1% fracture-filling and stringers calcite Lower contact at 52 dca.								
261.13	262.23	24F	INTRAFORMATIONAL IRON FORMATION 24f. Similar to 235.53 to 256.17 metres. GEOLOG DATA:. 0% grunerite, 15% bedded garnet, 0% silicification, 0% carbonatization, 2% pervasive chlorite, 40% laminated biotite alteration, 3% disseminated								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			staurolite. 2% pervasive sericite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% quartz, 0% quartz-carbonate and 0% calcite quartz veining. Lower contact 44 dca.								
262.23	269.30	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey and brown, moderately hard. Foliation at 33 to 40 dca. Fractures subparallel at 32 to 47 dca and perpendicular at 54 to 58 dca. Fractures calcite coated. GEOLOG DATA:. 0% grunerite, 0% garnets, 0% silicification, 1% fracture-filling calcite, 5% pervasive chlorite, 10% wisps biotite. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz stringers, 1% quartz-calcite stringer, 1% calcite stringers. Lower contact 54 dca.								
269.30	272.30	24F	INTRAFORMATIONAL IRON FORMATION 24f. Similar to 261.13 to 262.23 metres. Foliation 50 dca. Fractures subparallel to foliation at 59 and perpendicular at 55 and 46 dca. Fractures calcite coated. GEOLOG DATA:. 0% grunerite, 25% bedded garnets, 0% silicification, trace fracture-filling carbonatization, 2% pervasive chlorite, 40% laminated biotite alteration, 3% disseminated staurolite. 1% pervasive sericite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz stringers, 0% quartz-carbonate, 0% calcite. Lower contact 40 dca. 271.10 271.65 BVOL. Contacts 61 dca.								
272.30	291.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey and brown, non-magnetic, moderately hard. Bedding at 36 to 49 dca. Fractures parallel to foliation at 36 to 46 dca and perpendicular at 29 to 44 dca GEOLOG DATA:. 0% Grunerite, trace disseminated garnet, 0% silicification, 1% pervasive and fracture-filling calcite alteration, 5% disseminated chlorite, 15% disseminated								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite. 0% Quartz veining, 5% quartz-carbonate stringer parallel to foliation. 1% calcite stringers. Lower contact 34 dca. E42800 STANDARD II 10.29 10.29. E42801 BLANK 0.07. 273.95 274.60 85% QVG in BVOL. Contacts 34 dca.								
291.00	296.65	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained. Dark green, grey, white and pink. Weakly magnetic. Hard. Composed of:. 98% 24eb Beds. 2% 4b Beds. Bedding 20 to 60 dca. Fractures perpendicular to bedding at 46 to 59 dca. Subparallel at 42 dca. GEOLOG DATA:. 5% Bedded grunerite, 20% amorphous bedded garnets, 0% silicification, trace pervasive carbonatization, 0% chlorite, 0% biotite. 1% Wisps and stringers pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace disseminated chalcopyrite, 2% bedded magnetite. 10% Quartz stringers, 10% quartz-calcite stringers, 0% calcite. Lower contact 23 dca. 291.00 292.00 24e. 2% magnetite. 10% garnet. 20% quartz-calcite stringers. Bedding 34 dca. At 291.70 and 291.90 right limb fold with axial plane 50 dca. 292.00 293.20 24e. 2% magnetite. 10% garnet. 20% quartz-calcite stringers. Bedding 30 dca. At 293.10 right limb fold with axial plane 50 dca. 293.20 293.65 BVOL. 293.65 294.65 24e. 2% magnetite. 10% garnet. 10% quartz and 10% quartz-calcite stringers. Bedding 64 dca. At 294.65 M fold with axial plane 38 dca. 294.65 295.20 BVOL. Upper contact 38 dca. Lower contact 48 dca. 294.65 295.65 55 cms BVOL and 45 cm. 1% quartz stringers. At 295.6 axial plane 26 dca. 295.65 296.65 24e. Trace chalcopyrite, 2% magnetite. 2% garnet. 10% quartz stringers parallel to bedding at 31 dca.								
296.65	307.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey and brown, non-magnetic, moderately hard. Foliation 34 to 38 dca. Right limb fold throughout unit with axial planes at 27 to 48 dca. Fractures subparallel to foliation 27 and 44 dca. Perpendicular at 46 to 57 dca and and 12 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. 0% Grunerite, trace disseminated and occasional bedded garnet, 0% silicification, 5% pervasive and fracture-filling calcite alteration, 2% disseminated chlorite, 15% disseminated biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz stringers, 0% quartz-carbonate, 2% quartz-calcite stringers parallel to foliation. Lower contact irregular. 300.60 Left limb fold with axial plane 30 dca. 301.35 Axial plane 42 dca. 302.35 Right limb fold with axial plane 45 dca. 305.60 Axial plane 27 dca.								
307.00	309.00	24E	INTRAFORMATIONAL IRON FORMATION 24e. Unit folded with axial plane 34 dca. Bedding 44 dca. Fractures subparallel to bedding at 64 dca. GEOLOG DATA:. 10% Bedded grunerite, 20% amorphous, bedded garnets. 0% silicification, 3% pervasive carbonatization, 0% chlorite, 2% bedded biotite. 3% Blebs and stringers pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% bedded magnetite. 13% Quartz veining, 0% quartz-carbonate, 0% calcite. Lower contact 54 dca. E42810 DUPLICATE OF E42809 4.08. 307.00 308.00 24ea. 2% magnetite. 7% quartz stringers. At 307.50 axial plane 34 dca. 308.00 309.00 24ea. 2% magnetite. 20% quartz stringers. Bedding 46 dca. At 308.60 axial plane 33 dca.								
309.00	329.30	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Foliation 18 to 35 dca. Fractures perpendicular to foliation at 40 to 55 dca and subparallel at 22 to 57 dca. GEOLOG DATA:. 0% Grunerite, trace disseminated garnet, 0% silicification, 7% pervasive and fracture-filling calcite alteration, 2% pervasive chlorite, 15% pervasive biotite Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace disseminated chalcopyrite, 0% magnetite. 0% Quartz veining, 2% quartz-calcite stringers, 8% calcite stringers. Lower contact 45 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			309.00 310.00 BVOL. 25% quartz-calcite stringers parallel to foliation. 310.00 311.00 BVOL. Trace chalcopyrite. 1% pyrite. 40% quartz-calcite stringers parallel to foliation. 311.00 312.00 BVOL. 15% quartz-calcite stringers.								
329.30	331.40	24E A	INTRAFORMATIONAL IRON FORMATION AND INTERMEDIATE TO MAFIC VOLCANICS 90% 24e Mixed with 10% BVOL. Bedding 55 dca. Fractures 49 dca. GEOLOG DATA:. 3% Bedded grunerite, 15% bedded and amorphous garnets, 0% silicification, 5% pervasive carbonatization, 0% chlorite, 0% biotite. 5% Wisps, stringers and blebs pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 20% Quartz stringers and quartz flooding, 0% quartz-carbonate, 2% calcite. Lower contact irregular. 329.30 330.30 24e. 20% quartz stringers and quartz flooding. Bedding 55 dca. 330.30 331.40 24e. 20% quartz stringers and quartz flooding. Bedding 47 dca. At 330.75 axial plane 30 dca.								
331.40	345.10	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey and brown, non-magnetic, moderately hard. Foliation 32 to 15 dca. Fractures perpendicular to foliation at 50 to 60 dca. Subparallel at 44 dca. GEOLOG DATA:. 0% Grunerite, trace disseminated garnet, 0% silicification, 5% pervasive carbonatization, 2% pervasive and fracture-filling chlorite, 15% pervasive biotite. 2% Wisps and stringers pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veining, 5% quartz-calcite stringers at 20 dca. 5% calcite stringers. Lower contact 30 dca. 342.00 343.00 BVOL. 1% pyrite. 10% quartz-calcite stringers at 20 dca. 343.00 344.00 BVOL. 25% quartz-calcite stringers at 20 dca. 344.00 345.10 BVOL. 5% quartz-calcite stringers.								
345.10	351.05	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained to coarse grained. Green, brown, pink and grey. Bedding 10 to 32 dca. Unit sheared. Right limb fold throughout with axial plane 31 to 42 dca. Fractures perpendicular to bedding at 50 to 55 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. 0% grunerite, 15% bedded and amorphous garnets, 0% silicification, 5% pervasive carbonatization, 3% pervasive chlorite, 5% bedded biotite. 3% Wisps and blebs pyrrhotite, 0 specks VISIBLE GOLD, trace disseminated pyrite, 0% arsenopyrite, trace disseminated chalcopyrite, 0% magnetite. 5% Quartz stringers. 15% quartz-calcite stringers. 0% calcite. Lower contact 36 dca. E42820 STANDARD I 7.54. E42821 BLANK 0.03. 345.10 346.10 24e. 12% quartz-calcite stringers. Bedding 32 dca. At 345.40 right limb fold with axial plane 31 dca. 346.10 347.10 24e. Trace pyrite. 15% garnet. 15% quartz-calcite stringers. Bedding 10 dca. 347.10 348.10 24e. Trace pyrite, trace chalcopyrite. 15% garnet. 15% quartz stringers. Bedding 38 dca. 348.10 348.60 24e. 15% garnet. 15% quartz-calcite stringers. 348.60 349.10 BVOL. Upper contact 37 dca. Lower contact 42 dca. 348.60 349.10 BVOL. At 349.00 FELSIC TO INTERMEDIATE VOLCANICS 5 mm pyrrhotite band and 38 dca. 1% garnet. 349.10 350.10 24e. 25% quartz veining and quartz flooding. 15% garnet. 350.10 351.05 24e. 20% quartz veining and quartz flooding. 15% garnet. Bedding 26 dca.								
351.05	358.40	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Foliation 26 to 38 dca. Fractures perpendicular to foliation at 30, 48 to 56 dca. Subarallel at 15 and 22 dca. Fractures calcite coated. GEOLOG DATA:. 0% Grunerite, <1% disseminated garnets, 0% silicification, 5% pervasive carbonatization, 0% chlorite, 10% pervasive biotite. Trace wisps and disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace disseminated chalcopyrite, 0% magnetite. 2% Quartz veining. 3% quartz-calcite stringers. 0% calcite. Lower contact 21 dca. E42830 DUPLICATE OF E42829 0.89. 351.10 352.10 BVOL. 13% quartz-calcite stringers. 352.10 353.10 BVOL. 5% quartz and 5% quartz-calcite stringers. 353.10 354.10 BVOL. 1% calcite stringers. 354.10 354.60 BVOL. 5% quartz-calcite stringers. 354.60 355.00 24ea. 20% quartz veining. At 354.65 axial plane 54 dca. 355.00 356.00 BVOL. Trace chalcopyrite. 1% quartz stringers. At 355.60 FELSIC TO INTERMEDIATE VOLCANICS 1 cm band pyrrhotite. 356.00 357.00 BVOL. 10% 1 mm garnets. 5% boudinaged quartz veining.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			357.00 358.00 BVOL. 358.00 358.40 BVOL.								
358.40	380.60	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained to coarse grained. Green, grey and pink. Moderately to weakly magnetic. Hard. From 358.40 to 367.00 75% 4ea beds, 20% 4b beds and 5% 4f beds. 10% garnets and 15% grunerite. Beds 1 cm to 3 cm wide. From 367.00 to 379.00 96% 4ea beds, 2% 4b beds and 2% 4f beds. 35% grunerite and 25% garnets. From 379.00 to 380.60 80% 4ea beds and 20% 4f beds. Bedding moderately developed at 9 to 25 dca. Minor folding throughout unit with axial planes 31 to 53 dca. Dominant fracture set perpendicular to bedding at 43 to 77 dca. Minor fractures subparallel at 44 dca. GEOLOG DATA:. 25% Bedded grunerite, 20% amorphous and bedded garnet, 0% silicification, 0% carbonatization, 1% pervasive chlorite, 5% bedded biotite. 5% Wisps, stringers, blebs, fracture-filling and bedded pyrrhotite, 62 specks VISIBLE GOLD, 0% pyrite, trace blebs arsenopyrite, 0% chalcopyrite, 5% bedded magnetite. 5% 1 Cm to 5 cm quartz stringers and quartz flooding. 0% quartz-carbonate. 1% calcite stringers. MINERALIZED ZONES:. From 358.40 to 359.25 5% wisps pyrrhotite, 11 specks VISIBLE GOLD, 35% quartz flooding. From 363.15 to 373.00 7% wisps pyrrhotite, 25 specks VISIBLE GOLD, 10% quartz stringers and quartz flooding. From 375.00 to 380.00 5% wisps pyrrhotite, 26 specks VISIBLE GOLD, trace blebs arsenopyrite. 4% quartz stringers and quartz flooding. Lower contact sharp at 31 dca. E42840 STANDARD II 9.36 8.98. E42841 BLANK 0.07. E42850 DUPLICATE OF E42849 5.83. E42860 STANDARD I 7.41. E42861 BLANK 0.07. 358.40 359.25 4eab. 11 specks VISIBLE GOLD. 20% magnetite. 15% grunerite. 10% garnet. 35% quartz flooding and quartz veining at 30 dca. At 358.75 right limb fold with axial plane 30 dca. 359.25 360.25 4eab. 15% magnetite. 15% grunerite. 10% garnet. 1% quartz stringer. 360.25 361.25 4eab. 15% magnetite. 15% grunerite. 10% garnet. 3% quartz stringers. At 360.40 right limb fold with axial plane 29 dca. At 360.85 left limb fold with axial plane 24 dca. 361.25 362.25 4eab. 15% magnetite. 15% grunerite. 10% garnet.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			362.25 363.15 4eab. 15% magnetite. 15% grunerite. 10% garnet. 363.15 364.15 4ea. 8 specks VISIBLE GOLD 25% quartz flooding. 364.15 365.15 4eab. 8% quartz veining. 15% grunerite. 10% garnet. 365.15 366.15 4eab. 15% magnetite. 15% grunerite. 10% garnet. 366.15 367.00 4eab. 15% magnetite. 15% grunerite. 10% garnet. 5% quartz stringers 367.00 368.00 4ea. 3% magnetite. 9 specks VISIBLE GOLD. 35% grunerite. 20% garnet. 25% quartz veining and quartz flooding. 368.00 369.00 4ea. 1 speck VISIBLE GOLD. 5% magnetite. 35% grunerite. 20% garnet. 1% quartz stringers. 369.00 370.00 4ea. 1 speck VISIBLE GOLD. Trace magnetite. 7% quartz veining and quartz flooding. 35% grunerite. 20% garnet. At 369.3 axial plane 31 dca. 370.00 371.00 4ea. 1 speck VISIBLE GOLD. 3% magnetite. 35% grunerite. 20% garnet. 5% quartz veining. At 370.75 axial plane 44 dca. 371.00 372.00 4ea. 3 specks VISIBLE GOLD. Trace magnetite. 35% grunerite. 20% garnet. 20% quartz veining. At axial plane 45 dca. 372.00 373.00 4ea. 2 specks VISIBLE GOLD. Trace magnetite. 35% grunerite. 20% garnet. 15% quartz veining and quartz flooding. 373.00 374.00 4ea. Trace magnetite. 35% grunerite. 20% garnet. 3% quartz stringers. 374.00 375.00 4ea. 2% magnetite. 35% grunerite. 20% garnet. 5% quartz stringers. 375.00 376.00 4ea. Trace magnetite. Trace quartz stringers. 376.00 377.00 4ea. 11 specks VISIBLE GOLD. 0% magnetite. 5% grunerite. 5% garnet. 50% quartz veining and quartz flooding. 377.00 378.00 4ea. 9 speck VISIBLE GOLD. 0% magnetite. 25% grunerite. 20% garnet. 10% quartz veining and quartz veining. 378.00 379.00 4ea. 6 specks VISIBLE GOLD. 3% magnetite. 10% grunerite. 10% garnet. 5% quartz stringers. 379.00 380.00 4eaf. Trace arsenopyrite. 0% magnetite. 20% grunerite. 15% garnet. 3% quartz stringers. 380.00 380.60 4eaf. 0% magnetite. 10% grunerite. 15% garnet. At 380.20 left limb fold with at 53 dca.								
380.60	382.50	4F	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained. Brown, black and pink. Non-magnetic. Bedding 30 to 48 dca. Dominant fracture set parallel to bedding at 31 to 37 dca. Minor fractures perpendicular at 40 dca. Fractures chlorite coated chlorite. GEOLOG DATA:. 3% Bedded grunerite, 25% 1 mm bedded garnets, 0% silicification, 0% carbonatization, trace pervasive and fracture coating chlorite, 60% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz stringer parallel to bedding, 0% quartz-carbonate, 0% calcite stringers Lower contact sharp at 35 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			380.60 381.60 75 cm' 4f and 25 cm BVOL. M folds at 381.50 with axial plane 50 dca 381.05 381.30 BVOL. Contacts 37 dca. 381.60 382.50 4f. 3% quartz stringers.								
382.50	385.20	4EA A	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. AND INTERMEDIATE TO MAFIC VOLCANICS Mixed 4eaf and BVOL. Bedding 30 dca. Fractures subparallel to bedding at 20 dca. GEOLOG DATA:. 5% Bedded grunerite, 20% bedded garnet, 0% silicification, 1% pervasive carbonatization, trace fracture coating chlorite, 5% bedded biotite. 2% Stringers and blebs pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 0% magnetite. 18% Quartz veining, 0% quartz-carbonate, 1% calcite stringers. Lower contact at 24 dca. E42870 DUPLICATE OF E42869 1.78. 382.50 383.50 4eaf and garnetiferous BVOL. 5% grunerite. 20% garnets. 15% quartz veining. 383.50 384.50 4eaf and garnetiferous BVOL. 5% grunerite. 20% garnets. 20% quartz veining. 384.50 385.20 4eaf and garnetiferous BVOL. Trace chalcopyrite. 2% grunerite. 20% garnets. 75% quartz veining.								
385.20	389.65	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey, non-magnetic, moderately hard. Foliation 34 dca. Fractures subparallel to foliation at 27 to 40 dca. GEOLOG DATA:. 0% Grunerite, trace disseminated garnet, 0% silicification, 2% pervasive calcite, trace pervasive and fracture coating chlorite, 3% disseminated and banded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 2% Quartz veining, 0% quartz-carbonate, 2% calcite stringers. Lower contact 35 dca. 385.20 386.20 BVOL. 3% calcite stringers. 386.20 387.20 BOVL. At 386.25 FELSIC TO INTERMEDIATE VOLCANICS 15 cm barren quartz vein at 37 dca. 388.65 389.65 BOVL. 2% calcite stringers.								
389.65	399.70	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea and 4eaf. Fine grained to coarse grained. Green, grey, pink and black. Non to weakly								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			magnetic. Hard. From 389.65 to 393.00 95% 4ea beds and 5% 4f beds. 1 cm to 3 cm wide. From 393.00 399.70 80% 4ea beds and 20% 4f beds. Bedding 15 to 37 dca. Fractures perpendicular to bedding at 46 to 59 and subparallel at 16 and 33 to 49 dca. MINERALIZED ZONE:. From 397.70 to 399.70 3% pyrrhotite, 12% quartz veining. 6 specks VISIBLE GOLD. GEOLOG DATA:. 20% Bedded grunerite, 20% bed and amorphous garnets, 0% silicification, 0% calcite, trace pervasive chlorite, 15% bedded biotite. 2% Disseminated and wisps pyrrhotite, 6 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% magnetite. 5% Quartz stringers which appear to be remobilized chert beds, 0% quartz-carbonate, 0% calcite. Lower contact 35 dca. E42880 STANDARD II 10.56. E42881 BLANK 0.07. 389.65 390.00 4ea. 1% magnetite. 35% grunerite. 20% garnet. 10% garnets. 390.00 391.00 4ea. 1% magnetite. 35% grunerite. 20% garnet. 1% quartz stringers. 391.00 392.00 4ea. 0% magnetite. 35% grunerite. 20% garnet. 7% quartz veining. 392.00 393.00 4ea. 1% magnetite. 30% grunerite. 20% garnet. 5% quartz veining. 393.00 394.00 4eaf. 1% magnetite. 30% grunerite. 20% garnet. 2% quartz stringers. 394.00 395.00 4eaf. 1% magnetite. 10% grunerite. 20% garnet. 395.00 396.00 4eaf. 1% magnetite. 5% grunerite. 20% garnet. 396.00 397.00 4ea. 1% magnetite. 20% grunerite. 20% garnet. 2% quartz stringers. 397.00 397.70 4eaf. 5% magnetite. 5% grunerite. 5% garnet. 397.70 398.70 4eaf. 1 speck VISIBLE GOLD. 2% magnetite. 30% grunerite. 25% garnet. 20% quartz veining. 398.70 399.70 4eaf. 5 specks VISIBLE GOLD. 1% magnetite. 10% grunerite. 25% garnets. 5% quartz stringers and quartz veining.								
399.70	401.30	4F	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained. Black, grey and pink. 95% 4f Beds. 5% 4ea Beds. Bedding 33 dca. Beds 1 to 5 cm wide. Fractures perpendicular to bedding at 58 dca. GEOLOG DATA:. 5% Bedded grunerite, 25% bedded garnet, 0% silicification, 0% carbonatization, 0% chlorite, 70% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			1% Quartz stringers parallel to bedding, 0% quartz-carbonate, 0% calcite veining. Lower contact 34 dca. E42890 DUPLICATE OF E42889 0.07. 399.70 400.70 4f. 0% magnetite. 5% grunerite. 25% garnet. 2% quartz stringers. 400.70 401.30 4f. 0% magnetite. 5% grunerite. 25% garnet. 1% quartz stringers.								
401.30	403.50	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, green-grey, non-magnetic, moderately hard. Foliation 31 dca. Fractures subparallel at 40 dca. GEOLOG DATA:. 0% grunerite, 0% garnet, 0% silicification, 1% fracture-filling calcite. Trace fracture coating chlorite. 5% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz, quartz-carbonate and calcite veining. Lower contact 44 dca. 401.30 402.30 BVOL. 402.30 403.50 BVOL.								
403.50	406.50	4F AN	GARNET-BIOTITE SCHIST AND GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 74% 4fea And 26% 4ea. Fine grained to medium grained. Black, pink and grey. From 403.50 to 405.70 85% 4f and 15% 4ea beds. 1 cm wide. From 405.70 to 406.50 85% 4ea and 10% 4f beds. Bedding 40 dca. Minor left limb fold with axial plane 42 dca to 52 dca. Fractures parallel to bedding at 40 dca. GEOLOG DATA:. 10% Bedded grunerite, 25% bedded garnets, 0% silicification, 0% carbonatization, 0% chlorite, 60% bedded biotite. 1% Wisps, blebs and stringers pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% chalcopyrite, 0% arsenopyrite, 0% magnetite. 5% Quartz stringers. 0% quartz-carbonate and calcite veining. 403.50 404.50 4fea. 15% grunerite. 20% garnet. 10% quartz stringers parallel to bedding. At 403.70 left limb fold with axial plane 42 dca. 404.50 405.70 4f. 0% grunerite. 30% garnet. At 405.1 left limb fold with axial plane 52 dca. 405.70 406.50 4ea. 15% grunerite. 20% garnets. 10% quartz flooding.								
406.50	418.40	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey, non-magnetic, hard.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Foliation 35 dca. Fractures subparallel to foliation at 25 to 53 dca. GEOLOG DATA:. 0% grunerite, 0% garnet, 0% silicification, 2% pervasive and fracture-filling carbonatization, 3% pervasive and fracture-filling chlorite, 10% pervasive biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace fracture coating chalcopyrite, 0% magnetite. 0% Quartz veining, 2% quartz-calcite stringers, trace calcite stringers. Lower contact sharp at 56 dca. 406.50 407.50 BVOL. Trace chalcopyrite. 2% calcite stringers.								
418.40	419.35	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained to coarse grained. Dark green-grey, black and pink. Non-magnetic. Hard. Bedding 41 dca. Fractures parallel to bedding at 40 dca. GEOLOG DATA:. 20% Bedded grunerite, 15% bedded garnet, 0% silicification, 0% carbonatization, 0% chlorite, 5% bedded biotite. 2% Disseminated and wisps pyrrhotite, 0% VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 10% Quartz stringers parallel to bedding. 0% quartz-carbonate and calcite veining Lower contact 60 dca. 418.40 419.35 4ea. 10% quartz stringers parallel to bedding.								
419.35	439.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Dark green-grey and brown. Non-magnetic. Moderately hard. 45 to 52 dca. Fractures subparallel to foliation at 40 to 50 dca. Perpendicular at 50 to 58 dca GEOLOG DATA:. 0% grunerite, 0% garnet, 0% silicification, 2% pervasive and fracture-filling calcite, 1% fracture coating and pervasive chlorite, 5% pervasive biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veining. 2% quartz-calcite stringers. 1% calcite stringers. 419.35 420.35 BVOL. Biotitic. 5% calcite stringers.								
439.00		BVOL	END OF HOLE								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Labs Inc. 30 gram sample, fire assay with gravimetric finish. Sludge samples taken every 6 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY:. 0.00 15.25 Hole cased with 15.25 metres of NW casing. 15.25 439.00 20 foot fluted core barrel used. Casing pulled. Hole cemented - 9.5 hours - ninety 20 kg bags of Type 50 cement used. SURVEY HISTORY:. Sperry Sun single shot camera with low point indicator used for dips while drilling. Sperry Sun Dip Tests:. 19.0 -60.25. 58.0 -59.75. 101.0 -59.00. 147.0 -57.75. 182.0 -57.75. 232.0 -56.50. 274.0 -55.25. 292.0 -55.00. 334.0 -55.00. 361.0 -54.10. 391.0 -53.50. 430.0 -53.00. Drill hole collar co-ordinates, azimuth and water elevation surveyed in by D. Villenueve, Dona Lake Mine, Pickle Lake, Ontario. Light Log Survey conducted by Pat Lindsay. Survey took 2.75 hours. Survey data used for Code 2 azimuth and dip tests.								

DRILL HOLE RECORD

Northing: 10449.500
Easting: 9034.618
Elevation: 5302.534

Collar Azi.: 227.45
Collar Dip: -61.00

Hole Length: 550.00
Completed: SEPTEMBER 1, 1993
Drilled by:
Logged by: T. TENNENT, P. GERTZBEIN
Purpose: TO TEST S, T AND WA ZONES ON SECTION 10450N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa508460 (6m),Pa529497 (544m)
2 m south,140 m west to post 3 of Pa508460
Date(s) Logged: AUG 25 - SEPT. 7, 1993

Drill Hole: 506-661

Northing: 10450N
Easting: 9035E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: AUGUST 24, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
3.0	226.9	-61.2	141.3	223.8	-59.8	279.5	221.2	-57.4	417.8	220.7	-54.0
6.0	227.9	-61.6	144.3	223.8	-59.8	282.5	221.1	-57.3	420.8	220.7	-54.0
9.0	228.1	-61.8	147.3	223.8	-59.8	285.5	221.1	-57.3	423.8	220.8	-54.0
12.0	228.1	-61.7	150.3	223.6	-59.8	288.5	221.1	-57.2	426.8	220.8	-54.0
15.0	227.6	-61.5	153.3	223.6	-59.8	291.5	220.9	-57.1	429.8	220.8	-54.0
18.0	227.4	-61.4	156.3	223.6	-59.8	294.5	220.9	-57.0	432.8	220.8	-54.0
21.0	227.3	-61.3	159.3	223.5	-59.7	297.5	220.9	-57.0	435.8	220.8	-54.0
24.0	227.1	-61.2	162.3	223.3	-59.6	300.5	220.9	-57.0	438.8	220.8	-54.0
27.0	226.9	-61.2	165.3	223.2	-59.5	303.5	220.9	-56.9	441.8	220.8	-54.0
30.0	226.8	-61.1	168.3	222.9	-59.4	306.6	220.9	-56.8	444.8	220.8	-54.0
33.1	226.6	-61.0	171.3	222.7	-59.4	309.6	220.9	-56.7	447.8	220.9	-53.9
36.1	226.5	-61.0	174.3	222.4	-59.3	312.6	220.9	-56.7	450.8	220.9	-53.8
39.1	226.5	-61.0	177.3	222.4	-59.3	315.6	220.8	-56.6	453.8	220.9	-53.8
42.1	226.5	-61.0	180.3	222.4	-59.3	318.6	220.8	-56.6	456.8	220.9	-53.7
45.1	226.5	-60.9	183.3	222.4	-59.3	321.6	220.8	-56.5	459.8	220.9	-53.6
48.1	226.3	-60.9	186.3	222.4	-59.3	324.6	220.8	-56.4	462.8	221.1	-53.5
51.1	226.3	-60.9	189.3	222.4	-59.3	327.6	220.8	-56.3	465.9	221.1	-53.5
54.1	226.3	-60.9	192.4	222.2	-59.3	330.6	220.9	-56.3	468.9	221.1	-53.5
57.1	226.3	-60.9	195.4	222.4	-59.2	333.6	220.9	-56.3	471.9	221.1	-53.4
60.1	226.3	-60.9	198.4	222.3	-59.1	336.6	221.1	-56.3	474.9	221.1	-53.3
63.1	226.1	-60.8	201.4	222.3	-59.0	339.6	221.2	-56.2	477.9	221.1	-53.3
66.1	226.1	-60.8	204.4	222.1	-59.0	342.6	221.2	-56.1	480.9	221.1	-53.2
69.1	226.0	-60.8	207.4	222.1	-58.9	345.6	221.3	-56.0	483.9	221.1	-53.2
72.1	226.0	-60.8	210.4	222.1	-58.8	348.6	221.3	-55.9	486.9	221.2	-53.1
75.1	226.0	-60.8	213.4	221.9	-58.7	351.6	221.5	-55.9	489.9	221.2	-53.0
78.1	226.0	-60.8	216.4	221.9	-58.7	354.6	221.5	-55.9	492.9	221.3	-52.9
81.2	225.8	-60.8	219.4	221.9	-58.6	357.6	221.5	-55.8	495.9	221.3	-52.8
84.2	225.8	-60.8	222.4	221.8	-58.5	360.7	221.5	-55.7	498.9	221.4	-52.8
87.2	225.7	-60.7	225.4	221.6	-58.4	363.7	221.6	-55.6	501.9	221.4	-52.7
90.2	225.7	-60.6	228.4	221.5	-58.3	366.7	221.6	-55.6	504.9	221.6	-52.6
93.2	225.7	-60.6	231.4	221.5	-58.2	369.7	221.6	-55.5	507.9	221.7	-52.5
96.2	225.5	-60.5	234.4	221.4	-58.1	372.7	221.6	-55.5	510.9	221.7	-52.4
99.2	225.3	-60.5	237.4	221.4	-58.1	375.7	221.6	-55.5	513.9	221.8	-52.4
102.2	225.0	-60.4	240.4	221.4	-58.1	378.7	221.6	-55.5	516.9	222.0	-52.3
105.2	224.9	-60.3	243.4	221.4	-58.1	381.7	221.6	-55.4	520.0	222.0	-52.2
108.2	224.9	-60.3	246.4	221.4	-58.0	384.7	221.6	-55.3	523.0	222.0	-52.1
111.2	224.7	-60.2	249.4	221.4	-58.0	387.7	221.6	-55.2	526.0	222.1	-52.0

114.2	224.7	-60.2	252.5	221.4	-57.9	390.7	221.5	-55.1	529.0	222.2	-52.0
117.2	224.7	-60.2	255.5	221.4	-57.8	393.7	221.3	-54.9	532.0	222.3	-52.0
120.2	224.7	-60.2	258.5	221.4	-57.8	396.7	221.2	-54.7	535.0	222.5	-51.9
123.2	224.4	-60.1	261.5	221.4	-57.7	399.7	220.9	-54.5	538.0	222.6	-51.8
126.2	224.4	-60.1	264.5	221.5	-57.7	402.7	220.8	-54.4	541.0	222.7	-51.7
129.2	224.2	-60.1	267.5	221.5	-57.7	405.7	220.7	-54.3	544.0	222.9	-51.7
132.2	223.9	-59.9	270.5	221.5	-57.6	408.7	220.5	-54.2	547.0	223.0	-51.6
135.3	223.8	-59.8	273.5	221.4	-57.5	411.8	220.4	-54.2	550.0	223.0	-51.5
138.3	223.8	-59.8	276.5	221.2	-57.4	414.8	220.5	-54.1			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). For detailed structural data see attached STRIP LOG. For geotechnical data see Geotechnical Log. Sample Series E42899 to E43000. Sample Series E42301 to E42500. Sample Series E46551 to E46675.								
.00	11.30	OB	OVERBURDEN OB. Granitic boulders.								
11.30	14.50	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, black and white banded. Strongly magnetic. Hard. 98% 4b Beds. 2% 4f Beds. Bedding 21 to 27 dca. Beds 1 mm to 2 cm wide. Fractures subparallel to bedding at 14 and 25 dca and perpendicular at 47 dca. GEOLOG DATA:. 0% Grunerite, trace garnet, 0% silicification, 3% pervasive and pale yellow carbonate alteration rimming 4b beds 0% chlorite, 0% biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 50% bedded magnetite. 0% Quartz, quartz-carbonate and calcite veining. Lower contact sharp at 37 dca. E42900 STANDARD I 7.20 7.03. E42901 BLANK 0.24. 11.30 12.30 4b. 3% garnet. 12.30 13.30 4b. 13.30 14.50 4b. From 13.90 to 14.30 silicified.								
14.50	34.00	4BF	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained to medium grained, dark grey, black, light grey and pink. Strongly magnetic. Hard. 65% to 75% 4b beds. 25% to 35% 4f beds with 25% 1 mm garnets. Bedding well developed at 22 to 41 dca. Beds 1 mm to 1 cm wide. Minor folding with axial plane at 53 dca. Fractures perpendicular to bedding at 45 to 57 dca. Subparallel to bedding at 22 to 50 dca. GEOLOG DATA:. 0% grunerite, 15% bedded garnet, 0% silicification, 3% carbonate - pervasive, fracture coating and rimming 4b beds. Trace fracture coating chlorite, 25% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, trace fracture coating pyrite, 0% arsenopyrite, trace stringers chalcopyrite, 50% magnetite. 1% 5 Mm to 1 cm boudinaged quartz stringers. 0% quartz-carbonate and calcite stringers. Lower contact gradual at 34 dca. E42910 DUPLICATE OF E42909 0.24 0.27. E42920 DUPLICATE OF E42919 0.03. 14.50 15.00 4bf. 15% garnets. 15.00 16.00 4bf. 10% garnets. 16.00 16.80 4bf. 10% garnets. 5% quartz veining with pyrrhotite. 16.80 17.20 4bf. 40 cm band of 15% quartz veining. 17.20 18.00 4bf. 10% garnets. 18.00 19.00 4bf. 10% garnets. 19.00 20.00 4bf. Trace stringers chalcopyrite. 10% garnets. 1% quartz stringers. 20.00 21.00 4b. 3% garnets. 1% boudinaged quartz stringers. At 20.05 axial plane 53 dca. 21.00 22.00 4bf. 10% garnets. 3% quartz veining. 22.00 23.00 4bf. 3% garnet. 7% quartz veining with 1% pyrrhotite. 23.00 24.00 4bf. 5% garnet. 1% calcite stringers. 24.00 25.00 4bf. 5% garnets. 4% quartz stringers. 25.00 26.00 4bf. 5% garnets. 26.00 27.00 4bf. 10% garnets. 27.00 28.00 4bf. 10% garnets. 28.00 29.00 4bf. 10% garnets. 1% quartz stringers. 29.00 30.00 4bf. 10% garnets. Trace quartz stringers. 30.00 31.00 4bf. 3% grunerite. 10% garnets. 31.00 32.00 4bf. 5% grunerite. 10% garnets. 32.00 33.00 4bf. 20% grunerite. 15% garnets. 33.00 34.00 4bfea. 20% grunerite.								
34.00	44.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained. Light green, grey and pink. Weakly magnetic. Hard. Composed of: 90% 4ea beds. 5% 4b beds. 5% 4f beds. Beds up to 3 cms bedding 22								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			to 51 dca. Minor left limb fold with axial planes 31 to 39 dca. Fractures perpendicular to bedding at 50 to 60 dca. Minor fractures subparallel at 24 to 36 dca. Mineralized Zone:. From 34.00 to 41.00 3% disseminated and wisps pyrrhotite. 12 specks VISIBLE GOLD. 7% quartz stringers and quartz veining. GEOLOG DATA:. 20% Bedded grunerite, 20% bedded garnet, 0% silicification, 0% carbonatization, 0% chlorite, 3% biotite. 3% Disseminated, wisps and stringers pyrrhotite. 12 specks VISIBLE GOLD. 0% pyrite. Trace fracture-filling chalcopyrite. 1% disseminated magnetite. 5% Quartz stringers parallel to bedding, 0% quartz-carbonate, trace calcite stringers. Lower contact 50 dca. E42930 DUPLICATE OF E42929 0.41. 34.00 35.00 4ea. 2 specks VISIBLE GOLD. <1% chalcopyrite. 25% grunerite. 20% garnet. 5% quartz flooding. At 34.25 left limb fold with axial plane 31 dca. 35.00 36.00 4ea. 3 specks VISIBLE GOLD. <1% chalcopyrite. 10% grunerite. 10% garnet. 15% quartz veining. At 35.60 FELSIC TO INTERMEDIATE VOLCANICS 15 cm quartz vein with 1% pyrrhotite at 30 dca. 36.00 37.00 4ea. 10% grunerite. 20% garnet. At 36.70 left limb fold with axial plane 31 dca. 37.00 38.00 4ea. 20% grunerite. 20% garnet. 38.00 39.00 4ea. 20% grunerite. 20% garnet. 16% quartz veining. At 38.65 FELSIC TO INTERMEDIATE VOLCANICS 16 cm quartz vein with 5% pyrrhotite at 39 dca. 39.00 40.00 4ea. 7 specks VISIBLE GOLD. 20% grunerite. 20% garnet. 5% quartz flooding. 40.00 41.00 4ea. 20% grunerite. 20% garnet. 5% quartz stringers. 41.00 42.00 4ea. 20% grunerite. 20% garnet. 42.00 43.00 4ea. 20% grunerite. 20% garnet. 43.00 44.00 4ea. 20% grunerite. 20% garnet. 10% quartz veining. At 43.90 FELSIC TO INTERMEDIATE VOLCANICS 10 cm quartz vein with trace pyrrhotite and contacts at 52 dca.								
44.00	48.60	4BF	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. Fine grained to medium grained. Black, dark grey, pink and light green. Weakly magnetic. Hard. 65% 4b Beds. 35% 4f beds. Beds 5 mm to 1 cm wide. Bedding at 21 to 36 dca. Dominant fractures perpendicular to bedding at 51 to 63 dca. GEOLOG DATA:. 3% Bedded grunerite, 20% bedded and disseminated garnet, 0% silicification, trace fracture-filling carbonatization, 1% fracture coating chlorite, 35% bedded								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% chalcopyrite, 0% arsenopyrite, 25% magnetite. 0% Quartz, quartz-carbonate and calcite veining. Lower contact 22 dca. E42940 STANDARD I 7.13 6.96. E42941 BLANK 0.17. 44.00 45.00 4bf. 5% grunerite. 20% garnet. 45.00 46.00 4bf. 20% garnet. 46.00 47.00 4bf. 20% garnet. 47.00 48.00 4bf. 10% grunerite. 20% garnet. 48.00 48.60 4bf. 10% grunerite. 20% garnet.								
48.60	60.05	4F AN	GARNET-BIOTITE SCHIST AND GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. / GARNET-BIOTITE SCHIST Mixed 4f and 4eaf beds. Fine grained to medium grained. Black, dark grey, light green and pink. Non to weakly magnetic. 77% 4f Beds. 23% 4eaf beds. Bedding 39 to 50 dca. Beds 1 cm to 10 cm wide. Dominant fractures perpendicular to bedding at 55 to 69 dca. Minor fractures subparallel to bedding at 45 to 58 dca. GEOLOG DATA:. 10% Bedded grunerite, 25% bedded and disseminated 1 mm to 5 mm garnets. 0% silicification. 0% carbonatization. 1% fracture coating chlorite. 50% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% magnetite. Trace quartz stringers parallel to bedding. 0% quartz-carbonate and calcite stringers. Lower contact 22 dca. 48.60 52.20 4f. Lower contact 45 dca. 48.60 49.60 4f. Trace fracture coating pyrite. 25% garnets. 49.60 50.60 4f. 25% garnets. 50.60 51.60 4f. 25% garnets. 1% quartz stringers parallel to bedding. 51.60 52.20 4f. 25% garnets. 52.20 53.40 4eaf. Lower contact 45 dca. 52.20 53.40 4ea. 25% grunerite. 20% garnet. 5% quartz stringers. 53.40 54.20 4f. Lower contact 38 dca. 53.40 54.20 4f. 54.20 55.00 4eaf. Lower contact 35 dca. 54.20 55.00 4eaf. 25% grunerite. 20% garnet. 5% quartz stringers. 55.00 57.00 4f. Lower contact 48 dca. E42950 DUPLICATE OF E42949 0.31. 55.00 56.00 4f. 10% grunerite. 25% garnet. 1% quartz stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			56.00 57.00 4f. 25% garnet. 57.00 59.50 4eaf. Lower contact 30 dca. 57.00 58.00 4eaf. 25% grunerite. 20% garnet. 58.00 59.00 4eaf. 10% grunerite. 20% garnet. 1% magnetite. 3% quartz stringers. 59.00 59.50 4eaf. 59.50 60.05 4f. Lower contact 30 dca. 59.50 60.05 4f.								
60.05	94.10	4EAF	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. / GARNET-BIOTITE SCHIST AND GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eaf and 4ea. Fine grained to medium grained, light green, grey, pink and black. Non to moderately magnetic. 70% 4ea Beds. 30% 4f beds. Beds 1 cm to 3 cm wide. Bedding moderately to well developed at 30 to 36 dca. Folding througout unit with axial planes 17 to 52 dca. Dominant fractures perpendicular at 67 to 75 dca and 43 to 54 dca. Minor fractures subparallel to bedding at 43 dca. GEOLOG DATA:. 25% Bedded grunerite, 20% bedded garnets, 0% silicification, 2% pervasive and fracture-filling carbonate, 1% fracture coating chlorite, 20% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% magnetite. <1% quartz stringers. 0% quartz-carbonate and calcite stringers. Lower contact 36 dca. E42960 STANDARD I 7.37 7.13. E42961 BLANK 0.03. E42970 DUPLICATE OF E42969 0.03. E42980 STANDARD II 0.03. E42981 BLANK 10.01. E42990 DUPLICATE OF E42989 3.81. 60.05 61.00 4eafb. 5% grunerite. 10% garnet. 61.00 62.00 4eafb. 15% grunerite. 15% garnet. 62.00 63.00 4eafb. 20% grunerite. 20% garnet. 2% quartz stringers. 3% calcite stringers. 63.00 64.00 4ea. 25% grunerite. 20% garnet. At 63.80 left limb fold with axial plane 24 dca. 64.00 65.00 4ea. 25% grunerite. 20% garnet. 65.00 66.00 4ea. 25% grunerite. 20% garnet. 66.00 67.00 4eaf. 25% grunerite. 20% garnet. 67.00 68.00 4eaf. 25% grunerite. 20% garnet. 68.00 69.00 4eaf. 25% grunerite. 20% garnet. 2% quartz stringers parallel to bedding. 69.00 70.00 4eaf. 25% grunerite. 20% garnet. At 69.25 left limb fold with axial plane 37 dca. 70.00 71.00 4ea. 25% grunerite. 20% garnet. 1% quartz stringers. At 70.30 axial								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			plane 31 dca. At 70.55 right limb fold with axial plane 24 dca. 1% quartz-carbonate stringers. 71.00 72.00 4ea. 25% grunerite. 20% garnet. 5% quartz-carbonate stringers. 72.00 73.00 4ea. 25% grunerite. 20% garnet. 5% quartz-carbonate flooding. At 72.90 right limb fold with axial plane 25 dca. 73.00 74.00 4ea. 25% grunerite. 20% garnet. 5% quartz-carbonate flooding. 74.00 75.00 4ea. 25% grunerite. 20% garnet. 1% quartz-carbonate stringers. Folded along core axis. 75.00 76.00 4ea. 25% grunerite. 20% garnet. 1% quartz-carbonate stringers. Folded along core axis. 76.00 77.00 4ea. 25% grunerite. 20% garnet. 77.00 78.00 4ea. 25% grunerite. 20% garnet. 78.00 79.00 4eaf. 25% grunerite. 20% garnet. 79.00 80.00 4eaf. 25% grunerite. 20% garnet. 80.00 81.00 4ea. 25% grunerite. 20% garnet. At 82.90 left limb fold with axial plane 7 dca. 81.00 82.00 4ea. 25% grunerite. 20% garnet. 5% quartz veining. At 81.30 left limb fold with axial plane 22 dca. 82.00 83.00 4ea. 25% grunerite. 20% garnet. 5% quartz flooding. 83.00 84.00 4ea. 25% grunerite. 20% garnet. At 83.05 right limb fold with axial plane 7 dca. 84.00 85.00 4eaf. Weakly magnetic. 25% grunerite. 5% quartz-carbonate stringers. At 84.70 left limb fold with axial plane 26 dca. 85.00 86.00 4eaf. Weakly magnetic. 25% grunerite. 20% garnet. 7% quartz flooding and veining. At 85.50 axial plane 17 dca. 86.00 87.00 4eaf. Weakly magnetic. 25% grunerite. 20% garnet. At 86.70 axial plane 12 dca. 87.00 88.00 4eaf. Weakly magnetic. 25% grunerite. 20% garnet. At 87.60 axial plane 30 dca. 88.00 89.00 4eaf. Moderately magnetic. 20% grunerite. 20% garnet. At 88.60 right limb fold with axial plane 52 dca. 89.00 90.00 4eafb. Moderately magnetic. 1% quartz stringers. Moderately magnetic. At 89.30 W fold with axial plane 40 dca. 90.00 91.00 4eafb. Moderately magnetic. <1% boudinaged quartz stringers. 91.00 92.00 4eafb. Moderately magnetic. 1% folded quartz stringers. At 91.60 M fold with axial plane 28 dca. 92.00 93.00 4eafb. Moderately magnetic. 2% quartz stringers. At 92.80 left limb fold with axial plane 37 dca. 93.00 94.10 4eafb. Moderately magnetic. 1% quartz stringers. At 93.20 axial plane 29 dca.								
94.10	108.80	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained. Black and light grey banded. Strongly magnetic. Hard. Composed of 90% to 95% 4B beds and 5% 4F beds with 25% 1 mm garnets. Well bedded at 41 to 51 dca. Beds locally contorted and boudinaged. Beds 1 mm to 2 cm wide. Folding throughout unit with axial planes 19 to 44 dca. Fractures perpendicular to bedding at 40 to 62 dca and subparallel at 41 to 52								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			dca. Fractures chlorite and calcite coated. GEOLOG DATA:. 0% grunerite, 3% garnets concentrated within 4f beds, 0% silicification, 3% thin, wispy yellow carbonate coating on 4b beds and trace fracture coating calcite, 1% fracture coating chlorite, 2% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 50% bedded magnetite. 5% Quartz stringers parallel to bedding, trace quartz-calcite stringers, 0% calcite. Lower contact sharp at 41 dca. E43000 STANDARD I 7.41. E42301 BLANK 0.07. 94.10 95.00 4bf. At 94.35 right limb fold with axial plane 44 dca. 95.00 96.00 4bf. 96.00 97.00 4bf. 97.00 98.00 4b. 2% quartz stringers parallel to bedding. 98.00 99.30 4b. At 98.50 left limb fold with axial plane 30 dca. 5% boudinaged quartz stringers. 99.30 100.60 Zone with 70% quartz veining with 6% pyrrhotite and trace chalcopyrite. Contacts 42 dca. E42310 DUPLICATE OF E42309 0.27. 99.30 100.00 4b. 60% quartz veining with 20% pyrrhotite. Trace chalcopyrite. 100.00 100.60 4b. 80% quartz veining with 3% pyrrhotite. 100.60 101.00 4b. At 100.80 axial plane 30 dca. 101.00 102.00 4b. 15% quartz veining. At 101.50 FELSIC TO INTERMEDIATE VOLCANICS 15 cm barren quartz vein with contacts at 36 dca. At 101.10 axial plane 24 dca. 102.00 103.00 4b. At 102.50 left limb fold with axial plane 19 dca. 103.00 104.00 4b. 20% boudinaged quartz stringers. 104.00 105.00 4b. 3% quartz-calcite stringers. 105.00 106.00 4b. 1% quartz-calcite stringers. 106.00 107.00 4b. 20% quartz veining with 2% pyrrhotite. At 106.45 FELSIC TO INTERMEDIATE VOLCANICS 17 cm band of quartz veining with 2% pyrrhotite. Contacts 50 dca. 107.00 108.00 4b. 3% quartz veining with 1% pyrrhotite. 108.00 108.80 4b. 5% quartz veining. 4b beds boudinaged.								
108.80	110.05	4F	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained. Black and pink. Non-magnetic. Bedding 40 dca. Fractures perpendicular to bedding at 43 to 72 dca. GEOLOG DATA:. 0% grunerite, 25% 1 mm disseminated garnets, 0% silicification, trace pervasive calcite, 70% bedded biotite. 2% Disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% chalcopyrite, 0% magnetite. 5% Boudinaged quartz stringers. 0% quartz-carbonate and calcite stringers. Lower contact irregular. 108.80 110.05 4f. 5% boudinaged quartz stringers.								
110.05	128.45	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained. Black and light grey banded. Strongly magnetic. Hard. Composed of 90% to 95% 4B beds and 5% 4F beds with 25% 1 mm garnets. Well bedded at 23 to 52 dca. Beds locally contorted and boudinaged. Beds 1 mm to 2 cm wide. Chert beds appear to be remobilized to quartz. Fractures perpendicular to bedding at 40 to 62 dca and subparallel at 41 to 52 dca. Fracture chlorite and calcite coated. GEOLOG DATA:. 0% grunerite, 3% garnets concentrated within 4f beds, 0% silicification, 3% thin, wispy yellow carbonate coating on 4b beds and trace fracture coating calcite, 1% fracture coating chlorite, 2% bedded biotite. 2% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace blebs arsenopyrite, 0% chalcopyrite, 50% bedded magnetite. 5% Quartz stringers parallel to bedding, trace quartz-calcite stringers, 0% calcite. Mineralized Zones:. From 110.05 to 118.00 2% pyrrhotite, trace arsenopyrite and 10% quartz stringers. From 124.90 to 128.00 20% pyrrhotite, 20% quartz veining. Lower contact sharp at 65 dca. E42320 STANDARD I 7.34 7.30. E42321 BLANK 0.10. E42330 DUPLICATE OF E42329 0.27. E42340 STANDARD II 9.53 8.91. E42341 BLANK 0.07. 110.05 111.00 4b. 20% quartz veining. 111.00 112.00 4b. <1% arsenopyrite. 20% quartz veining. 112.00 113.00 4b. <1% arsenopyrite. 5% quartz flooding. 113.00 114.00 4b. 114.00 115.00 4b. 5% quartz stringers. 115.00 116.00 4b. 116.00 116.85 4b. 15% quartz veining. 116.85 117.30 QV. Contacts 30 dca. 117.30 118.00 4b. 15% quartz veining. At 117.90 FELSIC TO INTERMEDIATE VOLCANICS 3 cm quartz vein at 29 dca. 118.00 119.00 4b. 3% quartz veining. 119.00 120.00 4b. 120.00 121.00 4b. 3% quartz veining. 121.00 122.00 4b. 3% quartz veining.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			122.00 123.00 4b. 123.00 124.00 4b. Bleached. 124.00 124.90 4b. At 124.30 left limb fold with axial plane 31 dca. 124.90 126.00 4b. Trace arsenopyrite. 25% quartz flooding. 126.00 127.00 4b. 20% quartz flooding. 127.00 128.00 4b. 20% quartz flooding. 128.00 128.45 4b.								
128.45	129.70	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey, non-magnetic, hard. Foliation at 32 dca. Fractures subparallel to foliation at 30 to 60 dca. GEOLOG DATA:. 0% grunerite, 0% garnet, 0% silicification, 1% pervasive and fracture-filling calcite, 1% fracture coating chlorite, 5% pervasive and laminated biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz and quartz-carbonate veining. 1% calcite stringers. Lower contact at 15 dca. 128.45 129.70 BVOL. 1% calcite stringers.								
129.70	130.90	4B	CHERT - MAGNETITE IRON FORMATION 4b. Similar to 110.05 to 128.45 metres. GEOLOG DATA:. 0% grunerite, 0% garnet, 0% silicification, 8% pervasive pale green calcite alteration, 0% chlorite, 0% biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% bedded magnetite. 0% Quartz, quartz-carbonate and calcite veining. Lower contact irregular. 129.70 130.90 4b. At 130.40 left limb fold with axial plane 36 dca.								
130.90	134.35	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey, non-magnetic. Foliation 43 dca. Fractures perpendicular to foliation at 40 to 62 dca. Subparallel to foliation at 45 dca. GEOLOG DATA:. 0% grunerite, 0% garnet, 0% silicification, 3% pervasive and fracture-filling calcite alteration, 2% fracture coating chlorite, 10% pervasive and laminated								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			biotite. Trace fracture-filling tourmaline. Trace wisps pyrrhotite, 0 specks VISIBLE GOLD, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz and quartz-carbonate stringers. 1% calcite stringers. Lower contact 45 dca. 130.90 131.90 BVOL. At 131.24 13 cms of 4b. 133.35 134.35 BVOL.								
134.35	157.60	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained. Black, light grey and pale yellow banded. Strongly magnetic. Hard. Composed of >95% 4B beds and up to 5% 4F beds with 25% 1 mm garnets. Locally up to 20% 4f beds. Well bedded at 32 to 41 dca. Beds locally contorted and boudinaged from 1 mm to 2 cm wide. Folding throughout unit with axial planes 39 to 60 dca. Fractures perpendicular to bedding at 46 to 63 dca and subparallel at 25, 36 to 50 dca. Fractures chlorite and calcite coated. Mineralized Zone:. From 134.35 to 144.00 metres 1% to 10% disseminated, stringers and wisps of pyrrhotite, trace arsenopyrite, 1% quartz veining. From 143.00 to 144.00 10 specks VISIBLE GOLD. From 151.00 to 153.00 2% pyrrhotite, 40% quartz veining and 2 specks VISIBLE GOLD GEOLOG DATA:. 0% grunerite, 1% garnets concentrated within 4f beds, 0% silicification, 5% thin, wispy yellow carbonate coating on 4b beds and trace fracture coating calcite, 1% fracture coating chlorite, 2% bedded biotite. 1% Stringers, disseminated, blebs and fracture-filling pyrrhotite, 12 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 50% bedded magnetite. 4% Quartz stringers parallel to bedding, trace quartz-calcite stringers, 0% calcite. Lower contact sharp at 35 dca. E42350 DUPLICATE OF E42349 1.03. E42360 STANDARD I 7.54. E42361 BLANK 0.41. E42370 DUPLICATE OF E42369 9.19 9.02. 134.35 135.00 4b. 135.00 136.00 4b. At 135.90 left limb fold with at 42 dca. 136.00 137.00 4b. <1% arsenopyrite. 1% calcite stringers with 20% tourmaline. 137.00 138.00 4b. Trace arsenopyrite. 1% quartz stringers. 138.00 139.00 4b. Trace arsenopyrite. 139.00 140.00 4b. Trace arsenopyrite. 140.00 141.00 4b. At 140.90 axial plane 47 dca. 141.00 142.00 4b. Trace arsenopyrite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			142.00 143.00 4b. Trace arsenopyrite. 5% quartz flooding. 143.00 144.00 4b. At 143.50 50 cms of quartz flooding with 10 specks VISIBLE GOLD 144.00 145.00 4bf. 145.00 146.00 4bf. At 145.20 left limb fold with axial plane 62 dca. 146.00 147.00 4b. At 146.05 left limb fold with axial plane 46 dca. 147.00 148.00 4b. At 147.30 left limb fold with axial plane 36 dca. 148.00 149.00 4b. 149.00 150.00 4b. 150.00 151.00 4b. At 150.25 FELSIC TO INTERMEDIATE VOLCANICS 10 cm quartz vein with 5% pyrrhotite. Upper contact 61 dca and lower contact 37 dca. 151.00 152.00 4b. At 151.35 FELSIC TO INTERMEDIATE VOLCANICS 1 cm quartz vein with 1 speck VISIBLE GOLD and 5% pyrrhotite. Contacts at 37 dca. At 151.80 FELSIC TO INTERMEDIATE VOLCANICS 20 cm quartz vein at 29 dca with 5% pyrrhotite. 152.00 153.00 4b. At 152.60 FELSIC TO INTERMEDIATE VOLCANICS 30 cm band with 20% pyrrhotite, 1 speck VISIBLE GOLD and 80% quartz veining. Contacts 39 dca. 153.00 154.00 4bf. 154.00 155.00 4b. At 154.35 left limb fold with axial plane 57 dca. 155.00 156.00 4b. 156.00 157.00 4bf. FELSIC TO INTERMEDIATE VOLCANICS 3 cm quartz stringer parallel to bedding. 157.00 157.60 4b.								
157.60	166.70	4EAB	GARNET-AMPHIBOLE-CHERT-GRUNERITE / CHERT-MAGNETITE I.F. 4eab. Fine grained to medium grained. Dark grey, black, light green and pink. Moderately magnetic. Hard. 65% 4ea Beds. 30% 4b Beds. 5% 4f Beds. Bedding well developed at 36 to 42 dca. Beds 5 mm to 2 cm wide. Minor folding with axial planes 41 to 43 dca. Dominant fracture set perpendicular to bedding at 54 to 62 dca. Minor fractures subparallel at 35 to 39 dca. Mineralized zone:. From 161.80 to 165.80 16 specks VISIBLE GOLD, 3% wisps and fracture-filling pyrrhotite, 25% quartz veining and quartz flooding. GEOLOG DATA:. 40% Bedded grunerite, 25% bedded garnet, 0% silicification, locally 2% fracture coating and pervasive calcite, 0% chlorite, 0% biotite. 1% Wisps, blebs and fracture-filling pyrrhotite, 16 fine grained specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% bedded magnetite. 10% Quartz stringers parallel to bedding, 0% quartz-carbonate, trace calcite stringers. Lower contact sharp at 35 dca. E42380 STANDARD I 7.20 7.20.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			E42381 BLANK 0.07. 157.60 158.00 4eab. 20% 4f beds. 158.00 159.00 4eab. 159.00 160.00 4eab. 160.00 161.00 4eab. 161.00 161.80 4eab. At 361.10 axial plane 41 dca. 161.80 162.80 4eab. 3 specks VISIBLE GOLD. 45% quartz veining. 162.80 163.80 4eab. 10 specks VISIBLE GOLD. 10% quartz veining. 163.80 164.80 4eab. 3 specks VISIBLE GOLD. 20% quartz veining. 164.80 165.80 4eab. 165.80 166.70 4eab. 1% calcite stringers.								
166.70	168.95	4F	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained. Black and pink, non-magnetic, hard. Bedding at 34 to 40 dca. Fractures perpendicular to bedding at 46 to 53 dca. GEOLOG DATA:. 0% grunerite, 25% 1 mm to 3 mm bedded and disseminated garnets, 0% silicification, trace pervasive calcite, 70% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veining, 0% quartz-carbonate, trace calcite stringers. Lower contact 36 dca. E42390 DUPLICATE OF E42389 0.03. 166.70 167.40 4f. 167.40 168.10 BVOL. 168.10 168.95 4f.								
168.95	170.10	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained. Dark green-grey and brown. Non-magnetic. Hard. Foliation at 40 dca. Fractures perpendicular to foliation at 44 to 47 dca. GEOLOG DATA:. 0% Grunerite, trace disseminated garnet, 0% silicification, 2% pervasive calcite, 1% fracture coating chlorite, 10% laminated biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz and quartz-carbonate veining. 1% calcite stringers. Lower contact at 36 dca. 168.95 170.10 BVOL. 1% calcite stringers with minor tourmaline at 53 dca.								
170.10	171.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			4ea. Bedding 31 dca. Fractures perpendicular to bedding at 61 dca. GEOLOG DATA:. 10% Bedded grunerite, 20% bedded garnet, 0% silicification, trace pervasive calcite, 0% chlorite, 2% laminated biotite. 3% Wisps and blebs pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% magnetite. 0% Quartz stringers, quartz-carbonate and calcite stringers. Lower contact at 36 dca. 170.10 171.00 4ea.								
171.00	173.20	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, light grey, non-magnetic. Well foliated at 51 dca. Fractures parallel to foliation at 49 dca and perpendicular at 51 dca. Fractures are calcite and pyrite coated. GEOLOG DATA:. 0% grunerite, 0% garnet, 0% silicification, trace fracture coating calcite, trace disseminated chlorite, 0% biotite, 25% pervasive sericite alteration. 0% pyrrhotite, 0% VISIBLE GOLD, trace pyrite as fracture coating, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz stringers parallel to foliation. 0% quartz-carbonate and calcite stringers. Lower contact sharp at 50 dca. 171.00 172.00 AVOL. Trace fracture coating pyrite. 1% quartz stringers.								
173.20	182.20	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green, non-magnetic. Moderately foliated at 31 to 55 dca. Fracture subparallel to foliation at 41 dca and perpendicular at 45 to 65 dca. GEOLOG DATA. 0% grunerite, 0% garnet, 0% silicification, 1% calcite as fracture-filling and pervasive, 10% pervasive chlorite, 5% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, < 1% pyrite as fracture coatings, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 2% Quartz veins parallel to foliation, 0% quartz-carbonate, trace calcite stringers. Lower contact sharp at 48 dca.								
182.20	183.35	24EA	INTRAFORMATIONAL IRON FORMATION								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			24ea. Fine grained matrix. Dark grey, pink, yellow, green, brown. Weak magnetite. Composed of: 40% 4ea, 5% 4b, 10% 4f, 5% chert, 40% 4e. Bedding at 37 dca. Fracture perpendicular to bedding at 45 dca. GEOLOG DATA:. 25% Bedded grunerite, 15% bedded garnet, 0% silicification, 2% pervasive calcite, 10% bedded biotite. 3% Wisps, disseminated and blebs pyrrhotite. 0% VISIBLE GOLD, trace pyrite as fracture-filling, 0% arsenopyrite, 0% chalcopyrite, 3% bedded magnetite. 6% Quartz veining parallel to bedding, 0% quartz-carbonate and trace calcite stringers parallel to bedding. Lower contact sharp at 40 dca. 182.20 183.35 24ea. Trace fracture-filling pyrite. 6% quartz veining.								
183.35	186.47	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green, non-magnetic. Moderately foliated at 53. Fractures subparallel to foliation at 55 dca and perpendicular at 49 dca. GEOLOG DATA. 0% grunerite, 0% garnet, 0% silicification, 1% calcite as fracture-filling and pervasive, 10% pervasive chlorite, 5% pervasive biotite. Trace stringers pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace fracture coating chalcopyrite, 0% magnetite. 0% Quartz vein, 0% quartz-carbonate, 2% calcite stringers parallel to foliation. Lower contact sharp at 46 dca.								
186.47	188.10	24EF	INTRAFORMATIONAL IRON FORMATION 24ef. Fine grained matrix. Pink, dark green, dark brown, weakly magnetic. Well developed bedding at 46 dca. Fractures parallel to bedding at 50 dca. GEOLOG DATA. 5% Bedded grunerite, 10% bedded garnet, 0% silicification, trace pervasive calcite, 1% laminated chlorite, 15% bedded biotite. Trace disseminated pyrrhotite, 0% VISIBLE GOLD, trace pyrite stringers, 0% arsenopyrite, 0% chalcopyrite, 1% bedded magnetite. 1% Quartz stringers, 0% quartz-carbonate, trace calcite stringers. Lower contact sharp at 58 dca. 186.47 187.10 24ef. 1% calcite stringers, 1% quartz stringer. 187.10 188.10 24ef. Trace pyrite as fracture-filling, 1% quartz stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
188.10	201.12	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green to medium brown. Non-magnetic. Moderate to strongly foliated at 42 dca. One fold at 197.0 m axial plane at 38 dca. Fracture subparallel to foliation at 50 to 54 dca with medium calcite coatings. 10% 24FE AND 24EF units from 10 cms to 55 cms wide. GEOLOG DATA. 0% grunerite, 0% garnet, 0% silicification, 5% pervasive and stringers of calcite, 5% pervasive chlorite, 10% pervasive biotite. 0% pyrrhotite, 0% VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. < 1% quartz stringers, 0% quartz-calcite vein, 2% calcite stringers. Lower contact sharp at 35 dca. 190.50 191.00 24FE. Upper contact 46 dca. Lower contact 40 dca. 191.45 191.95 24EF. Upper contact 46 dca. Lower contact 48 dca. 198.20 198.95 24FE. Upper contact 46 dca. Lower contact 41 dca.								
201.12	203.69	24EA	INTRAFORMATIONAL IRON FORMATION 24ea. Fine grained matrix. Pink, medium brown, dark grey, dark green, moderately magnetic,. Composed of 25% 4ea, 5% 4b, 15% 4f, 10% quartz vein and quartz flooding, 10% chert, 10% 4e. Well developed bedding, 1 to 2 cm, at 41 to 28 dca. Moderately developed right limb fold at 202.0 to 202.25 with well developed fracture cleavage at 48 dca. Fractures subparallel to bedding at 28 to 47 dca and perpendicular to bedding at 45 to 48 dca. GEOLOG DATA. 7% Bedded grunerite, 5% bedded garnet, 0% silicification, 0% calcite, 1% bedded chlorite, 10% bedded biotite. 6% Stringers and semi-massive pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% bedded magnetite. 1% Quartz stringers and 5% quartz flooding, 0% quartz-carbonate, 2% calcite stringers. Lower contact sharp at 41 dca. E42400 STANDARD I 9.33. E42401 BLANK 0.41. 201.12 202.12 24ea. < 1% quartz veins, <1% calcite stringers. 202.12 203.12 24ea. 1% quartz flooding. 203.12 203.69 24ea. 5% quartz flooding.								
203.69	213.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Bvol. Fine grained, dark green to medium brown. Non-magnetic. Well developed foliation at 38 to 54 dca. GEOLOG DATA. 0% Grunerite, one garnet associated with pyrrhotite veinlet at 204.0, 0% silicification, 0% calcite, 7% pervasive chlorite, 3% biotite associated with calcite stringers. < 1% pyrrhotite as stringers, 0 specks VISIBLE GOLD, < 1% pyrite as stringers, trace disseminated chalcopyrite, 0% magnetite. <1 mm quartz vein 7 cm wide sharp contacts, 0% quartz-carbonate, 5% pervasive calcite and stringers parallel to foliation. 207.06 24e one cm wide with garnet to 1 cm, and pyrrhotite stringer. Lower contact sharp at 49 dca.								
213.00	215.15	24EA	INTRAFORMATIONAL IRON FORMATION 24ea. Fine grained matrix, medium green, pink and yellow. Moderately magnetic. Composed of 20% 4ea beds, 10% 4f beds, 50% 4e beds, < 1% 4b beds 10% chert beds. Well developed bedding at 45 dca, but locally disrupted by quartz flooding and pyrrhotite stringers. Fractures perpendicular to bedding at 53 to 55 dca and parallel to bedding at 55 dca. GEOLOG DATA. 10% Bedded grunerite, 15% bedded garnet, 0% silicification, 0% calcite, 10% bedded chlorite, 10% bedded biotite. 5% Pyrrhotite as wispy stringers to 2 cm and disseminated, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite as euhedral crystals, 0% chalcopyrite, 2% bedded magnetite. 1% Boudinaged quartz veins to 1 cm parallel to bedded, 0% quartz-calcite veins, 2% calcite stringers parallel to bedded. Lower contact sharp at 49 dca. 213.00 214.00 24ea. Trace arsenopyrite, 1% quartz veins. 214.00 215.15 24ea. Trace arsenopyrite, 5% quartz flooding.								
215.15	296.63	AVOL	FELSIC TO INTERMEDIATE VOLCANICS Avol. Fine grained, grey, non-magnetic, moderately hard. Feldspar phenocryst to 1 mm from 0 to 8% generally subhedral. Well developed foliation from 38 to 57 dca. Fractures subparallel to foliation at 33 to 60 dca and perpendicular to foliation at 31 to 79 dca. Fractures generally coated with calcite. One fold at 264.35 axial plane at 75 dca. GEOLOG DATA.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% Grunerite, < 1% subhedral garnet, trace silicification, trace calcite as stringers, 0% chlorite, 0% biotite. Trace pyrrhotite as 1 mm stringers, 0 specks VISIBLE GOLD, trace pyrite as irregular mass in pyrrhotite vein, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite 1% Quartz as veins from 5 mm to 15 cm, 0% quartz-calcite veins, 1% calcite stringers and veins from 1 mm to 3 cm. Lower contact sharp at 62 dca. 215.15 231.41 10 to 15% sericite alteration parallel to foliation. 215.15 283.00 3 to 8% feldspar phenocryst to 1 mm. 217.40 218.00 Avol silicified and irregular quartz mass with calcite filled fractures. Medium epidote alter alteration along fractures. 219.00 218.70 Avol silicified medium epidote alteration and bleaching. 221.70 222.50 Avol silicified and bleach. 241.50 242.90 Avol 15% sericite alteration in bands parallel to foliation. 250.68 250.81 Quartz vein white fine grained barren. 257.00 273.20 Avol 10 to 15% sericite alteration in bands parallel to foliation. 262.46 262.60 Irregular quartz vein with euhedral pyrite and wispy pyrrhotite. 276.85 279.00 Avol 20% sericite alteration in bands parallel to foliation. 280.70 296.63 Avol 2% subhedral garnet to 4 mm elongated parallel to foliation. <1% wispy pyrrhotite parallel to foliation. Quartz veins parallel to foliation with black tourmaline. 281.00 296.63 Avol 5% sericite in bands parallel to foliation.								
296.63	298.66	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained matrix with subhedral garnet from 2 mm to 10 mm. Dark green, medium brown and pink, weakly magnetic. Composed of 60% 4f, 38% 4e, 2% 4ea beds. Bedded is moderately to well developed. Beds are 5 mm to 7 cm at 40 to 50 dca increasing DOWN HOLE. Fractures 51 to 62 dca perpendicular to bedded and 38 dca subparallel to bedded, with calcite coatings on fracture surfaces. GEOLOG DATA. 2% Bedded grunerite, 20% bedded garnet, 0% silicification, 1% pervasive calcite, trace bedded chlorite, and 50% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% bedded magnetite associated with 4e beds. 2% Boudinaged quartz veins parallel to bedded with aspect ratio of 3:1, 0% quartz-carbonate veins, < 1% calcite veins parallel to bedded. Lower contact sharp at 50 dca. 296.63 297.70 24f. 297.70 298.66 24ef pyrrhotite disseminated, 2% boudinaged quartz veins and 2% pervasive calcite and stringers.								
298.66	310.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Bvol. Fine grained, medium green to medium brown, non-magnetic and moderately hard. Well developed foliation at 36 to 38 dca. Fracture subparallel to foliation at 50 to 53 dca very minor calcite coating. Fracture perpendicular to foliation at 49 dca with calcite coating. GEOLOG DATA. Trace bedded grunerite associated with 24f, 2% bedded garnet associated with 24f, 0% silicification, 0% calcite, 8% chlorite as alteration of Bvol, 2% pervasive biotite as potassic alteration of Bvol. Trace pyrrhotite as discreet stringer in Bvol and disseminated and wispy in 24f, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz veins to 1.5 cm parallel to foliation, trace quartz-carbonate veins, 3% carbonate veins to 1 cm and stringers parallel to foliation. Lower contact sharp at 57 dca. 299.30 299.40 24f with 15% subhedral garnet to 5 mm. Upper contact 38 dca, lower contact 44 dca. 300.07 300.60 24f with 5% subhedral garnet to 10 mm. Upper contact 38 dca, lower contact 42 dca. 301.65 302.30 24f 95% f beds with 3% subhedral garnet to 5 mm, 4% e beds and trace pyrrhotite as wispy stringers. Upper contact 40 dca, lower contact 54 dca.								
310.00	313.05	24E	INTRAFORMATIONAL IRON FORMATION 24e 15% Quartz Boudins. Fine grained, green, pink, white. Moderately hard, weakly magnetic. Composed of 80% 4e, 15% boudinaged quartz veins, 5% 4f. Poor to moderately developed bedding 1 to 3 cm. Left limb fold at 310.8 axial plane at 36 dca. Fracture subparallel to bedding at 34 dca. The dominant fracture set perpendicular to bedding at 46 to 52 dca. GEOLOG DATA. 2% Bedded grunerite, 5% bedded subhedral garnet from 1 mm to 5 mm associated with 4e and 4f, 0% silicification, 0% calcite, 10% pervasive chlorite, 5% bedded biotite. Trace pyrrhotite as wispy stringers parallel to bedding, 0 specks VISIBLE GOLD, 0% pyrite, 0% chalcopyrite, 0% arsenopyrite, 1% bedded and. Magnetite associated with 4e. 15% Boudinaged quartz veins parallel to bedding with aspect ratio of 3:1, 0% quartz-carbonate vein, 5% pervasive calcite veins and stringers. Lower contact sharp at 40 dca. E42410 DUPLICATE OF E42409 0.03 NS NS. 310.00 311.00 24e 15% boudinaged quartz veins, 1% calcite veins and stringers. 311.00 312.00 24e 10% boudinaged quartz veins, < 1% calcite stringers. 312.00 313.05 24e 10% boudinaged quartz veins 1% calcite stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
313.05	316.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, non-magnetic. Moderately developed foliation at 40 to 46 dca. Fractures subparallel to foliation at 36 dca and perpendicular to foliation at 58 to 70 dca. Fractures coated with calcite. 0% grunerite, 0% garnet, 0% silicification, 0% calcite, 10% pervasive chlorite, 2% pervasive biotite parallel to foliation. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% pyrite, 0% magnetite. < 1% macro quartz veins parallel to foliation, 0% quartz-carbonate veins, 2% micro and macro calcite veins parallel to foliation. Lower contact sharp at 48 dca.								
316.00	317.20	24EA	INTRAFORMATIONAL IRON FORMATION 24ea. Fine grained matrix with subhedral and glomeroporphyritic garnets from 2 mm to 1 cm. Brown, pink, yellow and green. Weakly magnetic associated with 4e. 30% 4f In first 35 cm of unit, 30% 4ea, 20% 4e, 10% chert. Moderately to well developed bedding from 2 cm to 5 cm at 31 dca. One fracture perpendicular to bedding at 65 dca with minor calcite coating. GEOLOG DATA. 25% Bedded grunerite, 10% subhedral to euhedral garnet as clusters and single, 0% silicification, trace chlorite associated with 4e, 25% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% bedded magnetite associated with 4e. 2% Marcro quartz veins, 0% quartz-carbonate vein, 1% macro and micro calcite veins. Lower contact sharp at 30 dca. 316.00 317.20 24ea 2% quartz veins and 1% calcite veins and stringers.								
317.20	319.00	24F	INTRAFORMATIONAL IRON FORMATION 24f. Fine grained, brown and pink with rare green beds. Non-magnetic and soft. 3% 4e And 97% 4f. Moderately to well developed bedding from 2 cm to 5 cm at 30 to 40 dca. One fracture calcite coated at 50 dca perpendicular to bedding. GEOLOG DATA. Trace to 1% grunerite alteration of 4e beds, 10% subhedral to euhedral garnet to 4 mm, 0% silicification, trace pervasive calcite associated with 4e, trace chlorite associated with 4e, 85% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% chalcopyrite, 0% arsenopyrite, 0% magnetite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			< 1% MACRO AND MICRO quartz veins, 0% quartz-carbonate veins, 0% calcite veins. Lower contact moderately sharp at 50 dca. 317.20 318.00 24f. 318.00 319.00 24f.								
319.00	320.69	24E	INTRAFORMATIONAL IRON FORMATION 24e, 4% Boudinaged quartz veins. Fine grained, green and pink, moderately and weakly magnetic. Poorly developed bedding 3 mm to 10 cm at 37 to 50 dca, composed of 85% 4e and 10% 4f. One calcite coated fracture perpendicular to bedding at 55 dca. GEOLOG DATA. 2% Grunerite alteration of 4e, 1% subhedral garnet to 3 mm, 0% silicification, 0% calcite, 10% pervasive chlorite associated with 4e, 8% bedded biotite. Trace pyrrhotite as stringers and wisps, 0 specks VISIBLE GOLD, 0% pyrite, 0% chalcopyrite, 0% arsenopyrite, trace bedded magnetite. 4% Boudinaged quartz veins with aspect ratio of 2.5 : 1, 0% quartz-carbonate veins, 1% macro and micro veins. Lower contact sharp at 43 dca. 319.00 320.00 24e 5% boudinaged quartz veins 1% calcite stringers. 320.00 320.69 24e 3% boudinaged quartz veins trace calcite stringers.								
320.69	342.35	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, moderately hard and non-magnetic. Moderately developed foliation at 46 to 50 dca. Fractures perpendicular to foliation at 39 to 70 dca coated with calcite and minor chlorite. Fractures subparallel to foliation at 34 to 36 dca coated with calcite. GEOLOG DATA. 0% grunerite, 0% garnet, 0% silicification, 0% CAL%, 10% pervasive chlorite, 5% biotite as potassic alteration. Trace pyrrhotite as blebs in calcite vein, 0 specks VISIBLE GOLD, 0% pyrite, 0% chalcopyrite, 0% arsenopyrite, 0% magnetite. Trace MACRO quartz veins, < 1% quartz-carbonate veins, 2% MICRO AND MACRO calcite veins throughout unit. Lower contact moderately sharp at 37 dca. 330.53 Calcite and pyrite filled, 3 mm. 332.00 337.45 Potassic alteration denoted by biotite parallel to foliation increasing down hole to 10%, associated with carbonate veining. 341.00 341.55 Quartz-carbonate vein with euhedral calcite, white quartz and bleaching around vein.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
342.35	344.00	24BE	INTRAFORMATIONAL IRON FORMATION 24be. Fine grained, green, grey and pink, moderately magnetic and moderately hard. 5% Magnetite laminae, 10% 4e, 85% fine grained grey siliceous sediment. Well developed bedding at 62 to 37 dca. Beds from laminae to 2 cm. Fracture subparallel to bedding at 35 dca and one perpendicular at 52 dca both with calcite and chlorite. GEOLOG DATA:. Trace grunerite associated with 4e, 5% pervasive subhedral garnet to 3 mm, 0% silicification, 0% calcite, 2% bedded chlorite, 0% biotite. Trace stringers pyrrhotite, 0 specks VISIBLE GOLD, 0% chalcopyrite, 0% arsenopyrite, 0% pyrite, 5% laminated magnetite. 0% quartz, 0% quartz-carbonate, 0% calcite. Lower contact sharp at 37 dca. 342.35 343.00 24be pyrrhotite as stringers. 343.00 344.00 24be pyrrhotite as stringers.								
344.00	354.42	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to green brown, non-magnetic, and moderately hard. Well developed foliation at 32 to 34 dca. Fractures subparallel to foliation at 28 to 30 dca and perpendicular to foliation at 38 to 64 dca. Fractures coated with calcite and chlorite. GEOLOG DATA. 0% grunerite, 0% garnet, 0% silicification, 0% calcite, 10% pervasive chlorite, 3% pervasive biotite as potassic alteration. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veins, 5% MACRO AND MICRO quartz-carbonate veins parallel to foliation. 349.12 349.38 MINERALIZED ZONE of quartz calcite veining composed of 50% Bvol, 10% quartz and 40% calcite. Lower contact sharp at 49 dca.								
354.42	356.25	24EA	INTRAFORMATIONAL IRON FORMATION 24ea contains 10% 4f beds. Fine grained, green, brown, yellow, blue and pink. Moderately magnetic and very hard. Composed of 10% 4f, 25% 4ea, 15% 4e, 45% quartz flooding, 3% pyrrhotite and 2% calcite. Well developed bedding from 1 to 2 cm at 42 dca. Right limb fold with axial plane from 33 to 44 dca. Fractures perpendicular to bedding at 68 dca with calcite coated.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 10% Bedded grunerite, 10% bedded subhedral garnet and glomeroporphyritic clusters, 45% pervasive silicification, 1% MICRO veins of calcite associated with quartz flooding, 10% bedded biotite. 3% Pyrrhotite disseminated, blebs and stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite associated with 4e. 1% Quartz veins to 15 mm parallel to bedding, 0% quartz-carbonate veins 1% calcite stringers associated with quartz flooding. Lower contact sharp at 47 dca. STANDARD II E42420 8.98 NS NS. BLANK E42421 0.14 NS NS. 354.42 355.58 24fea 3% quartz flooding. 355.58 356.25 24ea 60% quartz flooding.								
356.25	379.50	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained green, except where otherwise noted, non-magnetic. Well developed foliation at 28 to 40 dca. Fractures subparallel to foliation at 28 to 68 dca. Fractures perpendicular to foliation at 38 to 69 dca. Generally coated with calcite and to a lesser extent chlorite. GEOLOG DATA. 0% Grunerite, trace garnets at 378.00 to 378.5 associated with potassic alteration of Bvol, 0% silicification, 5% pervasive calcite associated with potassic alteration of Bvol, 10% pervasive chlorite, 5% biotite as product of potassic alteration of Bvol. Trace pyrrhotite as blebs and stringers associated with quartz stringers and veins, 0 specks VISIBLE GOLD, 0% pyrite, 0% chalcopyrite 0% arsenopyrite, 0% magnetite. 1% MACRO AND MICRO veins of white quartz, < 1% quartz-carbonate veins, 3% MACRO AND MICRO veins of calcite generally parallel to foliation. 360.70 361.50 24ea 50% quartz flooding, 20% 4e, 20% 4ea, 5% Bvol, 5% pyrrhotite. 360.70 361.50 24ea 50% quartz flooding, 2% calcite stringers. 362.17 362.37 24e 70% quartz flooding, 20% 4e trace pyrrhotite, 5% grunerite alteration, 5% calcite stringers. 366.53 367.17 Quartz vein 90% white quartz, 5% chlorite, 5% Bvol. 372.00 372.50 Quartz vein 75% white quartz, 5% chlorite, 20% Bvol. 374.15 374.35 Quartz-carbonate vein 50% quartz, 30% carbonate, 20% Bvol. 374.35 379.50 Potassic alteration of Bvol with 10% carbonate veins and rare garnet, brown. Lower contact sharp at 34 dca.								
379.50	384.25	24EA	INTRAFORMATIONAL IRON FORMATION								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			24ea. Fine grained green, pink, yellow and brown. Weakly magnetic and moderately hard. Composed of 20% 4f, 40% 4ea, 25% 4e, 5% chert, 1% 4b, 5% Bvol. Well developed bedding from 1 to 3 cm at 30 to 49 dca. Right limb fold with axial planes at 34 to 37 dca. Fractures subparallel to bedding at 32 to 56 dca, and perpendicular to bedding at 56 dca. GEOLOG DATA. 15% Bedded grunerite, 20% subhedral, discreet and glomeroporphyritic, bedded garnet from 1 to 7 mm, 0% silicification, 0% carbonatization, 1% bedded chlorite associated with 4e, 15% bedded biotite. Trace pyrrhotite as blebs and stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace magnetite as laminae in chert and disseminated in 4e. Trace quartz as MACRO veins and 2% quartz flooding, 0% quartz-carbonate vein and trace calcite as stringers in areas of quartz flooding. Lower contact sharp at 39 dca. 379.50 380.50 24ea trace quartz flooding. 380.50 381.50 24ea. 381.50 382.50 24ea trace quartz flooding. 382.50 383.50 24ea trace quartz veins. 383.50 384.25 24ea.								
384.25	387.20	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with garnet to 1 mm, brown and non-magnetic. Composed of 85% 4f 5% chert, 5% poorly developed 4ea and 5% 4e. Well developed bedding from 5 mm to 10 mm at 36 to 55 dca. Rare left limb folds with axial plane at 47 dca. 3% Bedded grunerite, 20% pervasive subhedral garnet to 1 mm, 0% silicification, 0% calcite, 0% chlorite, 70% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz as MACRO veins, 0% quartz-carbonate veins, 0% calcite veins. Lower contact sharp at 45 dca. E42430 DUPLICATE OF E42429 0.27. 384.25 385.25 4f. 385.25 386.25 4f. 386.25 387.20 4f.								
387.20	397.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, yellow, blue, green, pink and brown. Weakly to moderately magnetic								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			and moderately hard. Composed of 40% 4ea 10% 4f, 25% chert, 20% 4e, 3% laminae magnetite. Well developed bedding from 5 mm to 2 cm at 28 to 47 dca. Left limb fold and right limb fold from 37 to 42 dca. MINERALIZED ZONE:. 387.20 388.20 4ea 7% quartz flooding. 388.20 389.20 4ea 1% quartz flooding. 389.20 390.20 4ea 25% quartz flooding. 390.20 391.10 4ea trace quartz flooding and calcite stringers. 391.10 392.10 4ea 25% quartz flooding. 392.10 393.10 4ea TR% quartz flooding, 1 speck VISIBLE GOLD. 392.10 Trace pyrrhotite, trace quartz flooding, 1 speck VISIBLE GOLD. GEOLOG DATA. 30% Bedded grunerite, 20% bedded subhedral to glomeroporphyritic garnet, from 1 mm to 2 cm, 0% silicification, 0% calcite, trace bedded chlorite associated with 4e, 9% bedded biotite. Trace pyrrhotite as stringers and blebs, 1 speck VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% laminae magnetite. 2% Quartz flooding trace quartz veins, 0% quartz-carbonate veins, trace calcite as MICRO AND MACRO veins associated with quartz flooding. Lower contact gradual over 5 cm at 47 dca. E42440 STANDARD 2 9.12 9.33. E42441 BLANK 0.03. 393.10 394.10 4ea 2% quartz veining. 394.10 395.10 4ea. 395.10 396.10 4ea. 396.10 397.00 4ea 30% quartz flooding.								
397.00	436.50	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, black, blue, and yellow, strongly magnetic, and very hard. Composed of 35% laminated magnetite, 35% chert beds from 5 mm to 2 cm, 5% grunerite alteration of magnetite, 15% 4f 5 mm to 1 cm, 2% 4ea 1 cm, 8% quartz flooding. Left limb fold to 116.75 with axial planes from 38 to 58 dca. Right limb fold from 417.00 to 436.5 FELSIC TO INTERMEDIATE VOLCANICS poors at 44 to 49 dca. Very few fractures. Fractures 24 to 63 dca with chlorite and calcite coatings. GEOLOG DATA. 5% Grunerite alteration of magnetite laminae, trace to 1% subhedral garnets to 3 mm, 0% silicification, 0% carbonatization, trace bedded chlorite associated with 4e beds, 15% bedded biotite. Trace pyrrhotite as stringers and blebs, 10 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 35% laminated magnetite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			8% Quartz flooding and trace MACRO quartz veins, trace MACRO AND MICRO quartz-carbonate veins, trace to 1% MICRO AND MACRO calcite veins. MINERALIZED ZONES. 422.75 to 427.75 average 1% pyrrhotite and 30% quartz flooding. 3 specks VISIBLE GOLD found. 429.75 to 433.75 average 2% pyrrhotite and 25% quartz flooding. 7 specks VISIBLE GOLD found. 397.00 403.20 4bf 20% 4f, 10% 4e, 5% grunerite alteration of magnetite, 30% chert, trace poorly developed 4ea, 5% quartz flooding, 30% bedded to laminae magnetite. 397.00 398.00 4bf trace pyrrhotite as stringers. 398.00 399.00 4bf 1% quartz veins with pyrrhotite stringers associated. 399.00 400.00 4bf 1% quartz veins with pyrrhotite stringers associated. 400.00 401.00 4bf 10% quartz flooding, trace quartz veins. 401.00 402.00 4bf 50% quartz flooding. 402.00 403.00 4bf 50% quartz flooding. 403.00 404.00 4b 3% quartz veins. 404.00 405.00 4b trace quartz veins. 405.00 406.00 4b trace quartz veins and calcite veins. 406.00 407.00 4b. 407.00 408.00 4b 1% quartz veins. 408.00 409.00 4b 5% quartz flooding, 1% quartz veins. 409.00 412.00 4b with 10% 4f. 409.00 410.00 4b 10% quartz flooding, 1 speck arsenopyrite. 410.00 411.00 4b 20% quartz flooding. 411.00 412.00 4b. 412.00 413.00 4b. 413.00 414.00 4b trace quartz veins. 413.70 417.50 4b with 15% 4f. Predominantly left limb folding to 414.0. 414.00 415.00 4b 5% quartz veins. 415.00 416.00 4b. 416.00 417.00 4b 2% quartz veins. 416.50 417.00 M style folding axial plane 46 dca. Axis of T antiform. 417.00 418.00 4b. 418.00 419.00 4b. 418.50 421.00 4bf 25% 4f. 419.00 420.00 4b 1 calcite vein. 420.00 421.00 4b 1% quartz veins. 421.00 422.55 4bea 40% poorly developed 4ea moderately to intensely gruneritized beds 10% remnants of 4e. 421.00 422.00 4BEA 1% quartz veins. 422.00 422.75 4bea. 422.55 428.35 4bf 25% 4f from 5 mm to 1 cm. Lower contact sharp at 33 dca. E42450 DUPLICATE 3.87 NS NS.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			E42460 STANDARD 2 9.87 9.77. E42461 BLANK 0.10. E42470 DUPLICATE OF E42469 0.07. E42480 STANDARD 2 9.81. E42481 BLANK 0.07. 422.75 423.75 4bf 10% quartz veins, 40% quartz flooding. 423.75 424.75 4bf 25% quartz flooding, 1 speck VISIBLE GOLD. 424.75 425.75 4bf 20% quartz flooding. 425.75 426.75 4bf 70% quartz flooding. 426.75 427.75 4bf 5% quartz flooding, 1 speck VISIBLE GOLD. 427.75 428.75 4bf, 4bea 5% quartz veins. 428.75 429.75 4b 1% quartz veins. 429.75 430.75 4b 40% quartz flooding, 2 specks VISIBLE GOLD. 430.75 431.75 4b 50% quartz flooding, 3 specks VISIBLE GOLD. 431.75 432.75 4b 30% quartz flooding, 1 speck VISIBLE GOLD. 432.75 433.75 4b 5% quartz flooding, 1 speck VISIBLE GOLD. 433.75 434.75 4b. 434.75 435.75 4b. 435.75 436.50 4b.								
436.50	457.50	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, grey, yellow, pink. Weakly to strongly magnetic increasing down hole, moderately hard. Composed of 40% 4ea, well developed at top of unit, DECREASING DOWN HOLE. 3% 4e as remnants associated with 4ea, 10% laminated to thinly bedded magnetite INCREASING down hole, 30% chert beds, 2% 4f increasing in concentration down hole. Moderately well developed bedding from 5 mm to 3 cm at 27 to 60 dca. Left limb fold and right limb fold at 28 to 63 dca. Few fractures at 49 dca, coated with calcite. MINERALIZED ZONES. 436.50 437.50 4ea 30% quartz flooding, 1% calcite veins. 436.50 2% pyrrhotite as stringers and blebs with 10% to 30% quartz flooding and 7 specks VISIBLE GOLD. 437.50 438.00 4ea 10% quartz flooding. 438.00 439.00 4ea 15% quartz flooding, 7 specks VISIBLE GOLD. 439.00 440.00 4ea 5% quartz flooding. 440.00 441.00 4ea 10% quartz flooding. 441.00 442.00 4ea 3% quartz flooding, 3% quartz veins. 442.00 443.00 4ea 1% quartz veins. 443.00 444.00 4ea 3% quartz flooding, 2% quartz veins. 444.00 445.00 4ea 5% quartz flooding, 1% quartz veins. 445.00 446.00 4ea 30% quartz flooding, 5% quartz veins, 4 specks VISIBLE GOLD. 445.00 Trace to 5% pyrrhotite as stringers and blebs with 2% to 40% quartz flooding, 7 specks VISIBLE GOLD and trace arsenopyrite. GEOLOG DATA.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			10% Bedded grunerite, 20% bedded, subhedral, euhedral and glomeroporphyritic clusters of garnet from 1 mm to 2 cm. 0% silicification, 0% carbonatization, trace bedded chlorite as alteration of 4e, 2% bedded biotite. Trace to 1% pyrrhotite as stringers and blebs, 14 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 10% laminated to thinly bedded magnetite. 15% Quartz flooding, and trace to 1% MACRO quartz veins, 0% quartz-carbonate veins, trace MICRO calcite veins. 446.00 447.00 4ea 2% quartz flooding, trace arsenopyrite. 447.00 448.00 4ea 8% quartz flooding, 1% quartz veins. 448.00 449.00 4ea 15% quartz flooding, trace arsenopyrite. 449.00 450.00 4eab 40% quartz flooding, 3 specks VISIBLE GOLD. 450.00 457.50 4eab ea beddings poorly developed, garnet from 1 to 2 mm, less grunerite developed 15 to 20% magnetite as laminae in chert, 3 to 5% 4f. Lower contact sharp at 49 dca. E42490 DUPLICATE OF E42489 0.03. E42500 STANDARD 2 9.53 9.53. E46551 BLANK 0.07. E46460 STANDARD II 9.81 9.60 NS. E46461 BLANK 0.17 NS NS. 450.00 451.00 4eab 5% quartz flooding. 451.00 452.00 4eab 30% quartz flooding, 3% quartz veins. 452.00 453.00 4eab 2% quartz flooding. 453.00 454.00 4eab 2% quartz veins. 454.00 455.00 4eab 10% quartz flooding. 455.00 456.00 4eab 8% quartz flooding. 456.00 457.00 4eab. 457.00 457.50 4eab.								
457.50	480.40	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey and black, very hard, strongly magnetic. Composed of 50% laminated to bedded magnetite, 35% chert beds from 1 mm to 1 cm. 3% grunerite alteration of magnetite. 10% 4f. Left limb fold and right limb fold with axial planes from 31 to 53 dca. Few fractures from 51 to 68 dca. 457.50 458.00 4b 80% quartz veins. 458.00 459.00 4b 3% quartz veins. 459.00 460.00 4b. 460.00 461.00 4b 5% quartz veins. 461.00 462.00 4b 2% quartz veins. 462.00 463.00 4b 5% quartz veins. 463.00 464.00 4b 8% quartz veins. 464.00 465.00 4b 1 quartz vein. 465.00 466.00 4b. 466.00 467.00 4b.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			467.00 468.00 4b. 468.00 469.00 4b. 469.00 470.00 4bf 10% quartz veins. 469.60 473.20 4bf thinly bedded to 5 mm with 5% grunerite alteration, 20% to 25% 4f beds. 470.00 471.00 4bf 15% quartz veins. 471.00 472.00 4bf 80% quartz veins. 472.00 473.00 4bf 10% quartz veins. 473.00 474.00 4be. 473.20 477.15 4be 30% 4e beds with 1% garnets < 1 mm. 474.00 475.00 4be. 475.00 476.00 4be. 476.00 477.00 4be. 477.00 478.00 4bf 5% quartz veins. 477.15 480.40 20% 4f beds < 1 cm with 1% garnet < 1 mm. GEOLOG DATA. 3% Bedded grunerite as alteration of magnetite, trace bedded garnet < 1 mm, 0% silicification, 0% carbonatization, 5% bedded biotite. Trace pyrrhotite as blebs, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 50% laminated to bedded magnetite. Trace quartz veins, trace quartz-carbonate veins, trace calcite veins. Lower contact sharp at 42 dca. E46570 DUPLICATE OF E46569 0.07. E46580 STANDARD II 9.09 NS NS. E46581 BLANK 0.07. E46590 DUPLICATE OF E46589 0.86. 478.00 479.00 4bf. 479.00 480.40 4bf.								
480.40	495.30	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, grey, pink, yellow and green. Weakly magnetic and moderately hard. Composed of 50% 4ea from 5 mm to 2 cm with poorly to well developed ea, 5% 4e as remnants of ea beds, 30% chert beds from 5 mm to 1 cm, 10% 4f from 3 mm to 7 mm, 5% magnetite as laminae. Bedding angles range from 40 to 59 dca. Few left limb folds at 40 to 45 dca. Fractures perpendicular to bedding at 37 to 58 dca, generally coated with calcite. Fracture at at 493.2 44 dca coated with calcite, chlorite and iron oxide. One fracture parallel to bedding at 44. MINERALIZED ZONE. 486.00 487.00 4ea 1% pyrrhotite stringers and blebs with 5% quartz FAULT GOUGE and 8 specks VISIBLE GOLD. 490.00 491.00 4eaf 4% pyrrhotite stringers and blebs with 50% quartz flooding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 15% Bedded grunerite, 15% euhedral, subhedral, and glomeroporphyritic garnet from 1 mm to 2 cm, 0% silicification, 0% carbonatization, trace chlorite as alteration of 4e remnants. Trace pyrrhotite as stringers, blebs and disseminations, 8 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 5% laminated magnetite and disseminated in 4e. 1% Quartz flooding and rare veins, 0% quartz-carbonate veins, trace calcite as MICRO AND MACRO veins. Lower contact sharp at 45 dca. E46600 STANDARD II 9.15 9.33 NS. E46601 BLANK 0.07. E46610 DUPLICATE OF E44609 0.07. 480.40 481.00 4ea 8% quartz flooding. 481.00 482.00 4ea. 482.00 483.00 4ea. 483.00 484.00 4ea 20% quartz flooding. 484.00 485.00 4ea 5% quartz flooding. 485.00 486.00 4ea 2% quartz flooding. 486.00 487.00 4ea 5% quartz flooding, 8 specks VISIBLE GOLD. 487.00 488.00 4ea 1% quartz flooding. 488.00 489.00 4ea trace quartz flooding, trace chalcopyrite. 489.00 490.00 4eaf. 490.00 491.00 4eaf 50% quartz flooding. 491.00 492.00 4ea 20% quartz flooding. 492.00 493.00 4ea 1% veins. 493.00 494.00 4ea 1% calcite veins. 494.00 495.30 4ea 2% quartz flooding.								
495.30	498.80	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, black and grey, strongly magnetic, and hard. 30% Thinly bedded to laminae magnetite, 30% chert beds from 2 mm to 8 mm, 2% 4f from 4 mm to 1 cm, 3% 4e beds, 35% 6e, argillaceous beds from 5 mm to 1.5 cm. Bedding is well developed at 43 to 47 dca. GEOLOG DATA. 1% Bedded grunerite as alteration of magnetite, trace garnet to 2 mm associated with 4f, 0% silicification, 2% carbonatization associated with ARGILLITE, 0% chlorite, trace bedded biotite. Trace pyrrhotite as stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% laminated to thinly bedded magnetite. Trace quartz stringers, 0% quartz-carbonate, trace calcite MACRO veins. Lower contact sharp at 40 dca. 495.30 496.30 4b 2% quartz veins and 2% calcite veins. 496.30 497.30 4b trace quartz veins.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			497.30 498.30 4b. 498.30 498.80 4b.								
498.80	514.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, grey, yellow, pink and green, moderately magnetic and hard. 40% 4ea Beds from 1 to 2 cm, 20% chert beds to 1 cm, 15% 4e beds and. Remnants of 4e beds, 5% laminated magnetite, trace 4f, 2% sedimentary mafic volcanic chlorite rich. Well developed bedding at 41 to 56 dca. Fractures perpendicular to bedding at 13 to 65 dca, generally with calcite and chlorite coatings. Fractures at 503.9, 508.65, 511.50, 38, 36 and 13 dca respectively have iron oxide on fracture surfaces, possibly indicating water filled fractures. MINERALIZED ZONE. 502.00 TO 511.00 trace to 15% pyrrhotite as stringers, blebs and DISSEMINATIONS with 3 to 15% quartz flooding and 7 specks VISIBLE GOLD. GEOLOG DATA. 15% Bedded grunerite, 15% bedded garnet euhedral, subhedral, and glomeroporphyritic from 1 mm to 3 cm, 0% silicification, 0% calcite, trace bedded chlorite as alteration of 4e, trace bedded biotite. 3% Pyrrhotite as stringers, blebs, and disseminations, 7 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% laminated and disseminated magnetite 6% Quartz flooding, 0% quartz-carbonate veins and trace MACRO AND MICRO calcite veins associated with quartz flooding. Lower contact sharp at 48 dca. E46620 STANDARD II 9.36 9.12 NS. E46621 BLANK 0.07. E46630 DUPLICATE OF E46629 6.58. 498.80 500.00 4ea 2% quartz flooding. 500.00 501.00 4ea 3% quartz flooding. 501.00 502.00 4ea 1% quartz veins. 502.00 503.00 4ea 1% quartz veins, 1 speck VISIBLE GOLD. 503.00 504.00 4ea 3% quartz flooding. 504.00 505.00 4ea 15% quartz flooding. 505.00 506.00 4ea 15% quartz flooding, 2 specks VISIBLE GOLD. 506.00 507.00 4ea 5% quartz flooding, 1 speck VISIBLE GOLD. 507.00 508.00 4ea 10% quartz flooding. 508.00 509.00 4ea 15% quartz flooding, 1 speck VISIBLE GOLD, trace arsenopyrite. 509.00 510.00 4ea 10% quartz flooding, 2 speck VISIBLE GOLD. 510.00 511.00 4ea 5% quartz flooding. 511.00 512.00 4ea 2% quartz flooding. 512.00 513.00 4ea 2% quartz flooding. 513.00 514.00 4ea 5% quartz flooding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
514.00	525.00	4B	CHERT - MAGNETITE IRON FORMATION 4b with 25% 4f beds. Fine grained, grey and black, strongly magnetic, hard. Composed of 25% f beds, 35% chert beds, 35% laminated to bedded magnetite, 5% e beds. Locally developed ea beds. Well developed beds from laminae to 1 cm at 41 to 46 dca. Right limb fold with axial planes at 39 to 53 dca. One fracture perpendicular to bedding at 65 dca, coated with calcite. MINERALIZED ZONE. 521.00 522.00 4BF 2% pyrrhotite, SEMIMASSIVE and stringers with 2 specks VISIBLE GOLD. 514.00 515.00 4bf. 515.00 516.00 4bf. 516.00 517.00 4bf. 517.00 518.00 4bf. 518.00 519.00 4bf. 519.00 520.00 4bf. 520.00 521.00 4bf 3% quartz flooding. 521.00 522.00 4bf 10% quartz flooding, 2 specks VISIBLE GOLD. 522.00 525.00 4be 25% laminated to thinly bedded magnetite, 25% e beds, 25% chert beds, 5% f beds, 15% argillaceous beds, 5% ea beds. GEOLOG DATA. 5% Bedded grunerite as alteration of magnetite, 1% subhedral and euhedral garnet to 2 mm, 0% silicification, 0% carbonatization trace bedded chlorite, 25% bedded biotite. Trace pyrrhotite as semi-massive and stringers, 2 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 35% laminated to thinly bedded magnetite. Trace quartz as flooding and MACRO veins, 0% quartz-carbonate veins, trace MACRO AND MICRO calcite veins. Lower contact sharp at 45 dca. E46640 STANDARD II 9.77 10.01 NS. E46641 BLANK 0.07. 522.00 523.00 4be. 523.00 524.00 4be. 524.00 525.00 4be.								
525.00	528.13	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, grey, yellow, black, green. Weakly magnetic, moderately hard. Composed of 35% ea beds, 35% chert beds, 5% magnetite laminae and disseminated in e beds 10% f beds. Poorly to moderately well preserved bedding, from laminae to 2 cm at 51 to 57 dca Left limb fold at 67 dca. MINERALIZED ZONE.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			525.00 526.00 4ea 10% quartz flooding, 4 specks VISIBLE GOLD. 525.01 3.00 To 8% pyrrhotite, 5 to 10% quartz flooding and 5 specks VISIBLE GOLD. GEOLOG DATA. 10% Bedded grunerite, 20% bedded garnet subhedral, euhedral and glomeroporphyritic from 1 mm to 2 cm, 0% silicification, 1% pervasive calcite associated with e beds, trace chlorite associated with e beds, 10% bedded biotite 5% Pyrrhotite as stringers, blebs and disseminations, 5 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite 5% laminated to thinly bedded magnetite. 8% Quartz as flooding, 0% quartz-carbonate veins, trace MACRO AND MICRO calcite veins. Lower contact sharp at 53 dca. 526.00 527.00 4ea 8% quartz flooding, 1 speck VISIBLE GOLD. 527.00 528.13 4ea 5% quartz flooding.								
528.13	530.00	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, brown, grey, yellow, soft to average, weakly magnetic. Composed of 70% F beds, 15% poorly developed EA beds, 10% chert bedding, 5% E beds. Well preserved bedding from 1 to 3 cm at 39 to 45 dca. Right limb fold, axial plane 60 dca. One fracture perpendicular to bedding at 24 dca, coated with calcite. GEOLOG DATA. 5% Bedded grunerite, 5% bedded garnet subhedral to 1 mm, 0% silicification, trace carbonatization associated with e bedding, 65% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace laminae and disseminated magnetite. Lower contact sharp at 49 dca. E46650 STANDARD II 9.39 9.60 NS. E46651 BLANK 0.14. 528.13 529.00 4f. 529.00 530.00 4f.								
530.00	534.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown and green non-magnetic, average hardness. Well developed foliation at 54 to 58 dca. Fractures parallel to foliation at 32 to 69 dca. Fractures perpendicular to foliation at 24 to 47 dca. All fractures coated with calcite. GEOLOG DATA. 0% grunerite, 0% garnet, 0% silicification, 5% pervasive carbonatization, 2% pervasive chlorite as alteration of Bvol 25% pervasive biotite from potassic								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			alteration of Bvol. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% quartz, 0% quartz-carbonate veins, 5% MACRO AND MICRO veins of calcite parallel to foliation. Lower contact sharp at 30 dca. 530.00 531.00 Bvol. 533.00 534.00 Bvol.								
534.00	534.70	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, yellow, brown and grey, weakly magnetic, average hardness. Composed of 20% f beds, 70% poorly developed ea beds, 10% chert beds. Bedding well PRESERVED at 48 dca, bedding width from 3 mm to 1 cm. Left limb fold with axial plane at 56 dca. GEOLOG DATA. 60% Bedded grunerite, 10% bedded subhedral garnet to 2 mm, 0% silicification, 0% carbonatization, 0% chlorite, 20% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% disseminated magnetite. 0% Quartz veins, 0% quartz-carbonate veins, 0% calcite veins. Lower contact gradational over 10 cm. 534.00 534.70 4eaf.								
534.70	535.20	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, brown, grey, yellow, non-magnetic, and average hardness. Well preserved bedding at 40 to 80 dca. Composed of 80% f beds, 10% chert beds and 10% poorly developed ea beds. GEOLOG DATA. 10% Bedded grunerite, 5% bedded subhedral to euhedral garnet to 1 mm, 0% silicification, 0% carbonatization, 0% chlorite, 75% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 0% Quartz veins, 0% quartz-carbonate veins, 0% calcite veins. Lower contact sharp at 80 dca. 534.70 535.20 4f.								
535.20	539.50	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea with 20% f beds. Fine grained with garnets to 1 cm, grey, yellow, green, weakly magnetic, hard. Composed of 60% ea beds, 20% f beds, 5% remnants of e beds, 10% chert beds. Poorly to moderately well preserved bedding at 78 dca with beds to 2 cm.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Left limb fold with axial plane 52 to 64 dca. One fractures perpendicular to bedding at 26 dca. GEOLOG DATA. 20% Bedded grunerite, 15% subhedral to glomeroporphyritic to 1 cm, 0% silicification, 0% carbonatization, trace chlorite associated with remnants of e beds, 20% bedded biotite. 1% Pyrrhotite as stringers and blebs, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 5% disseminated magnetite. 25% Quartz flooding, 0% quartz-carbonate veins, 0% calcite veins. Lower contact sharp at 55 dca. E46660 STANDARD II 9.84 9.39. E46661 BLANK 0.21. 535.20 536.00 4ea 15% quartz flooding. 536.00 537.00 4ea 30% quartz flooding. 537.00 538.00 4eaf. 538.00 539.00 4eaf. 539.00 539.50 4eaf.								
539.50	542.00	4B	CHERT - MAGNETITE IRON FORMATION 4b with 30% f beds. Fine grained, green, grey and black, moderately magnetic, average hardness. Composed of 30% f beds, 25% laminated magnetite, 20% chert beds, 15% e beds, 5% poorly developed ea beds. Well preserved bedding at 51 to 68 dca. Bedding widths from 5 mm to 1.5 cm. Right limb fold at 46 dca. GEOLOG DATA. 5% Bedded grunerite, 2% bedded subhedral to euhedral garnet, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 30% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 25% laminated magnetite. 5% Quartz flooding, 0% quartz-carbonate vein, trace MICRO calcite veins. Lower contact sharp at 48 dca. 539.50 540.50 4bf. 540.50 541.50 4bf. 541.50 542.00 4bf.								
542.00	543.90	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, with subhedral and glomeroporphyritic garnets to 1 cm, yellow, grey, and green. Average hardness. Composed of 70% moderately to poorly PRESERVED EA beds, 15% chert beds, 5% laminated to thinly bedded magnetite, 5% e beds and remnants of e beds, 5% f beds Beds from 1 to 2 cm at 50 to 54 dca. Fractures perpendicular to bedding at 22 to 65 dca, coated with calcite, chlorite, and iron oxide.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 50% Bedded grunerite, 20% subhedral to glomeroporphyritic bedded garnets, 0% silicification, 0% calcite, trace pervasive chlorite, 5% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% laminated to thinly bedded magnetite. Trace quartz MACRO veins, 0% quartz-carbonate veins, trace MACRO calcite veins. E46670 DUPLICATE OF E46669 0.03. Lower contact sharp at 48 dca. 542.00 543.00 4ea. 543.00 543.90 4ea.								
543.90	549.00	4BF	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. Fine grained, green, black, grey, moderately to strongly magnetic, average hardness. Composed of 30% laminated to thinly bedded magnetite, 40% f beds, 20% chert beds and 10% e beds. Well preserved bedding from 5 mm to 2 cm at 47 to 60 dca. Left limb fold axial planes at 48 to 54. GEOLOG DATA. 5% Bedded grunerite, 5% subhedral to euhedral garnet to 2 mm, 0% silicification, 0% carbonatization, 15% pervasive chlorite, associated with e beds, 35% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% laminated to thinly bedded magnetite. Trace MACRO quartz veins 5% quartz flooding, 0% quartz-carbonate veins, trace MACRO calcite veins. Lower contact indistincted due to quartz flooding. 543.90 545.00 4bf 10% quartz flooding. 545.00 546.00 4bf. 546.00 547.00 4bf. 547.00 548.00 4bf. 548.00 549.00 4bf 20% quartz flooding.								
549.00	550.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, grey, yellow and pink, moderately magnetic, hard. Composed of 35% moderately developed ea beds, 40% chert beds, 15% laminae magnetite, 5% f beds. Well preserved bedding from laminae to 2 cm at 61 dca. Left limb fold, axial plane at 43 to 63 dca. GEOLOG DATA. 15% Bedded grunerite, 15% bedded subhedral garnets, 0% silicification, 0% carbonatization, trace pervasive chlorite associated with e beds, 5% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% chalcopyrite, 15% laminated to thinly bedded magnetite. 0% Quartz veins, 0% quartz-carbonate veins, trace MICRO calcite veins parallel to fracture cleavage. 549.00 550.00 4ea.								
550.00		4EA	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc. 30 gram sample, fire assay with gravimetric finish. Sludge sample taken every 6 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY:. 0.00 13.40 Hole cased with 13.40 metres NW casing. 13.40 88.00 20 ft fluted core barrel used. 88.00 300.70 10 ft standard core barrel with blank back-end used. 270.00 284.00 Three step stone bit used to flatten hole -0.75 degrees. 284.00 302.70 Five step stone bit used to flatten hole -0.25 degrees. 302.70 550.00 20 ft standard core barrel with blank back-end used. Hole cemented - 6 hours - ??? bags of 20 kg bags Type 50 cement. Casing pulled. SURVEY HISTORY:. Sperry Sun single shot camera with low point indicator used for dips while drilling. Sperry Sun Dip Tests:. 18.00 -61.25 5. 54.00 -60.75 5. 85.00 -60.50 0. 120.70 -59.70 0. 147.70 -59.00 0. 183.70 -58.00 0. 219.70 -57.25 5. 264.70 -57.00 0. 284.00 -56.25 5. 300.70 -56.00 0. 322.00 -56.00 0. 361.00 -55.25 5. 400.00 -55.00 0. 424.00 -54.00 0. 454.00 -53.25 5. 472.00 -53.00 0. 502.00 -52.00 0. Light Log Survey conducted by Wilfred Hill. Survey took 3.5 hours. Data used for								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			code 2 Dip tests. Drill hole collar, azimuth and water elevation surveyed by J. Bowman, O.L.S., Dryden, Ontario.								

DRILL HOLE RECORD

Northing: 10500.230
Easting: 9022.410
Elevation: 5302.488

Collar Azi.: 229.00
Collar Dip: -61.00

Hole Length: 496.00
Completed: September 11, 1993
Drilled by:
Logged by: PAUL GERTZBEIN, T. TENNENT
Purpose: TO TEST THE S, C AND T ZONES ON SECTION 10500N

Grid: EAST BAY MINE
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: 508460 (87m),Pa529497 (345m),Pa529498 (64m)
32 m south,97 m west to post 3 of Pa508460
Date(s) Logged: SEPT. 4 - 18, 1993

Drill Hole: 506-662

Northing: 10500N
Easting: 9022E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: September 03, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
3.0	230.0	-61.5	126.9	223.3	-56.6	250.9	219.9	-53.8	375.0	217.7	-50.7
5.9	230.3	-61.0	129.9	223.3	-56.5	253.9	219.9	-53.8	377.9	217.7	-50.7
8.9	230.5	-60.8	132.9	223.3	-56.4	256.9	219.9	-53.7	380.9	217.7	-50.5
11.8	230.3	-60.5	135.8	223.1	-56.3	259.8	219.9	-53.7	383.8	217.7	-50.5
14.8	230.0	-60.2	138.8	223.1	-56.1	262.8	219.9	-53.8	386.8	217.7	-50.5
17.7	230.0	-60.0	141.7	222.9	-56.0	265.7	219.7	-53.7	389.7	217.7	-50.4
20.7	229.8	-59.9	144.7	222.6	-55.9	268.7	219.7	-53.7	392.7	217.7	-50.4
23.6	229.3	-59.8	147.6	222.4	-55.8	271.6	219.7	-53.7	395.6	217.7	-50.3
26.6	229.1	-59.8	150.6	222.4	-55.6	274.6	219.7	-53.7	398.6	217.7	-50.3
29.5	228.8	-59.8	153.5	222.4	-55.5	277.5	219.7	-53.7	401.5	217.7	-50.3
32.5	228.6	-59.7	156.5	222.4	-55.4	280.5	219.7	-53.6	404.5	217.7	-50.3
35.4	228.3	-59.5	159.4	222.2	-55.3	283.4	219.5	-53.5	407.4	217.7	-50.3
38.4	228.3	-59.5	162.4	222.0	-55.3	286.4	219.5	-53.5	410.4	217.5	-50.3
41.3	228.1	-59.4	165.3	222.0	-55.3	289.3	219.5	-53.5	413.3	217.5	-50.3
44.3	228.1	-59.4	168.3	222.0	-55.3	292.3	219.5	-53.5	416.3	217.3	-50.2
47.2	228.1	-59.4	171.2	221.8	-55.2	295.2	219.5	-53.3	419.2	217.1	-50.0
50.2	227.9	-59.3	174.2	221.8	-55.2	298.2	219.3	-53.2	422.2	217.1	-49.8
53.1	227.6	-59.0	177.1	221.6	-55.0	301.1	219.1	-53.1	425.1	216.9	-49.7
56.1	226.9	-58.7	180.1	221.6	-54.9	304.1	218.9	-52.8	428.1	216.7	-49.4
59.0	226.2	-58.3	183.1	221.6	-54.9	307.0	218.7	-52.6	431.0	216.7	-49.3
62.0	225.8	-58.0	186.0	221.4	-54.9	310.0	218.7	-52.5	434.0	216.7	-49.2
64.9	225.5	-57.8	188.9	221.4	-54.8	313.0	218.3	-52.4	437.0	216.7	-49.1
67.9	225.3	-57.7	191.9	221.4	-54.8	315.9	218.3	-52.2	439.9	216.7	-49.0
70.9	225.1	-57.6	194.9	221.4	-54.8	318.9	218.1	-52.1	442.9	216.7	-48.8
73.8	224.9	-57.5	197.8	221.1	-54.7	321.8	218.1	-52.0	445.8	216.7	-48.7
76.8	224.6	-57.5	200.8	220.9	-54.5	324.8	217.9	-51.9	448.8	216.7	-48.6
79.7	224.4	-57.3	203.7	220.7	-54.5	327.7	217.9	-51.8	451.7	216.7	-48.5
82.7	224.2	-57.2	206.7	220.9	-54.5	330.7	217.9	-51.6	454.7	216.7	-48.3
85.6	223.9	-57.1	209.6	220.9	-54.5	333.6	217.9	-51.5	457.6	216.7	-48.2
88.6	223.9	-57.1	212.6	220.9	-54.5	336.6	217.9	-51.4	460.6	216.7	-48.1
91.5	223.9	-57.1	215.5	220.9	-54.5	339.5	217.7	-51.3	463.5	216.7	-48.0
94.5	223.9	-57.0	218.5	220.7	-54.4	342.5	217.7	-51.1	466.5	216.7	-47.8
97.4	223.9	-57.0	221.4	220.7	-54.4	345.4	217.7	-51.1	469.4	216.7	-47.7
100.4	223.7	-57.0	224.4	220.5	-54.4	348.4	217.7	-51.0	472.4	216.7	-47.6
103.3	223.5	-57.0	227.3	220.3	-54.3	351.3	217.7	-51.0	475.3	216.7	-47.5
106.3	223.5	-57.0	230.3	220.3	-54.3	354.3	217.7	-50.9	478.3	216.7	-47.4
109.2	223.5	-57.0	233.2	220.3	-54.3	357.2	217.7	-50.9	481.2	216.7	-47.2

112.2	223.5	-57.0	236.2	220.3	-54.2	360.2	217.5	-50.9	484.2	216.7	-47.1
115.1	223.5	-57.0	239.1	220.1	-54.2	363.1	217.5	-50.8	487.1	216.7	-47.1
118.1	223.5	-56.9	242.1	220.1	-54.1	366.1	217.7	-50.8	490.1	216.7	-47.1
121.1	223.5	-56.9	245.1	220.1	-53.9	369.0	217.7	-50.7	493.0	216.6	-47.0
124.0	223.5	-56.7	248.0	219.9	-53.9	372.0	217.7	-50.7	496.0	216.6	-47.0

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the T antiform (i.e. Northwest). For detailed structural data see attached STRIP LOG. For geotechnical data see Geotechnical Log. SAMPLE SERIES E55901 TO E56000. SAMPLE SERIES E55301 TO E55495.								
.00	14.57	OB	OVERBURDEN Granitic boulders. Casing from 0.00 to 15.8 metres.								
14.57	20.40	4F	GARNET-BIOTITE SCHIST 4fb. Fine grained matrix with 2 mm garnets. Black, grey and pink. Moderately magnetic. Composed of 65% 4F beds, 30% 4B beds and 5% to 10% 4EA beds. Bedding well developed at 24 to 57 dca. Beds 1 cm to 20 cms wide. Dominant fracture set perpendicular to bedding at 62 to 72 dca. Subparallel to bedding at 25 dca. GEOLOG DATA:. 5% Bedded grunerite. 15% 1 mm bedded garnets. 0% silicification, 1% pervasive and fracture-filling calcite, 3% pervasive and fracture-filling chlorite, 45% bedded biotite. Trace disseminated and wisps pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% bedded magnetite. 0% Quartz veining, 0% quartz-carbonate, trace calcite stringers parallel to bedding. Lower contact at 33 dca. 14.57 15.00 4fb. 15.00 16.00 4bf. 1% calcite stringers. 16.00 17.00 4fb. 17.00 18.00 4fb. 18.00 19.00 4fb. Trace calcite stringers. 19.00 20.00 4fb. 20.00 20.40 4fb.								
20.40	33.25	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eaf. Fine grained to medium grained. Grey, green, black and pink. Non to weakly magnetic.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Composed of 75% 4EA beds and 25% 4F beds. Bedding well developed at 31 to 52 dca. Beds 1 cm to 10 cms wide. Right and left limb folding with axial planes 27 to 85 dca. Fractures perpendicular to bedding at 60 to 73 dca. MINERALIZED ZONE:. From 23.00 to 28.00 2% blebs, wisps and fracture-filling pyrrhotite, 2 specks VISIBLE GOLD. 13% quartz stringers and veining with 1% pyrrhotite. GEOLOG DATA:. 35% Bedded grunerite, 30% bedded and anhedral garnets, 0% silicification, 2% fracture-filling calcite, 1% fracture coating chlorite, 15% bedded biotite. 1% Wisps, blebs and fracture-filling pyrrhotite, 2 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% bedded magnetite. 10% Quartz stringers and veining with 1% pyrrhotite, 1% quartz-carbonate stringers, trace calcite stringers. Lower contact 40 dca. E55910 DUPLICATE OF 355909 0.07 0.07. E55920 STANDARD II 9.22. E55921 BLANK 0.34. 20.40 21.00 4eaf. 3% calcite stringers. 21.00 22.00 4eaf. At 21.36 axial plane 35 dca. 22.00 23.00 4eaf. Trace calcite stringers. At 22.15 right limb fold with axial plane 25 dca. 23.00 24.00 4eaf. At 23.65 axial plane 27 dca. 24.00 25.00 4eaf. 2% quartz-calcite stringers. At 24.55 axial plane 47 dca. 25.00 26.00 4eaf. 5% quartz veining with 1% pyrrhotite. At 25.80 left limb fold with axial plane 85 dca. 26.00 27.00 4eaf. 30% quartz veining with 2% pyrrhotite. Bedding disrupted and folded. 27.00 28.00 4eaf. 2 specks VISIBLE GOLD. 20% quartz veining. 28.00 29.00 4eaf. 10% quartz stringers. 29.00 30.00 4eaf. 5% quartz stringers. 30.00 31.00 4fea. 30% quartz veining with 2% pyrrhotite. 31.00 32.00 4fea. 5% quartz stringers. 32.00 32.65 4f. 32.65 33.25 4eaf. 40% quartz veining. At 33.05 FELSIC TO INTERMEDIATE VOLCANICS 20 cm quartz vein with 1% pyrrhotite and trace chalcopyrite. Contacts at 40 dca. At 32.75 left limb fold with axial plane 25 dca.								
33.25	37.75	4F	GARNET-BIOTITE SCHIST 4f. Fine grained matrix with 30% 1 mm garnets. Black, grey and pink. Non-magnetic. Composed of 75% 4F beds, 20% CHERT beds and 5% 4EA beds. Bedding well developed at 34 to 38 dca. Minor right limb fold with axial plane 33 dca. Fractures perpendicular to bedding at 50 to 54 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. 3% Bedded grunerite, 30% 1 mm disseminated garnets, 0% silicification, <1% fracture-filling carbonatization, 1% fracture coating chlorite alteration, 60% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veining, 0% quartz-carbonate, trace calcite stringers. Lower contact at 34 dca. E55930 DUPLICATE OF E55929 0.07. 33.25 34.00 4f. 34.00 35.00 4f. At 34.80 right limb fold with axial plane 33 dca. 35.00 36.00 4f. 36.00 37.00 4f. 37.00 37.75 4f.								
37.75	51.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 58% 4ea And 32% 4eaf. Green, black, pink and grey. Non-magnetic to weakly magnetic. Composed of 85% 4EA beds and 14% 4F beds and 1% 4B beds. Bedding poorly to moderately developed at 25 to 38 dca. Beds 1 cm to 5 cm wide. Minor folding with axial plane 34 dca. Dominant fractures perpendicular to bedding at 34 to 58 dca and subparallel at 29 to 34 dca. GEOLOG DATA:. 50% Bedded grunerite, 30% bedded, anhedral to glomeroporphyritic garnets, 0% silicification, 1% fracture-filling calcite, 2% pervasive and fracture-filling chlorite, 10% bedded biotite. Trace disseminated, stringers and bedded pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% bedded magnetite. 0% Quartz veining, 0% quartz-carbonate, 1% calcite stringers. Lower contact at 22 dca. 37.75 42.00 4eaf. 37.75 39.00 4eaf. 1% calcite stringers. 39.00 40.00 4eaf. 40.00 41.00 4eaf. 1% calcite stringers. 41.00 42.00 4eaf. 1% calcite stringers. 42.00 51.00 4ea. E55940 STANDARD II 9.53. E55941 BLANK 0.07. 42.00 43.00 4ea. 1% calcite stringers. 43.00 44.00 4ea. At 43.05 axial plane 34 dca. 44.00 45.00 4ea. 1% calcite stringers. 45.00 46.00 4ea. 1% calcite stringers. 46.00 47.00 4ea. 1% calcite stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			47.00 48.05 4ea. 1% calcite stringers. 48.05 48.50 BVOL. Contacts 38 dca. 48.05 48.50 BVOL. 1% quartz-calcite stringers. 48.50 49.30 4ea. 1% calcite stringers. 49.30 49.80 BVOL. Contacts 35 dca. 49.30 49.80 BVOL. 1% quartz-calcite stringers. 49.80 51.00 4ea. 20% quartz veining.								
51.00	53.70	4E	GARNET-AMPHIBOLE IRON FORMATION 4e. Possible BVOL. Fine grained, dark green, black, grey and pink. 90% 4e Beds or BVOL. 10% 4ea Beds. Bedding 25 dca. Fractures subparallel to bedding at 15 and 34 dca. GEOLOG DATA:. 5% Bedded grunerite, 2% bedded garnet, 0% silicification, 5% pervasive and fracture-filling carbonatization, 3% pervasive and fracture coating chlorite alteration, 10% pervasive biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz stringers, 8% quartz-carbonate stringers, 3% calcite stringers. Lower contact 30 dca. 51.00 52.00 4e. 3% calcite stringers. 52.00 53.00 70% 4e and 30% 4ea. 8% quartz-carbonate stringers. 52.10 52.40 4ea. Contacts 39 dca. E55950 DUPLICATE OF E55949 0.07. 53.00 53.70 4e. 8% quartz-carbonate stringers.								
53.70	133.50	4B	CHERT - MAGNETITE IRON FORMATION 33% 4bf, 7% 4be, 60% 4b. From 53.70 to 69.00 metres 4BF. Bedding 17 to 34 dca. Minor folding with axial plane 10 to 24 dca. Dominant fracture set perpendicular to bedding at 40 to 65 dca. Minor fractures parallel to bedding at 25 to 27 dca. GEOLOG DATA:. 0% grunerite, 15% bedded garnet, 0% silicification, 4% bedded, pervasive and fracture-filling carbonatization, 5% bedded chlorite, 25% bedded biotite. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% bedded magnetite. 0% Quartz veining, 1% quartz-carbonate veining, 2% calcite stringers. From 69.00 to 75.00 metres 4BE.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Bedding 8 to 32 dca. Minor right limb fold at 5 dca. Fractures perpendicular to bedding at 40 dca and subparallel at 27 dca. GEOLOG DATA:. 0% grunerite, 10% bedded garnet, 0% silicification, 3% bedded carbonate alteration, 3% pervasive chlorite, 10% bedded biotite. Trace blebs pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace disseminated arsenopyrite, 0% chalcopyrite, 20% bedding magnetite. Trace quartz stringers, 0% quartz-carbonate, 0% calcite. From 75.00 to 80.00 4BF. Bedding 11 to 34 dca. Minor right limb fold with axial plane at 4 dca. Fractures perpendicular to bedding at 75 dca and subparallel at 21 dca. GEOLOG DATA:. 0% grunerite, 15% bedded garnet, 0% silicification, 2% fracture-filling and bedded carbonate, 2% pervasive chlorite, 25% bedded biotite. Trace axial plane and blebs pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace blebs arsenopyrite, 0% chalcopyrite, 30% bedded magnetite. 0% Quartz, quartz-carbonate and calcite veining. From 80.00 to 127.00 metres 4b. Bedding 14 to 53 dca. Bedding locally sheared and boudinaged. Minor left limb fold throughout unit at 22 to 72 dca. Fractures perpendicular to bedding at 48 to 73 dca. MINERALIZED ZONE:. From 87.00 to 94.85 2% pyrrhotite, 2 specks VISIBLE GOLD, 12% quartz veining. GEOLOG DATA:. 0% grunerite, 3% bedded garnet, 0% silicification, 5% bedded and fracture-filling carbonate alteration, 0% chlorite, 5% bedded biotite. Trace blebs and fracture-filling pyrrhotite, 2 specks VISIBLE GOLD, 0% pyrite, trace bedded, stringers and blebs arsenopyrite, 0% chalcopyrite, 35% bedded magnetite. 5% Quartz veining, 0% quartz-carbonate, trace calcite stringers. From 127.00 to 133.50 4bf. Bedding 26 to 47 dca. Left limb fold with axial plane 43 to 50 dca. Fractures perpendicular to bedding at 45 dca and subparallel at 18 and 41 dca. GEOLOG DATA:. 0% grunerite, 15% bedded garnets, 0% silicification, 4% bedded, pervasive and fracture-filling carbonate, 5% bedded chlorite, 30% biotite. Trace disseminated and fracture-filling pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% bedded magnetite. 1% Quartz veining, 0% quartz-carbonate, 0% calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 40 dca. 53.70 69.00 4BF. 53.70 55.00 4bf. 53.70 69.00 5% pervasive, bedded and fracture-filling carbonatization. E55960 STANDARD II 9.22. E55961 BLANK 0.27. 55.00 56.00 4bf. 56.00 57.00 4bf. 3% calcite stringers. 57.00 58.00 4bf. 58.00 59.00 4bf. 1% calcite stringers. 59.00 60.00 4bf. At 59.15 axial plane 16 dca. 60.00 61.00 4bf. At 60.30 axial plane 10 dca. 61.00 62.00 4bf. 1% calcite stringers. 62.00 63.00 4bf. 63.00 64.00 4b. 64.00 65.00 4bf. 5% quartz and 5% calcite stringers. At 64.20 FELSIC TO INTERMEDIATE VOLCANICS 5 cm quartz vein with 1% pyrrhotite at 19 dca. At 64.55 FELSIC TO INTERMEDIATE VOLCANICS 3 cm quartz-calcite stringers at 25 dca. 65.00 66.00 4bf. 5% quartz-calcite stringers. 66.00 67.00 4bf. At 66.45 left limb fold with axial plane 24 dca. 67.00 68.00 4bf. 2% calcite wisps. 68.00 69.00 4bf. 69.00 75.00 4be. E55970 DUPLICATE OF E55969 0.89. 69.00 70.00 4be. Trace arsenopyrite. At 69.90 1 cm offset of bedding at 26 dca. 70.00 71.00 4be. 1% boudinaged quartz stringers. 71.00 72.00 4be. 72.00 73.00 4be. 73.00 74.00 4be. 74.00 75.00 4be. At 74.60 right limb fold with axial plane 5 dca. 75.00 80.00 4bf. E55980 STANDARD II 9.29. E55981 BLANK 0.34. 75.00 76.00 4bf. At 75.40 right limb fold with axial plane 4 dca. 76.00 77.00 4bf. 77.00 78.00 4bf. 78.00 79.00 4bf. 79.00 80.00 4bf. Trace arsenopyrite. 80.00 127.00 4b. <5% 4f beds. E55990 DUPLICATE OF E55989 0.31. E56000 STANDARD II 9.29. E55301 BLANK 0.07. E55310 DUPLICATE OF E55309 0.34. E55320 STANDARD II 9.57. E55321 BLANK 0.10. E55330 DUPLICATE OF 355329 0.41. 80.00 81.00 4b. Trace calcite stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			81.00 82.00 4b. 82.00 83.00 4b. 83.00 84.00 4b. 84.00 85.00 4b. 85.00 86.00 4b. 86.00 87.00 4bf. 87.00 88.00 4b. Trace bedded arsenopyrite. 7% quartz veining with 2% pyrrhotite. 88.00 89.00 4b. 89.00 90.00 4b. From 89.55 to 89.85 75% quartz veining and 2 specks VISIBLE GOLD. 90.00 91.00 4bf. 2% boudinaged quartz stringers with trace arsenopyrite and pyrrhotite. 91.00 92.00 4b. At 91.33 axial plane 45 dca. 92.00 93.00 4b. At 92.20 axial plane 49 dca. 10% boudinaged quartz veining. 93.00 94.20 4b. 10% boudinaged quartz stringers. 94.20 94.85 4bf. <1% arsenopyrite. 94.85 95.30 4b. Cherty. 95.30 96.00 QV. Trace disseminated arsenopyrite. Contacts 50 dca. 96.00 97.00 4b. 10% quartz veining. At 96.55 FELSIC TO INTERMEDIATE VOLCANICS 10 cm quartz vein at 50 dca. 97.00 98.00 4b. Cherty. 33% quartz veining. At 97.00 FELSIC TO INTERMEDIATE VOLCANICS 33 cm quartz vein with trace pyrrhotite at 60 dca. 98.00 99.00 4b. <1% disseminated arsenopyrite. Cherty. 5% quartz flooding. 99.00 100.00 4b. <1% disseminated arsenopyrite. 100.00 101.00 4b. Trace arsenopyrite. At 100.10 left limb fold with axial plane 50 dca. 101.00 102.00 4b. Trace arsenopyrite. Cherty. 7% quartz veining. At 101.05 FELSIC TO INTERMEDIATE VOLCANICS 5 cm quartz vein at 45 dca with trace pyrrhotite 102.00 102.95 4b. 3% quartz stringers. 102.95 104.00 4b. 10% quartz stringers. At 102.95 FELSIC TO INTERMEDIATE VOLCANICS 7 cm barren quartz stringer at 52 dca. 104.00 105.00 4b. At 104.60 left limb fold with axial plane 47 dca. 105.00 106.00 4b. 106.00 107.00 4b. Trace stringers arsenopyrite. 1% quartz stringers. 107.00 108.00 4b. Trace arsenopyrite. At 107.20 left limb fold with axial plane 44 dca. 108.00 109.00 4b. Trace arsenopyrite. 7% quartz stringers parallel to bedding with 2% pyrrhotite. 109.00 110.00 4b. 110.00 111.00 4b. 2% quartz stringers. 111.00 112.00 4b. Trace arsenopyrite. 112.00 113.00 4b. 113.00 114.00 4b. 114.00 115.00 4b. 115.00 116.00 4b. Trace arsenopyrite. At 115.65 FELSIC TO INTERMEDIATE VOLCANICS 9 cm quartz vein with trace pyrrhotite at 31 dca. 116.00 117.00 4b. Trace arsenopyrite. 117.00 118.00 4b. 118.00 119.00 4b. At 118.80 left limb fold with axial plane 34 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			119.00 120.00 4b. 10% quartz stringers. At 119.60 FELSIC TO INTERMEDIATE VOLCANICS 4 cm quartz stringer at 35 dca. At 119.20 left limb fold with axial plane 22 dca. 120.00 121.00 4b. At 120.60 FELSIC TO INTERMEDIATE VOLCANICS 30 cm quartz vein at 32 dca. 121.00 122.00 4b. 1% calcite stringers. 122.00 123.15 4b. At 122.90 FELSIC TO INTERMEDIATE VOLCANICS 30 cm quartz vein with 1% pyrrhotite and contacts 40 dca. At left limb fold with 122.55 axial plane 49 dca. At 122.80 axial plane 64 dca. 123.15 124.00 4b. At 122.30 left limb fold with axial plane 72 dca. 124.00 125.00 4b. 20% quartz veining with 3% pyrrhotite. At 124.90 axial plane 60 dca. 125.00 126.00 4b. At 125.95 FELSIC TO INTERMEDIATE VOLCANICS 5 cm quartz stringer at 50 dca. 126.00 127.00 4b. 127.00 133.50 4bf. E55340 STANDARD II 9.67. E55341 BLANK 0.03. 127.00 128.00 4bf. At 127.70 M fold with axial plane 47 dca. 128.00 129.00 4bf. At 128.25 left limb fold with axial plane 43 dca. 129.00 130.00 4bf. At 129.05 left limb fold with axial plane 50 dca. At 129.30 left limb fold with axial plane 44 dca. 130.00 131.00 4bf. At 130.35 13 cm quartz vein at 45 dca. 131.00 132.00 4bf. 132.00 133.00 4bf. 1% quartz stringers. 133.00 133.50 4bf 1% quartz veins.								
133.50	143.25	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. Fine grained with garnets to 5 mm. Yellow, grey, green and pink, moderately magnetic and average hardness. Composed of 30% ea beds, 15% f beds, 10% e beds, 30% chert beds, 15% laminated to thinly bedded magnetite. Poorly to well preserved bedding from laminae to 1 cm at 20 to 50 dca. Few left limb folds at 43 to 50 dca. Fractures perpendicular to bedding at 50 to 63 dca, and parallel to bedding at 15 to 41 dca. MINERALIZED ZONE. From 138.20 to 142.30 3% to 15% pyrrhotite stringers with average of 6% pyrrhotite, 2% to 70% quartz flooding with average 25% pyrrhotite, and 40 specks VISIBLE GOLD, trace pyrite, arsenopyrite and chalcopyrite. GEOLOG DATA. 5% Bedded grunerite, 20% bedded garnets, 0% silicification, 1% pervasive carbonatization, 2% bedded chlorite, 10% bedded biotite. 3% Pyrrhotite stringers, 40 specks VISIBLE GOLD, trace disseminated pyrite, trace disseminated arsenopyrite, trace disseminated chalcopyrite, 15% laminated								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			magnetite. 15% Quartz flooding, 0% quartz-carbonate vein, trace calcite stringers. 133.50 134.50 4eab, 5% quartz flooding. 134.50 135.50 4eab, trace quartz veins. 135.50 136.50 4eab, 10% quartz flooding. 136.50 137.50 4eab, 1% calcite veins. 137.50 138.20 4eab, 2% calcite veins. 138.20 139.20 4eab, 25% quartz flooding, trace calcite stringers. 139.20 140.20 4eab, trace calcite veins, trace arsenopyrite, trace pyrite. 140.20 141.20 4eab, 10% quartz flooding, trace arsenopyrite, pyrite, chalcopyrite, 26 specks VISIBLE GOLD. 141.20 142.30 4ea, 70% quartz flooding, trace arsenopyrite, 14 specks VISIBLE GOLD. 142.30 143.25 4eab trace quartz flooding, < 1% pyrite. 142.80 142.83 Fault 70 to 80 dca. Cememted with fine grained to medium grained, subhedral to euhedral pyrite, calcite and hematite. Apple green alteration of walls 2cm on either side possibly epidote. Lower contact sharp at 54 dca. E55350 DUPLICATE OF E55349 0.93 0.82.								
143.25	144.05	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, brown, non-magnetic and soft. 100% F beds. Bedding is moderately well preserved with beds to 1 cm at 41 dca. Fractures subparallel to bedding at 40 to 57 dca and perpendicular to bedding at 60 dca. Fractures coated with calcite. GEOLOG DATA. Trace pervasive grunerite, 20% pervasive garnets, 0% silicification, 0% carbonatization, 0% chlorite, 80% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% quartz, 0% quartz-carbonate, trace calcite as fracture filling. Lower contact indistinct due to faulting. 143.25 144.05 4f.								
144.05	145.07	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, non-magnetic, and average hardness. Moderately developed foliation at 48 dca. Fractures perpendicular to foliation at 50 dca with calcite coating. Fractures subparallel to foliation at 34 to 56 dca with calcite coating.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			FAULT ZONE 144.05 144.37 rubbly core, silicified with white quartz 30%, epidote alteration, fracture filling of pyrite and salmon pink subhedral feldspar ?. GEOLOG DATA. 0% grunerite, 0% garnets, 10% silicification within fault zone, 0% calcite, 5% pervasive chlorite and associated with fault zone, 1% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz stringers, 0% quartz-carbonate veins, trace to 1% micro veins of calcite parallel to foliation and perpendicular to foliation as fracture filling. Lower contact sharp at 38 dca. 144.05 145.07 Bvol, 10% silicification, epidotized, and trace pyrite.								
145.07	147.30	24EA	INTRAFORMATIONAL IRON FORMATION INTRAFORMATIONAL IRON FORMATION AND INTERMEDIATE TO MAFIC VOLCANICS Mixed 24ea, 24f and Bvol. 20% 4f As cap over 24ea, 25% intercalated Bvol. Fine grained with garnets and glomeroporphyritic clusters from 2 mm to 1 cm. Core is brown, green, pink and yellow. Moderately magnetic and average hardness. Composed of 25% f beds in 4f, as discreet beds in 24ea and pervasive as potassic alteration in Bvol's. 5% a beds, 15% e beds, 10% chert beds, 1% magnetite as remnants in a beds and e beds. 25% Bvol. Bedding is moderately well preserved with widths of laminae to 2 cm at 34 to 43 dca. Foliation is well developed in Bvol at 43 dca. Fractures subparallel to bedding and or foliation at 40 to 45 dca. Fracture surfaces coated with chlorite. Fractures perpendicular to bedding at 43 to 50 dca, coated with calcite and minor manganese. GEOLOG DATA. 15% Bedded grunerite, 15% pervasive garnets in 4f and 5% bedded garnets, 0% silicification, 2% pervasive calcite 20% bedded biotite in f beds and 5% pervasive in potassic altered Bvol. 1% Pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite as fracture filling, 0% arsenopyrite, 0% chalcopyrite, 1% disseminated magnetite. Trace quartz veins, trace quartz-carbonate vein, 2% calcite veins. Lower contact sharp at 54 dca. E55360 STANDARD II 9.36. E55361 BLANK 2.16. 145.07 146.00 24f, 24ea, Bvol. Trace quartz veins. 146.00 147.30 24ea, Bvol 1% quartz flooding, trace pyrite.								
147.30	153.58	BVOL	INTERMEDIATE TO MAFIC VOLCANICS								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Bvol. Fine grained green, locally brown, non-magnetic and average hardness. Well developed foliation at 33 to 55 dca. Fractures subparallel to foliation at 40 to 58 dca with calcite and chlorite coating. Fractures perpendicular to foliation at 51 to 55 dca with calcite coating. 147.30 148.55 Bleached to a light grey. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 2% pervasive biotite in areas of potassic alteration. 0% pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite as fracture filling, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz macro veins parallel to foliation, trace quartz-carbonate veins 1% pervasive calcite, 1% calcite stringers. Lower contact sharp at 35 dca. 147.30 148.30 Bvol trace pyrite, bleach to light gry.								
153.58	154.80	24EA	INTRAFORMATIONAL IRON FORMATION 24ea. Fine grained with glomeroporphyritic garnet clusters to 1.5 cm. Core is yellow green, and pink. Weakly to moderately magnetic and average hardness. Composed of 50% ea beds, 10% f beds, 5% magnetite as remnants in ea beds and disseminated in e beds, 25% e beds. Poorly to moderately preserved bedding 2 mm to 1 cm at 35 to 42 dca. One fracture perpendicular to bedding at 51 dca, coated with calcite. GEOLOG DATA. 10% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, 2% bedded chlorite, 0% biotite. 2% Pyrrhotite as stringers 1% pyrrhotite as wisps, 0 specks VISIBLE GOLD, trace pyrite as fracture filling, trace crystals arsenopyrite, 0% chalcopyrite, 5% disseminated magnetite. 5% Quartz flooding, 0% quartz-carbonate veins, trace calcite stringers. Lower contact sharp at 33 dca. 153.58 154.80 24ea, 5% quartz flooding, trace pyrite, arsenopyrite.								
154.80	158.67	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, locally brown, non-magnetic. Well developed foliation at 35 to 37 dca. Fractures subparallel to foliation at 38 dca. Dominant fracture set perpendicular to foliation at 42 to 58 dca. Fractures predominantly coated with calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 10% pervasive calcite, 10% pervasive chlorite, 3% pervasive biotite in areas of potassic alteration. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% quartz, 0% quartz-carbonate vein, 1% calcite veins. Lower contact sharp at 35 dca.								
158.67	160.35	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained, with garnets to 1 cm. Green, brown, grey and yellow in colour. Weakly magnetic and moderately hard. Composed of 50% f beds, 30% e beds, 1% disseminated magnetite, 10% chert beds, 5% ea beds. Poorly to moderately preserved bedding from 5 mm to 2 cm at 40 dca. Fractures perpendicular to bedding at 46 dca with calcite coating. Fractures subparallel to bedding at 32 dca with calcite coating. GEOLOG DATA. 4% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% calcite, 5% bedded chlorite, 45% bedded biotite. 1% Disseminated pyrrhotite, 0% VISIBLE GOLD, trace wisps pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% disseminated magnetite. 11% Quartz flooding, 0% quartz-carbonate veins, 0% calcite. Lower contact sharp at 46 dca. 158.67 159.67 24fe 20% quartz flooding. 159.67 160.35 24fe 2% quartz flooding.								
160.35	171.25	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol, 10% 24fe. Fine grained, green to brown, non-magnetic. Poorly to moderately developed foliation at 33 to 58 dca. The dominant fracture set is perpendicular to foliation at 35 to 61 dca. Fractures subparallel to foliation at 33 to 62 dca. Most fractures coated with calcite. 164.75 169.92 24ef 80% poorly preserved e beds with 5% garnets, 15% f beds and trace pyrrhotite. 168.10 168.55 24fe 55% f beds, 35% e beds, 10% garnets and trace pyrrhotite. 169.05 169.45 24fe 50% f beds, 40% e beds 10% garnets and trace pyrrhotite. GEOLOG DATA. Trace bedded grunerite, 1% bedded garnets, 0% silicification, 3% pervasive calcite, 8% pervasive chlorite, 2% pervasive biotite and 1% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, trace								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			crystals arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. Trace quartz veins, trace quartz-carbonate veins. < 1% calcite veins. 3% calcite stringers. Lower contact sharp at 53 dca.								
171.25	174.00	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained with garnets to 5 mm. Green, pink in colour and moderately magnetic. Average hardness. Composed of 70% e beds, 1% ea beds, 25% f beds, 2% disseminated magnetite. Moderately well preserved bedding from 1 to 2 cm at 30 to 38 dca. Left limb fold, axial plane at 52 to 56 dca. Dominant fracture set subparallel to bedding at 30 to 32 dca, coated with calcite and minor chlorite. Fractures perpendicular to bedding at 58 to 68 dca, coated with calcite. GEOLOG DATA. 2% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, 5% bedded chlorite, 25% bedded biotite. 1% Disseminated pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, trace arsenopyrite, 0% chalcopyrite, 2% disseminated magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace calcite veins. Lower contact sharp at 40 dca. E55370 DUPLICATE OF E55369 1.82. 171.25 172.25 24fe 5% quartz veins. 172.25 173.25 24e trace pyrite, arsenopyrite. 173.25 174.00 24e trace pyrite.								
174.00	283.50	AVOL	FELSIC TO INTERMEDIATE VOLCANICS Avol. Fine grained, grey and non-magnetic. Well developed foliation at 30 to 50 dca. There are two dominant fracture sets. The first is 40 to 60 dca perpendicular to foliation, commonly with a bleached halo. The second dominant set is subparallel to foliation at 34 to 50 dca. Both sets are commonly coated with calcite. GEOLOG DATA. 0% Grunerite, trace pervasive garnets generally associated with quartz stringers, trace pervasive silicification, 0% calcite, 0% chlorite. Trace pervasive biotite, 5% pervasive sericite as bands parallel to foliation. Trace stringers pyrrhotite, 0 specks VISIBLE GOLD, trace stringers pyrite, trace disseminated pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace to 1% quartz veins, trace quartz-carbonate veins, trace calcite veins, trace quartz tourmaline stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Quartz-tourmaline stringers can be found throughout the Avols in this hole. The tourmaline is black and subhedral to euhedral and from 1 to 2 mm. Lower contact sharp at 74 dca. 174.00 183.50 Healed fractures perpendicular to foliation at 40 to 60 dca showing red stain parallel to foliation (K-spar alteration?) and bleach. Fractures healed with calcite. 193.60 234.00 3 to 10% feldspar phenocrysts from < 1 mm to 1 mm. 240.00 256.00 Healed fractures perpendicular to foliation at 43 to 69 dca showing red stain parallel to foliation and bleaching parallel to foliation. Fractures healed with calcite. 90.00 194.00 Fractures healed with calcite perpendicular to foliation at 40 to 66 dca showing bleaching along fracture and parallel to foliation. 50% of core is bleach. 251.00 257.00 3 to 10% feldspar phenocrysts from < 1 mm to 1 mm. 268.00 275.00 3% green fine grained, e beds, trace disseminated magnetite in e beds, 1 to 2% garnets throughout unit. 277.25 283.50 3 to 10% feldspar phenocrysts from < 1 mm to 1 mm.								
283.50	286.50	24F	INTRAFORMATIONAL IRON FORMATION 24f. Fine grained, brown and pink, very weakly magnetic. Composed of 90% f beds, 1% ea beds, 3% e beds, 6% bvol. Well preserved bedding from 1 to 2 cm at 57 to 70 dca. One right limb fold with axial plane at 51 dca. Fracture subparallel to bedding at 49 dca and one fracture perpendicular to bedding at 76 dca. GEOLOG DATA. Trace bedded grunerite, 20% pervasive garnets, 0% silicification, 0% calcite, trace bedded chlorite, 70% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. < 1% quartz veins, 0% quartz-carbonate veins, 0% calcite. Lower contact sharp at 60 dca. 283.50 284.50 24f 1% quartz veins. 284.50 285.50 24f trace chalcopyrite. 285.50 286.50 24f 2% quartz stringers.								
286.50	290.50	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic, average hardness. Well developed foliation at 42 to 64 dca. Fractures perpendicular to foliation at 47 dca. Dominant fracture set subparallel to foliation at 55 to 64 dca coated with calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 0% grunerite, 0% garnet, 0% silicification, 0% calcite, 10% pervasive chlorite, 5% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz stringers, trace quartz-carbonate veins, trace calcite stringers, trace quartz albite veins. Lower contact sharp at 52 dca.								
290.50	291.95	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained, green with garnets from 2 mm to 2 cm, weakly magnetic. Composed of 90% e beds, 3% f beds, 2% ea beds, 5% Bvol, trace magnetite. Poorly to moderately preserved bedding from 1 to 10 cm at 49 dca. Fractures perpendicular to bedding at 39 to 59 dca, coated with calcite. GEOLOG DATA. 10% Bedded grunerite, 20% pervasive garnets, 0% silicification, trace pervasive calcite, 15% pervasive chlorite, 2% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 1% Boudinaged quartz stringers, 0% quartz-carbonate veins, 0% calcite veins. Lower contact sharp at 56 dca. 290.50 291.50 24e 1% boudinaged quartz stringers. 291.50 291.95 24e trace boudinaged quartz stringers.								
291.95	292.95	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic, average hardness. Well developed foliation at 48 dca. Fractures subparallel to foliation at 49 dca. 292.30 292.40 F bedding. GEOLOG DATA. 0% grunerite, 1% bedded garnets, 0% silicification, 0% calcite, 10% bedded biotite, 1% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veins, 0% quartz-carbonate veins, 0% calcite veins. Lower contact sharp at 48 dca.								
292.95	297.45	24F	INTRAFORMATIONAL IRON FORMATION 24f.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Medium to fine grained, brown and pink, non-magnetic and average hardness. Composed of 99% F beds and 1% E beds. Moderately preserved bedding from 1 to 10 cm at 36 to 47 dca. Fracture perpendicular to bedding at 60 to 67 dca with calcite. Fractures subparallel to bedding at 37 to 58 dca. GEOLOG DATA. Trace bedded grunerite, 5% pervasive euhedral garnets to 1 cm, 0% silicification, 0% calcite, trace bedded chlorite, 95% bedded biotite 30% pervasive staurolite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace bedded magnetite. Trace quartz stringers, 0% quartz-carbonate veins, 0% calcite veins. Lower contact sharp at 40 dca. E55380 STANDARD II 9.70. E55381 BLANK 0.07. 292.95 294.00 24f. 294.00 295.00 24f. 295.00 296.00 24f 1% quartz stringers. 296.00 297.00 24f trace quartz stringers. 297.00 297.45 24f.								
297.45	300.80	24EF	INTRAFORMATIONAL IRON FORMATION 24ef. Fine grained with garnets to 1 cm, green and brown, weakly magnetic. Composed of 90% e beds and 10% f beds. Well preserved bedding from 1 cm to 3 cm at 30 to 48 dca. Fracture perpendicular to bedding at 22 to 67 dca. GEOLOG DATA. Trace bedded grunerite, 1% bedded garnets, 0% silicification, trace pervasive carbonatization, 10% pervasive chlorite, 10% bedded biotite, 1% pervasive staurolite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonatized veins. Lower contact sharp at 41 dca. 297.45 298.45 24e 1% quartz veins. 298.45 299.45 24fe 1% boudinaged quartz veins. 299.45 300.80 24e trace quartz veins.								
300.80	306.45	24F	INTRAFORMATIONAL IRON FORMATION 24f. Fine grained, brown and pink, non-magnetic and average hardness.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Composed of 95% f beds, 5% poorly developed ea beds. Bedding is well preserved from 1 to 2 cm at 32 to 65 dca. Right limb fold, axial plane 37 dca. Fractures perpendicular to bedding at 21 to 77 dca. One fracture subparallel to bedding at 35 dca. GEOLOG DATA. 1% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% calcite, 90% bedded biotite, 5% pervasive staurolite. 3% Quartz veins, 0% quartz-carbonate veins, 0% carbonate veins. Lower contact sharp at 32 dca. E55390 DUPLICATE OF E55389 0.24. 300.80 301.80 24f 5% quartz veins. 301.80 302.80 24f 3% quartz veins. 302.80 303.80 24f 2% quartz veins. 303.80 304.80 24f 2% quartz veins. 304.80 305.80 24f. 305.80 306.45 24f.								
306.45	308.20	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained, green with garnets to 7 mm, weakly magnetic, average hardness. Composed of 98% e beds and 2% f beds. Bedding well preserved from 1 to 2 cm at 32 to 35 dca. Fracture perpendicular to bedding at 60 dca, coated with calcite. GEOLOG DATA. 1% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 2% bedded biotite. 1% Pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 7% Quartz stringers, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 56 dca. 306.45 307.45 24e 10% quartz stringers. 307.45 308.20 24e.								
308.20	312.10	24F	INTRAFORMATIONAL IRON FORMATION 24F. Medium grained with garnets to 5 mm, brown and pink, non-magnetic, and soft to average hardness. Composed of 90% f beds and 10% e beds. Well preserved bedding from 1 to 3 cm at 21 to 55 dca. Fracture perpendicular to bedding at 42 to 68 dca, coated with calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 0% grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 70% bedded biotite, 10% pervasive staurolite. Trace wisps pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 0% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 41 dca. 308.20 309.20 24f. 309.20 310.20 24f. 310.20 311.20 24f. 311.20 312.10 24fe.								
312.10	314.00	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained with garnets to 4 mm, green and pink, very weakly magnetic and average hardness. Composed of 98% e beds 2% f beds. Well preserved bedding from 1 mm to 1.2 cm at 27 to 40 dca. Right limb fold, axial plane 27 dca. Fractures subparallel to bedding at 27 to 46, coated with chlorite. GEOLOG DATA. 5% grunerite, 1% bedded garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 2% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 1% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 44 dca. E55400 STANDARD II 9.09. E55401 BLANK 0.03. 312.10 313.00 24e 1% quartz veins. 313.00 314.00 24E 1% quartz veins.								
314.00	316.35	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, non-magnetic, and average hardness. Well developed foliation at 35 to 37 dca. Fracture perpendicular to foliation at 32 dca, coated with calcite and pyrite. GEOLOG DATA. 0% grunerite, 0% garnet, 0% silicification, 0% calcite, 10% pervasive chlorite, 1% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, trace fracture-filling pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% Quartz vein, 0% quartz-carbonate veins, 0% carbonate veins. Lower contact sharp at 32 dca.								
316.35	321.15	24EA	INTRAFORMATIONAL IRON FORMATION 24ea with 10% Bvol. Fine grained with garnets and glomeroporphyritic garnets to 1 cm, green, pink, and weakly magnetic. Composed of 25% ea beds, 10% f beds and 65% e beds. Moderately to well preserved bedding from laminae to 4 cm at 32 to 41 dca. One fracture perpendicular to bedding at 50 dca, coated with calcite. GEOLOG DATA:. 3% Bedded grunerite, 35% bedded garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 10% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, trace wisps pyrite, 0% arsenopyrite, 0% chalcopyrite, < 1% disseminated magnetite. Trace quartz stringers, 1% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 65 dca. 316.35 317.35 24ea trace quartz stringers, trace carbonate stringers. 317.35 318.35 24ea 1% quartz stringers, trace pyrite. 318.35 319.35 24ea trace pyrite. 319.35 320.35 24ea, Bvol trace pyrite 1% quartz-carbonate veins. 320.35 321.15 24ea, Bvol 1% pyrite 3% quartz-carbonate veins.								
321.15	339.60	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, and non-magnetic. Moderately to well developed foliation at 34 to 38 dca. Fractures perpendicular to foliation at 35 and 45 dca, coated with calcite. GEOLOG DATA. TR% grunerite, trace bedded garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 1% pervasive biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite stringers, trace blebs arsenopyrite, 0% chalcopyrite, trace bedded and disseminated magnetite. Trace to 1% quartz veins, trace to 1% quartz-calcite veins, trace to 1% carbonate veins. Lower contact sharp at 38 dca. 330.10 330.65 24ea. 30% ea beds, 60% e beds, 2% disseminated magnetite, 4% quartz veins, 4% intercalated Bvol, trace stringers pyrrhotite and pyrite. 330.10 331.00 24ea, Bvol 5% quartz-carbonate veins. 332.00 333.35 24ea, Bvol. 5% quartz veins, 1% quartz-carbonate veins.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			332.65 333.35 24ea. 30% ea beds, 5% f beds, 3% quartz veins, 2% carbonate stringers, 60% e beds, trace pyrrhotite, pyrite and arsenopyrite. E55410 DUPLICATE OF E55409 8.71.								
339.60	342.65	24EA	INTRAFORMATIONAL IRON FORMATION AND INTERMEDIATE TO MAFIC VOLCANICS 24ea and 30% Bvol. Fine grained with garnets to 1 cm, green, yellow, brown, pink, weakly to moderately magnetic. Composed of 30% ea beds, 60% e beds, 5% f beds, 4% laminated and 1% disseminated magnetite. Well preserved bedding from laminae to 2 cm at 43 to 60 dca. Well developed foliation in Bvol at 58 to 60 dca. One fracture perpendicular to foliation at 40 dca, coated with calcite. GEOLOG DATA. 9% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, 3% pervasive chlorite and 2% bedded chlorite, trace pervasive biotite and 5% bedded biotite. Trace quartz veins, 0% quartz-carbonate veins, trace to 1% carbonate stringers. Lower contact sharp at 49 dca. 339.60 340.60 24ea 3% quartz veins. 340.60 341.60 24ea, 45% Bvol 2% quartz veins. 341.60 342.65 24ea, 65% Bvol 5% quartz veins.								
342.65	367.40	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown to green, non-magnetic and average hardness. Well developed foliation at 30 to 56 dca. Fractures perpendicular to foliation from 32 to 62 dca, all are coated with calcite and rarely with chlorite. GEOLOG DATA:. 0% grunerite, 0% garnets, 0% silicification, trace pervasive carbonatization, 10% pervasive chlorite, 2% pervasive biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 1% quartz-carbonate vein, 1% carbonate veins. Lower contact sharp at 65 dca.								
367.40	369.00	4F	GARNET-BIOTITE SCHIST 4f. Medium grained, brown and pink, non-magnetic and average hardness. Composed of 90% f beds, 2% ea beds and 8% e beds. Well preserved bedding from 5 mm to 1 cm at 63 to 80 dca. Fractures subparallel to bedding at 46 to 50 dca with manganese on one fracture.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 4% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, 0% chlorite, 80% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace crystals arsenopyrite, 0% chalcopyrite, 0% magnetite. 3% Quartz veins, 0% quartz-carbonate veins, 0% carbonate veins. Lower contact sharp at 50 dca. 367.40 368.40 4f 1% quartz veins. 368.40 369.00 4f 4% quartz veins.								
369.00	384.80	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. Fine grained with glomeroporphyritic garnet clusters to 1 cm, yellow, grey and pink. Moderately magnetic and moderately hard. Composed of 60% ea beds, 30% chert beds, 9% laminated magnetite, 1% remnants of e beds and trace f beds. Well preserved bedding from laminae to 2 cm at 0 to 80 dca. Few fractures perpendicular to bedding at 27 to 50 dca, coated with carbonate, iron oxide and chlorite. Right limb fold and left limb fold, axial plane 35 to 55 dca, also moderately developed fracture cleavage. GEOLOG DATA. 20% Bedded grunerite, 30% bedded garnets, 0% silicification, 0% carbonatization, trace bedded and fracture-filling chlorite, trace bedded biotite. Trace disseminated and stringers of pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace crystals arsenopyrite, 0% chalcopyrite, 10% bedded magnetite. Trace quartz flooding and quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 39 dca. E55420 STANDARD II 8.64. E55421 BLANK 0.07. E55430 DUPLICATE OF E55429 0.14. 369.00 370.00 4ea 5% quartz flooding. 370.00 371.00 4ea 2% quartz flooding. 371.00 372.00 4ea trace quartz flooding. 372.00 373.00 4eab. 373.00 374.00 4eab. 374.00 375.00 4eab 1% quartz veins. 375.00 376.00 4eab. 376.00 377.00 4eab. 377.00 378.00 4eab. 378.00 379.00 4eab trace arsenopyrite. 379.00 380.00 4eab trace quartz flooding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			380.00 381.00 4eab 5% quartz veins. 381.00 382.00 4eab 4% quartz flooding. 382.00 383.00 4eab 3% quartz flooding. 383.00 384.00 4ea 10% quartz flooding. 384.00 384.80 4ea 1% quartz flooding.								
384.80	386.15	4F	GARNET-BIOTITE SCHIST 4f. Medium grained, brown, non-magnetic, average hardness. Composed of 99% f beds and 1% gruneritized beds. Well preserved bedding from 5 mm to 1 cm at 35 to 45 dca. Left limb fold, axial planes 31 to 47 dca. GEOLOG DATA. 1% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 89% bedded biotite, 10% pervasive staurolite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 40% Quartz veins, 0% quartz-carbonate veins, 0% carbonate veins. Lower contact sharp at 32 dca. 384.80 386.15 4f 40% quartz veins.								
386.15	412.20	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green and brown, non-magnetic and average hardness. Well developed foliation at 35 to 54 dca. Fractures subparallel to foliation at 39 to 42 dca, coated with carbonate. Fractures perpendicular to foliation at 40 to 65 dca, coated with carbonate. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, trace pervasive carbonatization, 10% pervasive chlorite, 10% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite as fracture-filling, 0% magnetite. Trace quartz veins, 5% quartz-carbonate veins, 1% carbonate veins. Lower contact sharp at 51 dca. 386.15 386.80 24ea well preserved bedding at 40 dca. 50% ea beds, 1% f beds, 5% quartz flooding, 44% e beds, trace pyrrhotite stringers. 386.15 386.80 24ea 5% quartz flooding. 411.20 412.20 Bvol 10% quartz-carbonate veins.								
412.20	434.65	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained, with garnets and glomeroporphyritic clusters to 1 cm. Grey, yellow, pink and green, moderately magnetic, and hard. Composed of 60% ea beds, 10% magnetite laminae to thin beds, 25% chert beds, 5% e beds. Trace f beds. Well preserved bedding, except in areas of quartz flooding, from laminae to 1.5 cm at 22 to 40 dca. Predominantly left limb fold, axial plane 55 to 57 dca. Few fractures parallel to bedding at 46 to 60 dca, coated with carbonate. One fracture perpendicular to bedding at 28 dca, coated with carbonate. MINERALIZED ZONES:. From 419.00 422.00 13% quartz flooding, 4% pyrrhotite, trace arsenopyrite. From 424.00 434.65 7% pyrrhotite as stringers, blebs and wisps, 15% quartz flooding, and 28 specks VISIBLE GOLD. 412.20 413.00 4ea 5% quartz flooding. 413.00 414.00 4eab 1% quartz flooding. 414.00 415.00 4ea 5% quartz flooding. 415.00 416.00 4ea 10% quartz flooding, trace arsenopyrite. 416.00 417.00 4eab trace quartz flooding. 417.00 418.00 4ea. 418.00 419.00 4ea. 419.00 420.00 4ea 8% quartz flooding. 420.00 421.00 4ea 5% quartz flooding. 421.00 422.20 4ea 25% quartz flooding, trace arsenopyrite. 422.20 423.00 4eab. 423.00 424.00 4eab. 424.00 424.80 4ea. 424.80 426.00 4ea 25% quartz flooding, 5 specks VISIBLE GOLD. 426.00 427.00 4ea 20% quartz flooding, 7 specks VISIBLE GOLD. 427.00 428.35 4ea 20% quartz flooding, 9 specks VISIBLE GOLD. 428.35 429.25 4ea 4% quartz veins. 429.25 430.30 4ea 20% quartz flooding, 5 specks VISIBLE GOLD, trace pyrite blebs. 430.30 431.30 4ea 4% quartz veins. 431.30 432.20 4ea. 432.20 433.20 4ea 15% quartz flooding. 433.00 433.40 Bvol fine grained, green, with 1% pervasive biotite. Foliation well developed at 34 dca. Quartz pyrrhotite vein in center of unit 5 cm wide. 433.20 434.20 4ea 20% quartz flooding, 2 specks VISIBLE GOLD. 434.20 434.65 4ea 30% quartz flooding. 434.40 434.65 4eaf 30% f beds total, increasing toward contact. Possible remnants of 4f cap. GEOLOG DATA. 7% Bedded grunerite, 20% bedded garnets, 0% silicification, trace pervasive carbonatization, 1% bedded chlorite, trace bedded biotite. 3% Stringers, blebs and wisps pyrrhotite, 28 specks VISIBLE GOLD, trace blebs									

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			pyrite, trace crystals arsenopyrite, 0% chalcopyrite, 10% bedded magnetite. Trace quartz veins and 10% quartz flooding, trace quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 36 dca. E55440 STANDARD II 9.09. E55441 BLANK 0.17. E55450 DUPLICATE OF E55449 36.17. E55460 STANDARD II 11.45. E55461 BLANK 0.10.								
434.65	438.50	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 32 to 36 dca. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 3% carbonatization, 8% pervasive chlorite, 3% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz veins, trace quartz-carbonate vein, 2% carbonate stringers. Lower contact sharp at 34 dca. 434.65 435.65 Bvol 3% quartz veins, 5% carbonate stringers. 437.50 438.50 Bvol 15% carbonate stringers.								
438.50	448.30	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea/4eaF. 438.5 442.00 4ea. Fine grained, with garnets to 1 cm, green, grey, yellow and pink, moderately magnetic and hard. Composed of 40% EA beds, 20% chert beds, 10% magnetite laminae and beds, 25% E beds 5% f beds. Well preserved bedding from laminae to 1 cm, at 31 to 40 dca. One left limb fold with axial plane 46 dca. Fractures parallel to bedding at 40 dca, coated with carbonate and chlorite. 438.50 439.50 4eab. 438.50 438.60 4f remnants of 4f cap. 438.50 442.00 4ea. GEOLOG DATA. 10% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, 5% bedded chlorite and 2% pervasive chlorite, 5% bedded biotite. Trace stringers pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% bedded magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			442.00 448.30 4eaf. Fine grained with garnet to 5 mm, grey, brown, yellow and green, moderately magnetic and hard. Composed of 30% ea beds, 30% f beds, 25% chert beds, 5% e beds, 5% magnetite laminae. Well preserved bedding at 33 to 43 dca. Fractures subparallel bedding at 23 to 37 dca, coated with chlorite. Fractures perpendicular to bedding at 43 to 52 dca. GEOLOG DATA. 5% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, 2% bedded chlorite, 25% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% bedded magnetite. Trace quartz veins, trace quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 37 dca. 439.50 440.50 4ea. 439.62 440.00 Fault zone: chlorite alteration and carbonate veining at 41 dca. 440.50 441.50 4ea. 441.50 442.00 4ea. 442.00 448.30 4eaf. E55470 DUPLICATE OF E55469 0.48. 442.00 443.00 4eaf. 443.00 444.00 4eaf. 444.00 445.00 4eaf 1% quartz veins. 445.00 446.00 4eaf 1% quartz veins, 3% quartz flooding. 446.00 447.00 4eaf 2% quartz veins, 3% quartz flooding. 447.00 448.30 4eaf 1% quartz flooding.								
448.30	449.90	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green and brown, non-magnetic and average hardness. Well developed foliation at 40 dca. Fractures subparallel to foliation at 45 to 53 dca, coated with carbonate. Fracture perpendicular to foliation at 22 dca, coated with carbonate. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 2% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veins, 0% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 37 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			E55480 STANDARD II 10.11. E55481 BLANK 0.10. 448.30 449.30 Bvol. 449.30 449.90 Bvol.								
449.90	451.60	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eaf. Fine grained with garnets to 3 mm, brown, yellow and grey, weakly magnetic and average hardness. Composed of 35% poorly developed ea beds, 35% f beds and 30% chert beds. Well preserved bedding at 36 to 41 dca, from 5 mm to 1.5 cm. GEOLOG DATA. 15% Bedded grunerite, 25% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 25% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 0% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 45 dca. 449.90 450.90 4eaf. 450.90 451.60 4eaf.								
451.60	452.85	4F	GARNET-BIOTITE SCHIST 4f. Medium grained, brown, grey, yellow, pink. Composed of 95% f beds, 5% gruneritized beds. Well preserved bedding at 40 dca. Fractures subparallel to bedding at 22 to 32 dca, coated with chlorite. GEOLOG DATA. 5% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 80% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 2% Quartz stringers, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 34 dca. 451.60 452.85 4f 2% quartz stringers.								
452.85	453.75	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eaf. Fine grained to medium grained, brown, yellow and grey, weakly magnetic and hard. Composed of 40% poorly developed ea beds, 20% f beds, 25% chert beds 5% disseminated magnetite, 10% e beds.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Well preserved bedding from laminae to 2 cm at 30 dca. GEOLOG DATA. 7% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 15% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% disseminated magnetite. 2% Quartz veins, 0% quartz-carbonate vein, trace carbonate stringers. Lower contact sharp at 37 dca. 452.85 453.75 4eaf 2% quartz veins.								
453.75	484.87	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 40 to 60 dca. Fractures perpendicular to foliation at 19 to 70 dca, coated with carbonate. One fracture subparallel to foliation at 64 dca, coated with carbonate. GEOLOG DATA. 0% Grunerite, trace disseminated garnets, 0% silicification, 3% carbonatization, 10% pervasive chlorite, 3% pervasive biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite as fracture-filling, 0% magnetite. Trace quartz veins, 1% quartz-carbonate veins, 2% carbonate stringers and veins. Lower contact sharp at 54 dca. 453.75 454.75 Bvol 5% carbonate veins. 480.35 481.05 24ea. 50% ea beds, 20% e beds, 15% disseminated magnetite, 10% chert beds, 5% quartz veins. 480.35 481.05 24ea 5% quartz veins.								
484.87	487.60	24E 6	INTRAFORMATIONAL IRON FORMATION METASEDIMENTS AND INTERMEDIATE TO MAFIC VOLCANICS 24e 20%, 6 50%, Bvol 10%. Fine grained, grey, green, and brown. Very weakly magnetic, average hardness. Composed of 15% e beds, 1% ea beds, 2% f beds, trace disseminated magnetite, 1% grunerite beds 80% fine grained, grey metasediment. Poorly to moderately preserved bedding at 49 to 63 dca. Right limb fold axial plane 45 dca. Fractures subparallel to foliation at 37 to 46 dca. GEOLOG DATA. 1% Bedded grunerite, 1% bedded garnets, 0% silicification, 0% carbonatization, 1% pervasive chlorite, 2% bedded biotite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 5% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 50 dca. E55490 DUPLICATE OF E55489 0.72. 484.87 486.00 24e, 6 10% quartz veins. 486.00 487.00 6 24e 5% quartz veins. 487.00 487.60 6, 24e 3% quartz veins.								
487.60	489.25	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown, non-magnetic and average hardness. Well developed foliation at 30 dca. GEOLOG DATA. 0% grunerite, 0% garnet, 0% silicification, 40% carbonatization, 0% chlorite, 40% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace crystals arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% quartz, 0% quartz-carbonate veins, 3% carbonate stringers. Lower contact sharp at 54 dca.								
489.25	492.25	24E A	INTRAFORMATIONAL IRON FORMATION AND INTERMEDIATE TO MAFIC VOLCANICS 24e And Bvol. 25% Bvol from 20 to 40 cm sections between 24e. 24e. Fine grained with garnets to 1 cm, green, white, and yellow, very weakly magnetic, and average to hard. Composed of 25% ea beds, 70% e beds, 5% f beds, and trace disseminated magnetite. Poorly to moderately presevered bedding from 5 mm to 1.5 cm at 40 to 71 dca. One right limb fold, axial plane 40 dca. GEOLOG DATA. 25% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, 2% pervasive chlorite, 4% bedded biotite. Trace pyrrhotite as stringers and blebs, 0 specks VISIBLE GOLD, 0% pyrite, trace crystals arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 10% Quartz veins, 20% quartz-carbonate veins, 5% carbonate stringers. 489.25 490.25 24e, Bvol 50% quartz-carbonate veins. 490.00 495.45 Bvol. 490.25 491.25 24e, Bvol 20% quartz and quartz-carbonate veins. 491.25 492.25 24ea, Bvol 5% quartz-carbonate veins. 491.30 491.50 Bvol. Fine grained, brown, non-magnetic and average hardness.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Well developed foliation at 51 to 60 dca. GEOLOG DATA. 0% Grunerite, trace pervasive garnets, 0% silicification, 20% pervasive carbonatization, 30% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% quartz, 0% quartz-carbonate veins, 5% carbonate stringers. Lower contact at 492.25 is sharp at 53 dca.								
492.25	496.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 52 to 64 dca. One fracture perpendicular to foliation at 54 dca. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 15% pervasive carbonatization, 2% pervasive chlorite, 15% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 0% quartz-carbonate veins, 5% carbonate stringers.								
496.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 6 metres. Samples stored at Musselwhite camp. DRILLING HISTORY:. 0.00 to 15.80 Hole cased with 15.80 metres of NW casing. 15.80 to 496.00 20 foot fluted core barrel used. Hole cemented - 7.5 hours - 84 bags of 20 kg bags Type 50 cement. Dutem plug installed at 60 metres. Casing pulled. SURVEY HISTORY:. Sperry Sun single shot camera with low point indicator used for dips while drilling. Sperry Sun Dip Tests:. 19.00 -59.00 0. 37.00 -58.50 5.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			67.00 -57.30 3. 100.00 -56.00 0. 124.00 -56.00 0. 151.00 -55.25 5. 193.00 -54.10 1. 232.00 -53.75 5. 268.00 -53.00 0. 286.00 -52.40 4. 328.00 -51.10 1. 357.00 -50.10 1. 391.00 -49.75 5. 418.00 -49.10 1. 433.00 -48.75 5. 466.00 -47.75 5. Light Log Survey conducted by Wilfred Hill. Survey took 3.0 hours. Data used for code 2 dip tests. Drill hole collar, azimuth and water elevation surveyed by Erik Snucins of W. J. Bowman Ltd, O.L.S., Dryden, Ontario.								

DRILL HOLE RECORD

Northing: 10500.110
Easting: 9046.240
Elevation: 5302.518

Collar Azi.: 227.66
Collar Dip: -60.00

Hole Length: 562.00
Completed: SEPTEMBER 23, 1993
Drilled by:
Logged by: P. GERTZBEIN, T. TENNENT
Purpose: TO TEST THE S, T AND WA ZONES ON SECTION 10500Nte(s)

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa508460 (131m),Pa529497 (348m),Pa529498 (83m)
47 m south,115 m west to post 3 of Pa508460
Logged: SEPT. 16, 1993 to OCTOBER 1, 1993

Drill Hole: 506-663
Northing: 10500N
Easting: 9046E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: SEPT. 13, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
3.2	227.9	-59.5	145.2	224.8	-57.0	287.3	223.3	-54.6	429.4	219.9	-52.1
6.3	228.0	-59.2	148.4	224.8	-57.0	290.5	223.1	-54.5	432.5	219.9	-52.1
9.5	227.9	-59.1	151.6	224.8	-57.0	293.6	222.9	-54.4	435.7	219.8	-52.0
12.6	227.7	-59.0	154.7	224.8	-56.9	296.8	222.9	-54.4	438.9	219.8	-52.0
15.8	227.7	-59.0	157.9	224.8	-56.8	299.9	222.8	-54.3	442.0	219.6	-51.9
18.9	227.7	-59.0	161.0	224.8	-56.7	303.1	222.6	-54.1	445.2	219.4	-51.8
22.1	227.7	-59.0	164.2	224.8	-56.7	306.3	222.3	-53.9	448.3	219.6	-51.8
25.3	227.7	-59.0	167.3	224.8	-56.6	309.4	222.1	-53.8	451.5	219.6	-51.8
28.4	227.7	-59.0	170.5	224.8	-56.6	312.6	221.8	-53.6	454.6	219.6	-51.8
31.6	227.7	-59.0	173.6	224.8	-56.6	315.7	221.6	-53.5	457.8	219.6	-51.8
34.7	227.7	-59.0	176.8	224.8	-56.5	318.9	221.5	-53.4	461.0	219.6	-51.7
37.9	227.7	-58.9	180.0	224.6	-56.4	322.0	221.3	-53.3	464.1	219.4	-51.6
41.0	227.7	-58.9	183.1	224.4	-56.3	325.2	221.3	-53.3	467.3	219.4	-51.5
44.2	227.7	-58.8	186.3	224.3	-56.2	328.4	221.3	-53.3	470.4	219.4	-51.4
47.4	227.5	-58.7	189.4	224.3	-56.2	331.5	221.3	-53.3	473.6	219.4	-51.4
50.5	227.1	-58.5	192.6	224.3	-56.1	334.7	221.3	-53.3	476.8	219.4	-51.3
53.7	226.9	-58.4	195.8	224.3	-56.0	337.8	221.3	-53.2	479.9	219.4	-51.3
56.8	226.6	-58.3	198.9	224.1	-56.1	341.0	221.3	-53.2	483.1	219.4	-51.2
60.0	226.6	-58.2	202.1	224.1	-56.1	344.1	221.3	-53.2	486.2	219.3	-51.1
63.2	226.4	-58.2	205.2	223.9	-56.0	347.3	221.2	-53.1	489.4	219.1	-51.0
66.3	226.2	-58.2	208.4	223.9	-56.0	350.5	221.2	-53.1	492.5	219.0	-51.0
69.5	226.0	-58.2	211.5	223.9	-56.0	353.6	221.2	-53.1	495.7	218.9	-50.9
72.6	225.9	-58.2	214.7	223.9	-56.0	356.8	221.2	-53.1	498.9	218.7	-50.8
75.8	225.9	-58.1	217.9	223.9	-55.9	359.9	221.2	-53.0	502.0	218.7	-50.7
78.9	225.7	-58.0	221.0	223.9	-55.9	363.1	221.2	-53.0	505.2	218.6	-50.6
82.1	225.7	-58.0	224.2	223.9	-55.8	366.3	221.2	-53.0	508.3	218.4	-50.5
85.3	225.7	-58.0	227.3	223.9	-55.7	369.4	221.0	-53.0	511.5	218.4	-50.4
88.4	225.7	-58.0	230.5	224.1	-55.6	372.6	220.9	-52.9	514.6	218.3	-50.3
91.6	225.7	-58.0	233.6	224.1	-55.6	375.7	220.9	-52.9	517.8	218.3	-50.2
94.7	225.7	-57.9	236.8	224.1	-55.6	378.9	220.9	-52.9	521.0	218.3	-50.2
97.9	225.7	-57.8	240.0	224.1	-55.5	382.0	220.9	-52.9	524.1	218.4	-50.1
101.0	225.7	-57.8	243.1	224.1	-55.4	385.2	220.9	-52.9	527.3	218.3	-50.0
104.2	225.7	-57.8	246.3	223.9	-55.3	388.4	220.9	-52.8	530.4	218.3	-50.0
107.3	225.7	-57.8	249.4	223.9	-55.3	391.5	220.7	-52.8	533.6	218.3	-50.0
110.5	225.5	-57.8	252.6	223.8	-55.2	394.7	220.7	-52.7	536.7	218.3	-50.0
113.7	225.5	-57.8	255.7	223.6	-55.1	397.8	220.5	-52.6	539.9	218.3	-50.0
116.8	225.5	-57.7	258.9	223.6	-55.1	401.0	220.5	-52.5	543.1	218.3	-50.0

120.0	225.3	-57.6	262.1	223.4	-55.0	404.1	220.4	-52.4	546.2	218.1	-49.9
123.1	225.3	-57.5	265.2	223.4	-55.0	407.3	220.4	-52.4	549.4	218.1	-49.8
126.3	225.1	-57.4	268.4	223.4	-55.0	410.5	220.4	-52.4	552.5	218.1	-49.8
129.4	225.0	-57.3	271.5	223.4	-55.0	413.6	220.4	-52.4	555.7	218.1	-49.7
132.6	225.0	-57.3	274.7	223.4	-54.9	416.8	220.4	-52.4	558.8	218.1	-49.7
135.8	224.8	-57.2	277.8	223.4	-54.9	419.9	220.2	-52.4			
138.9	224.8	-57.1	281.0	223.4	-54.8	423.1	220.2	-52.3			
142.1	224.8	-57.1	284.2	223.3	-54.7	426.2	220.1	-52.2			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. Sample Series: E46677 to E46750, E55496 to E55550, E55618 to E55700, and FE04601 to FE04798.								
.00	11.85	OB	OVERBURDEN Granitic boulders. 14.2 M NW casing.								
11.85	66.00	4B	CHERT - MAGNETITE IRON FORMATION 4b, And 4fb. FROM 11.85 TO 50.80 4b:. Fine grained. Light grey, dark grey and light green. Strongly magnetic. Hard. Composed of: 95% 4b beds and up to 5% 4f beds. Bedding at 10 to 60 dca. Boudinaged. Locally bedding contorted, sheared and brecciated. Minor left limb fold throughout unit with axial plane 30 to 60 dca. Local axial planar crenulation cleavage. Dominant fractures flat lying, calcite coated and perpendicular to bedding at 105 to 144 dca. Minor fractures subparallel to bedding at 15 to 70 dca. GEOLOG DATA:. Alteration : 0% grunerite, trace bedded 1 mm garnets in 4f beds, 0% silicification, 5% pale green carbonate alteration - bedded and haloing magnetite beds. 1% fracture-filling and bedded chlorite. 0% biotite. Mineralization: trace wisps, fracture-filling, stratabound and disseminated pyrrhotite. 0 specks VISIBLE GOLD. Trace blebs pyrite. Trace blebs arsenopyrite. 0% chalcopyrite, 40% bedded magnetite. Veining : 7% white quartz veining with chloritic inclusions, barren to 1% pyrrhotite, parallel to bedding. 0% quartz-carbonate veins. Trace calcite veining Lower contact 45 dca. FROM 50.80 TO 53.75 4bf. Fine grained to medium grained, brown, grey, yellow and pink, moderately magnetic and hard. Composed of 30% f beds, 35% b beds, 20% boudinaged chert beds, 10% e beds and 5%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			poorly developed ea beds. Moderately to well preserved bedding from 1 mm to 5 mm at 42 dca. Dominant fractures subparallel to bedding at 32 to 52 dca, coated with carbonate and chlorite. Fracture perpendicular to bedding at 64 dca, coated with chlorite. GEOLOG DATA. 10% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace pervasive chlorite, 25% bedded biotite. Trace disseminated and wispy pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 35% laminated and disseminated magnetite. 3% Quartz veins, 0% quartz-carbonate veins, 0% carbonate stringers. Lower contact sharp at 52 dca. 11.85 50.80 4b. E46680 STANDARD II 9.26. E46681 BLANK 0.17. E46690 DUPLICATE OF E46689 0.27. E46700 STANDARD II 9.63. E46701 BLANK 0.07 0.07. 11.85 13.00 4b. 13.00 14.00 4b. 14.00 15.00 4b. 15.00 16.00 4b. 16.00 17.00 4b. 17.00 18.00 4b. 18.00 19.00 4b. 5% calcite veining. At 18.15 FELSIC TO INTERMEDIATE VOLCANICS 5 cm calcite vein at 10 dca with 2% pyrrhotite. 19.00 20.00 4b. 2% calcite stringers. At 19.50 FELSIC TO INTERMEDIATE VOLCANICS 2 cm calcite stringer at 10 dca with 2% pyrrhotite. 20.00 21.00 4b. At 20.30 FELSIC TO INTERMEDIATE VOLCANICS semi-massive band of 20% pyrrhotite. At 20.80 FELSIC TO INTERMEDIATE VOLCANICS 6 cm band with 15% pyrrhotite. 21.00 22.00 4b. 22.00 23.00 4b. 3% calcite stringers. 23.00 24.00 4b. 20% quartz veining. At 23.20 FELSIC TO INTERMEDIATE VOLCANICS 20 cm quartz and chert band at 31 dca with 2% fracture-filling pyrrhotite. 24.00 25.00 4b. 10% quartz veining. At 24.70 FELSIC TO INTERMEDIATE VOLCANICS 10 cm quartz vein with trace pyrrhotite at 30 dca. 25.00 26.00 4b. At 25.70 FELSIC TO INTERMEDIATE VOLCANICS 5 mm pyrrhotite band at 20 dca. 26.00 27.00 4b. At 26.95 axial plane 38 dca. 27.00 28.00 4b. At 27.65 crenulated left limb fold with axial planes at 60 dca. At 27.75 left limb fold with axial plane 40 dca. 28.00 29.00 4b. At 28.95 axial plane 30 dca. 29.00 30.00 4b. 30.00 31.00 4b. 10% quartz veining. At 30.75 FELSIC TO INTERMEDIATE VOLCANICS 10								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			cm white quartz vein with contacts at 45 dca. 31.00 32.00 4b. 30% quartz veining. At 31.03 FELSIC TO INTERMEDIATE VOLCANICS 30 cm white quartz vein with irregular contacts and trace pyrrhotite. 32.00 Bedding folded, brecciated and contorted and sheared. E46710 DUPLICATE OF E46709 0.03. E46720 STANDARD II 9.74. E46721 BLANK 0.07. FROM 53.75 TO 66.00 4FB. Fine grained to medium grained, with garnets to 3 mm, brown, grey and yellow, moderately magnetic and average hardness. This unit is composed of 60% f beds, 20% laminated magnetite, 15% chert beds and 5% gruneritized beds. Bedding is well preserved at 30 to 60 dca, with beds from laminae to 3 cm wide. Folding is left limb with axial planes at 42 to 67 dca. The dominant fracture set is perpendicular to bedding at 50 to 63 dca, with carbonate and chlorite fracture-filling. The secondary fracture set is subparallel to bedding at 24 to 50 dca, with carbonate and chlorite fracture-filling. GEOLOG DATA. 3% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, and 40% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% laminated magnetite. 2% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 32 dca. E46730 DUPLICATE OF E46729 1.99. E46740 STANDARD II 9.12. E46741 BLANK 0.27. 32.00 33.00 4b. At 32.40 axial plane 46 dca. 33.00 34.00 4b. At 33.55 axial plane 46 dca. 34.00 35.00 4b. 35% quartz veining. At 34.20 FELSIC TO INTERMEDIATE VOLCANICS 34 cm quartz vein with trace euhedral pyrite at 35 dca. At 34.95 axial plane 36 dca. 35.00 36.00 4b. 20% quartz veining. At 35.10 FELSIC TO INTERMEDIATE VOLCANICS 20 cm quartz vein with trace pyrite and arsenopyrite. 36.00 37.00 4b. At 36.90 axial plane 45 dca. 37.00 38.00 4b. 38.00 39.00 4b. 39.00 40.00 4b. 60% quartz veining. At 39.60 FELSIC TO INTERMEDIATE VOLCANICS 2 cm quartz vein. At 39.16 FELSIC TO INTERMEDIATE VOLCANICS 27 cm quartz vein. At 39.53 FELSIC TO INTERMEDIATE VOLCANICS 30 cm quartz vein. Veins contain 30% chloritic wall rock material. Contacts at 45 dca. 40.00 41.00 4b. 41.00 42.00 4b. 25% quartz veining. At 41.05 FELSIC TO INTERMEDIATE VOLCANICS 25 cm quartz vein with trace arsenopyrite at 39 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			42.00 43.00 4b. 5% quartz veining. At 42.45 FELSIC TO INTERMEDIATE VOLCANICS 5 cm quartz vein at 32 dca. 43.00 44.00 4b. 7% quartz veining. 44.00 45.00 4b. 10% quartz veining. At 44.05 FELSIC TO INTERMEDIATE VOLCANICS 8 cm quartz vein at 55 dca. 45.00 46.00 4b. 8% quartz flooding. Trace arsenopyrite. 46.00 47.00 4b. 20% quartz veining. At 46.85 FELSIC TO INTERMEDIATE VOLCANICS 2 cm massive pyrrhotite bed at 54 dca. At 46.22 FELSIC TO INTERMEDIATE VOLCANICS 6 cm quartz vein. At 46.34 FELSIC TO INTERMEDIATE VOLCANICS 4 cm quartz vein. At 46.46 FELSIC TO INTERMEDIATE VOLCANICS 6 cm quartz vein. Veining parallel to bedding with contacts at 58 dca. 47.00 48.00 4b. 48.00 49.00 4b. 49.00 50.00 4b. At 49.15 FELSIC TO INTERMEDIATE VOLCANICS 1 cm massive pyrrhotite bed at 28 dca. 50.00 51.00 4b. 51.00 52.00 4bf 2% quartz veins. 52.00 53.00 4bf 3% quartz veins. 53.00 53.75 4bf trace quartz veins. 53.75 55.00 4fb 5% quartz veins. 55.00 56.00 4fb trace quartz veins. 56.00 57.00 4fb trace quartz veins. 57.00 58.00 4fb trace quartz veins. 58.00 59.00 4fb 3% quartz veins. 59.00 60.00 4fb 4% quartz veins. 60.00 61.00 4fb 4% quartz veins. 61.00 62.00 4fb 1% quartz veins. 62.00 63.00 4fb 3% quartz veins. 63.00 64.00 4fb 3% quartz veins. 64.00 65.00 4fb 1% quartz veins. 65.00 66.00 4fb 1% quartz veins.								
66.00	71.60	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. Fine grained with garnets and glomeroporphyritic garnet clusters to 5 mm. The core is grey yellow, and pink, moderately magnetic, and hard. Composed of 50% ea beds, 25% magnetite as laminae and remnants in gruneritized beds, 20% chert beds and 5% f beds. Bedding is well preserved from laminae to 1 cm at 23 to 40 dca. Predominantly left limb fold with axial planes at 20 to 46 dca. Fractures perpendicular to bedding at 65 to 72 dca, coated with carbonate. GEOLOG DATA. 10% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 25% bedded magnetite. Trace quartz veins, 15% quartz flooding, 0% quartz-carbonate veins, 2% carbonate								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			stringers. Lower contact sharp at 30 dca. 66.00 67.00 4eab 2% quartz veins. 67.00 68.00 4eab 25% quartz flooding. 68.00 69.00 4eab 40% quartz flooding. 69.00 70.00 4eab 2% quartz flooding. 70.00 71.00 4eab 2 quartz flooding. 71.00 71.60 4eab.								
71.60	80.55	4B	CHERT - MAGNETITE IRON FORMATION 4bf. Fine grained to medium grained, brown, green, yellow, and grey. Non-magnetic and average hardness. Composed of 30% f beds, 20% e beds, 30% laminated to disseminated magnetite, 10% chert beds, and 10% gruneritized beds. Well preserved bedding from laminae to 1 cm at 10 to 40 dca. Left limb fold with axial planes at 29 to 34 dca. Fractures subparallel to bedding at 26 to 47 dca, coated with carbonate and chlorite. Fractures perpendicular to bedding at 57 to 60 dca, coated with carbonate. GEOLOG DATA. 4% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, 2% bedded chlorite, 25% bedded biotite. Trace disseminated pyrrhotite and stringers, 0 specks VISIBLE GOLD, trace disseminated pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% disseminated and bedded magnetite. Trace quartz veins, 0% quartz-carbonate vein, trace carbonate stringers. Lower contact sharp at 29 dca. E46750 DUPLICATE OF E46749 0.27. 71.60 72.60 4bf 1% quartz flooding. 72.60 73.60 4bf. 73.60 74.60 4bf. 74.60 75.60 4bf 1% quartz veins. 75.60 76.60 4bf 2% quartz veins. 76.60 77.60 4bf. 77.60 78.60 4bf. 78.60 79.60 4bf 1% quartz veins. 79.60 80.55 4bf 2% quartz veins.								
80.55	106.25	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with garnets and glomeroporphyritic clusters from 1 mm to 1 cm. The colour of the core is yellow, grey, green and pink.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Unit composed of 70% moderately to well developed ea, 20% chert beds, 5% laminae and remnants of magnetite beds and laminae, 3% e beds and 2% f beds. Moderately to well preserved bedding from laminae to 1.5 cm at 15 to 62 dca. Folding is predominantly right limb with axial planes at 21 to 53 dca. Rare left limb fold at 18 to 33 dca. Dominant fracture SET is perpendicular to bedding at 50 to 60 dca, and are coated with carbonate and less frequently chlorite. MINERALIZED ZONE. 84.00 TO 85.00 trace pyrrhotite, 10% quartz flooding and 4 specks VISIBLE GOLD. GEOLOG DATA. 15% Bedded grunerite, 25% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 1% bedded biotite. Trace disseminated pyrrhotite and as stringers, 4 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, and 5% bedded magnetite. Trace quartz veins, 1% quartz flooding, 0% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 47 dca. E55510 DUPLICATE OF E55509 0.24. E55520 STANDARD II 3.81. E55521 BLANK 0.21. E55530 DUPLICATE OF E55529 2.33. 80.55 82.00 4ea 3% quartz flooding, right limb fold axial plane 53 dca. 82.00 83.00 4ea 30% quartz flooding. 83.00 84.00 4ea 3% quartz flooding, left limb fold, axial plane 40 dca. 84.00 85.00 4ea 10% quartz flooding, 4 specks VISIBLE GOLD. 85.00 86.00 4ea 5% quartz flooding, left limb fold axial plane 21 dca. 86.00 87.00 4ea 3% quartz flooding, left limb fold axial plane 35 dca. 87.00 88.00 4ea 2% quartz flooding, folding axial plane 0 dca. 88.00 89.00 4ea 2% carbonate stringers, left limb fold 49 dca. 89.00 90.00 4ea right limb fold axial plane 35 dca. 90.00 91.00 4ea. 91.00 92.00 4eaf. 92.00 93.00 4ea 2% quartz flooding, left limb fold axial plane 49 dca. 93.00 94.00 4eaf 2% quartz flooding, left limb fold axial plane 37 dca. 94.00 95.00 4ea. 95.00 96.00 4ea trace quartz flooding, left limb fold axial plane 47 dca. 96.00 97.00 4ea 1% quartz flooding. 97.00 98.00 4ea. 98.00 99.00 4ea 3% quartz flooding, left limb fold, axial plane 18 dca. 99.00 100.00 4ea 1% quartz flooding. 100.00 101.00 4ea 1% quartz flooding. 101.00 102.00 4ea 10% quartz flooding, left limb fold, axial plane 40 dca. 102.00 103.00 4ea. 103.00 104.00 4ea 1% quartz flooding, 1% quartz veins, left limb fold, axial								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			plane 28 dca. 104.00 105.00 4ea. 105.00 106.25 4ea.								
106.25	125.80	4B	CHERT - MAGNETITE IRON FORMATION 4b and 4bf. FROM 106.25 TO 120.15 4BF. Fine grained, grey yellow and black, strongly magnetic, and hard. This unit is composed of 25% f beds, 20% chert beds, 40% laminated to thinly bedded magnetite, 10% e beds, 5% poorly developed ea beds. Well preserved bedding from laminae to 1 cm at 0 to 52 dca. Predominantly right limb fold from 106.25 to 111.0 at 32 to 37 dca. Predominantly left limb fold from 111.00 to 120.15 at 20 to 40 dca. The dominant fracture set is perpendicular to bedding from 35 to 58 dca, coated with carbonate and chlorite. The other fracture set is subparallel to bedding at 27 to 45 dca, coated with carbonate and chlorite, predominantly chlorite. MINERALIZED ZONE 113.00 to 114.00 1% pyrrhotite as stringers, trace pyrite as blebs 35% quartz flooding, 5 specks VISIBLE GOLD. GEOLOG DATA. 3% Pervasive grunerite, 2% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 23% bedded biotite. Trace pyrrhotite as stringers and blebs, 5 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, 40% laminated to bedded magnetite. 3% Quartz flooding and 1% quartz veins, 0% quartz-carbonate vein, trace carbonate stringers. Lower contact sharp at 35 dca. 106.25 120.15 4bf. E55540 STANDARD II 10.29. E55541 BLANK 0.38. FROM 120.15 TO 123.70 4B. Fine grained, dark grey and yellow, strongly magnetic and hard. This unit is composed of 60% laminated to bedded magnetite, 35% chert beds, 5% f beds. Moderately to well preserved bedding from laminae to 12 mm at 31 to 46 dca. Right limb fold at top of unit, axial plane 38 dca. The dominant fracture set is perpendicular to bedding at 39 to 55 dca, coated with carbonate. GEOLOG DATA. 2% Bedded grunerite 1% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 4% bedded biotite.									

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Trace pyrrhotite as blebs, 0 specks VISIBLE GOLD, 0% pyrite, trace crystals arsenopyrite, 60% bedded magnetite. 2% Quartz veins, 0% quartz-carbonate vein, trace carbonate stringers. Lower contact sharp at 37 dca. 106.25 107.00 4bf 3% quartz veins. 107.00 108.00 4bf 2% quartz veins, right limb fold, axial plane 35 dca. 108.00 109.00 4bf 5% quartz flooding, right limb fold, axial plane 37 dca. 109.00 110.00 4bf 1% quartz veins left limb fold, axial plane 25 dca. 110.00 111.00 4bf 1% quartz veins, right limb fold, axial plane 32 dca. 111.00 112.00 4bf 3% quartz flooding, left limb fold, axial plane 40 dca. 112.00 113.00 4bf left limb fold, axial plane 30 dca. 113.00 114.00 4bf 35 quartz flooding, trace pyrite, 5 specks VISIBLE GOLD, fracture cleavage, 30 dca. 114.00 115.00 4bf 1% quartz veins. 115.00 116.25 4bf 5% quartz veins, left limb fold, axial plane 40 dca. 116.25 117.00 4bf, left limb fold, axial plane 20 dca. 117.00 118.00 4bf right limb fold, axial plane 37 dca. 118.00 119.00 4bf, M type folds, axial plane 21 dca. 119.00 120.15 4bf, 1% quartz veins, left limb fold, axial plane 30 dca. 120.15 123.70 4b. E55550 DUPLICATE OF E55549 0.24. FROM 123.70 TO 125.80 4bf. Fine grained, grey, black, yellow and pink. This unit is composed of 35% laminated to bedded magnetite, 30% chert bedding, 30% F beds and 5% gruneritized beds. Well preserved bedding from laminae to 8 mm at 31 to 42 dca. The dominant fracture set is perpendicular to bedding at 62 dca, coated with carbonate. GEOLOG DATA. 6% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 25% bedded biotite. Trace blebs pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 35% bedded magnetite. 5% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 75 dca. 120.15 121.00 4b 3% quartz veins, right limb fold, axial plane 38 dca. 121.00 122.00 4b trace arsenopyrite. 122.00 123.00 4b 4% quartz vein, trace arsenopyrite. 123.00 123.70 4b 4% quartz veins. 123.70 125.80 4bf. E55620 STANDARD II 0.21. E55621 BLANK 0.07.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			123.70 124.70 4bf 5% quartz veins. 124.70 125.80 4bf 5% quartz veins.								
125.80	128.30	4F	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained, brown and yellow, very weakly magnetic and average hardness. This unit composed of 90% f beds, 5% chert beds, 2% laminated magnetite and 3% gruneritized beds. Well preserved bedding from laminae to 1 cm at 39 to 45 dca. One left limb fold, axial plane 30 dca. The dominant fracture set is perpendicular to bedding at 51 to 66 dca, coated with carbonate. GEOLOG DATA. 2% Bedded grunerite, 10% bedded pinhead garnets, 0% silicification, 0% carbonatization, 0% chlorite, 80% bedded biotite. Trace pyrrhotite as stringers and blebs, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% bedded magnetite. 1% Boudinaged quartz veins, 0% quartz-carbonate veins, 0% carbonate. Lower contact sharp at 25 dca. 125.80 127.00 4f 1% boudinaged quartz veins, left limb fold, axial plane at 30 dca. 127.00 128.30 4f < 1% boudinaged quartz veins, trace pyrite.								
128.30	143.65	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, black, grey and yellow, strongly magnetic, hardness. This unit is composed of 45% laminated to bedded magnetite, 40% chert beds, 2% f beds, 10% gruneritized beds and 3% pale yellow carbonate rimming b beds. Moderately to well preserved bedding from laminae to 1 cm at 34 to 63 dca. Left limb fold throughout unit, axial plane 18 to 45 dca. The dominant fracture set is perpendicular to bedding at 42 to 56 dca, coated with carbonate and less often chlorite. GEOLOG DATA. 5% Bedded grunerite, trace bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, trace bedded biotite. Trace pyrrhotite as stringers, blebs and semi-massive, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite crystals, 0% chalcopyrite 45% bedded magnetite. 2% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 44 dca. E55630 DUPLICATE OF E55629 0.27 ns ns. E55640 STANDARD II 9.74.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			E55641 BLANK 0.21. 128.30 129.00 4b 3% quartz veins. 129.00 130.00 4b 1% quartz veins. 130.00 131.00 4b 1% quartz veins. 131.00 132.00 4b 1% quartz veins. 132.00 133.00 4b 1% quartz veins. 133.00 134.00 4b 5% quartz veins, left limb fold, axial plane 18 dca. 134.00 135.00 4b. 135.00 136.00 4b 1% quartz veins, left limb fold, axial plane 31 dca. 136.00 137.00 4b 5% quartz veins. 137.00 138.00 4b left limb fold, axial plane 30 dca. 138.00 139.00 4b 5% quartz veins, trace arsenopyrite. 139.00 140.00 4b 1% quartz veins, trace arsenopyrite. 140.00 141.00 4b 1% boudinaged quartz veins, trace arsenopyrite, left limb fold, axial plane 45 dca. 141.00 142.35 4b 6% quartz veins, trace arsenopyrite. 142.35 143.65 4b 4% quartz veins.								
143.65	155.45	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 34 to 54 dca. The dominant fracture set is subparallel to foliation at 37 to 66 dca, coated with chlorite. The secondary fracture set is perpendicular to foliation at 53 to 65 dca and is coated with carbonate and rarely chlorite. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, trace pervasive carbonatization, 10% pervasive chlorite and trace chlorite as fracture-filling, 20% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite blebs, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 0% quartz-carbonate veins, 2% carbonate stringers. Lower contact sharp at 38 dca. 143.65 144.65 Bvol 2% quartz veins. 154.45 155.45 Bvol 5% carbonate stringers.								
155.45	185.40	4B	CHERT - MAGNETITE IRON FORMATION 4b, And 4bea. FROM 155.45 TO 178.40 4b. Fine grained, grey, black, and yellow. This unit is composed of 40% laminated to bedded magnetite, 45% chert beds, 5% f beds, 5% e beds and 3% gruneritized beds and 2% carbonate rimming b beds. Well preserved bedding from laminae to 1.5 cm at 19 to 60 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Predominantly right limb fold to 170.00, axial plane 52 to 69 dca. Predominantly left limb fold to end of unit, axial plane 44 to 58 dca. The dominant fracture set is perpendicular to bedding at 45 to 67 dca. The secondary fracture set is subparallel to bedding at 45 to 65 dca. MINERALIZED ZONE. From 156.00 to 158.00 3% pyrrhotite as stringers and blebs, 8% quartz veins and trace arsenopyrite. From 172.00 to 176.20 8% pyrrhotite as stringers and blebs, 100 specks VISIBLE GOLD, 60% quartz flooding, trace pyrite, arsenopyrite and chalcopyrite. GEOLOG DATA. 2% Bedded grunerite, trace bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, trace chlorite as fracture-filling, 4% bedded biotite. 2% Pyrrhotite as stringers, blebs and disseminations, 100 specks VISIBLE GOLD, trace pyrite stringers and blebs, trace arsenopyrite crystals, trace blebs chalcopyrite, 40% bedded magnetite. 12% Quartz flooding and 8% quartz veins, trace quartz-carbonate veins, trace carbonate as fracture-filling. Lower contact sharp at 58 dca. 155.45 178.40 4b. E55650 DUPLICATE OF E55649 0.10 ns ns. E55660 STANDARD II 9.74 9.84 NS. E55661 BLANK 0.03 NS NS. E55670 DUPLICATE OF E55669 27.19 27.60 NS. FROM 178.40 TO 181.40 4bf. Fine grained with garnets to 3 mm, black, grey and yellow, moderately magnetic and hard. This unit composed of 25% f beds, 30% chert beds, 25% laminated magnetite, 15% e beds and 5% gruneritized beds. Well preserved bedding from laminae to 4 mm at 39 to 46 dca. Left limb fold, axial plane 45 dca. The dominant fracture set is subparallel to bedding at 37 to 51 dca. The secondary fracture set is perpendicular to bedding at 37 to 51 dca, COATED with carbonate. GEOLOG DATA. 3% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 20% bedded biotite. Trace pyrrhotite stringer, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 25% bedded magnetite. 1% Quartz veins, trace quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 43 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			155.45 156.00 4b 3% quartz veins. 156.00 157.00 4b 5% quartz veins, trace arsenopyrite. 157.00 158.00 4b 10% quartz veins, trace arsenopyrite. 158.00 159.00 4b 45% quartz veins, trace arsenopyrite. 159.00 160.00 4b trace arsenopyrite. 160.00 161.00 4b 5% quartz veins, trace arsenopyrite. 161.00 162.00 4b 40% quartz veins, trace arsenopyrite. 162.00 163.00 4b trace quartz veins, trace arsenopyrite. 163.00 164.00 4b 10% quartz veins, trace arsenopyrite. 164.00 165.00 4b 15% quartz veins, trace arsenopyrite. 165.00 166.00 4b 4% quartz veins, trace arsenopyrite. 166.00 167.00 4b 12% quartz veins. 167.00 168.00 4b 2% quartz veins, trace arsenopyrite. 168.00 169.00 4b trace arsenopyrite. 169.00 170.00 4b. 170.00 171.00 4b 35% quartz veins, trace arsenopyrite. 171.00 172.00 4b 10% quartz veins, trace arsenopyrite. 172.00 173.00 4b 60% quartz flooding, trace pyrite and arsenopyrite. 173.00 174.00 4b 80% quartz flooding, 14 specks VISIBLE GOLD 1% pyrite, trace arsenopyrite and chalcopyrite. 174.00 175.00 4b 75% quartz flooding, 59 specks VISIBLE GOLD, 1% pyrite, trace arsenopyrite and chalcopyrite. 175.00 176.20 4b 70% quartz flooding, 27 specks VISIBLE GOLD, trace pyrite, chalcopyrite, arsenopyrite. 176.20 177.00 4b 10% quartz veins. 177.00 178.00 4b 5% quartz veins. 178.00 178.70 4b. 178.40 181.40 4bf. FROM 181.40 TO 185.40 4bea. 4bea. Fine grained with garnets to 3 mm, moderately to strongly magnetic, and hard. This unit is composed of 30% laminated to THINLY bedded magnetite, 25% poorly to moderately developed ea beds, 25% chert beds, 10% f beds, and 10% e beds. Well preserved bedding from laminae to 5 mm at 34 to 46 dca. Left limb fold, axial plane 46 dca. The dominant fracture set is perpendicular to bedding at 51 to 62 dca, coated with carbonate. The secondary fracture set is subparallel to bedding at 34 to 60 dca. GEOLOG DATA. 10% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite and trace as fracture-filling, 8% bedded biotite. Trace pyrrhotite stringer, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% bedded magnetite. 1% Quartz veins, trace quartz-carbonate veins, trace carbonate stringers.									

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 32 dca. 178.70 179.70 4bf left limb fold, axial plane 45 dca. 179.70 180.70 4bf 5% quartz veins. 180.70 181.40 4bf. 181.40 185.40 4bea. E55680 STANDARD II 9.97 10.01 ns. E55681 BLANK 0.07 ns ns. 181.40 182.40 4bea 1% quartz veins. 182.40 183.40 4bea 1% quartz veins, left limb fold, axial plane 46 dca. 183.40 184.40 4bea 2% quartz veins. 184.40 185.40 4bea 3% quartz veins.								
185.40	188.10	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with glomeroporphyritic clusters of garnets to 8 mm, grey, green, yellow and pink, weakly to moderately magnetic and hard. This unit composed of 59% moderately to well developed EA beds, 20% E beds, 20% chert beds, 1% disseminated magnetite as remnants of gruneritized and trace f beds. Well preserved bedding from 1 mm to 1.5 cm at 32 to 37 dca. Rare left limb fold axial plane 45 dca. The dominant fracture sets is perpendicular to bedding at 40 to 65 dca, coated with carbonate. The secondary fracture set is subparallel to bedding at 37 to 39 dca. GEOLOG DATA. 8% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling and 1% bedded chlorite, trace bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite stringers, 0% arsenopyrite, 0% chalcopyrite, 1% disseminated magnetite. 2% Quartz veins and 3% quartz flooding, trace quartz-carbonate veins, and 1% calcite stringers. Lower contact sharp at 37 dca. 185.40 186.40 4ea 10% quartz flooding, 1% pyrite, left limb fold, axial plane 45 dca. 186.40 187.40 4ea 2% quartz veins, 1% carbonate stringers. 187.40 188.10 4ea 3% quartz veins, 1% carbonate stringers.								
188.10	189.10	4F	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained, brown and pink, very weakly magnetic and average hardness. This unit is composed of 90% f beds, 5% chert beds, 4% gruneritized beds and 1% magnetite. Well preserved bedding at 40 dca, 2 to 8 mm wide.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			The dominant fracture set is OBLIQUE to bedding at 50 dca and COATED with chlorite. The secondary fracture set is subparallel to bedding at 43 dca and is coated with chlorite. GEOLOG DATA. 1% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 75% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% disseminated and laminated magnetite. Trace quartz veins, 0% quartz-carbonate veins, 0% carbonate veins. Lower contact sharp at 41 dca. 188.10 189.10 4f 1% quartz veins.								
189.10	191.30	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol/4f/24ea. This section of the drill core contains several small units within the Bvols. 12% is 4f, in one section, and 10% is 24ea in two sections of 10 cm each. Fine grained, with garnets in the 4f to 1 mm and glomeroporphyritic garnet clusters in the 24ea to 1 cm. The Bvol's are green to brown. The 24ea's are weakly magnetic and everything else is non-magnetic. The entire unit is of average hardness. The 4f is composed of 100% f beds, and the 24ea is composed of 70% ea beds 20% e beds, 10% f beds. The 4f and 24ea have well preserved bedding at 35 to 46 dca. The Bvol,s have well developed foliation at 40 to 43 dca. The dominant fracture set is perpendicular to bedding and foliation at 42 to 53 dca and are coated with carbonate. The secondary fracture set is subparallel to bedding and foliation at 39 to 55 dca. GEOLOG DATA Bvol. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite and trace chlorite as fracture-filling, 2% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veins, 0% quartz-carbonate veins 1% carbonate stringers and carbonate stringers. Lower contact sharp at 35 dca. E55690 DUPLICATE OF E55689 0.03. 189.15 189.95 Bvol 1% carbonate stringers. 189.95 190.80 4f, 24ea, Bvol, pyrrhotite stringers 5% quartz veins and 1% carbonate stringers. 190.80 191.30 Bvol 2% carbonate stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
191.30	192.45	24EA	INTRAFORMATIONAL IRON FORMATION 24ea. Fine grained, with garnets to 6 mm, yellow, green, pink and grey, moderately magnetic and hard. This unit is composed of 50% EA beds, 25% E beds, 5% laminated and disseminated magnetite, 5% f beds, and 15% gruneritized beds. Well preserved bedding at 41 to 49 dca, from laminae to 1 cm wide. One fracture perpendicular to bedding at 57 dca, coated with carbonate. GEOLOG DATA. 15% Bedded grunerite, 30% bedded garnets, 0% silicification, 0% carbonatization, 2% bedded chlorite and 5% bedded biotite. 1% Stringers of pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% laminated and disseminated magnetite. 14% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 49 dca. 191.30 192.45 24ea 14% quartz flooding.								
192.45	201.60	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, non-magnetic and average hardness. Well developed foliation at 43 to 50 dca. The dominant fracture set is perpendicular to foliation at 47 to 54 dca, COATED with carbonate and chlorite. The secondary fracture set is subparallel to foliation at 41 to 59 dca. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 1% pervasive biotite as FELSIC TO INTERMEDIATE VOLCANICS result of potassic alteration. 1% Quartz veins, 0% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 50 dca.								
201.60	202.70	24EA	INTRAFORMATIONAL IRON FORMATION 24ea. Fine grained, with garnets to 7 mm, grey, green, and yellow, moderately magnetic and hard. This unit composed of 50% EA beds, 25% E beds, 10% laminated and disseminated magnetite, 5% f beds, and 10% chert beds. Well preserved bedding at 21 to 47 dca from 2 mm to 1.5 cm wide. Fractures are perpendicular to bedding at 50 dca, and coated carbonate. GEOLOG DATA. 20% Bedded grunerite, 25% bedded garnets, 0% silicification, 0% carbonatization, 2% bedded chlorite and 4% bedded biotite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			2% Pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite blebs, 0% arsenopyrite, 0% chalcopyrite and 5% laminated and 5% disseminated magnetite. 20% Quartz flooding, 0% quartz-carbonate veins, 2% carbonate stringers. Lower contact sharp at 40 dca. 201.60 202.70 24ea 20% quartz flooding, trace pyrite.								
202.70	205.40	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown to green, non-magnetic, and average hardness. Well developed foliation at 44 dca. Fractures perpendicular to foliation at 43 and 44 dca, coated with carbonate. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, trace pervasive carbonatization, 1% pervasive chlorite, 5% pervasive biotite due to potassic alteration. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% quartz, 0% quartz-carbonate veins, 2% carbonate stringers. Lower contact sharp at 46 dca.								
205.40	206.30	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained to medium grained with garnets to 8 mm, very weakly magnetic, and average hardness. This unit is composed of 60% f beds, 25% e beds, 10% ea beds, 4% chert beds, and 1% disseminated magnetite as remnants of grunerite alteration. Moderately preserved bedding from 1 mm to 2 cm wide, at 50 dca. Fractures perpendicular to bedding at 62 and 70 dca, coated with carbonate. GEOLOG DATA. 3% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 50% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite stringers, 0% arsenopyrite, 0% chalcopyrite, 1% disseminated magnetite. 4% Quartz stringers, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 45 dca. 205.40 206.30 24fe 4% quartz stringers, trace pyrite stringers.								
206.30	209.70	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, non-magnetic and average hardness. Well developed foliation at 40 to 51 dca. Fractures perpendicular to foliation at 35 to 55 dca, coated with carbonate and								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			chlorite. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite and trace as fracture-filling, 1% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 40 dca.								
209.70	211.40	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained to medium grained with garnets to 8 mm, brown, green, and grey, weakly magnetic and average hardness. This unit is composed of 90% f beds, 8% e beds, 2% chert beds and trace disseminated magnetite. Two fractures perpendicular to bedding at 60 and 45 dca, with chlorite fracture-filling. GEOLOG DATA. Trace bedded grunerite, 30% bedded garnets, 0% silicification, 0% carbonatization, 2% bedded chlorite, 70% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 1% Quartz stringers, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 47 dca. 209.70 210.70 24fe 1% quartz stringers. 210.70 211.40 24fe 1% quartz stringers.								
211.40	218.30	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown to green, non-magnetic and average hardness. Well developed foliation at 29 to 58 dca. Fractures perpendicular to foliation at 47 to 64 dca with carbonate fracture-filling. GEOLOG DATA. 0% Grunerite, trace disseminated garnets, 0% silicification, trace pervasive carbonate, 5% pervasive chlorite, 20% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite as fracture-filling, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, trace quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 40 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
218.30	219.45	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained to medium grained, brown, green and pink, weakly magnetic and average hardness. This unit composed of 50% f beds, 30% e beds, 20% bvol, trace disseminated magnetite. Well preserved bedding at 41 to 49 dca, from 3 mm to 1.5 cm. Fractures perpendicular to bedding at 49 and 59 dca with carbonate fracture-filling. GEOLOG DATA. 2% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 40% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite stringers, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 2% Quartz veins, 2% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 49 dca. 218.30 219.45 24fe 2% quartz veins, trace pyrite stringers.								
219.45	221.55	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 30 to 49 dca. The dominant fracture set is perpendicular to foliation at 50 to 59 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 45 dca, with carbonate fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 8% pervasive chlorite, 8% biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 31 dca.								
221.55	222.90	24EA	INTRAFORMATIONAL IRON FORMATION 24ea. Fine grained with garnets to 1 cm, green, pink and white, very weakly magnetic and hard. This unit is composed of 60% EA beds, 25% E beds, and 15% BVOL. Moderately preserved bedding at 31 dca. The dominant fracture set is perpendicular to bedding at 37 to 59 dca. The secondary fracture set is subparallel to bedding at 40 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 5% Bedded grunerite, 5% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. 2% Massive pyrrhotite and trace stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 0% Quartz veins, 60% quartz-carbonate veins, 5% carbonate stringers. Lower contact sharp at 45 dca. 221.55 222.90 24ea 60% quartz-carbonate veins.								
222.90	226.50	AVOL	FELSIC TO INTERMEDIATE VOLCANICS Avol. Fine grained, grey to brown, non-magnetic and average hardness. Well developed foliation at 40 to 50 dca. The dominant fracture set is subparallel to foliation at 21 to 50 dca and are coated with carbonate. 224.20 224.75 24ea. 40% ea beds, 20% f beds, and 40% quartz calcite flooding. NOTE: This unit may be more intermediate than felsic due to the biotite content (brown colouration due to potassic alteration). GEOLOG DATA. 0% Grunerite, trace disseminated garnets, 0% silicification, 0% carbonatization, 0% chlorite, 2% pervasive biotite, 3% pervasive sericite alteration. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace to 1% quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 50 dca.								
226.50	234.25	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Moderately to well developed foliation at 38 to 52 dca. Fractures perpendicular to foliation at 47 to 67 dca with carbonate as fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 1% pervasive carbonatization in areas potassic alteration, 5% pervasive chlorite, 5% pervasive biotite. 0% pyrrhotite 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz veins, trace quartz-carbonate veins, 2% carbonate stringers. Lower contact sharp at 30 dca.								
234.25	237.00	24FE	INTRAFORMATIONAL IRON FORMATION 24fe.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained with garnets to 5 mm, brown, green, and pink, weakly magnetic and hard. This unit is composed of 55% f beds, and 40% e beds, 2% ea beds, and 3% disseminated magnetite. Moderately to well preserved bedding from 2 mm to 2 cm at 30 to 35 dca. Fractures are perpendicular to bedding at 49 to 55 dca with carbonate fracture-filling. GEOLOG DATA. 2% Bedded grunerite, 25% bedded garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 40% bedded biotite. 2% Pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% disseminated magnetite. Trace boudinaged quartz veins, and 40% quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 30 dca. E55700 STANDARD II 9.84. FE04601 BLANK 0.14. 234.25 235.00 24fe trace boudinaged quartz veins. 235.00 236.00 24fe trace boudinaged quartz veins. 236.00 237.00 24fe 40% quartz flooding.								
237.00	316.25	AVOL	FELSIC TO INTERMEDIATE VOLCANICS Avol. Fine grained with feldspar phenocryst to 2 mm, non-magnetic and average hardness. Well developed foliation from 37 to 54 dca. The dominant fracture set is perpendicular to foliation at 41 to 55 dca, generally coated with carbonate. The secondary fracture set is subparallel to foliation at 27 to 55 dca. Throughout the unit, fractures perpendicular to the foliation, at 30 to 50 dca and healed with carbonate, show bleaching parallel to the fracture. The bleaching is pale yellow to light green and occasionaly shows red stain that may be K-spar alteration or haematite stain. Feldspar phenocryst are ubiquitous throughout the unit vary from <0.5 mm to 2 mm. Amorphous to anhedral garnets are ubiquitous throughout the unit and are generally associated with quartz veins and stringers. Quartz-tourmaline stringers and veinlets are ubiquitous throughout the unit, generally 1 mm up to 1.5 cm. GEOLOG DATA. 0% Grunerite, trace disseminated garnets, trace bands of silicification, 0% carbonatization, trace bands chlorite, trace pervasive biotite, 5% sericite in bands. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace disseminated pyrite and stringers, trace crystals arsenopyrite, trace chalcopyrite as fracture-filling 0% magnetite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Trace to 1% quartz veins and trace quartz flooding, trace quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 51 dca.								
316.25	318.45	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained with garnets to 4 mm, brown, green and pink, very weakly magnetic, average hardness. This unit is composed of 75% f beds, 23% e beds and 2% gruneritized beds. Moderately to well preserved bedding from 5 mm to 2 cm wide at 54 to 56 dca. One fracture perpendicular to bedding at 50 dca. GEOLOG DATA. Trace bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 65% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace wispy pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 2% Quartz veins, 0% quartz-carbonate veins, 0% carbonate. Lower contact sharp at 52 dca. 316.25 317.25 24fe trace pyrite. 317.25 318.45 24fe 5% quartz veins.								
318.45	321.65	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown and green, non-magnetic and average hardness. Well developed foliation at 42 to 59 dca. The dominant fracture set is perpendicular to foliation at 62 to 68 dca with carbonate as fracture-filling. The secondary fracture set is subparallel to foliation at 48 and 52 dca, with carbonate fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 1% pervasive chlorite, 70% pervasive biotization. 0% pyrrhotite 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veins, 0% quartz-carbonate vein, trace carbonate stringers. Lower contact sharp at 54 dca.								
321.65	322.60	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained with garnets to 4 mm, brown, green and pink, very weakly magnetic and average hardness. This unit is composed of 80% F beds 19% E beds and 1% gruneritized beds.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Well preserved bedding at 55 dca. GEOLOG DATA. 1% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, 1% pervasive chlorite, 75% bedded biotite. Trace wispy pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 0% Quartz veins, 0% quartz-carbonate vein, trace carbonate stringers. Lower contact sharp at 54 dca. 321.65 322.60 24fe.								
322.60	335.15	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained green, non-magnetic and average hardness. Well developed foliation at 35 to 49 dca. The dominant fracture set is perpendicular to foliation at 37 to 53 dca with carbonate fracture-filling. The secondary fracture set is subparallel to foliation at 35 to 64 with carbonate and chlorite as fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 3% pervasive biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz stringers, 1% quartz-carbonate veins, 2% carbonate stringers. Lower contact sharp at 44 dca.								
335.15	336.85	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained green and brown, weakly magnetic and average hardness. This unit is composed of 25% f beds, 70% e beds and 5% boudinaged quartz veins. Poorly to moderately preserved bedding at 55 dca, beds from 1 to 10 cm. One fracture oblique to core at 62 dca. GEOLOG DATA. Trace bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 50% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 5% Boudinaged quartz veins, 0% quartz-carbonate veins, 0% carbonate stringers. Lower contact sharp at 42 dca. 335.15 336.00 24e 5% boudinaged quartz veins.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			336.00 336.85 24e 5% boudinaged quartz veins.								
336.85	349.15	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, non-magnetic and average hardness. Well developed foliation at 47 to 62 dca. The dominant fracture set is perpendicular to foliation at 40 to 67 dca and generally coated with carbonate. The secondary fracture set is parallel to foliation at 49 to 67 dca and coated with carbonate and chlorite. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 10% biotization. 0% pyrrhotite 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 1% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 55 dca.								
349.15	350.95	24F	INTRAFORMATIONAL IRON FORMATION 24f. Medium grained, with garnets to 5 mm, non-magnetic and average hardness. Poorly preserved or developed bedding at 42 to 50 dca, from 1 cm to 50 cm ?. This unit composed of 95% F beds and 5% E beds. One fold with axial plane at 60 dca handedness undeterinable. One fracture perpendicular to bedding at 66 dca. GEOLOG DATA. Trace grunerite, 30% garnets, 0% silicification, 0% carbonatization, trace pervasive chlorite, 65% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veins, 0% quartz-carbonate vein, 0% carbonate stringers. Lower contact sharp at 40 dca. FE04610 DUPLICATE OF FE04609 0.07 ns ns. 349.15 350.00 24f fold, axial plane 60 dca. 350.00 350.95 24f.								
350.95	361.20	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, non-magnetic and average hardness. Moderately to well developed foliation at 21 to 47 dca. The dominant fracture set is perpendicular to foliation at 41 to 54 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to foliation at 43 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 1% biotization. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite as fracture-filling, 0% magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 49 dca.								
361.20	362.55	24EA	INTRAFORMATIONAL IRON FORMATION 24ea. Fine grained, grey and pink, weakly to moderately magnetic and hard. Moderately to well preserved bedding at 52 to 56 dca with beds from 1 mm to 2 cm. This unit is composed of 70% poorly developed ea beds, 25% metasediment and 4% e beds, 1% laminated and disseminated magnetite. Fractures are perpendicular to bedding at 29 to 39 dca with carbonate fracture-filling. GEOLOG DATA. 15% Pervasive grunerite, 10% bedded garnets from 1 mm to 3 mm, 0% silicification, 0% carbonatization, trace bedded chlorite trace bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0.5% laminated and 0.5% disseminated magnetite. 0% Quartz veins, 0% quartz-carbonate veins, 0% carbonate stringers. Lower contact sharp at 42 dca. 361.20 362.55 24ea.								
362.55	371.25	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Medium grained, green to brown, non-magnetic and average hardness. Well developed foliation at 29 to 51 dca. Few fractures, 3 perpendicular to foliation at 29 to 39 dca, with carbonate fracture-filling, and one fracture subparallel to foliation at 52 dca with carbonate fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 20% biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, trace quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 52 dca.								
371.25	373.15	24EA	INTRAFORMATIONAL IRON FORMATION								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			24f and 24ea. From 371.25 to 372.00 24f. From 372.00 to 373.15 24ea. Fine grained to medium grained with garnets to 1 cm, brown, pink, green and Yellow, weakly to moderately magnetic and average hardness. This unit is composed of 25% f beds, 25% ea beds, 25% chert beds, 15% e beds, 5% laminated and disseminated magnetite, and 5% gruneritized beds. Well preserved bedding at 41 to 52 dca with beds from laminae to 2 cm. Two fractures, one perpendicular to bedding at 50 dca with carbonate fracture-filling and one oblique to the core axis at 17 dca with carbonate fracture-filling. GEOLOG DATA. 13% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 18% bedded biotite, and 2% pervasive staurolite. 1% Disseminated and stringer pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% laminated and 3% disseminated magnetite. 2% Quartz veins, 0% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 50 dca. 371.25 372.00 24f. 372.00 373.15 24ea 5% quartz veins.								
373.15	379.15	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and hard. Well developed foliation at 40 to 52 dca. One fracture perpendicular to foliation at 62 dca with carbonate fracture-filling and one fracture parallel to foliation at 35 dca with carbonate fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 10% pervasive carbonatization, 5% pervasive chlorite, and 25% biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 4% Quartz veins, 11% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 41 dca.								
379.15	381.25	24EA	INTRAFORMATIONAL IRON FORMATION 24ea, 50% Bvol. 24ea. Fine grained with garnets to 1 cm, pink, green, and yellow, very weakly magnetic and average hardness. These units are composed of 70% ea beds, 25% e beds and 5% gruneritized beds. Bedding is well preserved from laminae to 1 cm wide at 42 to 44 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Two fractures in the upper 24ea unit, perpendicular to bedding at 56 and 65 dca with carbonate fracture-filling. GEOLOG DATA 24EA. 10% Bedded grunerite, 25% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite 0% biotite. < 1% disseminated pyrrhotite and stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 11% Quartz flooding and 5% quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Bvol. Fine grained, brown to green, non-magnetic and average hardness. Well developed foliation 31 dca. One fracture perpendicular to foliation at 44 dca, with carbonate fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 2% pervasive chlorite, 30% biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 2% Quartz veins, 0% quartz-carbonate veins, 0% carbonate stringers. Lower contact sharp at 41 dca. 379.15 379.80 24ea 7% quartz vein, 2% quartz flooding. 379.80 380.80 BVOL. 379.80 380.80 Bvol. 380.80 381.25 24ea 20% quartz flooding.								
381.25	401.65	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 31 to 54 dca. The dominant fracture set is perpendicular to foliation at 34 to 63 dca with carbonate fracture-filling. The secondary fracture set is subparallel to foliation at 21 to 46 dca, with carbonate and chlorite as fracture-filling. GEOLOG DATA. 0% Grunerite, trace disseminated garnets, 0% silicification, 10% pervasive carbonatization, 8% pervasive chlorite, 20% pervasive biotization. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% trace pyrite as fracture-filling, 0% arsenopyrite, trace chalcopyrite as fracture-filling, 0% magnetite. Trace quartz veins, 3% quartz-carbonate veins, 1% carbonate stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 66 dca. 400.65 401.65 Bvol 10% carbonate stringers.								
401.65	404.55	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained, with garnets to 3 mm, brown and green, very weakly magnetic and average hardness. This unit composed of 75% f beds, 20% e beds and 5% ea beds. Bedding is moderately to well preserved at 41 to 54 dca. Left limb fold and right limb fold with axial planes at 24 to 46 dca. The dominant fracture set is subparallel to bedding at 23 to 51 dca. The secondary fracture set is perpendicular to bedding at 48 to 57 dca. One fracture parallel to core axis. GEOLOG DATA. 4% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 55% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 2% Quartz flooding, 0% quartz-carbonate veins, trace disseminated carbonate. Lower contact sharp at 35 dca. FE04620 STANDARD II 9.12 9.46. FE04621 BLANK 0.14. 401.65 402.65 24fe right limb fold, axial plane 46 dca. 402.65 403.65 24fe left limb fold, axial plane 40 dca and right limb fold, axial plane 24 dca. 403.65 404.55 24fe.								
404.55	405.45	4F	GARNET-BIOTITE SCHIST 4f. Medium grained, with garnets to 8 mm, brown, pink, green and yellow very weakly magnetic, and average hardness. This unit is composed of 75% f beds, 15% e beds, 5% ea beds and 5% chert beds. Bedding is moderately to well preserved at 54 dca, from 5 mm to 1 cm. From 404.20 to 405.20 core is fractured at low angles to the core axis, from 19 to 0 dca. There are cross fractures which gives the core a 0 RQD. Fractures subparallel to bedding at 40 to 43 dca and 1 fracture perpendicular to bedding at 40 dca. GEOLOG DATA. 3% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 60% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace bedded magnetite. Trace quartz veins, 0 quartz-carbonate veins, 0% carbonate stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 43 dca. 404.55 405.45 4f trace quartz veins.								
405.45	413.40	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, with garnets and glomeroporphyritic clusters of garnets to 1.5 cm, weakly to moderately magnetic and hard. This unit is composed of 45% EA beds, 30% chert beds, 10% E beds and remnants of e beds, 10% laminated to disseminated magnetite and 5% f beds. Bedding is moderately to well preserved at 40 to 53 dca, from laminae to 1.5 cm. There is left limb fold and right limb fold with axial planes at 41 to 50 dca. Fractures are in the upper 5 metres of this unit. Fractures perpendicular to bedding dominant from 17 to 51 dca, generally coated with carbonate. Fractures subparallel to bedding are at 19 to 43 dca and are coated with carbonate. MINERALIZED ZONE. From 406.00 to 407.00 trace pyrrhotite, 5% quartz flooding, 2 specks. From 409.00 to 412.00 1.5% pyrrhotite, 8% quartz flooding. GEOLOG DATA. 12% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite 3% bedded biotite. < 1% disseminated and stringer pyrrhotite, 4 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% laminated and 5% disseminated magnetite. 8% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 50 dca. FE04630 DUPLICATE OF FE04629 1.41 ns ns. 405.45 406.00 4ea 50% quartz flooding. 406.00 407.00 4ea 5% quartz flooding, 2 specks VISIBLE GOLD, fold, axial plane 48 dca. 407.00 408.00 4ea 3% quartz flooding, left limb fold, axial plane 44 dca. 408.00 409.00 4ea 7% quartz flooding, left limb fold, axial plane 42 dca. 409.00 410.00 4ea 3% quartz flooding, right limb fold, axial plane 45 dca. 410.00 411.00 4ea 5% quartz flooding, left limb fold, axial plane 45 dca. 411.00 412.00 4ea 15 quartz flooding, fold, axial plane 37 dca. 412.00 413.40 4ea 1 quartz flooding, left limb fold, axial plane 43 dca.								
413.40	423.80	4B	CHERT - MAGNETITE IRON FORMATION 4be and 4bf. 4be 413.40 To 418.90. Fine grained with garnets to 3 mm, black, green, grey and pink, moderately to strongly magnetic, and hard.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			This unit is composed of 40% laminated to thinly bedded magnetite, 30% e beds, 25% chert beds and 5% f beds. 4bf 418.90 To 423.80. Fine grained with garnets to 3 mm, black, grey and yellow, moderately to strongly magnetic, and hard. This unit is composed of 40% laminae to bedded magnetite, 30% f beds, 20% chert beds and 10% e beds. Bedding is well preserved at 9 to 65 dca, from laminae to 8 mm. From 413.40 to 420.00 right limb fold with axial planes at 41 to 49 dca. From 420.00 to 423.00 left limb fold with axial planes at 33 to 40 dca. One fracture perpendicular to bedding at 57 dca with chlorite fracture-filling. GEOLOG DATA 4be. 2% Bedded grunerite, 1% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 3% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% laminated and 10% bedded magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. GEOLOG DATA 4bf. 1% Bedded grunerite, 3% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 25% bedded biotite. < 1% disseminated pyrrhotite and stringers, 40 specks VISIBLE GOLD, 0% pyrite, trace crystals arsenopyrite, 0% chalcopyrite, 30% laminated and 10% bedded magnetite. 40% Quartz flooding, trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 57 dca. 413.40 418.90 4BE. 413.40 414.00 4be 5% quartz veins, right limb fold, axial plane 47 dca. 414.00 415.00 4be 2% quartz veins, right limb fold, axial plane 41 dca. 415.00 416.00 4be 1% quartz veins. 416.00 417.00 4be right limb fold, axial plane 49 dca. 417.00 418.00 4be right limb fold, axial plane 46 dca. 418.00 419.00 4be fold, axial plane 65 dca. 418.90 423.80 4BF. FE04640 STANDARD II 9.12. FE04641 BLANK 0.14. 419.00 420.00 4bf 80% quartz flooding. 420.00 421.00 4bf 30% quartz flooding, trace arsenopyrite, 40 specks VISIBLE GOLD 421.00 422.00 4bf 50% quartz flooding, trace arsenopyrite, left limb fold, axial plane 33 dca. 422.00 423.00 4bf 40% quartz flooding, left limb fold, axial plane 40 dca. 423.00 423.80 4bf 20% quartz flooding.								
423.80	436.15	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			4eaf and 4eab. FROM 423.80 to 429.15 4eaf. Fine grained, with garnets to 3 mm, yellow, grey, and brown, moderately to strongly magnetic and hard. This unit is composed of 30% f beds, 30% poorly to moderately developed ea beds, 25% laminated to bedded magnetite, 10% chert beds and 5% e beds and remnants of e beds. This unit has well preserved bedding at 17 to 56 dca, with beds from laminae to 1 cm. There is one fracture in this unit perpendicular to bedding at 48 dca with carbonate fracture-filling. MINERALIZED ZONE 425.00 to 426.00 4EAF trace pyrrhotite, 10% quartz flooding, 6 specks VISIBLE GOLD, trace arsenopyrite. GEOLOG DATA. 8% Bedded grunerite, 15 bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 20% bedded biotite. Trace disseminated pyrrhotite and stringers, 6 specks VISIBLE GOLD, 0% pyrite, trace crystal arsenopyrite, 0% chalcopyrite, 20% laminated and 5% bedded magnetite. 22% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. From 429.15 to 436.15 4eab. Fine grained, with garnets to 3 mm, yellow, grey and green, moderately to strongly magnetic and hard. This unit is composed of 50% poorly to moderately ea beds, 20% laminated magnetite, 10% f beds, 10% e beds and remnants of e beds, and 10% chert beds. This unit has well preserved bedding at 30 to 44 dca with beds from laminae to 1 cm. The dominant fracture set is perpendicular to bedding at 55 to 58 dca with carbonate fracture-filling. There is one fracture parallel to bedding at 48 dca with carbonate fracture-filling. MINERALIZED ZONE 432.00 to 433.00 4EAB 1% pyrrhotite, 25% quartz flooding, 11 specks VISIBLE GOLD. GEOLOG DATA. 10% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 7% bedded biotite. Trace pyrrhotite stringers, 11 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% laminated magnetite. 8% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. FOLDING. From 423.80 to 426.00 right limb fold with axial planes at 46 to 59 dca. From 427.00 to 431.00 left limb fold with axial planes at 34 to 42 dca.									

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 40 dca. 423.80 429.15 4eaf. 423.80 425.00 4eaf 40% quartz flooding, trace arsenopyrite, right limb fold, axial plane 59 dca. 425.00 426.00 4eaf 10% quartz flooding, 6 specks VISIBLE GOLD, trace arsenopyrite, right limb fold, axial plane 46 dca. 426.00 427.00 4eaf 60% quartz flooding, trace arsenopyrite, fold, axial plane 62 dca. 427.00 428.00 4eaf 10% quartz flooding, trace arsenopyrite, left limb fold, axial plane 34 dca. 428.00 429.00 4eaf left limb fold, axial plane 36 dca. 429.00 430.00 4eaf 3% quartz flooding, trace arsenopyrite. 429.15 436.15 4eab. FE04650 DUPLICATE OF FE04649 0.21. 430.00 431.00 4eab 2% quartz flooding, left limb fold, axial plane 442 dca. 431.00 432.00 4eab. 432.00 433.00 4eab 25% quartz flooding, 11 specks VISIBLE GOLD. 433.00 434.00 4eab 5% quartz flooding. 434.00 435.00 4eab 5% quartz flooding, right limb fold, axial plane 45 dca. 435.00 436.15 4eab 5% quartz flooding.								
436.15	438.80	4B	CHERT - MAGNETITE IRON FORMATION 4bf. Fine grained, with garnets to 5 mm, grey, green and black, strongly magnetic and hard. This unit is composed of 60% laminated magnetite, 20% f beds, and 20% chert beds. Bedding is well preserved at 28 to 35 dca, from laminae to 2 cm. Left limb fold, with axial planes at 40 dca. The dominant frc set is perpendicular to bedding at 36 to 54 dca with carbonate fracture-filling. There is one fracture subparallel to bedding at 48 dca. GEOLOG DATA. 3% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 15% bedded biotite. Trace pyrrhotite stringers, 6 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 60% laminated magnetite. 10% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 40 dca. FE04660 STANDARD II 10.11 10.22. FE04661 BLANK 0.07. 436.15 437.00 4bf 20% quartz flooding. 437.00 438.00 4bf 25% quartz flooding, 6 specks VISIBLE GOLD. 438.00 438.80 4bf 5% quartz flooding, left limb fold, axial plane 40 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
438.80	464.30	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, with garnets and glomeroporphyritic garnet clusters to 1.5 cm, yellow, green, pink and grey, moderately magnetic and hard. This unit is composed of 60% ea beds, 10% laminated and disseminated magnetite, 5% f beds 20% chert beds, 5% e beds and remnants of e beds. Bedding is moderately to well preserved, except in areas of quartz flooding. Bedding ranges from 26 to 64 dca, from laminae to 2 cm. From 438.8 to 447.00 predominantly left limb fold with axial planes from 28 to 55 dca. From 454.00 to 460.00 predominantly right limb fold with axial planes from 37 to 70 dca. The dominant fracture set is perpendicular to bedding at 42 to 67 dca with carbonate fracture-filling. There are two fractures subparallel to bedding at 59 to 74 dca. MINERALIZED ZONE from 443.85 to 445.20 1% pyrrhotite, 2 specks VISIBLE GOLD, 45% quartz flooding and trace arsenopyrite. MINERALIZED ZONE from 450.00 to 459.00 8% pyrrhotite, 33 specks VISIBLE GOLD, 35% quartz flooding and trace arsenopyrite. MINERALIZED ZONE from 463.00 to 464.30 5% pyrrhotite, 10 specks VISIBLE GOLD, 7% quartz flooding. GEOLOG DATA. 7% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 3% bedded biotite. 5% Pyrrhotite as stringers, blebs, and disseminated, 45 specks VISIBLE GOLD, 0% pyrite, trace crystals arsenopyrite, 0% chalcopyrite, 9% laminated and 1% bedded magnetite. 1% Quartz veins and 20% quartz flooding, trace quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 53 dca. FE04670 DUPLICATE OF FE04669 2.74 ns ns. FE04680 STANDARD II 9.33. FE04681 BLANK 0.07. FE04690 DUPLICATE OF FE04689 1.61 ns ns. 438.80 440.00 4ea 2% quartz flooding, left limb fold, axial plane 55 dca. 440.00 441.00 4ea 5% quartz flooding, left limb fold, axial plane 47 dca. 441.00 442.00 4ea 15% quartz flooding, left limb fold, axial plane 34 dca. 442.00 443.00 4ea 3% quartz veins, right limb fold, axial plane 43 dca. 443.00 443.85 4ea 5% quartz veins. 443.85 445.20 4ea 45% quartz flooding, 2 specks VISIBLE GOLD, trace arsenopyrite. 445.20 446.00 4ea 10% quartz flooding, left limb fold, axial plane 28 dca. 446.00 447.00 4ea 3% quartz veins, left limb fold, axial plane 30 dca. 447.00 448.00 4ea 3% quartz flooding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			448.00 449.00 4ea 2% quartz flooding. 449.00 450.00 4ea. 450.00 451.00 4ea 30% quartz flooding, 12 specks VISIBLE GOLD. 451.00 452.00 4ea 70% quartz flooding, 1 speck VISIBLE GOLD, trace arsenopyrite. 452.00 453.00 4ea 20% quartz flooding, 1 speck VISIBLE GOLD. 453.00 454.00 4ea 10% quartz flooding, 3 specks VISIBLE GOLD. 454.00 455.00 4ea 35% quartz flooding, 5 specks VISIBLE GOLD, trace arsenopyrite, right limb fold, axial plane 37 dca. 455.00 456.00 4ea 40% quartz flooding, 2 specks VISIBLE GOLD, trace arsenopyrite, right limb fold, axial plane 54 dca. 456.00 457.00 4ea 30% quartz flooding, 1 speck VISIBLE GOLD, trace arsenopyrite, right limb fold, axial plane 43 dca. 457.00 458.00 4ea 20% quartz flooding, 6 specks VISIBLE GOLD, right limb fold, axial plane 60 dca. 458.00 459.00 4ea 50% quartz flooding, 2 specks VISIBLE GOLD. 459.00 460.00 4ea 3% quartz flooding, trace arsenopyrite, right limb fold, axial plane 43 dca. 460.00 461.00 4ea 3% quartz flooding, right limb fold, axial plane 70 dca. 461.00 462.00 4ea 5% quartz flooding, right limb fold, axial plane 40 dca. 462.00 463.00 4ea 2% quartz veins. 463.00 464.30 4ea 7% quartz flooding, 10 specks VISIBLE GOLD.								
464.30	485.00	4B	CHERT - MAGNETITE IRON FORMATION 4bf, 4bea, 4b. Fine grained, with garnets to 2 mm, grey, black and pink, strongly magnetic and hard. These units are composed of:. From 464.30 to 466.00 4bf 20% f beds, 5% e beds, 30% laminae magnetite, 45% chert beds. 5% quartz veins and trace pyrrhotite. From 466.00 to 469.15 4bea 35% poorly developed ea beds, 40% laminated magnetite, 20% chert beds, 5% f beds. 25% quartz flooding and trace pyrrhotite. From 469.15 to 473.30 4b 70% laminated magnetite, 29% laminated chert, 1% f beds. Trace to 1% quartz veins. From 473.30 to 477.00 4bf 60% laminated magnetite, 30% f beds 10% chert beds. 2% pyrrhotite stringers 30% quartz flooding. From 477.00 to 485.00 4be 50% laminated magnetite, 40% e beds, 10% f beds, 1% quartz vein trace pyrrhotite. MINERALIZED ZONE 473.30 to 477.00 4BF 2% pyrrhotite, 30% quartz flooding. GEOLOG DATA. Trace bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 20% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 50% laminated magnetite. 2% Quartz veins, 10% quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 40 dca. FE04700 STANDARD II 9.12 9.19 ns. FE04701 BLANK 0.14 ns ns. FE04710 DUPLICATE OF FE04709 0.03. 464.30 465.00 4bf 5% quartz veins, right limb fold, axial plane 53 dca. 465.00 466.00 4bf 5% quartz veins, left limb fold, axial plane 39 dca. 466.00 467.00 4bea 35% quartz flooding, left limb fold, axial plane 47 dca. 467.00 468.00 4bea 30% quartz flooding, left limb fold, axial plane 50 dca. 468.00 469.00 4bea 5% quartz flooding, left limb fold, axial plane 64 dca. 469.00 470.00 4b. 470.00 471.00 4b 1% quartz veins. 471.00 472.00 4b 1% quartz veins. 472.00 473.30 4b 1% quartz veins. 473.30 474.00 4bf 30% quartz flooding. 474.00 475.00 4bf 25% quartz flooding. 475.00 476.00 4bf 5% quartz flooding. 476.00 477.00 4bf 45% quartz flooding. 477.00 478.00 4bf 40% quartz flooding. 478.00 479.00 4be 2% quartz veins. 479.00 480.00 4be. 480.00 481.00 4be 2% quartz veins. 481.00 482.00 4be 8% quartz veins. 482.00 483.00 4be 6% quartz veins. 483.00 484.00 4be 2% quartz veins. 484.00 485.00 4be 3% quartz veins.								
485.00	502.55	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, with garnets and glomeroporphyritic garnet clusters to 1.5 cm, yellow, pink, green and grey, weakly to moderately magnetic and hard. This unit is composed of 60% moderately to well developed ea beds, 20% chert beds, 5% laminated magnetite, 10% e beds and remnants of e beds, and 5% f beds. Bedding is moderately to well preserved, except in areas of quartz flooding, at 32 to 55 dca, and from laminae to 2 cm. Left limb fold, axial plane 43 to 63 dca. The dominant fracture set is perpendicular to bedding at 45 to 63 dca with carbonate fracture-filling. MINERALIZED ZONE 487.00 to 492.00 5% quartz flooding, 1% quartz veins, 3% pyrrhotite, and 62 specks VISIBLE GOLD. MINERALIZED ZONE 499.00 to 501.00 12% quartz flooding, 6% pyrrhotite, 3 specks VISIBLE GOLD. GEOLOG DATA. 10% Bedded grunerite, 25% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 3% bedded biotite. 2% Pyrrhotite stringers and blebs, 65 specks VISIBLE GOLD, trace pyrite								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			stringers, trace arsenopyrite, 0% chalcopyrite, and 5% laminated magnetite. Trace quartz veins and 5% quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 46 dca. FE04720 STANDARD II 8.64 ns ns. FE04721 BLANK 0.07 ns ns. FE04730 DUPLICATE OF FE04729 1.03 ns ns. 485.00 486.00 4ea 2% quartz veins. 486.00 487.00 4ea 1% quartz veins, left limb fold, axial plane 63 dca. 487.00 488.00 4ea 1% quartz veins, 1 speck VISIBLE GOLD. 488.00 489.35 4ea 10% quartz flooding, 37 specks VISIBLE GOLD. 489.35 490.20 4ea 2% quartz veins left limb fold, axial plane 46 dca. 490.20 491.00 4ea 5% quartz flooding. 491.00 492.00 4ea 15% quartz flooding, 24 specks VISIBLE GOLD. 492.00 493.00 4ea 3% quartz flooding. 493.00 494.00 4ea 5% quartz flooding. 494.00 495.00 4ea 2% quartz flooding. 495.00 496.00 4ea 5% quartz flooding. 496.00 497.00 4ea 2% quartz flooding. 497.00 498.00 4ea 5% quartz flooding. 498.00 499.00 4ea 2% quartz flooding. 499.00 500.00 4ea 5% quartz flooding, 1 speck VISIBLE GOLD. 500.00 501.00 4ea 20% quartz flooding, 2 specks VISIBLE GOLD. 501.00 502.00 4ea. 502.00 502.55 4ea 5% quartz flooding.								
502.55	503.40	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, non-magnetic and average hardness. Well developed foliation at 53 dca. One fracture obique to core axis at 32 dca. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 1% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite as fracture-filling, 0% magnetite. 0% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers and fracture-filling. Lower contact sharp at 45 dca. 502.55 503.40 Bvol.								
503.40	526.25	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with garnets and glomeroporphyritic garnet clusters to 2 cm,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			yellow, pink, green and grey, weakly magnetic and hard. This unit is composed of 65% ea beds, 15% chert beds, 5% disseminated and laminated magnetite, 5% f beds, 10% e beds and remnants of e beds. Few folds, but predominantly left limb fold, axial plane 30 to 63 dca. Fractures are subparallel to bedding at 22 to 47 dca with carbonate and chlorite fracture-filling. MINERALIZED ZONE 504.75 to 505.55 trace pyrrhotite, 2 specks VISIBLE GOLD, 12% quartz flooding. MINERALIZED ZONE 508.00 to 517.00 1.5% pyrrhotite, 12 specks VISIBLE GOLD, 15% quartz flooding. GEOLOG DATA. 7% Bedded grunerite, 35% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 3% bedded biotite. Trace disseminated and pyrrhotite stringers, 15 specks VISIBLE GOLD, trace pyrite stringers, 0% chalcopyrite, trace laminated and 5% disseminated magnetite. Trace quartz veins and 7% quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers and veins. 503.40 504.75 4ea 10% quartz flooding, left limb fold axial plane 66 dca. 504.75 505.55 4ea 20% quartz flooding, 3 specks VISIBLE GOLD. 505.55 506.00 4ea. 506.00 507.00 4ea 5% quartz flooding. 507.00 508.00 4ea 2% quartz flooding. 508.00 509.00 4ea 3% quartz flooding, 1 specks VISIBLE GOLD. 509.00 510.00 4ea 5% quartz flooding, 6 specks VISIBLE GOLD. 510.00 511.00 4ea 4% quartz flooding, 2 specks VISIBLE GOLD. 511.00 512.00 4ea 2% quartz flooding, 1 specks VISIBLE GOLD. 512.00 513.00 4ea 4% quartz flooding. 513.00 514.00 4ea 10% quartz flooding. 514.00 515.00 4ea 1% quartz flooding, fold, axial plane 30 dca. 515.00 516.00 4ea 4% quartz flooding, 2 specks. 516.00 517.00 4ea 30% quartz flooding. 517.00 518.00 4ea 8% quartz flooding. 518.00 519.00 4ea 5% quartz flooding. 519.00 520.00 4ea 3% quartz flooding. 520.00 521.00 4ea 8% quartz flooding. 521.00 522.00 4ea 3% quartz flooding. 521.20 524.50 4eaf. 35% f beds, 40% poorly to moderately developed ea beds, 5% magnetite laminae, 20% e beds. Lower contact sharp at 29 dca. FE04740 STANDARD III 4.66 ns ns. FE04741 BLANK 0.14 ns ns. FE04750 DUPLICATE OF FE04749 2.88 ns ns. FE04760 STANDARD III 1.61 ns ns.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			FE04761 BLANK 0.03 ns ns. 522.00 523.00 4ea 15% quartz flooding, fold, axial plane 51 dca. 523.00 524.00 4ea 10% quartz flooding. 524.00 524.45 4ea. 524.45 525.10 4e. Green and brown, 5% quartz veins, 30% biotization due to potassic alteration. 524.45 525.20 4e 3% quartz veins. 525.20 526.25 4ea 5% quartz flooding, left limb fold, axial plane 44 dca.								
526.25	529.40	4B	CHERT - MAGNETITE IRON FORMATION 4bf. Fine grained, with garnets to 3 mm, green, black, grey and pink, moderately to strongly magnetic, average hardness. This unit is composed of 35% f beds, 35% laminated magnetite, 30% chert beds and 5% e beds. Bedding is well preserved at 29 to 47 dca, from laminae to 2 cm. Left limb fold, axial plane 49 to 58 dca. The dominant fracture set is subparallel to bedding at 32 to 42 dca with chlorite fracture-filling. Fractures perpendicular to bedding at 62 to 72. GEOLOG DATA. 3% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, 2% bedded chlorite, 30% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 35% laminated magnetite. 2% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 47 dca. FE04770 DUPLICATE OF FE04769 0.07 ns ns. 526.25 527.25 4bf 5% quartz flooding, left limb fold, axial plane 40 dca. 527.25 528.25 4bf 1% quartz flooding. 528.25 529.40 4bf left limb fold, axial plane 58 dca.								
529.40	530.35	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, with garnets to 4 mm, yellow, green, pink and grey, weakly to moderately magnetic and hard. This unit composed of 60% moderately developed ea beds, 15% e beds, 25% chert beds trace magnetite laminae. Moderately to well preserved bedding at 49 dca, from laminae to 1.5 cm. One fracture perpendicular to bedding at 49 dca with carbonate fracture-filling. GEOLOG DATA. 15% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 0% biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% chalcopyrite, trace laminated magnetite. 5% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 52 dca. 529.40 530.35 4ea 5% quartz flooding.								
530.35	533.10	4B	CHERT - MAGNETITE IRON FORMATION 4bf. Fine grained, with garnets to 2 mm, black, grey and brown, strongly magnetic and hard. This unit is composed of 35% laminated magnetite, 25% f beds, 20% e beds, 20% chert beds. Bedding is well preserved at 46 to 53 dca, and from laminae to 1.5 cm. Left limb fold, axial plane 43 to 66 dca. There are three fractures two are subparallel to bedding at 52 to 59 dca with chlorite fracture-filling and one fracture is oblique to the core at 73 dca. 530.35 531.00 4bf 1% quartz vein. 531.00 532.00 4bf left limb fold, axial plane 66 dca. 532.00 533.10 4bf left limb fold, axial plane 43 dca, trace arsenopyrite. 532.75 533.10 4f. 100% f beds, 5% quartz veins. GEOLOG DATA. 7% Bedded grunerite, 2% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 23% bedded biotite. 0% pyrite, 0 specks VISIBLE GOLD, 0% pyrite, trace crystal arsenopyrite, 0% chalcopyrite, 35% laminated magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 52 dca.								
533.10	543.80	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 47 to 61 dca. The dominant fracture set is subparallel to foliation at 52 to 68 dca with chlorite fracture-filling. One fracture perpendicular to foliation at 55 dca with chlorite fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 2% pervasive carbonatization, 5% pervasive chlorite, 30% pervasive biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, trace quartz-carbonate veins, 2% carbonate stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 54 dca.								
543.80	546.10	4F	GARNET-BIOTITE SCHIST 4f. Medium grained, with garnets to 2 mm, brown, grey and yellow, very weakly magnetic and average hardness. This unit is composed of 90% f beds, 5% chert beds, 5% gruneritized beds and trace disseminated magnetite. Bedding is well preserved at 62 dca. M and right limb fold with axial planes at 43 dca. The dominant fracture set is oblique to the core axis at 47 to 50 dca. GEOLOG DATA. 5% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 70% bedded biotite. 0% pyrite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 88 dca. 543.80 544.80 4f M folds axial plane 47 dca. 544.80 546.10 4f right limb fold, axial plane 47 dca.								
546.10	549.40	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, with garnets and glomeroporphyritic garnet clusters to 1 cm, yellow, pink, green and grey, weakly to moderately magnetic and hard. This unit is composed of 60% moderately developed ea beds, 20% chert beds, 10% f beds, 5% e beds and remnants of e beds and 5% disseminated magnetite. Moderately to well preserved bedding at 44 to 65 dca, from 1 mm to 1 cm. Folding consists of M and right limb fold with axial planes at 52 to 56 dca. One fracture perpendicular to bedding at 48 dca. MINERALIZED ZONE from 546.10 to 548.00 1% pyrrhotite, 6% quartz flooding. GEOLOG DATA. 15% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 7% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% disseminated magnetite. 5% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 39 dca. FE04780 STANDARD III 4.87 ns ns. FE04781 BLANK 0.21 ns ns. 546.10 547.00 4ea 5% quartz flooding, M folds, axial plane 52 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			547.00 548.00 4ea 7% quartz flooding, right limb fold, axial plane 54 dca. 548.00 549.00 4ea fold, axial plane 56 dca. 549.00 549.40 4ea 2% quartz flooding.								
549.40	552.50	4B	CHERT - MAGNETITE IRON FORMATION 4bf. Fine grained to medium grained, with garnets to 2 mm, yellow, brown, and pink, moderately magnetic and hard. This unit is composed of 30% f beds, 25% laminae and disseminated magnetite, 25% chert beds, and 20% Bvol. Bedding is well preserved at 33 to 62 dca and from laminae to 2 cm wide. Right limb fold, axial planes at 45 to 65 dca. GEOLOG DATA. 7% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 20% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% laminated and 20% disseminated magnetite. 0% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 57 dca. 549.40 550.00 4bf. 550.00 551.00 4bf right limb fold axial plane 45 dca. 551.00 552.00 4bf right limb fold, axial plane 33 dca. 552.00 552.50 4bf right limb fold, axial plane 65 dca.								
552.50	557.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, with garnet and glomeroporphyritic garnet clusters to 1 cm, yellow, pink, green and grey, very weakly magnetic to weakly magnetic and hard. This unit is composed of 70% ea beds, 20% chert beds, 5% laminated magnetite 5% e beds and trace f beds. Bedding is moderately preserved at 50 to 69 dca with beds from 5 mm to 2 cm wide. One left limb fold, axial plane 41 dca. Two fractures perpendicular to foliation at 35 dca, with chlorite fracture-filling. GEOLOG DATA. 10% Bedded grunerite, 30% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, trace bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% laminated magnetite. 25% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 67 dca. FE04790 DUPLICATE OF FE04789 0.07 ns ns.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			552.50 553.00 4ea. 553.00 554.00 4ea left limb fold, axial plane 41 dca. 554.00 555.00 4ea 60% quartz flooding. 555.00 556.00 4ea 30% quartz flooding. 556.00 557.00 4ea 10% quartz flooding.								
557.00	562.00	4B	CHERT - MAGNETITE IRON FORMATION 4bf. Fine grained with garnets to 2 mm, grey, black and green, strongly magnetic and hard. This unit is composed of 40% laminated to thinly bedded magnetite, 30% f beds, 10% chert beds, 10% e beds and 10% metasediment. Bedding is well preserved at 54 to 62 dca, with bedding from laminae to 1 cm. Right limb fold, axial plane 44 dca. The dominant fracture set is subparallel to bedding at 52 to 62 dca with chlorite fracture-filling. The secondary fracture set is perpendicular to bedding at 27 to 54 dca with chlorite fracture-filling. GEOLOG DATA. 2% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling and 2% bedded chlorite, 20% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite and 35% laminated and 5% bedded magnetite. 1% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. 557.00 558.00 4bf 1% quartz veins. 558.00 559.00 4bf 1% quartz veins. 559.00 560.00 4bf 1% quartz veins. 560.00 561.00 4bf 1% quartz veins. 561.00 562.00 4bf 3% quartz veins.								
562.00		4B	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample preparation at Chemex labs in Thunder Bay, Ontario. Samples analyzed at Chemex and XRal Lab Inc.. 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 6 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY. From 0.00 TO 14.20 hole cased with 14.20 metre of NW casing. Overburben drilled with tricone bit. From 14.20 to 562.00 20 Ft. Fluted core barrel used. Hole cemented - 6 hours - 98 bags of 20 kg bags Type 50 cement. Dutem plug at 14.60 metres.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Casing pulled. SURVEY HISTORY. Sperry Sun single shot camera with low point indicator used for dips while drilling. Sperry Sun Dip Tests:. 16.00 -60.00 0. 46.00 -59.25 5. 79.00 -58.25 5. 109.00 -58.00 0. 139.00 -57.50 0. 169.00 -56.80 0. 169.00 -56.00 0. 232.00 -55.50 0. 265.00 -54.66 6. 286.00 -54.25 5. 313.00 -53.25 5. 364.00 -52.75 5. 397.00 -52.10 0. 418.00 -51.75 5. 448.00 -51.10 0. 508.00 -50.10 0. Light Log Survey conducted by Wilfred Hill. Survey took 3.5 hours. Light Log data used for code 2 Dip tests. Drill hole collar, azimuth and water elevation surveyed by Eric Snucins of of W. J. Bowman LTD., O.L.S., Dryden, Ontario.								

DRILL HOLE RECORD

Northing: 10500.000
Easting: 8983.000
Elevation: 5302.500

Collar Azi.: 228.00
Collar Dip: -60.50

Hole Length: 150.70
Completed: SEPTEMBER 28, 1993
Drilled by:
Logged by: P. GERTZBEIN
Purpose: TO TEST THE S, T AND WA ZONES ON SECTION 10500Nte(s) Logged: OCTOBER 1 - 4, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa508460 (17m),Pa529497 (133.7)
5 m south,67 m west to post 3 of Pa508460

Drill Hole: 506-675
Northing: 10500N
Easting: 8983.25 E
Survey: NO
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: SEPT. 24, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
25.0	228.0	-63.0	66.7	228.0	-61.5	114.7	228.0	-61.0	141.7	228.0	-60.0
45.7	228.0	-62.1	94.0	228.0	-61.1	132.0	228.0	-60.5			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. Sample Series: FE04799 to FE04891.								
.00	20.25	OB	OVERBURDEN Boulders. 21.90 M NW casing.								
20.25	75.55	4B	CHERT - MAGNETITE IRON FORMATION 4bf, 4be, 4bea and 4b. FROM 20.25 TO 29.15 4bf. Fine grained, black, grey and yellow, strongly magnetic and hard. This unit is composed of 35% magnetite beds, 20% f beds, 40% chert beds and 5% gruneritized beds. Bedding is moderately preserved at 0 to 20 dca, with beds from 3 mm to 2 cm wide. Folding is predominantly left limb with axial planes from 27 to 44 dca. The dominant fracture set is perpendicular to bedding at 58 to 70 dca with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 26 to 40 dca. Fractures parallel to bedding are generally within f beds. GEOLOG DATA.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			1% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 15% bedded biotite. Trace pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, 35% bedded magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 60 dca. 20.25 29.15 4bf. 20.25 21.00 4be. 21.00 22.00 Core is rubbly. FROM 29.15 TO 36.65 4b. Fine grained, black, grey and yellow, strongly magnetic, and hard. This unit is composed of 60% laminated to thinly bedded magnetite, 35% chert beds, and 5% f beds. Bedding is moderately to well preserved at 14 to 35 dca, with bedding from laminae to 1 cm wide. Folding is left limb with axial planes at 24 to 46 dca. The dominant fracture set is subparallel to bedding at 11 to 27 dca, with carbonate and chlorite fracture-filling. The secondary fracture set is perpendicular to bedding at 74 to 90 dca, with carbonate fracture-filling. Well developed fracture cleavage at 30 to 55 dca. Pyrrhotite as fracture-filling in fracture cleavage. GEOLOG DATA. 3% Bedded grunerite, trace disseminated garnets, 0% silicification, trace carbonatization, trace chlorite as fracture-filling, 3% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% laminated and 40% bedded magnetite. Trace quartz veins, trace quartz-carbonate veins, trace carbonate stringers. Lower contact is sharp at 21 dca. 21.00 22.00 4bf trace pyrite, right limb fold, axial plane 50 dca. 22.00 23.00 4bf 1% pyrite, left limb fold, axial plane 30 dca. 23.00 24.00 4bf left limb fold, axial plane 27 dca. 24.00 25.00 4bf 1% quartz veins, left limb fold, axial plane 44 dca. 25.00 26.00 4bf. 26.00 27.00 4bf. 27.00 28.00 4bf. 28.00 29.15 4bf 1% quartz veins, trace pyrite. 29.15 36.65 4b. FE04810 DUPLICATE OF FE04809 0.07 NS NS. FROM 36.65 TO 60.35 4bf. Fine grained, with garnets to 3 mm, black, grey and pink, moderately to strongly									

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			magnetic and average hardness. This unit is composed of 35% laminated to thinly bedded magnetite, 35% f beds, 20% chert beds, and 10% e beds. Bedding is well preserved at 0 to 26 dca and from laminae to 1 cm wide. Folding is left limb with axial planes from 28 to 50 dca. The dominant fracture set is subparallel to bedding with chlorite and carbonate fracture-filling. The secondary fracture set is parallel to foliation at 40 to 70 dca with chlorite and carbonate fracture-filling. Fracture cleavage is moderately to strongly developed at 30 to 50 dca, with carbonate and rarely pyrrhotite. GEOLOG DATA. Trace bedded grunerite, 3% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite and trace fracture-filling, 30% bedded biotite. Trace disseminated pyrrhotite and stringers, 0 specks VISIBLE GOLD, trace disseminated and blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% laminated and 5% thinly bedded magnetite. 10% Quartz veins, trace quartz-carbonate veins, trace carbonate stringers and veins. Lower contact sharp at 25 dca. 29.15 30.00 4b left limb fold, axial plane 35 dca. 30.00 31.00 4b trace pyrite, 5% quartz flooding, left limb fold, axial plane 29 dca. 31.00 32.00 4b 1% quartz flooding. 32.00 33.00 4b 1% quartz veins, trace pyrite. 33.00 34.00 4b 1% quartz veins, right limb fold, axial plane 24 dca. 34.00 35.00 4b. 35.00 36.00 4b 3% quartz flooding, left limb fold, axial plane 46 dca. 36.00 36.65 4b trace pyrite, 3% quartz flooding. 36.65 60.35 4bf. 36.65 38.00 4bf 1% pyrite, 4% quartz veins. 38.00 39.00 4bf. 39.00 40.00 4bf trace pyrite, 2 quartz veins. 40.00 41.00 4bf 3% quartz veins, left limb fold, axial plane 34 dca. 41.00 42.00 4bf 23% quartz veins. 42.00 43.00 4bf trace pyrite, left limb fold, axial plane 34 dca. 43.00 44.00 4bf. 44.00 45.00 4bf 40% quartz veins, left limb fold, axial plane 28 dca. 45.00 46.00 4bf 40% quartz veins, left limb fold, axial plane 39 dca. 46.00 47.00 4bf 30% quartz veins, left limb fold, axial plane 50 dca. 47.00 48.00 4bf trace pyrite. 48.00 49.00 4bf 30% quartz veins. 49.00 50.00 4bf 1% quartz veins. 50.00 51.00 4bf 1% quartz veins.							

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			50.20 51.50 Blocky core fractures parallel to bedding at 16 to 22 dca and perpendicular to bedding at 48 to 65 dca. 51.00 52.00 4bf 3% quartz veins fault 22 dca. 51.25 51.50 FAULT ZONE contacts at 18 and 24 dca, brecciated and cemented with carbonate. 52.00 53.00 4bf trace pyrite, left limb fold, axial plane 40 dca. 53.00 54.00 4bf left limb fold, axial plane 45 dca. 54.00 55.00 4bf left limb fold, axial plane 35 dca. 55.00 56.00 4bf block core. 55.10 57.20 Blocky core. Fractures parallel to bedding at 12 to 25 dca with chlorite fracture-filling. Fractures perpendicular to bedding at 40 to 50 dca with chlorite fracture-filling. 56.00 57.00 4bf 1% quartz veins. 57.00 58.00 4bf. 58.00 59.00 4bf 3% quartz veins. 59.00 60.35 4bf 8% quartz veins. 59.90 60.10 Rubbly core with chlorite fracture-filling. FE04820 STANDARD II 9.43 9.57 ns. FE04821 BLANK 0.03 ns ns. FE04830 DUPLICATE OF FE04829 0.03 0.03 ns. FE04840 STANDARD II 9.53 9.29 ns. FE04841 BLANK 0.27 ns ns. FROM 60.35 TO 68.50 4bea. Fine grained, with garnets to 1 cm, black, green, grey and pink, moderately magnetic and hard. This unit is composed of 35% laminated magnetite, 20% poorly to moderately developed ea beds 15% f beds, 20% chert beds, and 10% e beds and remnants of e beds. Bedding is moderately to well preserved at 10 to 42 dca, with beds from laminae to 1.5 cm wide. Folding is left limb with axial planes at 25 to 36 dca. The dominant fracture set is perpendicular to bedding at 33 to 65 dca with carbonate and chlorite fracture-filling. The secondary fracture set is subparallel to foliation at 24 to 45 dca with carbonate and chlorite fracture-filling. Poorly to moderately developed fracture cleavage at 28 to 40 dca. GEOLOG DATA. 7% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, 2% bedded chlorite, 10% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite blebs and stringers, trace arsenopyrite crystals, 0% chalcopyrite, 35% laminae magnetite. 5% Quartz flooding and trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 22 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			60.35 68.50 4bea. FE04850 DUPLICATE OF FE04849 0.34 ns ns. FROM 68.50 TO 75.55 4be. Fine grained, with garnets to 8 mm, green, grey and pink, moderately magnetic and average hardness. This unit is composed of 35% e beds, 25% laminated magnetite, 35% chert beds and 5% f beds. Bedding is well preserved at 21 to 28 dca with beds from laminae to 1 cm wide. Folding is left limb with axial planes at 25 to 32 dca. The dominant fracture set is perpendicular to bedding at 55 to 68 dca with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 19 to 34 dca, with carbonate and chlorite fracture-filling. Fracture cleavage is moderately developed at 34 to 64 dca. MINERALIZED ZONE. From 73.00 to 75.00 1.5% pyrrhotite, 2 specks VISIBLE GOLD, 1% pyrite. GEOLOG DATA. 2% Bedded grunerite, 3% bedded garnets, 0% silicification, 0% carbonatization, 2% bedded chlorite, 4% bedded biotite. Trace pyrrhotite stringers, 2 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, 0% chalcopyrite, 25% laminated magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonates. Lower contact sharp at 46 dca. 60.35 61.00 4eab 10% quartz flooding, right limb fold, axial plane 25 dca. 61.00 62.00 4bea 10% quartz flooding. 62.00 63.00 4bea 5% quartz flooding. 63.00 64.00 4bea 1% quartz veins. 64.00 65.00 4bea 3% quartz flooding, left limb fold, axial plane 36 dca. 65.00 66.00 4bea 1% quartz flooding, left limb fold, axial plane 32 dca. 66.00 67.00 4bea 2% quartz flooding, left limb fold, axial plane 35 dca. 67.00 68.00 4bea 5% quartz flooding, trace pyrite and arsenopyrite, left limb fold, axial plane 35 dca. 68.00 68.50 4bea left limb fold, axial plane 42 dca. 68.50 75.55 4be. FE04860 STANDARD III 5.83 ns ns. FE04861 BLANK 0.14 ns ns. 68.50 69.00 4bf. 69.00 70.00 4bf. 70.00 71.00 4be left limb fold, axial plane 32 dca. 71.00 72.00 4be left limb fold, axial plane 30 dca. 72.00 73.00 4be 1% quartz veins, trace pyrite, left limb fold, axial plane 25 dca 73.00 74.00 4be 1% pyrite, 2 specks VISIBLE GOLD. 74.00 75.00 4be trace pyrite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			75.00 75.55 4be 2% quartz veins.								
75.55	79.60	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, with garnet and glomeroporphyritic garnet cluster to 1 cm, yellow, green, pink and grey, weakly magnetic and hard. This unit is composed of 40% ea beds, 20% e beds, 25% chert beds 10% laminae magnetite and 5% f beds. Bedding is moderately preserved at 22 to 46 dca with beds from laminae to 2 cm wide. Folding is left limb with axial planes at 27 to 40 dca. The dominant fracture set is perpendicular to bedding at 51 to 75 dca. MINERALIZED ZONE. From 77.00 to 78.00 1% pyrrhotite, 1 speck VISIBLE GOLD, 10% quartz flooding. GEOLOG DATA. 5% Bedded grunerite, 35% bedded garnets, 0% silicification, 0% carbonatization, 0% chlorite, 3% bedded biotite. Trace disseminated pyrrhotite, 1 speck VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% laminae magnetite. 3% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 25 dca. FE04870 DUPLICATE OF FE04869 0.17 ns ns. 75.55 76.00 4ea 20% quartz flooding. 76.00 77.00 4ea left limb fold, axial plane 38 dca. 77.00 78.00 4ea 10% quartz flooding, 1 speck VISIBLE GOLD, left limb fold, axial plane 27 dca. 78.00 79.00 4ea 1% quartz veins. 79.00 79.60 4ea 1% quartz veins left limb fold, axial plane 40 dca.								
79.60	84.50	4F	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained with garnets to 3 mm, brown and pink, very weakly magnetic and average hardness. Moderately to well preserved bedding at 5 to 23 dca with beds from 2 mm to 8 mm in wide. This unit is composed of 95% f beds, 4% e beds and 1% gruneritized beds. The dominant fracture set is perpendicular to bedding at 42 to 65 dca with chlorite fracture-filling. The secondary fracture set is subparallel to bedding at 7 to 18 dca. GEOLOG DATA. Trace bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 75% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			chalcopyrite, trace disseminated magnetite. Trace quartz veins, trace quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 21 dca. 79.60 81.00 4f. 81.00 82.00 4f. 82.00 83.00 4f. 83.00 84.00 4f. 84.00 84.50 4f.								
84.50	88.50	6E	ARGILLITE 6e. Fine grained, light brown, non-magnetic and average hardness. This unit is composed 20% biotite and 80% quartz and feldspar. Bedding is moderately preserved at 16 to 25 dca with beds from 1 cm to 1.5 cm. The dominant fracture set is perpendicular to bedding at 37 to 68 dca with carbonate and chlorite fracture-filling. The secondary fracture set is parallel to bedding at 9 to 24 dca with chlorite fracture-filling. Fractures perpendicular to bedding and healed with carbonate at 40 to 56 dca show k-spar alteration parallel to the fracture. The alteration is a salmon pink to orange colour. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 20% pervasive biotite and trace k-spar alteration. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% quartz, 0% quartz-carbonate veins, trace carbonate as fracture-filling. Lower contact sharp at 16 dca. FE04880 STANDARD III 5.66 NS NS. FE04881 BLANK 0.11 NS NS. 84.50 85.50 6e. 85.50 86.50 6e. 86.50 87.50 6e. 87.50 88.50 6e.								
88.50	92.10	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. From 88.50 to 89.00 4f. Medium grained, brown, with 15% garnets to 1 mm. From 89.00 to 89.85 4ea. Fine grained, with glomeroporphyritic garnet clusters to 1 cm. 25% ea beds, 30% e beds, 30% f beds 10% chert beds, 5% laminated and disseminated magnetite. From 89.85 to 90.85 Bvol. Fine grained brown, with 1% carbonate stringers parallel to foliation and 80% pervasive carbonatization.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			From 90.85 to 92.10 4ea. 25% ea beds, 35% e beds, 5% f beds, 30% chert beds and 5% laminated and disseminated magnetite, 1 speck VISIBLE GOLD. Bedding is moderately to well preserved at 19 to 23 dca with beds from laminae to 1 cm. The dominant fracture set is perpendicular to bedding at 40 to 63 dca with carbonate fracture-filling. The secondary fracture set is parallel to bedding at 16 to 27 dca with chlorite and carbonate fracture-filling. GEOLOG DATA 4EA. 10% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling and 2% bedded chlorite 3% bedded biotite. 1% Stringers pyrrhotite, 1 speck VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite and 1% laminae magnetite and 4% disseminated magnetite. Trace quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 23 dca. 88.50 89.00 4f. 88.50 89.00 4f. 89.00 89.85 4ea. 89.00 89.85 4ea 2% quartz veins. 89.85 90.85 Bvol. 89.85 90.85 Bvol. 90.85 92.10 4ea. 90.85 92.10 4ea 2% quartz flooding, 1 speck VISIBLE GOLD.								
92.10	108.15	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 18 to 39 dca. The dominant fracture set is perpendicular to foliation at 40 to 70 with carbonate fracture-filling. The secondary fracture set is subparallel to foliation at 35 to 55 dca with carbonate and chlorite fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 30% pervasive carbonatization, 10% pervasive chlorite, 40% pervasive biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, trace disseminated pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 1% quartz-carbonate veins, 3% carbonate stringers. Lower contact sharp at 23 dca. 99.55 100.05 24ea. 60% ea beds, 30% e beds, 10% chert beds. 99.55 100.05 24ea. 100.80 101.60 24ea. 40% ea beds, 50% e beds, 5% chert beds, 5% disseminated								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			magnetite. 100.80 101.60 24ea 30% quartz flooding.								
108.15	109.15	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained, with garnets to 3 mm, brown and green, very weakly magnetic, and average hardness. Bedding is moderately to well preserved at 42 dca, with beds from 5 mm to 1 cm. This unit is composed of 70% F beds and 30% E beds. The dominant fracture set is subparallel to bedding at 18 to 45 dca with chlorite fracture-filling. The secondary fracture set is perpendicular to bedding at 59 dca with carbonate fracture-filling. GEOLOG DATA. 2% Bedded grunerite, 2% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 70% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 0% Quartz veins, 0% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 18 dca. 108.15 109.15 24fe.								
109.15	115.15	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Moderately to well developed foliation at 29 to 39 dca. The dominant fracture set is perpendicular to foliation at 35 to 70 dca with carbonate fracture-filling. The secondary fracture set is subparallel to foliation at 21 to 47 dca, with carbonate and chlorite fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 2% carbonatization, 8% pervasive chlorite, 2% pervasive biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD. 0% Quartz veins, 0% quartz-carbonate veins, 2% carbonate stringers. Lower contact sharp at 36 dca.								
115.15	116.10	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained, with garnets to 3 mm, green and pink, very weakly magnetic and average hardness. This unit is composed of 100% e beds. Poorly preserved and/or developed bedding at 31 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			One fracture oblique to core at 11 dca with carbonate fracture-filling. GEOLOG DATA. Trace bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, 1% pervasive chlorite, 0% biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 1% pyrite stringers, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 1% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 40 dca. FE04890 DUPLICATE OF FE04889 0.37 ns ns. 115.15 116.10 24e 1% pyrite.								
116.10	118.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, non-magnetic, average hardness. Well developed foliation at 24 to 36 dca. The dominant fracture set is perpendicular to foliation at 10 to 50 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to foliation at 17 to 26 dca with chlorite fracture-filling. From 116.10 to 116.16 FAULT ZONE chloritic core and rubbly at 17 dca. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 30% pervasive carbonatization, 5% pervasive chlorite, trace pervasive biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veins, 0% carbonatization, 1% carbonate stringers. Lower contact sharp at 33 dca.								
118.00	119.40	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained, with garnets to 5 mm, weakly magnetic, green, pink and grey and average hardness. This unit is composed of 90% e beds, 3% ea beds and 7% intercalated volcanics. Moderately to well preserved bedding at 27 dca. The dominant fracture set is subparallel to bedding at 30 to 54 dca, with chlorite fracture-filling. The secondary fracture set is perpendicular to bedding at 51 and 49 dca with carbonate fracture-filling. GEOLOG DATA. 1% Bedded grunerite, 1% bedded garnets, 0% silicification, 0% carbonatization, 2% bedded chlorite, trace bedded biotite. 2% Pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite stringers, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			arsenopyrite, 0% chalcopyrite, 1% disseminated magnetite. 2% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 32 dca. 118.00 119.40 24e 2% quartz flooding.								
119.40	150.70	AVOL	FELSIC TO INTERMEDIATE VOLCANICS Avol. Fine grained, grey, non-magnetic and hard. 5% Feldspar phenocryst to 1 mm generally less than 1 mm. Well developed foliation at 29 to 43 dca. The dominant fracture set is perpendicular to bedding at 50 to 62 dca, carbonate fracture-filling. The secondary fracture set is subparallel to foliation at 23 to 40 dca, with chlorite and carbonate fracture-filling. GEOLOG DATA. 0% Grunerite, trace disseminated garnets, trace pervasive silicification, trace carbonatization, trace chlorite as fracture-filling, 0% biotite, 30% pervasive sericite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite stringers, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 2% Quartz veins, trace quartz tourmaline vein, trace quartz-carbonate veins, trace carbonate stringers. 150.70 END OF HOLE. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample preperation at Chemex labs in Thunder Bay, Ontario. Samples analyzed at Chemex and XRal Lab Inc.. 30 gram sample, fire assayed with gravimetric finish. Sludge samples taken every 10 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY. From 0.00 to 21.9 hole cased with 21.9 metres of nw casing. Drilled O.B. To 50 ft with tricone bit (had trouble). Drilled 50 to 60 ft with core barrel. Pulled out casing, drilled with 4.5 inch tricone to 64 ft Tricone bit stalling engine, went down with casing to bedrock at 20.25 metres. From 20.25 to 99.7 metres drilled with 10 ft standard core barrel, with blank back end. From 99.70 to 133.70 metres, drilled with three 3 - step stone bits. From 133.70 to 150.70 drilled with 10 ft standard core barrel and blank back end. Abandoned hole at 150.70 metres, because hole inclination was to steep and would cross hole drilled below in the C or T zones of the T antiform. Hole cemented - 3.5 hours - 24 bags of 20 kg bags of type 50 cement. Plug placed on top of cement.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Casing pulled. SURVEY HISTORY. Sperry Sun single shot camera with low point indicator used for determining INCLINATION OF HOLE. SEE CLASS 2 DATA FOR SPERRY SUN DIP TEST DATA. Light Log Survey not conducted. Hole not surveyed. Casing at water level was 25 cm east of collar bouy. Drill was on line.								

DRILL HOLE RECORD

Northing: 10549.520
Easting: 9034.350
Elevation: 5302.575

Collar Azi.: 227.93
Collar Dip: -61.00

Hole Length: 553.00
Completed: OCTOBER 10, 1993
Drilled by:
Logged by: P. GERTZBEIN, T. TENNENT
Purpose: TO TEST THE S, T AND WA ZONES ON SECTION 10550Nte(s)

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: 508460 (199m),Pa508459 (11m),Pa529497 (181m)
76 m south,73 m west to post 3 of Pa508460
Logged: Oct. 3 - Oct. 24, 1993

Drill Hole: 506-686
Northing: 10550N
Easting: 9034E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: SEPTEMBER 29, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
3.1	228.1	-61.7	142.1	225.1	-59.3	281.2	222.6	-56.6	420.2	222.9	-53.9
6.2	227.9	-61.8	145.2	225.1	-59.2	284.3	222.6	-56.5	423.3	222.9	-53.9
9.3	227.9	-61.8	148.3	225.1	-59.2	287.4	222.6	-56.4	426.4	222.9	-53.8
12.4	227.7	-61.7	151.4	224.9	-59.1	290.5	222.4	-56.3	429.5	222.9	-53.8
15.4	227.7	-61.6	154.5	224.9	-58.9	293.5	222.3	-56.2	432.6	223.1	-53.7
18.5	227.5	-61.4	157.6	224.9	-58.9	296.6	222.3	-56.1	435.7	223.1	-53.7
21.6	227.3	-61.4	160.7	224.9	-58.9	299.7	222.3	-56.1	438.8	223.3	-53.6
24.7	227.1	-61.3	163.8	224.7	-58.8	302.8	222.1	-56.1	441.9	223.3	-53.6
27.8	227.1	-61.2	166.9	224.5	-58.7	305.9	222.1	-56.1	444.9	223.3	-53.5
30.9	226.9	-61.2	169.9	224.3	-58.7	309.0	222.1	-56.0	448.0	223.3	-53.5
34.0	226.9	-61.2	173.0	224.3	-58.6	312.1	222.1	-56.0	451.1	223.4	-53.5
37.1	226.9	-61.1	176.1	224.3	-58.5	315.2	222.1	-55.9	454.2	223.4	-53.5
40.2	226.9	-61.0	179.2	224.3	-58.4	318.3	222.1	-55.8	457.3	223.4	-53.5
43.3	226.7	-61.0	182.3	224.3	-58.4	321.4	222.1	-55.8	460.4	223.4	-53.5
46.3	226.7	-60.9	185.4	224.3	-58.4	324.4	222.1	-55.8	463.5	223.6	-53.4
49.4	226.5	-60.8	188.5	224.3	-58.4	327.5	221.9	-55.7	466.6	223.6	-53.4
52.5	226.5	-60.7	191.6	224.3	-58.3	330.6	221.7	-55.6	469.7	223.6	-53.4
55.6	226.3	-60.7	194.7	224.3	-58.2	333.7	221.7	-55.6	472.8	223.8	-53.3
58.7	226.3	-60.6	197.8	224.3	-58.2	336.8	221.7	-55.5	475.8	223.8	-53.2
61.8	226.1	-60.5	200.8	224.1	-58.1	339.9	221.7	-55.4	478.9	223.8	-53.1
64.9	226.1	-60.4	203.9	223.9	-58.0	343.0	221.6	-55.3	482.0	223.6	-53.0
68.0	225.9	-60.4	207.0	223.9	-58.0	346.1	221.6	-55.2	485.1	223.6	-53.0
71.1	225.9	-60.3	210.1	223.7	-57.9	349.2	221.6	-55.2	488.2	223.6	-53.0
74.2	225.9	-60.2	213.2	223.7	-57.9	352.3	221.4	-55.1	491.3	223.6	-53.0
77.3	225.9	-60.1	216.3	223.7	-57.9	355.3	221.4	-55.1	494.4	223.6	-52.9
80.3	225.9	-60.0	219.4	223.6	-57.8	358.4	221.4	-55.0	497.5	223.4	-52.8
83.4	225.9	-59.9	222.5	223.6	-57.8	361.5	221.4	-54.9	500.6	223.4	-52.8
86.5	225.9	-59.8	225.6	223.6	-57.7	364.6	221.6	-54.8	503.6	223.4	-52.7
89.6	225.9	-59.7	228.6	223.6	-57.7	367.7	221.6	-54.8	506.7	223.4	-52.6
92.7	225.9	-59.7	231.7	223.6	-57.6	370.8	221.6	-54.7	509.8	223.4	-52.6
95.8	225.9	-59.7	234.8	223.6	-57.6	373.9	221.6	-54.6	512.9	223.4	-52.6
98.9	225.9	-59.7	237.9	223.6	-57.6	377.0	221.7	-54.6	516.0	223.3	-52.5
102.0	225.9	-59.7	241.0	223.6	-57.6	380.1	221.9	-54.5	519.1	223.3	-52.5
105.1	225.7	-59.7	244.1	223.6	-57.6	383.1	221.9	-54.4	522.2	223.3	-52.4
108.2	225.7	-59.6	247.2	223.4	-57.4	386.2	222.1	-54.4	525.3	223.3	-52.3
111.2	225.7	-59.6	250.3	223.2	-57.4	389.3	222.1	-54.4	528.4	223.3	-52.2
114.3	225.7	-59.6	253.4	223.2	-57.4	392.4	222.3	-54.3	531.5	223.3	-52.2

117.4	225.5	-59.5	256.5	223.2	-57.3	395.5	222.3	-54.2	534.5	223.4	-52.1
120.5	225.5	-59.5	259.5	223.2	-57.2	398.6	222.4	-54.1	537.6	223.6	-52.0
123.6	225.5	-59.5	262.6	223.2	-57.1	401.7	222.4	-54.0	540.7	223.6	-51.9
126.7	225.3	-59.4	265.7	223.0	-57.0	404.8	222.6	-53.9	543.8	223.6	-51.8
129.8	225.3	-59.4	268.8	222.8	-57.0	407.9	222.6	-53.9	546.9	223.6	-51.7
132.9	225.3	-59.4	271.9	222.8	-56.9	411.0	222.6	-53.9	550.0	223.6	-51.6
136.0	225.3	-59.4	275.0	222.6	-56.8	414.0	222.8	-53.9			
139.0	225.3	-59.3	278.1	222.6	-56.7	417.1	222.9	-53.9			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. Sample Series: FE04896 - FE05000. Sample Series: E55722 - E55750. Sample Series: FE03701 - FE03800. Sample Series: FE08501 - FE08686.								
.00	11.88	OB	OVERBURDEN Overburden. 13.40m NW casing.								
11.88	42.60	4B	CHERT - MAGNETITE IRON FORMATION 4b and 4fb. From 11.88 to 13.25 4b 60% laminated to bedded magnetite, 10% grunerite, 30% chert beds. From 13.25 to 16.80 4bf. Fine grained, with garnets to 2 mm, black, grey, pink and yellow, moderately to strongly magnetic and hard. Bedding is moderately to well preserved at 36 to 41 dca, with beds from laminae to 10 cm. This unit is composed of 50% f beds, 30% laminated to bedded magnetite and 20% chert beds. Fracture cleavage is well developed at 40 to 48 dca. The dominant fracture set is perpendicular to bedding at 38 to 58 dca with carbonate fracture-filling. One fracture oblique to core at 36 dca. GEOLOG DATA. 5% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite fracture-filling, 45% f beds. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 30% laminated to bedded magnetite. Trace quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 48 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			11.88 13.25 4b. 12.00 13.00 4b trace arsenopyrite. 13.00 14.00 4bf 10% quartz flooding, trace arsenopyrite. 13.25 16.80 4bf. FE04900 STANDARD III 4.90 4.85 ns. FE04901 BLANK 0.06 ns ns. From 16.80 to 23.50 4b. Fine grained, yellow white, and black, moderately magnetic and hard. This unit is composed of 40% gruneritized beds (4a), 30% laminae, bedded and disseminated magnetite, 20% chert beds and 10% pale yellow carbonate, associated with gruneritized beds. Bedding is poorly to moderately preserved. Chert beds as fractured and rotated. Bedding is oriented from 29 to 52 dca with beds from laminae to 1.3 cm wide. Left limb fold and right limb fold with axial planes at 37 dca. Moderately to well developed fracture cleavage at 42 to 63 dca. The dominant fracture set is perpendicular to bedding at 60 to 79 dca with carbonate fracture-filling. GEOLOG DATA. 40% Bedded grunerite, trace bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. 1% Semi-massive stringers of pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 20% laminated, 5% bedded and 5% disseminated magnetite. 1% Quartz veins, 0% quartz-carbonate veins, and 10% bedded carbonate. Lower contact sharp at 30 dca. 14.00 15.00 4bf trace arsenopyrite. 15.00 16.00 4bf trace arsenopyrite. 16.00 16.80 4bf. 1% arsenopyrite. 16.80 23.50 4b. FE04910 DUPLICATE OF FE04909 0.03 ns ns. From 23.50 to 26.00 4bf. Fine grained, with garnets to 1 mm, black, grey, and yellow, strongly magnetic, and hard. This unit is composed of 60% laminated to thinly bedded magnetite, 25% f beds and 15% chert beds. Bedding is moderately to well preserved at 24 to 31 dca, with beds from laminae to 1 cm. Fracture cleavage is moderately developed at 51 to 54 dca. The dominant fracture set is perpendicular to bedding at 50 to 65 dca, with carbonate fracture-filling. GEOLOG DATA. 12% Bedded grunerite, 2% bedded garnets, 0% silicification, 0% carbonatization,									

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			trace bedded chlorite, 23% bedded biotite. 1% Semi-massive pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% bedded and 50% laminated magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 22 dca. 16.80 18.00 4b. 18.00 19.00 4b. 19.00 20.00 4b left limb fold, axial plane 37 dca. 20.00 21.00 4b right limb fold, axial plane 37 dca. 21.00 22.00 4b 10% quartz veins. 22.00 23.00 4b trace arsenopyrite. 23.00 23.50 4b. 23.50 26.00 4bf. From 26.00 39.75 4b. Fine grained, black, grey and yellow, strongly magnetic, and hard. This unit is composed of 55% laminae and bedded magnetite, 40% chert beds and 5% f beds. Bedding is moderately preserved at 20 to 55 dca with beds from laminae to 1 cm. Chert beds are locally disrupted and rotated due to fracture cleavage. Fracture cleavage is moderately to well developed at 40 to 54 dca. The dominant fracture set is perpendicular to bedding at 42 to 72 dca, with carbonate fracture-filling. GEOLOG DATA. 5% Bedded grunerite, trace bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 4% bedded biotite. Trace stringers and disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% bedded and 40% laminated magnetite. 8% Quartz veins, 0% quartz-carbonate vein, trace carbonate stringers and carbonate as fracture-filling. Lower contact sharp at 50 dca. 23.50 24.00 4bf. 24.00 25.00 4bf. 25.00 26.00 4bf. 26.00 39.75 4b. FE04920 STANDARD III 4.72 4.66 ns. FE04921 BLANK 0.03 ns ns. FE04930 DUPLICATE OF FE04929 0.16 ns ns. From 39.75 to 42.60 4fb. Fine grained, black, grey and pink, strongly magnetic and hard. This unit is composed of 60% f beds, 30% laminated magnetite, and 10% chert beds. Bedding is well preserved at 45 to 50 dca with beds from 2 mm to 5 mm wide.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			The dominant fracture set is subparallel to bedding at 39 to 50 dca with chlorite fracture-filling. The secondary fracture set is perpendicular to bedding at 50 to 54 dca with carbonate fracture-filling. GEOLOG DATA. 10% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 50% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 1% pyrite stringers, 0% arsenopyrite, 0% chalcopyrite, 30% laminated magnetite. 1% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 39 dca. 26.00 27.00 4b 3% quartz veins. 27.00 28.00 4b 1% quartz veins. 28.00 29.00 4b. 29.00 30.00 4bf 45% quartz veins. 30.00 31.00 4b 30% quartz veins. 31.00 32.00 4b 5% quartz veins. 32.00 33.00 4b 1% quartz veins, right limb fold, axial plane 44 dca. 33.00 34.00 4b 2% quartz veins, right limb fold, axial plane 45 dca. 34.00 35.00 4b 1% quartz veins. 35.00 36.00 4b 8% quartz veins. 36.00 37.00 4b 6% quartz veins. 37.00 38.00 4b 1% quartz veins. 38.00 39.00 4b 10% quartz veins. 39.00 39.75 4b 2% quartz veins. 39.75 42.60 4fb. 39.75 40.75 4fb 3% pyrite, 1% quartz veins. 40.75 41.75 4fb 1% quartz veins. 41.75 42.60 4fb 1% quartz veins.								
42.60	45.00	4F	GARNET-BIOTITE SCHIST 4f. Medium grained, brown, yellow and grey, weakly magnetic and average hardness. This unit is composed of 70% f beds, 10% chert beds, 3% disseminated magnetite, 15% gruneritized beds, and 2% ea beds. Bedding is well preserved at 40 to 50 dca, with beds from 2 mm to 3 cm wide. Folding is left limb with axial planes at 53 dca. The dominant fracture set is perpendicular to bedding at 48 to 68 dca, with carbonate and chlorite fracture-filling. GEOLOG DATA. 17% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 55% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% disseminated magnetite. 1% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 35 dca. 42.60 43.00 4f trace quartz veins. 43.00 44.00 4f left limb fold, axial plane 53 dca. 44.00 45.00 4f.								
45.00	95.15	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea and 4eab. From 45.00 to 47.70 4ea. Fine grained, with garnets and glomeroporphyritic garnet clusters to 8 mm, yellow, green, pink and grey, weakly to moderately magnetic and hard. This unit is composed of 45% ea beds, 10% f beds, 30% e beds and remnants of e beds, 2% laminated and disseminated magnetite, and 13% chert beds. Bedding is moderately to well preserved at 41 to 60 dca, with beds from laminae to 2 cm wide. Folding is left limb with axial planes at 45 and 87 dca. The dominant fracture set is perpendicular to bedding at 45 to 65 dca with carbonate fracture-filling. The secondary fracture set is oblique to the core axis at 15 and 25 dca. GEOLOG DATA. 5% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, 2% bedded chlorite, 7% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% laminated and 1% disseminated magnetite. 6% Quartz flooding, 0% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 51 dca. 45.00 47.70 4ea. FE04940 STANDARD III 4.52 5.01 ns. FE04941 BLANK 0.03 ns ns. From 47.70 to 54.75 4eab. Fine grained, with garnets to 5 mm, yellow, brown, green and grey, moderately magnetic and hard. This unit is composed of 45% poorly to moderately developed ea beds, 20% laminated and disseminated magnetite, 20% f beds and 15% e beds. Bedding is well preserved at 36 to 46 dca with beds from 1 mm to 5 mm wide. Few left limb folds with axial planes at 45 and 60 dca. The dominant fracture set is perpendicular to bedding at 57 to 68 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 44 and 46 dca, with carbonate fracture-filling. GEOLOG DATA. 10% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			1% bedded chlorite, 15% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 15% laminated and 5% disseminated magnetite. 4% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 40 dca. 45.00 46.00 4ea 5% quartz flooding. 46.00 47.00 4eaf 10% quartz flooding, left limb fold, axial plane 87 dca. 47.00 47.70 4ea. 3% quartz flooding, left limb fold with axial plane 45 dca. 47.70 54.75 4eab. From 54.75 to 57.45 4eaf. Fine grained, with garnets to 2 mm, brown, yellow, and grey, weakly to moderately magnetic, average hardness. This unit is composed of 35% f beds, 35% poorly developed ea beds, 10% disseminated magnetite, 10% chert beds and 10% e beds. Bedding is well preserved at 31 to 38 dca, with beds from 1 mm to 1 cm wide. The dominant fracture set is perpendicular to bedding at 44 to 67 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 30 to 34 dca, with carbonate fracture-filling. GEOLOG DATA. 5% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 25% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% disseminated magnetite. Trace quartz veins, 0% quartz-carbonate veins, 0% carbonate. Lower contact sharp at 30 dca. 47.70 49.00 4eab 1% quartz veins. 49.00 50.00 4eab. 50.00 51.00 4eab 1% quartz veins, trace arsenopyrite, left limb fold, axial plane 45 dca. 51.00 52.00 4eab 7% quartz veins, trace arsenopyrite. 52.00 53.00 4eab. 1% quartz veins, left limb fold with axial plane 60 dca. 53.00 54.00 4eab. 1% quartz veins, left limb fold with axial plane 60 dca. 54.00 54.75 4eab 3% quartz veins. 54.75 57.45 4eaf. FE04950 DUPLICATE OF FE04949 0.03 ns ns. From 57.45 to 88.55 4ea. Fine grained, with garnets and glomeroporphyritic garnet clusters to 1 cm, yellow, pink, grey and green, weakly to moderately magnetic, and hard. This unit is composed of 45% well developed ea beds, 20% chert beds, 15% e beds and remnants of e beds, 10% laminated to disseminated magnetite, and 10% f beds.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Bedding is moderately to well preserved at 0 to 52 dca, generally increasing down hole. Bedding is from laminae to 2 cm wide, and generally 5 mm to 1.5 cm wide. From 83.00 to 88.55 poorly developed ea beds, 30% to 40% e beds. From 59.00 to 68.00 left limb fold, with axial planes from 12 to 36 dca. From 70.00 to 86.00 right limb fold, with axial planes from 19 to 47 dca. The dominant fracture set is perpendicular to bedding at 45 to 61 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 23 to 35 dca, with carbonate fracture-filling. Fracture cleavage is poorly to moderately developed at 28 to 39 dca. GEOLOG DATA. 8% Bedded grunerite, 25% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 6% bedded biotite. Trace pyrrhotite as stringers, 9 specks VISIBLE GOLD, trace pyrite stringers, 0% arsenopyrite, 0% chalcopyrite, 2% laminated and 8% disseminated magnetite. 10% Quartz flooding, trace quartz veins, 0% quartz-carbonate veins and 1% carbonate stringers. MINERALIZED ZONES. From 63.00 to 65.00: 3% pyrrhotite, 8 specks VISIBLE GOLD, and 20% quartz flooding. From 70.00 to 71.00: 1% pyrrhotite, 1 speck VISIBLE GOLD, and 35% quartz flooding From 76.00 to 77.00: 1% pyrrhotite and 70% quartz flooding. Lower contact sharp at 42 dca. 54.75 55.75 4eaf 1% quartz veins. 55.75 56.75 4eaf 1% quartz veins. 56.75 57.45 4eaf. 57.45 88.55 4ea. FE04960 STANDARD III 5.07 ns ns. FE04961 BLANK 0.10 ns ns. FE04970 DUPLICATE OF FE04969 0.03 ns ns. FE04980 STANDARD III 4.70 5.05 ns. FE04981 BLANK 0.03 ns ns. FE04990 DUPLICATE OF FE04989 0.03 ns ns. From 88.55 to 92.25 4fea. Fine grained, with garnets to 2 mm, brown, green, yellow and pink, weakly magnetic and average hardness. This unit is composed of 50% f beds, 20% poorly developed ea beds, 10% chert beds, 5% disseminated magnetite, and 15% e beds and remnants of e beds. Bedding is moderately preserved at 34 to 37 dca, with beds from 5 mm to 1 cm wide Two folds, one left limb with axial plane at 27 dca and one right limb with axial plane at 27 dca. The dominant fracture set is perpendicular to bedding at 49 to 66 dca, with								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			carbonate fracture-filling. GEOLOG DATA. 5% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 40% f beds. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% disseminated magnetite. 1% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 39 dca. 57.45 58.00 4ea. 58.00 59.00 4ea 1% quartz veins. 59.00 60.00 4ea 10% quartz flooding, left limb fold, axial plane 35 dca. 60.00 61.00 4ea. 61.00 62.00 4ea 10% quartz flooding. 62.00 63.00 4ea left limb fold, axial plane 35 dca. 63.00 64.00 4ea 2 specks VISIBLE GOLD, 25% quartz flooding. 64.00 65.00 4ea 6 specks VISIBLE GOLD, 15% quartz flooding, left limb fold, axial plane 36 dca. 65.00 66.00 4ea 3% quartz flooding, left limb fold, axial plane 25 dca. 66.00 67.00 4ea 30% quartz flooding, left limb fold, axial plane 12 dca. 67.00 68.00 4ea 20% quartz flooding, right limb fold, axial plane 24 dca. 68.00 69.00 4ea 5% quartz flooding, fold, axial plane 37 dca. 69.00 70.00 4ea 30% quartz flooding, 2% carbonate veins. 70.00 71.00 4ea 1 speck VISIBLE GOLD, 35 quartz flooding, left limb fold, axial plane 16 dca. 71.00 72.00 4ea 3% quartz flooding. 72.00 73.00 4ea 5% quartz flooding, right limb fold, axial plane 39 dca. 73.00 74.00 4ea. 74.00 75.00 4ea 1% quartz flooding, right limb fold, axial plane 25 dca. 75.00 76.00 4ea 2% quartz flooding, left limb fold, axial plane 19 dca. 76.00 77.00 4ea 70% quartz flooding. 77.00 78.00 4ea 3% quartz flooding, right limb fold, axial plane 47 dca. 78.00 79.00 4ea. 79.00 80.00 4ea 5% quartz flooding, right limb fold, axial plane 30 dca. 80.00 81.00 4ea 1% quartz flooding, right limb fold, axial plane 34 dca. 81.00 82.00 4ea 1% quartz flooding, right limb fold, axial plane 26 dca. 82.00 83.00 4ea 3% quartz veins, trace pyrite. 83.00 84.00 4ea 2% quartz veins. 84.00 85.00 4ea 2% quartz flooding, right limb fold, axial plane 30 dca. 85.00 86.00 4ea 1% quartz veins, right limb fold, axial plane 30 dca. 86.00 87.00 4ea 5% quartz flooding. 87.00 88.00 4ea 2% quartz flooding. 88.00 88.55 4ea. 88.55 92.25 4fea. From 92.55 to 95.15 4ea.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained, with garnets and glomeroporphyritic garnet clusters to 5 mm, yellow, green, pink and grey, weakly magnetic and hard. This unit is composed of 70% poorly developed ea beds, 5% chert beds, 10% e beds and remnants of e beds, 10% f beds, and 5% disseminated magnetite. Bedding is poorly to moderately preserved at 38 to 51 dca, with beds from 3 mm to 7 mm wide. Folding is right limb with axial planes at 42 to 45 dca. The dominant fracture set is perpendicular to bedding at 35 to 60 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 36 and 47 dca with carbonate fracture-filling. GEOLOG DATA. 12% Bedded grunerite, 40% bedded garnets, 0% silicification, 0% carbonatization, 2% bedded chlorite, 7% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% disseminated magnetite. 5% Quartz flooding, 0% quartz-carbonate veins, 1% carbonate veins and stringers. Lower contact sharp at 63 dca. 92.25 93.00 4ea 10% quartz flooding. 92.55 95.15 4ea. 93.00 94.00 4ea 3% quartz flooding, right limb fold, axial plane 45 dca. 94.00 95.15 4ea 2% quartz flooding, right limb fold, axial plane 42 dca.								
95.15	96.00	4B	CHERT - MAGNETITE IRON FORMATION 4bf. Fine grained, with garnets to 3 mm, yellow, brown and grey, moderately to strongly magnetic and hard. This unit is composed of 25% f beds, 30% chert beds, 25% laminated and disseminated magnetite 5% poorly developed ea beds, and 15% gruneritized beds. Bedding is well preserved at 50 dca, with beds from 2 mm to 1 cm. Folding is right limb with axial planes at 27 dca. GEOLOG DATA. 15% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 20% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% laminated and 15% disseminated magnetite. 0% Quartz veins, 0% quartz-carbonate veins, 0% carbonate. Lower contact sharp at 39 dca. 95.15 96.00 4bf. 95.15 96.00 4bf right limb fold, axial plane 27 dca.								
96.00	98.45	4E	GARNET-AMPHIBOLE IRON FORMATION								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			4ef. Fine grained, with garnets to 3 mm, green and brown, weakly magnetic and average hardness. This unit is composed of 60% e beds, 30% f beds, 5% chert beds, 5% poorly developed ea beds and trace magnetite. The f and e beds are massive with few garnets. Bedding is poorly to moderately preserved at 55 to 70 dca, with beds from 1 mm to 10 cm wide. Folding is right and left limb with axial planes at 34 and 47 dca respectively. The dominant fracture set is perpendicular to bedding at 54 to 67 dca. GEOLOG DATA. 5% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 27% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 0% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 70 dca. 96.00 98.45 4ef. FE05000 STANDARD III 4.90 4.55 ns. E55722 BLANK 0.10 ns ns. 96.00 97.00 4ef. 97.00 98.00 4ef. 98.00 98.45 4ef.								
98.45	118.90	4B	CHERT - MAGNETITE IRON FORMATION 4bf and 4be. From 98.45 to 107.00 4bf. Fine grained, with garnets to 2 mm, black, grey, and pink, strongly magnetic and hard. This unit is composed of 30% f beds, 45% laminated to thinly bedded magnetite, 5% e beds, 20% chert beds. Bedding is well preserved at 16 to 63 dca, with beds from laminae to 1 cm wide. Folding is left and right limb and M folding with axial planes at 21 to 45 dca. Fracture cleavage is well developed at 42 to 52 dca. The dominant fracture set is perpendicular to bedding at 35 to 62 dca with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 19 to 56 dca, with carbonate fracture-filling. GEOLOG DATA. 1% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 20% bedded f beds. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, trace disseminated pyrite, 0% arsenopyrite, 0% chalcopyrite, 40% laminated and 5% thinly bedded magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 37 dca. 98.45 107.00 4bf. E55730 DUPLICATE OF E55729 0.03 ns ns. From 107.00 to 115.75 4be. Fine grained, with garnets to 2 mm, black, grey and yellow, strongly magnetic and hard. This unit is composed of 60% laminated and bedded magnetite, 25% e beds, and 15% chert beds. Bedding is well preserved from 33 to 47 dca with beds from laminae to 1 cm wide. Folding is right limb with axial planes from 30 to 47 dca. The dominant fracture set is perpendicular to bedding at 41 to 59 dca with chlorite and carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 33 to 52 dca, with carbonate and chlorite fracture-filling. Fracture cleavage is well developed at 16 to 54 dca. From 109.00 to 109.35 blockly core fractures at 20 to 25 dca with chlorite fracture-filling. GEOLOG DATA. 1% Bedded grunerite, trace bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, trace bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, trace disseminated pyrite, trace arsenopyrite blebs, 0% chalcopyrite, 40% bedded and 20% laminated magnetite 3% Quartz flooding, and 1% quartz veins, trace quartz-carbonate veins, and 1% carbonate stringers. Lower contact sharp at 55 dca. 98.45 99.00 4bf 1% quartz veins. 99.00 100.00 4bf right limb fold, axial plane 45 dca. 100.00 101.00 4bf trace pyrite, right limb fold, axial plane 46 dca. 101.00 102.00 4bf trace pyrite, left limb fold, axial plane 41 dca. 102.00 103.00 4bf 1% quartz veins, right limb fold, axial plane 31 dca. 103.00 104.00 4bf 1% quartz veins, right limb fold, axial plane 35 dca. 104.00 105.00 4bf trace quartz veins, right limb fold, axial plane 22 dca. 105.00 106.00 4bf right limb fold, axial plane 21 dca. 106.00 107.00 4bf right limb fold, axial plane 21, dca. 107.00 115.75 4be. E55740 STANDARD II 9.39 9.53 ns. E55741 BLANK 0.07 ns ns. From 115.75 to 118.90 4bf. Fine grained, with garnets to 2 mm, black, grey and yellow strongly magnetic and hard. This unit is composed of 30% f beds, 50% chert beds, 15% laminated and									

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			disseminated magnetite and 5% gruneritized beds. Bedding is well preserved at 38 to 41 dca, with beds from laminae to 5 mm. Folding is right limb with axial planes at 32 dca. Moderately developed fracture cleavage at 37 to 64 dca. The dominant fracture set is perpendicular to bedding at 43 to 62 dca, with carbonate fracture-filling. GEOLOG DATA. 5% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 25% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% bedded magnetite, 5% disseminated magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 52 dca. 107.00 108.00 4be 3% quartz veins, right limb fold, axial plane 47 dca. 108.00 109.00 4be 2% quartz veins right limb fold, axial plane 30 dca. 109.00 110.00 4be 10% quartz flooding. 110.00 111.00 4be 5% quartz flooding. 111.00 112.00 4be 3% quartz flooding. 112.00 113.00 4be 5% quartz flooding, right limb fold, axial plane 37 dca. 113.00 114.00 4be 1% quartz flooding. 114.00 115.00 4be 5% quartz veins. 115.00 115.75 4be 2% quartz veins. 115.75 118.90 4bf. 115.75 117.00 4bf right limb fold, axial plane 32 dca. 117.00 118.00 4bf 1% quartz veins. 118.00 118.90 4bf.								
118.90	119.95	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, with garnets to 1 mm, brown and pink, very weakly magnetic and average hardness. This unit is composed of 100% F beds. Bedding is moderately preserved and/or developed at 35 dca. The dominant fracture set is perpendicular to bedding at 41 to 69 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 10 to 36 dca, with chlorite fracture-filling. GEOLOG DATA. 0% grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 80% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace disseminated pyrite, trace disseminated arsenopyrite, 0% chalcopyrite, 0% magnetite. 5% Quartz veins, 0% quartz-carbonate veins, 0% carbonate.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 37 dca. E55750 DUPLICATE OF E55749 0.03 ns ns. 118.90 119.95 4f 5% quartz veins, trace pyrite, trace arsenopyrite.								
119.95	133.70	4B	CHERT - MAGNETITE IRON FORMATION 4b, and 4bf. From 119.95 to 123.25 4b. Fine grained, black and grey, strongly magnetic and hard. This unit is composed of 60% bedded magnetite, 40% chert beds. Bedding is well preseved at 42 to 47 dca, with beds from 2 mm to 1.5 cm. The dominant fracture set is subparallel to bedding at 41 to 50 dca, with carbonate and chlorite fracture-filling. The secondary fracture set is perpendicular to bedding at 46 to 70 dca, with carbonate fracture-filling. Fracture cleavage is moderately developed at 53 to 55 dca. GEOLOG DATA. Trace bedded grunerite, trace bedded garnets, 0% silicification, 40% pervasive carbonatization, trace chlorite as fracture-filling, 0% biotite. Trace stringers and semi-massive pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 60% bedded magnetite. 3% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 41 dca. 119.95 123.25 4b. From 123.25 to 125.5 4bf. Fine grained, with garnets to 2 mm, black, grey and pink, strongly magnetic and hard. This unit is composed of 40% bedded magnetite, 25% f beds, and 35% chert beds. Bedding is moderately preserved, with chert beds being disrupted by fracture cleavage and boudinaged. Bedding is at 42 to 43 dca, with beds from 2 mm to 8 mm wide. Fracture cleavage moderately developed at 36 to 50 dca. The dominant fracture set is perpendicular to bedding at 44 to 70 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 44 and 47 dca, with carbonate fracture-filling. GEOLOG DATA. 1% Bedded grunerite, 5% bedded garnets, 0% silicification, 25% pervasive carbonatization, 0% chlorite, 20% bedded biotite. 1% Massive pyrrhotite bands and trace stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 40% bedded magnetite. Trace quartz veins, 0% carbonatization, trace carbonate as fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 43 dca. 119.95 121.00 4b 3% quartz veins. 121.00 122.00 4b 2% quartz veins. 122.00 123.25 4b 5% quartz veins. 123.25 125.50 4bf. From 125.50 to 133.70 4b. Fine grained, black, grey and yellow, strongly magnetic and hard. This unit is composed of 50% laminated and bedded magnetite, 35% chert beds, 15% gruneritized beds and trace f beds. Bedding is moderately to well preserved, locally chert beds are boudinaged. Bedding is at 29 to 41 dca, with beds from laminae to 1 cm wide. Fracture cleavage is moderately developed at 37 to 47 dca. The dominant fracture set is perpendicular to bedding at 32 to 50 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 33 to 47 dca, with carbonate, chlorite and locally pyrite fracture-filling. There is one right limb fold with axial plane at 37 dca. GEOLOG DATA. 15% Bedded grunerite, trace bedded garnets, 0% silicification, 60% pervasive carbonatization, trace chlorite as fracture-filling, trace bedded biotite. 2% Semi-massive and stringers pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite as fracture-filling, trace disseminated arsenopyrite, 0% chalcopyrite, 20% laminated and 30% bedded magnetite. 8% Quartz veins, trace quartz-carbonate vein, 1% carbonate stringers. Lower contact sharp at 48 dca. 123.25 124.00 4bf 1% quartz veins. 124.00 125.00 4bf. 125.00 125.50 4bf. 125.50 133.70 4b. FE03710 DUPLICATE OF FE03709 0.07 ns ns. 125.50 126.00 4b right limb fold, axial plane 37 dca. 126.00 127.00 4b 15% quartz veins. 127.00 128.00 4b. 128.00 129.00 4b. 129.00 130.00 4b 1% quartz veins. 130.00 130.70 4b trace arsenopyrite, 1% quartz veins. 130.70 131.70 4b 2% quartz veins. 131.70 132.70 4b 40% quartz veins. 132.70 133.70 4b 5% quartz veins.								
133.70	148.05	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and less than average hardness.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Foliation is well developed at 30 to 45 dca. The dominant fracture set is perpendicular to foliation at 40 to 60 dca with chlorite fracture-filling. The secondary fracture set is parallel to foliation at 25 to 37 dca, with chlorite fracture-filling. The tertiary fracture set is oblique to the core axis at 18 to 20 dca with chlorite fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite and trace chlorite as fracture-filling, 15% pervasive biotite. Trace blebs pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 50 dca.								
148.05	174.20	4B	CHERT - MAGNETITE IRON FORMATION 4b, And 4bf. From 148.05 to 153.00 4b. Fine grained, yellow, grey and black, moderately magnetic and hard. This unit is composed of 40% gruneritized beds, 20% bedded and disseminated magnetite, and 40% disrupted chert beds. Bedding is moderately to poorly preserved at 31 to 46 dca, with beds from 2 mm to 1.2 cm wide. The dominant fracture set is perpendicular to bedding at 47 to 60 dca, with carbonate fracture-filling. The secondary fracture set subparallel to bedding at 62 dca. MINERALIZED ZONE. From 148.05 to 149.00 15% pyrrhotite, 2% quartz veins, trace arsenopyrite. From 151.00 to 153.00 3% pyrrhotite, trace arsenopyrite. GEOLOG DATA. 40% Bedded grunerite, trace disseminated garnets, 0% silicification, 40% carbonatization associated with gruneritized beds, 0% chlorite, 0% biotite. 4% Semi-massive and stringer pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% bedded and 15% disseminated magnetite. 2% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 39 dca. FE03720 STANDARD III 5.07 NS NS. FE03721 BLANK 0.03 NS NS. From 153.00 to 161.80 4b. Fine grained, black, grey and yellow, strongly magnetic and hard.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			This unit is composed of 50% bedded magnetite, 8% gruneritized beds, 42% disrupted chert beds. Bedding is moderately preserved at 13 to 45 dca, with beds from 2 mm to 1 cm. Folding is left limb with axial planes at 34 to 51 dca. Fracture cleavage is moderately developed at 34 to 50 dca. The dominant fracture set is perpendicular to bedding at 37 to 65 dca, with carbonate fracture-filling. GEOLOG DATA. 8% Bedded grunerite, trace disseminated garnets, 0% silicification, 20% carbonatization associated with gruneritized beds and magnetite beds, trace bedded chlorite, trace bedded biotite. Trace semi-massive and stringer pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace blebs arsenopyrite, 0% chalcopyrite, 50% bedded magnetite. Lower contact sharp at 27 dca. FE03730 DUPLICATE OF FE03729 0.31 NS NS. From 160.80 to 166.15 4be. Fine grained, with garnets to 1 mm, black, grey, green and yellow, strongly magnetic, and hard. This unit is composed of 20% e beds, 10% chert beds, 1% f beds and 69% laminated magnetite. Bedding is moderately to well preserved at 17 to 54 dca, with beds from laminae to 1 cm. Folding is left limb with axial planes from 44 to 70 dca. Fracture cleavage is moderately to well developed at 39 to 61 dca. The dominant fracture set is perpendicular to bedding at 65 to 80 dca, with carbonate and pyrite fracture-filling. GEOLOG DATA. 4% Bedded grunerite, 2% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, trace bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 69% laminated magnetite. 2% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact gradational over 10 cm at 37 dca. 148.05 149.00 4b 2% quartz veins, trace arsenopyrite. 149.00 150.00 4b 5% quartz veins. 150.00 151.00 4b 1% quartz veins. 151.00 152.00 4b. 152.00 153.00 4b trace arsenopyrite. 153.00 154.00 4b trace arsenopyrite. 154.00 155.15 4b 25% quartz flooding, trace arsenopyrite. 155.15 156.00 4b 15% quartz flooding, trace arsenopyrite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			156.00 157.00 4b 10% quartz flooding. 157.00 158.00 4b left limb fold, axial plane 48 dca. 158.00 159.00 4b 2% quartz veins, left limb fold, axial plane 51 dca. 159.00 160.00 4b left limb fold, axial plane 44 dca. 160.00 160.80 4b left limb fold, axial plane 34 dca. 160.80 166.15 4be. From 166.15 to 174.20 4bf. Fine grained, with garnets to 1 mm, black, grey and pink, strongly magnetic and hard. This unit is composed of 25% f beds, 5% chert beds and 70% magnetite beds. Bedding is well preserved at 34 to 48 dca, with beds from 2 mm to 1 cm. One left limb fold with axial plane at 46 dca. The dominant fracture set is perpendicular to bedding at 48 to 65 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 30 to 56 dca, with carbonate and chlorite fracture-filling. GEOLOG DATA. Trace bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 20% bedded biotite. Trace semi-massive and stringer pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 70% magnetite. 10% Quartz veins, 0% quartz-carbonate veins, 1% carbonate stringers. Lower contact gradational over 1 metre at 32 dca. 160.80 162.00 4be. M folds, axial plane 44 dca. 162.00 163.00 4be 3% quartz veins, M folds, axial plane 56 dca. 163.00 164.00 4be 1% quartz veins, M folds, axial plane 59 dca. 164.00 165.00 4be 3% quartz veins, left limb fold, axial plane 68 dca. 165.00 166.15 4be. 2% quartz veins, left limb fold, axial plane 70 dca. 166.15 174.20 4bf. FE03740 STANDARD III 5.07 NS NS. FE03741 BLANK 0.07 NS NS. 166.15 167.00 4bf. 167.00 168.00 4bf 30% quartz veins. 168.00 169.20 4bf 35% quartz veins. 169.20 170.00 4bf 10% quartz veins, left limb fold, axial plane 46 dca. 170.00 171.00 4bf 1% quartz veins. 171.00 172.00 4bf. 172.00 173.00 4bf. 173.00 174.20 4bf.								
174.20	178.60	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eaf. Fine grained, with garnets and glomeroporphyritic garnet clusters to 1 cm, brown, grey, green, yellow and pink, moderately magnetic, and hard.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			This unit is composed of 30% moderately developed ea beds, 25% f beds, 30% chert beds and 10% e beds and remnants of e beds and 5% laminated and disseminated magnetite. Bedding is moderately to well preserved at 24 to 44 dca, with beds from laminae to 2 cm wide. Left limb fold with axial planes at 44 to 51 dca. The dominant fracture set is perpendicular to bedding at 50 to 69 dca with carbonate fracture-filling. GEOLOG DATA. 10% Bedded grunerite, 25% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 20% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% laminated and 3% disseminated magnetite. 1% Quartz veins and 5% quartz flooding, 0% quartz-carbonate veins, 1% carbonate stringers. Lower contact gradational over 20 cm at 34 dca. FE03750 DUPLICATE OF FE03749 0.10 NS NS. 174.20 175.00 4eaf 1% quartz veins. 175.00 176.00 4eaf 5% quartz veins, left limb fold, axial plane 40 dca. 176.00 177.00 4eaf 10% quartz flooding. 177.00 178.00 4eaf 10% quartz flooding, left limb fold, axial plane 51 dca. 178.00 178.60 4eaf fold crest axial plane 44 dca.								
178.60	182.90	4B	CHERT - MAGNETITE IRON FORMATION 4be. Fine grained, with garnets to 8 mm, green, grey, brown and pink, moderately magnetic and hard. This unit is composed of 30% e beds, 25% laminated and magnetite, 25% f beds 20% chert beds. Bedding is well preserved at 25 to 42 dca, with beds from laminae to 8 mm. Fracture cleavage is moderately developed at 56 to 65 dca. The dominant fracture set is perpendicular to bedding at 31 to 57 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 27 to 41 dca, with chlorite fracture-filling. GEOLOG DATA. 2% Bedded grunerite, 5% bedded grunerite, 0% silicification, 0% carbonatization, 1% bedded chlorite, 20% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 25% laminated magnetite. 2% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 47 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			178.60 182.90 4be. 178.60 179.60 4be 1% quartz veins. 179.60 180.70 4be 1% quartz veins. 180.70 182.00 4be 3% quartz veins. 182.00 182.90 4be 1% quartz veins.								
182.90	184.40	4F	GARNET-BIOTITE SCHIST 4f. Medium grained, with garnets to 2 mm, brown, non-magnetic and average hardness. This unit is composed of 90% f beds, 3% chert beds, 3% poorly developed ea beds, and 4% gruneritized beds. Bedding is well preserved at 41 to 44 dca, with beds from 3 mm to 1 cm. The dominant fracture set is perpendicular to bedding at 48 to 85 dca, with carbonate and chlorite fracture-filling. GEOLOG DATA. 5% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite fracture-filling, 85% f beds. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 41 dca. FE03760 STANDARD III 5.01 ns ns. FE03761 BLANK 0.14 ns ns. 182.90 183.70 4f. 183.70 184.40 4f.								
184.40	185.40	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown, non-magnetic and average hardness. Well developed foliation at 37 dca. The dominant fracture set is parallel to foliation at 33 to 38 dca with carbonate and chlorite fracture-filling. The secondary fracture set is perpendicular to foliation at 60 dca with carbonate fracture-filling. GEOLOG DATA. 0% grunerite 0% garnets, 0% silicification, 0% carbonatization, trace pervasive chlorite, 100% biotization. 0% pyrrhotite 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 2% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 33 dca. 184.40 185.40 Bvol.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
185.40	187.35	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, with garnets to 1 cm, brown, green, pink, yellow, and grey, weakly to moderately magnetite, and hard. This unit is composed of 30% ea beds, 35% e beds, 10% chert beds, 25% f beds. Bedding is moderately to well preserved at 24 to 33 dca, with beds from 5 mm to 1 cm. The dominant fracture set is parallel to bedding at 33 to 38 dca. The secondary fracture set is perpendicular to bedding at 50 to 66 dca, with carbonate fracture-filling. GEOLOG DATA. 10% Bedded grunerite, 15% garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 20% f beds. 5% Pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 5% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 52 dca. 185.40 186.40 4ea 5% quartz flooding. 186.40 187.35 4ea 5% quartz flooding.								
187.35	196.65	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green and brown, non-magnetic and average hardness. Well developed foliation at 32 to 53 dca. The dominant fracture set is perpendicular to foliation at 40 to 57 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 42 dca, with carbonate fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 2% pervasive biotization. 0% pyrite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 55 dca.								
196.65	197.65	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained, green, grey, pink and yellow, moderately magnetic and hard. This unit is composed of 70% e beds, 5% laminated magnetite, 10% f beds, 5% ea beds, 15% chert beds. Bedding is moderately preserved at 44 to 47 dca, with beds from laminae to 3 cm								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			wide. There is one fracture perpendicular to bedding at 56 dca, with carbonate fracture-filling. GEOLOG DATA. 5% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 10% bedded biotite. 1% Pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite stringers, 0% arsenopyrite, trace chalcopyrite stringers, 5% laminated magnetite. 15% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 44 dca. 196.65 197.65 24e 15% quartz flooding, trace pyrite and chalcopyrite.								
197.65	199.95	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown and green, non-magnetic and average hard. Well developed foliation at 50 to 52 dca. The dominant fracture set is perpendicular to bedding at 46 to 53 dca, with carbonate fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 30% pervasive carbonatization, 1% pervasive chlorite, 65% pervasive biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veins, 0% quartz-carbonate veins, 2% carbonate stringers. Lower contact sharp at 40 dca.								
199.95	201.20	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained, with garnets to 5 mm, brown, green, pink and white, weakly magnetic and average hardness. This unit is composed of 55% f beds, 45% e beds and trace disseminated magnetite. Bedding is moderately preserved at 48 dca, with beds from 1 to 3 cm. There are two fractures perpendicular to bedding at 45 and 34 dca, with carbonate fracture-filling. There is one fracture parallel to bedding at 40 dca, with carbonate fracture-filling. GEOLOG DATA. 1% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite and 45% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 0% Quartz veins, 0% quartz-carbonate veins, 5% carbonate stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 45 dca. 199.95 201.20 24fe.								
201.20	205.90	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, non-magnetic and average hardness. Well developed foliation at 41 to 49 dca. The dominant fracture set is perpendicular to foliation at 38 to 61 dca, with carbonate fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, trace pervasive carbonatization, 8% pervasive chlorite, 4% pervasive biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers and carbonate fracture-filling.								
205.90	207.55	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained, with garnets to 5 mm, brown, green and pink, very weakly magnetic and average hardness. This unit is composed of 70% f beds, 25% e beds, 3% ea beds, 1% chert beds, 1% disseminated magnetite. Bedding is well preserved at 42 to 50 dca, with beds from 1 to 3 cm. The dominant fracture set is perpendicular to bedding at 48 to 51 dca, with carbonate fracture-filling. GEOLOG DATA. 1% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 60% bedded biotite and 15% pervasive staurolite. 0% pyrrhotite, 0 specks, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% disseminated magnetite. 0% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 50 dca. 205.90 207.00 24fe. 207.00 207.55 24fe.								
207.55	210.55	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green and brown, non-magnetic and average hardness. Well developed foliation at 46 to 47 dca. The dominant fracture set is perpendicular to bedding at 47 to 58 dca, with								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			carbonate fracture-filling. From 209.35 to 209.75 24fe 50% e beds, 50% f beds, 20% quartz flooding and trace pyrrhotite. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 10% pervasive carbonatization, 5% pervasive chlorite, 20% biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz veins, 0% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 47 dca. FE03770 DUPLICATE OF FE03769 0.93 ns ns. 209.35 209.75 24fe 20% quartz flooding.								
210.55	211.95	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained, with garnets to 8 mm, brown, green, grey and pink, weakly magnetic and average hardness. This unit is composed of 75% f beds, 20% e beds and 5% ea beds. Bedding is moderately preserved at 38 to 47 dca, with beds from 5 mm to 3 cm. The dominant fracture set is perpendicular to bedding at 48 to 56 dca, with carbonate fracture-filling. GEOLOG DATA. 3% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 70% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite stringers, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 15% Quartz flooding, 0% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 63 dca. 210.55 211.00 24fe 15% quartz flooding. 211.00 211.95 24fe.								
211.95	213.35	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown, non-magnetic and average hardness. Well developed foliation at 35 dca. The dominant fracture set is perpendicular to foliation at 46 and 57 dca, with carbonate fracture-filling. The is one fracture parallel to foliation at 49 dca. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 0% chlorite, 95% biotization and 5% sericite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 60 dca.								
213.35	214.45	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained, with garnets to 5 mm, brown, green and pink, very weakly magnetic and average hardness. This unit is composed of 40% F beds, 30% E beds and 30% BVOL'S. Bedding is well preserved at 40 dca, with beds from 1 cm to 2 cm. There is one fracture perpendicular to bedding at 45 dca with carbonate fracture-filling. There is one fracture oblique to the core axis at 26 dca. GEOLOG DATA. Trace bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 35% bedded biotite and 10% staurolite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 36 dca. 213.35 214.45 24fe.								
214.45	216.77	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, dark green-grey, non-magnetic, moderately hard. Well foliated at 44 to 40 dca. Fractures perpendicular to foliation at 46 to 55 dca. Subparallel at 50 dca. GEOLOG DATA. 0% Grunerite, <1% disseminated garnets, 0% silicification, <1% pervasive and fracture-filling carbonatization, 2% pervasive chlorite, 5% pervasive biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% quartz, 0% quartz-carbonate, 5% calcite stringers. Lower contact sharp at 42 dca.								
216.77	218.30	24EF	INTRAFORMATIONAL IRON FORMATION Fine grained matrix with garnets up to 1 cm. Pink, green and brown. Very weakly magnetic. Hard. 75% E beds, 25% f beds. Bedding 37 to 43 dca. Fractures perpendicular to bedding at 56 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 0% grunerite, 5% bedded garnets. 0% silicification. Trace pervasive carbonatization. 2% pervasive chlorite, 5% pervasive biotite. 2% Blebs and stringers pyrrhotite. 0 specks VISIBLE GOLD. 0% pyrite. 0% arsenopyrite. 0% chalcopyrite. 0% magnetite. 3% Quartz stringers parallel to bedding. 0% quartz-carbonate and calcite veining. Lower contact sharp at 44 dca. 216.77 218.30 24ef. 3% quartz stringers parallel to bedding.								
218.30	228.40	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey, non-magnetic, moderately hard. Foliation at 32 to 44 dca. Fractures perpendicular to foliation at 49 to 66 dca. Minor subparallel at 37 to 41 dca. GEOLOG DATA. 0% Grunerite, trace disseminated garnets, 0% silicification, 0% carbonatization, 2% pervasive chlorite, 5% pervasive biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz stringers, 0% quartz-carbonate, 2% calcite stringers parallel to foliation. Lower contact sharp at 52 dca. 221.30 221.60 24e. Contacts 46 dca.								
228.40	231.40	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained matrix with 2 mm garnets. Dark green and pink. Locally weakly to strongly magnetic. Hard. Bedding 20 to 29 dca. Fractures perpendicular to bedding at 56 to 63 dca. GEOLOG DATA. 0% grunerite, 10% 2 mm anhedral bedded garnets, 0% silicification, 1% pervasive carbonatization, 2% pervasive chlorite, 2% pervasive biotite. 13% Stringers and massive bands of pyrrhotite. 0% VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% bedded magnetite. 10% Boudinaged quartz stringers. 2% quartz-carbonate stringers. 0% calcite stringers. Lower contact sharp at 20 dca. 228.40 229.40 24e. At 228.75 FELSIC TO INTERMEDIATE VOLCANICS 10 cm band of								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			massive pyrrhotite. 229.40 230.40 24e. 8% boudinaged quartz stringers. At 229.90 right limb fold with axial plane 29 dca. 230.40 231.40 24e. 20% boudinaged quartz stringers.								
231.40	316.80	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, medium grey and buff, non-magnetic, moderately hard. Alternating zones of weak and moderate sericite alteration. Weaker zones have 3% sericite bands and 5% to 8% 1 mm white feldspar phenocrysts. Zones with moderate sericite alteration have 10% to 15% 1 mm to 3 cm sericite bands parallel to foliation and 3% feldspar phenocrysts. Foliation from 29 to 55 dca. At 273.30 left limb fold with axial plane 42 dca. Dominant fracture set perpendicular to foliation at 38 to 65 dca. Minor fractures subparallel to foliation at 31 to 57 dca. Fractures locally bleached and/or potassic altered. Occasionally calcite coated. GEOLOG DATA. 0% Grunerite, <1% 1 mm to 3 mm ragged anhedral garnets locally flattened parallel to foliation, 0% silicification, trace pervasive and fracture-filling carbonatization, 1% pervasive chlorite, 2% pervasive biotite, 10% disseminated and banded sericite alteration. 1% Disseminated and stringer pyrrhotite, 3 specks VISIBLE GOLD, trace disseminated pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 2% Quartz stringers, 1% quartz-calcite stringers, <1% calcite stringers, <1% quartz-tourmaline stringers. Veining is 5 mm to 3 cm wide and parallel to foliation. Lower contact at 58 dca. 231.40 247.00 10% to 15% 1 mm to 5 cm wide sericite bands. 2% 1 mm feldspar phenocrysts. 247.00 280.00 3% sericite bands. 5% 1 mm feldspar phenocrysts. 273.30 Left limb folded calcite veinlet with axial plane at 42 dca. 280.00 289.00 10% to 15% 1 mm to 5 cm wide sericite bands. 5% 1 mm feldspar phenocrysts. 280.85 281.15 30 cm band with 8% bedded pyrite and 2% pyrrhotite. 289.00 293.00 2% sericite bands. 5% 1 mm feldspar phenocrysts. 293.00 309.00 10% sericite bands. 3% 1 mm feldspar phenocryts. From 300.00 to 308.00 metres 1% to 2% pyrite and 3% quartz-calcite stringers. From 300.00 to 302.00 3 specks VISIBLE GOLD. FE03780 STANDARD III 4.87 ns ns. FE03781 BLANK 0.17 ns ns. 299.00 300.00 AVOL. 3% quartz stringers parallel to foliation. 1% quartz-calcite stringers. 300.00 301.00 AVOL. At 300.55 1 speck VISIBLE GOLD. 3% quartz-calcite stringers. 301.00 302.00 AVOL. At 301.20 2 specks VISIBLE GOLD in FELSIC TO INTERMEDIATE VOLCANICS 5 mm quartz stringer. 3% quartz-calcite stringers parallel to foliation 302.00 303.00 AVOL. 2% quartz-calcite stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			303.00 304.00 AVOL. 3% quartz-calcite stringers. 309.00 316.80 2% sericite bands. 5% 1 mm feldspar phenocrysts. Locally 2% anhedral garnets.								
316.80	320.25	24F	INTRAFORMATIONAL IRON FORMATION 24f. Fine grained matrix with 1 mm to 1 cm garnets. Dark grey, black and pink. Hard. Non-magnetic. Bedding well preserved at 49 to 55 dca. Fractures perpendicular to bedding at 34 and parallel at 49 dca. GEOLOG DATA. 0% grunerite, 25% 1 mm to 1 cm bedded garnets, 0% silicification, 1% banded carbonatization, 3% pervasive chlorite, 50% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% 5 Mm quartz stringers parallel to bedding, 0% quartz-carbonate, 0% calcite veining. 316.80 317.80 24f. 1% 5 mm quartz stringers parallel to foliation.								
320.25	322.55	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, medium grey, hard, non-magnetic. Foliation at 45 dca. Minor right limb fold with axial plane 41 and 44 dca. Fractures subparallel to foliation at 50 dca and perpendicular at 45 dca. GEOLOG DATA. 0% Grunerite, trace disseminated anhedral garnet, 0% silicification, 0% carbonatization, 2% disseminated chlorite, 5% pervasive biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. <1% 1 cm quartz stringers, 0% quartz-carbonate, 1% 2 mm calcite stringers parallel to foliation. Lower contact 56 dca. 321.85 Right limb fold with axial plane 44 dca. 322.30 Left limb fold with axial plane 41 dca.								
322.55	324.35	24F	INTRAFORMATIONAL IRON FORMATION Fine grained with 1 mm to 1 cm garnets. Black, brown and pink. Non-magnetic. Hard Bedding 60 dca. Fractures perpendicular to bedding at 61 dca. GEOLOG DATA. 0% grunerite, 25% 1 mm to 1 cm anhedral garnets stretched parallel to bedding. 0% silicification, 1% bedded carbonatization, 3% pervasive chlorite, 50% bedded biotite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			<1% disseminated and stringers pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Boudinaged quartz stringers. 0% quartz-carbonate and calcite veining. Lower contact sharp at 70 dca. 323.85 324.10 15% 5 mm to 2 cm stretched and rounded quartz boudins.								
324.35	344.65	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey, moderately hard, non-magnetic. Well foliated at 41 to 50 dca. Fractures perpendicular to foliation at 43 to 61 dca and subparallel at 45 to 61 dca. GEOLOG DATA. 0% Grunerite, trace anhedral garnet, 0% silicification, 0% carbonatization, 3% pervasive chlorite, 5% pervasive biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. <1% quartz stringers, 1% quartz-calcite stringer, trace calcite stringers. Lower contact at 44 dca. 330.10 M fold with axial plane 47 dca.								
344.65	347.65	24F	INTRAFORMATIONAL IRON FORMATION 24f. Fine grained matrix with 1 mm to 1 cm subhedral garnets. Black, brown and pink. Non-magnetic. Bedding at 55 dca. Fractures perpendicular to bedding at 46 to 62 dca. Minor fractures subparallel at 32 dca. GEOLOG DATA. 0% grunerite, 20% disseminated garnet, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 50% biotite. 7% 1 mm staurolite crystals. <1% stringer and disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace 1 cm quartz stringers parallel to foliation, 0% quartz-carbonate and calcite stringers. Lower contact at 30 dca. 344.65 345.65 24f. Trace quartz stringers. 345.65 346.65 24f. 346.65 347.65 24f.								
347.65	361.80	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey, moderately hard, non-magnetic.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Foliation at 20 to 60 dca. Dominant fracture set perpendicular to foliation at 45 to 82 dca. Minor fractures subparallel at 44 to 63 dca. GEOLOG DATA. 0% Grunerite, trace disseminated garnet, 0% silicification, 1% pervasive carbonatization, 3% pervasive chlorite, 5% pervasive biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veining, 0% quartz-carbonate, 2% calcite stringers. Lower contact at 42 dca.								
361.80	367.20	24F	INTRAFORMATIONAL IRON FORMATION 24f. Fine grained matrix with garnets up to 5 mm. Black, dark green and pink. Hard. Non-magnetic. Composed of 50% 4F beds, 10% 4EA beds, 5% 4E beds, 10% chert beds and 26% BVOL. Bedding poorly to moderately developed at 45 to 17 dca. Minor right limb fold with axial planes 54 and 39 dca. Fractures perpendicular to bedding at 45 to 74 dca. GEOLOG DATA. 5% Bedded grunerite, 25% 1 mm to 5 mm subhedral to anhedral bedded garnets. 0% silicification, trace pervasive carbonatization. 3% pervasive chlorite, 40% bedded biotite. <1% blebs and stringers pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 2% Quartz veining with 1% pyrrhotite parallel to bedding. <1% quartz-carbonate stringers, 0% calcite stringers. Lower contact at 42 dca. 361.80 362.50 24f. Lower contact 54 dca. 361.80 362.80 70% 24f, 30% BVOL. 2% quartz-carbonate stringers. 362.50 362.80 BVOL. Lower contact 54 dca. 362.80 363.60 24f. Lower contact 48 dca. 362.80 363.60 24F. 1% boudinaged quartz stringers. At 362.90 right limb fold with axial plane 44 dca. 363.60 364.40 BVOL. Lower contact 46 dca. 363.60 364.40 BVOL. 364.40 366.20 24f. Lower contact 24 dca. 364.40 365.40 24f. 1% folded quartz stringers. At 364.90 axial plane 39 dca. 365.40 366.40 80% 24f, 20% BVOL. 10% folded quartz veining with 1% pyrrhotite. 366.20 366.40 BVOL. Lower contact 54 dca. FE03790 DUPLICATE OF FE03789 0.07 NS NS. 366.40 367.20 24f. 5% quartz veining.								
367.20	373.35	BVOL	INTERMEDIATE TO MAFIC VOLCANICS								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			BVOL. Fine grained, dark green-grey, moderately hard, non-magnetic. Foliation at 24 to 32 dca. Fractures perpendicular to foliation at 47 to 55 dca. GEOLOG DATA. 0% grunerite, 0% garnet, 0% silicification, 1% pervasive and fracture-filling carbonatization, 3% pervasive chlorite, 5% pervasive biotite. 0% pyrite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz and quartz-carbonate veining. 4% calcite stringers. Lower contact sharp at 35 dca.								
373.35	375.50	24F	INTRAFORMATIONAL IRON FORMATION 24f. Fine grained matrix with garnets up to 5 mm. Black, dark green and pink. Composed of 70% 4F beds and 30% 4EA beds. Bedding 36 to 38 dca. Beds 1 cm to 5 cm wide. At 373.80 axial plane 33 dca. Fractures perpendicular to bedding at 61 dca. GEOLOG DATA. 10% Bedded grunerite, 20% garnets, 0% silicification, 2% pervasive carbonatization, 2% pervasive chlorite, 40% bedded biotite. 8% Disseminated and stringers pyrrhotite, 12 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 0% magnetite. 2% Quartz veining parallel to bedding, 3% quartz flooding with 5% pyrrhotite. 0% quartz-carbonate, 2% calcite stringers. Lower contact sharp at 50 dca. 373.35 374.35 4f. 2% calcite stringers, 2% quartz stringers. At 373.80 axial plane 33 dca. 374.35 374.70 4f. 374.70 375.50 4ea. 15% quartz veining. 12 specks VISIBLE GOLD. Trace chalcopyrite								
375.50	382.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey, non-magnetic, moderately hard. Foliation 38 to 48 dca. Fractures perpendicular to foliation at 49 to 59 dca. GEOLOG DATA. 0% grunerite, 0% garnet, 0% silicification, 1% pervasive and fracture-filling carbonatization, 3% pervasive chlorite, 5% pervasive biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% chalcopyrite, 0% arsenopyrite, 0% magnetite. 2% Quartz stringers, trace quartz-carbonate stringers, 2% calcite stringers. Lower contact sharp at 46 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			FE03800 STANDARD III 5.04 NS NS. FE08501 BLANK 0.07 ns ns. 375.50 376.50 BVOL. 5% quartz veining.								
382.00	383.25	24EA	INTRAFORMATIONAL IRON FORMATION 24ea. Fine grained, dark green, light green, black and pink. Non-magnetic. Hard. Bedding 46 dca. Fractures perpendicular to bedding at 61 dca. GEOLOG DATA. 10% Bedded grunerite, 20% bedded 5 mm to 1 cm amorphous garnets, 0% silicification, 1% locally pervasive carbonatization, 2% pervasive chlorite, 5% pervasive biotite. 5% Stringers and wisps pyrrhotite, 3 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 35% Quartz veining, 5% quartz-carbonate and calcite stringers. Lower contact sharp at 44 dca. 382.00 382.30 QV. Contacts 28 dca. 382.30 383.25 24ea. 3 specks VISIBLE GOLD. 20% quartz veining parallel to bedding								
383.25	404.20	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey, non-magnetic, hard. Foliation at 32 to 42 dca. Lower contact sharp at 40 dca. 383.25 383.90 BVOL. 383.90 384.20 24ea. Contacts 44 dca. 383.90 384.20 24ea. 10% quartz veining. 388.50 389.50 90% qvg, 10% BVOL. Contacts 45 dca. 391.40 Axial plane 55 dca. 403.20 404.20 80% BVOL, 20% 24f.								
404.20	416.07	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4EA. Light green, grey and pink. Weakly to strongly magnetic. Hard. Bedding at 34 to 51 dca. Unit folded throughout. Folds often crenulated and microfaulted on mm scale. Fractures subparallel to bedding at 22 to 58 dca. Perpendicular at 52 to 56 dca. MINERALIZED ZONE. From 407.00 to 415.00 2.5% wisps and stringers pyrrhotite, 4% quartz stringers. At 409.00 to 410.00 1 speck VISIBLE GOLD. GEOLOG DATA. 30% Bedded grunerite, 25% amorphous bedded garnets, 0% silicification, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			carbonatization, 2% bedded chlorite, 1% bedded biotite. 2% Stringers, wisps and blebs pyrrhotite. 1 speck VISIBLE GOLD. 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 7% bedded magnetite. 3% Quartz stringers parallel to bedding with trace pyrrhotite. Trace quartz-carbonate and calcite stringers. Lower contact gradual at 55 dca. FE08510 DUPLICATE OF FE08509 0.10 ns ns. FE08520 STANDARD III 5.01 ns ns. FE08521 BLANK 0.07 ns ns. 404.20 405.00 4ea. At 404.60 M fold with axial plane 42 dca. 405.00 406.00 4ea. 406.00 407.00 4ea. 2% quartz stringers parallel to bedding. 407.00 408.00 4ea. 5% quartz stringers parallel to bedding. At 407.40 M fold with axial plane 34 dca. At 407.70 axial plane 28 dca. At 407.95 axial plane 18 dca. 408.00 409.00 4ea. 3% folded quartz stringers. At 408.20 axial plane 14 dca. At 408.60 axial plane 10 dca. 409.00 410.00 4ea. 2% wisps pyrrhotite, 1 speck VISIBLE GOLD. 5% quartz flooding. 410.00 411.00 4ea. At 410.50 right limb fold with axial plane 26 dca. At 410.75 axial plane 14 dca. 411.00 412.00 4ea. 5% wispy quartz stringers parallel to bedding. 412.00 413.00 4ea. 3% wispy quartz stringers parallel to bedding. 413.00 414.00 4ea. 7% quartz stringers parallel to bedding. At 413.85 right limb fold with axial plane 41 dca. 414.00 415.00 4ea. 2% quartz stringers. At 414.40 M fold with axial plane 31 dca. At 414.75 axial plane 39 dca. 415.00 416.07 4ea. At 415.75 left limb fold with axial plane 40 dca.								
416.07	439.80	4B	CHERT - MAGNETITE IRON FORMATION 4b and 4bea. From 416.07 to 422.00 4b. From 422.00 to 439.80 4bea. Fine grained matrix with garnets up to 2 mms. Grey, black, light green and pink. Strongly magnetic. Hard. Bedding well developed at 30 to 58 dca. Both right and left limb folding with axial planes 25 to 48 dca. Minor micro-faulting at mm scale along axial planes. Dominant fractures perpendicular to bedding at 43 to 52 dca. Rare fracture subparallel at 27 and 44 dca. GEOLOG DATA. 8% Bedded grunerite, 3% bedded garnets, 0% silicification, 1% stringers and fracture-filling carbonatization, 2% bedded chlorite, 5% bedded biotite. Trace stringers and wisps pyrrhotite, 1 speck VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 8% Quartz flooding and 2% quartz stringers with trace pyrrhotite parallel to axial planes, 0% quartz-carbonate and calcite veining.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			MINERALIZED ZONE. From 422.00 428.00 3% pyrrhotite and 18% quartz flooding. At 423.80 1 speck VISIBLE GOLD. Lower contact at 36 dca. 416.07 422.00 4b. 416.07 417.00 4b. Weakly gruneritized. At 416.20 axial plane 44 dca. At 416.50 axial plane 41 dca. At 416.95 axial plane 42 dca. 417.00 418.00 4b. At 417.55 right limb fold with axial plane 45 dca. 418.00 419.00 4b. At 418.50 an 8 cm quartz vein at 56 dca. 419.00 420.00 4b. 5% quartz stringers parallel to bedding. 420.00 421.00 4b. Trace quartz stringers. 421.00 422.00 4b. 5% quartz flooding. At 421.80 right limb fold with axial plane 39 dca. 422.00 439.80 4bea. 5% 4f beds. FE08530 DUPLICATE OF FE08529 1.51 ns ns. FE08540 STANDARD III 4.83 ns ns. FE08541 BLANK 0.21 ns ns. FE08550 DUPLICATE OF FE08549 0.07 ns ns. 422.00 423.00 4bea. 5% quartz flooding. At 422.10 axial plane 33 dca. 422.50 right limb fold axial plane 44 dca. 423.00 424.00 4bea. 20% quartz flooding. At 423.80 1 speck VISIBLE GOLD. At 423.10 axial plane 27 dca. At 423.40 axial plane 45 dca. 424.00 425.00 4bea. 30% quartz flooding. At 424.60 axial plane 40 dca. 425.00 426.00 4bea. 5% 4f beds. 5% quartz stringers. At 425.30 M fold with axial plane 36 dca. 426.00 427.00 4bea. At 426.80 left limb fold with axial plane 42 dca. 427.00 428.00 4bea. 1% quartz stringers parallel to bedding with trace pyrrhotite. At 427.50 left limb fold with axial plane 48 dca. 428.00 429.00 4bea. At 428.10 FELSIC TO INTERMEDIATE VOLCANICS 20 cm quartz vein with 1% pyrrhotite and contacts at 49 dca. 429.00 430.00 4bea. 430.00 431.00 4bea. 1% quartz stringers. At 430.90 right limb fold with axial plane 43 dca. 431.00 432.00 4bea. 20% quartz flooding. At 431.50 2 specks VISIBLE GOLD. At 431.70 left limb fold with axial plane 40 dca. 432.00 433.00 4bea. 1% quartz stringers. At 432.70 left limb fold with axial plane 44 dca. 433.00 434.00 4bea. 20% quartz flooding. 434.00 435.00 4bea. 35% quartz flooding. 435.00 436.00 4bea. 60% quartz flooding. 436.00 437.00 4bea. Trace arsenopyrite. 40% quartz flooding. 437.00 438.00 4bea. 438.00 439.00 4bea. 439.00 439.80 4bea. At 439.80 left limb fold with axial plane 44 dca.								
439.80	470.95	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			4ea. Light green, grey, pink and black. Weakly to strongly magnetic. Hard. Unit composed of 85% 4ea beds, 5% 4b beds, 2% 4f beds and 8% chert beds. Beds 1 mm to 3 cm wide. Bedding 31 to 50 dca. Folding throughout unit, both left and right limb folds with axial planes 26 to 64 dca. Minor fractures perpendicular to bedding at 40 to 70 dca. Rare fracture subparallel to bedding at 24 dca. GEOLOG DATA. 30% Bedded grunerite. 20% bedded garnets. 0% silicification. Trace fracture-filling carbonatization. 1% bedded chlorite. 2% bedded biotite. 2% Wisps, stringers and blebs pyrrhotite. 39 specks VISIBLE GOLD. Trace blebs pyrite, trace disseminated and crystals arsenopyrite, 0% chalcopyrite, 10% bedded magnetite. 6% 1 Cm to 3 cm quartz veinlets with 1% to 10% pyrrhotite. 7% quartz flooding with up to 10% pyrrhotite. Trace quartz-carbonate and calcite stringers. MINERALIZED ZONES. From 446.00 to 456.00 4% wisps and stringers pyrrhotite, 7% quartz stringers and 16% quartz flooding. 17 specks VISIBLE GOLD. From 462.00 to 470.00 3% wisps and stringers pyrrhotite, 3% quartz flooding and 15% quartz veining. 11 specks VISIBLE GOLD. Lower contact at 34 dca. FE08560 STANDARD III 4.77 ns ns. FE08561 BLANK 0.07 ns ns. FE08570 DUPLICATE OF FE08569 0.79 ns ns. FE08580 STANDARD III 4.80 ns ns. FE08581 BLANK 0.14 ns ns. 439.80 441.00 4ea. 1% quartz stringers. At 440.40 left limb fold with axial plane 44 dca. 441.00 442.00 4ea. 442.00 443.00 4ea. 1% quartz stringers. At 442.60 left limb fold with axial plane 42 dca. 443.00 444.00 4ea. 1% quartz stringers. At 443.90 left limb fold with axial plane 26 dca. 444.00 445.00 4ea. 3% quartz-calcite stringers. At 444.40 left limb fold with axial plane 50 dca. 445.00 446.00 4ea. 60% quartz flooding. 446.00 447.00 4ea. 60% quartz flooding. At 446.40 axial plane 54 dca. 447.00 448.00 4ea. At 447.90 1 speck VISIBLE GOLD. 25% quartz flooding. At 447.15 axial plane 35 dca. 448.00 449.00 4ea. 30% quartz flooding. At 448.05 1 speck VISIBLE GOLD. At 448.15 FELSIC TO INTERMEDIATE VOLCANICS cluster with 13 specks VISIBLE GOLD. At 448.30 axial plane 45 dca. 449.00 450.10 4ea. 40% quartz flooding. At 449.93 FELSIC TO INTERMEDIATE								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			VOLCANICS 20 cm quartz vein with 1% pyrrhotite at 50 dca. At 449.40 left limb fold with axial plane 52 dca. 450.10 451.00 4ea. 8% quartz stringers. At 450.95 left limb fold with axial plane 44 dca. 451.00 452.00 4ea. 5% quartz stringers. At 451.50 axial plane 30 dca. 452.00 453.00 4ea. 3 specks VISIBLE GOLD. 50% quartz veining. At 452.15 axial plane 64 dca. 453.00 454.00 4ea. 2% quartz stringers. At at 453.75 left limb fold with axial plane 47 dca. 454.00 455.00 4ea. At 454.10 FELSIC TO INTERMEDIATE VOLCANICS 1 cm left limb folded quartz vein with axial plane at 44 dca. 455.00 456.00 4ea. At 455.40 FELSIC TO INTERMEDIATE VOLCANICS 1 cm folded quartz stringer with axial plane 40 dca. 456.00 457.00 4ea. At 456.50 left limb fold with axial plane 42 dca. 457.00 458.00 4ea. At 457.15 left limb fold with axial plane 45 dca. At 457.50 axial plane 43 dca. 458.00 459.00 4ea. At 458.60 axial plane 50 dca. 459.00 460.00 4ea. At 459.05 axial plane 48 dca. 460.00 461.00 4ea. 461.00 462.00 4ea. At 461.90 10 cm quartz vein with 5% pyrrhotite and contacts at 52 dca. At 461.75 axial plane 43 dca. 462.00 463.00 4ea. 11 specks VISIBLE GOLD. 30% quartz stringers parallel to bedding. 463.00 464.00 4ea. 5% quartz stringers. At 463.30 axial plane 46 dca. 464.00 465.00 4ea. At 464.20 axial plane 39 dca. 465.00 466.00 4ea. 4% 1 cm quartz stringers parallel to bedding. At 465.95 FELSIC TO INTERMEDIATE VOLCANICS 1 cm quartz stringer with 1 speck VISIBLE GOLD in selvage. 466.00 467.00 4ea. <1 blebs pyrite. 12% quartz stringer. 1 cm to 3 cm wide at 41 dca. At 466.13 1 speck VISIBLE GOLD in FELSIC TO INTERMEDIATE VOLCANICS 3 cm quartz stringer with 4% pyrrhotite. At 466.40 FELSIC TO INTERMEDIATE VOLCANICS 2 cm quartz stringer with 1 speck VISIBLE GOLD. At 466.80 axial plane 39 dca. 467.00 468.00 4ea. Trace arsenopyrite. 10% quartz stringers and 20% quartz flooding with 15% pyrrhotite. At 467.85 6 specks VISIBLE GOLD. At 467.30 axial plane 32 dca. 468.00 469.00 4ea. 10% quartz stringers with trace to 5% pyrrhotite. At 468.65 right limb fold with axial plane 40 dca. 469.00 470.00 4ea. 45% quartz veining with 2% pyrrhotite. At 469.55 4 specks VISIBLE GOLD in 4ea. At 469.55 left limb fold with axial plane 35 dca. 470.00 470.95 4ea. 1% quartz stringers.								
470.95	485.65	48	CHERT - MAGNETITE IRON FORMATION 4b and 4bf. From 470.95 to 478.00 4b. From 478.00 485.65 4bf. Fine grained matrix with occasional 1 mm garnet. Black, grey, pink and dark green. Strongly magnetic. Hard. Composed of 80% to 95% 4b beds and up to 20% 4f beds.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Bedding 28 to 37 dca. Left limb fold throughout unit with axial planes 35 to 39 dca. Rare fractures perpendicular to bedding at 47 to 61 dca. GEOLOG DATA. 2% Bedded grunerite, 3% bedded garnets, 0% silicification, <1% fracture-filling carbonatization, 1% bedded chlorite, 15% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 5% boudinaged 1 cm to 20 cm quartz veinlets parallel to bedding, trace quartz-carbonate stringer, 0% calcite stringers. Lower contact gradual at 28 dca. 470.95 478.00 4b. 470.95 472.00 4b. 472.00 473.00 4b. 5% boudinaged quartz veinlets with trace pyrrhotite. 473.00 474.00 4b. 2% 2 mm wide quartz-carbonate filled fractures. 474.00 475.00 4b. 2% quartz stringers. At 474.80 FELSIC TO INTERMEDIATE VOLCANICS 2 cm quartz vein at 30 dca with 5% pyrrhotite. 475.00 476.00 4b. 10% quartz veinlets. At 475.90 10 cms of quartz veinlets with trace pyrrhotite at 30 dca. 476.00 477.00 4b. 11% quartz veinlets with 5% pyrrhotite. At 476.05 FELSIC TO INTERMEDIATE VOLCANICS 1 cm quartz veinlet with trace pyrrhotite, at 476.60 FELSIC TO INTERMEDIATE VOLCANICS 30 cm band of 4b with 3% pyrrhotite and 10 cm quartz veining. 477.00 478.00 4b. 20% quartz veinlets. At 477.57 FELSIC TO INTERMEDIATE VOLCANICS 20 cm quartz vein with 5% pyrrhotite and contacts at 44 dca. 478.00 485.65 4bf. FE08590 DUPLICATE OF FE0889 0.07 ns ns. FE08600 STANDARD III 4.70 ns ns. FE08601 BLANK 0.21 ns ns. 478.00 479.00 4bf. 479.00 480.00 4bf. 5% quartz veinlets. At 479.40 FELSIC TO INTERMEDIATE VOLCANICS 5 cm quartz vein at 41 dca. 480.00 481.00 4bf. 1% quartz stringers. 481.00 482.00 4bf. 1% boudinaged quartz stringers. 482.00 483.00 4bf. At 482.15 left limb fold with axial plane 39 dca. 483.00 484.00 4bf. 1% quartz stringers. At 483.40 M fold with axial plane 35 dca. 484.00 485.00 4bf. 4% quartz stringers. Weakly gruneritized. 485.00 485.65 4bf. Weakly gruneritized.								
485.65	529.90	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea and 4eaf. From 485.65 to 518.00 4EA. From 518.00 to 529.90 4EAF. Fine grained matrix with glomeroporphyritic garnets to 1 cm. Light green, grey, pink, dark green and black. Non to moderately magnetic. Hard. Composed of 75% to 95% 4EA beds and 5% to 25% 4F beds. Beds 1 mm to 3 cm wide.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Bedding 37 to 53 dca. Minor left limb fold between 519.00 and 530.00 metres. Dominant fracture set subparallel to bedding at 20 to 52 dca. GEOLOG DATA. 30% Bedded grunerite, 20% bedded garnets, 0% silicification, trace fracture-filling and pervasive carbonatization, 2% bedded chlorite, 10% bedded biotite. 1% Wisps and stringers pyrrhotite, 38 specks VISIBLE GOLD in 4ea and quartz stringers, trace blebs pyrite, trace blebs arsenopyrite, trace blebs chalcopyrite, 3% bedded magnetite. 4% 1 Cm to 20 cm quartz veins with up to 10% pyrrhotite, 1% quartz flooding. Trace quartz-carbonate and trace calcite stringers. MINERALIZED ZONES. From 489.00 to 494.00 5% wisps and stringers pyrrhotite, 28 specks VISIBLE GOLD and 18% quartz veining. From 502.45 to 507.00 4% pyrrhotite, 42 specks VISIBLE GOLD, trace arsenopyrite and chalcopyrite, 5% quartz flooding and 9% quartz veining. From 512.00 to 516.00 38 specks VISIBLE GOLD, 5% wisps and stringers pyrrhotite and 8% quartz veining. From 523.10 to 525.05 5% pyrrhotite, 25% quartz veining and 7% quartz flooding. Lower contact sharp at 40 dca. 485.65 518.00 4ea. 485.65 486.00 4eab. Weakly gruneritized. 486.00 487.00 4ea. 4% quartz stringers with trace pyrrhotite. 487.00 488.00 4ea. 1% calcite stringers. 488.00 489.20 4ea. 6% quartz stringers. 489.20 490.00 4ea. 22 specks VISIBLE GOLD. 20% quartz flooding. 490.00 490.50 4ea. 50% quartz flooding. 490.50 491.00 4ea. 491.00 492.00 4ea. 3 specks VISIBLE GOLD in 4ea. 5% quartz stringers. 492.00 493.00 4ea. 3 specks VISIBLE GOLD. 12% quartz stringers. At 492.32 FELSIC TO INTERMEDIATE VOLCANICS 6 cm quartz stringer at 64 dca. At 492.50 FELSIC TO INTERMEDIATE VOLCANICS 4 cm quartz stringer at 64 dca. 493.00 493.60 4ea. 5% quartz stringers. Trace arsenopyrite. 493.60 494.00 4ea. 494.00 495.00 60 cm 4ea with 5% quartz stringers and 40 cm BVOL. 494.33 494.48 BVOL. Contacts 43 dca. 494.65 494.90 BVOL. Upper contact 44 and lower contact 39 dca. FE08620 STANDARD III 5.11 ns ns. FE08621 BLANK 0.14 ns ns. 495.00 496.00 4ea. 496.00 496.75 4ea. 496.75 497.75 4ea. 30% quartz flooding. 497.75 498.75 4ea. 20% quartz stringers. 498.75 499.75 4ea. 1% quartz-calcite stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			499.75 500.75 4ea. 1% quartz-calcite stringers. 500.75 501.85 65% 4ea and 35% BVOL. 4% quartz stringers. 501.00 501.40 BVOL. Contacts 42 dca. 501.85 502.45 BVOL. Contacts 43 dca. FE08630 DUPLICATE OF FE08629 8.26 ns ns. 501.85 502.45 BVOL. 502.45 503.45 4ea. 39 specks VISIBLE GOLD in 4ea and quartz stringers. Trace arsenopyrite. 15% quartz stringers and 10% quartz flooding. 503.45 504.45 4ea. 3 specks VISIBLE GOLD. 15% quartz stringers and 5% quartz flooding. 504.45 505.45 4ea. 505.45 505.70 4ea. 505.70 506.20 BVOL. Contacts 37 dca. FE08640 STANDARD III 4.90 ns ns. FE08641 BLANK 0.14 ns ns. 505.70 506.20 BVOL. 506.20 507.00 4ea. Trace chalcopyrite. 15% quartz veinlets and 10% quartz flooding. At 506.75 FELSIC TO INTERMEDIATE VOLCANICS 15 cm quartz veinlet with trace pyrrhotite and contacts 47 dca. 507.00 508.00 4ea. 2% quartz stringers. Trace calcite wisps. 508.00 509.00 4ea. Trace arsenopyrite and pyrite. 5% quartz stringers. 509.00 510.00 4ea. 10% quartz stringers. 510.00 511.00 4ea. 511.00 512.00 4ea. 2% quartz-calcite stringers. 512.00 513.00 4ea. 5% quartz stringers. At 512.00 FELSIC TO INTERMEDIATE VOLCANICS 3 cm quartz veinlet with contacts 49 dca. At 412.90 FELSIC TO INTERMEDIATE VOLCANICS 10 cm band with 20% pyrrhotite and 6 specks VISIBLE GOLD. 513.00 514.00 4ea. 2 specks VISIBLE GOLD in quartz stringers. 2% quartz stringers. 2% quartz-carbonate stringers. 514.00 515.00 4ea. 22% quartz stringers. At 514.00 FELSIC TO INTERMEDIATE VOLCANICS 10 cm band with 50% quartz veining and FELSIC TO INTERMEDIATE VOLCANICS cluster with 20 specks VISIBLE GOLD. At 514.60 FELSIC TO INTERMEDIATE VOLCANICS 20 cm quartz vein with 10% wisps pyrrhotite, 1 speck VISIBLE GOLD and 5% calcite. 515.00 516.00 85% 4ea, 15% BVOL. 1% quartz stringers. At 515.00 FELSIC TO INTERMEDIATE VOLCANICS 35 cm band with 10% pyrrhotite, 9 specks VISIBLE GOLD and trace stringers pyrite. 515.35 515.50 BVOL. Contacts 50 dca. FE08650 DUPLICATE OF FE08649 1.54 ns ns. 516.00 517.00 4ea. 517.00 518.00 4ea. 518.00 529.90 4eaf. FE08610 DUPLICATE OF FE08609 21.91 21.98 ns. 518.00 519.00 4eaf. 519.00 520.00 4eaf. Trace arsenopyrite. 10% quartz flooding. At 519.20 axial plane 64 dca. 520.00 521.00 4eaf. 521.00 522.00 4eaf. 1% quartz stringers.									

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			522.00 522.50 4eaf. 10% quartz stringers. 522.50 523.10 BVOL. Contacts 50 dca. 522.50 523.10 BVOL. 523.10 524.00 4eaf. 17% quartz stringers with pyrrhotite. 524.00 525.05 4eaf. 30% quartz veining and 15% quartz flooding. 525.05 525.33 BVOL. Contacts 40 dca. FE08660 STANDARD III 4.94 ns ns. FE08661 BLANK 0.07 ns ns. 525.05 525.33 BVOL. 525.33 525.60 4eaf. 525.60 526.00 BVOL. 5 cms 4ea. 526.00 527.00 4eaf. At 527.60 40 cms of quartz veining with trace pyrrhotite and contacts 49 dca. At 526.40 axial plane 50 dca. 527.00 528.00 4eaf. 1% quartz stringers. At 527.80 left limb fold with axial plane 54 dca. At 527.60 35 cm quartz vein with contacts 50 dca. 528.00 529.00 90% 4eaf and 10% BVOL. 2% quartz stringers. At 528.30 left limb fold with axial plane 65 dca. At 528.55 10 cms BVOL. 529.00 529.90 4eaf. 7% quartz stringers. At 529.27 FELSIC TO INTERMEDIATE VOLCANICS 20 cm band with 5% pyrrhotite.								
529.90	531.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green, non-magnetic, moderately hard. Foliation at 40 dca. Minor left limb fold with axial plane 37 dca. GEOLOG DATA. 0% Grunerite, <1% 2 mm garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 10% pervasive biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veining, 0% quartz-carbonate, 1% calcite stringers. Lower contact at 44 dca. 529.90 531.00 BVOL. 530.90 Left limb fold with axial plane 37 dca.								
531.00	538.60	4B	CHERT - MAGNETITE IRON FORMATION 4bf. Fine grained matrix with garnets up to 2 mm. Dark grey, light grey, black, pink and light green. Strongly magnetic. Hard. Unit composed of 60% to 70% 4B beds, 30% to 40% 4F beds. Beds 1 mm to 2 cms wide. Occasional 30 cm 4ea bd. Bedding well defined at 34 to 51 dca. Minor left limb fold locally throughout unit with axial plane 42 dca. Fractures subparallel to bedding at 37 to 41 dca. GEOLOG DATA.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			3% Bedded grunerite, 15% bedded garnets, 0% silicification, trace fracture-filling and pervasive carbonatization, 5% bedded chlorite, 25% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 40% bedded magnetite. 1% 1 Cm quartz stringers parallel to bedding, 0% quartz-carbonate, trace calcite stringers. Lower contact at 50 dca. 531.00 538.60 4bf. FE08670 DUPLICATE OF FE08669 0.07 ns ns. 531.00 532.00 4bf. At 531.80 left limb fold with axial plane 41 dca. 532.00 533.00 4bf. 533.00 534.00 4bf. 534.00 534.95 4bf. At 534.63 FELSIC TO INTERMEDIATE VOLCANICS 2 cm quartz vein at 37 dca. 534.95 535.27 4ea. Contacts 50 dca. 534.95 535.27 4ea. 1% quartz stringers. 535.27 536.00 4bf. 536.00 537.00 4bf. 537.00 538.00 4bf. 2% quartz stringers. At 537.55 axial plane 42 dca. 538.00 538.60 4ea. Contacts 50 dca. 538.00 538.60 4ea. 3% quartz stringers.								
538.60	547.05	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green, non-magnetic, moderately hard. Foliation at 57 to 59 dca. Fractures perpendicular to foliation at 59 to 64 dca. GEOLOG DATA. 0% grunerite, 0% garnet, 0% silicification, trace pervasive and fracture-filling carbonatization, 5% pervasive chlorite, 10% pervasive biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz vein, 4% quartz-carbonate stringers, 0% calcite stringer. Lower contact at 52 dca. 538.60 539.60 BVOL. 2% quartz-calcite stringers.								
547.05	549.60	4F	GARNET-BIOTITE SCHIST 4f. Fine grained matrix with 1 mm garnets. Black, grey and pink. Non-magnetic. Moderately hard. Composed of 80% 4f beds and 20% chert beds. Beds 1 cm to 2 cm wide. Bedding well defined at 45 to 63 dca. Minor W folding with axial plane 47 dca. Fractures perpendicular to bedding at 36 dca and subparallel at 53 to 62 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 0% grunerite, 25% 1 mm bedded garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 70% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz, quartz-carbonate and calcite veining. Lower contact at 56 dca. FE08680 STANDARD III 4.32 ns ns. FE08681 BLANK 0.14 0.10 ns. 547.05 548.05 4f. At 547.90 W fold with axial plane 47 dca. 548.05 549.05 4f. 549.05 549.60 4f.								
549.60	553.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained matrix with glomeroporphyritic garnets. Light green, grey, pink and black. Non to strongly magnetic. Hard. Unit composed of 85% 4EA beds and 15% 4F beds. Beds 1 cm to 3 cms WIDE. Bedding 41 to 56 dca. Fracture perpendicular to bedding at 125 dca. GEOLOG DATA. 30% Bedded grunerite, 30% bedded garnets, 0% silicification, 0% carbonatization, 3% pervasive chlorite, 10% bedded biotite. 1% Blebs pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz, quartz-carbonate, calcite stringers. 549.60 550.60 4ea. At 550.33 20 cm 4f. 550.33 550.53 4f. Contacts 48 dca. 550.60 551.60 4ea. At 551.10 right limb fold with axial plane 68 dca. 551.60 552.60 4ea. At 552.50 right limb fold with axial plane 60 dca. 552.60 553.00 4eaf. At 552.80 right limb fold with axial plane 44 dca.								
553.00		4EA	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assay with gravimetric finish. Sludge samples taken every 6 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY:. 0.00 to 13.40 Tricone bit used. 13.40 metes NW casing. 13.40 to 157.00 20ft fluted core barrel used.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			157.00 to 298.70 10ft Standard core barrel used. 298.70 to 553.0 20 ft fluted core barrel used. Hole cemented - 7 hours - 114 bags of 20 kg Type 50 cement used. Dutem plug installed above cement. Casing pulled. SURVEY HISTORY:. Sperry Sun single shot camera with low point indicator used for dip tests while drilling. Sperry Sun Dip Tests:. 16m -61.0 degrees. 44m -60.5. 67m -60.0. 97m -59.1. 118m -59.0. 157m -58.1. 171m -57.75. 219.7m -56.5. 255.7m -56.0. 285.7m -55.1. 310m -55.0. 346m -54.25. 376m -54.0. 406m -53.75. 439m -53.0. 463m -52.75. 493m -52.0. Light Log Survey conducted by Wilfred Hill. Survey took 3.5 hours. Data used for Code 2 dip tests. Drill hole collar, azimuth and water elevation surveyed by Erik Snucins of W.J. Bowman Ltd., O.L.S., Dryden, Ontario.								

OP Zone

DDH #	Collar Location N/S to Post	E/W to Post	Post #	Claim #	Total Length	Length per Claim Claim	Length	Claim	Length	Claim	Length
641	243m N	222m W	4	529854	50m						
642	263m N	202mW	4	529854	50m						
643	261m N	238m W	4	529854	50m						
644	277m N	259m W	4	529854	50m						
645	195m N	205m W	4	529854	74m						
646	209m N	189m W	4	529854	53m						
647	163m N	164m W	4	529854	69 55m						
648	171m N	153m W	4	529854	50m						
649	129m N	126m W	4	529854	61m						
650	218m N	179m W	4	529854	35m						
651	182m N	144m W	4	529854	40.5m						
652	139m N	115m W	4	529854	46m						
653	286m N	249m W	4	529854	35m						
654	118m N	137m W	4	529854	75m						
664	302m N	306m W	4	529854	62 7						
665	312m N	295m W	4	529854	43.6						
666	293m N	317m W	4	529854	75m						
667	267m N	271m W	4	529854	6.9*						
668	266m N	272m W	4	529854	65 85m						
670	256m N	246m W	4	529854	59m						
672	185m N	214m W	4	529854	89m						
674	153m N	175m W	4	529854	86m						

*Hole Abandoned

RECEIVED AUG - 3 '94 PATRICIA MINING DIVISION

53B09SW0012 W9430.00052 ZEEMEL LAKE

DRILL HOLE RECORD

Northing: 8300.700
Easting: 8916.700
Elevation: 5307.700

Collar Azi.: 228.40
Collar Dip: -45.50

Hole Length: 50.00
Completed: JUNE 22, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST OP ZONE UPDIP OF 506-373 ON SECTION 8300N(s)

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529854
243 m north, 222 m west to post 4 of Pa529854
Logged: JUNE 22-23, 1993

Drill Hole: 506-641
Northing: 7+00S
Easting: 0+75W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JUNE 21, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
6.4		-43.0	50.0		-43.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E53218 to E53250.								
.00	6.40	OB	OVERBURDEN								
6.40	17.40	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Hard. Locally garnetiferous. Well foliated at 45 to 56 dca. Fractures subparallel to foliation at 35 to 36 dca and perpendicular at 31 to 40 dca. Trace disseminated pyrrhotite. 5% Quartz-calcite stringers parallel to foliation. Lower contact a quartz vein at 80 dca. 7.10 Fracture parallel to foliation at 56 dca. 7.70 Fracture perpendicular to foliation at 40 dca. 8.30 Fracture perpendicular to foliation at 31 dca. 9.50 Foliation 52 dca. 10.60 11.40 80% quartz veining. Contacts 60 dca. 12.00 Foliation 50 dca. 12.90 13.30 30% quartz veining with 1% pyrrhotite and 2% magnetite. 13.80 Right limb fold looking downplunge with axial plane at 36 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			14.00 Foliation 45 dca. 15.50 Fracture subparallel to foliation at 35 dca. 16.00 Foliation 56 dca. E53220 STANDARD I 7.37 7.71 ns. E53221 BLANK 0.07 ns ns.								
17.40	20.40	4F	GARNET-BIOTITE SCHIST 4f. 35% 1 Mm garnets in 4f matrix. Non-magnetic. Hard. Bedding 66 dca. 1% Disseminated pyrrhotite. Trace chalcopyrite. Lower contact right limb folded with axial plane at 41 dca. 17.40 18.00 4f. Trace chalcopyrite. 40% quartz stringers parallel to bedding at 55 dca. 18.50 Bedding 66 dca. 19.40 20.40 4f.								
20.40	39.40	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Beds 5 mm to 3 cm wide. Moderate to strong grunerite alteration with amorphous garnets. Non to moderately magnetic. Hard. Bedding well developed at 56 to 66 dca. Right limb fold throughout unit with axial planes at 48 to 55 dca. Fractures predominantly perpendicular to bedding at 35 to 41 dca. Minor fractures subparallel to bedding at 35 dca. From 20.40 to 26.00 1% disseminated pyrrhotite and 1% to 7% stratabound quartz veining. 1 speck VISIBLE GOLD at 21.40. From 26.00 to 34.00 3% to 10% pyrrhotite. Trace arsenopyrite. Numerous specks VISIBLE GOLD. 5% to 35% stratabound quartz veining and quartz flooding. From 34.00 to 39.40 trace pyrrhotite. Up to 10% quartz veining. Lower contact at 77 dca. 20.40 21.00 4ea. 1% quartz stringers parallel to bedding. 21.00 22.00 4ea. At 21.40 1 speck VISIBLE GOLD. 7% quartz stringers parallel to bedding at 61 dca. At 21.7 axial plane at 55 dca. 22.00 Fracture 38 dca. 22.00 23.00 4ea. 5% quartz stringers parallel to bedding at 60 dca. 23.00 24.00 4ea. Minor sericite. 3% quartz stringers parallel to bedding at 56 dca. At 23.6 right limb fold with axial plane 26 dca. 24.00 25.00 4ea. At 24.70 axial plane 62 dca and bedding 70 dca. 24.70 Fracture perpendicular to bedding at 35 dca. 25.00 26.00 4ea. 7% quartz stringers parallel to bedding. Bedding 60 dca. 25.50 Fracture perpendicular to bedding at 40 dca. E53230 DUPLICATE of E53229 0.72 0.65 ns. 26.00 27.00 4ea. 20 specks VISIBLE GOLD. 8% quartz stringers and quartz flooding. Bedding 65 dca. 27.00 28.00 4ea. 9 specks VISIBLE GOLD. 10% quartz stringers parallel to bedding								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			at 63 dca. 28.00 29.00 4ea. 11 specks VISIBLE GOLD. 20% quartz stringers parallel to bedding at 62 dca. 29.00 30.00 4ea. 2 specks VISIBLE GOLD. 35% quartz stringers parallel to bedding at 64 dca and quartz flooding. 29.80 Fracture perpendicular to bedding at 35 dca. 30.00 31.00 4ea. 2 specks VISIBLE GOLD. Trace arsenopyrite. 31% quartz veining. At 30.22 a 31 cm quartz vein with contacts at 60 dca. Bedding 63 dca. 31.00 32.00 4ea. 5% quartz flooding. 2 specks VISIBLE GOLD. Trace arsenopyrite. Bedding 60 dca. At 31.6 left limb fold with axial plane 48 dca. 32.00 33.00 4ea. 20% quartz stringers parallel to bedding and minor quartz flooding. At 32.75 right limb fold with axial plane 65 dca. 33.00 34.00 4ea. 5% quartz stringers parallel to bedding at 60 dca. 33.25 Fracture perpendicular to bedding at 41 dca. E53240 STANDARD I 7.10 ns ns. E53241 BLANK 0.07 ns ns. 34.00 35.00 4ea. At 34.55 axial plane 55 dca. 35.00 36.00 4ea. 10% quartz stringers parallel to bedding at 64 dca. At 35.60 left limb fold with axial plane 50 dca. 35.30 Fracture perpendicular to bedding at 25 dca. 36.00 37.00 4ea. 5% quartz stringers. 37.00 38.00 4ea. 2% quartz stringers parallel to bedding at 70 dca. 38.00 39.00 4ea. 2% quartz stringers parallel to bedding at 75 dca. 39.00 39.40 4ea. At 39.20 right limb fold with axial plane at 65 dca.								
39.40	41.20	4B	CHERT - MAGNETITE IRON FORMATION 4b. Light grey and black, 1 mm to 1 cm, finely laminated 4b. Strongly magnetic. Hard. Bedding well developed at 67 to 76 dca. Minor right limb fold with axial plane at 60 dca. Fractures perpendicular to bedding at 38 dca. Weakly calcareous along some beds. Barren. <1% quartz stringers parallel to bedding. Lower contact at 84 dca. 39.40 40.40 4b. Bedding 76 dca. At 39.90 right limb fold with axial plane 60 dca. 40.50 Fracture perpendicular to bedding at 38 dca.								
41.20	45.08	4BE	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. 80% 4b Beds. 1 mm to 3 cm wide. Strongly magnetic. 20% 4e Beds with 10% 1 mm garnets. 1 cm wide. Bedding well developed at 72 to 76 dca. Fractures perpendicular to bedding at 43 dca. Strong pervasive calcite alteration. Trace pyrrhotite. 1% Quartz stringers parallel to bedding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact at 77 dca.								
			41.20 42.20 4be. 42.30 Fracture perpendicular to bedding at 42 dca. 43.23 Fracture perpendicular to bedding at 43 dca. E53250 DUPLICATE of E53249 0.58 0.51 ns. 43.50 Bedding 75 dca. 44.00 45.08 4be. Strongly calcareous. 5% quartz stringers parallel to bedding. 44.50 Bedding 72 dca.								
45.08	50.00	2	BASALT Fine grained, dark green-grey. Non-magnetic. Moderate hardness. Well foliated at 66 to 70 dca. Fractures 16 dca. Weakly calcareous. Barren to trace pyrrhotite. 2% Quartz-calcite stringers parallel to foliation.								
			45.50 Foliation 70 dca. 46.60 50.00 Core blocky. 47.80 Fractures 16 dca. 49.00 Foliation 66 dca.								
50.00		2	END OF HOLE								
			DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.								
			CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musselwhite Camp.								
			DRILLING HISTORY:. .00 6.40 Tricone bit. 6.40 50.00 Fluted core barrel. Casing left in hole and capped.								
			DOWNHOLE SURVEYING:. Acid tests taken.								

DRILL HOLE RECORD

Northing: 8301.000
Easting: 8887.800
Elevation: 5307.600

Collar Azi.: 48.40
Collar Dip: -55.00

Hole Length: 50.00
Completed: JUNE 23, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST OP ZONE PARALLEL TO 506-362 ON SECTION 8300N

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529854
263 m north, 202 m west to post 4 Pa529854
Logged: JUNE 26, 1993

Drill Hole: 506-642

Northing: 7+00S
Easting: 1+04W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JUNE 22, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
4.9		-53.0	50.0		-52.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E53251 to E53301.								
.00	4.95	OB	OVERBURDEN								
4.95	45.85	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Beds 5 mm to 3 cm wide. Strong grunerite alteration with amorphous garnets. Non to moderately magnetic. Hard. Bedding well developed at 10 to 46 dca. Right limb folding throughout unit with axial plane at 21 to 48 dca. Weakly calcareous along bedding planes. Fractures predominantly perpendicular to bedding at 41 to 62 dca. Minor fractures subparallel to bedding at 13 to 20 dca. From 4.95 to 13.00 3% to 7% pyrrhotite in stringers parallel to bedding, blebs and infilling axial planar cleavage. Numerous specks VISIBLE GOLD. 1% to 20% quartz veining parallel to bedding. Veining often appears to be remobilized chert beds. From 13.00 to 45.85 trace disseminated pyrrhotite and 5% quartz veining parallel to bedding. Trace arsenopyrite. Lower contact sharp at 17 dca. E53260 STANDARD I 7.17 7.06 ns. E53261 BLANK 11.73 12.03 ns.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			4.95 6.00 4ea. 3 specks VISIBLE GOLD. 1% boudinaged quartz stringers parallel to bedding at 35 dca. 5.70 Fracture perpendicular to bedding at 42 dca. 6.00 7.00 4ea. 2 specks VISIBLE GOLD. Trace pyrite. 5% quartz stringers. 7.00 8.00 4ea. 7.50 Fracture parallel to bedding at 37 dca. 8.00 9.00 4ea. 3% quartz stringers. Bedding 46 dca. 9.00 10.00 4ea. 2 specks VISIBLE GOLD. Bedding 45 dca. 9.10 Fracture perpendicular to bedding at 54 dca. 10.00 11.00 4ea. 2 specks VISIBLE GOLD. 7% quartz stringers parallel to bedding at 31 dca. 11.00 12.00 4ea. 6 specks VISIBLE GOLD. Bedding at 30 dca. 11.60 Fracture perpendicular to bedding at 48 dca. 12.00 13.00 4ea. 20% quartz stringers parallel to bedding. 13.00 14.00 4ea. Bedding 10 dca. 14.00 15.00 4ea. 20% quartz stringers parallel to bedding. At 14.8 right limb fold with axial plane at 37 dca. 15.00 16.00 4ea. Bedding 26 dca. 15.80 Fracture perpendicular to bedding at 57 dca. 16.00 17.00 4ea. 5% quartz stringers parallel to bedding. At 16.10 right limb fold with axial plane at 42 dca. At 16.90 right limb fold with axial plane at 32 dca. 17.00 18.00 4ea. 5% quartz stringers parallel to bedding at 27 dca. 17.10 Fracture perpendicular to bedding at 41 dca. E53270 DUPLICATE of E53269 2.61 ns ns. 18.00 19.00 4ea. 3% quartz stringers parallel to bedding at 10 dca. 18.70 Fracture perpendicular to bedding at 62 dca. 19.00 20.00 4ea. 5% quartz stringers. At 19.50 a 5 cm barren quartz stringer perpendicular to bedding at 40 dca with sericitic selvages. At 19.80 right limb fold with axial plane 25 dca. Bedding 16 dca. 20.00 21.00 4ea. 5% quartz stringers parallel to bedding at 16 dca. At 20.80 axial plane 10 dca. 20.50 Fracture perpendicular to bedding at 58 dca. 21.00 22.00 4ea. 10% quartz stringers parallel to bedding at 22 dca. 22.00 23.00 4ea. At 22.30 right limb fold with axial plane at 36 dca. 22.70 23.70 BVOL. Contacts 25 dca. E53280 STANDARD I 7.41 7.30 ns. E53281 BLANK 0.10 ns ns. 23.00 31.50 10% to 20% 4f beds. 23.00 24.00 4eaf. 3% quartz stringers parallel to bedding at 27 dca. At 23.75 right limb fold with axial plane 48 dca. 24.00 25.00 4eaf. 1% quartz stringers parallel to bedding at 26 dca. 25.00 26.00 4eaf. At 25.5 and 25.9 right limb fold with axial plane 16 dca. 25.00 Fracture subparallel to bedding at 50 dca. 26.00 27.00 4eaf. At 26.80 right limb fold with axial plane 24 dca. Bedding 16 dca. 26.10 Fracture perpendicular to bedding at 55 dca. 27.00 28.00 4eaf. 5% quartz stringers parallel to bedding at 21 dca. At 27.20								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			right limb fold with axial plane 25 dca. At 27.70 right limb fold with axial plane 34 dca. 28.00 29.00 4eaf. 5% quartz stringers parallel to bedding at 20 dca. At 28.80 right limb fold with axial plane 25 dca. 29.00 30.00 4eaf. 5% boudinaged quartz stringers parallel to bedding. At 29.75 right limb fold with axial plane 35 dca. 29.10 Fracture subparallel to bedding at 15 dca. 30.00 31.00 4eaf. 5% quartz stringers. At 30.90 axial plane 27 dca. 30.50 Fracture subparallel to bedding at 13 dca. 31.00 32.00 4eaf and 4ea. 5% quartz stringers parallel to bedding at 18 dca. At 31.60 left limb fold with axial plane 15 dca. 32.00 33.00 4ea. 10% quartz stringers parallel to bedding. At 32.5 right limb fold with axial plane 35 dca. 33.00 Fracture perpendicular to foliation at 8 dca. 33.00 33.90 4ea. 20% quartz stringers parallel to bedding at 21 dca and quartz flooding. At 33.25 axial plane 22 dca. 33.90 34.20 BVOL. Contacts 38 dca. E53290 DUPLICATE of E53289 0.07 0.07 ns. 33.90 34.20 BVOL. 34.20 35.00 4eaf. Bedding 31 dca. At 34.50 right limb fold with axial plane 57 dca. 35.00 36.00 4eaf. Trace arsenopyrite. 5% quartz veining. At 35.40 right limb fold with axial plane 28 dca. 36.00 37.00 4ea. 5% quartz veining parallel to bedding. At 36.20 right limb fold with axial plane 46 dca. At 36.90 bedding 44 dca. 37.00 38.00 4ea. 5% quartz veining parallel to bedding at 37 dca. At 37.70 axial plane 41 dca. 38.00 39.00 4ea. 5% quartz veining parallel to bedding. At 38.1 right limb fold with axial plane 48 dca. At 38.70 right limb fold with axial plane 25 dca. 39.00 40.00 4eaf. 5% quartz stringers parallel to bedding. At 39.35 right limb fold with axial plane 28 dca. At 39.85 axial plane 40 dca. 39.40 Fracture perpendicular to bedding at 46 dca. 40.00 41.00 4eaf. 5% quartz stringers parallel to bedding. At 40.10 right limb fold with axial plane 35 dca. Bedding 15 dca. 41.00 42.00 4eaf. 5% quartz stringers parallel to bedding. At 41.40 axial plane 26 dca. Bedding 19 dca. 41.70 Fracture perpendicular to bedding at 70 dca. 42.00 Fracture parallel to bedding at 26 dca. 42.00 43.00 4ea. 5% quartz stringers parallel to bedding. At 42.80 right limb fold with axial plane 22 dca. At 42.20 bedding 18 dca. 43.00 44.00 4ea. 10% quartz stringers parallel to bedding. At 43.20 axial plane 28 dca. At 43.50 bedding 20 dca. 44.00 45.00 4eaf. 5% quartz stringers parallel to bedding at 20 dca. At 44.40 right limb fold with axial plane 27 dca. 44.60 Fracture parallel to bedding at 20 dca. 45.00 Fracture perpendicular to bedding at 55 dca. 45.00 45.85 4eaf. 5% quartz stringers parallel to bedding at 19 dca. At 45.20								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			axial plane 21 dca.								
45.85	50.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Moderate hardness. Non-magnetic. Well foliated at 27 dca. Fractures perpendicular to foliation at 34 to 60 dca. Biotitic and chloritic. Locally calcareous along foliation planes. Trace pyrrhotite. 2% Quartz-calcite stringers parallel to foliation. E53300 STANDARD I 6.82 7.30 ns. E53301 BLANK 0.14 ns ns. 45.85 46.85 BVOL. 46.10 Fracture perpendicular to foliation at 55 dca. 47.50 Foliation 27 dca. 47.60 Fractures perpendicular to foliation at 34 dca. 49.00 Fracture perpendicualar to foliation at 6 dca. 49.30 Fracture subparallel to foliation at 20 dca.								
50.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY:. .00 4.95 TRICONE BIT. 6.40 50.00 FLUTED CORE BARREL. Casing left in hole and capped. DOWNHOLE SURVEYING:. 4.95 Metres -53.0 Acid test. 50.00 Metres -52.0 Sperry Sun dip test.								

DRILL HOLE RECORD

Northing: 8276.300
Easting: 8917.100
Elevation: 5307.400

Collar Azi.: 228.40
Collar Dip: -45.50

Hole Length: 50.00
Completed: JUNE 24, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST OP ZONE UPDIP OF 506-374 ON SECTION 8275N(s)

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529854
261 m north, 238 m west to post 4 of Pa529854
Logged: JUNE 27-28, 1993

Drill Hole: 506-643

Northing: 7+25S
Easting: 0+75W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JUNE 23, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
4.3		-45.0	50.0		-43.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E53302 to E53334.								
.00	4.35	OB	OVERBURDEN								
4.35	13.40	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderately hard to hard. Locally garnetiferous. Well foliated at 39 to 49 dca. Fractures subparallel to foliation at 22 to 65 dca and perpendicular at 36 to 47 dca. Barren to trace disseminated pyrrhotite. 3% Quartz and quartz-calcite stringers parallel to foliation. Lower contact at 53 dca. 5.00 6.00 Foliation 44 dca. Fractures perpendicular to foliation at 36 dca and subparallel at 65 dca. 6.00 7.00 Fractures subparallel to foliation at 22 dca and perpendicular at 45 dca. 7.00 8.00 Foliation 39 dca. Fractures subparallel at 30 and 45 dca. 9.00 10.00 Foliation 46. Fractures perpendicular at 35 dca. 11.00 12.00 Foliation 49 dca. Fractures subparallel at 31 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
13.40	16.80	4F	GARNET-BIOTITE SCHIST 4f. 70% 4f Beds. 5 mm to 2 cm wide with 30% 1 mm garnets. Non-magnetic. Moderately hard. 30% Chert beds. 5 mm wide. Well bedded at 53 to 60 dca. Fractures subparallel to bedding at 43 to 54 dca and perpendicular at 30 dca. Trace to 1% disseminated pyrrhotite. Lower contact at 62 dca. 13.40 14.40 4f. At 53.15 a 13 cm quartz vein with 1% pyrrhotite at 56 dca. Bedding 53 dca. 14.40 15.40 4f. 15.40 16.40 4f. Bedding 60 dca. 16.40 16.80 4f. At 16.30 right limb fold with axial plane 44 dca.								
16.80	36.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Beds 5 mm to 3 cm wide. Moderate to strong grunerite alteration. Non to moderately magnetic. Hard. Bedding well developed at 50 to 67 dca. Right limb fold throughout unit with axial plane at 44 to 67 dca. Fractures predominantly perpendicular to bedding at 37 to 41 dca. Minor fractures subparallel to bedding at 65 dca. From 16.80 to 31.00 1% to 7% pyrrhotite. 1% to 35% stratabound quartz veining and quartz flooding. Trace arsenopyrite and numerous specks VISIBLE GOLD. From 31.00 to 36.00 trace pyrrhotite and 5% stratabound quartz stringers. Lower contact gradual. E53310 DUPLICATE of E53309 0.03 0.07 ns. 16.80 18.00 4ea. 1% stratabound quartz stringers. At 17.60 right limb fold with axial plane at 40 dca. Bedding at 55 dca. 17.00 Fractures perpendicular to bedding at 37 dca and subparallel at 67 dca. 18.00 19.00 4ea. Trace arsenopyrite. 2% stratabound quartz stringers. Bedding 57 dca. 19.00 20.00 4ea. <1% arsenopyrite. 3% stratabound quartz stringers. At 19.5 right limb fold with axial plane 46 dca. 20.00 21.00 4ea. Trace arsenopyrite. 1% stratabound quartz stringers. At 20.8 axial plane 57 dca. 20.20 Fracture perpendicular to bedding at 35 dca. E53320 STANDARD I 7.23 ns ns. E53321 BLANK 0.03 ns ns. 21.00 22.00 4ea. 2 specks VISIBLE GOLD. At 21.55 right limb fold with axial plane 44 dca. Bedding 60 dca. 22.00 23.00 4ea. Trace arsenopyrite. Bedding 50 dca. At 22.25 right limb fold at 60 dca. At 22.70 axial plane 43 dca. 23.00 24.00 4ea. 3% stratabound quartz stringers. Bedding 57 dca. At 23.2 axial								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			plane 45 dca. 24.00 25.00 4ea. At 24.2 axial plane 60 dca. Bedding 70 dca. 25.00 26.00 4ea. 2 specks VISIBLE GOLD. 5% stratabound quartz stringers. At 25.1 axial plane 55 dca and 25.5 axial plane 47 dca. Bedding 70 dca. 26.00 27.00 4ea. 11 specks VISIBLE GOLD. 15% stratabound quartz veining and quartz flooding at 75 dca. 27.00 28.00 4ea. 12 specks VISIBLE GOLD. 25% quartz flooding and stratabound quartz veining at 74 dca. 28.00 29.00 4ea. 6 specks VISIBLE GOLD. 30% quartz flooding and quartz veining. Bedding 57 dca. 29.00 30.00 4ea. 2 specks VISIBLE GOLD. 35% quartz flooding. Bedding 57 dca. 30.00 31.00 4ea. 7% quartz stringers and quartz flooding. At 30.20 right limb fold with axial plane 67 dca. At 30.40 axial plane 61 dca. Bedding 63 dca. 31.00 Fracture perpendicular to bedding at 36 dca. 31.00 32.00 4ea. 5% quartz stringers. Bedding 65 dca. 31.30 Fracture perpendicular to bedding at 45 dca. 31.70 Fracture subparallel to bedding at 65 dca. 32.00 33.00 4ea. 5% quartz stringers. Bedding 65 dca. 32.50 Fracture perpendicular to bedding at 35 dca. 33.00 34.00 4ea. 5% quartz stringers. Bedding 67 dca. 34.00 35.00 4ea. 20% quartz stringers. Bedding 70 dca. 34.60 Fracture perpendicular to bedding at 39 dca. 35.00 36.00 4ea. Bedding 60 dca.								
36.00	41.90	4B	CHERT - MAGNETITE IRON FORMATION 4b. Well laminated 4b unit. Strongly magnetic. Hard. Bedding 66 to 73 dca. Rare fracture perpendicular to bedding at 42 dca. Barren. 3% Quartz stringers parallel to bedding. Lower contact at 55 dca. 36.00 37.00 4b. At 36.60 right limb fold with axial plane 66 dca. 37.00 38.00 4b. Bedding 73 dca. 37.10 Fracture perpendicular to bedding at 42 dca. E53330 DUPLICATE of E53329 0.03 0.03 ns. 38.00 39.00 4b. At 38.30 right limb fold with axial plane 61 dca. Bedding 67 dca. 39.00 40.00 4b. Bedding 62 dca. 40.00 41.00 4b. Bedding 69 dca. 41.00 41.90 4b. Bedding 67 dca.								
41.90	50.00	2	BASALT Fine grained, dark green-grey. Non-magnetic. Moderately hard. Well foliated at 62 to 66 dca. Fractures perpendicular to foliation at 35 to 45 dca and parallel at 56 to 60 dca Barren to trace pyrrhotite. <1% quartz stringers parallel to foliation.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
50.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY. 0.00 4.35 Tricone bit. 4.35 50.00 Fluted core barrel used. Casing left in hole and capped. DOWNHOLE SURVEY HISTORY:. 4.35 Metres - Acid test -45.0. 50.0 Metres - Sperry Sun test -43.0.								

DRILL HOLE RECORD

Northing: 8251.300
Easting: 8920.100
Elevation: 5307.300

Collar Azi.: 228.40
Collar Dip: -45.50

Hole Length: 50.00
Completed: JUNE 25, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST OP ZONE ON SECTION 8250N

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529854
277 m north, 259 m west to post 4 of Pa529854
Date(s) Logged: JULY 2-3, 1993

Drill Hole: 506-644
Northing: 7+50S
Easting: 0+73W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JUNE 24, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
5.9		-45.0	50.0		-46.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E53371 to E53411.								
.00	5.87	OB	OVERBURDEN								
5.87	11.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderately hard. Foliation 51 to 55 dca. Fractures perpendicular to foliation at 48 to 62 and subparallel at 32 to 54 dca. Locally calcareous along foliation planes. Trace pyrrhotite. <1% barren quartz stringers. Lower contact 55 dca. 6.00 7.00 Foliation 55 dca. Fractures subparallel to foliation at 54 and 44 dca and perpendicular at 48 dca. 6.00 6.30 18 cm quartz vein in BVOL. Upper contact 68 dca. Lower contact 43 dca. Barren. 8.00 9.00 Foliation 51 dca. Fractures perpendicular at 51 and 53 dca. 9.00 10.00 BVOL. Garnetiferous. At 9.40 25 cms of silicified, folded BVOL with 3% pyrrhotite and axial plane 37 dca. 10.00 11.00 BVOL.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
11.00	16.00	4F	GARNET-BIOTITE SCHIST 4f. Non-magnetic. Moderately hard. Well bedded at 61 to 68 dca. Dominant fractures subparallel to bedding at 65 to 77 dca. Minor fractures perpendicular at 13 to 28 dca. Trace pyrrhotite. Lower contact 62 dca. 11.00 12.00 4f and Metasediment. Bedding 70 dca. 11.00 12.00 Fractures perpendicular to bedding at 28 and 45 dca and subparallel at 71 dca. 11.25 12.55 Metasediment. 12.00 13.00 4f. Bedding 77 dca. 13.00 14.00 4f. At 13.35 axial plane 61 dca. Bedding 68 dca. 14.00 15.00 Fractures subparallel to bedding at 69 and 77 dca. 14.00 15.00 4f. Bedding 73 dca. 15.00 15.30 4ea. 15.00 16.00 4f. At 15.15 right limb fold with axial plane 42 dca. Bedding 61 dca.								
16.00	34.90	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Beds up to 3 cm wide. Strong grunerite alteration. Non to moderately magnetic. Hard. Bedding well developed at 57 to 70 dca. Right limb folding throughout with axial planes at 40 to 57 dca. Fractures predominantly perpendicular to bedding at 23 to 47 dca. Minor fractures subparallel at 30 and 62 dca. From 16.00 to 26.00 metres and 30.00 to 34.90 metres trace pyrrhotite and minor quartz veining parallel to bedding. Trace arsenopyrite. VISIBLE GOLD at 17.50 metres. From 26.00 to 30.00 metres 3% to 5% pyrrhotite -stratabound and stringers parallel to foliation. Trace arsenopyrite and two specks of VISIBLE GOLD. 5% to 35% stratabound quartz veining. Lower contact 58 dca. E53380 STANDARD I 7.17 7.27 ns. E53381 BLANK 0.07 ns ns. 16.00 17.00 4eaf. 3% quartz stringers parallel to bedding. At 16.35 axial plane 40 dca. At 16.70 axial plane 36 dca. Bedding 57 dca. 17.00 18.00 4eaf. 1 speck VISIBLE GOLD. Trace arsenopyrite. 10% quartz stringers parallel to bedding. Bedding 61 dca. 18.00 19.00 4ea. Trace arsenopyrite. 2% quartz stringers parallel to bedding. Bedding 67 dca. 18.00 19.00 Fractures perpendicular to bedding at 23 and 27 dca. 19.00 20.00 Fracture subparallel to bedding at 68 dca. 19.00 20.00 4ea. At 19.55 a 7 cm quartz stringer at 63 dca. Bedding 58 dca. At 19.90 axial plane 48 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			20.00 21.00 Fracture perpendicular to bedding at 34 dca. E53390 DUPLICATE of E53389 0.03 ns ns. E53400 STANDARD I 7.85 6.89 ns. E53401 BLANK 0.03 ns ns. 20.00 21.00 4ea. At 20.20 axial plane 63 dca. Bedding 64 dca. 21.00 22.00 4ea. At 21.15 right limb fold with axial plane 51 dca. At 21.8 axial plane 42 dca. Bedding 66 dca. 22.00 22.40 BVOL. Contacts 66 dca. 22.00 22.40 BVOL. 22.40 23.00 4ea. Bedding 67 dca. 23.00 24.00 4ea. Bedding 64 dca. 24.00 25.00 4ea. At 24.10 right limb fold with axial plane 27 dca. At 24.75 axial plane 83 dca. 25.00 Fracture subparallel to bedding at 30 dca. 25.00 26.00 4ea. 5% quartz stringers parallel to bedding. Bedding 62 dca. At 25.90 right limb fold with axial plane 67 dca. 26.00 27.00 4ea. 35% quartz stringers parallel to bedding at 70 dca. 27.00 28.00 4ea. 2 specks VISIBLE GOLD. At 27.3 a 20 cm quartz vein with 5% pyrrhotite at 65 dca. Bedding 61 dca. 28.00 29.00 4ea. Trace arsenopyrite. 11% quartz stringers. A 4 cm quartz stringer and a 7 cm quartz stringer with 5% pyrrhotite and trace arsenopyrite. Parallel to bedding at 66 dca. 29.00 30.00 4ea. 5% quartz flooding. Trace arsenopyrite. Bedding 59 dca. 30.00 31.00 4ea. 5% quartz stringers and quartz flooding. 53 dca. 30.20 Fracture perpendicular to bedding at 45 dca. 31.00 32.00 4ea. At 31.45 a 10 cm quartz stringer with 2% pyrrhotite. Bedding 52 dca. 31.60 Fracture subparallel to bedding at 62 dca. 32.00 33.00 4ea. At 32.7 right limb fold with axial plane 40 dca. Bedding 71 dca. 33.00 34.00 4ea. 3% quartz stringers parallel to bedding. 34.00 34.90 4ea. 1% quartz stringers.								
34.90	41.75	4B	CHERT - MAGNETITE IRON FORMATION 4b. Light grey and black, 1 mm to 1 cm wide beds. Strongly magnetic. Hard. Finely laminated at 67 dca. Boudinaged. Fractures perpendicular to bedding at 25 to 45 dca. Minor fractures at 67 dca. Trace pyrrhotite. Locally 3% quartz stringers parallel to bedding. Lower contact 67 dca. 34.90 36.00 4be. Bedding 56 dca. At 35.60 axial plane 57 dca. 35.00 36.00 Fractures perpendicular to bedding at 61 dca. 36.00 37.00 4b and 55% quartz veining. 1% pyrite. 37.00 38.00 Fractures perpendicular to bedding at 45 dca. 37.00 38.00 4b. 20% quartz stringers parallel to bedding at 66 dca. 38.00 39.00 4b. 3% quartz stringers. Bedding 75 dca. At 38.30 axial plane 45 dca. 39.00 40.00 4b. 3% quartz stringers. Bedding 67 dca. 40.00 41.00 Fractures perpendicular to bedding at 25 dca and 40 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			E53410 DUPLICATE of E53409 <0.03 ns ns. 40.00 41.00 4b. 41.00 41.75 4b. Fractures subparallel to bedding at 69 dca.								
41.75	50.00	2	BASALT Fine grained, dark green-grey. Non-magnetic. Well foliated 57 to 61 dca. Fractures perpendicular to foliation at 44 dca and parallel at 51 to 69 dca. Locally weakly calcareous along foliation planes. Barren. <1% quartz stringers parallel to foliation.								
50.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples collected every 3 metres. Samples stored at Musselwhite Campsite. DRILLING HISTORY:. 0.00 5.87 Tricone bit. 5.87 50.00 Fluted core barrel. Casing left in hole and capped. SURVEY HISTORY. Acid tests taken.								

DRILL HOLE RECORD

Northing: 8350.500
Easting: 8935.600
Elevation: 5306.600

Collar Azi.: 228.40
Collar Dip: -50.50

Hole Length: 74.00
Completed: JUNE 26, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST OP ZONE DOWNDIP OF 506-369 ON SECTION 8350N)

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529854
195 m north, 205 m west to post 4 Pa529854
Logged: JULY 4-5, 1993

Drill Hole: 506-645
Northing: 6+50S
Easting: 0+58W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JUNE 25, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
7.0		-50.0	74.0		-49.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E53412 to E53447.								
.00	7.00	OB	OVERBURDEN								
7.00	40.60	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderately hard. Well foliated at 43 to 54 dca. Fractures subparallel to bedding at 36 to 57 dca and perpendicular at 28 to 55 dca. Locally biotitic, garnetiferous and calcareous. Barren to trace pyrrhotite. Up to 1% quartz-calcite stringers parallel to foliation. Lower contact at 58 dca. 8.00 9.00 Foliation 42 dca. Fractures parallel at 40 and 45 dca and perpendicular at 28 dca. 9.00 10.00 Foliation 56 dca. Fractures parallel at 53 dca. 10.00 11.00 Fracture perpendicular to foliation at 55 and 73 dca. 16.00 23.00 Blocky core. 16.00 17.00 Foliation 46 dca. Fractures subparallel at 36 to 57 dca and perpendicular at 43 dca. 20.00 21.00 Fractures subparallel to foliation at 24 and 48 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			22.00 23.00 Foliation 43 dca. Fractures subparallel to foliation at 16 and 45 dca and perpendicular at 50 dca. 25.00 26.00 Foliation 44. Fractures parallel at 46 dca. 27.00 28.00 Fracture parallel to foliation at 43 and perpendicular at 48 dca. 28.00 29.00 Fracture subparallel to foliation at 32 and perpendicular at 49 dca. 30.00 31.00 Foliation 52 dca. Fractures at 45 dca. 35.00 36.00 Foliation 53 dca. Fractures parallel at 44 and perpendicular at 35 dca. 39.00 40.00 Foliation 54 dca. Fractures parallel at 42 and perpendicular at 47 dca.								
40.60	60.35	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Poorly to well bedded 4ea with 35% amorphous garnets. Strong grunerite alteration. Non to moderately magnetic. Hard. Bedding right limb folded with axial plane at 47 to 67 dca. Fractures subparallel to bedding at 34 to 69 dca and perpendicular at 23 to 53 dca. From 40.60 to 45.00, 47.00 to 49.00 and 54.00 to 60.35 metres trace to 1% pyrrhotite and 1% to 5% stratabound quartz stringers. From 45.00 to 47.00 and 49.00 to 54.00 metres 3% to 7% pyrrhotite, trace chalcopyrite, trace arsenopyrite and 4 specks VISIBLE GOLD. 5% to 35% stratabound quartz stringers. Lower contact 62 dca. 40.60 41.00 4eaf. 41.00 42.00 Fractures perpendicular to bedding at 43 dca and subparallel at 60 dca. 41.00 42.00 4eaf. Bedding 66 dca. At 41.25 right limb fold with axial plane 58 dca. 42.00 43.00 Fractures subparallel to bedding at 45 and perpendicular at 33 dca. 42.00 43.00 4eaf. 5% quartz stringers. Bedding 55 dca. At 42.30 right limb fold with axial plane 60 dca. 43.00 44.00 4ea. 2% quartz stringers. At 43.20 bedding 18 dca. At 43.80 axial plane 58 dca. 44.00 45.00 4ea. At 44.25 axial plane 38 dca. Bedding 39 dca. 45.00 46.00 4ea. Trace arsenopyrite. Silicified. 15% quartz stringers parallel to bedding. Bedding 26 dca. At 45.30 right limb fold with axial plane at 60 dca. At 45.95 axial plane 44 dca. 45.00 46.00 Fracture subparallel to bedding at 82 dca. 46.00 47.00 Fractures perpendicular to bedding at 24 dca. 46.00 47.00 4ea. 5% quartz stringers parallel to bedding. At 46.05 right limb fold with axial plane 60 dca. At 46.60 axial plane 50 dca. At 46.90 axial plane 33 dca. 47.00 48.00 Fracture parallel to bedding at 63 dca. 47.00 48.00 4eaf. Bedding 67 dca. At 47.05 axial plane 55 dca. 48.00 49.00 4ea. Bedding 67 dca. 49.00 50.00 4ea. 5% quartz stringers parallel to bedding. Bedding 50 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			50.00 51.00 4ea. 5% quartz stringers parallel to bedding. Bedding 53 dca. 51.00 52.00 4ea. 1 speck VISIBLE GOLD. 5% quartz stringers parallel to bedding. Bedding 50 dca. 52.00 53.00 4ea. 3 specks VISIBLE GOLD. Trace arsenopyrite. 35% quartz veining and quartz flooding. At 52.70 10 cm of quartz veining with 5% pyrrhotite. Bedding 62 dca. 53.00 54.00 Fracture subparallel to bedding at 35 dca. E53420 DUPLICATE of E53419 0.17 ns ns. E53430 DUPLICATE of E53429 2.37 ns ns. 53.00 54.00 4ea. 25% quartz flooding. Trace chalcopyrite. Trace pyrite. 53.00 54.00 Fracture perpendicular to bedding at 23 dca. 54.00 55.00 4ea. 5% quartz stringers parallel to bedding. Bedding 44 dca. 55.00 56.00 4ea. At 55.80 left limb fold with axial plane 47 dca. 56.00 57.00 4ea. 25% quartz stringers and quartz flooding parallel to bedding at 55 dca. 57.00 58.00 4ea. From 57.45 to 57.80 core folded with axial plane 43 to 55 dca and bedding 12 dca. 58.00 59.00 Fracture subparallel to bedding at 34 dca. 58.00 59.00 4ea. 1% stratabound quartz stringers. Bedding 53 dca. At 58.40 axial plane 43 dca. 59.00 60.00 4ea. 5% stratabound quartz stringers. At 59.90 axial plane 62 dca. 60.00 60.35 4ea. At 60.20 W fold with axial plane 60 dca.								
60.35	65.13	4BF	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. 70% 4b Beds. Moderately gruneritized and garnetiferous. Strongly magnetic. Hard. 20% 4f Beds with 5% 1 mm garnets. 10% 4e Beds. Bedding well developed at 63 to 74 dca. Beds 0.5 cm to 2 cm wide. Fractures perpendicular to bedding at 45 to 47 dca and parallel at 67 dca. Trace pyrrhotite. 1% Stratabound quartz stringers. Lower contact 53 dca. E53440 STANDARD I 7.65 ns ns. E53441 BLANK 0.21 ns ns. 60.35 61.00 4bf. Bedding 74 dca. 61.00 62.00 4bf. 1% quartz stringers. At 61.40 M fold with bedding 65 dca. 62.00 63.00 4bf. 3% quartz stringers. 63.00 64.00 4bf. Bedding 63 dca. 64.00 65.13 4bf. Bedding 67 dca.								
65.13	70.90	4B	CHERT - MAGNETITE IRON FORMATION 4b. Light grey and black, 1 mm to 1 cm. Strongly magnetic. Hard. Well laminated at 70 to 84 dca. Bedding locally boudinaged. Fractures perpendicular to bedding at 52 and 46 dca and subparallel at 75 dca. Locally pale yellow calcite alteration rimming magentite bed selvages.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Trace disseminated pyrrhotite. Minor arsenopyrite along bedding planes. 1% to 7% quartz stringers. Lower contact at 69 dca. 65.00 66.00 Fracture perpendicular to bedding at 52 dca. 65.13 66.00 4b. Trace arsenopyrite. Bedding 72 dca. 66.00 67.00 4b. From 66.37 to 66.80 5% arsenopyrite, 3% pyrite and 3% pyrrhotite. A 2.5 cm band with 25% arsenopyrite. 67.00 68.00 Fracture parallel to bedding at 70 dca. Fracture perpendicular to bedding 46 dca. 67.00 68.00 4b. 3% quartz stringers. A 5 mm arsenopyrite band. Bedding 79 dca. At 67.60 axial plane 53 and 73 dca. 68.00 69.00 4b. 7% quartz stringers. Bedding 73 dca. 69.00 70.00 4b. 1% quartz stringers. Bedding 71 dca. At 69.40 right limb fold with axial plane 61 dca. 70.00 70.90 4b.								
70.90	74.00	2	BASALT Fine grained, dark green-grey. Non-magnetic. Moderately hard. Well foliated at 63 dca. Fractures parallel to foliation. Chloritic and biotitic. Locally calcareous. Barren. 1% Quartz-calcite stringers parallel to foliation. 71.00 72.00 Very broken core. 71.00 72.00 Fractures 74 dca. 73.00 74.00 Fractures 63 dca.								
74.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY:. 0.00 7.00 OB. 7.00 74.00 Fluted core barrel used. Casing left in hole and capped. DOWNHOLE SURVEY HISTORY:. 7.00 Metres. -50.0 Acid Test. 74.00 Metres. -49.0 Sperry Sun dip test.								

DRILL HOLE RECORD

Northing: 8350.200
Easting: 8914.200
Elevation: 5306.800

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 53.00
Completed: JUNE 27, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST OP ZONE UPDIP OF 506-369 ON SECTION 8350N(s)

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529854
209 m north, 189 m west to post 4 of Pa529864
Logged: JUNE 30, 1993

Drill Hole: 506-646
Northing: 6+50S
Easting: 0+79W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JUNE 26, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
5.3		-50.0	53.0		-50.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E53335 to E53370.								
.00	5.30	OB	OVERBURDEN								
5.30	22.20	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Hard. Foliation 48 to 55 dca. Fractures perpendicular to foliation at 46 to 58 dca and subparallel at 34 to 60 dca. Chloritic, locally biotitic, pervasive calcite alteration. Trace disseminated pyrrhotite. Minor quartz stringers parallel to foliation with trace pyrrhotite. Lower contact sharp at 40 dca. 16.50 17.10 BVOL and quartz veining. 2% pyrite. 1% chalcopyrite. At 16.80 a 30 cm quartz vein with trace pyrrhotite and contacts 50 dca. At 16.60 axial plane 59 dca. 18.00 19.00 Foliation 55 dca. Fractures subparallel at 51 dca. 18.25 Right limb fold with axial plane 24 dca. 20.20 22.20 Garnetiferous. 20.20 21.20 BVOL. Garnetiferous. 21.00 22.00 Foliation 48 dca. Fractures subparallel at 34, 53 and 65 dca and								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			perpendicular at 71 dca. 21.20 22.20 BVOL. 2% pyrite. Garnetiferous. At 21.70 a 15 cm zone of quartz veining with 5% pyrrhotite and trace chalcopyrite.								
22.20	24.73	4F	GARNET-BIOTITE SCHIST 4f. 35% 1 Mm garnets in a 4f matrix. Non-magnetic. Moderately hard. Well bedded at 63 dca. Beds 2 mm to 2 cm wide. Fractures subparallel to bedding at 52 to 67 dca and perpendicular at 60 dca. Trace disseminated pyrrhotite. 4% Quartz stringers parallel to bedding. Lower contact 69 dca. 22.20 23.20 4f. 23.20 Fractures subparallel to bedding at 65 dca and perpendicular at 88 dca. 23.20 24.20 4f. Trace pyrite. 4% quartz stringers parallel to bedding. Bedding 63 dca. 23.90 Fracture perpendicular to bedding at 60 dca. 24.20 Fractures perpendicular to bedding at 33 dca. 24.20 24.73 4f. 4% quartz stringers parallel to bedding at 73 dca. 24.40 Fracture subparallel to bedding at 70 dca. E53340 STANDARD I 7.47 6.72 ns. E53341 BLANK 0.03 ns ns.								
24.73	43.10	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Beds 5 mm to 3 cm wide. Strong grunerite alteration. Non to weakly magnetic. Hard Bedding well developed at 40 to 65 dca. Right limb fold throughout unit with axial plane at 47 to 73 dca. Fractures perpendicular to bedding at 36 to 65 dca and subparallel at 48 to 74 dca. Minor fractures at low angles to the core axis. Weak local pervasive and fracture-filling calcite alteration. From 26.00 to 35.00 metres 2% to 10% fracture-filling, blebs and stratabound pyrrhotite. 7% to 35% quartz stringers parallel to bedding. Trace arsenopyrite. Numerous specks VISIBLE GOLD. From 35.00 to 43.10 metres trace to 1% pyrrhotite. Pyrrhotite disseminated, blebs and stratabound. 5% to 35% quartz stringers parallel to bedding. Lower contact 60 dca. 24.73 26.00 4ea. 7% quartz stringers. Bedding 72 dca. At 24.90 axial plane 55 dca 25.00 26.00 Fracture perpendicular to bedding at 74, 55 and 22 dca. 26.00 27.00 Fracture perpendicular to bedding at 73 and 36 dca. 26.00 27.00 4ea. 1% arsenopyrite. 3 specks VISIBLE GOLD. 7% quartz stringers. Bedding 60 dca. 27.00 28.00 Fractures parallel to bedding at 74 dca and perpendicular at 42 and 40 dca. 27.00 28.00 4ea. 5% quartz stringers. Bedding 61 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			28.00 29.00 4ea. Bedding 60 dca. 29.00 30.00 4ea. 18 specks VISIBLE GOLD. 20% stratabound quartz stringers and quartz flooding. 30.00 31.00 Fractures perpendicular to bedding at 45 to 50 dca and subparallel at 41 dca. E53350 DUPLICATE of E53349 14.67 ns ns. 30.00 31.10 4ea. 24 specks VISIBLE GOLD. 35% quartz stringers and quartz flooding. At 30.45 axial plane 43 dca. 31.10 32.00 Quartz vein. 8 specks VISIBLE GOLD. Trace arsenopyrite. 10% mafic inclusions. Pyrrhotite fracture-filling and blebs. Upper contact 45 and lower contact 40. 32.00 33.00 Fracture parallel to bedding at 47 dca. 32.00 33.00 4ea. 7 specks VISIBLE GOLD. 20% quartz veining and quartz flooding. Bedding 45 dca. 33.00 Fracture 15 dca. 33.00 34.00 4ea. 35% quartz veining and quartz flooding. 34.00 35.00 Fracture subparallel to bedding at 7, 26 and 75 dca. 34.00 35.00 4ea. 5% quartz stringers parallel to bedding. At 34.90 right limb fold with axial plane 54 dca. 35.00 36.00 4ea. Unit right limb folded at 49 and 55 dca. 36.00 37.00 4ea. 8% quartz stringers parallel to bedding at 54 dca. At 36.30 right limb fold with axial plane at 47 dca. 37.00 38.00 Fracture parallel and perpendicular to bedding at 38 dca. 37.00 37.60 4ea. 5% quartz stringers parallel to bedding at 40 dca. 37.60 38.30 70% irregular quartz veining. 38.30 39.00 4ea. At 38.60 axial plane 65 dca. 39.00 40.00 Fracture parallel to bedding at 62 dca. 39.00 40.00 4ea. 5% quartz stringers. At 39.25 axial plane 45 dca. 40.00 41.00 Fracture parallel to bedding at 62 dca. 40.00 41.00 4ea. 5% quartz stringers parallel to bedding at 67 dca. At 40.35 axial plane 45 dca. 41.00 42.00 Fracture perpendicular to bedding at 65 dca. 41.00 42.00 4ea. 35% irregular quartz veining. 42.00 43.00 Fractures perpendicular to bedding at 61 dca. E53360 STANDARD I 7.41 ns ns. E53361 BLANK 0.07 ns ns. 42.00 43.10 4ea. 25% irregular quartz veining. Bedding 73 dca.								
43.10	48.45	4B	CHERT - MAGNETITE IRON FORMATION 4b. Well laminated at 61 to 73 dca. Strongly magnetic. Hard. Fractures perpendicular to bedding at 40 to 71 dca. Minor fractures subparallel at 61 dca. Locally calcareous along fractures. From 47.70 to 48.45 strong pale yellow calcite alteration along edges of magnetite beds. 0 To trace pyrrhotite. Occasional quartz stringer parallel to bedding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact 61 dca.								
			43.10 44.00 4b. 1% quartz stringers. At 43.45 axial plane 65 dca. At 43.85 right limb fold with axial plane 73 dca. 44.00 45.00 Fracture perpendicular to bedding at 52 dca. 44.00 45.00 4b. Bedding 61 dca. 45.00 46.00 Fractures perpendicular to bedding at 40, 55 and 71 dca. Subparallel at 48 and 61 dca. 45.00 46.00 4b. Bedding 65 dca. At 45.9 axial plane 49 dca. 46.70 Axial plane 40 dca. 47.00 48.00 Fractures subparallel to bedding at 65 and 61 dca. 47.10 Possible left limb fold with axial plane 53 dca. 47.45 48.45 4b. Strongly calcareous. 5% quartz stringers. Bedding 65 and 61 dca.								
48.45	53.00	2	BASALT Fine grained, dark green-grey. Non-magnetic. Moderate hardness. Foliation 49 to 65 dca. Fractures subparallel to foliation at 54 to 65 dca. Minor quartz stringers parallel to foliation. Barren to trace pyrrhotite. E53370 DUPLICATE of E53369 0.07 ns ns. 48.45 51.50 Fractured core with fractures 54 to 65 dca. 48.45 48.75 2. 20% quartz veining with 5% pyrrhotite. 50.80 Foliation 49 dca. 51.00 52.00 Fractures subparallel to foliation at 53 to 58 dca. Fractures perpendicular to foliation at 40, 46 and 20 dca. 51.60 Foliation 50 dca.								
53.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY:. 0.00 5.30 Tricone. 5.30 53.00 Fluted core barrel used. Casing left in hole and capped. DOWNHOLE SURVEY HISTORY:. Acid tests taken.								

DRILL HOLE RECORD

Northing: 8400.100
Easting: 8926.400
Elevation: 5306.400

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 69.55
Completed: JUNE 28, 1993
Drilled by:
Logged by: P. LINDSAY
Purpose: TO TEST THE OP ZONE UPDIP OF 506-377 ON SECTION 8400N

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529854
153 m north, 174 m west to post 4 of Pa529854
Logged: JULY 4-5, 1993

Drill Hole: 506-647
Northing: 6+00S
Easting: 0+67W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JUNE 27, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
9.8		-49.0	69.6		-47.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E55751 to E55787.								
.00	9.80	OB	OVERBURDEN								
9.80	33.76	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Unit is a fine grained, dark green mafic volcanic. Non-magnetic. Hard. Locally well foliated, with foliation varying from 45 to 55 dca. Generally fractures are subparallel to foliation. <1% blebs pyrrhotite. Unit contains minor quartz-carbonate veins and veinlets - approximately <3%, predominantly located parallel to foliation. Lower contact sharp at 74 dca. 9.96 A 25 cm wide shear zone strongly crenulated at 44 dca. Minor bleaching occurring, no visible sulphides. 10.00 15.00 Fractures subparallel to foliation between 55 to 40 dca. 18.00 23.00 Fractures between 28 to 30 dca. 23.00 30.00 Fractures generally subparallel to foliation between 52 to 57 dca. 29.25 29.99 60% quartz carbonate veining. Contacts at 45 dca and irregular to core axis. 31.00 33.76 Foliation 52 dca. Fractures perpendicular to foliation at 12 dca. 31.10 An isolated chert-magnetite band, well bedded at 63 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
33.76	36.84	4F	GARNET-BIOTITE SCHIST 4f. This unit contains approximately 35% 1 mm garnets in a medium grained, biotite-amphibole rich matrix. Non-magnetic to locally weakly magnetic. Hard. Bedding at 70 to 72 dca. Beds varying from 0.5 cm to 1.5 cm wide. Trace disseminated pyrrhotite. <3% quartz stringers parallel to bedding. Lower contact 61 dca. 33.76 34.76 4f. Bedding at 70 dca. Trace pyrite. 34.00 Fracture at 15 dca. 34.50 Fractures subparallel to bedding at 72 dca. 34.76 35.76 4f. <2% quartz stringers. 35.76 36.84 4f. Bedding at 62 dca. At 36.45 right limb fold with axial plane at 53 dca. 3% quartz stringers parallel to bedding.								
36.84	57.27	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Strong grunerite alteration. Non-magnetic to locally weakly magnetic. Garnets poorly developed, ranging from 2 mm up to 1 cm in size. Bedding well developed at 40 to 75 dca. Beds range from <5 mm to 4 cm wide. Right limb folding throughout unit with axial planes at 35 to 78 dca. Minor fracture-filled calcite alteration present within this unit. From 36.84 to 39.88 trace pyrrhotite. 1% to 2% quartz stringers. From 39.88 to 52.00 2% to 5% pyrrhotite. Pyrrhotite found as disseminations, massive and stratabound. Trace arsenopyrite and pyrite. Several specks VISIBLE GOLD. 3% to 10% stratabound quartz stringers and minor quartz flooding. From 52.00 to 57.27 <1% pyrrhotite. Between 54.00 and 55.00 16 specks VISIBLE GOLD in a cluster. Up to 35% quartz veining. 36.84 38.88 Fracture parallel to bedding at 57 to 61 and subparallel from 26 to 39 dca. E55760 STANDARD I 6.58 7.10 ns. E55761 BLANK 0.03 ns ns. 36.84 37.84 4eaf. Right limb fold with axial plane at 36 dca. Minor grunerite alteration. 37.84 38.88 4eaf. Right limb fold with axial plane at 56 dca, bedding at 57 dca. 38.88 42.60 Fractures subparallel to bedding at 61 and 75 dca and perpendicular to bedding at 25 and 36 dca. 38.88 39.88 4ea. Right limb fold with axial plane at 32 dca, strong grunerite alteration. 39.88 40.88 4ea. Right limb fold with axial plane at 44 dca, 3% quartz flooding, trace pyrite. 40.88 41.88 4ea. Bedding at 65 dca. 8% quartz stringers parallel to bedding. 41.88 42.88 4ea. <2% quartz stringers. 42.88 43.80 4ea. Well bedded at 73 dca, trace ARSENOPYRITE. 43.00 44.00 Fractures subparallel to bedding at 73 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			43.80 44.28 4ea. 3 specks of VISIBLE GOLD. Trace ARSENOPYRITE and pyrite. 80% quartz flooding, pyrrhotite stratabound and finely disseminated. 44.28 45.30 4ea. 6 specks of VISIBLE GOLD. Trace pyrite. 11% quartz calcite veining irregular and parallel to bedding at 49 dca. 45.30 46.30 4ea. At 45.56 right limb fold with axial plane at 40 dca. At 46.20 axial plane at 78 dca. 46.00 47.00 Fractures subparallel to bedding at 53 dca. 46.30 47.30 4ea. Right limb fold with axial plane at 46 dca, 1% quartz-calcite veinlets. 47.30 48.30 4ea. Right limb fold with axial plane at 52 dca. Pyrrhotite in blebs and stratabound. Trace to 1% pyrite as veneers along fractures. 47.70 Fracture perpendicular to bedding at 19 dca. 48.30 49.00 4ea. Right limb fold with axial plane at 66 dca. 48.50 Fracture perpendicular to bedding at 41 dca. E55770 DUPLICATE of E55769 0.07 ns ns. 49.00 50.00 Fracture subparallel to bedding at 34 and 46 dca. 49.00 50.00 4ea. 8 specks VISIBLE GOLD. Section contains 10% quartz veining parallel to bedding. Bedding 34 dca. 50.00 51.00 4ea. Right limb fold with axial plane at 53 dca. 11% quartz veining. Pyrrhotite stratabound and locally disseminated. 51.00 Fracture perpendicular to bedding at 27 dca. 51.00 52.00 4ea. At 51.76 right limb fold with axial plane at 46 dca. At 51.85 axial plane at 33 dca, and 51.95 axial plane at 40 dca. 52.00 53.00 4ea. Bedding at 57 dca. 52.79 Fracture perpendicular to bedding at 28 dca. 53.00 54.00 Fracture subparallel to bedding at 75 dca. 53.00 54.00 4ea. Right limb fold with axial plane at 46 dca. 54.00 55.00 Fractures perpendicular to bedding at 48 dca. 54.00 55.00 4ea. 16 specks VISIBLE GOLD in a cluster. At 54.57 right limb fold with axial plane at 53 dca and at 54.90 with axial plane 64 dca. 10% quartz veining parallel to bedding at 75 dca. 55.00 56.00 Fractures perpendicular to bedding at 46 and 32 and parallel to bedding at 76 dca. 55.00 56.00 4ea. Bedding at 76 dca. 8% quartz veining with carbonate filled fractures. 56.00 56.60 4ea. 10% quartz veining parallel to bedding. Trace disseminated pyrite. 56.60 Fracture perpendicular to bedding at 32. E55780 STANDARD I 7.41 7.20 ns. E55781 BLANK 0.24 ns ns. 56.60 57.27 4ea. 35% quartz veining parallel to bedding.								
57.27	61.90	4B	CHERT - MAGNETITE IRON FORMATION 4b. Unit is banded, light grey to black with beds ranging in thickness from 1 mm to 0.5 cm. Strongly magnetic. Hard. Bedding well developed at 55 to 78 dca. Minor right limb folds with axial planes from 61 to 72 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fractures subparallel to bedding and perpendicular to bedding from 34 to 42 dca. Locally calcareous along bedding planes. 0% To trace pyrrhotite and pyrite. 2% to 20% stratabound quartz stringers. 57.27 58.00 4b. Bedding at 68 dca. 57.45 Fracture parallel to bedding at 68 dca. 58.00 59.00 Fractures perpendicular to bedding at 42 and 2 dca. 58.00 59.00 4b. Bedding at 72 dca. Minor micro faulting with 2 mm offsets. 59.00 60.00 Fracture perpendicular to bedding at 42 dca, also and subparallel at 78 dca. 59.00 60.00 4b. Right limb fold with axial plane at 61 dca. 5 cms of quartz veining parallel to bedding. 60.00 61.00 Fractures within this section parallel to bedding at 75 dca. 60.00 60.66 4b. FAULT OFFSET of 1 cm. 3% quartz veining parallel to bedding. 60.66 61.21 4b. 50% quartz veining with pyrrhotite blebs and stringers located along fractures. Also present is 1% pyrite within vein and along contact with 4b. Upper contact at 45 dca, irregular lower contact. 61.21 61.90 4b. Right limb fold with axial plane at 65 dca. Bedding at 55 dca. 61.74 Fracture perpendicular to bedding at 34 dca.								
61.90	69.55	2	BASALT Fine grained, light green-grey. Non-magnetic. Moderate hardness. Locally chloritic with 1% carbonate stringers parallel to foliation. Foliation variable between 63 to 71 dca. This unit is strongly fractured, predominantly parallel to foliation. Numerous fractures occur perpendicular to bedding from 32 to 45 dca. Barren to trace pyrrhotite. 62.00 63.00 Fractures parallel to foliation at 65 to 67 dca. 63.00 64.00 Fractures parallel to foliation at 72 dca. Fracture perpendicular to foliation at 48 and 38 dca. 64.00 67.00 Fractures parallel to foliation at 71 to 63 dca. Fractures perpendicular to foliation at 32 and 38 dca. 65.60 66.40 Section contains very broken core. 67.00 69.55 Fractures parallel to foliation at 63 to 65 dca. Fractures perpendicular to foliation at 19, 35 and 52 dca. 67.08 67.30 Isolated band of CHERT - MAGNETITE IRON FORMATION.								
69.55		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musslewhite Camp. DRILLING HISTORY:. 0.00 9.80 Tricone bit. 9.80 69.55 Fluted core barrel.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Casing left in hole and capped. SURVEY HISTORY:. Acid test taken at start of bedrock. Sperry-Sun test taken at bottom of hole.								

Date: 29 Mar, 1994 | PLACER DOME CANADA LIMITED | Page: 1 of 4

DRILL HOLE RECORD

Northing: 8399.800
Easting: 8912.900
Elevation: 5306.700

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 50.00
Completed: JUNE 29, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST OP ZONE UPDIP OF 506-647 ON SECTION 8400N(s)

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529854
171 m north, 153 m west to post 4 of Pa 529854
Logged: JULY 6, 1993

Drill Hole: 506-648
Northing: 6+00S
Easting: 0+81W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JUNE 28, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
50.0		-47.5									

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E53448 to E53478.								
.00	12.96	OB	OVERBURDEN								
12.96	23.06	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Moderately hard. Well foliated at 57 to 53 dca. Fractures subparallel at 41 to 67 dca and perpendicular at 26 to 38 dca. Barren. 5% Quartz and quartz-calcite stringers parallel to foliation. Lower contact 60 dca. 13.00 14.00 Foliation 57 dca. Fractures perpendicular at 38 dca. 18.35 18.60 QV. 19.00 20.00 Foliation 53 dca. Fractures subparallel at 56 dca and perpendicular at 26 dca. 22.00 23.05 Garnetiferous. 22.40 23.06 BVOL. 20% quartz stringers and quartz veining.								
23.06	26.70	4F	GARNET-BIOTITE SCHIST 4f. 90% 4f Beds. 5 mm to 15 cm wide with 30% 1 mm garnets.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			10% Chert beds. Non-magnetic. Moderately hard. Well bedded at 66 to 72 dca. Right limb fold with axial plane 47 and 62 dca. Fractures subparallel to bedding at 58 to 62 dca and perpendicular at 56 and 63 dca. 1% Pyrrhotite. Minor stratabound quartz stringers. E53450 DUPLICATE of E53449 <0.03 <0.03 ns. 23.06 24.00 4f. At 23.20 axial plane 47 dca. Bedding 66 dca. 24.00 24.83 4f. Bedding 67 dca. 24.83 26.00 4f. 7% quartz stringers. At 24.83 27 cms of 4ea. Bedding 72 dca. 26.00 26.70 4f. Trace pyrite. 7% quartz stringers. At 26.20 right limb fold with axial plane 62 dca.								
26.70	45.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Beds 5 mm to 10 cm wide. Strong grunerite alteration. Non to moderately magnetic. Hard. Bedding at 40 to 72 dca. Right limb fold with axial plane at 34 to 58 dca. Fractures predominantly perpendicular to bedding at 18 to 76 dca. Minor fractures parallel at 62 dca. From 26.70 to 29.00 and 40.00 to 45.00 metres trace to 2% pyrrhotite and 1% to 35% stratabound quartz stringers. From 29.00 to 40.00 3% to 15% wisps and blebs of pyrrhotite, trace pyrite and arsenopyrite, and several specks of VISIBLE GOLD. 2% to 20% stratabound quartz stringers parallel to bedding. Lower contact 62 dca. 26.70 27.00 4ea. 10% quartz stringers. 27.00 28.00 4ea. 10% stratabound quartz stringers. Bedding 73 dca. Fractures parallel at 73 dca. 28.00 29.00 4ea. 7% stratabound quartz stringers. Bedding 62 dca. At 28.20 axial plane 57 dca. At 28.70 axial plane 41 dca. 29.00 30.00 4ea. 15% stratabound quartz stringers. At 29.08 a 9 cm quartz vein at 60 dca. 30.00 31.00 Fracture perpendicular to bedding at 25 dca. 30.00 31.00 4ea. 7% quartz stringers and quartz flooding. Bedding 70 dca. 31.00 32.00 4ea. 3 specks VISIBLE GOLD. 1% pyrite. 8% quartz flooding. Bedding 74 dca. 32.00 33.00 4ea. 1 speck VISIBLE GOLD. 20% quartz stringers and quartz flooding. 33.00 34.00 4ea. 5% quartz flooding. Bedding 55 dca. 34.00 35.00 Fracture perpendicular to bedding at 18 dca and parallel at 62 dca. 34.00 35.00 4ea. Trace pyrite. 15% quartz veining and quartz flooding. 35.00 36.00 4ea. 13 specks VISIBLE GOLD. Trace pyrite and arsenopyrite. 25% quartz flooding. At 35.30 right limb fold with axial plane 34 dca. At 35.80 right limb fold with axial plane 49 dca. 36.00 37.00 Fracture perpendicular to bedding at 76 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			36.00 37.00 4ea. 2 specks VISIBLE GOLD. 1% pyrite. 25% quartz flooding. Bedding 40 dca. 37.00 38.00 4ea. 5% quartz stringers. Bedding 68 dca. At 37.30 axial plane 47 dca. At 37.60 axial plane 40 dca. 38.00 39.00 4ea. 2% quartz stringers. Bedding 70 dca. 39.00 40.00 At 39.15 a 75 cm quartz vein with 3% pyrrhotite at 72 dca. 40.00 41.00 4ea. 5% quartz stringers. At 40.20 right limb fold with axial plane 43 dca. 41.00 42.00 4ea. 35% quartz stringers. Bedding 72 dca. 42.00 43.00 4ea. 10% quartz stringers. Bedding 78 dca. At 42.40 axial plane 58 dca. 43.00 44.00 4ea. 7% quartz stringers. Bedding 62 dca. 44.00 45.00 Fracture perpendicular to bedding at 35 dca and along core axis. Core broken. E53460 STANDARD I 7.03 7.13 ns. E53461 BLANK 0.03 ns ns. 44.00 45.00 4ea. 1% quartz stringers. Bedding 68 dca. 44.00 45.00 Fractures perpendicular to bedding at 35 dca and 5 dca. E53470 DUPLICATE of E53469 0.03 ns ns.								
45.00	48.00	4B	CHERT - MAGNETITE IRON FORMATION 4b. Well laminated 4b unit. Strongly magnetic. Hard. Bedding 67 to 83 dca. Fractures perpendicular to bedding at 25 to 45 dca. 0% To trace pyrrhotite. Lower contact at 63 dca. 45.00 46.00 4b. Bedding 67 dca. At 45.90 right limb fold with axial plane 43 dca. 46.00 47.00 4b. Bedding 83 dca. At 46.90 left limb fold with axial plane 42 dca. 47.00 48.00 4b. At 47.50 left limb fold with axial plane 65 dca.								
48.00	50.00	2	BASALT Fine grained, dark green-grey. Non-magnetic. Foliation 63 dca. Core moderately fractured parallel to foliation and perpendicular at 23 dca. Locally calcareous along foliation planes. Barren.								
50.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musselwhite Campsite. DRILLING HISTORY:. 0.00 12.96 Tricone bit.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			12.96 50.00 Fluted core barrel. Casing left in hole and capped. DOWNHOLE SURVEYING HISTORY:. 50.00 Metres -47.5, Sperry Sun dip test.								

DRILL HOLE RECORD

Northing: 8451.100
Easting: 8921.800
Elevation: 5306.700

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 61.00
Completed: JUNE 30, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST OP ZONE SECTION 8450N

Grid: EAST BAY
Property: MUSSELWHITE
Claim: 529854
129 m north, 126 m west to post 4 of Pa529854
Date(s) Logged: JULY 7, 1996

Drill Hole: 506-649

Northing: 5+50S
Easting: 0+73W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JUNE 29, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
12.6		-51.0	61.0		-50.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E53479 to E53500 and E56701 to E56706.								
.00	12.56	OB	OVERBURDEN								
12.56	35.40	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey. Non-magnetic. Hard. Foliation at 49 to 57 dca. Dominant fracture set perpendicular to foliation at 34 to 76 dca. Minor fracture sets subparallel at 39 to 47 dca. Locally pervasive calcite alteration. Barren to trace pyrrhotite. At 24.30 1 speck VISIBLE GOLD in a 3 mm quartz-calcite stringer. 2% Quartz and quartz-calcite stringers parallel to foliation. Lower contact 64 dca. 13.00 14.00 Foliation 37 dca. Fractures subparallel at 43 and 65 dca. 15.00 16.00 Foliation 51 dca. Fractures subparallel at 47 and perpendicular at 34 dca. 15.75 16.00 Boulder?. 20.00 21.00 Foliation 49 dca. Fractures perpendicular at 49 dca. 24.00 25.00 BVOL. 6% quartz stringers parallel to foliation at 50 dca. At 24.30 1 speck VISIBLE GOLD in a 3 mm quartz-calcite stringer.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			25.00 26.00 Foliation 56 dca. Fractures parallel at 54 dca. 30.00 31.00 Foliation 57 dca. Fractures perpendicular at 35 dca. E53480 24.00 25.00 STANDARD I 7.23 7.58 ns. E53481 25.00 26.00 BLANK 0.21 ns ns. 34.00 35.40 Garnetiferous.								
35.40	37.97	4F	GARNET-BIOTITE SCHIST 4f. 80% 4f Beds. 1 to 2 cm wide with 20% 1 mm garnets. 20% 5 Mm to 1 cm chert beds. Non-magnetic. Moderate hardness. Bedding 68 dca. Minor right limb fold with axial plane 64 dca. Fractures subparallel to bedding at 17 and 26 dca and perpendicular at 43 dca. 1% Pyrrhotite. 1% Quartz-calcite stringers parallel to bedding. Lower contact 50 dca. 35.40 36.00 4f. Bedding 68 dca. 36.00 37.00 4f. 1% pyrite. Bedding 69 dca. 37.00 37.97 4f. At 37.80 right limb fold with axial plane 64 dca.								
37.97	53.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Beds 5 mm to 4 cm wide. Strong grunerite alteration. Non to moderately magnetic. Hard. Bedding at 50 to 68 dca. Right limb folding throughout with axial planes at 43 to 75 dca. Fractures predominantly perpendicular to bedding at 41 to 65 dca. Minor fractures subparallel at 41 dca. From 37.97 to 40.00 1% to 2% pyrrhotite and 5% to 7% stratabound quartz stringers From 40.00 to 50.00 2% to 5% pyrrhotite. Trace arsenopyrite. 5% to 20% quartz flooding and stratabound quartz stringers. From 41.00 to 42.00 7 specks VISIBLE GOLD. From 50.00 to 53.00 trace pyrrhotite and 20% stratabound quartz stringers. Lower contact 57 dca. E53490 DUPLICATE of E53489 1.27 1.41 ns. 37.97 39.00 4ea. 7% quartz veining. Bedding 68 dca. At 38.2 left limb fold with axial plane 50 dca. At 38.90 right limb fold with axial plane 72 dca. 39.00 40.00 Fracture perpendicular to bedding at 40 dca. 39.00 40.00 4ea. 5% quartz veining. Bedding 70 dca. 40.00 41.00 4ea. Trace arsenopyrite. 20% quartz flooding. 41.00 42.00 Fracture parallel to bedding at 67 dca. 41.00 42.00 4ea. 7 specks VISIBLE GOLD. Trace arsenopyrite. 10% quartz flooding. 42.00 43.00 4ea. 1% pyrite. Bedding 70 dca. 43.00 44.00 Fractures perpendicular to bedding at 51 dca. 43.00 44.00 4ea. 2% quartz stringers parallel to bedding at 60 dca. 44.00 45.00 4ea. At 44.20 right limb fold with axial plane 43 dca. Bedding 50 dca								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			45.00 46.00 4ea. 5% quartz stringers. 46.00 47.00 4ea. 5% quartz stringers. Bedding 60 dca. 47.00 48.00 4ea. 10% quartz flooding and quartz stringers. At 47.45 right limb fold with axial plane 45 dca. 48.00 49.00 Fractures perpendicular to bedding at 42 dca and parallel at 41 dca. 48.00 49.00 4ea. Trace arsenopyrite. 10% quartz flooding and quartz stringers. Bedding 20 dca. 49.00 50.00 4ea. 1% pyrite. 20% quartz stringers. Bedding 65 dca. 50.00 51.00 4ea. 20% quartz stringers and quartz flooding. At 50.40 right limb fold with axial plane 54 dca. 51.00 52.00 4ea. 20% quartz stringers. At 51.50 axial plane at 75 dca. 52.00 53.00 Fractures perpendicular to bedding at 41, 51 and 61 dca. E53500 STANDARD I 7.17 6.93 ns. E56701 BLANK 0.03 ns ns. 52.00 53.00 4ea. 5% quartz stringers. Bedding at 66 dca.								
53.00	57.25	4B	CHERT - MAGNETITE IRON FORMATION 4b. Well laminated 4b with up to 20% e beds. Strongly magnetic. Hard. Bedding 57 to 60 dca. Fractures subparallel to bedding at 57 to 60 dca. 0% To trace pyrrhotite. Minor quartz stringers. Lower contact 49 dca. 53.00 54.00 4be. 3% quartz stringers parallel to bedding. Bedding 57 dca. 53.75 57.25 Very broken core. 54.00 55.00 4be. Bedding 66 dca. 55.00 56.00 4b. Bedding 60 dca. Fracture parallel at 60 dca. 56.00 57.25 4b. Fracture parallel to bedding at 66 dca.								
57.25	61.00	2	BASALT Fine grained, dark green-grey. Foliation 52 dca. Core very fractured at 52 to 57 dca. Chloritic. Trace pyrrhotite.								
61.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musselwhite Camp. Drilling History:. 0.00 12.56 Tricone. 12.56 61.00 Fluted core barrel used. Casing left in hole and capped.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Downhole Surveys:. 12.58 -51.0 Acid Test. 61.00 -50.5 Sperry Sun.								

DRILL HOLE RECORD

Northing: 8350.000
Easting: 8900.800
Elevation: 5307.100

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 35.00
Completed: JULY 2, 1993
Drilled by:
Logged by: P.LINDSAY
Purpose: TO TEST THE OP ZONE UPDIP OF 506-646 ON SECTION 8350N

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529854
218 m north, 179 m west to post 4 of Pa529854
Logged: JULY 6, 1993

Drill Hole: 506-650

Northing: 6+50S
Easting: 0+93W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JULY 1, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
5.7		-50.0	35.0		-49.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERRENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E55813 to E55843.								
.00	5.66	OB	OVERBURDEN								
5.66	7.73	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green grey. Non-magnetic. Sections within this unit are locally garnetiferous. Unit is moderately foliated at 57 to 62 dca. Predominant fracture set parallel to foliation. Barren to trace pyrrhotite. 1% Quartz-calcite stringers parallel to foliation. Lower contact at 62 dca. 7.30 FAULT ZONE with 5 cm wide section of chloritic fault gouge at 70 dca.								
7.73	9.17	4F	GARNET-BIOTITE SCHIST 4f. 40% 1 Mm garnets within a biotite-amphibole rich matrix. Bedding at 50 dca. <1% disseminated pyrrhotite. <1% quartz stringers parallel to bedding. Lower contact at 50 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			7.73 8.50 4f. <1% quartz stringers. Bedding at 60 dca. 8.50 9.17 4f. Bedding at 50 dca. 8.95 Fracture perpendicular to bedding at 43 dca.								
9.17	28.67	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Non to weakly magnetic. Hard. Beds 5 mm to 3 cm wide. Well developed at 55 to 75 dca. Bedding locally disrupted by quartz flooding. Right limb fold throughout unit with axial plane at 38 to 54 dca. Fractures perpendicular to bedding at 5 to 65 dca. Strong to moderate grunerite alteration. Weak pervasive and fracture filled calcite alteration. From 10.00 to 24.00 metres 2% to 10% wisps, blebs and stringers of pyrrhotite, trace arsenopyrite, trace to 1% pyrite and numerous specks of VISIBLE GOLD. 1% to 10% stratabound quartz stringers and quartz flooding. From 24.00 to 28.67 metres 1% pyrrhotite. 1% to 5% stratabound quartz stringers. Lower contact at 65 dca. E55820 STANDARD I 7.30 ns ns. E55821 BLANK 0.03 ns ns. 9.17 10.00 4eaf. <1% quartz stringers. Bedding at 64 dca. 10.00 11.00 4eaf. Right limb fold with axial plane at 65 dca. 3% quartz stringers parallel to bedding. 11.00 12.00 4ea. <1% quartz stringers. Right limb fold with axial plane at 38 dca 12.00 13.00 4ea. 5% quartz stringers parallel to bedding at 52 dca. 13.00 14.00 4ea. 15 cm section at 13.54 metres containing 15% wispy pyrite. 14.00 15.00 4ea. 10% quartz stringers parallel to bedding at 63 dca. 15.00 16.00 4ea. 10% quartz stringers and 5% quartz flooding. Pyrrhotite as wisps, smeared along fractures and blebs. 1% pyrite. 75+ specks of VISIBLE GOLD along foliation planes. 16.00 17.00 4ea. 10% quartz stringers and 10% quartz flooding. 6 specks of VISIBLE GOLD. 1% pyrite disseminated and blebs. 17.00 18.00 4ea. 5% quartz stringers and 5% quartz flooding. 1 speck of VISIBLE GOLD. Trace ARSENOPYRITE, <1% pyrite. 18.00 18.44 4ea. 3% quartz stringers parallel to bedding at 62 dca. 2 specks of VISIBLE GOLD. 18.44 18.85 BVOL. Locally garnetiferous. Upper contact at 62 and lower contact at 45 dca. 18.44 18.85 BVOL. 18.44 21.00 Fractures perpendicular to bedding at 42 dca. E55830 DUPLICATE of E55829 0.31 0.34 ns. 18.85 20.00 4ea. 2% pyrite. 20% quartz stringers parallel to bedding. Bedding at 12 to 60 dca. 20.00 21.00 4ea. 10% quartz stringers parallel to bedding. 21.00 22.00 4ea. Minor 1% quartz stringers parallel to bedding. 22.00 23.00 4ea. 10% quartz stringers. Right limb fold with axial plane at 54 dca								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			23.00 24.00 4ea. 10% quartz stringers parallel to bedding at 58 dca. Trace ARSENOPYRITE, <1% pyrite. 24.00 25.00 4ea. 3% quartz stringers parallel to bedding. Right limb fold with axial plane at 48 dca. 25.00 26.00 Fractures perpendicular at 48 dca, and parallel to bedding at 53 dca. 25.00 26.00 4ea. Bedding at 60 dca. 2% quartz stringers. 26.00 27.00 4ea. Bedding at 60 dca. 1% quartz stringers. 27.00 28.00 Fracture perpendicular to bedding at 37 to 49 dca. 27.00 28.00 4ea. 3% quartz stringers. Moderately calcareous. Trace pyrite. Right limb fold with axial plane at 66 dca. 28.00 28.67 4ea. 5% quartz stringers parallel to bedding 65 dca.								
28.67	30.40	4B	CHERT - MAGNETITE IRON FORMATION 4b. Intermixed light grey and black beds, 1 mm to 1 cm wide, finely laminated. Bedding well developed at 46 to 61 dca. Minor right limb folding at 50 dca. Fractures predominantly parallel to bedding. Locally calcareous along bedding planes. 0% to 1% pyrrhotite. At 30.20 a 15 cm wide section containing 2% STRATABOUND pyrrhotite. 2% to 5% stratabound quartz stringers. Lower contact at 59 dca. E55840 STANDARD I 7.17 7.30 ns. E55841 BLANK 0.03 ns ns. 28.67 29.00 4b. 5% quartz stringers parallel to bedding at 49 dca. 29.00 30.00 4b. Right limb fold with axial plane at 50 dca. 30.00 30.40 4b. 2% quartz stringers parallel to bedding at 60 dca. 30.10 Fracture perpendicular to bedding at 43 dca.								
30.40	35.00	2	BASALT Unit is fine grained, dark green-grey. Non-magnetic. Moderate hardness. Well foliated at 60 to 72 dca. Fractures predominantly parallel to foliation. Weakly calcareous along foliation planes. No visible sulphides. Locally 1% to 2% quartz-calcite stringers parallel to foliation. 34.00 Fracture perpendicular to foliation at 12 dca.								
35.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musslewhite Camp. DRILLING HISTORY:.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0.00 11.90 Tricone. 11.90 40.50 Fluted core barrel used. Casing left in hole and capped. DOWNHOLE SURVEY HISTORY:. Acid test taken at bedrock. Sperry-Sun test taken at bottom of hole.								

DRILL HOLE RECORD

Northing: 8399.500
Easting: 8899.000
Elevation: 5306.900

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 40.50
Completed: JULY 3, 1993
Drilled by:
Logged by: P. LINDSAY
Purpose: TO TEST THE OP ZONE UPDIP OF 506-651 ON SECTION 8400N

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529854
172 m north, 155 m west to post 4 of Pa529854
Logged: JULY 5, 1993

Drill Hole: 506-651
Northing: 6+00S
Easting: 0+95W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JULY 2, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
13.6		-50.0	40.0		-50.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E55788 to E55812.								
.00	11.90	OB	OVERBURDEN								
11.90	13.62	4F	GARNET-BIOTITE SCHIST 4f. Unit contains 30% poorly developed garnets, 1 mm to 3 mm in size within a biotite-amphibole rich matrix. Non-magnetic to weakly magnetic. Hard. Bedding at 73 dca. Minor right limb fold with axial plane at 62 dca. Up to 1% finely disseminated pyrrhotite. 2% Stratabound quartz stringers. Lower contact at 73 dca. E55790 DUPLICATE of E55789 0.07 ns ns. 11.90 13.00 4f. 2% quartz stringers. Right limb fold with axial plane at 62 dca. 13.00 13.62 4f. 2% quartz stringers. Locally disrupted bedding.								
13.62	28.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Moderate to strong grunerite alteration with amorphous garnets throughout. Beds are between 5 mm to 3 cm wide at 46 to 79 dca. Local areas of minor right limb fold with axial planes 47 to 54 dca. Fractures predominantly perpendicular to bedding at 31 to 44 dca. Minor								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			fractures subparallel at 43 to 73 dca. 1% to 12% wisps, blebs, disseminated and stratabound pyrrhotite. Trace arsenopyrite. Trace to 2% pyrite. Numerous specks of VISIBLE GOLD. Up to 10% stratabound quartz stringers. Lower contact 45 dca. 13.62 20.00 Fractures perpendicular to bedding at 18 to 31 dca. E55800 STANDARD I 7.82 7.58 ns. E55801 BLANK 0.03 ns ns. 13.62 14.00 4ea. 1% quartz stringers parallel to bedding. 14.00 15.00 4ea. Right limb fold with axial plane at 47 dca. 5% quartz stringers. 15.00 16.00 4ea. 1% quartz stringers. Bedding at 46 dca. 16.00 17.00 4ea. Locally up to 2% pyrite. 10% quartz stringers parallel to bedding with minor quartz flooding. 17.00 18.00 4ea. Stratabound pyrrhotite with locally 1% pyrite stringers. 2 specks VISIBLE GOLD. 2% quartz stringers. 8% quartz flooding. 18.00 19.00 4ea. Section with strongly disrupted bedding, wispy pyrrhotite and 20% quartz flooding. 2% pyrite as blebs and veinlets. 17 specks of VISIBLE GOLD. 19.00 20.00 4ea. 3% quartz stringers parallel to bedding. 20% quartz flooding. Locally 1% pyrite. 31 specks of VISIBLE GOLD within cluster at 19.73 and 5 specks of VISIBLE GOLD scattered. Right limb fold with axial plane 54 dca. 20.00 23.00 Fractures parallel to bedding at 45 to 59 dca. 20.00 21.00 4ea. Trace pyrite. 1% quartz stringers. Bedding at 59 dca. 21.00 22.00 4ea. 5% quartz stringers parallel to bedding. Trace pyrite. 22.00 28.00 Predominantly all fractures are parallel to bedding at 49 to 70 dca. 22.00 23.00 4ea. 10% quartz stringers and quartz flooding disrupting bedding. 2% pyrite as blebs and veinlets, <1% ARSENOPYRITE. 23.00 24.00 4ea. Bedding at 43 dca. 3% quartz stringers parallel to bedding with trace pyrite. Trace arsenopyrite. 24.00 25.00 4ea. 3% quartz stringers parallel to bedding. 1 speck VISIBLE GOLD. 25.00 26.00 4ea. 7% quartz stringers parallel to bedding. Right limb fold with axial plane at 66 dca. Trace pyrite. 26.00 27.00 4ea. 2% quartz stringers parallel to bedding at 70 dca. 5% quartz flooding. 27.00 28.00 4ea. 3% quartz stringer and quartz flooding. Right limb fold with axial plane at 43 dca adjacent to a fault at 88 dca. 27.90 Fracture perpendicular to bedding at 45 dca.								
28.00	31.48	4B	CHERT - MAGNETITE IRON FORMATION 4b. Unit is strongly magnetic with interbanded beds of light grey chert and magnetite. Hard. Bedding is well developed at 49 to 65 dca. Beds 1 mm to 1 cm wide. Fractures predominantly parallel to locally sub-parallel to bedding. Strongly calcareous along some beds. Trace to 1% pyrrhotite. <1% quartz stringers parallel to bedding. Lower contact at 65 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			E55810 DUPLICATE of E55809 0.17 0.21 ns. 28.00 29.00 4b. Right limb fold with axial plane at 49 dca. <1% quartz stringers. 29.00 30.00 4b. Bedding at 42 dca. Section is strongly calcareous. 3% quartz stringers. 30.00 31.00 4b. Right limb fold with axial plane at 56 dca. At 30.90 a 10 cm wide band containing 10% pyrrhotite and trace pyrite as veinlets parallel to bedding. 2% quartz stringers. 31.00 31.48 4b. Bedding at 65 dca. At 31.14 a 9 cm wide band containing 15% pyrrhotite, trace pyrite within a disrupted section. Possible becciated zone.								
31.48	40.50	2	BASALT Unit is fine grained, dark green. Non-magnetic. Moderately hard. Moderately chloritic. Locally biotite rich. Trace pyrrhotite. <1% quartz carbonate stringers parallel to foliation planes at 42 to 55 dca. 31.48 33.60 Fractures subparallel to bedding at 44 dca. 33.60 35.00 Fractures parallel to bedding at 42 dca, and perpendicular at 14 and 32 dca. 35.00 36.00 Fractures perpendicular at 24 dca. 36.00 37.00 Predominantly fractures subparallel to bedding at 55 dca. 37.90 Fracture perpendicular to foliation at 24 dca. 38.00 40.50 Fractures perpendicular to foliation at 15, 24, 32 and 42 dca.								
40.50		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musslewhite Camp. DRILLING HISTORY:. 0.00 11.90 Tricone. 11.90 40.50 Fluted core barrel used. Casing left in hole and capped. DOWNHOLE SURVEY HISTORY:. Acid test taken at bedrock. Sperry-Sun test taken at bottom of hole.								

DRILL HOLE RECORD

Northing: 8451.100
Easting: 8906.200
Elevation: 5306.800

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 46.00
Completed: JULY 4, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST OP ZONE UPDIP OF 506-649 ON SECTION 8450N(s)

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529854
139 m north, 115 m west to post 4 of Pa529854
Logged: JULY 8, 1993

Drill Hole: 506-652
Northing: 5+50S
Easting: 0+88W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JULY 3, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
13.3		-50.0	46.0		-50.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E56707 to E56727 and E56759.								
.00	13.25	OB	OVERBURDEN								
13.25	19.75	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark green-grey, non-magnetic. Well foliated at 55 to 65 dca. Fractures subparallel to foliation at 45 to 65 dca. Perpendicular at 36 to 44 dca 0% To trace pyrrhotite. 1% Quartz-calcite stringers parallel to foliation. Lower contact 50 dca. 14.00 15.00 Fractures subparallel to foliation at 65 dca and perpendicular at 36 dca. 14.00 14.25 Very broken core. 14.00 14.15 15 cms lost core. 15.30 15.40 Very broken core. 15.80 15.90 Very broken core. 18.00 19.00 Fractures subparallel to foliation at 45 and 56 dca.								
19.75	22.00	4F	GARNET-BIOTITE SCHIST 4f.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Non-magnetic. Moderately hard. Well bedded at 55 dca. Fractures subparallel at 24 and 56 to 65 dca. Perpendicular at 36 to 44 dca. 1% to 2% pyrrhotite. 1% Quartz-calcite stringers. Lower contact 58 dca. 19.75 21.00 4f. Bedding 55 dca. Fractures subparallel at 24 and 56 dca. 21.00 22.00 4f. 1% quartz-calcite stringers. Bedding 56 dca. Fractures subparallel at 65 dca and perpendicular at 36 and 44 dca.								
22.00	34.10	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Well bedded at 55 to 70 dca. Minor folding with axial plane 57 to 64 dca. Fractures subparallel to bedding at 39 to 60 dca. Perpendicular at 44 to 59 dca. Trace to 10% wisps, blebs and stringers pyrrhotite. Trace arsenopyrite. Minor pyrite. Numerous specks of VISIBLE GOLD. 1% to 30% stratabound quartz stringers and quartz flooding. Lower contact 60 dca. E56710 DUPLICATE of E56709 3.84 4.15 ns. 22.00 23.00 4ea. 1% pyrite. 10% quartz stringers. Bedding 63 dca. 23.00 24.00 4ea. 8% quartz stringers. Bedding 65 dca. At 23.70 axial plane 57 dca 23.00 24.00 Fractures parallel to bedding at 60 dca and perpendicular at 59 dca. 24.00 25.00 4ea. 7% quartz stringers. Bedding 64 dca. 25.00 25.50 4ea. 2% pyrite. 25% quartz flooding. 25.50 34.00 Very broken core. 25.50 26.00 4ea. 20% quartz flooding. Sheared at 74 dca and brecciated. 25.50 28.00 Core sheared at 68 to 74 dca, brecciated and very fractured. E56720 STANDARD I 7.03 7.47 ns. E56721 BLANK 0.07 ns ns. 26.00 27.00 4ea. 2% pyrite. 25% quartz flooding. Sheared at 72 dca and brecciated 27.00 28.00 Fractures subparallel to bedding at 39 and 65 dca. 27.00 28.00 4ea. 1% pyrite. 1 speck VISIBLE GOLD. 30% quartz flooding and quartz veining. Sheared at 68 dca and brecciated. 28.00 29.00 4ea. 1 speck VISIBLE GOLD. 1% quartz stringers. Bedding 70 dca. 29.00 30.00 4ea. 1% quartz stringers. At 29.20 axial plane 64 dca. 30.00 31.00 4ea. 15% quartz stringers and quartz flooding. Bedding 63 dca. 31.00 32.00 Fractures subparallel to bedding at 52 and 31 dca and perpendicular at 35 dca. 31.00 32.00 4ea. 10% quartz stringers. At 31.60 14 specks VISIBLE GOLD in a cluster and 16 specks in a cluster. 32.00 33.00 4ea. 10% quartz stringers. Bedding 55 dca. 33.00 34.10 4ea. 10% quartz stringers. 1% pyrite. Bedding 56 dca.								
34.10	37.30	4B	CHERT - MAGNETITE IRON FORMATION 4b. Bedding 50 to 53 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fractures subparallel to bedding at 39 to 55 dca and perpendicular to bedding at 40 dca. 1% to 3% pyrrhotite. Locally 2% pyrite and trace arsenopyrite. 1% boudinaged quartz stringers. Lower contact 52 dca. 34.10 35.00 4b. 1% boudinaged quartz stringers. Bedding 50 dca. Fractures parallel to bedding at 55 dca. 35.00 36.00 4b. 1% boundinaged quartz stringers. Bedding 53 dca. Fractures parallel to bedding at 39 to 44 dca. 36.00 37.30 4b. 2% pyrite. Trace arsenopyrite. 20% quartz flooding. Fractures parallel to bedding at 50 dca and perpendicular to bedding at 40 dca.								
37.30	46.00	2	BASALT Well foliated at 57 dca. Fractures parallel to foliation at 49 to 65 dca. Minor fractures perpendicular at 43 dca. Barren to trace pyrrhotite. 1% Quartz-calcite stringers. 37.30 46.00 Core fractured. 37.30 38.30 2. 1% quartz-calcite stringers.								
46.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musselwhite Campsite. DRILLING HISTORY:. 0.00 13.25 Tricone. 13.25 46.00 Fluted Core Barrel. Casing left in hole and capped. DOWNHOLE SURVEYING:. 13.25 -50.0 Acid Test. 46.00 -50.0 Sperry Sun.								

DRILL HOLE RECORD

Northing: 8251.300
Easting: 8907.300
Elevation: 5307.700

Collar Azi.: 228.40
Collar Dip: -45.00

Hole Length: 35.00
Completed: JULY 4, 1993
Drilled by:
Logged by: P.LINDSAY
Purpose: TO TEST THE OP ZONE UPDIP OF 506-644 ON SECTION 8250N

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529854
286 m north,249 m west to post 4 of Pa529854
Logged: JULY 8, 1993

Drill Hole: 506-653
Northing: 7+50S
Easting: 0+88W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JULY 4, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
6.6		-43.0	35.0		-41.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING, BOTH RIGHT AND LEFT LIMB FOLDS, ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E55844 to E55867.								
.00	6.60	OB	OVERBURDEN								
6.60	21.87	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Beds 5 mm to 3 cm wide. Moderate to local strong grunerite alteration with amorphous garnets. Non to moderately magnetic. Hard. Bedding well developed at 52 to 62 dca. Right limb fold throughout unit with axial planes at 37 to 60 dca. Fractures predominatly prependicular to bedding at 30 to 43 dca. Minor fractures occur parallel to bedding at 52 to 68 dca. Locally weak pervasive and fracture-filled calcite alteration. From 6.60 to 8.00 metres up to 1% pyrrhotite and 2% to 3% stratabound quartz stringers. From 8.00 to 17.00 metres 2% to 5% wisps, blebs and stringers of pyrrhotite, trace arsenopyrite, up to 1% pyrite and numerous specks VISIBLE GOLD. 5% to 25% stratabound quartz stringers. From 17.00 to 21.87 metres trace to 1% pyrrhotite. 2% to 15% quartz stringers. Trace arsenopyrite. Lower contact 48 dca. 6.60 7.00 Fractures perpendicular to bedding at 40 and 43 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			6.60 7.00 4ea. Bedding at 57 dca. 3% quartz stringers parallel to bedding. 7.00 8.00 4ea. 2% quartz stringers. Right limb fold with axial plane at 37 dca. 8.00 9.00 4ea. Right limb fold with axial plane at 43 dca. 5% quartz stringers parallel to bedding. 9.00 10.00 4ea. 15% quartz stringers parallel to bedding at 62 dca. 9.50 Fracture perpendicular to bedding at 36 dca. E55850 DUPLICATE of E55849 4.97 4.83 ns. 10.00 11.00 4ea. 20% quartz stringers and 5% quartz flooding. 11.00 12.00 4ea. 7% quartz stringers. At 11.00 a 4 cm quartz stringer with 30 specks VISIBLE GOLD. Right limb fold with axial plane at 41 dca. 12.00 16.00 Fractures perpendicular to bedding at 30, 68 and 60 dca. Several fractures parallel to bedding from 47 to 68 dca. 12.00 13.00 4ea. 15% quartz stringers and 5% quartz flooding. Bedding at 47 dca. Pyrrhotite stratabound and within fractures. At 12.83 a cluster with 8 specks VISIBLE GOLD. At 12.85 3 specks VISIBLE GOLD. At 12.95 1 speck VISIBLE GOLD. 13.00 14.00 4ea. 10% quartz stringers parallel to bedding at 68 dca. 4 scattered specks of VISIBLE GOLD. 14.00 15.00 4ea. 25% quartz stringers and 10% quartz flooding. 5 specks of VISIBLE GOLD. 1% pyrite and trace ARSENOPYRITE. 15.00 16.00 4ea. From 15.00 to 15.20 5% pyrrhotite. 20% quartz stringers parallel to bedding at 52 dca. 16.00 17.00 4ea. 10% quartz stringers. 17.00 18.00 4ea. 5% quartz stringers. 18.00 Fracture perpendicular at 30 dca. E55860 STANDARD I 7.41 7.71 ns. E55861 BLANK 0.14 ns ns. 18.00 19.00 4ea. 2% quartz stringers. Right limb fold with axial plane at 60 dca. Trace pyrite and ARSENOPYRITE. 19.00 21.87 Fractures perpendicular to bedding at 15 and 32 dca. 19.00 20.00 4ea. Section contains tight M-FOLDS. Bedding varying from 43 to 82 dca. 20.00 21.00 4ea. 15% quartz stringers parallel to bedding. 21.00 21.87 4ea. 5% quartz stringers. Right limb fold with axial plane at 71 dca.								
21.87	24.86	4B	CHERT - MAGNETITE IRON FORMATION 4b. Light grey and black beds, 1 mm to 2 cm wide. Strongly magnetic. Hard. Unit is well laminated at 58 to 75 dca. Minor left limb fold with axial plane 52.0 dca. Chert beds are boudinaged. Upper portion of unit is moderately garnetiferous. Fractures parallel to bedding and subparallel at 35 and 49 dca. Trace pyrrhotite. 2% to 15% quartz stringers parallel to bedding. Lower contact 65 dca. 21.87 23.00 4b. 15% quartz stringers and 5% quartz flooding. 23.00 24.00 4b. 10% quartz stringers parallel to bedding at 72 dca. 23.28 24.53 Section weakly calcareous along bedding planes.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			24.00 24.86 4b. 10% quartz stringers parallel to bedding at 75 dca. At 24.31 minor right limb fold with axial plane at 62. 24.53 24.86 Section is strongly calcareous throughout.								
24.86	35.00	2	BASALT Fine grained, dark green grey. Non-magnetic. Moderately hard. Unit is moderately chloritic and biotite rich along foliation planes. Moderate to locally strongly foliated at 58 to 70 dca. Fractures predominantly parallel to foliation. Numerous fractures perpendicular to foliation from 14 to 33 dca. Moderately calcareous along foliation planes. Trace to 1% pyrrhotite. 27.56 28.20 2. Bleached and silicified section. Strongly calcareous. Upper contact 65 and lower contact 70 dca. 32.53 32.95 2 20% quartz-calcite stringers parallel to foliation.								
35.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musslewhite Camp. DRILLING HISTORY:. .00 6.60 Tricone bit. 6.60 35.00 Fluted core barrel. Casing left in hole and capped. DOWHOLE SURVEYING HISTORY:. Acid test at top of bedrock. Sperry-Sun test at bottom of hole.								

DRILL HOLE RECORD

Northing: 8450.800
Easting: 8936.700
Elevation: 5306.400

Collar Azi.: 228.40
Collar Dip: -49.00

Hole Length: 75.00
Completed: JULY 6, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST OP ZONE UPDIP OF 506-652 ON SECTION 8450N s) Logged: JULY 9-10, 1993

Grid: EAST BAY
Property: MUSSELWHITE
Claim: Pa529854
118 m north,137 m west to post 4 of Pa529854

Drill Hole: 506-654
Northing: 5+50S
Easting: 0+58W
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: JULY 5, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
13.4		-49.0	75.0		-47.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E56728 to E56738. Note Samples E56739 to E56758 lost during shipping. Sample Series E55701 to E55717 Quarter Samples of the lost core.								
.00	13.36	OB	OVERBURDEN								
13.36	16.90	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, dark green-grey and buff. Non-magnetic. Hard. Foliation 54 to 60 dca. Fractures subparallel to bedding at 47 to 64 dca and perpendicular at 45 to 60 dca. 20% Sericite bands parallel to foliation. Occasional garnet. Trace pyrrhotite. 1% Quartz stringers parallel to foliation. Lower contact 55 dca. 13.36 14.00 Foliation 60 dca. Fractures subparallel at 64 dca and perpendicular at 45 dca. 16.00 17.00 Foliation 54 dca. Fractures subparallel at 47 and 55 dca and perpendicular at 60 dca.								
16.90	48.05	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained, dark green-grey. Non-magnetic. Hard to moderately hard. Foliation 38 to 58 dca. Fractures subparallel to foliation at 41 to 57 dca and perpendicular at 45 to 60 dca. Locally biotitic and garnetiferous. Weakly calcareous along foliation planes. Trace pyrrhotite. 1% to 7% quartz-calcite stringers parallel to foliation. Lower contact 57 dca. 18.40 18.75 Metasediment. 2% pyrrhotite. Silicified. Garnetiferous. Contacts 42 dca. 20.00 21.00 Trace pyrrhotite. 1% quartz stringers. Foliation 38 dca. Fractures subparallel at 57 and perpendicular at 55 dca. 24.85 25.15 Metasediment. 2% pyrrhotite. Silicified. Garnetiferous. Contacts 52 dca. 25.00 26.00 Trace pyrrhotite. 1% quartz stringers. Foliation 52 dca. Fractures perpendicular at 46 and 50 dca. 30.00 31.00 Barren. 4% quartz stringers. Foliation 55 dca. Fractures subparallel at 18 and 61 dca. 35.00 36.00 Barren. 7% quartz stringers. Foliation 54 dca. Fractures subparallel at 48 dca and perpendicular at 40 and 28 dca. 40.00 41.00 Barren. 4% quartz-calcite stringers. Foliation 55 dca. Fractures parallel at 54 dca and perpendicular at 25 dca. 45.00 46.00 Trace pyrrhotite. 5% quartz-calcite stringers. Foliation 58 dca. Fractures subparallel at 47 and 71 dca and perpendicular at 41 dca. 47.75 48.05 BVOL. 20% quartz stringers.								
48.05	50.40	4F	GARNET-BIOTITE SCHIST 4f. 20% 1 Mm garnets in 4f matrix. Non-magnetic. Hard. Bedding 86 to 74 dca. Minor right limb fold with axial plane 53 dca. Fractures subparallel to bedding at 74 and perpendicular at 60 dca. Up to 1% disseminated pyrrhotite. Locally up to 5% quartz stringers. Lower contact 62 dca. E56730 DUPLICATE of E56729 0.03 0.03 ns. 48.05 49.00 4f. Bedding 86 dca. 49.00 50.00 4f. Bedding 74 dca. Fractures parallel to bedding at 74 dca and perpendicular at 60 dca. At 49.80 right limb fold with axial plane 53 dca. 50.00 50.40 4f. 5% quartz stringers.								
50.40	68.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Beds 5 mm to 4 cm wide. Strong grunerite alteration. Non to moderately magnetic. Hard. Bedding 60 to 74 dca. Right limb fold throughout with axial plane 41 to 74 dca. Fractures predominantly perpendicular to bedding at 32 to 65 dca. Minor fractures subparallel at 70 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			From 50.40 to 55.00 trace to 1% pyrrhotite. Trace arsenopyrite. At 53.25 1 speck VISIBLE GOLD. 2% to 10% quartz stringers parallel to bedding. From 55.00 to 59.00 2% to 5% pyrrhotite. Up to 10% stratabound quartz stringers. Numerous specks VISIBLE GOLD. From 59.00 to 68.00 trace to <1% pyrrhotite. 1 speck VISIBLE GOLD at 61.00 to 62.00. 0% to 15% stratabound quartz stringers. Lower contact 76 dca. E56740 STANDARD I Lost during shipping. E56741 BLANK Lost during shipping. E56750 DUPLICATE of E56749 Lost during shipping. 50.40 51.00 4eaf. 5% stratabound quartz stringers. At 50.60 left limb fold with axial plane 57 dca. At 50.90 axial plane 42 dca. 51.00 52.00 4eaf. 10% quartz stringers. Bedding 69 dca. At 51.55 W fold with axial plane 62 dca. 52.00 53.00 4ea. 10% quartz stringers. Trace arsenopyrite. Bedding 49 dca. At 52.80 left limb fold with axial plane 74 dca. 53.00 54.00 4ea. 8% quartz stringers. At 53.25 1 speck VISIBLE GOLD. Bedding 62 dca. At 53.40 axial plane 55 dca. 54.00 55.00 4ea. 2% quartz stringers. Bedding 67 dca. At 54.05 right limb fold with axial plane 59 dca. 55.00 56.00 4ea. 10% quartz stringers. Bedding 64 dca. 56.00 57.00 4ea. Quarter sample replacing E56739. 2% quartz stringers. 5 specks VISIBLE GOLD. Bedding 60 dca. 57.00 58.00 4ea. Quarter sample replacing E56742. 2% quartz stringers. Bedding 61 dca. 58.00 59.00 4ea. Quarter sample replacing E56743. 18 specks VISIBLE GOLD. 15% quartz stringers and quartz flooding. Bedding 62 dca. At 58.50 axial plane 62 dca 59.00 60.00 4ea. Quarter sample replacing E56744. Bedding 56 dca. At 59.55 right limb fold with axial plane 47 dca. 60.00 61.00 4ea. Quarter sample replacing E56745. Bedding 40 dca. At 60.25 right limb fold with axial plane 41 dca. At 60.40 right limb fold with axial plane 38 dca. 61.00 62.00 4ea. Quarter sample replacing E56746. 15% quartz stringers. 1 speck VISIBLE GOLD. Bedding 63 dca. 62.00 63.00 4ea. Quarter sample replacing E56747. 15% quartz stringers and quartz flooding. Bedding 58 dca. 63.00 64.00 4ea. Quarter sample replacing E56748. 5% quartz stringers. Bedding 62 dca. 64.00 65.00 4ea. Quarter sample replacing E56749. Bedding 66 dca. 65.00 66.00 4ea. Quarter sample replacing E56751. 2% quartz stringers. Bedding 62 dca. Fractures subparallel to bedding at 48 dca. 66.00 67.00 Fractures subparallel to bedding at 67 dca and perpendicular at 36 dca. 66.00 67.00 4ea. Quarter sample replacing E56752. 8% quartz stringers. Bedding 71 dca. 67.00 68.00 4ea. Quarter sample replacing E56753. 5% quartz stringers. Bedding 65 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
68.00	73.10	4B	CHERT - MAGNETITE IRON FORMATION 4b. Well laminated 4b with up to 20% garnetiferous 4e beds. Strongly magnetic. Hard. Bedding 52 to 39 dca. Fractures subparallel to bedding at 37 to 48 dca. Locally calcareous. Trace to 2% pyrrhotite. Trace pyrite. 0% to 8% quartz stringers. Lower contact broken. 68.00 69.00 4bf. Quarter sample replacing E56754. From 68.60 to 69.00 5% pyrrhotite and 20% quartz stringers. Bedding and fractures at 65 dca. 69.00 70.00 4b. Quarter sample replacing E56755. 1% pyrite. 15% quartz stringers. Bedding 52 dca. Fractures subparallel at 43 and 48 dca. 69.80 73.10 Very fractured core. 70.00 71.00 Fractures subparallel at 67 and 38 dca. Perpendicular at 20 dca. 70.00 71.00 4b. Quarter sample replacing E56756. 2% quartz stringers. Bedding 39 dca. 71.00 72.00 4b. Quarter sample replacing E56757. Bedding 37 dca. 72.00 73.10 4b. Quarter sample replacing E56758. Bedding 39 dca. Fractures parallel at 37 dca.								
73.10	75.00	2	BASALT Fine grained, dark green-grey. Non-magnetic. Moderately hard. Foliation 55 dca. Core very fractured parallel to foliation. Barren.								
75.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples collected every 3 metres. Samples stored at Musselwhite Campsite. DRILLING HISTORY:. 0.00 13.36 Tricone. 13.36 75.00 Fluted Core barrel used. Casing left in hole and capped. DOWNHOLE SURVEY HISTORY:. 13.36 Metres -49.0 Acid Test. 75.00 Metres -47.0 Sperry Sun dip test.								

DRILL HOLE RECORD

Northing: 8201.300
Easting: 8938.100
Elevation: 5308.200

Collar Azi.: 228.40
Collar Dip: -44.50

Hole Length: 62.70
Completed: Sept. 18, 1993
Drilled by:
Logged by: G.R. Yule
Purpose: To test the OP Zone (open pit potential) on Section 8200N - 26Sept. 19, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
302 m north, 306 m west to post 4 of Pa529854

Drill Hole: 506-664
Northing: 8200.0N
Easting: 8945.5E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 17, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
11.0		-42.0	60.0		-41.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES #E46751-E46793: (43 Samples).								
.00	10.90	OB	OVERBURDEN Ob. Casing from 0.00 to 10.97m. Granitic boulders.								
10.90	20.05	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Unit is fine grained, dark chlorite green, non-magnetic, moderately hard, mafic metavolcanic. Unit hosts 5% fine grained biotite which is weakly foliated at 53 to 67 dca. Two dominant fractures noted parallel to foliation at 50 to 60 dca, and perpendicular to foliation at 145 to 150 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% calcite, 10% pervasive chlorite, 5% finely disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			VEINING: 0% quartz, 0% quartz-carbonate, 0% calcite. Lower contact at 70 dca. 16.10 Sub-vertical fracture at 165 dca, trending at azimuth of 213 deg. 16.60 Blocky core: possible fault zone (?). 18.17 18.46 Blocky core: Three fractures perpendicular to foliation, one carbonatized. 19.05 20.05 BVol. 8% boudinaged quartz-carbonate veins parallel to foliation with no sulphide noted, 5% subhedral garnets. 19.35 20.05 3% fine disseminated garnet within biotized BVol.								
20.05	21.70	4F	GARNET-BIOTITE SCHIST 4fea. Fine grained matrix of biotite with up to 5% 2 mm diameter garnets. Unit is black, grey, and pink. Moderately magnetic. Moderately hard. Composed of 80% 4f beds, and 20% 4ea beds. Bedding ranges from 51 to 63 dca. 4EA Bedding is tightly folded with the fold axes of left limb fold ranging from 48 to 68 dca. Dominant fractures perpendicular to foliation at 140 to 155 dca. Fractures subparallel to foliation at 25 to 45 dca. GEOLOG DATA:. ALTERATION: 1% bedded grunerite, 5% finely disseminated garnet, 0% silicification, 1% calcite stringers, 10% pervasive chlorite, 5% finely disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace finely disseminated arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 0% calcite. Lower contact is gradational. 20.05 21.00 4fea. 20% 4EA beds. Trace arsenopyrite noted. 21.00 22.00 4fea. 15% 4EA beds. Finely disseminated pyrrhotite.								
21.70	45.30	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eaf and 4ea. From 21.70 to 23.00 4eaf. From 23.00 to 45.30 4ea. Unit is composed of fine grained to medium grained glomeroporphyritic garnetiferous beds intermixed with chloritic beds, chert and grunerite. Unit is grey, green, black and pink. Non to weakly magnetic. Hard. Start of unit is composed of a mix of 60% 4ea and 40% 4f beds. At 23.00 metres unit becomes primarily 4EA. Bedding well developed at 35 to 70 dca. 1 cm to 10 cm wide. Right limb fold and left limb fold with axial planes 25 to 80 dca. Bedding is strongly contorted with both left limb fold and right limb fold. Pronounced axial planar cleavage noted throughout contorted bedding. In places								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			bedding is offset by fracture cleavage adding to the contorted appearance of the 4ea iron formation. Foliation appears axial planar but is weakly deformed by the contorted bedding. Foliation at 64 to 70 dca. Fractures subparallel to bedding at 59 to 87 dca and perpendicular at 127 to 155 dca. MINERALIZED ZONES:. From 26.0 to 29.0 metres very weakly sulphidized 4EA. No discernible margins but rather a weak increase in pyrrhotite as finely disseminated, wisps and blebs with chloritic beds parallel to foliation. Quartz flooding at 26.0 26.35. No VISIBLE GOLD noted. From 37.0 to 38.40 metres very weakly sulphidized 4ea. Gradational margins. Locally up to 3% pyrite occurs as stringers, wisps, and fracture-filled axial planar cleavage with chert beds. 3% finely disseminated and wispy po noted. No VISIBLE GOLD noted. GEOLOG DATA:. ALTERATION: 4% bedded grunerite, 5% finely disseminated medium grained to coarse grained garnet, 0% silicification, 1% calcite stringers, 4% pervasive chlorite, 1% finely disseminated biotite. MINERALIZATION: 1 to 3% disseminated and wispy pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 1% quartz stringers and veinlets, 1% quartz-carbonate veinlets parallel to foliation, 0% calcite. Lower contact at 70 dca. 21.70 23.00 4eaf. 22.00 23.00 4eaf. 20% 4F beds. 23.00 45.30 4ea. 23.00 24.00 4ea. 15% 4F beds. 23.10 Fold axes of left limb fold is 52 dca. 24.00 25.00 4ea. 40% 4F. 24.30 Fold axes of left limb fold is 15 dca. 25.00 26.00 4eaf. 14% 4F beds. 3% pyrrhotite as wisps and finely disseminated. 26.00 27.00 4eaf. 4% pyrrhotite as wisps in beds, blebs, and finely disseminated. 27.00 28.00 4ea. 28.00 29.00 4ea. Pyrrhotite and pyrite as wisps and disseminated in chloritic beds. 28.60 Well developed fracture cleavage at 55 dca. Chert beds offset on cm scale as normal faulting on left limb fold. 29.00 30.00 4ea. Weakly disseminated pyrrhotite. 30.00 Left limb fold with fold axes at 54 dca. 30.00 31.00 4ea. 31.00 32.00 4ea. 20% 4E beds. Weakly disseminated pyrrhotite. 32.00 Well developed fracture cleavage at 75 dca. Chert beds offset on cm scale as normal faulting on left limb fold.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			32.00 33.00 4ea. Trace pyrite on fracture plane. Weakly disseminated pyrrhotite. 32.10 Sub-vertical fault line at 155 dca, with an azimuth of 213 degrees. Fault hosts pyritic fracture-filling. 32.60 Right limb fold with fold axes at 58 dca. 33.00 34.00 4ea. 33.90 34.80 Rubbly core. Possible intersection of two joint sets. One set parallel to foliation trends at 50 dca, the second perpendicular to foliation at 150 dca. 34.00 35.00 4ea. 35.00 36.00 4ea. 36.00 37.00 4ea. 37.00 38.00 4ea 3% pyrite as wisps and axial planar fracture-filling in chert beds. 2% wisps and finely disseminated, and blebs of pyrrhotite. Trace arsenopyrite noted as fine individual crystals. 38.00 39.00 4ea 2% pyrrhotite occurs as wisps and finely disseminated. Specks arsenopyrite. 38.50 Left limb fold with fold axes at 60 to 75 dca. 39.00 40.00 4ea. Finely disseminated pyrrhotite. 40.00 M-type fold. Axial plane at 87 dca. 40.00 41.00 4ea. Contorted bedding. 41.00 42.00 4ea. Contorted bedding. 42.00 43.00 4ea. Contorted bedding. 43.00 44.00 4ea. Pyrrhotite and pyrite as wisps and disseminated in chloritic beds. 43.40 Right limb fold with axial planes at 61 dca. E46760 DUPLICATE OF E46759 0.99 ns ns. E46770 STANDARD II 9.43 9.22 ns. E46771 BLANK 0.27 ns ns. E46780 DUPLICATE of E46779 0.03 ns ns. 44.00 45.00 4ea. Weakly disseminated pyrrhotite. 45.00 46.00 4b with 30% 4ea. 35% quartz flooding with trace few pyrrhotite grains. Trace sulphide.								
45.30	51.24	4B	CHERT - MAGNETITE IRON FORMATION 4bea and 4b. From 45.30 to 47.30 4bea. From 47.30 to 51.24 4b. Light grey, black and minor yellowish and pink. Moderately to strongly magnetic. Hard. Chert beds at less than or equal to 1 cm are strongly boudinaged. Magnetite beds at less than or equal to 0.5 cm are wispy to laminated. From 45.30 to 47.30 metres composed of 30% fine interbedded 4EA with 4B. Magnetite averages less than or equal to 15%. From 47.30 to lower contact Typical laminated oxide iron formation. Bedding well developed at 60 to 75 dca. Predominant fractures are oriented parallel to foliation at 60 to 67 dca, and perpendicular at 150 dca. 3% to 5% bedded, pervasive, and fracture-filling carbonatization with the								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			fractures perpendicular to foliation. GEOLOG DATA:. ALTERATION: 3% bedded to stringer grunerite, 5% bedded, finely disseminated, fine grained subhedral garnets, 0% silicification, 1% calcite stringers on margins of magnetite beds, 4% pervasive chlorite, 1% finely disseminated biotite. MINERALIZATION: 1% disseminated and WISPY pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% magnetite beds. VEINING: 5% quartz stringers, veinlets and veins, 1% quartz-carbonate veinlets parallel to foliation, 5% calcite as margins of magnetite beds. Lower contact at 63 dca. 45.30 47.30 4bea. 46.00 47.00 4b with 20% 4e beds. Weakly disseminated pyrrhotite. 47.00 48.00 4b. 47.30 51.24 4b. 48.00 49.00 4b. 15% wispy pyrrhotite with magnetite from 48.38 to 48.56. 49.00 50.00 4b. Disseminated pyrrhotite with magnetite beds. Trace arsenopyrite. 50.00 51.24 4b.								
51.24	62.70	2	BASALT 2 - Possibly MSed. Fine grained, dark chloritic green. Non-magnetic. Moderately hard. Foliation at 50 to 65 dca. Fractured parallel to foliation at 50 to 65 dca, and perpendicular at 150 dca. The perpendicular fractures are calcite and pyrite fracture-filled. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 1% calcite stringers, 10% pervasive chlorite, 10% finely disseminated foliated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 1% quartz stringers and veinlets, 1% quartz-carbonate veinlets parallel to foliation, 5% calcite veinlets. 51.24 52.24 2. No sulphide. 2% quartz-carbonate veinlets. 52.24 53.24 2. No sulphide. 3% quartz-carbonate veinlets. 53.24 54.24 2 with 24b. 53.28 to 53.50 5% pyrrhotite and 3% pyrite as wisps and stringers. 53.28 53.50 24b. 54.24 55.60 2. No sulphide. 2% quartz-carbonate veins. 55.60 56.60 2 with 24b. 55.92 to 56.27 grunerite alteration with 20% magnetite, 5% pyrrhotite and 3% pyrite stringers. 55.92 56.27 24b. 56.60 57.60 2. No sulphide. 2% quartz-carbonate veinlets. 58.68 Sub-vertical faulting at azimuth of 318 degrees, with foliation drag folded indicating - East side south.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			E46790 DUPLICATE of E46789 0.17 ns ns.								
62.70		2	END OF HOLE								
			CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. No sludge return from drilling.								
			DRILLING HISTORY:. 0.00 to 10.97 metres: Tricone and NW casing. 10.97 to 62.70 metres: Fluted Core Barrel used. Dutem plug placed 6 metres below casing and cemented with one bag above plug. Casing left in hole, and capped.								
			DOWNHOLE SURVEY HISTORY:. 11.00m: -42.00 Acid Test. 60.00m: -41.00 Acid Test.								

DRILL HOLE RECORD

Northing: 8201.500
Easting: 8923.700
Elevation: 5307.700

Collar Azi.: 228.40
Collar Dip: -45.00

Hole Length: 43.60
Completed: Sept. 19, 1993
Drilled by:
Logged by: B. D'Silva
Purpose: To test OP Zone (open pit potential) on Section 8200N - 40 m Sept. 22-23, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
312 m north, 295 m west to post 4 of Pa529854

Drill Hole: 506-665
Northing: 8200.0N
Easting: 8931.1E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 18, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
10.4		-45.0	40.0		-46.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES #FE03001 TO FE03036 (36 SAMPLES).								
.00	11.27	OB	OVERBURDEN OB. Casing from 0.00 to 10.36 metres. Granite boulders.								
11.27	12.20	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with garnets up to 2 mm, brown, pink, grey, weakly magnetic and average hardness. This unit is composed of 70% f beds, 25% chert beds, 3% gruneritized beds and 2% laminated magnetite. Well preserved bedding from 1 mm to 1.5 cm at 45 to 47 dca. Right limb fold, axial plane 53 dca. One fracture at 76 perpendicular to bedding, coated with FeO. GEOLOG DATA. 3% Bedded grunerite, 5% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 65% bedded biotite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% laminated magnetite. 1% Quartz veins, 0% quartz-carbonate veins, 0% carbonate. Lower contact sharp at 57 dca. 11.27 12.20 4f 1% quartz veins, right limb fold, axial plane 57 dca.								
12.20	13.95	4EAF	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. / GARNET-BIOTITE SCHIST 4eaf. Fine grained with garnets and glomeroporphyritic clusters up to 5 mm, brown, pink, yellow and grey, weakly magnetic and average hardness. This unit is composed of 50% chert beds, 30% ea beds, 20% f beds and trace magnetite. Moderately to well preserved bedding from 1 mm to 2 cm at 39 to 45 dca. Left limb fold, axial plane 40 to 66 dca. One fracture at 60 dca parallel to bedding, one fracture at 90 dca, coated with carbonate. GEOLOG DATA. 10% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 14% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 1% Quartz veins, 0% quartz-carbonate veins, trace carbonate as fracture-filling. Lower contact sharp at 49 dca. 12.20 13.00 4eaf 1% quartz veins, left limb fold, axial plane 45 dca. 13.00 13.95 4eaf 1% quartz veins, left limb fold, axial plane 40 dca.								
13.95	28.90	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with garnets and glomeroporphyritic clusters up to 1 cm, green, yellow, grey, pink, weakly magnetic and hard. This unit is composed of 50% ea beds, 25% chert beds, 10% e beds or remnant e beds, 10% f beds and 5% magnetite. Moderately to well preserved bedding from 1 mm to 2 cm at 35 to 70 dca. Right limb fold, axial planes 45 to 68 dca, from 21.50 to 23.00 left limb fold, axial planes 25 to 66 dca. Dominant fracture set perpendicular to bedding at 90 to 166 dca, at 14.72 and 14.80 fractures coated with FeO. Minor fracture set subparallel to bedding at 29 to 80 dca. GEOLOG DATA. 10% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 3% bedded biotite. Trace disseminated pyrrhotite, 2 specks VISIBLE GOLD, trace localized								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			disseminated pyrite, trace localized disseminated arsenopyrite, 0% chalcopyrite, 5% disseminated and laminae magnetite. 1% Quartz veins, 0% quartz-carbonate veins, trace carbonate as fracture-filling. MINERALIZED ZONE. From 20.00 to 21.00, 2 small specks VISIBLE GOLD in ea beds, trace pyrrhotite, and 0% quartz flooding and quartz veining. Lower contact gradual over 25 cm at 68 dca. FE03010 DUPLICATE OF FE03009 0.41 NS NS. FE03020 STANDARD II 8.78 8.61 NS. FE03021 BLANK 0.24 NS NS. 13.95 15.00 4ea 1% quartz flooding, trace pyrite, left limb fold, axial plane 66 dca. 15.00 16.00 4ea 1% quartz flooding, trace pyrite. 16.00 17.00 4ea 7% quartz flooding, trace pyrite. 17.00 18.00 4ea trace quartz flooding, right limb fold, axial plane 45 dca. 18.00 19.00 4ea trace quartz veins, left limb fold, axial plane 40 dca. 19.00 20.00 4eaf right limb fold, axial plane 49 dca. 20.00 21.00 4ea 2 specks VISIBLE GOLD, right limb fold, axial plane 48 dca. 21.00 22.00 4ea 2% quartz veins, trace arsenopyrite, left limb fold, axial plane 36 dca. 22.00 23.00 4ea trace quartz veins, right limb fold, axial plane 46 dca. 23.00 24.00 4ea trace quartz veins, 10% quartz flooding, right limb fold, axial plane 64 dca. 24.00 25.00 4ea 40% quartz flooding, trace arsenopyrite, trace pyrite. 25.00 26.00 4ea 2% quartz flooding, right limb fold, axial plane 51 dca. 26.00 27.00 4ea 3% quartz flooding, right limb fold, axial plane 63 dca. 27.00 28.00 4ea 5% quartz flooding. 28.00 28.90 4ea left limb fold, axial plane 53 dca.								
28.90	30.72	4BF	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. Fine grained with garnets up to 1 cm, brown, grey, yellow, pink, highly magnetic and hard. This unit is composed of 55% b beds and 45% f beds. Well preserved bedding up to 2 cm at 57 to 66 dca. Right limb fold, axial plane 51 dca, left limb fold, axial plane 53 dca. 2 Fractures parallel to bedding at 58 and 79 dca. GEOLOG DATA. 10% Bedded grunerite, 5% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite, 10% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 25% disseminated and laminae magnetite. 0% Quartz veins, 0% quartz-carbonate veins, trace carbonate as fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact gradual at 64 dca. 28.90 30.00 4bf right limb fold, axial plane 51 dca. 30.00 30.72 4bf left limb fold, axial plane 53 dca.								
30.72	32.50	4EAF	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. / GARNET-BIOTITE SCHIST 4eaf. Fine grained with glomeroporphyritic garnets up to 1 cm, brown, grey, yellow, pink, weakly magnetic, and average hardness. This unit is composed of 55% ea beds, 25% f beds, 20% b beds. Moderately well preserved bedding up to 2 cm at 56 to 63 dca. Right limb fold, axial plane 60 dca. Fractures parallel to bedding at 56 to 64 dca, fractures perpendicular to bedding at 113 to 142 dca. GEOLOG DATA. 7% Bedded grunerite, 2% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite, 1% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% laminae magnetite. 0% Quartz veins, 0% quartz-carbonate veins, trace carbonate as fracture-filling. Lower contact gradational at 56 dca. 30.72 31.48 4eaf right limb fold, axial plane 60 dca. 31.48 32.50 4eaf.								
32.50	34.75	4BF	CHERT-MAGNETITE I.F. / GARNET-BIOTITE SCHIST 4bf. Fine grained with garnets up to 5 mm, grey, brown, yellow, pink, strongly magnetic and hard. This unit is composed of 60% b beds and 40% f beds. Moderately well preserved bedding at 63 to 73 dca. Right limb fold, axial plane 58 dca. Fractures perpendicular to bedding at 110 to 147 dca, fractures parallel to bedding at 63 to 73 dca. GEOLOG DATA. 4% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite, 20% bedded biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% laminae magnetite. 0% Quartz veins, 0% quartz-carbonate veins, trace carbonate as fracture-filling. Lower contact sharp at 90 dca. 32.50 33.00 4bf. 33.00 34.00 4bf.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			34.00 34.75 4bf right limb fold, axial plane 51 dca.								
34.75	37.19	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, yellow, strongly magnetic, and hard. This unit is composed of 55% chert beds and 45% disseminated and laminae magnetite. Well preserved bedding at 60 to 68 dca. Fractures parallel to bedding at 67 to 80 dca and fractures perpendicular to bedding at 140 dca. GEOLOG DATA. 3% Bedded grunerite, trace garnet, 0% silicification, 0% carbonatization, trace chlorite, 0% biotite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 45% bedded magnetite. 0% Quartz veins, 0% quartz-carbonate veins, trace carbonate as fracture-filling. Lower contact sharp at 64 dca. FE03030 DUPLICATE OF FE03029 0.03 NS NS. 34.75 36.00 4b. 36.00 37.19 4b.								
37.19	43.60	2	BASALT 2 - possibly metased. Fine grained, green, grey, non magnetic, moderately hard. Well developed foliation at 51 to 55 dca. Fractures parallel to bedding at 27 to 66 dca and fractures perpendicular to bedding at 130 to 151 dca. GEOLOG DATA. Trace bedded grunerite, trace glomeroporphyritic garnets 0% silicification, 0% carbonatization, trace chlorite, 5% bedded biotite. Trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. 37.19 38.00 Basalt. 38.00 39.00 Basalt. 39.00 40.00 24e 10% quartz flooding. 39.16 39.54 24e. 2% pyrrhotite, 10% quartz flooding, lower contact sharp at 64 dca. 40.00 41.00 24e trace quartz flooding. 40.70 40.85 24e. Trace pyrrhotite, trace quartz flooding, lower contact sharp at 58 dca. 41.00 42.00 Basalt.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
43.60		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 10 metres. Samples stored at Musselwhite camp. DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 to 10.36 hole cased with 10.36 m of NW casing. 10.36 to 43.60 standard 3 m corebarrel used. Dutem plug place in upper part of hole and one bag of cement above. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 10.36 -45.00. 40.00 -46.00.								

DRILL HOLE RECORD

Northing: 8201.400
Easting: 8952.400
Elevation: 5308.400

Collar Azi.: 228.40
Collar Dip: -45.00

Hole Length: 75.00
Completed: Sept. 20,1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on 8200N - 11.5 m West ofSept. 24, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
293 m north, 317 m west to post 4 of Pa529854

Drill Hole: 506-666
Northing: 8200.0N
Easting: 8959.9E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 19, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
9.8		-48.0	70.0		-42.0	73.0		-42.3			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES# E46794 - E46846: (53 Samples).								
.00	10.24	OB	OVERBURDEN Ob. Casing from 0.00 to 9.75m. Granitic and Paleozoic Limestone boulders.								
10.24	35.42	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, dark green-grey. Non-magnetic. Moderately hard to hard. Locally biotitic, fine biotite imparts FELSIC TO INTERMEDIATE VOLCANICS weak foliation. Weak but pervasive carbonate veinlets parallel to foliation average less than or equal to 2 mm wide. Fine grained chloritic bands less than or equal to 0.3 mm represent flattened pillow selvages. These selvages, sub-parallel to foliation, host mm sized calcite veinlets. Foliation at 50 to 60 dca. Fractures parallel to foliation range from 45 to 60 dca, and FELSIC TO INTERMEDIATE VOLCANICS set perpendicular to foliation at 140 to 160 dca. GEOLOG DATA:.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 4% calcite veinlets, 10% chlorite, 3% finely disseminated biotite and along margins of quartz vein. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 5% blue-grey quartz veins parallel to foliation, 3% quartz-carbonate veins and veinlets parallel to foliation, 3% calcite veinlets. Lower contact at 73 dca. 12.00 13.00 Bvol. Wallrock sample. 13.00 14.00 Bvol with 30% cherty quartz vein. 1-2% pyrrhotite stringers parallel to foliation. Biotitic wallrock. 13.35 13.50 Dark grey cherty quartz vein with trace pyrite. Parallel to foliation 13.60 13.90 Dark grey cherty quartz vein with 2% pyrrhotite stringers. Parallel to foliation. Biotitic wallrock. 14.00 15.00 Bvol. Wallrock Sample. 17.00 Calcite coated fracture perpendicular to foliation. Throughout unit approximate 10 to 20 hairline fractures or joints per metre. 18.50 Fracture with calcite fracture-filling perpendicular to foliation at 165 dca. 20.50 Bleach wallrock of fracture perpendicular to foliation. 21.60 21.80 Rubbly core. Fracture parallel to foliation. E46800 STANDARD II 9.87 9.81 ns. E46801 BLANK 0.21 ns ns. 22.00 23.00 Biotitic Bvol. 5% biotite, 10% cherty quartz vein, trace disseminated pyrrhotite. Parallel to foliation. 32.42 33.42 Bvol. Wallrock Sample. 33.42 34.42 Bvol with 20% cherty quartz veining. Trace to 1% fine disseminated pyrrhotite. Biotitic wallrock. 34.42 35.42 Bvol. Wallrock Sample.								
35.42	42.10	4EAF	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. / GARNET-BIOTITE SCHIST 4eaf. From 35.42 to 35.70 4f. From 35.70 to 42.10 4eaf. The unit is FELSIC TO INTERMEDIATE VOLCANICS fine grained, black, pink, light grey, yellowish, and chloritic green. Locally weakly to strongly magnetic. Moderately hard. The 4ea unit hosts weak grunerite alteration at less than or equal to 10% grunerite. The 4f interbeds are fine grained, black biotitic matrix with less than or equal to 40% fine mm pink garnets. Beds average less than or equal to 5 cm. From 59 to 72 dca. Bedding is strongly contorted. Fold axes range from 36 to 55 dca. GEOLOG DATA:. ALTERATION: 3% bedded grunerite, 20% finely disseminated mm size garnets, 0% silicification, 3% calcite veinlets, 10% chlorite, 3% finely disseminated biotite								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			MINERALIZATION: trace disseminated to stringers pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% magnetite disseminated in chert beds. VEINING: 10% blue-grey chert beddings parallel to foliation, but no veining, 1% quartz-carbonate veins and veinlets parallel to foliation, 3% calcite veinlets. Lower contact at 54 dca. 35.42 35.70 4f Good typical 4f unit over 0.28 cm with 30 to 40% fine grained to medium grained pink garnets set in FELSIC TO INTERMEDIATE VOLCANICS black, biotite matrix. Below 35.70 unit is an intermixed 4EA and 4F. 35.42 36.42 4f with 25% 4ea beds. 1% disseminated and wisps of pyrrhotite. 35.70 42.10 4eaf. Interbedded 4ea and 4f beds in the ratio of 60:40. 36.00 Tight left limb fold with left limbs of fold sub-parallel to core axis. Fold axes at 36 dca. 36.42 37.42 4fea. 35% 4EA beds. 1% disseminated and wisps of pyrrhotite. 37.42 Fracture parallel to foliation at 72 dca. Polished chloritic slip, possible movement. 37.42 38.42 4fea. Pyrrhotite wisps along fracture cleavage at 58 dca. 38.42 39.42 4ef with minor 4a. 39.00 Right limb fold with fold axes at 53 dca. 39.42 40.42 4fe. 39.60 M-type fold. Axial plane at 60 dca. 40.42 41.42 4fe. 41.42 42.42 4e with 4ea.								
42.10	48.72	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Beds 2 mm to 5 cm wide with strong grunerite alteration. Non to moderately magnetic. Hard. Bedding 40 to 65 dca. Left limb fold with attenuated limbs, and fracture cleavage transposed or offset limbs on the mm scale. Fractures parallel bedding at 70 dca. Perpendicular fractures tend at 135 to 165 dca. GEOLOG DATA:. ALTERATION: 10% grunerite, 10% garnet, 0% silicification, 4% calcite veinlets, 10% chlorite, 3% finely disseminated biotite. MINERALIZATION: 2% finely bedded to wispy pyrrhotite in chert beds, 0 specks VISIBLE GOLD, trace pyrite interbedded with pyrrhotite, 0% arsenopyrite, 0% chalcopyrite, 3% magnetite. VEINING: 20% blue-grey chert beds parallel to foliation, 0% quartz vein, 3% quartz-carbonate veins and veinlets parallel to foliation, 3% calcite veinlets. MINERALIZED ZONE:. From 47.10 to 47.20 metres 10% wisps and stringers of pyrrhotite and 3% pyrite. Sulphides parallel to foliation at 45 dca. No VISIBLE GOLD noted.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact at 55 dca. 42.42 43.42 4ea with 35% 4e. No sulphide. 42.63 43.07 4e or chloritic METASEDIMENT. With 5% garnets. 43.42 44.42 4ea. 2% pyrrhotite as fracture-filling in chert at 70 dca. Pyrrhotite as wisps in chert beds. 44.42 45.42 4ea. Strong grunerite alteration. Pyrrhotite wisps in chert beds. Left limb fold with fold axes at 45 dca. 44.50 Left limb fold with axial plane at 45 to 68 dca. 45.42 46.42 4ea. Strong grunerite alteration. Pyrrhotite wisps in chert beds. 45.80 Left limb fold in chevron-like appearance due to right angle fold. 46.42 47.42 4ea. Strong grunerite alteration. 47.10 to 47.20 10% pyrrhotite with pyrite stringers interbedded. 47.42 48.42 4ea. Strong grunerite alteration. 2% pyrrhotite within chert beds. 47.60 Broad left limb fold with amplitude of 10 cm and 1/2 wavelength of 8 cm and axial plane at 45 dca. Generally folds are tighter and smaller E46810 DUPLICATE of E46809 0.10 ns ns. 48.42 49.42 4b with minor 4ea and 4f interbedded. Pyrrhotite interbedded with chert. 15% mm sized garnets.								
48.72	54.05	4B	CHERT - MAGNETITE IRON FORMATION 4bea. Fine grained, dark and locally grey with minor yellowish beds. Weakly to strongly magnetic. Moderately hard. Composed of 60% very weak grunerite altered 4b, 30% 4f, and 4e beds. Bedding from 59 to 77 dca. Predominantly right limb fold with axial planes average 50 dca. At fold closures a pronounced fracture cleavage at 60 dca. Few fractures within unit perpendicular to bedding at 145 to 152 dca. Minor fractures subparallel to bedding at 52 dca. GEOLOG DATA:. ALTERATION: 10% bedded grunerite, 10% glomeroporphyritic interbedded garnets, 0% silicification, 4% calcite veinlets, 10% chlorite, 3% finely disseminated biotite MINERALIZATION: 2% finely bedded to wispy pyrrhotite in chert beds, 0 specks VISIBLE GOLD, trace pyrite interbedded with pyrrhotite, 0% arsenopyrite, 0% chalcopyrite, 3% magnetite. VEINING: 20% blue-grey chert beds parallel to foliation, 0% quartz vein, 3% quartz-carbonate veins and veinlets parallel to foliation, 3% calcite veinlets. Lower contact at 60 dca. E46820 STANDARD II 9.81 9.53 ns. E46821 BLANK 0.07 ns ns. 49.42 50.42 4b with minor 4ea and 4f interbedded. Pyrrhotite interbedded with chert. 20% quartz veins. 50.42 51.42 4b with minor 4ea and 4f interbedded. Disseminated and wisps of 2%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			pyrrhotite. 51.42 52.42 4b with minor 4e. Pyrrhotite interbedded with chert. 52.42 53.42 4b with minor 4ea. Pyrrhotite interbedded with chert. 53.42 54.42 4b with minor 4ea. Pyrrhotite interbedded with chert.								
54.05	57.66	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eab. Unit is yellowish with light grey chloritic green and pink. 5 non to moderately magnetic. Hard. Composed of 70% 4EA beds with 20% chert and 10% 4E beds. Strong grunerite alteration. Beds 5 mm to 3 cm wide. Beds from 60 to 65 dca. Bedding is strongly contorted with left limb fold and right limb fold with fold axes at 55 to 60 dca. Fractures sub-parallel to foliation at 50 dca. Sub-vertical set at 165 dca trends at an azimuth of 215 degrees. GEOLOG DATA:. ALTERATION: 15% grunerite, 15% garnet, 0% silicification, 4% calcite veinlets, 10% chlorite, 3% finely disseminated biotite. MINERALIZATION: 2% finely bedded to wispy pyrrhotite in chert beds, 0 specks VISIBLE GOLD, trace pyrite interbedded with pyrrhotite, 0% arsenopyrite, 0% chalcopyrite, 3% magnetite. VEINING: 20% blue-grey chert beds parallel to foliation, 0% quartz vein, 0% quartz-carbonate, 0% calcite. Lower contact 60 dca. 54.42 55.42 4ea. Disseminated and wispy pyrrhotite with chert beds. 55.00 Left limb fold with axial plane at 50 dca. 55.42 56.42 4ea with 25% 4f beds. Disseminated pyrrhotite in chert. 56.42 57.42 4ea with 20% 4f beds. Disseminated pyrrhotite in chert beds. 57.00 Tight right limb fold and left limb fold with fold axes at 55 dca. 57.42 58.42 4bf. Trace to 1% pyrrhotite interbedded with chert.								
57.66	69.80	4B	CHERT - MAGNETITE IRON FORMATION 4bf and 4b. From 57.66 to 62.30 4bf. From 62.30 to 69.80 4b. Unit is light grey to dark grey chert beds with black magnetite beds and minor yellowish grunerite. Pink mm sized garnets comprise up to 20% of 4f beds. Moderately to strongly magnetic. Hard. From 57.66 to 62.30 4bf. Intermixed 4b and 4f beds in equal parts. Very weak grunerite alteration noted in the chert-magnetite bed. 4f Beds average 0.5 cm. Fine grained pink garnets at up to 20% over 0.5 cm 4f bed Bedding from 54 to 69 dca. Few tight isoclinal folds of both right limb fold and left limb fold varieties. Fold axes range from 50 to 65 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fractures perpendicular to bedding at 29 to 160 dca. Fractures parallel to bedding at 59 to 71 dca. Fracture cleavage is approximate 50 dca. GEOLOG DATA:. ALTERATION: 1% grunerite, 1% garnet, 0% silicification, 4% calcite veinlets, 10% chlorite, 0% biotite. MINERALIZATION: trace finely bedded to wispy pyrrhotite in chert beds, 0 specks VISIBLE GOLD, trace pyrite interbedded with pyrrhotite, trace arsenopyrite as single crystals, 0% chalcopyrite, 10% magnetite interbedded with chert. VEINING: 2% quartz vein as singular veins, 3% quartz-carbonate veins and veinlets parallel to foliation, 3% calcite veinlets. Lower contact 60 dca. 57.66 62.30 4bf. 58.42 59.42 4bf. No sulphide noted. 59.42 60.42 4bf. No sulphide noted. 59.50 60.00 Four fractures perpendicular to foliation at 150 dca. 60.42 61.42 4bf. No sulphide noted. 61.00 Hairline sub-vertical fracture with calcite fracture-filling at 155 dca. Azimuth of fracture is 205 degrees. Also, FELSIC TO INTERMEDIATE VOLCANICS flat hairline fracture with calcite and chloritic fracture-filling at 140 dca. 61.42 62.42 4b. Wisps of pyrrhotite in quartz vein. 62.30 69.80 4b. Well laminated to uniformly bedded chlorite-magnetite unit. Chert beds are strongly boudinaged. 62.42 63.42 4b. 63.40 66.80 Fault Zone. Zone comprised of numerous hairline calcite fracture-filled sub-vertical joints at 165 dca. 63.42 64.42 4b. 64.42 65.42 4b. 15 cm quartz vein with 5% pyrrhotite, trace pyrite as fracture-filling. 65.42 66.42 4b. Trace fine grained arsenopyrite. Fine disseminated pyrrhotite. 66.42 67.42 4b. Trace arsenopyrite interbedded with magnetite beds. 67.42 68.42 4b. Trace arsenopyrite interbedded with magnetite beds. 68.00 Cm wide calcite fracture-filled sub-vertical joint at 165 dca. E46830 DUPLICATE of E46829 0.07 ns ns. E46840 STANDARD II 9.91 9.60 ns. E46841 BLANK 0.27 ns ns. 68.42 69.80 4b. 1% fine grained arsenopyrite in 5 cm quartz vein at 69.08, as well as finely disseminated crystals interbedded.								
69.80	75.00	2	BASALT 2 - Possibly MSed. Fine grained, dark grey-green. Non-magnetic. Moderately hard. Weak biotitic alteration foliated at 56 to 67 dca. Fractures perpendicular to foliation at 136 to 152 dca are weakly oxidized as								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			well as fracture-filled with calcite. Fractures parallel to foliation at 51 to 60 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 4% calcite veinlets, 10% chlorite, 3% finely disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% magnetite. VEINING: 3% barren quartz vein veinlets, 3% quartz-carbonate veins and veinlets parallel to foliation, 3% calcite veinlets. Lower contact at 66 dca. 69.80 70.80 2. Weak biotite. No sulphide noted. 70.80 71.70 2. Weak biotite. No sulphide noted. 71.70 72.60 2. Weak biotite. No sulphide noted. 72.60 73.60 24b with 2. Strong grunerite alteration with 2% magnetite. No sulphide noted. 72.95 73.28 24b. Strong grunerite alteration. Minor magnetite. 20% quartz flooding. 73.60 74.60 2. Weak biotite. No sulphide noted.								
75.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge collected each 3 metre run. Samples stored at Musselwhite Campsite. DRILLING HISTORY:. 0.00 to 9.75m: Tricone and NW casing. 9.75 to 75.00m: Fluted Core Barrel. Dutem plug placed 6m below casing. One bag cement placed as a cap above plug. Casing left in hole and capped. DOWNHOLE SURVEY:. 9.75m: -48.00 Acid Test. 70.00m: -42.00 Acid Test. 73.00m: -42.25 Sperry Test.								

Date: 29 Mar, 1994 PLACER DOME CANADA LIMITED

DRILL HOLE RECORD

Northing: 8250.900
Easting: 8936.100
Elevation: 5307.400

Collar Azi.: 228.40
Collar Dip: -45.00

Hole Length: 6.90
Completed: Sept. 20, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8250N . Hole aSept. 21, 1993ock interface.

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
267 m north,271 m west of post 4 of Pa529854

Drill Hole: 506-667
Northing: 8250.00N
Easting: 8943.00E
Survey: NO
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 20, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			No samples taken.								
.00	6.90	CO	CASING IN OVERBURDEN Casing from 0.00 to 6.70m. Mixed boulders of BVOL and GRANITIC composition. Hole provided many problems at the bedrock interface - probably due to dip of hole in this type of overburden. Drillers placed casing into possible large BVol boulder or even a ledge. Two core tubes were broken while commencing to core. Casing was later broken on attempts to deepen the casing seat. Hole was aborted.								
6.90		CO	END OF HOLE								
			DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.								
			No core drilled. No sludge samples taken.								
			DRILLING HISTORY:. 0.00 to 6.70 Tricone. 6.70 metres NW casing. 6.90 Hole aborted.								

DRILL HOLE RECORD

Northing: 8250.900
Easting: 8937.100
Elevation: 5307.400

Collar Azi.: 228.40
Collar Dip: -45.50

Hole Length: 65.85
Completed: Sept. 21, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8250N. Re-atteSept. 26, 1993g 506-667

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
266 m north, 272 m west to post 4 of Pa 529854

Drill Hole: 506-668
Northing: 8250.0N
Easting: 8944.1E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 20, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
8.0		-43.0	65.0		-41.8						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES# E46847 - E46896: (50 Samples).								
.00	6.70	OB	OVERBURDEN Casing from 0.00 to 6.70 metres. Granitic boulders.								
6.70	24.70	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVol. Fine grained, dark chloritic green. Non-magnetic. Moderately hard. Unit appears to become FELSIC TO INTERMEDIATE VOLCANICS mafic pyrolusite flow with numerous flattened fine grained chloritic pillow selvages oriented parallel to foliation. Minor 1% to 5% quartz vein and veinlets, 3% quartz-carbonate veinlets parallel to foliation. Weak carbonatization noted along foliation planes as pervasive calcite. Very weak to weak biotitic alteration imparts FELSIC TO INTERMEDIATE VOLCANICS foliation at 50 to 55 dca. Fractures at 45 to 60 dca parallel to foliation, and perpendicular to foliation at 140 to 165 dca. The set of fractures perpendicular to foliation range from hairline to 0.5 cm and calcite fracture-filled. Also, these flats are weakly								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			oxidized. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 3% carbonatization, 10% pervasive chlorite, 3% fine disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3% Frosted white quartz veins and veinlets, 3% quartz-carbonate veinlets, 3% pervasive calcite along foliation. Lower contact is broken and rubbly at 45 dca. 9.00 9.60 Rubbly Core. 9.60 9.70 Bleached 2 cm of wallrock adjacent to flat barren quartz-chlorite fracture-filled fractures. 10.30 10.80 Rubbly Core. 15.20 15.30 Rubbly Core. 15.70 19.50 Weak biotitic alteration associated with the 3% to 5% quartz veins parallel to foliation. No sulphide noted. 16.90 Rubbly Core. 22.70 22.90 Rubbly Core. 23.00 24.70 BVol. 5% quartz veining and 3% quartz-carbonate veinlets. Barren wallrock. 23.40 23.80 Rubbly Core.								
24.70	25.52	4F	GARNET-BIOTITE SCHIST 4f. 15% Fine mm sized subhedral to euhedral garnets set in FELSIC TO INTERMEDIATE VOLCANICS biotite matrix. Matrix is FELSIC TO INTERMEDIATE VOLCANICS fine grained, black schist. Interbedded are 10% laminated chloritic beds at up to 1 cm wide at 65 dca. Bedding is moderately to well preserved at 66 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 15% fine mm sized garnets, 0% silicification, 0% carbonatization, 5% chlorite, 40% biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 5% barren quartz veinlets, 0% quartz-carbonate, 0% calcite. Lower contact 50 dca. 24.70 25.52 4f. 15% garnets. No sulphide noted.								
25.52	52.40	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eaf and 4ea. From 25.52 to 31.33 4eaf. Interbedded subunit of predominantly 4ea with 15% 4f beds. Unit varies from								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			yellowish with light grey 4ea beds interbedded with dark chloritic green and pink 4f. Unit is locally weakly to strongly magnetic. Moderately hard. Bedding at 42 to 74 dca. Beds of grunerite alteration average between 5% and 10% overall and range up to 2 cm wide. Glomeroporphyritic garnets in 4f beds can average up to 30%. Beds are strongly contorted and folded into left limb fold and right limb fold. Axial planes range from 35 to 55 dca. Fractures parallel to foliation at 40 to 55 dca, and perpendicular to foliation at 155 dca. MINERALIZED ZONE:. From 26.50 to 27.20 3% wispy pyrrhotite and trace arsenopyrite in fracture cleavage within 40% quartz veining and quartz flooding. GEOLOG DATA:. ALTERATION: 5% grunerite, 5% garnet, 0% silicification, 0% carbonatization, 5% pervasive chlorite beds, 5% biotite schist. MINERALIZATION: trace to 1% finely disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% magnetite in grunerite beds VEINING: 10% quartz veins and quartz flooding in mineralized zone, 0% quartz-carbonate, 0% calcite. From 31.33 to 52.40 4ea. Strong grunerite alteration. Non to moderately magnetic. Hard. Glomeroporphyritic garnetiferous beds host up to 30% medium to coarse grained anhedral to subhedral garnets. Wispy bedded grunerite envelopes the garnets. Variable amounts of sulphide as pyrrhotite and minor pyrite occur as wisps and stringers within the grunerite beds, and/or as axial planar fracture-filling in the chert beds. Bedding averages 50 to 70 dca. Strongly contorted beds 0.5 cm to 5 cm wide. MINERALIZED ZONE:. From 39.65 to 46.10 metres, 3-5% pyrrhotite, 25% quartz veins and quartz flooding, 2% pyrite, and 15 specks VISIBLE GOLD scattered throughout unit. VISIBLE GOLD noted in garnets, in axial planar fractures, in grunerite beds. VISIBLE GOLD specks average 0.1 mm but at 43.15 one speck measured 0.6 mm in diameter. GEOLOG DATA:. ALTERATION: 10% bedded grunerite, 15% glomeroporphyritic garnets, 5% silicification, 0% carbonatization, 5% pervasive chlorite beds, 5% biotite schist MINERALIZATION: 2% wispy and finely disseminated pyrrhotite, 15 specks VISIBLE GOLD noted between 39.65 and 46.10, TR% pyrite, TR% arsenopyrite crystals, 0% chalcopyrite, 3% magnetite. VEINING: 5% barren quartz veins, 0% quartz-carbonate, 0% calcite. Lower contact at 56 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			25.52 31.33 4eaf. 25.52 26.50 4eaf. Blebs and disseminated pyrrhotite in garnets. Strong grunerite alteration. 26.05 M-type fold with right limb fold 0.3 metre up hole and left limb fold 0.1 metre down hole. 26.50 27.30 4ea. Wispy pyrrhotite with trace arsenopyrite in 60% quartz flooding. 27.30 28.30 4eaf. 20% 4F beds. Trace sulphide. 28.30 29.00 4ea. Fine disseminated pyrrhotite in grunerite and garnet beds. 29.00 30.00 4ea. 20% 4f beds. Trace arsenopyrite. 30.00 31.00 4fea. 20% 4ea beds. Trace arsenopyrite in chert beds. 31.00 32.00 4eaf. 30% 4f beds. Fracture-filled and disseminated pyrrhotite and arsenopyrite. 31.33 52.40 4ea. 32.00 33.00 4ea. Trace sulphide. 33.00 Left limb fold. Axial plane at 52 dca. 33.00 34.00 4fea. 35% 4F. 15% barren quartz veins. Trace sulphide. 33.50 Right limb fold. Axial plane at 44 dca. 33.73 33.87 Barren milky white quartz vein at 50 dca. 34.00 35.00 4ef. Chloritic beds with 15% medium grained to coarse grained garnets. Wispy pyrrhotite. 35.00 36.00 4eaf. 30% 4FE beds. 15% quartz flooding. Minor disseminated pyrrhotite. 35.10 Fractures at 55 dca parallel to foliation. Rubbly core. 35.50 35.65 Milky white barren quartz with chlorite and 4ea wallrock within the vein, at 76 dca. 36.00 37.00 4eaf. 35% 4F beds. Fine disseminated pyrrhotite in chert. 36.30 Rubbly core. Due to fracture at 145 dca. 37.00 38.00 4ea. Trace disseminated pyrrhotite. 37.60 38.40 Fractures 0.06 to 0.10 metres apart, perpendicular to foliation, at 140 dca. 38.00 39.00 4ea. Trace disseminated pyrrhotite. 38.50 Tight right limb fold with axial plane at 65 dca. 39.00 40.00 4ea. Wispy and stringers of 5% pyrrhotite and 2% pyrite in FELSIC TO INTERMEDIATE VOLCANICS wispy chlorite matrix. 25% sulphide zone at 39.65 to 39.90 40.00 41.00 4ea. Wispy and finely disseminated 3% pyrrhotite within chloritic beds and as axial planar fracture-filling. 1 specks VISIBLE GOLD near pyrrhotite in chert. 40.50 Tight left limb fold with axial plane at 60 dca. 41.00 42.00 4ea. Wispy, stringers of 3% pyrrhotite in chert, and blebs in garnet-grunerite beds. 42.00 Tight left limb fold with axial plane at 76 dca. 42.00 43.00 4ea. 5% wispy, stringers and finely disseminated pyrrhotite. 2 specks VISIBLE GOLD in one spot in garnets at 42.05M. 43.00 44.00 4ea. 5% wispy, stringers and finely disseminated pyrrhotite. 7 specks VISIBLE GOLD in axial plane fractures in quartz flooding, and in grunerite alteration at 43.20. 44.00 45.00 4ea. Trace arsenopyrite. 3% stringers pyrrhotite in								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			grunerite-garnet-chlorite beds. 44.10 Open left limb fold with axial plane at 60 dca. 44.90 Tight left limb fold with axial plane at 58 dca. 45.00 46.00 4ea. 4% wispy and stringers pyrrhotite, 8 specks VISIBLE GOLD in 10% quartz flooding scattered over 0.7m, trace arsenopyrite. 46.00 47.00 4fea. 40% 2 cm wide garnetiferous beds. 1% disseminated pyrrhotite. 47.00 48.00 4fea. 30% garnet-biotite schist beds. Minor sulphide. 48.00 49.00 4eaf. 30% 4f. 10% quartz flooding with 1% disseminated pyrrhotite. 49.00 50.00 4fea. 30% 4f. Trace sulphide. 50.00 51.00 4ea. Weak 4EA. 50.30 Rubbly core over 5 cm at 135 dca. 50.60 Right limb fold with axial plane at 60 dca. E46850 DUPLICATE of E46849 0.07 ns ns. E46860 STANDARD II 9.43 9.26 ns. E46861 BLANK 0.14 ns ns. E46870 DUPLICATE of E46869 6.31 ns ns. E46880 STANDARD II 9.91 9.94 ns. E46881 BLANK 0.17 ns ns. 51.00 52.00 4ea. Finely disseminated pyrrhotite. 52.00 53.00 4ea with 4b interbedded. Trace to 1% finely disseminated pyrrhotite.								
52.40	60.67	4B	CHERT - MAGNETITE IRON FORMATION 4bf and 4b. From 52.40 to 54.35 4bf. From 54.35 to 60.67 4b. Fine grained, light, medium, and dark grey finely laminated to bedded chert-magnetite beds. Moderately to strongly magnetic. Hard. Magnetite beds average up to 0.5 cm. Chert beds are strongly boudinaged and in places segregated into rotated lozenges. Rotation as noted from finely laminated primary bedding in chert is counter-clockwise. Pyrrhotite concentrated in pressure shadows of minerals, and the neck areas between boudinaged. Bedding averages 57 to 72 dca. Fractures parallel to foliation average 50 to 60 dca, and fractures perpendicular to foliation average 140 to 165 dca. GEOLOG DATA:. ALTERATION: 10% bedded grunerite, 15% fine to medium grained subhedral garnets, 0% silicification, 3% pervasive carbonatization, 3% pervasive chlorite, 5% pervasive bedded biotite schist. MINERALIZATION: 1% pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite as fracture-filling, trace arsenopyrite as seams of crystals, 0% chalcopyrite, 3% magnetite. VEINING: 3% quartz veins and veinlets, 3% quartz-carbonate veinlets, 0% calcite. Lower contact sharp at 57 dca. 52.40 54.35 4bf. Minor, up to 20% 4F with 5% fine grained mm scale garnets.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			53.00 54.00 4b. Trace arsenopyrite crystals in garnet-biotite schist. 1% finely disseminated pyrrhotite. 54.00 55.00 4b. 40% quartz veins and quartz flooding with 2% pyrite, arsenopyrite fracture-filling. 1% finely disseminated pyrrhotite interbedded with magnetite beds. 54.35 60.67 4b. Well laminated typical layered chert-magnetite beds. 54.55 55.06 QV. 3% sulphide as pyrrhotite, pyrite and arsenopyrite occur as fracture-filling orthogonal to contact at 52 dca parallel to bedding. 55.00 57.00 Fracture cleavage at 40 dca. Minor offset indicated thrusting with west side up. E46890 DUPLICATE OF E46889 0.07 ns ns. 55.00 56.00 4b. 10% each of quartz veins and quartz flooding. 56.00 57.00 4b. 57.00 58.00 4b. Blebs and stringers with chert. 58.00 59.00 4b. Trace to 1% disseminated arsenopyrite. 1% pyrrhotite. 59.00 60.00 4b. Finely disseminated blebs of pyrrhotite within chert. 60.00 60.67 4b. Trace arsenopyrite. Finely disseminated pyrrhotite.								
60.67	65.85	2	BASALT 2 - Possibly Msed. Unit is FELSIC TO INTERMEDIATE VOLCANICS fine grained, dark mafic chloritic green to chocolate brown. Non magnetic. Moderately hard. Possibly a chloritic wacke. Biotite imparts FELSIC TO INTERMEDIATE VOLCANICS weak foliation averaging 58 to 61 dca. Fracture set parallel to foliation averages 45 to 55 dca, and the perpendicular to foliation set averages 145 to 150 dca. Flat hairline fractures are calcite fracture-filled. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 5% fine disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3% quartz veinlets parallel to foliation, 0% quartz-carbonate, trace to 1% pervasive calcite. 60.67 61.67 2. Biotitic wallrock. 61.67 63.00 2. Biotitic wallrock. 3% barren quartz veinlets. 62.70 Sub-vertical hairline fracture with drag-folded foliation. Fracture at 60 dca. Therefore at an azimuth of 168 degrees. Movement indicates west side north. 63.00 64.00 2. Biotitic wallrock. 64.00 65.00 2 with 40% 24b. Stringers of pyrrhotite within cherty quartz vein. 64.10 64.40 24b. 2% pyrrhotite as tensional fracture-filling in FELSIC TO INTERMEDIATE VOLCANICS weakly gruneritized lean iron formation. 64.83 64.95 24b. 1% pyrrhotite stringers, trace arsenopyrite. Contact at 65 dca. 65.00 65.85 2. Biotitic wallrock.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
65.85		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples collected each 3m run. Samples stored at Musselwhite camp. DRILLING HISTORY. 0.00 to 6.70m: Tricone and NW casing. 6.70 to 65.85m: Fluted Core Barrel. Casing left in hole and capped. Dutem plug placed 6 metres downhole from casing. One bag cement caps plug. DOWNHOLE SURVEY HISTORY:. 8.00m -43.00 Acid Test. 65.00m -41.75 Sperry Test.								

DRILL HOLE RECORD

Northing: 8276.200
Easting: 8925.000
Elevation: 5307.400

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 59.00
Completed: Sept. 22, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8275N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
256 m north, 246 m west to post 4 of Pa529854
Logged: Sept. 28, 1993

Drill Hole: 506-670

Northing: 8275.0N
Easting: 8936.5E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 21, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
4.0		-50.0	59.0		-48.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES# E46897 - E46944: (48 Samples).								
.00	3.68	OB	OVERBURDEN Ob. Casing from 0.00 to 4.27 metres. Granitic boulders.								
3.68	19.06	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVol. Unit is fine grained, light to dark chloritic green, non magnetic. Moderately hard. Fine grained, dark chloritic bands resemble the pillow selvages of flattened pyrolusite volcanics. The pillow core is moderately well foliated. Weak disseminated biotitic alteration in this mafic flow imparts FELSIC TO INTERMEDIATE VOLCANICS gradational chocolate brown colouration. The unit hosts 5% milky white to cherty blue-grey quartz veining and quartz veinlets parallel to foliation, average up to 2 cm. These veins have FELSIC TO INTERMEDIATE VOLCANICS biotitic wallrock envelope of less than or equal to 0.5 cm. No sulphide noted in veins. Foliation at 44 to 54 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fractures parallel to foliation average 45 to 60 dca, and FELSIC TO INTERMEDIATE VOLCANICS fracture set perpendicular to foliation averages 145 to 165 dca. The hairline flat set perpendicular to foliation is generally fracture-filled with calcite. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 5% pervasive carbonatization, 10% pervasive chlorite, 10% finely disseminated biotite within unit and along margins of quartz veins. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 5% quartz veins and veinlets parallel to foliation, 5% quartz-carbonate veinlets parallel to foliation, 5% calcite as inter-selvage veining. Sharp lower contact at 65 dca. 5.60 5.80 Rubbly Core. Oxidized surface to fracture at 144 dca. 8.35 8.45 QV. Blue-grey quartz vein at 30 dca. No sulphide. Weak potassic biotitic alteration of mafics. 9.73 10.15 Zone of 70% quartz and quartz-carbonate veins and veinlets. No sulphide. At 30 dca. 10.60 11.00 QV. 70% milky white quartz and quartz-carbonate veins and veinlets. No sulphide. E46900 STANDARD III 5.49 ns ns. E46901 BLANK 0.03 ns ns. 15.00 16.00 Bvol. No sulphide. Barren wallrock. 16.00 17.00 Bvol. 35% quartz veins. Trace sulphide. 17.00 18.00 Bvol. 15% quartz veins. No sulphide. 18.00 19.00 Bvol. 3% quartz-carbonate veinlets. No sulphide. 19.00 20.00 4f. Trace pyrrhotite, 1% pyrite fracture-filling, no quartz vein.								
19.06	20.65	4F	GARNET-BIOTITE SCHIST 4f. Unit is black, fine grained biotite schist with 10% mm sized pink garnets. Non magnetic. Moderately hard to hard. Hosts 5% 4EA beds. The 4ea is FELSIC TO INTERMEDIATE VOLCANICS yellowish, light grey, and chloritic green. Bedding 50 to 55 dca. Bedding is moderately well preserved even with the grunerite alteration and glomeroporphyritic garnet mineral growth. Fractures at 150 dca. GEOLOG DATA:. ALTERATION: 2% bedded grunerite, 10% fine garnets, 0% silicification, 5% pervasive carbonatization, 5% pervasive chlorite, 10% finely disseminated biotite within unit. MINERALIZATION: trace finely disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 5% quartz veins and veinlets parallel to foliation, 5% quartz-carbonate								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			veinlets parallel to foliation, 0% calcite. Lower contact at 65 dca. 20.00 Subvertical pyritic fracture-filled fracture is at 150 dca or at an azimuth of 200 degrees. 20.00 21.00 4f. 1% finely disseminated pyrrhotite, trace arsenopyrite.								
20.65	27.48	4F	GARNET-BIOTITE SCHIST 4fea. Unit is an interbedded zone of 80% 4f with up to 20% 4ea. The 4f is black biotite schist with up to 15% mm sized pink garnets. Beds average one cm. The 4ea is FELSIC TO INTERMEDIATE VOLCANICS yellowish, light grey, and chloritic green. Non to locally weakly magnetic. Moderately hard. Bedding at 23 to 64 dca. Bedding is strongly contorted. Right limb fold and left limb fold with axial planes averaging 32 to 55 dca. Fracture sets are oriented parallel to foliation from 25 to 60 dca, and perpendicular to foliation at 155 to 170 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 5% pervasive carbonatization, 10% pervasive chlorite, 10% finely disseminated biotite within unit and along margins of quartz veins. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 5% quartz veins and veinlets parallel to foliation, 5% quartz-carbonate veinlets parallel to foliation, 5% calcite as inter-selvege veining. Lower contact 60 dca. 21.00 22.00 4f with 5% 4ea. No sulphide. 21.15 21.80 Fractures at 70 dca are weakly oxidized to vuggy and crumbly weathered over 5 cm. E46910 DUPLICATE of E46909 0.55 ns ns. 22.00 23.00 4f with 10% 4ea. Trace finely disseminated pyrrhotite. 23.00 24.00 4fea. With 25% 4ea. Trace finely disseminated pyrrhotite. 24.00 25.00 4f with 5% 4ea. Trace finely disseminated pyrrhotite. 25.00 26.00 4fea. With 35% 4ea. 2% fine stringers and wispy pyrrhotite. 26.00 27.00 4fea. With 50% 4ea. Trace to 1% finely disseminated pyrrhotite, trace arsenopyrite. 27.00 27.48 4fea. With 25% 4ea. Trace to 1% finely disseminated pyrrhotite.								
27.48	45.40	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Unit is FELSIC TO INTERMEDIATE VOLCANICS moderately to strongly grunerite altered iron formation. Fine grained, moderately to well bedded, yellowish, with								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			light grey and chloritic green interbedded sediments. Non to locally weakly magnetic. Moderately hard. Composed of 70% 4ea, 15% 4f and 15% 4e beds. 4f Beds host up to 15%, fine to medium grained, subhedral to euhedral pink porphyroblastic garnets. Garnetiferous beds are glomeroporphyritic with up to 30% medium to coarse grained subhedral to euhedral garnets. 4ea has wispy alteration contacts, whereas the 4b has sharp distinct laminated bedding. Beds range up to 2 cm and range from 50 to 77 dca. Right limb fold with axial planes at 48 and 55 dca, left limb fold with axial plane at 40 dca. Fold closures are thickened and limbs attenuated. Fractures cut core sub-parallel to bedding at 50 to 70 dca. FELSIC TO INTERMEDIATE VOLCANICS second set of hairline fractures perpendicular to bedding / foliation averages 135 to 165 dca. MINERALIZED ZONE:. From 32.00 to 39.00M: Mineralized zone of 4ea with 15% 4f beds. Zone averages 3 to 5% finely disseminated and wispy pyrrhotite in chert and along the margins of the chert. 1 to 2% pyrite noted with pyrrhotite. Fine specks (115) of VISIBLE GOLD broadly scattered within each metre sample. VISIBLE GOLD commonly noted in fractured garnets, and in the quartz flooding along fracture cleavage. Quartz flooding occurs throughout unit at up to 10% overall. The quartz flooding is FELSIC TO INTERMEDIATE VOLCANICS zone of blue-grey chert quartz with no readily discernable contacts. GEOLOG DATA:. ALTERATION: 7 to 10% bedded grunerite, 10 to 15% medium to coarse grained garnets, 3% silicification as quartz flooding, 0% carbonatization, 5% pervasive chlorite in beds, 10% finely disseminated biotite within schist unit. MINERALIZATION: 2 to 3% wispy and finely disseminated pyrrhotite, 118 fine specks VISIBLE GOLD in MINERALIZED ZONE, 1% pyrite associated with pyrrhotite, TR% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3% quartz veins and veinlets at 30 dca - fracture cleavage, 5% quartz-carbonate veinlets parallel to foliation, 0% calcite. Lower contact is sharp at 64 dca. 27.48 29.00 4ea. Sample is uniformly altered throughout. 1% finely disseminated pyrrhotite. 29.00 30.00 4ea. 29.50 30.00 Right limb fold with axial plane at 45 dca. 30.00 31.00 4ea. 2% fine wispy pyrrhotite as finely disseminated laminae or fracture-filling in chert beds. 31.00 32.00 4ea. 2% finely disseminated pyrrhotite in chert beds. 31.90 32.00 Tight right limb fold at 55 dca. 32.00 33.00 4ea. 3% finely disseminated pyrrhotite in chert beds, wispy pyrrhotite in margins of the chert. 1% pyrite. 15% quartz flooding with approximate 24 fine specks VISIBLE GOLD scattered throughout the sample. 33.00 Fracture cleavage at 60 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			33.00 34.00 4ea. 4% finely disseminated pyrrhotite in chert beds and as wisps parallel to foliation. 1% pyrite associated with pyrrhotite. 3 specks in 5% quartz flooding. 33.30 33.40 Tight right limb fold with axial plane at 50 dca. Amplitude and wavelength are equal at 3 cm. 33.40 34.00 Tight right limb folds and left limb folds noted with an average fold axes of 50 dca. 34.00 35.00 4ea. 5% wispy pyrrhotite. 3% disseminated pyrite. 30% quartz flooding. 16 specks VISIBLE GOLD uniformly scattered throughout sample. 35.00 36.00 4ea. 25% quartz flooding. 1% fine pyrite. 47 specks VISIBLE GOLD noted throughout sample. 36.00 36.40 Milky white quartz vein at 30 dca with 5% sulphide. 3% vuggy pyrite and 2% pyrrhotite as fracture-filling. 36.00 37.00 4ea. 5% finely disseminated and wispy pyrrhotite. 10% quartz flooding. 2% vuggy pyrite in 35 cm quartz vein at 30 dca. 0 specks VISIBLE GOLD. 37.00 38.00 4ea. 3% wispy pyrrhotite. 2% fine wispy pyrite. 7 specks VISIBLE GOLD in 10% quartz flooding at 37.7M. 38.00 39.00 4ea. 4% wispy pyrrhotite. Trace arsenopyrite. 15% quartz flooding. 21 specks VISIBLE GOLD mostly in quartz flooding at 37.0 to 37.15. 39.00 40.00 4ea. 2% finely disseminated and wispy pyrrhotite. 5% quartz flooding. No VISIBLE GOLD. 40.00 41.00 4ea. 2% wispy pyrrhotite at margins of grunerite alteration. No VISIBLE GOLD. 41.00 42.00 4ea. 1% wispy pyrrhotite at margins of grunerite alteration. No VISIBLE GOLD. 42.00 43.00 4ea. 0% wispy pyrrhotite. Folded grunerite beds. No VISIBLE GOLD. 42.50 43.00 Tight right limb fold with axial plane at 55 dca. E46920 STANDARD III 4.77 ns ns. E46921 BLANK 0.21 ns ns. E46930 DUPLICATE of E46929 0.07 ns ns. 43.00 44.00 4ea. No sulphide. 44.00 45.00 4ea. No sulphide. 45.00 46.00 4b with 40% 4ea.								
45.40	53.65	4B	CHERT - MAGNETITE IRON FORMATION 4b. Unit is fine grained, light to dark grey, finely laminated to well bedded chert-magnetite bed. Hard. Moderately to strongly magnetic. Chert beds are strongly boudinaged. Chloritic beds up to 0.5 cm contain 10% fine garnets. Pervasive fine bedded yellowish carbonatization at margins of magnetite beds decreases from upper contact down hole. Bedding at 65 to 75 dca. Fractures are predominantly sub-parallel to bedding at 48 to 80 dca. Fractures perpendicular to bedding at 160 dca. Fracture cleavage at 48.50 is 40 dca. Several fractures at 60 dca with disseminated fine crystals of arsenopyrite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. ALTERATION: 1% bedded grunerite decreaseing from above, 10 to 15% fine garnets in chloritic beds, 3% silicification as quartz flooding, 5% carbonatization along margins of magnetite beds, 5% chlorite in beds, 0% biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace to 1% arsenopyrite in fractures, 0% chalcopyrite, 15% finely bedded magnetite. VEINING: 3% quartz veins and veinlets, 5% quartz-carbonate veinlets parallel to foliation, 5% calcite. Lower contact 60 dca. E46940 STANDARD III 4.59 ns ns. E46941 BLANK 0.03 ns ns. 46.00 47.00 4b. Nil to trace sulphide. 47.00 48.00 4b. Nil to trace sulphide. 48.00 49.00 4b. Nil to trace sulphide. 49.00 50.00 4b. Nil to trace sulphide. 50.00 51.00 4b. 1% finely disseminated pyrrhotite. 51.00 52.00 4b. 1% finely disseminated pyrrhotite. 52.00 53.00 4b. 1% finely disseminated pyrrhotite. 1% arsenopyrite. 53.00 53.65 4b. No sulphide.								
53.65	59.00	2	BASALT 2 - Possibly MSed. Fine grained, weakly foliated, dark green to chocolate brown. Non magnetic. Moderately hard. Unit is massive and biotitic. Possibly FELSIC TO INTERMEDIATE VOLCANICS chloritic wacke. 3% 1 Mm wide calcareous fractures and veinlets parallel foliation. Biotite imparts FELSIC TO INTERMEDIATE VOLCANICS weak foliation at 57 to 68 dca. Fractures are parallel to foliation and perpendicular to foliation at 135 to 160 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite in beds, 5 to 10% finely disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD. 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3% quartz veins and veinlets parallel to foliation, 5% quartz-carbonate veinlets parallel to foliation, 0% calcite. 53.65 54.65 2. Weakly biotitic. No sulphide. Barren wallrock sample. 56.90 59.00 Prominant hairline fracture set of flats perpendicular to foliation at 155 dca, one per 0.1m. At intersection with the fractures parallel to foliation at 60 dca, rubbly core.								
59.00		2	END OF HOLE								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Due to poor water return many samples are negligible in volume. Samples are stored at the Musselwhite campsite. DOWNHOLE SURVEY HISTORY:. 4.00m: -50.00 Acid Test. 59.00m: -48.5 Sperry Test. DRILLING HISTORY:. 0.00 to 4.27 metres: Tricone used. 4.27 metres NW casing. 4.27 to 59.00 metres: Fluted core barrel. Dutem plug placed 6m below casing and one bag cement placed above plug. CASING LEFT IN HOLE AND CAPPED.								

DRILL HOLE RECORD

Northing: 8350.400
Easting: 8949.000
Elevation: 5306.800

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 89.00
Completed: Sept. 23, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8350N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
185 m north, 214 m west to post 4 of Pa 529854
Logged: Sept. 30, 1993

Drill Hole: 506-672
Northing: 8350.0N
Easting: 8955.5E
Survey: Yes
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 22, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
11.0		-50.0	89.0		-48.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES# E46945 - E46994: (50 Samples).								
.00	7.70	OB	OVERBURDEN OB. Casing in overburden from 0.00 to 7.30 metres. Granitic boulders.								
7.70	22.30	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVol. Fine grained, dark to light grey to creamy-buff due to variable sericite alteration of the AVol. Non-magnetic. Hard. Foliated fine white feldspathic fragments give the unit FELSIC TO INTERMEDIATE VOLCANICS fragmental - tuffaceous appearance. Flakes of unfoliated muscovite provide a sparkle to the dry core not unlike the possible grains of arsenopyrite but is not. Sericite alteration is patchy and contains ghosts of remanent wallrock. Quartz veins average less than or equal to 3 cm. Foliation averages 50 to 60 dca. Fractures parallel to foliation average 50 dca, and FELSIC TO INTERMEDIATE VOLCANICS set perpendicular to foliation trend at 145 dca. Both flats and								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			vertical fractures to 14.00 metres are weakly oxidized. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 2% Muscovite. MINERALIZATION: trace pyrrhotite as stringers noted at 17.77 and from 19.20 to 19.85, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 5% quartz veins and veinlets with trace to 2% pyrrhotite stringers, 3% quartz-carbonate veinlets, 0% calcite. Lower contact at 75 dca. 15.00 15.50 Numerous fractures perpendicular to foliation at 150 dca, at 4 cm apart. 17.50 19.00 AVol. 12% sericite bleached. 1% pyrrhotite stringers interbedded. 5% quartz veins parallel to foliation. 19.00 20.00 AVol. 25% sericite bleach. 1% pyrrhotite stringers interbedded. 10% quartz veins parallel to foliation. 20.00 21.00 AVol. 15% sericite bleach. 1% interbedded pyrrhotite stringers. 10% quartz veins. 21.00 22.28 AVol. 15% sericite bleach. 2% interbedded pyrrhotite stringers and blebs in 3% quartz veins. 22.28 23.00 24be. 2% wispy pyrrhotite.								
22.30	55.38	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVol. The BVol is FELSIC TO INTERMEDIATE VOLCANICS fine grained, chocolate brown, weakly to moderately foliated biotitic mafic. Non magnetic. Moderately hard. At 39.00 metres biotitic altered BVol has gradationally ended. From 39.00 to 55.38m BVol is FELSIC TO INTERMEDIATE VOLCANICS dark chloritic green, fine grained, flow with flattened pillow selvages. Foliation at 40 to 60 dca. Fractures parallel foliation at 50 to 60 dca, and fractures perpendicular to foliation at 155 dca have pyrite fracture-filling. Quartz-carbonate stringers at up to 3% measuring up to 1 cm parallel to foliation GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 3% pervasive chlorite intermixed with 10% finely disseminated biotite. MINERALIZATION: trace fine pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 5% quartz-carbonate veinlets parallel to foliation, 0% calcite. Lower contact at 50 dca. 22.30 23.94 24be. 35% chloritic green garnetiferous beds interbedded with chert								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			and biotitic BVol. 23.00 23.95 24be. 3% wispy and fracture-filled pyrrhotite in garnets. 25% biotitic BVol. 23.94 28.23 Strongly Biotitized BVol. 23.95 25.50 BVol. Strongly biotitic. No sulphide. 10% mm wide veinlets of calcite 25.50 27.00 BVol. Strongly biotitic. No sulphide. 5% mm wide calcite veinlets. 27.00 28.22 BVol. 15% 24b. No sulphide. 28.22 29.10 24ea. 7% disseminated, blebs, and stringers pyrrhotite. 28.23 29.10 24bea. 30% 4ea beds with fine grained chloritic and chert interbedded. 2% pyrrhotite stringers. 29.10 33.50 Weakly Biotitized BVol. 29.10 30.10 BVol. Moderately biotitic. 15% contorted 24b. No sulphide. 33.50 55.38 BVol. E46950 DUPLICATE of E46949 0.11 ns ns. 36.40 36.80 Fault Zone. Numerous, sub-vertical, hairline calcite fracture-filled fractures or fault lines at 165 dca or at azimuth of 210 degrees. Fractures have offsets of up to 5 cms. Movement indicated northside moved east as a right-lateral fault. 38.00 42.00 Fractured core at 45 to 50 dca. 40.90 41.00 Fault Zone. Sub-vertical calcite fracture-filled fracture at 20 dca giving an azimuth of 248 degrees. 46.00 46.10 Rubbly Core. Fractures at 150 dca, perpendicular to foliation. 54.38 55.38 BVol. 8% quartz-carbonate veins and veinlets. No sulphide. Wallrock sample.								
55.38	57.70	4F	GARNET-BIOTITE SCHIST 4fea. Unit is predominantly 4f with 20% 4ea interbedded. The 4ea beds are FELSIC TO INTERMEDIATE VOLCANICS fine grained, yellowish, grunerite altered with up to 15% fine grained glomeroporphyritic pink garnets interbedded. The 4f is FELSIC TO INTERMEDIATE VOLCANICS dark green to black biotite schist with 10% medium to coarse grained pink garnets. These intermixed units are non to locally weakly magnetic. Moderately hard. 4ea Beds average up to 4 cm wide, and the 4f up to 7 cm. Bedding averages 60 dca. Fractures parallel to foliation at 60 dca occur more often in 4f beds. Hairline fractures perpendicular to bedding at 150 dca are pyrite fracture-filled. GEOLOG DATA:. ALTERATION: 7% bedded grunerite, 15% medium to coarse grained subhedral to euhedral glomeroporphyritic garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite beds, 10% biotite schist beds. MINERALIZATION: 1% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% finely disseminated magnetite in chert beds. VEINING: 0% quartz, 1% quartz-carbonate fracture-filling, 0% calcite. Lower contact at 50 dca. 55.38 56.00 4fea. Trace to 1% disseminated pyrrhotite. 25% 4ea.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			55.60 FELSIC TO INTERMEDIATE VOLCANICS 3 mm calcite fracture-filled sub-vertical fracture at 15 dca or at 215 degrees. 56.00 57.00 4fea. Trace to 1% fracture-filled pyrrhotite stringers. 57.00 58.00 4fea. No sulphide. Finely disseminated magnetite bedded in chert. 57.40 57.60 Tight right limb fold of chert beds with fold axes at 55 dca. E46960 STANDARD III 4.66 4.62 ns. E46961 BLANK 0.07 ns ns.								
57.70	61.90	4B	CHERT - MAGNETITE IRON FORMATION 4bef. Unit is fine grained, locally to dark grey, with chloritic green and pink. Moderately to strongly magnetic. Hard. Unit is an intermixed sequence of 60% chert-magnetite beds and 30% garnet-amphibole beds and garnet-biotite schist. Chert beds strongly boudinaged to totally segregated. Finely disseminated magnetite in chert give a banded appearance. Bedding at 45 to 60 dca and averages one cm. Bedding is strongly contorted with both left limb fold and right limb fold with an average fold axes at 50 to 55 dca Fractures sub-parallel to bedding at 35 to 60 dca. Fracture cleavage causes minor offsets. GEOLOG DATA:. ALTERATION: 3% bedded grunerite, 10% bedded glomeroporphyritic garnets, 0% silicification, 0% carbonatization, 15% chlorite beds, 5% biotite schist beds. MINERALIZATION: trace pyrrhotite as fracture-filling, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 3% calcite fracture-filling. Lower contact at 50 dca. 58.00 59.00 4bf. Minor pyrrhotite as fracture-filling of fracture cleavage in chert. 59.00 60.00 4bef. No sulphide. 60.00 M-type fold with fold axes at 55 dca. 60.00 61.00 4bf. No sulphide. 60.80 61.50 Numerous right limb folds, m-type folds and left limb folds with fold axes at 50 dca. 61.00 62.00 4bf. No sulphide. 61.77 Fault Zone. 3 mm calcite fracture-filled fault line perpendicular to bedding at 150 dca. Left lateral movement of 1 cm. Up hole moved West								
61.90	71.80	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Massive chert-grunerite-garnet-amphibole iron formation. Unit is fine grained, bedded yellowish grunerite alteration with glomeroporphyritic medium to coarse grained subhedral garnets and dark chloritic green chlorite beds with fine to medium grained garnets. Locally weakly to strongly magnetic. Moderately hard.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Bedding from 50 to 75 dca. Bedding is moderately well preserved but strongly contorted and folded. Left limb fold is prevalent with fold axes at 50 to 55 dca. Right limb fold with axial plane at 35 dca. Wispy flame-like appearance to the grunerite alteration in fold closures. Probably due to an axial planer fracture cleavage. Some fractures at 60 dca parallel bedding have pyrite coating. Fractures perpendicular to bedding at 135 to 160 are commonly calcite fracture-filled. MINERALIZED ZONE:. From 62.4 to 71.07 metres FELSIC TO INTERMEDIATE VOLCANICS weak zone of mineralization with 1 to 3% disseminated, wispy and stringers of pyrrhotite, 1 to 3% pyrite stringers and trace disseminated arsenopyrite. 25 specks VISIBLE GOLD in 10% quartz flooding at 66.77 to 66.90 metres. GEOLOG DATA:. ALTERATION: 20% bedded grunerite, 15% glomeroporphyritic bedded garnets, 0% silicification, 0% carbonatization, 5% interbedded chlorite beds, 0% biotite. MINERALIZATION: 1% finely disseminated and wispy pyrrhotite, 25 specks VISIBLE GOLD in quartz flooding at 66.77 to 66.90 metres, trace to 1% disseminated and wispy pyrite intermixed with pyrrhotite, 0% arsenopyrite, 0% chalcopyrite, 5% finely disseminated magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 3% calcite fracture-filling. Lower contact at 60 dca. 62.00 63.00 Several sub-vertical hairline fractures at 170 dca, or at azimuth of 218 degrees. 62.00 63.00 4ea. Finely disseminated and stringers pyrrhotite. 3% calcite fracture-filling. 63.00 64.00 4ea. 2% stringers and disseminated pyrrhotite. 64.00 65.00 4ea. 2% stringers pyrrhotite. 65.00 66.00 4ea. 2% wispy pyrrhotite. 66.00 67.00 4ea. 4% stringers, wispy and disseminated pyrrhotite. 10% quartz flooding. 25 specks VISIBLE GOLD in quartz flooding at 66.78 to 66.95 metres. 67.00 68.00 4ea. 3% wispy, stringers and blebs of pyrrhotite and pyrite. 4% quartz flooding. 68.00 69.30 Rubbly blocky core. Numerous sub-vertical calcite fracture-filled fractures at 170 dca or at azimuth of 218 degrees. E46970 DUPLICATE of E46969 2.74 ns ns. 68.00 69.00 4ea. 3% wispy and stringers pyrrhotite and 1% pyrite. Calcite fracture-filled hairline fractures. 69.00 70.00 4eaf. 2% wispy and stringers pyrrhotite. 2% pyrite stringers. Coarse grained garnets in 4f. 70.00 71.00 4eaf. 2% disseminated and stringers pyrrhotite. 1% pyrite wisps. Trace to 1% fine crystals arsenopyrite in 4f beds. 71.00 72.00 4eaf. No sulphide.								
71.80	85.17	48	CHERT - MAGNETITE IRON FORMATION								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			4b. Unit is FELSIC TO INTERMEDIATE VOLCANICS fine grained, well bedded to finely laminated, light to dark grey to black and chloritic green. Moderately to strongly magnetic. Hard. Bedding averages 70 dca, is well preserved from very finely laminated magnetite beds to cm scale 4f beds. Weak grunerite alteration of the magnetite beds and FELSIC TO INTERMEDIATE VOLCANICS decrease in amount and size of garnetiferous beds noted down hole to approximate 76 metres. Chert beds vary from strongly boudinaged and truncated due to FELSIC TO INTERMEDIATE VOLCANICS prominant fracture cleavage at 60 dca. Fracture cleavage suggests imbricate thrusting due to the axial planar cleavage. Tight left limb fold with axial planes at 55 to 60 dca and right limb fold with fold axes at 42 dca. Fractures parallel to foliation average 65 dca, and fractures perpendicular to foliation average 135 to 150 dca. MINERALIZED ZONES:. From 76.00 to 79.00 metres trace arsenopyrite noted as single grains, or strings of grains along fractures or in magnetite beds. From 79.00 to 85.20 metres trace to 1% arsenopyrite as fine crystals along FELSIC TO INTERMEDIATE VOLCANICS fracture and/or as strongly magnetic beds as at 80.50 to 80.55 metres. GEOLOG DATA:. ALTERATION: 3% grunerite, 5% fine to medium grained garnets, 0% silicification, 0% carbonatization, 5% chlorite beds, 3% biotite schist. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, trace to 1% arsenopyrite, 0% chalcopyrite, 10% magnetite beds. VEINING: 0% quartz, 0% quartz-carbonate, 3% calcite fracture-filling. Lower contact at 65 dca. 72.00 73.00 4b. 73.00 74.00 4b. 74.00 75.00 4b. 74.90 75.10 Rubbly Core. Fractures at 100 to 120 dca. 75.00 76.00 4b. 1. Disseminated pyrrhotite. 75.80 79.05 Rubbly Core. Fractures at 65 to 90 dca. E46980 STANDARD III 4.63 4.35 ns. E46981 BLANK 0.14 ns ns. E46990 DUPLICATE of E46989 0.07 ns ns. 76.00 77.00 4b. Trace arsenopyrite in magnetite bed. 77.00 78.00 4b. Trace arsenopyrite. 78.00 79.00 4b. Trace arsenopyrite. 79.00 80.00 4b. 1% disseminated and stringers pyrrhotite. 1% disseminated crystals of arsenopyrite. 80.00 81.00 4b. 2% disseminated and stringers pyrrhotite. 2% disseminated and wispy pyrite. 2 to 3% disseminated and fracture-filled with crystals of								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			arsenopyrite. 81.00 82.00 4b. 1% stringers pyrrhotite. 1% arsenopyrite crystals in magnetite beds. 82.00 83.00 4b. 83.00 84.00 4b. 84.00 85.17 4b.								
85.17	89.00	2	BASALT 2 - Possibly MSed. Fine grained, dark green-grey. Non-magnetic. Moderately hard. Possibly a Chloritic wacke. Foliation of disseminated biotite at 63 to 73 dca. Core fractured parallel to foliation at 65 to 70 dca, and minor hairline fractures perpendicular to foliation at 130 to 145 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 1% carbonatization, 5% chlorite, 7% pervasive biotite. MINERALIZATION: trace pyrrhotite as disseminated and stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 3% barren quartz-carbonate veins and veinlets parallel to foliation, 3% calcite veinlets. 81.00 Sub-vertical pyrite fracture-filling of hairline fracture at azimuth of 218 degrees. 85.17 86.17 2. 7% carbonatized zone with 1% stringers pyrrhotite. 85.80 85.90 Weak carbonatized alteration with 1% disseminated and stringers pyrrhotite interbedded at 73 dca. 88.42 88.63 24b. 1% stringers pyrrhotite.								
89.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3m. Samples stored at Musselwhite campsite. DOWNHOLE SURVEY HISTORY:. 11.00 Metres: -50.00 Acid Test. 89.00 Metres: -48.00 Acid Test. DRILLING HISTORY:. 0.00 7.30 Metres: Tricone and NW casing. 7.30 89.00 Metres: Fluted Core Barrel. Plug placed 6 metres below casing. One bag cement caps plug. Casing left in hole and capped.								

DRILL HOLE RECORD

Northing: 8400.400
Easting: 8941.600
Elevation: 5306.300

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 86.00
Completed: Sept. 24, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8400N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
153 m north,175 m west to post 4 Pa529854
Logged: Oct. 01, 1993

Drill Hole: 506-674
Northing: 8400.0N
Easting: 8947.6E
Survey: Yes
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 23, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
11.0		-49.0	80.0		-47.3						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES #E46995-E47000 (6); #FE03801-FE03851 (51): 57 samples.								
.00	10.70	OB	OVERBURDEN Ob. Casing from 0.00 to 10.40 metres. Granitic and AVol boulders.								
10.70	17.47	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVol. Fine grained, light grey to creamy buff sericite altered feldspathic unit. Non magnetic. Moderately hard. Foliation of the weakly bedded tuffs averages 50 to 55 dca. Weak sericite alteration imparts FELSIC TO INTERMEDIATE VOLCANICS banded appearance. Centered within sericite alteration is some minor quartz veins with up to 3% pyrrhotite and pyrite stringers. Fractures weakly oxidized near surface are parallel foliation at 50 dca, and perpendicular to the foliation at 135 to 140 dca. MINERALIZED ZONE:. From casing to 18.42 metres: The AVol unit is variably sulphidized within the								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			sericitic alteration. 2% pyrrhotite and pyrite noted as interbedded with foliation, and in quartz veinlets and veins. 5% quartz veins and veinlets parallel to foliation at 50 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 3% silicification, 0% calcite, 0% chlorite, 0% biotite, 3% pervasive to patchy sericite. MINERALIZATION: 1 to 3% disseminated and wispy pyrrhotite, 0 specks VISIBLE GOLD, 1 to 3% disseminated and stringers pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3% quartz veins and veinlets parallel to foliation, 2% quartz-carbonate veins and veinlets parallel to foliation, 0% calcite. Lower contact at 60 dca. 10.70 12.00 AVol. 2% bleb to stringers pyrrhotite. 1 to 2% interbedded wispy pyrite. 5% quartz veins and veinlets. 12.00 13.00 AVol. 2% stringers and blebs of pyrrhotite and pyrite interbedded with tuffs. 10% quartz veins. 12.95 13.40 Rubbly Core. Fractured at 60 dca and 140 dca. E47000 STANDARD II 9.33 9.26 ns. FE03801 BLANK 0.07 ns ns. 13.00 14.00 AVol. 1% stringers pyrrhotite in quartz veins. 5% quartz vein. 14.00 15.00 AVol. Trace disseminated pyrite. 7% quartz veins parallel to foliation. 15.00 16.40 AVol. 1% finely disseminated pyrrhotite, 1% disseminated pyrite. Sulphides both interbedded and in quartz veinlets. 16.40 17.47 AVol.								
17.47	47.85	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVol. Unit is FELSIC TO INTERMEDIATE VOLCANICS fine grained, weakly to moderately foliated, Chocolate brown with thin dark chloritic green bands. Non magnetic. Moderately hard. Unit is FELSIC TO INTERMEDIATE VOLCANICS flattened biotitic mafic pyrolusite flow with the chloritic bands representing pillow selvages. 3% Quartz-carbonate veinlets parallel to foliation noted throughout. Foliation of biotite averages 50 to 60 dca. Fractures parallel to foliation at 55 to 60 dca and perpendicular at 135 to 140 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 5% pervasive carbonatization as fine calcite fractures, 5% chlorite bands, 15% biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 3% quartz-carbonate veinlets parallel to foliation, 3% calcite as inter-selvage material.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Sharp lower contact at 68 dca. 17.47 18.52 24e. 3% wispy pyrrhotite, 15% medium to coarse grained garnets in interbedded 4f. 17.92 18.45 24f. 5% pyrrhotite wisps and stringers. 20% garnets. 20% quartz flooding. 18.45 23.90 Biotitic BVol. 18.52 19.52 BVol. Weakly biotitic wallrock. 5% wispy quartz-carbonate veinlets. No sulphide. 23.39 24.39 BVol. Weakly biotitic wallrock. 5% wispy quartz-carbonate veinlets. No sulphide. 23.90 24.39 BVol. 24.39 25.94 24bef. 5% pyrrhotite, trace to 1% chalcopyrite, 2 specks VISIBLE GOLD in garnet at 24.85 and at 25.07. One speck 0.3 mm in diameter in FELSIC TO INTERMEDIATE VOLCANICS fractured garnet, the second speck adsorbed onto pyrrhotite bleb. Tight folded chert bed with radial fracture cleavage. Fold axes at 60 dca. 24.39 25.35 24a. 30% quartz flooding. 5% wispy and stringers pyrrhotite. Trace chalcopyrite. 2 specks VISIBLE GOLD. 25.35 25.94 24e. 5% quartz flooding. 5% quartz vein. 2% wispy pyrrhotite. 25.94 27.00 BVOL. Small bleb chalcopyrite. 20% wispy black biotitic volcanic. 30.00 47.85 Calcite hairline fracture perpendicular to foliation noted at 5-10 pervasive metres. 32.37 2.00 Cm quartz-calcite vein at 155 dca. Trace chalcopyrite. 35.33 3.00 Cm quartz-calcite vein at 145 dca. Trace chalcopyrite and pyrrhotite. 36.00 38.00 Rubbly - Blocky Core. Fractured at 50 and 135 dca. 38.70 38.80 Calcite fracture-filled fracture at 150 dca. Possible Fault line. FE03810 DUPLICATE of FE03809 0.07 ns ns. 46.85 47.85 BVol. Chloritic volcanic wallrock with 3% calcite veinlets. No sulphide.								
47.85	49.09	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, black biotite schist with up to 20% fine mm sized pink garnets. Locally weakly magnetic. Moderately hard. Moderately well preserved bedding at 68 dca. 5% chert beds with minor grunerite alteration. Fractures at 70 dca parallel to foliation. Lower contact 68 dca. GEOLOG DATA:. ALTERATION: 2% bedded grunerite, 15% fine mm sized garnets, 0% silicification, 0% carbonatization, 3% finely bedded chlorite, 0% biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 2% quartz-carbonate veinlets parallel to foliation, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			calcite. 47.85 49.09 4f. No sulphide. 48.50 Sub-vertical set at 155 dca, trends at an azimuth of 205 deg.								
49.09	56.43	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eaf. Unit is FELSIC TO INTERMEDIATE VOLCANICS fine grained, interbedded sequence of glomeroporphyritic, garnetiferous and grunerite altered beds and light grey chert Moderately to strongly magnetic. Moderately hard. Bedding at 40 to 60 dca. Bedding is strongly contorted. Predominently right limb fold. Both left limb fold and right limb fold with the fold axess at 30 to 50 dca noted. Fractures parallel to foliation at 60 to 70 dca, and perpendicular to foliation at 135 to 150 dca. Hairline fractures perpendicular to foliation are calcite fracture-filled. MINERALIZED ZONES:. From 49.15 to 49.33 metres 5% stringers and wispy pyrrhotite. No VISIBLE GOLD noted. From 51.37 to 51.64 metres 5% stringers and wispy pyrrhotite noted in 4ea. No VISIBLE GOLD. GEOLOG DATA:. ALTERATION: 7% bedded grunerite, 10% glomeroporphyritic to finely bedded garnets, 3% silicification as quartz flooding, 0% carbonatization, 5% chlorite beds, 5% biotite schist. MINERALIZATION: trace pyrrhotite as wispy zones, 0 specks VISIBLE GOLD noted. 0% pyrite. 0% arsenopyrite. 0% chalcopyrite, 3% finely disseminated magnetite in chert beds. VEINING: 0% quartz, 3% quartz-carbonate veinlets parallel to foliation, 0% calcite. 49.09 52.27 4eaf. Interbedded with 60% 4ea and 40% 4f. 49.09 50.00 4ea. 2% wispy and stringers pyrrhotite. 49.50 50.70 Asymmetrical right limb fold with fold axes at 42 dca. 50.00 51.00 4ea. Trace to 1% disseminated pyrrhotite. 51.00 52.27 4ea. Trace sulphide. 52.27 55.27 4fea. Interbedded unit of 60% 4f and 40% 4ea. 52.27 53.27 4fea. 50% 4f beds. 53.27 54.27 4fea. 40% 4f beds. 54.27 55.27 4fea. 35% 4f beds. 55.00 M-type fold with fold axes at 55 dca. 55.27 56.43 4eaf. Interbedded with 60% 4ea and 40% 4f. 55.27 56.00 4ea. 5% 4f beds. No sulphide. 56.00 57.00 4ea. 5% wispy pyrrhotite at 56.65 to 56.95.								
56.43	70.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			4ea. Fine grained, interbedded sequence of grunerite altered beds with glomeroporphyritic subhedral to euhedral garnetiferous beds, garnetiferous chloritic beds, and chert beds. Yellowish with pink and dark chloritic green. Weakly to moderately magnetic. Moderately hard. Bedding at 52 to 80 dca. Folds with axial plane at 47 to 65 dca. Fractures parallel foliation at 65 to 70 dca. Fractures perpendicular to foliation at 145 to 150 dca. MINERALIZED ZONE:. From 56.65 to 56.95 5% stringers and wispy pyrrhotite. No VISIBLE GOLD. From 58.80 to 58.90 3% wispy pyrrhotite. 4 specks VISIBLE GOLD with very fine arsenopyrite needles enveloping the gold. From 60.70 to 60.95 3% wispy pyrrhotite. 6 specks VISIBLE GOLD in quartz flooding From 62.50 to 63.00 3% pyrrhotite with trace pyrite and chalcopyrite. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% biotite. MINERALIZATION: trace wispy pyrrhotite, 10 specks VISIBLE GOLD in two sulphidized zones with associated quartz flooding, trace wispy pyrite, trace very fine needles of arsenopyrite enveloping VISIBLE GOLD. Trace wispy chalcopyrite, 0% magnetite. VEINING: 5% quartz as quartz flooding, 0% quartz-carbonate, 0% calcite. Lower contact 75 dca. 57.00 58.00 4ea. No sulphide. 58.00 59.00 4ea. 1% finely disseminated and wispy pyrrhotite. 4 specks VISIBLE GOLD with associated very fine arsenopyrite. 59.00 60.00 4ea. No sulphide. 59.40 Tight right limb fold with fold axes at 60 dca. 60.00 61.60 Strongly contorted bedding with both left limb fold and right limb fold. Fold axes averages 50 dca. 60.00 61.00 4ea. Minor sulphide zone over 25 cm. 3% wisps pyrrhotite. 6 specks VISIBLE GOLD at 60.86. 61.00 62.00 4ea. No sulphide. 61.50 64.15 15% quartz flooding and quartz veins. 62.00 63.00 4ea. 15% quartz flooding. 2% wispy pyrrhotite. 63.00 64.00 4ea. 10% quartz flooding. 1% wispy pyrrhotite. 64.00 65.00 4ea. 15% quartz flooding. No sulphide. 65.00 66.00 4ea. No sulphide. 66.00 67.00 4ea. No sulphide. 67.00 68.00 4ea. No sulphide. 67.15 67.60 Rubbly & Blocky Core. Sub-vertical fractures at 140 dca or at azimuth of 190 degrees. Slickensides of chloritic slip on fracture is sub-horizontal.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			FE03820 STANDARD II 9.19 9.26 ns. FE03821 BLANK 0.34 ns ns. FE03830 DUPLICATE of FE03829 4.01 ns ns. 68.00 69.00 4ea. 10% quartz flooding. No sulphide. 69.00 70.00 4eaf. 30% garnetiferous beds. 15% 4f.								
70.00	78.44	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, black magnetite beds, dark chloritic green beds, with yellowish and blue-grey chert beds interbedded. Moderately to strongly magnetic. Hard. Bedding is finely laminated to well bedded but strongly contorted. Bedding averages 60 dca. Chert beds are strongly boudinaged. Folding with axial planes at 56 to 65 dca. Fractures parallel to foliation at 60 dca and perpendicular to foliation / bedding at 150 dca. Fracture cleavage throughout averages 74 dca. GEOLOG DATA:. ALTERATION: 2% bedded grunerite, 3% garnet, 0% silicification, 5% carbonatization along margins of chert beds. 4% bedded chlorite beds, 0% biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 7-10% bedded magnetite. VEINING: 0% quartz, 3% quartz-carbonate veinlets parallel to foliation, 0% calcite. Lower contact 60 dca. 70.00 71.00 4be. Chert beds host 10% fine garnets. 15% finely laminated magnetite beds. 70.00 71.00 4be. 71.00 78.44 4b. 71.00 72.00 4bfe. No sulphide. 71.60 Tight right limb fold with fold axes at 64 dca. Mm sized blue-grey cherty quartz veinlets cuts bedding along fracture cleavage at 10 degrees to bedding. 72.00 73.00 4be. No sulphide. No quartz vein. 73.00 74.00 4b. 1% wispy pyrrhotite in pressure shadows. 74.00 75.00 4b. 1% wispy pyrrhotite in pressure shadows. 75.00 76.00 4b. 1% pyrite fracture-filling. 75.63 75.80 Rubbly Core. Fractured parallel foliation. 76.00 77.00 4bf. No sulphide. 76.00 76.50 Pronounced offset of chert beds by fracture cleavage at 50 dca of up to 4 cm. Right lateral thrust. The fracture cleavage accentuates bedding and fold transposition. FE03840 STANDARD II 8.95 9.09 ns. FE03841 BLANK 0.03 ns ns. 76.50 77.50 Broad to open m-type fold and left limb fold of 4f and chert interbedded. Bedding sub-parallel to calcite from 0 to 30 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Radial fracture cleavage averages 75 to 105 dca as it offsets chert bedding on mm scale. 77.00 78.00 4bf. No sulphide. 78.00 78.44 4b. Bleb pyrrhotite. Trace disseminated pyrite, trace arsenopyrite.								
78.44	86.00	2	BASALT 2 - Possibly MSed. Fine grained, dark chloritic green, weakly foliated. Non magnetic. Moderately hard. Unit may represent FELSIC TO INTERMEDIATE VOLCANICS Chloritic wacke. Weak biotitic alteration imparts FELSIC TO INTERMEDIATE VOLCANICS foliation at 53 to 60 dca. Fractures sub-parallel to foliation at 40 to 60 dca, and FELSIC TO INTERMEDIATE VOLCANICS second set perpendicular to foliation at 105 to 145 dca. GEOLOG DATA:. ALTERATION: 0 to 2% fine bedded grunerite, 0% garnet, 0% silicification, 0% carbonatization, 3% bedded chlorite, 5% fine foliated biotite. MINERALIZATION: 1% pyrrhotite in the 24e, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% bedded magnetite in the 24e. VEINING: 3% quartz veins and veinlets parallel to foliation, 3% quartz-carbonate veinlets parallel to foliation, 0% calcite. 78.44 79.44 2 with 24b. Barren wallrock with 10% 24b. 5% interbedded and stringers pyrrhotite. 78.92 79.23 24b. Weak grunerite alteration. 5% wispy to stringers of pyrrhotite. Bedded at 55 dca. 79.44 80.44 2. Barren wallrock. 81.10 81.35 Rubbly Core. Fractured at 60 dca, parallel foliation. 84.00 85.00 2. Barren wallrock. 84.35 84.55 Rubbly Core. Fractured hairline at 150 dca. Pyrite fracture-filling. 85.00 86.00 24e. 60% intermixed 24e with chloritic wallrock. Wispy pyrrhotite. 10% fine laminated magnetite. 10% quartz veins parallel to foliation. 85.18 86.00 24b. Weak grunerite alteration. 2% disseminated to wispy pyrrhotite. Bedded at 52 dca. M-type fold and left limb fold with fold axes at 48 dca. 85.25 Radial fracture cleavage averages 65 dca. FE03850 DUPLICATE of FE03849 0.03 ns ns.								
86.00		2	END OF HOLE CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3m run. Samples stored at Musselwhite camp. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DOWNHOLE SURVEY HISTORY:. 11.00m: -49.00 Acid Test.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			80.00m: -47.25 Sperry Test. DRILLING HISTORY:. 0.00 10.40m: Tricone and NW casing. 10.40 86.00m: Fluted Core Barrel. Dutem plug placed 6m below casing. One bag cement placed above plug. Casing left in hole, and capped.								

DRILL HOLE RECORD

Northing: 8300.300
Easting: 8945.900
Elevation: 5306.600

Collar Azi.: 228.40
Collar Dip: -58.00

Hole Length: 95.00
Completed: October 9, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test OP Zone (open pit potential) on section 8300N ogged: October 29 - 31, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
224 m north,244 m west to post 4 of Pa529854

Drill Hole: 506-700
Northing: 8300.0N
Easting: 8952.8E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: October 8, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
6.1		-58.0	53.0		-55.8	92.0		-52.8			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For structural data see attached STRIP LOG. For geotechnical data see attached GEOTECHNICAL LOG. SAMPLE SERIES # FE03646 TO FE03700 (55 SAMPLES). SAMPLE SERIES # FE08901 TO FE08908 (8 SAMPLES).								
.00	6.29	OB	OVERBURDEN OB. From 0.00 to 6.00 casing.								
6.29	10.07	AVOL	FELSIC TO INTERMEDIATE VOLCANICS Avol. Fine grained, grey, white, black, non-magnetic and hard. Moderately foliated at 60 dca. Fractures perpendicular to foliation at 107 to 140 dca and fractures parallel to foliation at 45 to 60 dca. Numerous FeO coated fractures. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 5% bands silicification, 0% carbonatization, trace wispy chlorite, 0% biotite. Mineralization: trace bleb and wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Veining: 1% vein quartz, trace stringer quartz-carbonate, trace fracture-filling calcite. Lower contact sharp at 61 dca. 6.29 6.43 Quartz vein fracture zone. At 6.62 2 cm quartz vein, chloritic with trace bleb pyrrhotite, trace bleb pyrite and lower contact sharp at 61 dca. Numerous FeO coated fractures parallel to foliation at 45 to 60 dca. 7.15 Quartz vein 3.5 cm, chloritic with contacts sharp at 60 dca. 7.31 7.39 Quartz vein 8 cm, trace bleb pyrrhotite, upper contact sharp at 45 dca and lower contact sharp at 60 dca. 8.08 8.60 Bleached siliceous fracture zone. Numerous FeO coated fractures perpendicular to foliation at 118 to 129 dca. At 8.08, 2 cm quartz vein, chloritic with contacts gradual at 60 dca.								
10.07	12.50	24F	INTRAFORMATIONAL IRON FORMATION 24fea. Fine grained with glomeroporphyritic garnets, up to 1 cm, brown, green, pink, white, non-magnetic and moderately hard. This unit is composed of 67% 4f beds, 30% 4ea beds, 2% quartz veining and 1% veinlet quartz-carbonate. Poorly to moderately preserved bedding at 44 to 64 dca. One FeO coated fracture perpendicular to bedding at 108 and one fracture perpendicular to bedding at 120 dca. GEOLOG DATA:. Alteration: 3% bedded grunerite, 10% glomeroporphyritic and bedded garnet, 0% silicification, 0% carbonatization, 0% chlorite, 40% bedded biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, trace bleb chalcopyrite, 0% magnetite. Veining: 2% vein quartz, 1% vein quartz-carbonate, trace fracture-filling calcite Lower contact sharp at 50 dca. 10.07 11.00 24fea with 23% ea beds, 5% quartz veining. 11.00 12.00 24fea with 30% ea beds, trace bleb pyrite, trace bleb chalcopyrite. 12.00 12.50 24fea with 20% ea beds, 3% stringer quartz-carbonate.								
12.50	51.21	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, grey, white, non-magnetic and moderately hard. Poorly to moderately foliated at 36 to 53 dca. Fractures perpendicular to foliation at 10 to 150 dca and fractures parallel to foliation at 39 to 55 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, trace glomeroporphyritic and bedded garnet,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% silicification, 0% carbonatization, 0% chlorite, trace bedded biotite. Mineralization: trace wispy pyrrhotite, 12 specks VISIBLE GOLD in quartz vein, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 1% vein quartz, 1% veinlet quartz-carbonate, trace fracture-filling calcite. MINERALIZED ZONE:. From 44.39 to 44.70 quartz veins in BVOL. At 44.39 quartz vein 4 cm with upper contact sharp at 60 dca and lower contact sharp at 70 dca. At 44.48 quartz vein 2 cm with 12 specks VISIBLE GOLD, 0% sulphides and contacts sharp at 42 dca. At 44.51 fracture perpendicular to foliation at 148 dca. At 44.53 quartz vein 2 cm with contacts sharp at 43 dca. At 44.69 quartz vein 1 cm with contacts sharp at 55 dca. Lower contact sharp at 46 dca. 13.16 13.52 Quartz veins over 36 cm. At 13.16, quartz vein 1.5 cm. At 13.21 quartz vein 1 cm. At 13.24, carbonaceous quartz vein 1 cm. At 13.27 carbonaceous quartz vein 3 cm. At 13.43, quartz-carbonate 9 cm with contacts sharp at 70 dca. FE03650 DUPLICATE OF FE03649 0.21 ns ns. 15.64 15.86 24f over 22 cm with trace wispy pyrrhotite. At 15.82 one fracture perpendicular to bedding at 135 dca. Contacts sharp at 60 dca. 16.61 17.33 24ea over 72 cm with 1% 4f beds, trace bleb pyrrhotite, 7% veinlets quartz-carbonate and 5% quartz veining. Upper contact sharp at 44 dca and lower contact sharp at 67 dca. At 16.78 one fracture perpendicular to bedding at 125 dca. At 17.08 quartz vein 3 cm with contacts sharp at 52 dca. 20.67 Quartz vein 4.5 cm, chloritic. Upper contact sharp at 37 dca and lower contact sharp at 49 dca. 25.72 Quartz-carbonate vein 2.5 cm, chloritic. Contacts sharp at 50 dca. 25.83 Quartz-carbonate vein 10 cm. Contacts sharp at 47 dca. 43.39 44.39 Bvol. At 43.73 fracture perpendicular to bedding at 140 dca. 44.39 44.70 Quartz veins, Bvol. At 44.39 quartz vein 4 cm with upper contact sharp at 60 dca and lower contact sharp at 70 dca. At 44.48 quartz vein 2 cm with 12 specks VISIBLE GOLD, 0% sulphides and contacts sharp at 42 dca. At 44.51 fracture perpendicular to foliation at 148 dca. At 44.53 quartz vein 2 cm with contacts sharp at 43 dca. At 44.69 quartz vein 1 cm with contacts sharp at 55 dca 44.70 45.70 Bvol. At 45.18 fracture perpendicular to foliation at 137 dca. At 45.35 quartz-carbonate 2 cm with contacts sharp at 50 dca. At 45.39 fracture perpendicular to foliation at 120 dca. 48.13 Quartz veins over 10 cm. Upper contact sharp at 67 dca lower contact sharp at 56 dca. 49.58 50.00 Quartz-carbonate vein and quartz veining over 42 cm, chloritic and biotitic. Upper contact sharp at 69 dca and lower contact fractured at 55 dca.								
51.21	63.02	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4eaf.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			From 51.21 to 55.47 4ea. From 55.47 to 63.02 4eaf. Fine grained with glomeroporphyritic garnets up to 1 cm, grey, brown, green, pink, yellow, moderately magnetic and hard. This unit is composed of 50% 4ea beds, 25% 4f beds, 15% 4b beds and 10% folding and vein quartz. Moderately well preserved bedding at 37 to 58 dca. Right limb fold with axial planes at 50, 42, and 38 dca. M-type fold with axial plane at 50 dca. Folds with axial plane at 40 dca. Fractures perpendicular to bedding at 25 to 145 dca and fractures parallel to bedding at 46 to 70 dca. GEOLOG DATA:. Alteration: 3% bedded grunerite, 30% glomeroporphyritic and bedded garnet, 0% silicification, 0% carbonatization, trace stringer chlorite, 20% bedded biotite. Mineralization: trace bleb and wispy pyrrhotite, 44 specks VISIBLE GOLD, trace bleb, wispy and vein pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 10% bedded magnetite. Veining: 10% folding and vein quartz, 0% quartz-carbonate, trace fracture-filling calcite. MINERALIZED ZONES:. From 56.56 to 56.82 24f over 26 cm with 3 specks VISIBLE GOLD, 4% stringer pyrrhotite, 8% vein and stringer pyrite. 20% 4b beds. Contacts sharp at 58 dca. From 60.70 to 61.37 4eaf with 3 specks VISIBLE GOLD in 4f bedding, trace wispy and bleb pyrrhotite, 1% wispy and bleb pyrite, trace bleb ARSENOPYRITE, 10% vein quartz and 25% quartz flooding. At 60.94 irregular quartz vein 7 cm, chloritic, upper contact sharp at 72 dca and lower contact gradual at 53 dca. At 61.20 quartz flooding over 17 cm with 3% wispy and bleb pyrrhotite and 5% wispy and bleb pyrite. From 62.00 to 63.02 quartz flooding with 10% 4f beds. 38 specks VISIBLE GOLD, trace bleb pyrite and 1% stringer chlorite. Lower contact sharp at 70 dca. FE03660 STANDARD III 4.18 ns ns. FE03661 BLANK 0.07 ns ns. 51.21 52.00 4ea with trace bleb pyrite. 52.00 53.22 4ea with right limb fold at 52.20 with axial plane at 50 dca. 53.22 53.53 Bvol. Upper contact sharp at 55 dca and lower contact sharp at 60 dca 53.53 54.00 4ea. Trace bleb pyrite. M-type fold at 53.72 with axial plane at 50 dca. 54.00 55.00 4ea. Trace pyrite. Right limb fold at 54.82 with axial plane at 42 dca. 55.00 55.47 4ea. Fold at 55.20 with axial plane at 40 dca. 55.47 56.06 4b. Upper contact sharp at 77 dca and lower contact sharp at 53 dca. 56.06 56.56 Bvol. Upper contact sharp at 53 dca and lower contact sharp at 58 dca 56.56 56.96 24f, Bvol. From 56.56 to 56.82 24f 26 cm with 3 specks VISIBLE GOLD,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			4% stringer pyrrhotite, 8% vein and stringer pyrite and 20% 4b beds. Contacts sharp at 58 dca. From 56.82 to 56.96 Bvol, upper contact sharp at 58 dca and lower contact sharp at 50 dca. 56.96 58.00 4eaf. Fold at 57.55 with axial plane at 40 dca. M-type fold at 57.81 with axial plane at 35 dca. 58.00 59.00 4eaf. At 58.66 irregular quartz vein over 11 cm and chloritic with upper contact sharp at 70 dca and lower contact gradual at 40 dca. 59.00 60.00 4eaf. 60.00 61.00 4eaf with 5% vein quartz and 1% folding quartz. Right limb fold at 60.06 with axial plane at 38 dca. 60.94 Irregular quartz vein over 7 cm and chloritic with upper contact sharp at 72 dca and lower contact gradual at 53 dca. FE03670 DUPLICATE OF FE03669 1.44 ns ns. 61.00 62.00 4eaf with 3 specks VISIBLE GOLD in 4f bedding, 1% wispy and bleb pyrite, trace bleb ARSENOPYRITE, 2% vein quartz and 17% folding quartz. At 61.20 quartz flooding over 17 cm with 3% wispy and bleb pyrrhotite and 5% wispy and bleb pyrite. 62.00 63.02 Quartz flooding, over 102 cm with 10% 4f beds. 38 specks VISIBLE GOLD, trace bleb pyrite and 1% stringer chlorite.								
63.02	66.86	4B	CHERT - MAGNETITE IRON FORMATION 4bf. Fine grained with glomeroporphyritic garnets, up to 1 cm, grey, brown, pink, green, yellow, strongly magnetic and hard. This unit is composed of 72% 4b beds, 20% 4f beds, 5% folding and vein quartz and 3% 4ea beds. Well preserved bedding at 45 to 50 dca. Right limb fold with axial plane at 38 dca and folds with axial planes at 40 and 41 dca. Fractures perpendicular to bedding at 61 to 130 dca. Fractures parallel to bedding at 52 to 70 dca. Moderately developed axial planar fracture cleavage apparent at 60 to 70 dca. GEOLOG DATA:. Alteration: 1% bedded grunerite, 10% bedded and glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 10% bedded biotite. Mineralization: trace bleb pyrrhotite, 25 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 40% laminae and bedded magnetite. Veining: 5% folding and vein quartz, trace vein quartz-carbonate, 0% calcite. MINERALIZED ZONE:. From 63.83 to 63.91 quartz vein over 8 cm and chloritic with >25 specks wispy VISIBLE GOLD and no sulphides. Contacts sharp at 70 dca. Lower contact gradual at 80 dca. 63.02 64.00 4bf with trace bleb pyrite, 8% quartz flooding and 8% quartz veining. At 63.83 quartz vein 8 cm, chloritic with >25 specks wispy VISIBLE GOLD								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			and no sulphides. Contacts sharp at 70 dca. 64.00 65.00 4bf with trace bleb pyrite and 3% quartz flooding. Right limb fold at 64.82 with axial plane at 38 dca. 65.00 66.00 4bf. Fold at 65.25 with axial plane at 40 dca. Fold at 65.57 with axial plane at 41 dca. 66.00 66.86 4bf.								
66.86	68.86	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with glomeroporphyritic garnets, up to 5 mm, grey, green, yellow, pink, brown, moderately magnetic and hard. This unit is composed of 60% 4ea beds, 20% 4b beds and 20% 4f beds. Well preserved bedding at 57 to 62 dca. Right limb fold with axial plane at 50 dca. Left limb fold with axial plane at 55 dca. Fold with axial plane at 48 dca. Fractures perpendicular to bedding at 140 to 165 dca. Fractures parallel to bedding at 61 to 65 dca. GEOLOG DATA:. Alteration: 6% bedded grunerite, 30% bedded and glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 10% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% bedded and laminae magnetite. Veining: 0% quartz, trace veinlet quartz-carbonate, 0% calcite. Lower contact gradual at 58 dca. 66.86 68.00 4ea. Right limb fold at 67.59 with axial plane at 50 dca. Left limb fold at 67.86 with axial plane at 55 dca. 68.00 68.86 4ea. Fold at 68.30 with axial plane at 48 dca.								
68.86	87.02	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, black, brown, pink, yellow, strongly magnetic and hard. This unit is composed of 92% 4b beds, 6% quartz flooding and 2% 4f beds. Well preserved bedding at 52 to 73 dca. Right limb fold with axial plane at 46 and 48 dca. Three folds with axial planes at 47, 41 and 47 dca. Fractures parallel to bedding at 51 to 70 dca. Fractures perpendicular to bedding at 30 to 137 dca. Moderately developed axial planar fracture cleavage at 60 to 70 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 1% bedded garnet, 0% silicification, 10% pervasive and bedded carbonatization, trace bedded chlorite, 1% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace bleb, wispy and stringer pyrite, trace veinlet, stringer and bleb arsenopyrite, trace bleb and wispy chalcopyrite, 60% laminae and bedded magnetite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Veining: 6% folding quartz, trace veinlet quartz-carbonate, trace fracture-filling calcite. Lower contact sharp at 40 dca. FE03680 STANDARD III 4.94 ns ns. FE03681 BLANK 0.07 ns ns. FE03690 DUPLICATE OF FE03689 0.10 0.07 ns. 68.86 70.00 4b. Left limb fold at 69.74 with axial plane at 70 dca. 70.00 71.00 4b. Right limb fold at 70.35 with axial plane at 48 dca. 71.00 72.00 4b. Right limb fold at 71.60 with axial plane at 46 dca. 72.00 73.00 4b. Fold at 72.05 with axial plane at 47 dca. Fold at 72.64 with axial plane at 41 dca. 73.00 74.00 4b. Fold at 73.26 with axial plane at 47 dca. 74.00 75.00 4b with 15% 4f beds and 5% quartz flooding. 75.00 76.00 4b with 15% 4f beds and 3% quartz flooding. 76.00 77.00 4b with 5% quartz flooding. 77.00 78.00 4b with 7% quartz flooding, 1% stringer and bleb pyrite, 3% veinlet ARSENOPYRITE and trace bleb chalcopyrite. 78.00 79.00 4b with 15% quartz flooding, trace bleb pyrite, trace wispy and bleb ARSENOPYRITE and trace bleb chalcopyrite. 79.00 80.00 4b with 10% quartz flooding. 80.00 81.00 4b with 10% quartz flooding. 81.00 82.00 4b with 10% quartz flooding, 1% wispy and bleb pyrite, 2% stringer ARSENOPYRITE and trace wispy chalcopyrite. 82.00 83.00 4b with 10% quartz flooding, trace wispy pyrite and trace wispy ARSENOPYRITE. 83.00 84.00 4b with 3% quartz flooding. 84.00 85.00 4b with 10% quartz flooding, 1% bleb pyrite and 1% stringer ARSENOPYRITE. 85.00 86.00 4b with 5% quartz flooding. 86.00 87.02 4b with 2% quartz flooding, 2% quartz-carbonate vein, trace wispy pyrite and trace wispy ARSENOPYRITE.								
87.02	95.00	2	BASALT 2 - possibly metased. Fine grained, grey, brown, white, green, non-magnetic and moderately hard. Moderately foliated at 42 to 62 dca. Fractures parallel to foliation at 40 to 55 dca. Fractures perpendicular to foliation at 60 to 155 dca. GEOLOG DATA:. Alteration: 0% grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace bedded magnetite. Veining: trace vein quartz, 5% vein and stringer quartz-carbonate, trace fracture-filling calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			FE03700 STANDARD III 4.97 ns ns. FE08901 BLANK 4.97 ns ns. 87.02 88.00 2 89.00 89.43 2 89.43 89.60 Quartz vein 17 cm, chloritic with 1% bleb pyrite, 10% 4f beds and 5% 4b beds. Contacts sharp at 65 dca. 89.60 90.00 2 91.00 91.56 2 91.56 92.00 Quartz-carbonate veins over 44 cm and chloritic. Contacts sharp at 64 dca. 92.00 93.00 2								
95.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. No sludge samples taken. DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 to 6.00 hole cased with 6.00 m of NW casing. 6.30 to 95.00 standard 3 m corebarrel used. Tagging error in box 14 at 62.00 m. Corrected meterage down hole. Dutem plug placed in upper part of hole. One bag of cement above. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 6.10 -58.00. Sperry Sun:. 53.00 -55.75. 92.00 -52.75.								

DRILL HOLE RECORD

Northing: 8650.300
Easting: 8926.700
Elevation: 5310.100

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 53.00
Completed: Oct. 09, 1993
Drilled by:
Logged by: M. ROBERTS
Purpose: To test OP Zone (open pit potential) on section 8650N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846 (45m),Pa529855 (8m)
22 m south,4 m east to post 2 of Pa529846
Logged: OCT. 27 - 28, 1993

Drill Hole: 506-701
Northing: 8650.0N
Easting: 8930.2E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Oct. 08, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
12.2		-50.0	53.0		-50.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES# FE08687 TO FE08718 (32 SAMPLES).								
.00	12.65	OB	OVERBURDEN Ob. FROM 0.00 TO 12.20 CASING.								
12.65	27.50	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, green, grey, white, non-magnetic and moderately hard. Moderately foliated at 51 to 59 dca. Left limb fold at 26.94, axial plane at 78 dca. Fracture sets at 15 to 43, 45 to 59 and 139 to 156 dca. NUMEROUS FeO COATED fractures. GEOLOG DATA:. ALTERATION: trace bedded grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, trace wispy chlorite, 1% bedded biotite. MINERALIZATION: trace bleb and wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 7% vein and folding quartz, trace vein and stringer quartz-carbonate,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% calcite. Lower contact sharp at 71 dca. 14.00 14.36 Fractures at 15 to 170 dca. Fractures strongly carbonatized and FeO COATED. 14.62 14.74 Ground core. 17.12 17.19 Fracture zone, fractures at 35 to 45 dca. 17.51 4.00 Cm quartz vein, upper contact gradual at 57 dca and lower contact sharp at 41 dca. 18.12 18.24 Fracture zone, fractures at 50 to 133 dca. 18.43 7.00 Cm irregular quartz-carbonate vein with 0% sulphide and upper contact at 103 and lower contact 44 dca. 21.19 7.00 Cm quartz vein, brecciated, upper contact sharp at 56 dca and lower contact sharp at 45 dca. 22.59 4.00 Cm quartz-carbonate vein, chloritic, upper contact gradual at 66 dca and lower contact sharp at 43 dca. 22.97 17.00 Cm quartz vein, 3 cm quartz-carbonate vein at lower contact, upper contact sharp at 37 dca and lower contact sharp at 44 dca. 24.52 25.01 QV, QCB. At upper contact 6 cm quartz-carbonate stringer with trace bleb pyrrhotite. At 24.58 33 cm quartz vein, chloritic, upper contact 49 and lower contact sharp at 51 dca. At lower contact 10 cm quartz-carbonate vein with trace bleb pyrrhotite. Contacts gradual at 53 and 55 dca. 25.84 26.74 24FE. Trace wispy pyrrhotite, trace bleb pyrite, 20% 4E beds, upper contact sharp at 56 dca and lower contact gradual at 68 dca. 25.84 26.74 24FE, trace bleb pyrite, 20% 4E beds. 26.74 27.50 BVOL. 10% calcite stringers. At 26.95 left limb fold with axial plane 102 dca.								
27.50	30.13	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets, up to 5 mm, black, grain, pink, weakly magnetic and moderately hard. This unit is composed of 85% 4f beds and 15% chert beds. Moderately well preserved bedding, up to 2 cm, at 43 to 66 dca. Fractures parallel to bedding at 89 dca and THREE fractures at 18, 131 and 149 dca. NUMEROUS FeO COATED fractures. GEOLOG DATA:. ALTERATION: trace bedded grunerite, 20% 1 to 2 mm bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 70% bedded biotite. MINERALIZATION: trace stringer pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: < 1% quartz veining, trace stringer quartz-carbonate, trace fracture-filling calcite. Lower contact gradual at 58 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			27.50 28.00 4f, trace bleb pyrite. 28.00 29.00 4f, trace bleb pyrite, trace bleb arsenopyrite. 28.14 28.30 Sheared ground core with fractures at 89 dca. Fractures FeO COATED. Trace bleb pyrite. 28.69 28.72 Ground core with fractures at 89 dca, fractures FeO COATED. FE08690 DUPLICATE OF FE08689 3.43 ns ns. 29.00 30.13 4f, trace bleb pyrite. At 29.64 left limb fold with axial plane 52 dca.								
30.13	45.85	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. From 30.13 to 31.53 4eaf. From 31.53 to 45.85 4ea. Fine grained, grey, green, yellow, pink, moderately magnetic and hard. This unit is composed of 86% 4ea beds, 5% 4b beds, 2% 4f beds and 7% folding and vein quartz. Moderately preserved bedding, up to 8 cm, at 41 to 70 dca. Right limb fold and left limb fold throughout unit with axial planes at 47 to 73 dca. Fracture sets at 13 to 16, 31 to 45 and 117 to 149 dca. GEOLOG DATA:. ALTERATION: 20% bedded grunerite, 10% bedded and glomeroporphyritic garnet, 0% silicification, trace wisps and fracture-filling carbonatization, trace bedded chlorite, 2% bedded biotite. MINERALIZATION: 1% bleb and stringer pyrrhotite, 7 specks VISIBLE GOLD in 4ea, trace bleb pyrite, trace bleb arsenopyrite, trace bleb chalcopyrite, 2% bedded magnetite. VEINING: 3% vein quartz, 4% folding quartz, 0% quartz-carbonate, trace calcite. MINERALIZED ZONES:. From 30.13 to 42.00 2% bleb and stringer pyrrhotite, 7 specks VISIBLE GOLD in 4ea bedding, trace bleb arsenopyrite, trace bleb chalcopyrite, 4% quartz veining, 5% quartz flooding, from 37.54 to 37.79 28 cm quartz vein. 15% quartz flooding, trace calcite as fracture-filling. Lower contact gradual at 51 dca. 30.13 31.53 4eaf trace bleb and stringer pyrrhotite, trace bleb arsenopyrite, 30% 4f beds, upper contact gradual at 58 dca and lower contact gradual at 41 dca. FE08700 STANDARD III 4.97 ns ns. FE08701 BLANK 0.21 ns ns. 30.13 31.00 4eaf, trace bleb arsenopyrite, 5% quartz flooding, 30.17, axial plane at 59 dca. 31.00 31.53 4eaf, trace chalcopyrite 5% quartz flooding, right limb fold at 31.49, axial plane at 57 dca. 31.53 32.00 4ea, 3% quartz flooding. 32.00 33.00 4ea, 5% quartz flooding, trace crystals arsenopyrite, trace stringer								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			pyrite, fold at 32.13, axial plane at 47 dca. 33.00 34.00 4ea, 10% quartz veinlets, 5% quartz flooding. 34.00 35.00 4ea, 5% quartz flooding, trace bleb pyrite. 35.00 36.00 4ea, trace bleb arsenopyrite, 2% quartz flooding. 36.00 37.00 4ea, 8% quartz flooding, trace bleb arsenopyrite, right limb fold at 36.66, axial plane at 59 dca. 37.00 38.00 4ea, 7 specks VISIBLE GOLD, trace bleb arsenopyrite, at 37.56 28 cm quartz vein, 20% quartz flooding. 37.54 37.79 Quartz vein, 2% stringer pyrrhotite, trace bleb arsenopyrite, chloritic, fractured at 13 dca, 34 cm quartz flooding at upper contact, upper contact gradual at 57 dca, lower contact gradual at 68 dca, 7 cm quartz flooding at lower contact. FE08710 DUPLICATE OF FE08709 0.07 ns ns. 38.00 39.00 4ea, 5% boudinaged quartz veining 5% quartz flooding, trace bleb arsenopyrite. 39.00 40.00 4ea, 7% folded quartz veinlet, right limb fold at 39.39, axial plane at 47 dca. 40.00 41.00 4ea, 3% quartz veinlet, 2% quartz flooding. 41.00 42.00 4ea, 5% folded quartz veinlets, trace bleb arsenopyrite at 41.35 axial plane 73 dca. 42.00 43.00 4ea, 5% quartz flooding, M fold at 42.21, axial plane 81 dca, at 42.52 5 cm zone of shearing at 70 dca. 43.00 44.00 4ea, M fold at 43.09, axial plane at 51 dca. 44.00 45.00 4ea, 4% quartz flooding, left limb fold at 44.83, axial plane 63 dca. 45.00 45.85 4ea, 5% quartz flooding, trace bleb arsenopyrite.								
45.85	49.36	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained with garnets up to 3 mm, grey, green, yellow, pink, strongly magnetic and hard. This unit is composed of 80% 4b beds, 15% pale yellow carbonate beds and 5% 4f beds. Moderately well preserved bedding, up to 2 cm, at 51 to 56 dca. CHERT beds boudinaged. At 46.40 axial plane 54 dca. One fracture parallel to bedding at 43 dca and one fracture perpendicular to bedding at 134 dca. GEOLOG DATA:. ALTERATION: trace bedded grunerite, 2% bedded garnet, 0% silicification, 15% pale yellow bedded and pervasive carbonatization, trace bedded chlorite, 5% bedded biotite. MINERALIZATION: 1% bleb and stringer pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 30% laminae magnetite. VEINING: 1% vein quartz, 5% folding quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 49 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			45.85 47.00 4b, 3% quartz vein, 4% quartz flooding, trace bleb arsenopyrite, at 46.40 axial plane at 54 dca. 46.90 46.94 4 cm quartz vein, trace bleb pyrrhotite, trace bleb arsenopyrite, upper contact gradual at 60 dca and lower contact gradual at 37 dca. 47.00 48.00 4b, trace bleb arsenopyrite. 48.00 49.00 4b, 5% quartz veinlets. 49.00 49.36 4b, 2% quartz flooding, 1% bleb pyrite.								
49.36	53.00	2	BASALT 2 - possible metased. Fine grained, grey, black, green, non-magnetic and moderately hard. Moderately foliated at 55 dca. Fractures perpendicular to foliation at 134 to 154 dca and one fracture parallel to foliation at 58 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 1% wisps and fracture-filling carbonatization, 3% pervasive chlorite, 10% bedded biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: trace vein quartz, trace bedded quartz-carbonate, trace calcite as wisps 49.36 50.00 2								
53.00		2	END OF HOLE CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken each 3m run. Samples stored at Musselwhite camp. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DOWNHOLE SURVEY HISTORY:. 12.20 Metres: -50.00 Acid Test. 53.00 Metres: -50.00 Acid Test. DRILLING HISTORY:. 0.00 to 12.20 metres: Tricone. 12.20 to 53.00 metres: Fluted Core Barrel. Dutem plug set 6 metres below casing, and one bag cement above plug. Casing left in hole and capped.								

DRILL HOLE RECORD

Northing: 8748.300
Easting: 8921.000
Elevation: 5309.400

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 53.00
Completed: October 10, 1993
Drilled by:
Logged by: M. Roberts
Purpose: To test OP Zone (open pit potential) on section 8750N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846
92 m south,74 m east to post 2 of 529846
Logged: November 1 - 2, 1993

Drill Hole: 506-702
Northing: 8750.0N
Easting: 8923.9E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: October 9, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
10.4		-50.0	53.0		-48.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES # FE08755 TO FE08783 (29 SAMPLES).								
.00	10.44	OB	OVERBURDEN OB. Casing from 0.00 to 10.40 metres.								
10.44	29.63	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, grey, white, brown, non-magnetic and moderately hard. Moderately foliated at 49 to 59 dca. Fracture sets at 15 to 35, 45 to 68 and 118 to 150 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 1% wisps carbonatization, trace wispy chlorite, 2% bedded biotite. Mineralization: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, trace blebs arsenopyrite, trace blebs chalcopyrite, 0% magnetite. Veining: 4% 1 to 31 cm quartz veins, trace vein and stringer quartz-carbonate, 0% calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 57 dca. 11.55 12.12 Sheared ground core, FeO coated. 18.90 A 31 cm quartz vein, chloritic, upper contact irregular at 87 dca, lower contact sharp at 51 dca. 21.00 21.23 Fracture zone, fractures at 67 to 135 dca, FeO COATED. 21.33 A 11 cm quartz vein, chloritic, upper contact sharp at 47 dca, lower contact sharp at 40 dca. 24.35 A 6 cm quartz vein, chloritic, upper contact sharp at 55 dca, lower contact sharp at 78 dca. 28.00 29.00 Bvol, trace blebs pyrite, trace blebs arsenopyrite, trace bleb chalcopyrite, 10% calcite stringers. 29.00 29.63 Bvol, trace blebs pyrite. At 29.03, FELSIC TO INTERMEDIATE VOLCANICS 4 cm quartz vein, chloritic, upper contact sharp at 56 dca, lower contact sharp at 69 dca. At 29.31, FELSIC TO INTERMEDIATE VOLCANICS 13 cm quartz vein, chloritic, upper contact sharp at 55 dca, lower contact sharp at 66 dca.								
29.63	34.82	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, black, green, pink, weakly magnetic and moderately hard. This unit is composed of 85% 4f beds, 10% 4EA beds and 5% CHERT beds. Moderately preserved bedding, up to 3 cm, at 47 to 70 dca. Fracture sets at 30, 47 to 75, and 80 to 145 dca. Numerous FeO coated fractures. GEOLOG DATA:. Alteration: 1% bedded grunerite, 20% 1 to 2 mm bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 70% bedded biotite. Mineralization: trace blebs and stringers pyrrhotite, 7 specks VISIBLE GOLD in quartz vein, trace blebs pyrite, 0% arsenopyrite, trace blebs chalcopyrite, 0% magnetite. Veining: trace vein quartz, trace stringers quartz-carbonate, trace fracture-filling calcite. Mineralized zone:. From 29.63 to 31.00 1% blebs and stringers pyrrhotite, 7 specks VISIBLE GOLD in quartz veining, trace blebs pyrite, trace blebs chalcopyrite, 12% quartz veining. Lower contact sharp at 54 dca. FE08760 Standard III 5.14 ns ns. FE08761 Blank 0.38 ns ns. 29.63 30.00 4f, trace bleb pyrite, 12% vein and folding quartz. 30.00 31.00 4f, 7 specks VISIBLE GOLD, trace blebs pyrite, trace blebs chalcopyrite. 31.00 32.00 4f, 5% 4ea beds. 32.00 33.00 4f, 17% 4ea beds.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			33.00 34.00 4f, trace blebs pyrite, 10% 4ea beds, Feo coated fractures. 34.00 34.82 4f, trace blebs chalcopyrite.								
34.82	36.91	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol - possible metased. Fine grained, green, grey, white, brown, non-magnetic, and moderately hard. Moderately foliated at 70 dca. Fractures perpendicular to foliation at 125 to 148 dca, fractures parallel to foliation at 47 to 80 dca. Geolog data:. Alteration: 0% grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, trace wisps chlorite, 2% bedded biotite. Mineralization: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 57 dca. 34.82 36.00 Bvol, trace blebs pyrite. 36.00 36.91 Bvol, trace blebs pyrite.								
36.91	38.46	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, black, green, pink, weakly magnetic and moderately hard. This unit is composed of 95% 4f beds and 5% 4ea beds. Moderately well preserved bedding, up to 1 cm, at 62 to 63 dca. Fracture sets at 20, 145 and 47 to 70 dca. GEOLOG DATA:. Alteration: 1% bedded grunerite, 25% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 70% bedded biotite. Mineralization: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 1% vein quartz, 0% quartz-carbonate, 0% calcite. Lower contact sharp at 54 dca. 36.91 38.00 4f, trace blebs pyrite. 38.00 38.46 4f.								
38.46	48.79	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, green, yellow, pink, strongly magnetic and hard. This unit is composed of 85% 4B beds, 10% PALE YELLOW CARBONATE beds and 5% 4f beds. Moderately well preserved boudinaged bedding, up to 2 cm, at 35 to 72 dca. Local folding in unit with axial planes at 54 to 71 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fracture sets at 137 to 145 and at 52 to 70 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 2% bedded garnet, 0% silicification, 10% pale yellow bedded and pervasive carbonatization, trace bedded chlorite, 5% bedded biotite. Mineralization: 1% blebs and stringers pyrrhotite, 2 specks VISIBLE GOLD in quartz vein, trace blebs pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 30% laminae magnetite. Veining: 6% quartz veins, trace stringers quartz-carbonate, trace calcite as fracture-filling. Mineralized zone:. From 40.00 to 41.00 trace blebs pyrrhotite, 2 specks VISIBLE GOLD in 14 cm quartz vein, trace bleb arsenopyrite, trace blebs pyrite. At 40.28 FELSIC TO INTERMEDIATE VOLCANICS 14 cm quartz vein, upper contact sharp at 65 dca, lower contact sharp at 60 dca. 24% quartz veining, 3% quartz flooding. Lower contact sharp at 57 dca. FE08770 Duplicate of FE08769 0.69 ns ns. FE08780 Standard III 5.07 ns ns. FE08781 Blank 0.07 ns ns. 38.46 39.00 4b, trace blebs pyrite. 39.00 40.00 4b, 9% quartz veining. 40.00 41.00 4b, 2 specks VISIBLE GOLD in 14 cm quartz vein, trace blebs pyrite, trace bleb arsenopyrite, 35% quartz veining. 41.00 42.00 4b, 10% quartz veining. 42.00 43.00 4b, left limb fold at 42.25 with axial plane at 71 dca. 43.00 44.00 4b, 3% quartz flooding, axial plane fracture cleavage at 43.48 with fracture cleavage at 78 dca, Folding at 43.58 with axial plane at 69 dca. 44.00 45.00 4b, 10% quartz veining. 45.00 46.00 4b, 5% quartz flooding, axial plane fracture cleavage at 45.20 with fracture cleavage at 75 dca, fold at 45.48 with axial plane at 54 dca. 46.00 47.00 4b, 1% quartz flooding. 47.00 48.00 4b, trace blebs pyrite, 2% quartz flooding. 48.00 48.79 4b, trace blebs pyrite, 1 cm quartz-calcite vein.								
48.79	53.00	2	BASALT 2 - possible metased. Fine grained, grey, black, green, non-magnetic and moderately hard. Moderately foliated at 48 to 60 dca. Fracture sets at 13 to 25, 135 to 150 and 50 to 53 dca. Alteration: 0% grunerite, 0% garnet, 0% silicification, 1% wisps and fracture-filling carbonatization, 3% pervasive chlorite, 10% bedded biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			VEINING: trace vein quartz, trace bedded quartz-carbonate, trace calcite as wisps								
			48.79 50.00 2, trace blebs pyrite, 1 cm quartz vein stringer.								
53.00		2	END OF HOLE								
			DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.								
			CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 3 metres. Samples stored at Musselwhite camp.								
			DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 to 10.40 hole cased with 10.40 m of NW casing. 10.40 to 53.00 standard 3 m corebarrel used. Dutem plug set 6 metres below casing, and one bag cement above plug. Casing left in hole and capped.								
			DOWNHOLE SURVEY HISTORY. Acid Tests:. 10.36 -50.00. Sperry Sun:. 53.00 -48.00.								

DRILL HOLE RECORD

Northing: 8650.400
Easting: 8940.900
Elevation: 5309.400

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 74.00
Completed: OCTOBER 10, 1993
Drilled by:
Logged by: P. GERTZBEIN
Purpose: TO TEST OP ZONE (OPEN PIT POTENTIAL) ON SECTION 8650N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846 (69m),Pa529855 (5m)
32 m south,6 m west to post 2 Of Pa529846
Logged: Oct. 31 - NOV 1, 1993

Drill Hole: 506-703
Northing: 8650 N
Easting: 8944.50 E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: OCTOBER 9, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
11.0		-52.0	74.0		-48.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. Sample Series: FE08001 - FE08034.								
.00	9.78	OB	OVERBURDEN Overburden, Granitic, Tonalitic and Bvol boulders. 11.00 M NW casing.								
9.78	12.31	GC	GROUND CORE								
12.31	20.70	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, pale yellow and brown, non-magnetic and average hardness. Well developed foliation at 35 to 58 dca. The dominant fracture set is subparallel to foliation at 40 to 53 dca, with minor carbonate fracture-filling. The secondary fracture set is perpendicular to bedding at 28 to 58 dca, with carbonate fracture-filling. From 18.95 to 19.55 24ea 25% intercalated Bvol, 25% moderately developed ea beds, 10% e beds and remnants of e beds, 30% chert beds and 10% laminated and disseminated magnetite, trace pyrrhotite and trace chalcopyrite. GEOLOG DATA.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Trace grunerite, 0% garnets, 0% silicification, 0 carbonatization, 10% pervasive chlorite, 3% pervasive biotization, 25% sericite. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at dca. 18.95 19.55 24ea trace chalcopyrite.								
20.70	22.40	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained, grey, green and Yellow, moderately magnetic and hard. This unit is composed of 25% e beds and remnants of e beds, 25% grunerite, 10% disseminated and laminated magnetite, 10% poorly developed ea beds, 30% chert beds. Bedding is moderately to well preserved at 63 dca. There is one left limb fold with axial plane at 40 dca. The dominant fracture set is subparallel to bedding at 60 to 70 dca, with minor carbonate and iron oxide fracture-filling. The secondary fracture set is perpendicular to bedding at 35 to 70 dca. MINERALIZED ZONE. From 21.70 to 22.40 trace pyrrhotite, 35 specks VISIBLE GOLD, trace chalcopyrite. GEOLOG DATA. 25% Bedded grunerite, 1% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 0% biotite. Trace pyrrhotite stringers, 35 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace disseminated chalcopyrite, 9% disseminated and 1% laminated magnetite. 3% Quartz veins and 1% quartz flooding, 5% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 44 dca. 20.70 21.70 24e left limb fold, axial plane 40 dca. 21.70 22.40 24e 35 specks VISIBLE GOLD, trace chalcopyrite.								
22.40	42.80	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 45 to 60 dca. The dominant fracture set is subparallel to foliation at 45 to 64 dca, with minor carbonate or no fracture-filling. The secondary fracture set is perpendicular to foliation at 40 to 60 dca, with carbonate fracture-filling. The tertiary fracture set is oblique to foliation at 16 to 35 dca, with chlorite and carbonate fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			From 39.60 to 40.35 24ea. Fine grained, grey, green, pink and pale yellow, moderately magnetic and average hardness. This unit is composed of 25% poorly developed ea beds, 3% f beds, 40% e beds and remnants of e beds, 25% chert beds, and 7% disseminated magnetite. From 42.00 to 42.80 two 10 cm sections of 24fe. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 8% pervasive chlorite, and 20% biotization. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace disseminated chalcopyrite, 0% magnetite. 10% Quartz veins, trace quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 55 dca. 39.60 40.40 24ea 5% quartz veins. 41.80 42.80 Bvol, 20% 24fe.								
42.80	44.15	4F	GARNET-BIOTITE SCHIST 4f. Medium grained to fine grained, brown, pink, yellow and green, very weakly magnetic, and average hardness. This unit is composed of 75% f beds, 10% gruneritized beds, 10% e beds, trace magnetite and 5% chert beds. Bedding is well preserved at 49 dca. One right limb fold with axial plane at 46 dca. There are two fractures, one subparallel to bedding at 39 dca, with carbonate fracture-filling and one fracture perpendicular to bedding at 35 dca. GEOLOG DATA. 5% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 65% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite blebs, 0% arsenopyrite, trace chalcopyrite as fracture-filling, trace disseminated magnetite. 1% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 48 dca. 42.80 44.15 4f 1% quartz veins.								
44.15	64.05	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, yellow, grey, pink and green, weakly to moderately magnetic, and hard. This unit is composed of 60% well developed ea beds, 20% chert beds, 5% disseminated and laminated magnetite, 5% f beds, 10% remnants of e beds. Bedding is well preserved at 45 to 68 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Folding is right limb with axial plane at 38 to 65 dca. The dominant fracture set is subparallel to bedding at 45 to 75 dca, with carbonate fracture-filling. The secondary fracture set is perpendicular to bedding at 35 to 55 dca, with carbonate fracture-filling. From 44.15 to 46.10 4eaf 20% f beds. MINERALIZED ZONE. From 44.15 to 48.00 1% pyrrhotite, 12% quartz flooding, 11 specks VISIBLE GOLD. From 55.00 to 59.00 1% pyrrhotite, 15% quartz flooding, 16 specks VISIBLE GOLD. GEOLOG DATA. 15% Bedded grunerite, 45% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 4% bedded biotite. Trace stringers and disseminated pyrrhotite, 27 specks VISIBLE GOLD, trace disseminated pyrite, 0% arsenopyrite, trace blebs chalcopyrite, 1% laminated and 4% disseminated magnetite. 5% Quartz flooding and trace quartz veins, trace quartz-carbonate veins, trace carbonate stringers. Lower contact gradational over 10 cm at 64 dca. FE08010 DUPLICATE OF FE08009 2.91 ns ns. FE08020 STANDARD III 4.94 ns ns. FE08021 BLANK 0.07 ns ns. FE08030 DUPLICATE OF FE08029 0.17 ns ns. 44.15 45.00 4eaf 5% quartz flooding, 3 specks VISIBLE GOLD, right limb fold, axial plane 46 dca. 45.00 46.00 4eaf 15% quartz flooding. 46.00 47.00 4ea 20% quartz flooding, 5 specks VISIBLE GOLD, trace pyrite and chalcopyrite. 47.00 48.00 4ea 10% quartz flooding, 3 specks VISIBLE GOLD, trace pyrite and chalcopyrite. 48.00 49.00 4ea 5% quartz flooding, 3% quartz vein, trace pyrite, right limb fold, axial plane 61 dca. 49.00 50.00 4ea 1% quartz veins. 50.00 51.00 4ea right limb fold, axial plane 65 dca. 51.00 52.00 4ea 1% quartz flooding, right limb fold, axial plane 56 dca. 52.00 53.00 4ea 2% quartz veins, right limb fold, axial plane 44 dca. 53.00 54.00 4ea 15% quartz flooding, right limb fold, axial plane 40 dca, trace pyrite and chalcopyrite. 54.00 55.00 4ea 1% quartz flooding, right limb fold, axial plane 38 dca. 55.00 56.00 4ea 1% quartz flooding, 3 specks VISIBLE GOLD, right limb fold, axial plane 44 dca, trace pyrite. 56.00 57.00 4ea 10% quartz flooding, 7 specks VISIBLE GOLD, trace pyrite. 57.00 58.00 4ea 10% quartz flooding, 3 specks VISIBLE GOLD, trace pyrite. 58.00 59.00 4ea 40% quartz flooding, 3 specks VISIBLE GOLD, right limb fold, axial plane 67 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			59.00 60.00 4ea 20% quartz flooding, right limb fold, axial plane 38 dca. 60.00 61.00 4ea 10% quartz flooding, right limb fold, axial plane 40 dca. 61.00 62.00 4ea 10% quartz flooding, right limb fold, axial plane 45 dca. 62.00 63.00 4ea 5% quartz flooding, right limb fold, axial plane 40 dca. 63.00 64.05 4ea 2% quartz flooding.								
64.05	67.20	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, black, grey and yellow, strongly magnetic, and hard. This unit is composed of 70% laminated, magnetite, 3% f beds, 2% gruneritized beds and 25% chert beds. Bedding is well preserved at 48 to 78 dca. Folding is right and left limb with axial planes at 32 to 58 dca. There are fold crests at 64.5, and 65.3 metres. Fracture cleaveage is moderately to well developed at 41 to 53 dca. The dominant fracture set is subparallel to bedding at 60 to 72 dca, with minor or no carbonate fracture-filling. From 66.30 to 67.20 There is 60% grunerite alteration of the magnetite. Chert beds are boudinaged and semi-massive pyrrhotite and pyrite at end of the unit. GEOLOG DATA. 7% Bedded grunerite, 1% bedded garnets, 0% silicification, 3% pervasive carbonatization associated with gruneritized beds at end of the unit, 0% chlorite, 2% bedded biotite. 1% Semi-massive pyrrhotite, 0 specks VISIBLE GOLD, trace stringers pyrite, 0% arsenopyrite, 0% chalcopyrite, 70% laminated magnetite. 5% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 64 dca. 64.05 65.00 4b fold crest, axial plane 53 dca. 65.00 66.00 4b fold crest, axial plane 48 dca. 66.00 67.20 4b trace pyrite.								
67.20	74.00	2	BASALT Fine grained, grey to brown, non-magnetic, and average hardness. Well developed foliation at 60 to 71 dca. The dominant fracture set is subparallel to foliation at 57 to 70 dca, with little or no fracture-filling. The secondary fracture set is perpendicular to foliation at 10 to 30 dca, with minor carbonate fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 17% biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 1% quartz-carbonate veins, 1% carbonate stringers.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			67.20 68.20 2								
74.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ontario. Samples analysed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 3 metres. Samples stored at Musselwhite camp. DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 to 12.31 m hole cased with 11.00 m of NW casing. 12.31 to 74.00 standard 3 m core barrel used. Dutem plug placed in upper part of hole and one bag cement on top of plug. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid tests:. 11.00 M -52. Sperry Sun tests:. 74.00 -48.								

DRILL HOLE RECORD

Northing: 8748.600
Easting: 8935.900
Elevation: 5307.600

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 70.00
Completed: October 11, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test OP Zone (open pit potential) on section 8750N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846
102 m south,62 m east to post 2 of Pa529846
Logged: November 2, 1993

Drill Hole: 506-704
Northing: 8750.0N
Easting: 8938.9E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: October 10, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
10.4		-50.0	68.0		-46.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For detailed geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES # FE08940 TO FE08950 (10 SAMPLES). SAMPLE SERIES # FE08451 TO FE08483 (33 SAMPLES).								
.00	10.29	OB	OVERBURDEN OB. From 0.00 to 10.40 casing.								
10.29	39.31	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. From 10.29 to 10.93 24b. From 10.93 to 11.38 Bvol. From 11.38 to 12.54 24b. From 12.54 to 13.12 Bvol. From 13.12 to 13.73 24ea. From 13.73 to 39.31 Bvol. Fine grained, green, grey, white, brown, non-magnetic and moderately hard. Moderately foliated at 40 to 62 dca. One fold in 24b with axial plane at 57 dca. Fractures perpendicular to foliation at 10 to 165 dca. Numerous FeO coated fractures.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. Alteration: trace bedded grunerite, trace glomeroporphyritic and bedded garnet, trace localized patches silicification, 0% carbonatization, 0% chlorite, trace bedded biotite. Mineralization: trace wispy pyrrhotite, 3 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, trace wispy chalcopyrite, trace bedded magnetite. Veining: trace vein quartz, 1% vein quartz-carbonate, trace fracture-filling calcite. MINERALIZED ZONE. From 11.38 to 12.54 24b with 3 specks VISIBLE GOLD, 1% wispy and stringer pyrrhotite, trace bleb pyrite and trace wispy chalcopyrite. Fold at 11.48 with axial plane at 57 dca. Contacts sharp at 55 dca. Lower contact sharp at 70 dca. FE08940 STANDARD III 4.80 ns ns. FE08941 BLANK 0.07 ns ns. 10.29 10.93 24b with trace wispy chalcopyrite. Lower contact sharp at 64 dca. 10.93 11.38 Bvol. 11.38 12.54 24b with 3 specks VISIBLE GOLD, trace bleb pyrite and trace wispy chalcopyrite. Fold at 11.48 with axial plane at 57 dca. Contacts sharp at 55 dca. 12.54 13.12 Bvol with 3% quartz-carbonate vein. 13.12 13.73 24ea with trace wispy chalcopyrite. Upper contact sharp at 63 dca and lower contact sharp at 47 dca. 13.73 39.31 Bvol. FE08950 DUPLICATE OF FE08949 0.24 ns ns. 13.73 14.59 Bvol. At 14.23 quartz-carbonate vein 3 cm. 14.59 15.00 24ea, Bvol. From 14.59 to 14.68 24ea with contacts sharp at 60 dca. At 14.80 quartz-carbonate vein 5 cm. At 15.00 fracture FeO coated at 10 dca. 15.00 15.75 Bvol. 15.75 18.70 Bleach Bvol. Blocky core at upper contact. Numerous FeO coated fractures. 30.78 Blocky core. 34.03 Quartz-carbonate vein 5 cm.								
39.31	45.77	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets, up to 5 mm, brown, pink, green, grey, non-magnetic and moderately hard. This unit is composed of 80% 4f beds, 10% Bvol, 8% 4e beds, 1% 4ea beds and 1% 4b beds. Poorly to moderately preserved bedding at 60 to 76 dca. Folds with axial planes at 54, 57, 38 and 20 dca. Fractures perpendicular to bedding at 30 to 175 dca. Fractures parallel to bedding at 70 to 85 dca. FELSIC TO INTERMEDIATE VOLCANICS few FeO coated fractures.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. Alteration: trace bedded grunerite, 30% bedded and glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 50% bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace wispy chalcopyrite, trace bedded magnetite. Veining: trace folding quartz, 1% veinlet quartz-carbonate, trace fracture-filling calcite. Lower contact sharp at 77 dca. 39.31 40.00 4f with 4% quartz-carbonate vein. 40.00 41.00 4f with trace quartz-carbonate vein. At 40.22 broken core with FeO coated fracture at 155 dca. 41.00 42.00 4f with 2% quartz-carbonate vein. At 41.31 broken core. 42.00 43.00 4f with 2% quartz-carbonate vein. At 42.63 fracture-filling quartz-carbonate vein 5 mm with trace bleb pyrite and FeO coated. 43.00 44.00 4f. 44.00 45.00 4f. Fold at 44.35 with axial plane at 54 dca. Fold at 44.68 with axial plane at 57 dca. Fold at 44.84 with axial plane at 38 dca. 45.00 45.77 4f with 1% quartz flooding and trace wispy chalcopyrite. Fold at 45.07 with axial plane at 20 dca.								
45.77	49.11	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with glomeroporphyritic garnets, up to 1 cm, grey, yellow, pink, green, moderately magnetic and hard. This unit is composed of 75% 4ea beds, 15% chert beds, 5% 4b beds and 5% 4f beds. Poorly to moderately preserved bedding at 43 to 67 dca. Right limb fold with axial plane at 62 dca. Folds with axial planes at 41, 54, 32 and 50 dca. Fractures perpendicular to bedding at 80 to 160 dca. GEOLOG DATA:. Alteration: 10% bedded grunerite, 40% glomeroporphyritic and bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 3% bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 1% bedded magnetite. Veining: trace folding quartz, 0% quartz-carbonate, 0% calcite. Lower contact gradual at 67 dca. FE08460 STANDARD III 4.59 ns ns. FE08461 BLANK 0.10 ns ns. 45.77 47.00 4ea. Fold at 45.92 with axial plane at 41 dca. Fold at 46.47 with axial plane at 32 dca. 47.00 48.00 4ea. Fold at 47.38 with axial plane at 54 dca. Fold at 47.61 with axial plane at 50 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			48.00 49.11 4ea with 1% quartz flooding. Right limb fold at 48.84 with axial plane at 62 dca.								
49.11	53.13	4F	GARNET-BIOTITE SCHIST 4f. From 49.11 to 50.26 4fea. From 50.26 to 53.13 4f. Fine grained with glomeroporphyritic garnets, up to 1 cm, brown, grey, pink, non-magnetic and moderately hard. This unit is composed of 88% 4f beds, 10% 4ea beds and 1% chert beds and 1% quartz flooding. Moderately preserved bedding at 60 to 70 dca. Fold with axial plane at 58 dca. Fractures parallel to bedding at 55 to 70 dca and fractures perpendicular to bedding at 135 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 40% bedded and glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 45% bedded biotite. Mineralization: trace wispy pyrrhotite, 10 specks VISIBLE GOLD in 4ea bed, 0% pyrite, trace wispy arsenopyrite, trace wispy chalcopyrite, 0% magnetite. Veining: 1% folding quartz, 0% quartz-carbonate, 0% calcite. MINERALIZED ZONE. From 49.11 to 50.26 4fea with 10 specks VISIBLE GOLD in 4ea bed, 1% stringer pyrrhotite, 1% quartz flooding, trace wispy chalcopyrite and trace wispy ARSENOPYRITE. Fold at 49.80 with axial plane at 58 dca. Lower contact gradual at 40 dca. 49.11 50.26 4fea. 49.11 50.26 4fea with 10 specks VISIBLE GOLD in 4ea bed, 1% quartz flooding, trace wispy chalcopyrite and trace wispy ARSENOPYRITE. Fold at 49.80 with axial plane at 58 dca. 50.26 53.13 4f. 50.26 51.00 4f with 1% quartz flooding and trace chalcopyrite. 51.00 52.00 4f. 52.00 53.13 4f with 3% quartz flooding.								
53.13	59.53	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with glomeroporphyritic garnets, up to 1 cm, grey, pink, yellow, green, non-magnetic and moderately hard to hard. This unit is composed of 88% 4ea beds, 10% quartz flooding and 2% 4f beds. Moderately preserved bedding at 21 to 56 dca. M-type fold with axial plane at 35 dca. Right limb fold with axial plane at 45 dca. Fractures perpendicular to bedding at 5 to 140 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. Alteration: 3% bedded grunerite, 40% glomeroporphyritic and bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 1% bedded biotite. Mineralization: trace wispy pyrrhotite, 1 specks VISIBLE GOLD, trace bleb pyrite, trace wispy arsenopyrite, trace wispy chalcopyrite, 0% magnetite. Veining: 10% folding quartz, 0% quartz-carbonate, 0% calcite. MINERALIZED ZONE. From 53.13 to 56.00 4ea with 1% wispy pyrrhotite, 1 speck VISIBLE GOLD, 10% quartz flooding, trace bleb pyrite, trace wispy ARSENOPYRITE and trace wispy chalcopyrite. M-type fold at 54.27 with axial plane at 35 dca. Right limb fold at 55.34 with axial plane at 45 dca. Lower contact sharp at 34 dca. FE08470 DUPLICATE OF FE08469 3.12 ns ns. 53.13 54.00 4ea with 10% quartz flooding and trace wispy chalcopyrite. 54.00 55.00 4ea with 10% quartz flooding and trace wispy ARSENOPYRITE. M-type fold at 54.27 with axial plane at 35 dca. 55.00 56.00 4ea with 1 speck VISIBLE GOLD, 10% quartz flooding, trace bleb pyrite, trace wispy ARSENOPYRITE and trace wispy chalcopyrite. Right limb fold at 55.34 with axial plane at 45 dca. 56.00 57.00 4ea with 10% quartz flooding. 57.00 58.00 4ea with 10% quartz flooding. 58.00 59.00 4ea with 10% quartz flooding. 59.00 59.53 4ea with 3% quartz flooding.								
59.53	65.16	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, black, grey, brown, pink, strongly magnetic and hard. This unit is composed of 95% 4b beds and 5% 4f beds. Well preserved bedding at 43 to 50 dca. M-type folds with axial planes at 35 and 48 dca. Fractures parallel to bedding at 45 to 55 dca. Fractures perpendicular to bedding at 135 to 150 dca. Numerous boudinaged chert beds. GEOLOG DATA:. Alteration: 0% grunerite, 3% bedded garnet, 0% silicification, trace bedded carbonatization, 0% chlorite, 2% bedded biotite. Mineralization: trace vein pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 60% laminae magnetite. Veining: 0% quartz, 0% quartz-carbonate, 0% calcite. Lower contact sharp at 60 dca. FE08480 STANDARD III 4.39 ns ns.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			FE08481 BLANK 0.17 ns ns. 59.53 60.00 4b. 60.00 61.00 4b. 61.00 62.00 4b. 62.00 63.00 4b. 63.00 64.00 4b. M-type fold at 63.50 with axial plane at 35 dca. M-type fold at 43.95 with axial plane at 48 dca. 64.00 65.16 4b. Fold at 64.90 with axial plane at 47 dca.								
65.16	70.00	2	BASALT 2 - possibly metased. Fine grained, grey, brown, non-magnetic and moderately hard. Moderately foliation at 52 to 57 dca. Fractures perpendicular to foliation at 25 to 150 dca. Fractures parallel to foliation at 52 to 60 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, trace bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, trace stringer quartz-carbonate, trace fracture-filling calcite. 65.16 66.00 2								
70.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. No sludge samples taken. DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 to 10.40 hole cased with 10.40 m of NW casing. 10.40 to 70.00 standard 3 m corebarrel used. Dutem plug set 6 metres below casing and one bag cement above plug. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 10.36 -50.00. Sperry Sun:. 68.00 -46.50.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t

DRILL HOLE RECORD

Northing: 8650.500
Easting: 8951.300
Elevation: 5308.400

Collar Azi.: 228.40
Collar Dip: -51.00

Hole Length: 89.00
Completed: Oct. 11, 1993
Drilled by:
Logged by: M. Roberts
Purpose: To test OP Zone on section 8650N, (Open pit potential)

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846 (83m),Pa529855 (6m)
39 m south,9 m west to post 2 of Pa529846
logged: November 5 - 7, 1993

Drill Hole: 506-705
Northing: 8650.0N
Easting: 8954.6E
Survey: Yes
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Oct. 10, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
12.8		-50.5	89.0		-46.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES# FE08827 to FE08878 (52 samples).								
.00	12.96	OB	OVERBURDEN Ob. Casing from 0.00 to 12.80 metres.								
12.96	17.45	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, grey, green, white, non-magnetic, and moderately hard. Moderately foliated at 49 to 57 dca. Fracture sets at 40 to 60 and 120 to 150 dca. Numerous sericitized fractures. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, trace stringers carbonatization, trace wisps chlorite, 0% biotite. MINERALIZATION: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace blebs arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 2% vein quartz, trace wisps quartz-carbonate, trace calcite as fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact gradual at 59 dca. 14.33 A 9 cm quartz vein, chloritic, upper contact sharp at 50 dca, lower contact sharp at 48 dca. 15.28 15.50 Fracture zone. Fractures strongly carbonatized. 17.00 17.45 Avol, trace blebs arsenopyrite.								
17.45	21.34	24EF	INTRAFORMATIONAL IRON FORMATION 24ef. Fine grained, black, green, pink, weakly magnetic, and moderately hard. This unit is composed of 70% 24e beds, 10% 24b beds, 10% avol and 10% 24ea beds. Poorly bedded. Fracture sets at 43 to 60 dca and at 128 dca. GEOLOG DATA:. ALTERATION: 2% bedded grunerite, 30% bedded garnet, 0% silicification, trace wisps carbonatization, 1% bedded chlorite, 10% bedded biotite. MINERALIZATION: trace blebs and stringers pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, trace blebs chalcopyrite, trace bedded magnetite. VEINING: 0% quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 50 dca. 17.45 21.34 24e, trace blebs pyrite, 5% quartz veins, 3% quartz-carbonate stringers. FE08830 Duplicate of FE08829 0.10 ns ns. 17.45 18.40 24e, trace blebs pyrite, 5% quartz veins, 3% quartz-carbonate stringers. 18.40 19.00 24ef. 19.00 20.00 24ef, trace blebs chalcopyrite. 20.00 21.00 24ef. 21.00 21.34 24ef, trace blebs pyrite.								
21.34	47.49	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, green, grey, white, non-magnetic, and moderately hard. Moderately foliated at 37 to 64 dca. Left limb fold at 32.84 with axial plane at 124 dca. Fracture sets at 19 to 35, 38 to 65, and 115 to 169 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, trace wisps carbonatization, trace wisp chlorite, 10% bedded biotite. MINERALIZATION: trace blebs and wisps pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, trace wisps chalcopyrite, 0% magnetite. VEINING: 3% vein quartz, 1% stringers quartz-carbonate, trace calcite as								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			fracture-filling. Lower contact gradual at 59 dca. 21.34 22.00 Bvol, trace quartz stringers. 22.00 23.00 Bvol, 1% quartz veins, 1% quartz-carbonate stringers. 23.00 23.66 Bvol. 23.66 24.28 24e, 3% quartz veins, 1% quartz-carbonate stringers, 20% bvol, 50% 24e beds, 30% 24ea beds. 23.66 24.28 24e, 3% quartz veins, 1% quartz-carbonate stringers. 24.28 25.00 Bvol, 2% quartz veins 2% quartz-carbonate stringers. 31.20 33.30 Bleached zone. 20% crenulated biotite. 32.84 Left limb fold with axial plane at 124 dca. 36.54 A 3 cm quartz vein, chloritic, upper contact sharp at 60 dca, lower contact sharp at 33 dca. 41.75 A 20 cm qv, chloritic, upper contact IRREGULAR at 46 dca, lower contact IRREGULAR at 49 dca. 44.73 A 12 cm quartz vein, chloritic, upper contact sharp at 69 dca, lower contact sharp at 67 dca. 47.00 47.49 Bvol, 3% quartz veins, 1% quartz-carbonate stringers.								
47.49	51.99	24E	INTRAFORMATIONAL IRON FORMATION 24e. From 47.49 to 49.06 24e. From 49.06 to 49.32 bvol. From 49.32 to 50.34 24e. From 50.34 to 50.95 bvol. From 50.95 to 51.53 24e. From 51.53 to 51.99 24e. Fine grained, green, black, pink, weakly magnetic, and moderately hard. This unit is composed of 45% 24e beds, 35% bvol and 20% 24b beds. Moderately preserved bedding at 58 to 73 dca and moderately foliated at 50 dca in bvol subunit. Fracture sets at 35, 53 to 58 and 173 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 20% bedded garnet, 0% silicification, 3% wisps carbonatization, 10% bedded chlorite, 10% bedded biotite. MINERALIZATION: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, trace blebs chalcopyrite, trace bedded magnetite. VEINING: 10% vein quartz, trace stringers quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 64 dca. FE08840 Standard III 4.90 ns ns. FE08841 Blank 0.07 ns ns. 47.49 48.00 24e, trace blebs chalcopyrite, 8% quartz veins, fold at 47.81 with								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			axial plane at 50 dca. 48.00 49.06 24e, trace blebs chalcopyrite, 31% quartz veins, 2% quartz-carbonate stringers. At 48.42, 15 cm quartz vein, chloritic, upper contact and lower contact sharp at 50 dca. 49.06 49.32 Bvol, 1% quartz-carbonate stringers. 49.32 50.34 24e, 9% quartz veins. 50.34 50.95 Bvol. 50.95 51.53 24e, trace blebs pyrite. 51.53 51.99 Bvol, 1% quartz-carbonate stringers.								
51.99	55.22	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets up to 5 mm, black, green, pink, weakly magnetic, and moderately hard. This unit is composed of 85% 4f beds and 15% chert beds. Moderately well preserved bedding, up to 2 cm, at 60 to 70 dca. Fracture sets at 40 dca. GEOLOG DATA:. ALTERATION: trace bedded grunerite, 20% 1 to 2 mm bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 70% bedded biotite. MINERALIZATION: 1% stringers and blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, trace bedded magnetite. VEINING: 2% vein quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 65 dca. FE08850 Duplicate of FE08849 0.41 ns ns. 51.99 53.00 4f, 5% quartz veins. 53.00 54.00 4f, trace blebs pyrite. 54.00 55.22 4f, trace blebs pyrite, 1% quartz veins.								
55.22	73.02	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, green, yellow, pink, moderately magnetic, and hard. This unit is composed of 85% 4ea beds, 5% 4b beds, 5% 4f beds and 5% vein quartz. Moderately preserved boudinaged bedding, up to 8 cm, at 38 to 72 dca. Folded throughout unit at 31 to 69 dca. Fracture sets at 55 to 70 and 120 to 150 dca. MINERALIZED ZONES:. From 55.22 to 60.00 1% blebs pyrrhotite, 34 specks VISIBLE GOLD in 4ea beds, trace blebs pyrite, trace blebs arsenopyrite, 4% quartz veins, 2% quartz flooding From 64.00 to 67.00 <1% blebs pyrrhotite, 1 speck VISIBLE GOLD in 4ea bedding trace blebs pyrite, trace blebs chalcopyrite, trace blebs arsenopyrite, 6% quartz veins, trace quartz-carbonate stringers. GEOLOG DATA:.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			ALTERATION: 16% bedded grunerite, 10% bedded and glomeroporphyritic garnet, 0% silicification, trace wisps carbonatization, trace bedded chlorite, 2% bedded biotite. MINERALIZATION: trace blebs pyrrhotite, 35 specks VISIBLE GOLD in 4ea beds, trace blebs pyrite, trace blebs arsenopyrite, trace blebs chalcopyrite, 2% bedded magnetite. VEINING: 5% vein quartz, trace stringers quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 60 dca. FE08860 Standard III 4.49 ns ns. FE08861 Blank 0.07 ns ns. FE08870 Duplicate of FE08869 0.58 ns ns. 55.22 56.00 4ea, 5 specks VISIBLE GOLD in quartz veining and quartz flooding, trace blebs pyrite, trace blebs chalcopyrite, 7% quartz veins, 10% quartz flooding. 56.00 57.00 4ea, 5 specks VISIBLE GOLD in garnet beddings, trace blebs pyrite, trace blebs chalcopyrite, 6% quartz veins, 2% quartz flooding. 57.00 58.00 4ea, 8 specks VISIBLE GOLD in 4ea beds, trace blebs pyrite, 8% quartz veins. 58.00 59.00 4ea, 1 speck VISIBLE GOLD in 4ea bedding, 1% stringers pyrite. 59.00 60.00 4ea, 15 specks VISIBLE GOLD in 4ea beds, trace blebs pyrite, trace speck arsenopyrite, 1% quartz veins. Fold at 59.64 with axial plane at 69 dca. 60.00 61.00 4ea, 15% quartz veins, trace quartz-carbonate stringers, fold at 60.69 with axial plane at 44 dca. 61.00 62.00 4ea, left limb fold at 61.10 with axial plane at 71 dca. 62.00 63.00 4ea, fold at 62.17 with axial plane at 57 dca. 63.00 64.00 4ea, 2% quartz veins, left limb fold at 63.53 with axial plane at 67 dca. 64.00 65.00 4ea, 1 speck VISIBLE GOLD in 4ea bedding, 2% quartz veins. 65.00 66.00 4ea, trace blebs pyrite, trace blebs arsenopyrite, 4% quartz veins, 1% quartz-carbonate stringers. 66.00 67.00 4ea, trace blebs chalcopyrite, trace blebs arsenopyrite, 8% quartz veins, w fold at 66.26 with axial plane at 53 dca. 67.00 68.00 4ea, 14% quartz veins, 1% quartz-carbonate stringers, w fold at 67.41 with axial plane at 31 dca. 68.00 69.00 4ea, 11% quartz veins, 1% quartz-carbonate stringers, fold at 68.08 with axial plane at 39 dca. 69.00 70.00 4ea, 10% quartz veins, 3% quartz-carbonate stringers, fold at 69.35 with axial plane at 44 dca. 70.00 71.00 4ea, trace blebs pyrite, 1% quartz veins, 1% quartz-carbonate stringers, fold at 70.69 with axial plane at 45 dca. 71.00 72.00 4ea, trace blebs arsenopyrite, 1% quartz veins. 72.00 73.02 4ea, w fold at 72.77 with axial plane at 46 dca.								
73.02	77.21	4B	CHERT - MAGNETITE IRON FORMATION 4b.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained, grey, green, black, yellow, strongly magnetic, and hard. This unit is composed of 99% 4b beds, trace 4f beds and trace pale yellow carbonate beds. Moderately well preserved bedding, up to 2 cm, at 53 to 67 dca. Local folding at 57 to 59 dca. Fracture sets at 25, 62 to 70 and 140 to 155 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, trace bedded garnet, 0% silicification, trace pale yellow bedded and pervasive carbonatization, trace bedded chlorite, trace bedded biotite. MINERALIZATION: trace blebs and wisps pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, trace blebs arsenopyrite, 0% chalcopyrite, 35% laminae magnetite. VEINING: 1% vein quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 50 dca. 73.02 74.00 4b, trace blebs arsenopyrite, w fold at 73.21 with axial plane at 57 dca. 74.00 75.00 4b, trace blebs pyrite, 1% quartz veins, fold at 74.50 with axial plane at 59 dca. 75.00 76.00 4b. 76.00 77.21 4b, <1% pyrite, trace blebs arsenopyrite, 5% quartz veins.								
77.21	89.00	2	BASALT Fine grained, grey, black, green, non-magnetic and moderately hard. Moderately foliated at 47 to 65 dca. Fracture sets at 8, 43 to 70 and 125 to 170 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 1% wisps and fracture-filling carbonatization, 3% pervasive chlorite, 10% bedded biotite. MINERALIZATION: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: trace vein quartz, trace stringers quartz-carbonate, trace calcite as fracture-filling. 77.21 78.00 2								
89.00		2	END OF HOLE CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge samples not taken. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			DOWNHOLE SURVEY HISTORY:. 12.80 Metres: -50.50 Acid Test. 89.00 Metres: -46.50 Sperry Test. DRILLING HISTORY:. 0.00 to 12.80 metres: Tricone. 12.80 to 89.00 metres: Fluted Core Barrel. Dutem plug set 6 metres below casing, and one bag cement above plug. Casing left in hole, and capped.								

Date: 29 Mar, 1994

PLACER DOME CANADA LIMITED

DRILL HOLE RECORD

Northing: 8800.000
Easting: 8950.000
Elevation: 5307.100

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 4.30
Completed: October 12, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test OP Zone on Section 8800N (open pit potential) - hole aOctober 22, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846
149 m south,86 m east to post 2 Of Pa529846

Drill Hole: 506-706

Northing: 8800N
Easting: 8954E
Survey: NO
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: October 11, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
.00	4.30	OB	OVERBURDEN								
4.30		OB	END OF HOLE								
			DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.								
			DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 to 4.30 hole cased with 4.30 m of NW casing. Hole abandoned. Casing pulled.								

DRILL HOLE RECORD

Northing: 8700.700
Easting: 8919.500
Elevation: 5308.500

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 50.00
Completed: OCTOBER 12, 1993
Drilled by:
Logged by: P. GERTZBEIN
Purpose: TO TEST OP ZONE (OPEN PIT POTENTIAL) ON LINE 8700 N)

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846
54 m south,43 m east to post 2 of Pa529846
Logged: NOV 3 - 4, 1993

Drill Hole: 506-707

Northing: 8700 N
Easting: 8922.9 E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: OCTOBER 11, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
9.1		-51.0	50.0		-49.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. Sample Series: FE08096 - FE08123 (28 samples).								
.00	7.90	OB	OVERBURDEN OB. 9.10 M NW casing.								
7.90	9.55	GC	GROUND CORE Gc.								
9.55	21.30	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 41 to 66 dca. The dominant fracture set is subparallel to foliation at 37 to 65 dca, with carbonate and iron oxide. The secondary fracture set is perpendicular to foliation at 32 to 60 dca, with carbonate and iron oxide. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 30% biotization.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 9% Quartz veins, 5% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 77 dca. 20.30 21.30 Bvol.								
21.30	27.45	4F	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained, with garnets to 2 mm, brown, pink, and yellow, very weakly magnetic and average hard. This unit is composed of 95% f beds, 5% chert beds and 1% gruneritized beds. Bedding is well preserved at 38 to 69 dca. Folding is right limb with axial planes at 60 to 63 dca. The dominant fracture set is subparallel to bedding at 31 to 75 dca, with carbonate and iron oxide. The secondary fracture set is perpendicular to bedding at 31 to 69 dca, with carbonate and iron oxide. From 22.50 to 23.10 broken core with intense iron oxide on fracture surfaces. From 24.10 to 24.35 broken core with intense iron oxide on fracture surfaces. From 25.85 to 26.55 4ea 25% moderately developed ea beds, 70% e beds, 3% chert beds and 2% disseminated magnetite. GEOLOG DATA. 1% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 75% bedded biotite, and 5% pervasive staurolite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% disseminated magnetite. 2% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 37 dca. FE08100 STANDARD III 4.73. FE08101 BLANK 0.14 ns ns. 21.30 22.00 4f 50% quartz veins. 22.00 23.00 4f 1% quartz veins, right limb fold, axial plane 60 dca. 23.00 24.00 4f 1% quartz veins, right limb fold, axial plane 62 dca. 24.00 25.00 4f 1% quartz veins. 25.00 25.85 4f 1% quartz veins. 25.85 26.55 4ea 5% quartz flooding, right limb fold, axial plane 52 dca. 26.55 27.45 4f 1% quartz veins.								
27.45	29.25	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, with garnets and glomeroporphyritic garnet clusters to 5 mm, green, pink, yellow and grey, very weakly magnetic, and average hardness. This unit is composed of 50% poorly developed ea beds, 35% e beds and remnants								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			of e beds, and 15% chert beds. Bedding is moderately preserved at 31 to 38 dca, with beds from laminae to 3 cm. Folding is right and left limb with axial planes at 60 to 63 dca. From 27.45 to 27.75 fold trough axial plane 63 dca. From 27.90 to 28.10 fold crest axial plane 62 dca. From 27.75 to 27.90 and from 28.1 to 28.25 4f. The dominant fracture set is oblique to bedding at 9 to 25 dca, with carbonate and chlorite fracture-filling. The secondary fracture set is perpendicular to bedding at 48 to 64 dca, with carbonate fracture-filling. GEOLOG DATA. 25% Bedded grunerite, 25% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 0% biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. Trace quartz veins, 0% quartz-carbonate veins, 0% carbonate stringers. Lower contact sharp at 67 dca. 27.45 28.45 4ea fold trough and crest, axial plane 63 and 62. 28.45 29.25 4ea right limb fold, axial plane 63 dca.								
29.25	31.35	4F	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained, brown, pink, green and yellow, very weakly magnetic and average hardness. This unit is composed of 80% f beds, 10% chert beds, 5% e beds and 5% gruneritized beds. Bedding is well preserved at 61 to 67 dca, with beds from 2 to 5 mm. The dominant fracture set is perpendicular to bedding at 37 to 48 dca, with carbonate fracture-filling. GEOLOG DATA. 1% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 65% bedded biotite, 5% pervasive staurolite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 1% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 55 dca. FE08110 DUPLICATE OF FE08109 0.03 ns ns. 29.25 30.25 4f 1% quartz veins. 30.25 31.35 4f 1% quartz veins.								
31.35	41.30	4B	CHERT - MAGNETITE IRON FORMATION 4b.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained, black, grey and yellow, strongly magnetic and hard. This unit is composed of 40% laminated and thinly bedded magnetite, 25% gruneritized beds, 10% f beds and 25% chert beds. Bedding is moderately to well preserved from laminae to 1 cm wide. Folding is right limb with axial planes at 40 to 45 dca. Fracture cleavage is moderately developed at 61 to 64 dca. The dominant fracture set is perpendicular to bedding at 38 to 54 dca, with carbonate and rarely pyrite. The secondary fracture set is subparallel to bedding at 36 to 68 dca, with carbonate fracture-filling. MINERALIZED ZONE. From 38.00 to 41.30 1% pyrrhotite, trace quartz veins. GEOLOG DATA. 25% Bedded grunerite, 1% bedded garnet, 0% silicification, 10% pervasive carbonatization associated with gruneritized beds, trace bedded chlorite 9% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite blebs, 0% arsenopyrite, 0% chalcopyrite, 5% bedded and 35% laminated magnetite. 4% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 34 dca. FE08120 STANDARD III 5.21 ns ns. FE08121 BLANK 0.10 ns ns. 31.35 32.00 4b 3% quartz veins. 32.00 33.00 4b 3% quartz veins. 33.00 34.00 4b 5% quartz veins. 34.00 35.00 4b 30% quartz veins. 35.00 36.00 4b 5% quartz veins. 36.00 37.00 4bf. 37.00 38.00 4b 1% quartz veins. 38.00 39.00 4b trace pyrite, right limb fold, axial plane 40 dca. 39.00 40.00 4b right limb fold, axial plane 42 dca. 40.00 41.30 4b 1% quartz veins, right limb fold, axial plane 45 dca.							
41.30	50.00	2	BASALT Fine grained, grey - green to brown, non-magnetic and average hardness. Well developed foliation at 36 to 57 dca. The dominant fracture set is perpendicular to foliation at 30 to 67 dca with carbonate fracture-filling. The secondary fracture set is subparallel to foliation at 42 to 67 dca with carbonate fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, and 15% biotization.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veins, trace quartz-carbonate veins, 1% carbonate stringers. 41.30 42.30 2								
50.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex labs in Thunder Bay, Ontario. Samples analyzed at Chemex and XRAL Labs Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 10 metres. Samples stored at Musselwhite camp. DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 9.10 Hole cased with 9.10 m of NW casing. 10.36 to 50.00 standard 3 m core barrel used. Dutem plug installed in upper part of hole. One bag cement on top of plug. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 9.15 M -51.00. Sperry Sun test:. 50.00 M -49.50.								

DRILL HOLE RECORD

Northing: 8799.300
Easting: 8919.100
Elevation: 5313.600

Collar Azi.: 228.40
Collar Dip: -53.00

Hole Length: 65.00
Completed: October 13, 1993
Drilled by:
Logged by: M. Roberts
Purpose: To test OP Zone on section 8800N, Open pit potential

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846
127 m south,109 m east to post 2 of Pa529846
Logged: November 3 - 4, 1993

Drill Hole: 506-708
Northing: 8800.0N
Easting: 8921.0E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: October 12, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
12.8		-53.0	62.0		-50.8						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For detailed geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES # FE08784 TO FE08826 (43 SAMPLES).								
.00	13.50	OB	OVERBURDEN OB. Casing from 0.00 TO 12.80 metres.								
13.50	14.77	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, grey, non-magnetic and moderately hard. Moderately foliated at 58 dca. Fracture sets at 58 to 63, 10 and 155 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, trace wisps carbonatization, 0% chlorite, 1% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 45 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			14.00 14.77 Bvol, trace wisps quartz-carbonate.								
14.77	17.60	24E	INTRAFORMATIONAL IRON FORMATION 24eb. Fine grained, black, green, pink, weakly magnetic, and moderately hard. This unit is composed of 45% 24e beds, 35% bvol and 20% 24b beds. Moderately preserved bedding, up to 3 cm at 42 to 70 dca. Local folding in unit with axial planes at 44 to 53 dca. Fracture sets at 113 to 140 and 45 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 20% 1 to 2 mm bedded garnet, 0% silicification, 3% wisps carbonatization, 0% chlorite, 20% bedded biotite. Mineralization: <1% blebs and stringers pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace bedded magnetite. Veining: 14% vein quartz, 1% vein quartz-carbonate, 0% calcite. Lower contact gradual at 59 dca. 14.77 16.00 24e, 18% quartz veins, trace blebs pyrite, trace blebs chalcopyrite, fold at 14.95 with axial plane at 53 dca. 16.00 17.00 24e, 20% quartz veining, left limb fold at 16.31 with axial plane at 44 dca. 17.00 17.60 24e, 3% quartz-carbonate.								
17.60	18.63	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, grey, white, non-magnetic and moderately hard. Moderately foliated at 54 dca. One fracture perpendicular to foliation at 146 dca, fracture set parallel to foliation at 50 to 53 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, trace wisps carbonatization, 0% chlorite, 10% bedded biotite. Mineralization: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace blebs chalcopyrite, 0% magnetite. Veining: 3% vein quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 47 dca. 17.60 18.63 Bvol, trace blebs chalcopyrite, 3% quartz vein.								
18.63	22.83	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained, black, green, pink, weakly magnetic, and moderately hard. This unit is composed of 70% 24e beds, 25% bvol and 5% 24b beds.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Moderately preserved bedding, up to 3 cm at 38 to 54 dca. Local folding in unit with axial planes at 27 to 40 dca. Fracture sets at 17 to 20, 50 to 60, and 105 to 140 dca. GEOLOG DATA:. Alteration: 0% grunerite, 20% 1 to 2 mm bedded garnet, 0% silicification, 3% wisps carbonatization, 0% chlorite, 20% bedded biotite. Mineralization: <1 blebs and stringers pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, trace blebs arsenopyrite, trace blebs chalcopyrite, trace bedded magnetite. Veining: 3% vein quartz, 4% vein quartz-carbonate, 0% calcite. Lower contact irregular at 95 dca. FE08790 Duplicate of FE08789 0.14 ns ns. 18.63 19.00 24e, trace wisps chalcopyrite, 7% quartz-carbonate. 19.00 20.00 24e, 7% quartz veins. 20.00 21.00 24e, trace blebs arsenopyrite, 6% quartz veins, 2% quartz-calcite veins, fold at 20.33 with axial plane at 27 dca. 21.00 22.00 24e, trace blebs pyrite, trace blebs chalcopyrite, 3% quartz-carbonate, left limb fold at 21.23 with axial plane at 40 dca. 22.00 22.83 24e, 5% quartz-carbonate.								
22.83	35.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, grey, white, non-magnetic and moderately hard. Moderately foliated at 28 to 45 dca. Fracture sets at 20 to 28, 28 to 55 and 135 to 160 dca. Some FeO coated fractures. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, trace wisps carbonatization, 0% chlorite, 10% bedded biotite. Mineralization: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, trace blebs and wisps chalcopyrite, 0% magnetite. Veining: 1% vein quartz, 1% quartz-carbonate stringers, trace calcite as fracture-filling. Lower contact regular at 53 dca. 22.83 24.00 Bvol, 1% quartz veins, 8% quartz-carbonate stringers. 34.00 35.00 Bvol, trace blebs chalcopyrite, 1% quartz veins, trace quartz-carbonate stringers.								
35.00	39.23	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained, black, green, pink, weakly magnetic, and moderately hard. This unit is composed of 75% 24e beds and 25% bvol.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Moderately preserved bedding, up to 3 cm at 46 to 65 dca. Fracture sets at 45 to 77 and 105 to 155 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 20% 1 to 2 mm bedded garnet, 0% silicification, trace fracture-filling carbonatization, 0% chlorite, 20% bedded biotite. Mineralization: 1% blebs and stringers pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, trace blebs arsenopyrite, trace blebs chalcopyrite, trace bedded magnetite. Veining: 1% vein quartz, 1% vein quartz-carbonate, 0% calcite. Lower contact gradual at 58 dca. FE08800 Standard III 4.83 ns ns. FE08801 Blank 0.07 ns ns. 35.00 36.00 24e, 2% quartz veins, 3% quartz-carbonate stringers. 36.00 37.00 24e, 2% quartz veins, 1% quartz-carbonate stringers. 37.00 38.00 24e, trace blebs pyrite, 1% quartz-carbonate stringers. 38.00 39.23 24e, trace blebs pyrite, 1% quartz-carbonate stringers, FeO coated fractures.								
39.23	41.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, grey, white, non-magnetic, and moderately hard. Moderately foliated at 58 to 63 dca. Fractures perpendicular to foliation at 105 to 140 dcas fractures parallel to foliation at 50 to 77 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 2% wisps carbonatization, 0% chlorite, 10% bedded biotite. Mineralization: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, trace blebs chalcopyrite, 0% magnetite. Veining: 0% quartz, 2% quartz-carbonate veins, trace calcite as fracture-filling. Lower contact gradual at 57 dca. 39.23 40.00 Bvol, trace blebs pyrite. At 39.91 FeO coated sheared ground core. 40.00 41.00 Bvol, trace blebs pyrite, trace blebs chalcopyrite, 3% quartz-carbonate veins.								
41.00	56.30	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, green, yellow, strongly magnetic, and hard. This unit is composed of 80% 4b beds, 15% pale yellow carbonate beds and 5% 4f beds. Moderately well preserved boudinaged bedding, up to 2 cm, at 50 to 83 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			FoLDinG throughout unit at 49 to 60 dca. Fracture sets at 35 to 42, 45 to 65 and 78 to 150 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, trace bedded garnet, 0% silicification, 15% pale yellow bedded and 5% pervasive carbonatization, trace bedded chlorite, <1% bedded biotite. Mineralization: 6% stringers, blebs and veinlets pyrrhotite, 1 specks VISIBLE GOLD in 4b bedding, trace blebs pyrite, trace blebs arsenopyrite, 0% chalcopyrite, 30% laminae magnetite. Veining: 10% vein quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Mineralized zones:. From 43.00 to 44.00, trace blebs pyrrhotite, 1 specks VISIBLE GOLD, trace blebs pyrite, trace blebs arsenopyrites. 22% quartz veins, at 43.26, FELSIC TO INTERMEDIATE VOLCANICS 20 cm quartz vein, upper contact irregular at 51 dca, lower contact irregular at 53 dca, chloritic. From 54.00 to 56.30, 36% stringers, blebs and veinlets pyrrhotite, trace blebs pyrite, trace blebs arsenopyrite, 16% quartz veins, shearing at 54.69 at 85 dca, fold at 55.03 with axial plane at 50 dca. Lower contact gradual at 43 dca. 41.00 41.98 24ef, trace blebs chalcopyrite. FE08810 Duplicate of FE08809 0.21 ns ns. FE08820 Standard III 4.63 ns ns. FE08821 Blank 0.10 ns ns. 41.00 41.98 24ef, trace blebs chalcopyrite. 41.98 43.00 4b, trace blebs pyrite. 43.00 44.00 4b, 1 specks VISIBLE GOLD, trace blebs pyrite, trace blebs arsenopyrite, 22% quartz veins, 2 quartz flooding. 44.00 45.00 4b, 9% quartz veins. 45.00 46.00 4b, trace blebs arsenopyrite, 4% boudinaged quartz veins. 46.00 47.00 4b, trace blebs pyrite, trace blebs arsenopyrite, 6% boudinaged quartz veins. 47.00 48.00 4b, trace blebs pyrite, trace blebs arsenopyrite, 5% boudinaged quartz veins, right limb fold at 47.68 with axial plane at 59 dca. 48.00 49.00 4b, trace blebs pyrite, trace blebs arsenopyrite, 12% quartz veins. 49.00 50.00 4b, trace blebs pyrite, 5% boudinaged quartz veins, fold at 49.03 with axial plane at 60 dca. 50.00 51.00 4b, trace blebs pyrite, 2% quartz flooding. 51.00 52.00 4b, 10% boudinaged quartz veins. 52.00 53.00 4b, 8% boudinaged quartz veins, right limb fold at 52.31 with axial plane at 49 dca. 53.00 54.00 4b, 7% boudinaged quartz veins. 54.00 55.00 4b, trace blebs pyrite, 4% boudinaged quartz veins, shearing at 54.69, 85 dca. 55.00 55.97 4b, trace blebs arsenopyrite, 6% quartz veins. Fold at 55.03 with								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			axial plane at 50 dca. 55.97 56.30 70% Semi-massive lacey pyrrhotite. 30% subrounded 1 mm to 2 cm quartz clasts. Upper contact 33 and lower contact 43 dca.								
56.30	65.00	2	BASALT 2 - possible metased. Fine grained, grey, black, green, non-magnetic and moderately hard. Moderately foliated at 42 to 63 dca. Fractures perpendicular to foliation at 115 to 140 dca, fractures parallel to foliation at 45 to 60 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 1% wisps and fracture-filling carbonatization, 3% pervasive chlorite, 10% bedded biotite. Mineralization: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, trace blebs chalcopyrite, 0% magnetite. Veining: trace stringers quartz, 6% veins quartz-carbonate, trace calcite as wisps. 56.30 57.00 2, trace blebs pyrite, 3% quartz veins. 59.36 59.76 2, 40 cm quartz-calcite vein, 2% glomeroporphyritic garnet. 61.67 61.79 24b, trace blebs pyrrhotite, weakly gruneritized, strongly magnetic, upper contact gradual at 50 dca, lower contact gradual at 40 dca. 64.30 64.63 24b, trace blebs pyrite, trace blebs chalcopyrite, 15% quartz veining								
65.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. No sludge samples taken. DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 to 12.80 hole cased with 12.80 m of NW casing. 12.80 to 65.00 standard 3 m corebarrel used. Dutem plug set 6 metres below casing and one bag of cement above plug. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 12.80 -53.00. Sperry Sun:. 62.00 -50.75.								

DRILL HOLE RECORD

Northing: 8700.400
Easting: 8955.300
Elevation: 5308.400

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 89.00
Completed: Oct. 13, 1993
Drilled by:
Logged by: M. Roberts
Purpose: To test OP Zone on section 8700N (Open pit potential)

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846
78 m south,16 m east to post 2 of Pa529846
Logged: November 11 - 12, 1993

Drill Hole: 506-709
Northing: 8700.0N
Easting: 8958.8E
Survey: Yes
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Oct. 12, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
15.2		-48.5	89.0		-44.8						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES# FE08288 to FE08336 (49 samples).								
.00	16.09	OB	OVERBURDEN Ob. Casing from 0.00 to 16.09.								
16.09	20.30	24EF	INTRAFORMATIONAL IRON FORMATION 24ef. Fine grained, black, green, pink, weakly magnetic and moderately hard. This unit is composed of 40% 24F beds, 30% 24E beds, 20% BVOL and 10% 24EA beds. Moderately preserved bedding at 42 to 60 dca. Fracture sets at 48 to 58 and 122 to 153. GEOLOG DATA:. ALTERATION: trace bedded grunerite, 20% bedded garnet, 0% silicification, trace wisps carbonatization, trace bedded chlorite, 10% bedded biotite. MINERALIZATION: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, trace blebs chalcopyrite, trace bedded magnetite. VEINING: 2% vein quartz, 1% stringers quartz-carbonate, trace calcite as fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 48 dca. FE08290 Duplicate of FE08289 0.07 ns ns. 16.09 17.00 24ef, trace blebs pyrite, 1% quartz veins, 2% quartz-carbonate stringers. 17.00 18.00 24ef, trace blebs chalcopyrite, 1% quartz-carbonate stringers. 18.00 19.00 24ef, 2% quartz veins, 1 quartz-carbonate stringers. 19.00 20.30 24ef, trace blebs pyrite, 4% quartz veins.								
20.30	51.37	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. From 24.00 to 24.68 24e. From 32.88 to 33.67 24e. Fine grained, green, grey, white, non-magnetic and moderately hard. Moderately foliated at 42 to 68 dca. Fracture sets at 40 to 65 and 112 to 147 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, trace wisps carbonatization, trace wisps chlorite, 1% bedded biotite. MINERALIZATION: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace blebs chalcopyrite, 0% magnetite. VEINING: 6% vein quartz, 3% stringers quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 53 dca. 20.30 21.00 Bvol, 1% quartz-carbonate stringers. 22.68 22.75 Fracture zone, FeO coated, fractures at 35 to 60 dca. 23.12 23.58 Fracture zone, FeO coated, fractures at 35 to 60 and 145 dca. 23.91 24.00 Fracture zone, FeO coated, fractures at 91 to 117 dca. 24.00 24.68 24e, trace blebs pyrite, trace blebs chalcopyrite, 15% quartz veins 2% quartz-carbonate stringers, upper contact sharp at 91 dca, lower contact sharp at 57 dca. 24.00 24.68 24e, trace blebs chalcopyrite, 15% quartz veins, 2% quartz-carbonate stringers. 29.44 32.17 Bleached zone, strongly biotitic and sericitic, upper contact sharp at 49 dca, lower contact sharp at 51 dca. 32.88 33.67 24e, trace blebs pyrite, 12% quartz veins, 4% quartz-carbonate stringers, upper contact gradual at 54 dca, lower contact gradual at 56 dca. 32.88 33.67 24e, trace blebs pyrite, 12% quartz veins, 4% quartz-carbonate stringers. 33.95 35.70 Bleached zone, strongly biotitic and sericitic, upper contact sharp at 52 dca, lower contact sharp at 56 dca. 45.48 A 26 cm quartz vein, chloritic, upper contact sharp at 73 dca, lower contact sharp at 53 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			47.47 A 48 cm quartz vein, chloritic, brecciated, upper contact irregular at 51 dca, lower contact irregular at 70 dca. 50.00 51.00 Bvol, trace blebs chalcopyrite, 14% quartz veins, 11% quartz-carbonate veins. 51.00 51.37 Bvol, trace quartz-carbonate stringers.								
51.37	55.12	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained, black, green, pink, weakly magnetic and moderately hard. This unit is composed of 70% 24f beds, 20% 24e beds and 10% bvol. Moderately preserved bedding at 52 to 63 dca. Fracture sets at 55 to 65 and 140 to 150 dca. MINERALIZED ZONE:. From 54.00 55.12, 5% wisps and blebs pyrrhotite, 2 specks VISIBLE GOLD in quartz vein, trace blebs chalcopyrite, 22% quartz veins. GEOLOG DATA:. ALTERATION: 0% grunerite, 30 bedded garnet, 0% silicification, trace wisps carbonatization, 1% bedded chlorite, 10% bedded biotite. MINERALIZATION: 1% blebs and wisps pyrrhotite, 2 specks VISIBLE GOLD in quartz vein, trace blebs pyrite, 0% arsenopyrite, trace blebs chalcopyrite, trace bedded magnetite. VEINING: 4% vein quartz, 1% stringer quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 57 dca. FE08300 Standard III 4.46 ns ns. FE08301 Blank 0.17 ns ns. 51.37 52.00 24fe, trace blebs pyrite, 1% quartz veins, 1% quartz-carbonate stringers. 52.00 53.00 24fe, 3% quartz-carbonate stringers. 53.00 54.00 24fe, trace blebs pyrite, 1% quartz-carbonate stringers, fold at 53.76 with axial plane at 52 dca. 54.00 55.12 24fe, 2 specks VISIBLE GOLD in quartz vein, trace blebs chalcopyrite, 22% quartz veins.								
55.12	58.28	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, black, green, pink, weakly magnetic and moderately hard. This unit is composed of 85% 4f beds and 15% chert beds. Moderately preserved bedding up to 2 cm, at 58 to 76 dca. Fracture sets at 73 to 75 and 100 to 130 dca. GEOLOG DATA:. ALTERATION: trace bedded grunerite, 20% 1 to 2 mm bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 70% bedded biotite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			MINERALIZATION: 1% blebs and wisps pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, trace blebs chalcopyrite, trace bedded magnetite. VEINING: trace vein quartz, 0% quartz-carbonate, 0% calcite. Lower contact gradual at 53 dca. 55.12 56.00 4f, trace blebs pyrite, trace blebs chalcopyrite, 1% quartz veins. 56.00 57.00 4f, trace blebs pyrite. 57.00 58.28 4f, trace blebs chalcopyrite.								
58.28	80.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, grey, green, yellow, pink, moderately magnetic and hard. This unit is composed of, 70% 4ea beds, 12% 4f beds, 10% 4b beds and 8% vein quartz. Moderately preserved bedding, up to 8 cm, at 27 to 80 dca. Fracture sets at 26 to 80 and 93 to 160 dca. MINERALIZED ZONES:. From 60.50 to 61.90, 2% wisps and blebs pyrrhotite, 17 specks VISIBLE GOLD in quartz veins, trace blebs pyrite, trace blebs arsenopyrite, 11% quartz veins. From 67.00 to 72.00, 1% blebs and wisps pyrrhotite, 1 speck VISIBLE GOLD in 4ea bedding, 1% blebs and wisps pyrite, trace blebs arsenopyrite, 16% quartz veins, M fold at 69.17 with axial plane at 60 dca. GEOLOG DATA:. ALTERATION: 10% bedded grunerite, 10% bedded and glomeroporphyritic garnet, 0% silicification, trace wisps and fracture-filling carbonatization, trace bedded chlorite, 2% bedded biotite. MINERALIZATION: trace blebs and wisps pyrrhotite, 1 specks VISIBLE GOLD in 4ea bedding, trace blebs and wisps pyrite, trace blebs arsenopyrite, trace blebs chalcopyrite, 2% bedded magnetite. VEINING: 8% vein quartz, trace stringers quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 40 dca. FE08310 Duplicate of FE08309 3.84 ns ns. FE08320 Standard III 4.94 ns ns. FE08321 Blank 0.48 ns ns. FE08330 Duplicate of FE08329 0.27 ns ns. 58.28 59.00 4ea, trace blebs arsenopyrite, trace blebs chalcopyrite, 3% quartz veins, fold at 58.87 with axial plane at 40 dca. 59.00 60.00 4ea, 1% quartz-carbonate stringers, left limb fold at 59.50 with axial plane at 30 dca. 60.00 61.00 4ea, 4 specks VISIBLE GOLD in quartz veins, 7% quartz veins, fold at 60.02 with axial plane at 45 dca. 61.00 62.00 4ea, 13 specks VISIBLE GOLD in quartz veins, trace blebs pyrite,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			trace blebs arsenopyrite, 15% quartz veins. 62.00 63.00 4ea, 5% quartz veins. 63.00 64.00 4ea, trace blebs pyrite, trace blebs chalcopyrite, 8% quartz veins. 64.00 65.00 4ea, 2% quartz veins. 65.00 66.00 4ea, trace blebs pyrite, 1% quartz veins. 66.00 67.00 4ea, trace blebs pyrite, 2% quartz veins. 67.00 68.00 4ea, trace blebs pyrite, trace blebs arsenopyrite, 23% quartz veins. 68.00 69.00 4ea, 3% blebs and stringers pyrite, trace blebs arsenopyrite, 30% quartz veins. 69.00 70.00 4ea, 7% quartz veins, M fold at 69.17 with axial plane at 60 dca. 70.00 71.00 4ea, 1 speck VISIBLE GOLD in 4ea bedding, trace blebs arsenopyrite, 12% quartz veins. 71.00 72.00 4ea, trace blebs pyrite, trace blebs arsenopyrite, 11% quartz veins. 72.00 73.00 4ea, trace blebs pyrite, 1% quartz veins, 1% quartz-carbonate stringers, right limb fold at 72.96 with axial plane at 86 dca. 73.00 74.00 4ea, 3% quartz veins, 1% quartz-carbonate stringers, right limb fold at 73.54 with axial plane at 52 dca. 74.00 75.00 4ea, 13% quartz veins, right limb fold at 74.93 with axial plane at 34 dca. 75.00 76.00 4ea, 13% quartz veins, 1% quartz-carbonate stringers. 76.00 77.00 4ea, 1% quartz veins. 77.00 78.00 4ea, 11% quartz veins. 78.00 79.00 4ea, 2% quartz veins, 1% quartz-carbonate stringers. 79.00 80.00 4ea, 3% quartz veins, 1% quartz-carbonate stringers, left limb fold at 79.77 with axial plane at 49 dca.								
80.00	83.11	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, green, yellow, pink, strongly magnetic and hard. This unit is composed of 74% 4b beds, 10% pale yellow carbonate beds, 9% quartz veins and 5% 4f beds. Moderately well preserved bedding, up to 2 cm at 40 to 62 dca. Fracture sets 32 to 65 and at 130 dca. MINERALIZED ZONES:. From 81.90 to 83.11 2% blebs and wisps pyrrhotite, 2 specks VISIBLE GOLD in quartz vein, 1% blebs and wisps pyrite, trace blebs arsenopyrite, 17% quartz veins, 2% quartz flooding. GEOLOG DATA:. ALTERATION: trace bedded grunerite, 2% bedded garnet, 0% silicification, 15% pale yellow bedded and pervasive carbonatization, trace bedded chlorite, 5% bedded biotite. MINERALIZATION: 1% blebs and wisps pyrrhotite, 2 specks VISIBLE GOLD in quartz vein, 1% blebs and wisps pyrite, trace blebs arsenopyrite, 0% chalcopyrite, 30% laminae magnetite. VEINING: 9% vein quartz, 0% quartz-carbonate, trace calcite as fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 59 dca. 80.00 81.00 4b, 2% quartz veins, fold at 80.07 with axial plane at 28 dca. 81.00 82.00 4b, trace blebs pyrite, 12% quartz veins, 2% quartz flooding, brecciated, fold at 51.19 with axial plane at 56 dca. 82.00 83.11 4b, 2 specks VISIBLE GOLD in quartz vein, 1% blebs and wisps pyrite, trace blebs arsenopyrite, 17% quartz veins, 2% quartz flooding.								
83.11	89.00	2	BASALT Fine grained, grey, black, green, non-magnetic and moderately hard. Moderately foliated at 52 to 63 dca. Fracture sets at 25 to 47, 50 to 67 and 137 to 152 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 1% wisps and fracture-filling carbonatization, 3% pervasive chlorite, 10% bedded biotite. MINERALIZATION: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 1% vein quartz, 1% stringers quartz-carbonate, trace calcite as fracture-filling. 83.11 84.00 2, trace blebs pyrite.								
89.00		2	END OF HOLE CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex AND XRAL LAB INC., 30 GRAM SAMPLE, FIRE ASSAYED WITH GRAVIMETRIC FINISH. Sludge samples not taken. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DOWNHOLE SURVEY HISTORY:. 15.20 Metres: -48.50 Acid Test. 89.00 Metres: -44.75 Sperry Test. DRILLING HISTORY:. 0.00 to 15.20m: Tricone. 15.20 to 89.00m: Fluted Core Barrel. Dutem plug set 6 metres below casing, and one bag cement above plug. Casing left in hole, and capped.								

DRILL HOLE RECORD

Northing: 8799.300
Easting: 8923.800
Elevation: 5313.900

Collar Azi.: 228.40
Collar Dip: -65.00

Hole Length: 80.00
Completed: OCTOBER 14, 1993
Drilled by:
Logged by: P. GERTZBEIN
Purpose: TO TEST OP ZONE (OPEN PIT POTENTIAL) ON LINE 8750 N)

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846
131 m south,105 m east to post 2 of Pa529846
Logged: NOV 5 - 7, 1993

Drill Hole: 506-710
Northing: 8800N
Easting: 8925.7E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: OCTOBER 13, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
12.2		-65.0	80.0		-63.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. Sample Series: FE08218 - FE08257 (40 samples).								
.00	11.00	OB	OVERBURDEN OB. 12.2 M NW casing.								
11.00	12.27	GC	GROUND CORE GC.								
12.27	44.25	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 19 to 50 dca. The dominant fracture set is subparallel to foliation at 20 to 58 dca, with carbonate fracture-filling. The secondary fracture set is perpendicular to foliation at 30 to 65 dca, with carbonate fracture-filling. The tertiary fracture set is oblique to foliation at 11 to 60 dca, with carbonate and iron oxide fracture-filling. FROM 16.25 TO 16.65 24e.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			70% E beds, 20% poorly developed ea beds, 10% disseminated magnetite. 1% Pyrrhotite stringers, trace chalcopyrite stringers, 50% quartz flooding, 10% carbonate stringers. FROM 17.05 TO 17.40 24ea. 30% Poorly developed ea beds, 35% e beds, 10% chert beds, 20% intercalated Bvol and 5% disseminated magnetite. 10% Quartz veins, 2% pyrrhotite stringers, trace chalcopyrite. Right limb fold, axial plane 24 dca. Bedding at 50 dca. FROM 19.30 TO 19.60 24ea. 30% Poorly developed ea beds, 55% e beds, 5% disseminated magnetite. 60% Quartz flooding, 20% carbonate stringers, 1% pyrrhotite, trace chalcopyrite and pyrite. Fold, axial plane 63 dca. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 4% pervasive carbonatization, 5% pervasive chlorite, 25% pervasive biotization. Trace pyrrhotite blebs, 0 specks VISIBLE GOLD, trace pyrite stringers, 0% arsenopyrite, trace chalcopyrite stringers, 0% magnetite. 2% Quartz veins, trace quartz-carbonate veins, 3% carbonate stringers. Lower contact sharp at 61 dca. 16.25 16.65 24e. 17.05 17.40 24ea. 19.30 19.60 24ea. 43.25 44.25 Bvol.								
44.25	58.35	4F	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained, brown, pink, grey and yellow, very weakly magnetic, and average hardness. This unit is composed of 75% f beds, 10% chert beds, 5% poorly to moderately developed ea beds, 5% fine grained, quartz rich metasediment, 5% e beds and remnants of e beds and trace disseminated magnetite. Bedding is well preserved at 17 to 63 dca, with beds from 2 mm to 1 cm. Folding is right and left limb, predominantly right limb at 18 to 53 dca. The dominant fracture set is perpendicular to bedding at 38 to 75 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 36 to 75 dca, with carbonate fracture-filling. The tertiary fracture set is oblique to bedding at 10 to 45 dca, with carbonate and iron oxide fracture-filling. GEOLOG DATA.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			2% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 55% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite stringers, trace blebs arsenopyrite, trace chalcopyrite stringers, trace disseminated magnetite. Trace quartz veins, trace quartz flooding, 0% quartz-carbonate veins, 0% carbonate stringers. Lower contact folded with axial plane 3 dca average angle 66 dca. FE08220 STANDARD III 4.49 ns ns. FE08221 BLANK 0.03 ns ns. FE08230 DUPLICATE OF FE08229 0.07 ns ns. 44.25 45.00 4f 1% quartz veins, trace pyrite, arsenopyrite and chalcopyrite. 45.00 46.00 4f 1% quartz veins. 46.00 47.00 4f 1% quartz veins, trace pyrite, fold crest axial plane 40 dca. 47.00 48.00 4f trace quartz veins. 48.00 49.00 4f trace quartz veins, right limb fold, axial plane 55 dca. 49.00 50.00 4f left limb fold, axial plane 27 dca. 50.00 51.00 4f trace quartz veins, trace chalcopyrite, left limb fold, axial plane 30 dca. 51.00 52.00 4f 1% quartz veins. 52.00 53.00 4f right limb fold, axial plane 18 dca. 53.00 54.00 4f trace quartz veins. 54.00 55.00 4f, trace pyrite, 1% quartz veins. 55.00 56.00 4f trace pyrite, trace quartz veins. 56.00 57.00 4f trace pyrite, right limb fold, axial plane 20 dca. 57.00 58.35 4f trace pyrite 3% quartz flooding, right limb fold, axial plane 3 dca.								
58.35	64.65	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, with garnets and glomeroporphyritic garnet clusters to 1 cm, yellow, pink, grey, and green, weakly to moderately magnetic, and hard. This unit is composed of 65% well developed ea beds, 20% chert beds, 5% f beds, 5% e beds and remnants of e beds, and 5% laminated and disseminated magnetite. Bedding is moderately to well preserved at 18 to 27 dca, with beds from laminae to 1 cm wide. From 58.35 to 59.7 right limb fold, axial planes 3 to 10 dca. From 62.5 to 64.00 left limb fold, axial planes 29 to 34 dca. The dominant fracture set is perpendicular to bedding at 53 to 65 dca, with carbonate and minor iron oxide fracture-filling. The secondary fracture set is subparallel to bedding at 22 to 23 dca, with carbonate and chlorite fracture-filling. MINERALIZED ZONE. From 59.00 to 63.00 4% pyrrhotite, 70 specks VISIBLE GOLD, 15% quartz flooding, trace arsenopyrite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 10% Bedded grunerite, 25% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 1% bedded chlorite, 4% bedded biotite. 3% Pyrrhotite stringers and blebs, 70 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite crystals, 0% chalcopyrite, 1% laminated and 4% disseminated magnetite. 10% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 23 dca. FE08240 STANDARD III 4.45 ns ns. FE08241 BLANK 0.07. 58.35 59.00 4ea, fold crest, axial plane 30 dca. 59.00 60.00 4ea, 5% quartz flooding, trace arsenopyrite, right limb fold, axial plane 3 dca. 60.00 61.00 4ea 20% quartz flooding, trace arsenopyrite. 61.00 62.00 4ea 43 specks VISIBLE GOLD, 25% quartz flooding, trace arsenopyrite. 62.00 63.00 4ea 27 specks VISIBLE GOLD, 10% quartz flooding, left limb fold, axial plane 34 dca. 63.00 64.00 4ea 5% quartz flooding, trace arsenopyrite, left limb fold, axial plane 29 dca. 64.00 64.65 4ea 1% quartz flooding.								
64.65	74.45	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, with garnets to 2 mm, grey, black, and yellow, strongly magnetic and hard. This unit is composed of 70% laminated and THINLY bedded magnetite, 15% chert beds, 10% f beds and 5% e beds. Bedding is well preserved at 16 to 36 dca, with beds from laminae to 1 cm wide. There is one fold crest with axial plane at 53 dca. Fracture cleavage is well developed at 43 to 60 dca. The dominant fracture set is subparallel to bedding at 17 to 50 dca, with carbonate fracture-filling. The secondary fracture set is perpendicular to bedding at 30 to 50 dca, with carbonate fracture-filling. MINERALIZED ZONES. From 65.00 to 66.00 1% pyrrhotite, 3 specks VISIBLE GOLD, 10% quartz flooding, trace pyrite and arsenopyrite. From 70.80 to 71.80 2% pyrrhotite, 3% quartz vein, trace arsenopyrite. From 73.60 to 74.45 3% pyrrhotite, 1% quartz veins, trace pyrite and arsenopyrite GEOLOG DATA. 20% Bedded grunerite, 3% bedded garnets, 0% silicification, 60% pervasive carbonatization associated with gruneritized beds, 7% bedded biotite. Trace pyrrhotite stringers, 3 specks VISIBLE GOLD, trace pyrrhotite stringers, trace arsenopyrite crystal, 0% chalcopyrite, 35% laminated and 35% bedded								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			magnetite. 2% Quartz flooding, 1.5% quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 28 dca. FE08250 DUPLICATE OF FE08249 0.24 0.24 ns. 64.65 65.00 4b 1% quartz veins. 65.00 66.00 4b 10% quartz flooding, 3 specks VISIBLE GOLD, trace pyrite and arsenopyrite. 66.00 67.00 4b 5% quartz flooding, trace arsenopyrite. 67.00 68.00 4b 5% quartz flooding, trace arsenopyrite and pyrite. 68.00 69.00 4b 3% quartz veins, trace arsenopyrite. 69.00 70.00 4bf 1% quartz veins. 70.00 70.80 4b 3% quartz veins, trace arsenopyrite. 70.80 71.80 4b 1% quartz veins trace arsenopyrite, FOLD CREST, axial plane 53 dca 71.80 72.80 4b 5% quartz veins, trace arsenopyrite. 72.80 73.60 4b. 73.60 74.45 4b 1% quartz vein, trace arsenopyrite and pyrite.								
74.45	80.00	2	BASALT Fine grained, grey - green to brown, non-magnetic and average hardness. Well developed foliation at 30 to 40 dca. The dominant fracture set is subparallel to foliation at 27 to 50 dca, with carbonate and chlorite fracture-filling. The secondary fracture set is perpendicular to foliation at 44 to 60 dca, with carbonate and chlorite fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 15% pervasive biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veining, 0% quartz-carbonate vein, 1% carbonate stringers. 74.45 75.45 2								
80.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ontario. Samples analysed at Chemex and XRAL Labs Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge samples not recovered. DRILLING HISTORY. Overburden was drilled using a tricone bit.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			0.00 12.2 Hole cased with 12.2 m NW casing. 12.2 to 80.00 standard 3 m core barrel used. Dutem plug place in upper portion of hole with 1 bag of cement on top of plug. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 12.19 M -65.0. Sperry Sun Tests:. 80.00 M -63.50.								

DRILL HOLE RECORD

Northing: 7848.400
Easting: 8952.700
Elevation: 5308.600

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 89.00
Completed: OCTOBER 14, 1993
Drilled by:
Logged by: P. GERTZBEIN
Purpose: TO TEST OP ZONE (OPEN PIT POTENTIAL) ON LINE 8750 N)

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846
112 m south,49 m east to post 2 of Pa529846
Logged: NOV 4 - 5, 1993

Drill Hole: 506-711
Northing: 8750 N
Easting: 8956.6 E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: OCTOBER 13, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
16.5		-48.5	89.0		-43.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. Sample Series: FE08124 - FE08165.								
.00	16.45	OB	OVERBURDEN OB. 16.45 M NW casing.								
16.45	16.90	GC	GROUND CORE GC.								
16.90	30.70	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, brown and TAN, non-magnetic and average hardness. Well developed foliation at 48 to 63 dca. The dominant fracture set is perpendicular to foliation at 42 to 60 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to foliation at 37 to 79 dca, with carbonate fracture-filling. FROM 18.70 TO 19.60 24e. 80% E beds, 10% poorly to moderately developed ea beds, 1% magnetite, 9% intercalated Bvol.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			FROM 24.45 TO 25.45 24e. 80% E beds, 5% f beds, trace magnetite, 5% chert beds, 10% poorly developed ea beds. Trace pyrrhotite stringers. FROM 29.25 TO 29.70 24e. 80% E beds, 15% f beds, 5% poorly developed ea beds and trace magnetite. GEOLOG DATA. 0% Bedded grunerite, 0% garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 5% pervasive biotization. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, trace quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 63 dca. 18.70 19.60 24e. 24.45 25.45 24e. 29.25 29.70 24e. 18.70 19.60 24e trace chalcopyrite. 24.45 25.45 24e 1% quartz veins. 29.25 29.70 24e 50% quartz-carbonate veins.								
30.70	32.45	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained, with garnets to 1 cm, green, grey, white, and pink, very weakly magnetic and average hardness. This unit is composed of 60% e beds, 10% poorly developed ea beds, 10% f beds 10% intercalated Bvol, 10% chert beds and trace magnetite. Bedding is moderately preserved at 58 to 61 dca, with beds from 2 mm to 1.5 cm wide. One right limb fold with axial plane at 57 dca. The dominant fracture set is perpendicular to bedding at 36 and 44 dca, with carbonate fracture-filling. There is one fracture oblique to bedding at 11 dca, with carbonate fracture-filling. GEOLOG DATA. 10% Bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 8% bedded biotite. Trace disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 1% Quartz veins, 8% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 55 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			30.70 31.70 24e 15% quartz-carbonate veins. 31.70 32.45 24e 15% quartz-carbonate veins.								
32.45	56.65	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 39 to 60 dca. Quartz veins generally blue grey, except large, > 10cm, quartz veins which become milky white in the center of the vein. Quartz veins generally are parallel to foliation and include host rock. The dominant fracture set is perpendicular to foliation at 38 to 58 dca, with carbonate and rarely iron oxide. The secondary fracture set is subparallel to foliation at 37 to 60 dca, with carbonate fracture-filling. The tertiary fracture set is oblique to foliation at 9 to 45 dca, with carbonate fracture-filling. FROM 55.45 TO 55.95 24fe. 50% E beds, 25% f beds, 10% poorly developed ea beds, 15% intercalated Bvol. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 10% pervasive carbonatization, 8% pervasive chlorite, 10% pervasive biotization. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 6% Quartz veins, trace quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 60 dca. 55.45 55.95 24fe. FE08130 DUPLICATE OF FE08129 0.24 ns ns. 55.45 55.95 24fe 10% quartz-carbonate veins. 55.95 56.65 Bvol.								
56.65	57.35	24EF	INTRAFORMATIONAL IRON FORMATION 24ef. Fine grained, with garnets to 7 mm, green, brown, pink and yellow, very weakly magnetic and average hardness. This unit is composed of 60% e beds, 25% f beds, 10% chert beds, 5% poorly developed ea beds and trace magnetite. Bedding is moderately preserved at 73 dca, with beds from 1 to 3 cm wide. No folding or fractures. GEOLOG DATA. 2% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 20% bedded biotite. 1% Pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			chalcopyrite, trace disseminated magnetite. 2% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 66 dca. 56.65 57.35 24ef 2% quartz veins.								
57.35	60.35	4F	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained, with garnets to 3 mm, brown, pink, green and yellow, very weakly magnetic and average hardness. This unit is composed of 90% f beds, 5% e beds, 2% gruneritized beds, and 3% chert beds. Bedding is well preserved at 60 to 65 dca, with beds from 2 mm to 1.5 cm wide. Folding is right limb with axial planes at 64 and 65 dca. Intense quartz flooding from 59.35 to 60.35, disrupting bedding. Fractures are perpendicular to bedding at 33 and 45 dca, with carbonate fracture-filling. Fractures are subparallel to bedding at 69 and 51 dca, with carbonate and chlorite fracture-filling. MINERALIZED ZONE. From 59.35 to 60.35 1% pyrrhotite, 1% pyrite, 1 speck VISIBLE GOLD, 60% quartz flooding. GEOLOG DATA. 1% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 70% bedded biotite. 1% Pyrrhotite stringers, 1 speck VISIBLE GOLD, 1% stringers pyrite, trace crystals arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 60% Quartz flooding, 1% quartz veins, 0% quartz-carbonate veins, 0% carbonate stringers. Lower contact sharp at 65 dca. 57.35 58.35 4f trace quartz veins, right limb fold, axial plane 64 dca. 58.35 59.35 4f trace quartz veins. 59.35 60.35 4f 1% frambodial pyrite, trace arsenopyrite, 1 speck VISIBLE GOLD, 60% quartz flooding.								
60.35	80.50	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea, . FROM 60.35 TO 76.20 4ea. Fine grained, with garnets and glomeroporphyritic garnet clusters to 1.5 cm, yellow, pink, and grey, weakly to moderately magnetic and hard. This unit is composed of 70% well developed ea beds, 15% chert beds, 5%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			laminated and disseminated magnetite, 5% f beds, 5% remnants of e beds. Bedding is moderately preserved at 43 to 85 dca, with beds from laminae to 1.5 cm wide. Folding is left limb from 64.00 to 67.00, axial planes from 45 to 66 dca. Folding in the remainder of the unit is right limb with axial planes from 43 to 61 dca. The dominant fracture set is perpendicular to bedding at 31 to 50 dca, with carbonate fracture-filling. There is one fracture subparallel to bedding at 68 dca, with carbonate fracture-filling. MINERALIZED ZONE. From 60.35 to 62.00 1% pyrrhotite, 15% quartz flooding, trace pyrite and arsenopyrite. From 67.00 to 74.00 1% pyrrhotite, 11% quartz flooding, trace arsenopyrite, pyrite and chalcopyrite. 12 specks VISIBLE GOLD. GEOLOG DATA. 20% Bedded grunerite, 50% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 5% bedded biotite. Trace stringers and disseminated pyrrhotite, 12 specks VISIBLE GOLD, trace stringers pyrite, trace crystals arsenopyrite, trace stringers chalcopyrite, 1% laminated and 4% disseminated magnetite. 10% Quartz flooding, trace quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 67 dca. FE08140 STANDARD III 4.59 ns ns. FE08141 BLANK 0.07 ns ns. FE08150 DUPLICATE OF FE08149 1.34 ns ns. FROM 76.20 TO 80.50 4eab. Fine grained, with garnets and glomeroporphyritic garnet clusters to 1 cm, grey, yellow, pink and green, moderately magnetic and hard. This unit is composed of 50% poorly to well developed ea beds, 15% laminated and disseminated magnetite, 10% e beds and remnants of e beds, 20% chert beds and 5% f beds. Bedding is moderately to well preserved at 56 to 72 dca, with beds from laminae to 1.5 cm. Folding is right and left limb around fold crests and toughs at 53 to 87 dca. Fold crests between 76.50 and 77.90 with axial planes of 70 to 90 dca. Fractures are perpendicular to bedding at 22 and 66 dca, with carbonate fracture-filling. GEOLOG DATA. 10% Bedded grunerite, 35% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 4% bedded biotite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Trace pyrrhotite stringers and blebs, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% laminated and 5% disseminated magnetite. 1% Quartz flooding, 0% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 28 dca. FE08160 STANDARD III 5.28 ns ns. FE08161 BLANK 0.14 ns ns. 60.35 61.00 4ea 6% quartz flooding, right limb fold, axial plane 56 dca. 61.00 62.00 4ea 20% quartz flooding, trace pyrite and arsenopyrite. 62.00 63.00 4ea 10% quartz flooding. 63.00 64.00 4ea 8% quartz flooding. 64.00 65.00 4ea 5% quartz flooding, left limb fold, axial plane 62 dca. 65.00 66.00 4ea 3% quartz flooding, fold axial plane 45 dca. 66.00 67.00 4ea 5% quartz flooding, left limb fold, axial plane 66 dca. 67.00 68.00 4ea 10% quartz flooding, trace pyrite and arsenopyrite, right limb fold, axial plane 60 dca. 68.00 69.00 4ea 50% quartz flooding, trace pyrite, arsenopyrite and chalcopyrite, 11 specks VISIBLE GOLD. 69.00 70.00 4ea 3% quartz flooding, trace arsenopyrite, right limb fold, axial plane 61 dca. 70.00 71.00 4ea 10% quartz flooding, trace arsenopyrite. 71.00 72.00 4ea 10% quartz flooding, trace arsenopyrite. 72.00 73.00 4ea 2% quartz flooding, right limb fold, axial plane 50 dca. 73.00 74.00 4ea 5% quartz flooding, 1 speck VISIBLE GOLD. 74.00 75.00 4ea 5% quartz flooding, right limb fold, axial plane 57 dca. 75.00 76.20 4ea 20% quartz flooding, right limb fold, axial plane 43 dca. 76.20 77.00 4eab 15% quartz flooding, fold crest axial plane 72 dca. 77.00 78.00 4eab 3% quartz veins, fold crest axial plane 74 dca. 78.00 79.00 4eab 3% quartz veins. 79.00 80.00 4eab 10% quartz flooding, fold, axial plane 57 dca. 80.00 80.50 4ea 1% quartz veins, right limb fold, axial plane 87 dca.								
80.50	82.90	4B	CHERT - MAGNETITE IRON FORMATION 4bf. Fine grained, with garnets to 2 mm, grey, black and yellow, strongly magnetic and hard. This unit is composed of 55% laminated and bedded magnetite, 20% f beds, 20% chert beds, and 5% e beds. Bedding is well preserved at 57 to 65 dca, with beds from laminae to 1 cm wide. One left limb fold with axial plane at 64 dca. Fracture cleavage is moderately developed at 52 to 72 dca. Fractures are subparallel to bedg at 57 to 69 dca, with carbonate fracture-filling. MINERALIZED ZONE. From 81.00 82.90 1% pyrrhotite, 5% quartz veins, trace arsenopyrite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 20% Bedded grunerite, 5% bedded garnets, 0% silicification, 1% pervasive carbonatization associated with gruneritized beds, trace bedded chlorite, 15% bedded biotite. 1% Disseminated and stringers pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace crystals arsenopyrite, 0% chalcopyrite, 50% bedded and 5% disseminated magnetite. 5% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 57 dca. 80.50 81.00 4bf 2% quartz veins. 81.00 82.00 4bf 10% quartz veins, left limb fold, axial plane 69 dca. 82.00 82.90 4bf trace quartz veins, trace arsenopyrite.								
82.90	89.00	2	BASALT Fine grained, grey - green to brown, non-magnetic and average hardness. Well developed foliation at 59 to 67 dca. The dominant fracture set is subparallel to foliation at 56 to 69 dca, with carbonate fracture-filling. The secondary fracture set is perpendicular to foliation at 17 to 25 dca, with carbonate fracture-filling. The tertiary fracture set is oblique to foliation at 11 to 22 dca, with carbonate fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 20% biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. 82.90 83.90 2								
89.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex labs in Thunder Bay, Ontario. Sample analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge samples not recovered. DRILLING HISTORY. Overburden was drilled with a tricone bit. 0.00 to 16.45 hole cased with 16.45 metres NW casing. 16.45 to 16.90 ground core. 16.90 to 89.00 standard 3 metre core barrel used.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Dutem plug installed in upper part or hole and one bag of cement on top of plug. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 16.46 M -48.5. Sperry Sun Tests:. 89.00 M - 43.5.								

Date: 29 Mar, 1994

PLACER DOME CANADA LIMITED

DRILL HOLE RECORD

Northing: 8850.000
Easting: 8971.000
Elevation: 5313.600

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 10.40
Completed: October 14, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test OP Zone

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846
199 m south,103 m east to post 2 of 529846
Date(s) Logged: October 22, 1993

Drill Hole: 506-712

Northing: 8850.0N
Easting: 8973E
Survey: NO
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: October 14, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
.00	10.40	OB	OVERBURDEN								
10.40		OB	END OF HOLE								
			DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.								
			Hole aborted. No sludge samples taken.								
			DRILLING HISTORY. 0.00 to 10.40 overburden was drilled using a tricone bit. Hole abandoned.								
			SURVEY HISTORY. No tests taken.								

DRILL HOLE RECORD

Northing: 8849.200
Easting: 8927.100
Elevation: 5313.600

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 66.49
Completed: October 15, 1993
Drilled by:
Logged by: M. Roberts
Purpose: To test OP Zone (open pit potential) on section 8850NLogged: October 30 - 31, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846 (21m),Pa529845 (45m)
170 m south,136 m east to post 2 of Pa529846

Drill Hole: 506-713
Northing: 8847.0N
Easting: 8928.4E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: October 14, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
14.6		-49.0	66.0		-43.3						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE08719 TO FE08754 (36 SAMPLES).								
.00	15.00	OB	OVERBURDEN OB. Casing from 0.00 to 14.60 metres.								
15.00	50.76	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, grey, white, non-magnetic, and moderately hard. Moderately foliated at 45 to 63 dca. Fracture sets at 17 to 31, 43 to 60 and 135 to 175 dca. GEOLOG DATA:. Alteration: 0% grunerite, trace bedded garnet, 0% silicification, trace wisps carbonatization, 0% chlorite, 5% bedded biotite. Mineralization: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, trace blebs and WISPs chalcopyrite, 0% magnetite. Veining: 2% 1 cm to 22 cm quartz veins, 1% vein and stringer quartz-carbonate, 0% calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact gradual at 66%.								
			16.93 A 5 cm quartz vein, upper contact sharp at 50 dca, lower contact sharp at 48 dca.								
			23.08 23.27 24e 5% blebs and stringers pyrrhotite, 25% 4e beddings. Upper contact sharp at 55 dca, lower contact gradual at 68 dca. At 23.11 a 5 cm quartz vein, upper contact sharp at 61 dca, lower contact sharp at 61 dca.								
			23.08 23.27 24e, 25% quartz veins, 10% quartz flooding.								
			23.27 24.00 Bvol, 10% calcite stringers.								
			24.00 24.43 Bvol, 10% calcite stringers.								
			24.43 24.61 24e 1% blebs pyrrhotite, 70% quartz veining, 25% 4e beds, upper contact sharp at 48 dca, lower contact sharp at 57 dca. 24.50, A 11 cm quartz vein, upper contact sharp at 32 dca, lower contact sharp at 57 dca.								
			24.43 24.61 24e, 70% quartz veining.								
			24.61 24.96 Bvol, 3% calcite stringer.								
			24.96 25.68 Trace blebs pyrrhotite, trace WISPs chalcopyrite, 10% quartz veins, 10% quartz-carbonate.								
			24.96 26.00 Bvol, trace WISPs chalcopyrite, 10% quartz veins, 10% quartz-carbonate veins.								
			26.00 27.00 Bvol, trace WISPs chalcopyrite, 2% quartz stringers.								
			27.00 27.74 Bvol, trace bleb pyrite, 4% quartz veining.								
			27.74 28.80 24ea, trace blebs pyrrhotite, 12% quartz veining, 3% quartz flooding, trace calcite stringers. Upper contact gradual at 65 dca, lower contact gradual at 58 dca.								
			27.74 28.80 24ea, 12% quartz veining.								
			28.80 30.00 Bvol, at 29.20, a 22 cm quartz vein, chloritic.								
			29.20 A 22 cm quartz vein, chloritic. Upper contact sharp at 52 dca, lower contact sharp at 46 dca.								
			42.08 A 16 cm quartz vein, upper contact sharp at 42 dca, lower contact sharp at 48 dca.								
			45.00 45.84 Bvol, 4% quartz-carbonate.								
			45.84 46.61 24e, trace blebs pyrrhotite, trace blebs pyrite, 2% calcite stringers. Upper contact gradual at 45 dca, lower contact gradual at 51 dca.								
			FE08720 Standard III 4.66 ns ns.								
			FE08721 Blank 0.10 ns ns.								
			FE08730 Duplicate of FE08729 0.41 ns ns.								
			45.84 46.61 24e, trace bleb pyrite, 2% calcite stringers.								
			46.61 47.40 Bvol, trace bleb chalcopyrite, trace calcite stringers.								
			50.00 50.76 Bvol, trace blebs chalcopyrite, 6% quartz-calcite veins.								
50.76	64.04	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, green, yellow, strongly magnetic and hard. This unit is composed of 82% 4b beds, 15% pale yellow carbonate beds and 3% 4f								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			beds. Moderately well preserved boudinaged bedding, up to 3 cm, at 47 to 78 dca. Folds throughout unit with axial planes at 51 to 70 dca. Fractures perpendicular to bedding at 134 to 158 dca, and one fracture sub parallel to bedding at 38 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 1% bedded garnet, 0% silicification, 15% pale yellow bedded and pervasive carbonatization, trace bedded chlorite, 3% bedded biotite. Mineralization: trace blebs and stringers pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, trace blebs arsenopyrite, 0% chalcopyrite, 30% laminae magnetite. Veining: 5% boudinaged quartz veins, 1% folding quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Mineralized zone:. From 57.00 to 63.12 trace blebs and stringers pyrrhotite, trace blebs arsenopyrite, trace blebs pyrite 1% quartz veins, trace quartz flooding. Lower contact sharp at 58 dca. 50.76 51.00 4b, 15% 4f beds. 51.00 52.00 4b, trace blebs arsenopyrite, trace blebs pyrite, 7% quartz veins. 52.00 53.00 4b, trace blebs pyrite, 11% quartz veins. At 52.50 fold with axial plane at 62 dca. 52.63 A 3 cm quartz vein, upper contact sharp at 61 dca, lower contact sharp at 65 dca. 53.00 54.00 4b, trace blebs pyrite, 4% quartz veins, 4% quartz flooding. 54.00 55.00 4b, trace blebs arsenopyrite, 30% quartz veins. Left limb fold at 54.47 with axial plane at 70 dca. 54.54 A 15 cm quartz vein, contacts sharp at 61 dca. 54.83 A 14 cm quartz vein, upper contact sharp at 52 dca, lower contact sharp at 58 dca. 55.00 56.00 4b, 6% quartz veins, 5% quartz flooding. At 55.57 fold with axial plane at 51 dca. 56.00 57.00 4b, 4% boudinaged quartz veins. Right limb fold at 56.70 with axial plane at 57 dca. 57.00 58.00 4b, 2% boudinaged quartz veins, trace blebs arsenopyrite. At 57.85, fold with axial plane at 66 dca. 58.00 59.00 4b, trace blebs arsenopyrite, 5% quartz veins. At 58.69, left limb fold with axial plane at 66 dca. 59.00 60.00 4b, <1% blebs arsenopyrite, trace blebs pyrite. 60.00 61.00 4b, trace blebs pyrite, 1% boudinaged quartz stringers. At 60.59, fold with axial plane at 70 dca. 61.00 62.00 4b, at 61.25, W fold with axial plane at 59 dca. 62.00 63.12 4b, trace blebs arsenopyrite, trace blebs pyrite, 4% quartz veins, 2% quartz flooding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			63.12 63.54 2. Upper contact 64 and lower contact 55 dca. FE08740 Standard III 4.59 ns ns. FE08741 Blank 0.17 ns ns. Duplicate of FE08749 0.10 ns ns. 63.12 63.54 2, trace quartz-carbonate. 63.54 64.04 4b, 2% boudinaged quartz veins.								
64.04	66.49	2	BASALT 2 - possible metased. Fine grained, grey, black, green, non-magnetic and moderately hard. Moderately foliated at 56 dca. Fracture sets at 12 to 27, one fracture perpendicular to foliation at 136 dca, and one fracture parallel to foliation at 63 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 2% wisps and fracture-filling carbonatization, 3% pervasive chlorite, 10% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: trace vein quartz, 2% bedded quartz-carbonate, trace calcite as wisps. 64.04 65.00 2, 4% quartz veins, 3% quartz-carbonate.								
66.49		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. No sludge samples taken. DRILLING HISTORY. 0.00 to 14.60 metres: Tricone and NW casing. 15.00 to 66.49 metres: standard 3 m corebarrel used. Dutem plug set 6 metres below casing, and one bag of cement used above plug. CASING LEFT IN HOLE AND CAPPED. DOWNHOLE SURVEY HISTORY. Acid Test:. 14.63 Metres -49.00. Sperry Sun:. 66.00 Metres -43.25.								

DRILL HOLE RECORD

Northing: 8799.600
Easting: 8953.200
Elevation: 5307.100

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 97.00
Completed: OCTOBER 15, 1993
Drilled by:
Logged by: P. GERTZBEIN
Purpose: TO TEST THE OP ZONE (OPEN PIT POTENTIAL) ON LINE 8800 N.ged: NOV 5 - 7, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846
150 m south,84 m east to post 2 of Pa529846

Drill Hole: 506-714
Northing: 8800 N
Easting: 8955.8 E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: OCTOBER 14,1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
10.4		-51.0	97.0		-48.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. Sample Series: FE08166 - FE08257 (92 samples).								
.00	10.36	OB	OVERBURDEN OB. 10.40 M NW casing.								
10.36	10.50	GC	GROUND CORE GC.								
10.50	13.25	AVOL	FELSIC TO INTERMEDIATE VOLCANICS Avol. Fine grained, grey, brown and green, non-magnetic and average hardness. Well developed foliation at 45 to 51 dca. 1% Interbedded e beds, 5 to 10% biotite rich sections with staurolite. The dominant fracture set is subparallel to foliation at 43 to 50 dca, with carbonate and sericite fracture-filling. The secondary fracture set is oblique to foliation at 20 to 65 dca, with carbonate and iron oxide. GEOLOG DATA. 0% Grunerite, trace disseminated garnets, 0% silicification, 0% carbonatization,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			trace bedded chlorite, 8% pervasive biotization, 1% pervasive staurolite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, trace quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 42 dca.								
13.25	15.45	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained, with garnets to 8 mm, brown, green, pink and grey, weakly magnetic and average hardness. This unit is composed of 45% f beds, 25% e beds, 15% intercalated Bvol, 10% chert beds, 10% ea beds and trace disseminated magnetite. Bedding is moderately preserved at 54 to 64 dca, with beds from 2 mm to 1.5 cm wide. The dominant fracture set is perpendicular to bedding at 40 to 58 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to bedding at 58 to 63 dca, with carbonate fracture-filling. The tertiary fracture set is oblique to bedding at 20 to 54 dca, with carbonate and iron oxide fracture-filling. GEOLOG DATA. 8% Bedded grunerite, 25% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 30% bedded biotite 3% pervasive staurolite, and 5% sericitization. Trace disseminated and stringers pyrrhotite, 0 specks VISIBLE GOLD, trace disseminated pyrite, 0% arsenopyrite, trace disseminated chalcopyrite, trace disseminated magnetite. 2% Quartz veins, 1% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 65 dca. 13.25 14.00 24fe. 14.00 15.00 24fe 1% quartz veins. 15.00 15.45 24fe 3% quartz veins, trace pyrite and chalcopyrite.								
15.45	27.50	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 42 to 60 dca. From 22.60 to 24.00 5% e beds with trace disseminated magnetite and trace grunerite rimming e beds. GEOLOG DATA. Trace bedded grunerite, trace bedded garnets, 0% silicification, trace pervasive carbonatization, 8% pervasive chlorite, 18% pervasive biotization, and trace sericitization.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace stringers pyrite, trace stringers chalcopyrite, 0% arsenopyrite, trace disseminated magnetite. 2% Quartz veins, 4% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 40 dca. FE08170 DUPLICATE OF FE08169 1.13 ns ns. 22.60 24.00 Bvol with 5% e beds, trace pyrite and chalcopyrite, 5% quartz veins.								
27.50	30.20	24EA	INTRAFORMATIONAL IRON FORMATION 24ea. Fine grained, with garnets and glomeroporphyritic garnet clusters to 1.5 cm, grey, green, pink and yellow, weakly to moderately magnetic and hard. This unit is composed of 25% moderately developed ea beds, 40% e beds and remnants of e beds, 25% chert beds, 5% f beds, 5% disseminated magnetite. Bedding is well preserved at 53 dca, with beds from 5 mm to 1.5 cm wide. From 27.50 to 28.35 right limb fold, axial planes 43 to 44 dca. At 28.50 fold crest axial plane 47 dca. From 28.60 to 30.20 left limb fold, axial plane 49 to 53 dca. The dominant fracture set is perpendicular to bedding at 42 to 70 dca, with carbonate and and iron oxide fracture-filling. GEOLOG DATA. 10% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 4% bedded biotite. Trace disseminated and stringers pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite stringers, 0% arsenopyrite, trace stringers chalcopyrite, 5% disseminated magnetite. 5% Quartz veins, 0% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 65 dca. 27.50 28.50 24ea 5% quartz veins, trace chalcopyrite, right limb fold axial plane 43 dca. 28.50 29.50 24ea 3% quartz veins, trace pyrite, right limb fold, axial plane 44 dca. 29.50 30.20 24ea 5% quartz veins, trace chalcopyrite left limb fold, axial plane 49 dca.								
30.20	33.35	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 49 to 53 dca. The dominant fracture set is perpendicular to foliation at 42 to 72 dca, with carbonate and minor iron oxide. The secondary fracture set is subparallel to foliation at 50 to 65 dca with carbonate fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			FROM 31.90 TO 32.25 24e. 80% E beds, 5% f beds, 5% ea beds and 10% chert beds, trace pyrrhotite. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, trace pervasive carbonatization, 10% pervasive chlorite, 15% pervasive biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 0% Quartz veins, 0% quartz-carbonate veins, 2% carbonate stringers. Lower contact sharp at 53 dca.								
33.35	34.90	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained, with garnets to 1 cm, green, white, brown and yellow, weakly magnetic and average hardness. This unit is composed of 50% e beds, 15% poorly developed ea beds, 15% intercalated Bvol, 10% f beds, 5% chert beds and 5% disseminated magnetite. Bedding is moderately preserved at 53 to 58 dca, with beds from 5 mm to 1.5 cm wide. Two fractures perpendicular to bedding at 50 and 65 dca and one fracture subparallel to bedding at 60 dca. GEOLOG DATA. 7% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 5% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% disseminated magnetite. 3% Quartz veins, 15% quartz-carbonate veins, 2% carbonate stringers. Lower contact sharp at 67 dca. 33.35 34.00 24e 20% quartz-carbonate veins. 34.00 34.90 24e 5% quartz veins, 10% quartz-carbonate veins.								
34.90	58.20	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and quartz vein hardness. Well developed foliation at 38 to 66 dca. The dominant fracture set is perpendicular to foliation at 35 to 55 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to foliation at 35 to 65 dca, with carbonate fracture-filling. FROM 56.85 TO 57.10 24ea. 80% E beds, 15% gruneritized beds, 5% disseminated magnetite. 50% quartz-carbonate veins.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 5% pervasive carbonatization, 5% pervasive chlorite, 20% pervasive biotization. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% arsenopyrite, 0% pyrite, 0% chalcopyrite, 0% magnetite. 5% Quartz veins, 3% quartz-carbonate veins, 1% carbonate stringers. Lower contact sharp at 57 dca.								
58.20	60.10	24FE	INTRAFORMATIONAL IRON FORMATION 24ef. Fine grained, with garnets to 1 cm, green, brown, grey and pink, weakly magnetic and average hardness. This unit is composed of 70% e beds, 20% f beds, 10% poorly developed ea beds, and trace disseminated magnetite. Bedding is moderately preserved at 60 to 62 dca, with beds from 2 mm to 2.5 cm wide. Folding is right limb with axial planes at 45 to 48 dca. The dominant fracture set is subparallel to bedding at 40 to 70 dca, with carbonate fracture-filling. The secondary fracture set is perpendicular to bedding at 35 dca, with carbonate fracture-filling. FROM 58.75 TO 59.15 Bvol. Fine grained, green to brown, 60% biotization, 10% carbonate stringers, well developed foliation at 60 dca. GEOLOG DATA. 5% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 15% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 2% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 57 dca. 58.20 59.20 24ef, Bvol right limb fold, axial plane 48 dca. 59.20 60.10 24ef right limb fold, axial plane 45 dca.								
60.10	62.60	4F	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained, with garnets to 3 mm, brown, pink, yellow and green, very weakly magnetic and average hard. This unit is composed of 85% f beds, 5% chert beds, 10% moderately developed ea beds. Bedding is well preserved at 58 to 68 dca, with beds from 1 mm to 1 cm wide. There is one right limb fold with axial plane at 50 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			There are three fractures one subparallel to bedding at 70 dca, and two fractures at angles oblique to bedding at 28 and 32 dca, all have carbonate fracture-filling. GEOLOG DATA. 5% Bedded grunerite, 20% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 70% bedded biotite, 2% pervasive staurolite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. 1% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 70 dca. FE08180 STANDARD III 5.14 ns ns. FE08181 BLANK 0.07 ns ns. 60.10 61.00 4f 3% quartz veins, right limb fold, axial plane 50 dca. 61.00 62.00 4f trace pyrite, chalcopyrite. 62.00 62.60 4f 1% quartz veins.								
62.60	87.55	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea, , 4eab. FROM 62.60 TO 68.65 4eaf. Fine grained, with garnets and glomeroporphyritic garnet clusters to 1 cm, yellow, pink, brown, green and grey, weakly to moderately magnetic and hard. This unit is composed of 40% moderately to well developed ea beds, 25% f beds, 20% chert beds, 5% laminated and disseminated magnetite, 10% e beds and remnants of e beds. Bedding is well preserved at 52 to 67 dca, with beds from laminae to 2 cm wide. From 62.60 to 65.00 right limb fold, axial planes 36 to 56 dca. From 65.00 to 68.00 left limb fold, axial planes 43 to 64 dca. There is one fracture perpendicular to bedding at 50 dca, with carbonate fracture-filling. GEOLOG DATA. 5% Bedded grunerite, 30% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 20% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace arsenopyrite crystals, trace pyrite stringers, 0% chalcopyrite, 1% laminated and 4% disseminated magnetite. 4% Quartz flooding and 1% quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 44 dca. FE08190 DUPLICATE OF FE08189 0.34 ns ns. FROM 68.65 TO 82.75 4ea.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained, with garnets and glomeroporphyritic garnet clusters to 1.5 cm, yellow, pink, grey and green, weakly to moderately magnetic and hard. This unit is composed of 60% well developed ea beds, 25% chert beds, 10% e beds and remnants of e beds, 5% disseminated and laminated magnetite, and trace f beds Bedding is moderately to well preserved at 43 to 80 dca, with beds from laminae to 2 cm wide. From 71.00 to 73.00 right limb fold, axial planes 50 to 53 dca. From 73.00 to 75.00 left limb fold, axial planes 42 to 57 dca. Fold crest at 72.90 axial plane 78 dca. From 76.00 to 78.00 right limb fold, axial plane 38 to 60 dca. Fold crest at 78.15, axial plane 55 dca. From 78.30 to 82.75 right, left and M type folding, axial planes 58 to 84 dca. Fold crest at 80.10 axial plane 75, and 82.30, axial plane 75 dca. The dominant fracture set is perpendicular to bedding at 40 to 58, with carbonate fracture-filling, and 70 to 83 dca, with carbonate fracture-filling. MINERALIZED ZONE. From 71.00 to 72.00 1% pyrrhotite, 1 speck VISIBLE GOLD, 15% quartz flooding, trace arsenopyrite. From 75.00 to 79.00 5% pyrrhotite, 3 specks VISIBLE GOLD, 12% quartz flooding, trace arsenopyrite and chalcopyrite. GEOLOG DATA. 20% Bedded grunerite, 30% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. 1% Pyrrhotite stringers, blebs and disseminated, 4 specks VISIBLE GOLD, trace stringers pyrite, trace crystals arsenopyrite, trace blebs chalcopyrite, 1% laminated and 4% disseminated magnetite. 6% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 85 dca. FE08200 STANDARD III 4.87 ns ns. FE08201 BLANK 0.03 ns ns. FROM 82.75 TO 87.55 4eab. Fine grained, with garnets and glomeroporphyritic garnet clusters to 1.0 cm, yellow, pink, black, grey and green, moderately to strongly magnetic and hard. This unit is composed of 40% moderately developed ea beds, 25% chert beds, 20% laminated and disseminated magnetite, 10% e beds and remnants of e beds, and 5% f beds. Bedding is moderately to well preserved at 58 to 75 dca, with beds from laminae to 1.5 cm wide. Folding is right limb with axial planes at 28 to 55 dca. Fracture cleavage is well developed at 44 to 61 dca. The dominant fracture set is perpendicular to bedding at 42 to 45 dca, with								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			carbonate fracture-filling. GEOLOG DATA. 10% Bedded grunerite, 30% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, 4% bedded biotite. Trace pyrrhotite blebs, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 15% laminated and 5% disseminated magnetite. 20% Quartz flooding, 0% quartz-carbonate veins, 2% carbonate stringers. Lower contact sharp at 81 dca. FE08210 DUPLICATE OF FE08209 0.07 ns ns. 62.60 63.00 4eaf 2% quartz veins. 63.00 64.00 4eaf trace quartz flooding, right limb fold, axial plane 56 dca. 64.00 65.00 4eaf, 1% quartz flooding, right limb fold axial plane 36 dca. 65.00 66.00 4eaf, 13% quartz flooding, right limb fold, axial plane 43 dca. 66.00 67.00 4eaf, 10% quartz flooding, trace arsenopyrite, left limb fold, axial plane 58 dca. 67.00 68.00 4eaf, 2% quartz veins, left limb fold axial plane 64 dca. 68.00 68.65 4eaf, 2% quartz veins, folding axial plane 80 dca. 68.65 70.00 4ea 2% quartz flooding. 70.00 71.00 4ea 1% quartz flooding. 71.00 72.00 4ea 15% quartz flooding, trace arsenopyrite, right limb fold, axial plane 55 dca. 72.00 73.00 4ea 1% quartz flooding, trace arsenopyrite, right limb fold, axial plane 53 dca. 73.00 74.00 4ea left limb fold, axial plane 42 dca. 74.00 75.00 4ea 2% quartz flooding, trace arsenopyrite, left limb fold, axial plane 57 dca. 75.00 76.00 4ea 1 speck VISIBLE GOLD, 10% quartz flooding, trace arsenopyrite, right limb fold, axial plane 60 dca. 76.00 77.00 4ea trace arsenopyrite, 5% quartz flooding. 77.00 78.00 4ea 1 speck VISIBLE GOLD, 15% quartz flooding, trace arsenopyrite and chalcopyrite, right limb fold, axial plane 38 dca. 78.00 79.00 4ea 1 speck VISIBLE GOLD, 20% quartz flooding, trace arsenopyrite, fold crest, axial plane 56 dca. 79.00 80.00 4ea 3% quartz flooding, right limb fold, axial plane 74 dca. 80.00 81.00 4ea right limb fold, axial plane 58 dca. 81.00 82.00 4ea fold crest axial plane 75 dca. 82.00 82.75 4ea fold crest axial plane 75 dca. 82.75 84.00 4eab right limb fold, axial plane 52 dca. 84.00 85.00 4eab right limb fold, axial plane 28 dca, 10% quartz flooding. 85.00 86.00 4eab 20% quartz flooding, right limb fold axial plane 35 dca. 86.00 87.00 4eab 20% quartz flooding, fold axial plane 55 dca. 87.00 87.55 4eab 80% quartz flooding.								
87.55	91.30	4B	CHERT - MAGNETITE IRON FORMATION 4bf.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained, with garnets to 3 mm, grey, black and pink, strongly magnetic and hard. This unit is composed of 70% laminated and thinly bedded magnetite, 20% f beds and 10% chert beds. Bedding is well preserved at 50 to 70 dca, with beds from laminae to 5 mm wide. Folding is right and left limb at 47 to 65 dca. Fracture cleavage is well developed at 57 to 69 dca. One fracture set is perpendicular to bedding at 28 to 30 dca, with carbonate fracture-filling. The other fracture set is subparallel to bedding at 57 to 60 dca. GEOLOG DATA. 1% Bedded grunerite, 10% bedded garnets, 0% silicification, trace pervasive carbonatization associated with gruneritized beds, trace bedded chlorite 20% bedded biotite. 1% Pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite crystals, 0% chalcopyrite, 20% laminated and 50% bedded magnetite. 12% Quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 63 dca. 87.55 88.25 4bf right limb fold, axial plane 47 dca. 88.25 89.10 4bf 40% quartz flooding, trace arsenopyrite. 89.10 90.50 4bf 3% quartz flooding, left limb fold, axial plane 65 dca. 90.50 91.30 4bf 10% quartz flooding, trace arsenopyrite.								
91.30	97.00	2	BASALT Fine grained, grey - green to brown, non-magnetic and average hardness. Well developed foliation at 54 to 67 dca. The dominant fracture set is subparallel to foliation at 55 to 72 dca, with carbonate and chlorite fracture-filling. The secondary fracture set is perpendicular to foliation at 25 to 35 dca, with carbonate fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, trace pervasive carbonatization, 2% pervasive chlorite, 20% pervasive biotization. 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, 0% quartz-carbonate veins, 1% carbonate stringers. 91.30 92.00 2								
97.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Sample prep at Chemex Labs in Thunder Bay, Ontario. Sample analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 3 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY. Overburden drilled with a tricone bit. 0.00 to 10.40 hole cased with NW casing. 10.40 to 97.00 standard 3 metre core barrel used. Dutem plug installed in top part of hole and one bag cement placed on top of plug. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid tests:. 10.40 M -51.0. Sperry Sun Tests:. 97.00 M -48.0.								

DRILL HOLE RECORD

Northing: 8799.600
Easting: 8954.000
Elevation: 5307.100

Collar Azi.: 228.40
Collar Dip: -67.00

Hole Length: 125.00
Completed: OCTOBER 17, 1993
Drilled by:
Logged by: P. GERTZBEIN
Purpose: TO TEST OP ZONE (OPEN PIT POTENTIAL) ON LINE 8800 N)

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846
151 m south,83 m east to post 2 of Pa529846
Logged: NOV 1 - 3, 1993

Drill Hole: 506-715

Northing: 8800 N
Easting: 8956.6 E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: OCTOBER 15,1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
9.1		-65.0	55.0		-64.8	125.0		-63.5			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. Sample Series: FE08035 - FE08095 (61 samples).								
.00	7.95	OB	OVERBURDEN Overburden, Granitic, Tonalitic and Avol boulders. 9.1 M NW casing.								
7.95	9.15	GC	GROUND CORE								
9.15	18.15	AVOL	FELSIC TO INTERMEDIATE VOLCANICS Avol. Fine grained, grey, and pale yellow. Non-magnetic and average hardness. Well developed foliation at 29 to 41 dca. The dominant fracture set is perpendicular to foliation at 35 to 60 dca, with minor carbonate fracture-filling. The secondary fracture set is subparallel to foliation at 31 to 50 dca with carbonate and iron oxide fracture-filling. From 9.15 to 15.70 20% white feldspar phenocryst to 2 mm. GEOLOG DATA. 0% Grunerite, trace disseminated garnets, 0% silicification, 0% carbonatization, trace pervasive chlorite, 1% pervasive biotization, 13% pervasive sericitization.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Trace pyrrhotite stringer, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. 1% Quartz veins, trace quartz tourmaline veins, trace quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 28 dca.								
18.15	22.45	24FE	INTRAFORMATIONAL IRON FORMATION 24fe. Fine grained, with garnets to 1 cm, brown, green, yellow and pink, moderately magnetic and average hardness. This unit is composed of 45% f beds, 25% e beds and remnants of e beds, 20% poorly to moderately developed ea beds, 10% disseminated and laminated magnetite. Bedding is moderately preserved at 23 to 41 dca. One left limb fold with axial plane at 26 dca. The dominant fracture set is perpendicular to bedding at 28 to 52 dca, with carbonate and iron oxide fracture-filling. The secondary fracture set is subparallel to bedding at 20 to 28 dca, with chlorite, carbonate and pyrite fracture-filling. GEOLOG DATA. 5% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, 1% bedded chlorite, 40% bedded biotite, 2% disseminated staurolite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite as stringers and fracture-filling, 0% arsenopyrite, 0% chalcopyrite, 2% laminated and 8% disseminated magnetite. 1% Quartz flooding, trace quartz-carbonate veins, 2% carbonate stringers. Lower contact sharp at 40 dca. FE08040 STANDARD III 4.80 ns ns. FE08041 BLANK 0.17 ns ns. 18.15 19.00 24fe 1% quartz veins. 19.00 20.00 24fe trace pyrite. 20.00 21.00 24fe trace pyrite, left limb fold, axial plane 26 dca. 21.00 22.00 24fe. 22.00 22.45 24ea 50% quartz flooding.								
22.45	70.25	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green to brown, non-magnetic and average hardness. Well developed foliation at 23 to 45 dca. The dominant fracture set is perpendicular to foliation at 16 to 70 dca, with carbonate fracture-filling. The secondary fracture set is subparallel to foliation at 35 to 56 dca, with carbonate and chlorite fracture-filling. From 40.30 to 45.50 Bleached to a light tan colour, with 1% boudinaged quartz veins and 15% biotization.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			FROM 27.75 TO 28.50 24e. This unit composed of 60% e beds and remnants of e beds, 20% chert beds, 10% disseminated magnetite, 5% ea beds, 5% gruneritized beds, 1% pyrrhotite and 1% quartz veins. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, trace pervasive carbonatization, 8% pervasive chlorite, 7% pervasive Biotization. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace to 1% quartz veins, trace quartz-carbonate veins, 2% carbonate stringers. Lower contact sharp at 41 dca. 27.75 28.50 24e. 27.75 28.50 24e 1% quartz veins. 69.25 70.25 Bvol.								
70.25	74.00	4F	GARNET-BIOTITE SCHIST 4f. Fine grained to medium grained, with garnets to 3 mm, brown, green, grey, yellow and pink, very weakly magnetic and average hardness. This unit is composed of 85% f beds, 5% chert beds, 5% e beds and 5% gruneritized beds. Bedding is well preserved at 40 to 46 dca. Folding is right limb with axial planes at 30 to 39 dca. The dominant fracture set is subparallel to bedding at 45 to 86 dca, with chlorite and carbonate fracture-filling. The secondary fracture set is perpendicular to bedding at 49 to 63 dca, with carbonate and pyrite fracture-filling. GEOLOG DATA. Trace bedded grunerite, 15% bedded garnets, 0% silicification, 0% carbonatization, trace chlorite as fracture-filling, 70% bedded biotite, and 5% disseminated staurolite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace pyrite as fracture-filling, 0% arsenopyrite, 0% chalcopyrite, trace disseminated magnetite. Trace quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 30 dca. 70.25 71.00 4f 1% quartz veins. 71.00 72.00 4f. 72.00 73.00 4f right limb fold, axial plane 30 dca. 73.00 74.00 4f right limb fold, axial plane 39 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
74.00	101.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, with garnets and glomeroporphyritic garnet clusters to 1.5 cm, grey, yellow, pink and green, weakly to moderately magnetite, and hard. This unit is composed of 55% well developed ea beds, 10% e beds and remnants of of e beds, 20% chert beds, 5% f beds, 10% disseminated and laminated magnetite. Bedding is moderately to well preserved at 6 to 64 dca. Folding is predominantly right limb with axial planes at 24 to 53 dca. Left limb folds have axial planes at 16 to 50 dca. The dominant fracture set is perpendicular to bedding at 36 to 65 dca, with carbonate, minor chlorite and pyrite fracture-filling. MINERALIZED ZONE. From 78.00 to 79.00 trace pyrrhotite, 15% quartz flooding, 3 specks VISIBLE GOLD. From 82.00 to 85.00 1.5% pyrrhotite, 7% quartz flooding, 2 specks VISIBLE GOLD. GEOLOG DATA. 15% Bedded grunerite, 40% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite and as fracture-filling, 4% bedded biotite. Trace pyrrhotite stringers and blebs, 5 specks VISIBLE GOLD, trace pyrite as fracture-filling, trace crystals arsenopyrite, 0% chalcopyrite, 2% laminated and 8% disseminated magnetite. Trace quartz veins, 5% quartz flooding, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact gradational over 10 cm at 61 dca. FE08050 DUPLICATE OF FE08049 0.07 ns ns. FE08060 STANDARD III 4.87 ns ns. FE08061 BLANK 0.07 ns ns. FE08070 DUPLICATE OF FE08069 0.07 ns ns. 74.00 75.00 4ea right limb fold, axial plane 14 dca. 75.00 76.00 4ea 8% quartz veins, right limb fold axial plane 28 dca. 76.00 77.00 4ea 20% quartz flooding, 2% quartz veins, right limb fold, axial plane 42 dca. 77.00 78.00 4ea 2% quartz flooding. 78.00 79.00 4ea 15% quartz flooding, 3 specks VISIBLE GOLD. 79.00 80.00 4ea 10% quartz flooding. 80.00 81.00 4ea 5% quartz flooding. 81.00 82.00 4ea 2% quartz flooding, right limb fold, axial plane 43 dca. 82.00 83.00 4ea 10% quartz flooding. 83.00 84.00 4ea 5% quartz flooding, trace arsenopyrite and pyrite. 84.00 85.00 4ea 5% quartz flooding, 2 specks VISIBLE GOLD, trace pyrite. 85.00 86.00 4ea 10% quartz flooding, trace pyrite, right limb fold, axial plane 33 dca. 86.00 87.00 4ea 4% quartz flooding, trace pyrite, right limb fold, axial plane 34 dca. 87.00 88.00 4ea right limb fold, axial plane 25 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			88.00 89.00 4ea 3% quartz flooding, left limb fold, axial plane 43 dca. 89.00 90.00 4ea 3% quartz veins, right limb fold, axial plane 43 dca. 90.00 91.00 4ea 1% quartz flooding, right limb fold, axial plane 34 dca. 91.00 92.00 4ea 1% quartz flooding, left limb fold, axial plane 16 dca. 92.00 93.00 4ea 1% quartz flooding, left limb fold, axial plane 16 dca. 93.00 94.00 4ea 3 quartz flooding, right limb fold, axial plane 51 dca. 94.00 95.00 4ea right limb fold, axial plane 48 dca. 95.00 96.00 4ea 15% quartz flooding, trace arsenopyrite. 96.00 97.00 4ea 15% quartz flooding, left limb fold, axial plane 38 dca. 97.00 98.00 4ea 15% quartz flooding, left limb fold, axial plane 50 dca. 98.00 99.00 4ea 8% quartz flooding. 99.00 100.00 4ea 30% quartz flooding. 100.00 101.00 4ea 13% quartz flooding.								
101.00	114.05	4B	CHERT - MAGNETITE IRON FORMATION 4bf. Fine grained, with garnets to 1 mm, black, grey and yellow, strongly magnetic and hard. This unit is composed of 60% laminated and thinly bedded magnetite, 25% f beds and 15% chert beds. Bedding is well preserved at 41 to 61 dca. Folding is predominantly right limb with axial planes at 42 to 62 dca. Left limb folding has axial planes at 49 to 60 dca. Moderately to well developed fracture cleavage at 46 to 57 dca. The dominant fracture set is perpendicular to bedding at 45 to 54 dca, with carbonate fracture-filling. The secondary fracture set is oblique to bedding at 10 to 14 dca with carbonate and chlorite fracture-filling. GEOLOG DATA. 2% Bedded grunerite, 10% bedded garnets, 0% silicification, 0% carbonatization, trace bedded chlorite, trace chlorite as fracture-filling, 15% bedded biotite. Trace pyrrhotite stringers, 0 specks VISIBLE GOLD, trace stringers and blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, 30% laminated and 30% thinly bedded magnetite. 10% Quartz veins, 0% quartz-carbonate veins, trace carbonate stringers. Lower contact sharp at 53 dca. FE08080 STANDARD III 5.28 ns ns. FE08081 BLANK 0.10 ns ns. FE08090 DUPLICATE OF FE08089 0.31 ns ns. 101.00 102.00 4bf 10% quartz veins, right limb fold, axial plane 44 dca. 102.00 103.00 4bf 1% quartz veins, right limb fold, axial plane 42 dca. 103.00 104.00 4bf trace pyrite, 13% quartz veins. 104.00 105.00 4bf 15% quartz veins, right limb fold, axial plane 43 dca. 105.00 106.00 4bf 1% quartz veins. 106.00 107.00 4bf 30% quartz veins, left limb fold, axial plane 49 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			107.00 108.00 4bf 40% quartz veins, trace pyrite, left limb fold, axial plane 51 dca. 108.00 109.00 4bf 20% quartz veins, right limb fold, axial plane 54 dca. 109.00 110.00 4bf 5% quartz veins, left limb fold, axial plane 60 dca. 110.00 111.00 4bf right limb fold, axial plane 50 dca, 1% quartz veins. 111.00 112.00 4bf 1% quartz veins, right limb fold, axial plane 60 dca. 112.00 113.00 4bf, 1% quartz veins, fold crest axial plane 62 dca. 113.00 114.05 4bf trace quartz veins.								
114.05	125.00	2	BASALT Fine grained, grey - green to brown, non-magnetic and average hardness. Well developed foliation at 26 to 42 dca. The dominant fracture set is perpendicular to foliation at 32 to 46 dca, with carbonate fracture-filling. The secondary fracture set is oblique to foliation at 0 to 24 dca, with carbonate and chlorite fracture-filling. GEOLOG DATA. 0% grunerite, 0% garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 10% pervasive biotization. Trace pyrrhotite stringer, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Trace quartz veins, trace quartz-carbonate veins, 1% carbonate stringers. 114.05 115.05 2								
125.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ontario. Sample analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 3 metres. Samples store at Musselwhite Camp. DRILLING HISTORY. Overburden drilled with a tricone bit. 0.00 to 9.10 hole cased with 9.10 metres of NW casing. 7.95 to 9.15 ground core. 9.15 to 125.00 standard 3 m core barrel used. Dutem plug installed in top of hole and one bag of cement placed of top of plug. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 9.14 M -65.0. Sperry Sun Tests:. 55.0 M -64.75.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			125.0 M -63.50.								

DRILL HOLE RECORD

Northing: 8849.700
Easting: 8949.900
Elevation: 5307.300

Collar Azi.: 228.40
Collar Dip: -45.00

Hole Length: 89.00
Completed: Oct. 18, 1993
Drilled by:
Logged by: M. Roberts
Purpose: To test OP Zone on section 8850N (Open pit potential)

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529846 (54m),Pa529845 (34.5m)
186 m south,119 m east to post 2 of Pa529846
Logged: November 7, 1993

Drill Hole: 506-717
Northing: 8850.0N
Easting: 8952.3E
Survey: Yes
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Oct. 17, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
11.0		-46.5	89.0		-42.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE08879 to Fe08899 (21 samples). SAMPLE SERIES FE08258 to FE08287 (30 samples).								
.00	12.03	OB	OVERBURDEN Ob. Casing from 0.00 to 11.00 metres.								
12.03	25.02	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. From 20.92 to 21.72 24e. Fine grained, green, grey, white, non-magnetic, and moderately hard. Moderately foliated at 42 to 62 dca. Fracture sets at 24 to 35, 45 to 70 and 117 to 170 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, trace wisps carbonatization, trace wisp chlorite, 10% bedded biotite. MINERALIZATION: trace blebs and wispy pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, trace blebs and wisps chalcopyrite, 0% magnetite. VEINING: trace vein quartz, trace stringers quartz-carbonate, trace calcite as								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			fracture-filling. Lower contact gradual at 51 dca. FE08880 Standard III 4.42 ns ns. FE08881 Blank 0.41 ns ns. 20.92 21.72 24e, trace blebs chalcopyrite, 4% quartz veins, 2% quartz-carbonate stringers. 24.00 25.02 Bvol, trace blebs chalcopyrite.								
25.02	29.00	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained, green, black, pink, weakly magnetic and moderately hard. This unit is composed of 45% bvol, 40% 24e beds and 15% 24b beds. Moderately preserved bedding, up to 2 cm at 50 to 73 dca. Fracture sets at 32, 55 to 75, and 128 to 172. GEOLOG DATA:. ALTERATION: trace bedded grunerite, 20% bedded and glomeroporphyritic garnet, 0% silicification, 3% wisps carbonatization, trace bedded chlorite, 10% bedded biotite. MINERALIZATION: 1% blebs and stringers pyrrhotite, 5 specks VISIBLE GOLD in 24e bedding, trace blebs pyrite, 0% arsenopyrite, trace blebs chalcopyrite, trace bedded magnetite. VEINING: 4% vein quartz, 2% stringers quartz-carbonate, trace calcite as fracture-filling. Mineralized zone:. From 25.02 to 29.00 1% blebs and stringers pyrrhotite, 5 specks VISIBLE GOLD in 24e bedding, trace bleb pyrite, trace blebs chalcopyrite, 4% quartz veins, 2% quartz-carbonate stringers. Lower contact sharp at 71 dca. 25.02 26.00 24e, 5 specks VISIBLE GOLD in 24e bedding, trace blebs chalcopyrite, 3% quartz veins, 4% quartz-carbonate veins. 26.00 27.00 24e, trace blebs pyrite, trace blebs chalcopyrite, 7% quartz veins, 2% quartz-carbonate stringers. 27.00 28.00 24e, trace blebs chalcopyrite, 4% quartz veins, 3% quartz-carbonate stringers, fold at 27.16 with axial plane at 51 dca. 28.00 29.00 24e, trace blebs chalcopyrite, 5% quartz veins, 2% quartz-carbonate stringers.								
29.00	30.90	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained green, grey, white, non-magnetic and moderately hard. Moderately foliated at 60 dca. Fracture sets at 70 and 115 to 137.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, trace wisps carbonatization, trace wisps chlorite, 5% bedded biotite. MINERALIZATION: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: <1% vein quartz, trace stringers quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 59 dca. 29.00 30.00 Bvol, trace quartz-carbonate stringers. 30.00 30.90 Bvol, 1% quartz veins trace quartz-carbonate stringers.								
30.90	33.21	24E	INTRAFORMATIONAL IRON FORMATION 24e. Fine grained, green, black, pink, weakly magnetic, and moderately hard. This unit is composed of 45% bvol, 40% 24e beds and 15% 4b beds. Moderately preserved bedding, up to 2 cm at 48 dca. Fracture sets at 108 dca. GEOLOG DATA:. ALTERATION: trace bedded grunerite, 10% bedded and glomeroporphyritic garnet, 0% silicification, 2% wisps carbonatization, trace bedded chlorite, 10% bedded biotite. MINERALIZATION: 3% blebs and stringers pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, trace blebs chalcopyrite, trace bedded magnetite. VEINING: 7% vein quartz, 1% stringers quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 50 dca. FE08890 Duplicate of FE08889 4.39 ns ns. 30.90 32.00 24e, trace blebs pyrite, trace blebs chalcopyrite, 7% quartz veins, 1% quartz-carbonate stringers, fold at 31.23 with axial plane at 45 dca. 32.00 33.21 24e, trace blebs chalcopyrite, 8% quartz veins, 2% quartz-carbonate stringers, left limb fold at 32.95 with axial plane at 52 dca.								
33.21	60.50	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. From 59.91 to 60.50 24fe. Fine grained, green, grey, white, non-magnetic and moderately hard. Moderately foliated at 42 to 70 dca. Fracture sets at 13 to 35, 48 to 70 and 94 to 170 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace wisps chlorite, 1% bedded biotite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			MINERALIZATION: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, trace blebs chalcopyrite, 0% magnetite. VEINING: 2% vein quartz, 1% stringers quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 75 dca. 33.21 34.00 Bvol, 10% quartz veins, 1% quartz-carbonate stringers. 55.70 56.13 Fracture zone, fractures at 142 to 156 dca. 56.76 57.30 Fracture zone, fractures at 12 to 13 dca. 58.90 59.10 Fracture zone, fractures at 70 to 160 dca. 59.00 59.91 Bvol, 3% quartz veins, 3% quartz-carbonate stringers. 59.91 60.50 24fe, trace blebs pyrite, 1% quartz veins, 1% quartz-carbonate stringers.								
60.50	65.84	4F	GARNET-BIOTITE SCHIST 4f. From 60.50 to 61.00 24f. Fine grained, black, green, pink, weakly magnetic and moderately hard. This unit is composed of 85% 4F beds and 15% CHERT beds. Moderately preserved bedding, up to 2 cm, at 58 to 85 dca. Fracture sets at 10, 65 to 90 and 115 to 155 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 20% 1 to 2 mm bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 70% bedded biotite. MINERALIZATION: trace blebs and stringers pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, trace blebs arsenopyrite, trace blebs chalcopyrite, 0% magnetite. VEINING: 3% vein quartz, trace stringers quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 68 dca. FE08900 Not used. 60.50 61.00 24f, trace blebs pyrite, trace blebs chalcopyrite, 1% quartz veins 1% quartz-carbonate stringers. 61.00 62.00 4f, trace blebs pyrite. 62.00 63.00 4f, 7% quartz veins. 63.00 64.00 4f, trace blebs pyrite, trace blebs arsenopyrite, 10% quartz veins, 1% quartz-carbonate stringers. 64.00 65.00 4f, trace blebs pyrite, 2% quartz veins. 65.00 65.84 4f, trace blebs pyrite.								
65.84	69.19	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. From 67.55 to 68.18 4f. Fine grained, grey, green, yellow, pink, moderately magnetic and hard.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			This unit is composed of 75% 4EA beds, 20% 4F beds and 5% 4B beds. Moderately well preserved bedding up to 7 cm at 50 to 58 dca. Fracture sets at 40 to 76 and 140 to 155 dca. GEOLOG DATA:. ALTERATION: 10% bedded grunerite, 10% bedded and glomeroporphyritic garnet, 0% silicification, trace fracture-filling carbonatization, trace bedded chlorite, 2% bedded biotite. MINERALIZATION: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, trace bedded magnetite. VEINING: 2% vein quartz, trace stringers quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 55 dca. FE08260 Standard III 4.42 ns ns. FE08261 Blank 0.24 ns ns. 65.84 67.00 4ea, trace blebs pyrite, 2% quartz veins, fold at 66.03 with axial plane at 43 dca. 67.00 67.55 4ea, 2% quartz veins, w fold at 67.00 with axial plane at 53 dca. 67.55 68.18 4f, trace blebs pyrite. 68.18 69.19 4ea, 3% quartz veins, 1% quartz-carbonate stringers, fold at 68.58 with axial plane at 63 dca.								
69.19	72.37	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, black, green, pink, weakly magnetic and moderately hard. This unit is composed of 70% 4f beds, 15% 4ea beds and 15% 4b beds. Moderately well preserved bedding at 53 to 80 dca. Fracture sets at 15 to 40, 69 to 75 and 112 to 158 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 20% 1 to 2 mm bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 70% bedded biotite. MINERALIZATION: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, trace bedded magnetite. VEINING: trace vein quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 58 dca. 69.19 70.00 4f, trace blebs pyrite. 70.00 71.00 4f, 1% quartz veins. 71.00 72.00 4f, trace blebs pyrite, fold at 71.92 with axial plane at 66 dca. 72.00 72.37 4f.								
72.37	83.27	4B	CHERT - MAGNETITE IRON FORMATION 4b.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained, grey, green, yellow, strongly magnetic and hard. This unit is composed of 80% 4b beds, 15% pale yellow carbonate beds and 5% 4f beds. Moderately well preserved boudinaged bedding, up to 2 cm, at 41 to 67 dca. Fracture sets at 35 to 38, 40 to 75 and 130 to 160 dca. GEOLOG DATA:. ALTERATION: trace bedded grunerite, 2% bedded garnet, 0% silicification, 15% pale yellow bedded and pervasive carbonatization, trace bedded chlorite, 2% bedded biotite. MINERALIZATION: 1% blebs and stringers pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, trace blebs arsenopyrite, 0% chalcopyrite, 30% laminae magnetite. VEINING: 7% vein quartz, 0% quartz-carbonate, trace calcite as fracture-filling. MINERALIZED ZONE:. From 82.00 to 83.27 5% blebs and stringers pyrrhotite, <1% pyrite, trace blebs arsenopyrite, 13% quartz veins. Lower contact sharp at 45 dca. FE08270 Duplicate of FE08269 0.41 ns ns. FE08280 Standard III 4.59 ns ns. FE08281 Blank 0.03 ns ns. 72.37 73.00 4b, trace blebs pyrite, 4% boudinaged quartz veins. 73.00 74.00 4b, trace blebs pyrite, 17% boudinaged quartz veins. 74.00 75.00 4b, trace blebs pyrite, 11% boudinaged quartz veins. 75.00 76.00 4b, 5% quartz veins. 76.00 77.00 4b, trace blebs pyrite, 4% quartz veins. 77.00 78.00 4b, 5% quartz veins. 78.00 79.00 4b, 10% quartz veins, left limb fold at 78.38 with axial plane at 38 dca. 79.00 80.00 4b, trace blebs pyrite, trace blebs arsenopyrite, 12% quartz veins, left limb fold at 79.53 with axial plane at 65 dca. 80.00 81.00 4b, 3% quartz veins, 1% quartz flooding, right limb fold at 80.12 with axial plane at 46 dca. 81.00 82.00 4b, 1% quartz veins, 1% quartz flooding. 82.00 83.00 4b, <1% pyrite, 2% quartz veins. 83.00 83.27 4b, trace blebs pyrite, trace blebs arsenopyrite, 15% quartz veins.								
83.27	87.00	2	BASALT 2 Possible metased. Fine grained, grey, black, green, non-magnetic, and moderately hard. Moderately foliated at 52 to 58 dca. Fracture sets at 35, 52 to 72 and 120 to 155 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, trace wisps carbonatization, 3% pervasive chlorite, 10% bedded biotite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: trace vein quartz, 1% stringers quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 51 dca. 83.27 84.00 2, trace blebs pyrite. 86.00 87.00 2, trace blebs pyrite, 1% quartz veins, 1% quartz-carbonate stringers								
87.00	88.12	24AB	INTRAFORMATIONAL IRON FORMATION 24ab. Fine grained, green, grey, yellow, strongly magnetic and moderately hard. This unit is composed of 60% 24b beds, 10% 24a beds, 10% pale yellow carbonate beds and 20% 2. Moderately preserved beds at 60 dca. GEOLOG DATA:. ALTERATION: 5% bedded grunerite, trace bedded garnet, 0% silicification, 10% pale yellow bedded and pervasive carbonatization, trace bedded chlorite, trace bedded biotite. MINERALIZATION: trace blebs pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, trace blebs chalcopyrite, 30% laminae magnetite. VEINING: 20% vein quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 61 dca. 87.00 88.12 24ab, trace blebs pyrite, trace blebs chalcopyrite, 18% quartz veins.								
88.12	89.00	2	BASALT 2 - possible metased. Fine grained, grey, black, green, locally weakly to moderately magnetic and moderately hard. Moderately foliated at 62 dca. Fracture sets at 63 to 65 and 145 to 148 dca. GEOLOG DATA:. ALTERATION: trace bedded grunerite, 0% garnet, 0% silicification, trace pale yellow bedded and pervasive carbonatization, trace bedded chlorite, 10% bedded biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace blebs pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% bedded magnetite. VEINING: 10% vein quartz, 0% quartz-carbonate, trace calcite as fracture-filling. 88.12 89.00 2, trace blebs pyrite, 10% quartz veins. 88.32 A 9 cm 24ab bedding, strongly magnetic.								
89.00		2	END OF HOLE								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge samples not taken. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DOWNHOLE SURVEY HISTORY:. 11.00 Metres: -46.50 Acid Test. 89.00 Metres: -42.50 Sperry Test. DRILLING HISTORY:. 0.00 to 11.00 metres: Tricone and NW casing. 11.00 to 89.00 metres: Fluted Core Barrel. Dutem plug set 6 metres below casing, and one bag cement above plug. Casing left in hole, and capped.								

OP Zone

	Collar Location				Total	Length per Claim					
	N/S to Post	E/W to Post	Post #	Claim #	Length	Claim	Length	Claim	Length	Claim	Length
676	144m N	184m	4	529854	101m						
678	109m	148m	4	529854	103 3m						
680	103m	81m	4	529854	38m						
682	91m N	95m W	4	529854	59m						
685	79m N	105m W	4	529854	83m						
687	55m N	58m W	4	529854	55m						
690	45m N	69m W	4	529854	77m						
692	36m N	80m W	4	529854	87 5m						
694	16m N	28m W	4	529854	59 3m	529854	46.3m	529855	13m		
695	5m N	40m W	4	529854	80m	529854	69m	529855	11m		
697	5m S	51m W	3	529847	101m	529847	7m	529854	84.4m	529855	9.6m
699	6m S	51m W	3	529847	119m	529847	10.5	529854	106.4m	529855	2.1m
700	244m N	244m W	4	529854	95m						
701	22m S	4m E	2	529846	53m	529846	45m	529855	8m		
702	92m S	74m E	2	529846	53m						
703	32m S	6m W	2	529846	74m	529846	69m	529855	5m		
704	102m S	62m E	2	529846	70m						
705	39m S	9m W	2	529846	89m	529846	83m	529855	6m		
706	149m S	86m w	2	529846	4.3m*						
707	54m S	43m E	2	529846	50m						
708	127m S	109m E	2	529846	65m						
709	78m S	16m E	2	529846	89m						
710	131m S	105m E	2	529846	80m						
711	112m S	49m E	2	529846	89m						
712	199m S	103m E	2	529846	10 4m*						
713	170m S	136m E	2	529846	66 49	529846	21 49	529845	45m		
714	150m S	84m E	2	529846	97m						
715	51m S	83m E	2	529846	125m						
717	186m S	119m E	2	529846	89m	529846	54m	529845	35m		

*Hole Abandoned

RECEIVED
AUG - 3 '94
PATRICIA MINING DIVISION

53B09SW0012 W9430.00052 ZEEMEL LAKE

040

DRILL HOLE RECORD

Northing: 8400.300
Easting: 8954.900
Elevation: 5306.400

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 101.00
Completed: Sept. 25, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8400NLogged: Oct. 04, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
144 m north, 184 m west to post 4 of Pa529854

Drill Hole: 506-676
Northing: 8400.0N
Easting: 8960.8E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 24, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
11.0		-50.0	101.0		-46.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES #FE03852 - FE03913: (62 samples).								
.00	11.00	OB	OVERBURDEN Ob. Casing from 0.00 to 11.00 metres. Granitic boulders.								
11.00	34.40	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVol. Unit is fine grained, light to medium grey, bedded and tuffaceous. Unit is patchy with yellowish sericite alteration imparting a banded appearance. FELSIC TO INTERMEDIATE VOLCANICS white mm sized feldspathic fragment at up to 5% of the unit gives the unit it's tuffaceous appearance. Fine specks of muscovite noted through core. Foliation averages 50 dca, ranges 47 to 54 dca. Fractures at 25 to 60 dca are subparallel foliation, and at 118 to 150 dca perpendicular to foliation. Quartz veins at up to 1 cm wide are oriented parallel to foliation.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			MINERALIZED ZONE:. From 12.3 to 14.15 Sheared, bleached, and silicified AVOL with 5% pyrite interbedded and as stringers. No VISIBLE GOLD noted. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% biotite, 5% sericite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 1-2% finely disseminated and interbedded pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3% quartz veins and veinlets, 0% quartz-carbonate, 0% calcite. Lower contact 52 dca. 11.00 16.30 Bleached Avol. Zones of interbedded pyrite at up to 10% locally over 5 cm, average 3% overall within this altered MINERALIZED ZONE. 11.02 12.00 Avol. 10% sericite altered. 1% finely disseminated pyrite. 5% quartz veins. 11.60 12.00 Pinkish-orange hematitized staining of foliation planes. 12.00 13.00 Avol. 20% sericite altered. 8% interbedded to disseminated pyrite. 3% quartz veins. 13.00 14.00 Avol. 10% sericite altered. 3% interbedded pyrite. 5% quartz veins. 14.00 15.00 Avol. 3% sericite altered. 4% interbedded pyrite. 5% quartz veins. 15.00 Rubbly Core. At 145 dca. 15.00 16.00 Avol. 25% sericite altered. 2% finely disseminated pyrite. 5% quartz flooding. 5% quartz veinlets. 15.20 16.50 Sub-vertical hairline fractures at 160 dca, or at azimuth of 210 degrees. 16.00 17.00 Avol. 5% sericite altered. 1% finely disseminated pyrite. 3% quartz veinlets. 17.00 18.00 Avol. Trace pyrite. 5% quartz veinlets. 18.00 19.00 Avol. 1% wispy pyrrhotite in quartz flooding. 2% disseminated pyrite. 19.00 20.00 Avol. 5% sericite alteration. Trace sulphide. 3% quartz-carbonate veins. 20.00 21.00 Avol. 3% sericite altered. 7% quartz veins parallel to foliation. 1% pyrrhotite wisps in quartz veins. 1% finely disseminated pyrite. 29.20 30.00 Rubbly Core. Fractured core at 140 dca and at 50 dca. 31.30 33.10 Rubbly Core. Fractured core at 145 dca and 45 to 55 dca. 31.87 32.00 Quartz vein at 50 dca with 5% pyrite fracture-filling. FE03860 STANDARD II 9.26 9.30 ns. FE03861 BLANK 0.07 ns ns. 33.00 34.40 Avol. 2% pyrite and 1% pyrrhotite interbedded and in quartz veins.								
34.40	64.32	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVol. Unit is variably biotitic near uphole contact. Fine grained, dark chloritic green with chocolate brown foliated patches. Non magnetic. Moderately hard. Unit appears to become FELSIC TO INTERMEDIATE VOLCANICS mafic pyrolusite flow with flattened, fine grained, dark chloritic pillow selvages.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Foliation at 40 to 60 dca. Fractures subparallel foliation at 25 to 52 dca, and perpendicular to fabric at 130 to 160 dca. Hairline calcite fracture-filled fractures perpendicular to foliation, throughout at up to 10 PER METRE. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 5% carbonatization within biotitic alteration, 10% pervasive chlorite, 5% intense to weak biotite alteration. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3% quartz veinlets, 3% quartz-carbonate veinlets and veins parallel to foliation, 1% calcite fracture-filling of fractures perpendicular to foliation. Lower contact sharp at 54 dca. 34.40 35.17 24be. Intermixed garnetiferous chloritic beds, 4f, and chert. Garnets differentiate this interbedded intraformational iron formation from BVOL. 34.40 35.17 24e. 3% blebs pyrrhotite. 1% wispy pyrite. 35.17 44.00 Bio BVol. Strong biotitic altered mafic metavolcanic. Black, fine grained. Fractures parallel foliation at 50 dca and perpendicular to foliation at 130 to 150 dca. Gradual decrease in biotitic alteration to FELSIC TO INTERMEDIATE VOLCANICS chloritic mafic metavolcanic by 45.20. 10% wispy and veinlets of quartz-carbonate. 35.17 36.17 Biotitic Bvol. 2% wispy and blebs of pyrrhotite. 36.17 37.17 Biotitic Bvol. No sulphide. Blocky core. 36.90 37.50 Rubbly Core mainly at 140 dca and also at 60 dca. 44.00 45.20 Bvol. 10% wispy quartz-carbonate veinlets. Calcareous. No sulphide. 45.20 46.30 Sheared BVol. Interval is FELSIC TO INTERMEDIATE VOLCANICS strongly deformed and altered mafic. Unit is light green to dark chloritic green. Strong foliation at 45 to 50 dca. Boudinaged augen of blue-grey cherty beds. 2% very fine grained pyrite interbedded. 45.20 46.30 Sheared Bvol. 2% finely disseminated pyrite. Non calcareous. 46.30 64.32 BVol. Fine grained, dark chloritic green, mafic pyrolusite flows. Weak biotitic alteration within unit imparts FELSIC TO INTERMEDIATE VOLCANICS foliation at 60 dca. 46.30 47.30 Bvol. 5% wispy and stringers quartz-carbonate veinlets. 46.80 Fine hairline calcite fracture-filled offset as right lateral movement or up hole moved east. 54.00 54.10 Fault Zone. Hairline fractures at 150 dca. 58.00 61.00 Rubbly core at 50 dca parallel to foliation and at 145 dca perpendicular to foliation. 60.45 Fracture-filled calcite veinlet at 150 dca. Offset but movement unknown. FE03870 DUPLICATE of FE03869 0.03 ns ns. 63.32 64.32 BVol. 3% wispy and stringers quartz-carbonate veinlets. No sulphide.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
64.32	64.82	4F	GARNET-BIOTITE SCHIST 4f. Unit is FELSIC TO INTERMEDIATE VOLCANICS fine grained, black biotite schist with 20% fine to medium grained pink garnets and fine grained grunerite altered beds. Hosts up to 5% grunerite alteration. Locally weakly magnetic. Hard. Bedding at 72 dca. Contorted right limb fold with fold axes at 50 dca. GEOLOG DATA:. ALTERATION: 5% interbedded grunerite, 15% fine to medium grained pink garnets, 0% silicification, 0% carbonatization, 0% chlorite, 0% biotite. MINERALIZATION: 1% disseminated pyrrhotite in garnets, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 0% calcite. Lower contact sharp at 56 dca. 64.32 64.82 4f. 1% disseminated pyrrhotite in garnets.								
64.82	80.27	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea and 4eaf. From 64.82 to 65.98 metres 4ea. Unit is massive, fine grained, light grey chert and garnetiferous yellowish grunerite beds with minor interbedded dark green chloritic beds. Weakly magnetic. Moderately hard. Bedded at 40 dca. Tight fold closures at 33 to 60 dca. Fractures subparallel to bedding at 17 to 60 dca. Fractures 130 to 145 calcite fracture-filled. MINERALIZED ZONE:. From 65.66 to 65.75 15% interbedded and wispy pyrite. GEOLOG DATA:. ALTERATION: 15% interbedded grunerite, 15% medium to coarse grained glomeroporphyritic garnetiferous beds, 0% silicification, 0% carbonatization, 5% chlorite beds, 3% biotite schist. MINERALIZATION: trace pyrrhotite, 0 specks VISIBLE GOLD, 5% wispy pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 5% quartz veinlets, 3% quartz-carbonate veinlets, 0% calcite. From 65.98 to 80.27 metres 4eaf. Unit is an intermixed sequence of lean 4ea, 4f and 4b. Fine grained, light to dark grey, black and chloritic green unit. Weakly to strongly magnetic. Moderately hard. Bedding varies from finely laminated to well bedded at 50 to 55 dca. Chert beds are strongly boudinaged and tightly folded about FELSIC TO INTERMEDIATE VOLCANICS fold axes of 50 dca. Fractures parallel foliation at 50 to 60 dca. Fractures perpendicular to								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			foliation at 135 to 150 dca. MINERALIZED ZONES:. From 70.60 to 71.25 4ea with 35% quartz flooding, 1% wispy pyrrhotite. 7 fine specks of VISIBLE GOLD at 71.20. From 72.46 to 72.95 4ea with 3 to 4% disseminated and wispy of pyrrhotite. From 73.70 to 74.70 4eaf with 5% sulphide as pyrite and pyrrhotite. 7 specks of VISIBLE GOLD noted, throughout length of zone. GEOLOG DATA:. ALTERATION: 3% interbedded grunerite, 10% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% biotite. MINERALIZATION: 1% blebs and wispy pyrrhotite overall, 7 specks VISIBLE GOLD over 1 metre from 73.7 to 74.7 and 7 specks at 71.20, 1% wispy pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3% quartz flooding, 0% quartz vein, 0% quartz-carbonate, 1% calcite veinlets. Lower contact is a diffuse to sharp bedding contact at 52 dca. 64.82 65.98 4ea. 64.82 65.98 4ea. 1% finely disseminated pyrrhotite. 2% wispy pyrite. 65.98 67.00 4f. Rubbly core. 65.98 73.00 4eaf. 30% 4f interbedded with 4ea. 66.10 66.30 Rubbly core. Fractures at 50 and 160 dca. 67.00 68.00 4eaf. 1% disseminated pyrrhotite. 1% finely disseminated pyrite. 68.00 69.00 4eaf. Intermixed 4ea, 4f, 4e. No sulphide. 69.00 69.10 Rubbly core. Calcite fracture-filled fractures at 40 dca. Fracture cleavage at 55 dca noted in chert beds. 69.00 70.00 4eaf. No sulphide. 70.00 71.00 4eaf. 2% wispy pyrrhotite. 25% quartz flooding. 71.00 72.00 4ea. 1% blebs of pyrrhotite. 7 specks VISIBLE GOLD at 71.20 in 10% quartz flooding. 72.00 73.00 4ea. 2% wispy and disseminated pyrrhotite. 1% wispy pyrite. 5% quartz flooding. 73.00 74.70 4ea. 3 to 5% pyrite, 2 to 5% pyrrhotite, 3 specks VISIBLE GOLD. 73.00 73.70 4eaf. No sulphide. 5% quartz flooding. 73.70 74.70 4ea. 3% wispy and stringers pyrrhotite. 2% wispy pyrite. 7 fine specks VISIBLE GOLD scattered through sample. 74.70 80.27 4eaf. 74.70 75.70 4ea. Finely disseminated sulphide. 75.00 Tight right limb fold with fold axes at 33 dca. 75.30 Tight m-type fold with fold axes at 50 dca. 75.70 77.00 4ea. No sulphide. 77.00 78.00 4ea. No sulphide. 78.00 79.00 4ea. No sulphide. 79.00 80.00 4eaf. No sulphide. 79.80 Tight left limb fold with fold axes at 62 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			FE03880 STANDARD II 9.22 9.19 ns. FE03881 BLANK 0.07 ns ns. FE03890 DUPLICATE of FE03889 0.03 ns ns. 80.00 81.00 4b. No sulphide.								
80.27	94.38	4B	CHERT - MAGNETITE IRON FORMATION 4b. Unit is FELSIC TO INTERMEDIATE VOLCANICS fine grained, well bedded to laminated chert - magnetite iron formation. Unit is dark to light grey, with black biotite schist to 83.50 metres. Strongly magnetic and hard. Bedded at 61 to 80 dca. Chert beds are moderate to strongly boudinaged. Bedding is strongly contorted to folded. Left limb fold with axial plane 62 dca. Right limb fold with axial plane 50 dca. M type fold with axial plane 60 dca. Fractures parallel bedding at 60 dca and perpendicular to foliation at 120 to 140 dca. Fracture cleavage at 55 dca makes a prominent mm scale truncation of beds and offset to chert beds. Pyrrhotite noted in pressure shadows or necks of chert boudins. MINERALIZED ZONE:. From 82.64 to 82.78 pyrrhotite rich zone with up to 5% wispy pyrrhotite at 55 dca From 84.40 to 89.00 arsenopyrite rich zone with up to 1% overall and locally up to 50% at 85.35 in FELSIC TO INTERMEDIATE VOLCANICS 2 cm bedding arsenopyrite occurs as crystalline semi-massive seams and stringers of crystals. 1% finely disseminated and wispy pyrrhotite. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 5% pervasive chlorite beddings, 0% biotite. MINERALIZATION: trace pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, trace to 1% bedded arsenopyrite, 0% chalcopyrite, 5% bedded magnetite. VEINING: 1% quartz veinlets and veins, 0% quartz-carbonate, 0% calcite. Lower contact 60 dca. 81.00 82.00 4b. No sulphide. 82.00 83.00 4b. 5% pyrrhotite from 82.63 to 82.78. 83.00 84.00 4b. 1% wispy and blebs pyrrhotite. 15% quartz vein with pyrrhotite. 84.00 85.00 4b. 1% interbedded arsenopyrite in up to 0.3 cm bands. 85.00 86.00 4b. 1% pyrrhotite blebs. 3% interbedded arsenopyrite in several bands up to 1 cm. 86.00 87.00 4b. 1% disseminated pyrrhotite. Trace to 1% arsenopyrite stringers. 86.40 86.55 Fault Breccia. Angular breccia fragments sealed in FELSIC TO INTERMEDIATE VOLCANICS quartz matrix at 90 dca. FE03900 STANDARD II 9.67 10.01 ns. FE03901 BLANK 0.03 ns ns. 87.00 88.00 4b. 1% stringers pyrrhotite. Trace to 1% arsenopyrite stringers. 88.00 89.00 4b. 1% wispy pyrrhotite. Trace to 1% arsenopyrite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			89.00 90.00 4b. 1% wispy and finely disseminated pyrrhotite. 90.00 91.00 4b. 1% finely disseminated pyrrhotite. 91.00 92.00 4b. 1% finely disseminated pyrrhotite. 92.00 93.00 4b. No sulphide. 93.00 94.38 4b. No sulphide.								
94.38	101.00	2	BASALT 2 - Possible MSed. Medium grey to dark chloritic green, fine grained unit. Non magnetic. Moderately hard. Weak biotitic alteration imparts FELSIC TO INTERMEDIATE VOLCANICS weak foliation at 50 to 60 dca. Fractures subparallel foliation at 25 to 60 dca, and perpendicular to foliation at 125 to 145 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 5% weak disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 1% quartz veinlets parallel to foliation, 2% quartz-carbonate veinlets parallel to foliation, 1% calcite fracture-filling. 94.38 95.38 2. No sulphide. Weak biotitic alteration. 95.38 96.90 2. No sulphide. Weak biotitic alteration. 96.90 97.90 2. No sulphide. Weak biotitic alteration. 97.90 98.90 24b. 1% finely disseminated pyrrhotite. 5% interbedded magnetite. 98.00 98.70 24b. Grunerite alteration with up to 10% magnetite. Bedding at 50 dca. Tight m-type fold with fold axes at 50 dca. Lower contact at 60 dca. FE03910 DUPLICATE of FE03909 0.03 ns ns. 98.90 99.90 2. No sulphide. No quartz vein. Barren Wallrock.								
101.00		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge samples taken every 3 metres. Samples stored at Musselwhite camp. DOWNHOLE SURVEY HISTORY:. 11.00 Metres -50.00 Acid Test. 101.00 Metres -46.50 Sperry Test. DRILLING HISTORY:. 0.00 11.00m: Tricone. 11.00 101.00m: Fluted Core Barrel.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Casing left in hole and capped. Dutem plug placed 6m below casing and one bag cement placed uphole from plug.								

DRILL HOLE RECORD

Northing: 8450.900
Easting: 8950.700
Elevation: 5306.700

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 103.30
Completed: Sept. 27, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8450N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
109 m north,148 m west to post 4 of Pa529854
Logged: Oct. 07, 1993

Drill Hole: 506-678

Northing: 8450.0N
Easting: 8956.6E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 26, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
14.0		-50.0	56.0		-48.0	101.0		-47.2			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES# FE03914 - FE03992 (79 samples).								
.00	12.85	OB	OVERBURDEN Ob. Casing from 0.00 to 12.20 metres. Granitic and BVOL boulders.								
12.85	34.30	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, light to dark grey with buff to cream, non magnetic. Moderately hard. Creamy sericite alteration noted parallel to foliation and generally hosting minor quartz veins and veinlets. Fine grained feldspathic fragments throughout give the unit its' tuffaceous appearance. Unfoliated fine muscovite flakes throughout imparting a sparkly appearance to core. Poorly bedded and moderately well foliated tuffaceous unit. Foliation averages 40 to 49 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fractures subparallel to foliation at 25 to 55 dca, and perpendicular to foliation at 130 to 155 dca. Fractures perpendicular to foliation are calcite fracture-filled and in locations have FELSIC TO INTERMEDIATE VOLCANICS bleach envelope of carbonatized alteration over 0.5 cm into the wallrock. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% biotite, 3% sericite. MINERALIZATION: trace pyrrhotite associated with quartz vein in sericite altered sections, 0 specks VISIBLE GOLD, trace pyrite associated with quartz vein in sericite alteration, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 10% quartz veins and veinlets parallel to foliation, 0% quartz-carbonate, 0% calcite. Sharp lower contact at quartz vein, at 50 dca. 12.85 14.70 Sericite Altered AVOL. Weak sericite alteration imparts FELSIC TO INTERMEDIATE VOLCANICS yellowish colouration to wallrock and hosts up to 10 - 15% quartz veins and veinlets parallel to foliation. Sulphide as pyrrhotite and pyrite are associated with margins of quartz vein, and as minor amounts interbedded. 12.85 14.00 AVOL. 1% interbedded and wispy pyrrhotite associated with quartz. 1% wispy pyrite in quartz. 10% quartz vein parallel to foliation. Sericite altered. 13.00 14.30 Rubbly core with fractures at 60 dca. 13.30 13.60 Strongly contorted to drag-folded foliation. Possible deformation zone but due to fractured core - difficult to note. FE03920 STANDARD II 9.19 9.19 ns. FE03921 BLANK 0.03 ns ns. FE03930 DUPLICATE OF FE03929 0.03 ns ns. 14.00 15.00 AVOL. 1% wispy and blebs pyrrhotite in quartz. 10% quartz veinlets and veins. Sericite altered. 15.00 16.00 AVOL. Trace pyrrhotite associated with quartz veinlets. With weak sericite tight to veins. 16.00 17.00 AVOL. Trace pyrrhotite associated with quartz veinlets. 5% quartz. 17.00 18.50 AVOL. Trace pyrrhotite. No sericite alteration. 18.50 20.00 AVOL. No sulphide noted. 23.00 24.00 AVOL. Weakly sericite altered. 5% quartz veinlets. No sulphide. 24.00 25.00 AVOL. 10 cm quartz vein parallel to foliation with 5% wispy pyrrhotite and vuggy pyrite. 25.00 26.00 AVOL. No sulphide. Trace quartz vein. Very weak sericite alteration. 26.00 27.00 Avol. 1% pyrrhotite and 2% pyrite interbedded and as stringers. 5% quartz veinlets. Weak sericite alteration. 27.00 28.00 AVOL. 1% disseminated pyrrhotite and 2% disseminated, wispy and blebs pyrrhotite. Weak sericite alteration. 5% quartz veinlets. 28.00 29.00 AVOL. No sulphide. 10% quartz veins and quartz veinlets. Weak sericite alteration. 29.00 30.00 AVOL. 1% disseminated pyrrhotite. 10% quartz veinlets and quartz veins. Weak to moderate sericite alteration.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			30.00 31.00 AVOL. 1% disseminated interbedded pyrrhotite. 10% quartz veinlets. Weak sericite alteration. 31.00 32.00 AVOL. 1% disseminated interbedded pyrrhotite. 10% quartz veins and veinlets. 32.00 33.00 AVOL. 1% pyrrhotite and 1% pyrite interbedded and disseminated. 7% quartz veinlets. Weak sericite alteration. 33.00 34.30 AVOL. 1% pyrrhotite and pyrite interbedded and disseminated. 5% quartz veinlets. Weak sericite alteration.								
34.30	60.78	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVol and minor 24e. From 34.30 to 43.70 the unit is an intermixed sequence of biotitic altered BVOL and 24e. The biotitic altered BVols are variably biotitized mafic pyrolusite flows gradationally altered. Unit is FELSIC TO INTERMEDIATE VOLCANICS fine grained, dark chloritic green and dark chocolate brown. Non-magnetic. Moderately hard. Flattened pillow selvages noted as dark chloritic bands in biotitic mafic. Interbedded 24e intraformational iron formation units are garnetiferous, chloritic, and biotitic beds intermixed with chert. Subhedral to euhedral garnets at up to 10%, average up to 0.6 cm in diameter. Non-magnetic. Moderately hard. Foliation at 50 to 67 dca. Units are fractured parallel to foliation at 40 to 60 dca, and at 115 to 160 dca perpendicular to foliation. Units host up to 5% fine calcite fractures parallel to foliation. Lower contact of each subunit is parallel to foliation at 48 dca. MINERALIZED ZONE:. From 41.50 to 41.98 metres 2% wispy pyrrhotite, trace pyrite and chalcopyrite. 2 specks VISIBLE GOLD noted at 41.90 in 15% quartz flooding. GEOLOG DATA:. ALTERATION: 0% grunerite, 2% interbedded medium grained garnets, 0% silicification, 0% carbonatization, 5% chlorite, 10% finely disseminated foliated biotite. MINERALIZATION: trace wispy to finely disseminated pyrrhotite, 2 specks VISIBLE GOLD in quartz flooding within 24E, trace disseminated pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 5% quartz veining, 5% quartz-carbonate hairline stringers and veinlets, 0% calcite. Lower contact is sharp at 55 dca. 34.30 35.30 BVOL with 24e. 30% iron formation. 70% biotitic BVOL. 1% wispy pyrrhotite. 34.30 34.90 Biotitic BVOL. 34.90 35.30 24e.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			35.30 39.20 Biotitic BVol. 35.30 36.30 BVOL. No sulphide. 36.30 38.00 Biotitic BVOL. No sulphide. 3% wispy calcite fractures parallel to foliation. 38.00 39.00 Biotitic BVOL. No sulphide. 38.50 Sub-vertical, crenulated and folded biotite with fold axes or crenulation cleavage at 55 dca and trend at an azimuth of at 290 degrees. 39.00 40.00 24e. 1-2% wispy pyrrhotite. 10% quartz flooding. 39.20 39.98 24be. 39.98 40.70 Biotitic BVol. 40.00 40.70 Biotitic BVOL. No sulphide. 40.70 42.07 24e. 2 to 3% wispy pyrrhotite at 41.50 to 41.98. 2 specks VISIBLE GOLD noted in 15% quartz flooding. Folded 4e with left limb fold - fold axes at 50 dca. 40.70 41.50 24e. 1-2% wispy pyrrhotite. Trace chalcopyrite, pyrite. 41.50 42.10 24e. 1-2% wispy pyrrhotite. Trace chalcopyrite, pyrite. 2 specks fine VISIBLE GOLD at 41.90 in 15% quartz flooding. 42.07 43.70 Biotitic BVol. 42.10 43.10 Biotitic BVOL. Wispy black biotite stringers. No sulphide. 42.35 Fractured core at 140 dca. 43.10 43.60 Sheared BVOL. Weak sericite altered. 43.60 44.80 Sheared BVOL. Strong sericite altered. Trace to 1% and trace to 1% pyrite interbedded. Trace chalcopyrite. 43.70 44.76 Sheared Bleached BVol. Light green to light grey, well foliated, sericite altered. Non-magnetic. Moderately soft to hard. Light grey chert beds strongly boudinaged helping to give a flaser bedded appearance. 2% fine interbedded pyrite. 44.76 60.78 BVol. 44.80 45.80 BVol. 5% quartz-carbonate veinlets and veins parallel to foliation. 45.05 Rubbly core at 125 dca. 46.25 Carbonatization of or bleach wallrock on mm scale due to hairline calcite fractures perpendicular to foliation at 145 dca. 49.15 49.25 Rubbly core at 135 dca. 52.10 53.00 10% blue-grey quartz-carbonate veins parallel to foliation at 48 dca. One cm of biotitic wallrock alteration associated with veins. No sulphide noted. 58.40 Rubbly spongey core fractured at 60 dca. FE03940 STANDARD II 9.67 9.50 ns. FE03941 BLANK 0.10 ns ns. 59.78 60.78 BVOL. No sulphide. 3% quartz-carbonate veinlets.								
60.78	62.13	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, black biotite schist with up to 20% fine subhedral to euhedral mm sized pink garnets interbedded with 10% chert beds. Unit is local locally weakly magnetic. Moderately hard. Bedding averages 63 dca and is moderately to well developed.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fractures parallel to foliation at 55 dca and perpendicular to foliation at 135 to 150 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 20% interbedded fine garnets, 0% silicification, 0% carbonatization, 0% chlorite, 5% biotite schist. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 3% magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 0% calcite. Lower contact is fairly well defined at 55 dca. 60.78 62.13 4f. No sulphide. No quartz vein. 61.20 Sub-vertical fracture at 20 dca is at azimuth of 210 degrees. FE03950 DUPLICATE of FE03949 0.17 ns ns.								
62.13	81.27	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Unit is FELSIC TO INTERMEDIATE VOLCANICS weak 4ea to 4eaf. Unit is comprised of intermixed fine grained, chloritic, chert and biotite beds with up to 20% glomeroporphyritic, subhedral to euhedral medium to coarse grained garnets interbedded with grunerite beds and also in biotite schist. Grunerite alteration varies from weak to strong. Where strongly grunerite altered, bedding appears wispy. Unit is very weakly to moderately magnetic. Moderately hard. Bedding at 50 to 80 dca. Bedding is strongly contorted and folded. Left limb fold with axial planes at 40 to 55 dca. Right limb fold with axial planes at 45 to 60 dca. M type folds at 52 dca. Fractures subparallel to foliation at 40 to 75 dca. Perpendicular to foliation at 125 to 140 dca. Fractures perpendicular to foliation are calcite and pyrite fracture-filled. MINERALIZED ZONES:. From 69.5 to 71.8 3% pyrrhotite, 1% pyrite, 10% quartz flooding and 5% quartz vein. Six (6) specks VISIBLE GOLD noted at 71.6. From 74.00 to 74.50 4 specks VISIBLE GOLD noted associated with or near pyrrhotite stringers in chert. From 78.40 to 78.80 3% wispy pyrrhotite. Greater than 50 specks of fine VISIBLE GOLD in several clouds noted on both sides of the core, and on the fractured face of the core. VISIBLE GOLD noted at contact with grunerite alteration and garnets. GEOLOG DATA:. ALTERATION: 3 to 15% finely laminated to well bedded grunerite, 5 to 20% fine to medium grained interbedded glomeroporphyritic garnets, 0% silicification, 0% carbonatization, 3-5% interbedded chlorite, 3% interbedded biotite schist. MINERALIZATION: 0-3% wispy and finely disseminated pyrrhotite, 4 specks VISIBLE								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GOLD as noted at 74.00 to 74.60, and greater than 50 specks of VISIBLE GOLD at 78.74 in 3 clusters along FELSIC TO INTERMEDIATE VOLCANICS linear trend parallel to foliation. Trace pyrite, 0% arsenopyrite, 0% chalcopyrite, 0-3% fine bedded magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 0% calcite. Lower contact at 50 dca. 62.13 64.00 4eaf. 30% 4f. M-type fold. 62.13 63.00 4eaf. Trace to 1% disseminated pyrrhotite in chert beds. 63.00 64.00 4eaf. No sulphide noted. 63.50 Tight left limb fold with axial plane at 50 dca. 64.00 68.00 4e. Thin well bedded 4e and 4ea with minor 4f and chert beds. 64.00 65.00 4eaf. 1% wispy pyrrhotite in wispy chloritic beds and chert. 65.00 Tight left limb fold with axial plane at 50 dca. 65.00 66.00 4eaf. No sulphide noted. 66.00 67.00 4ea. 1% wispy to fracture-filled pyrrhotite. 67.00 Tight right limb fold with fold axes at 50 dca. 67.00 68.00 4eaf. No sulphide noted. 68.00 73.50 4ea. Good 4EA with minor 4e and chloritic beds. 68.00 69.00 4eaf. No sulphide noted. 10% quartz flooding. 69.00 70.00 4ea. 2% wispy and finely disseminated pyrrhotite. 1% wispy pyrite. 10% quartz vein parallel to foliation and 15% quartz flooding. 70.00 71.00 4ea. 2% wispy pyrrhotite. 1% wispy pyrite. 5% each of quartz veins and quartz flooding. 71.00 72.00 4ea. 3% wispy pyrrhotite. 31 specks VISIBLE GOLD at 71.65 in 15% quartz flooding. 72.00 73.00 4ea. 1% drag-folded pyrrhotite as fracture-filling in garnets. 73.00 Tight right limb fold of sinewy chert beds with fold axes at 40 dca. 73.00 74.00 4ea. 1% wispy and blebs of pyrrhotite. 73.50 76.00 4e. Fine banded chloritic, biotite and chert beds. 74.00 75.00 4ea. 2% wispy pyrrhotite. 4 specks fine VISIBLE GOLD associated with wispy pyrrhotite in chert scattered over 0.5 metres. Trace arsenopyrite and chalcopyrite. 25% quartz flooding. 74.75 75.03 Quartz flooding with trace arsenopyrite. 75.00 76.00 4ea. 1% wispy and finely disseminated pyrrhotite. 10% quartz flooding 75.45 75.80 Numerous flat fractures at 140 dca. 76.00 81.27 4eaf. Well bedded 4ea with thin interbedded 4f. Bedding throughout unit is contorted and strongly folded with both left limb fold and right limb fold with fold axes that average 50 to 60 dca. 76.00 77.00 4ea. 1% finely disseminated pyrrhotite. 15% quartz flooding. 77.00 78.00 4ea. 1% wispy pyrrhotite at 77.45 with trace chalcopyrite intermixed. At 77.74 >50 specks VISIBLE GOLD at grunerite - garnet contact along a linear trend. 78.00 Tight right limb fold with fold axes at 45 dca. 78.00 79.00 4eaf. No sulphide. 5% quartz flooding. 79.00 80.00 4eaf. No sulphide. 15% quartz flooding. 79.84 Tight right limb fold with fold axes at 46 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			80.00 81.00 4eaf. Trace to 1% pyrrhotite. 15% quartz flooding. 80.50 81.00 Fractures at 135 dca. Fracture-filled with calcite and marcasite flowers and pyrite. FE03960 STANDARD III 4.66 ns ns. FE03961 BLANK 0.03 ns ns. FE03970 DUPLICATE of FE03969 0.24 ns ns. 81.00 82.00 4bea. No sulphide.								
81.27	93.60	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, light to dark grey to black interbedded chert and magnetite beds. Minor dark chloritic green with fine garnets. Moderately to strongly magnetic. Hard. Bedding at 30 to 75 dca. Blue-grey chert beds are variably but strongly boudinaged. Bedding is variably contorted and folded. Left limb fold and right limb fold at an average fold axes of 40 to 55 dca. FELSIC TO INTERMEDIATE VOLCANICS penetrative fracture cleavage at 58 dca. General attitude of bedding is 50 to 60 dca. Fractured or jointed core parallel to foliation at 30 to 75 dca and perpendicular to foliation at 125 to 145 dca. MINERALIZED ZONE:. From 83.47 to 83.60 5% wispy and stringers pyrrhotite interbedded with 3% wispy pyrite. GEOLOG DATA:. ALTERATION: 1% fine bedded grunerite, 1% fine interbedded garnets, 0% silicification, 0% carbonatization, 5% pervasive bedded chlorite, 3% interbedded biotite schist. MINERALIZATION: trace to 1% disseminated and wispy pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10 to 15% finely laminated to well bedded magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 0% calcite. Lower contact faulted. 81.27 83.00 Weak grunerite alteration of 4b as FELSIC TO INTERMEDIATE VOLCANICS gradational contact. 82.00 83.00 4bea. No sulphide. 82.80 82.95 40% quartz flooding. 83.00 84.00 4b. 1% disseminated pyrrhotite. 3% wispy and stringers pyrite over 15 cm at 83.50. 83.70 Tight right limb fold with fold axes at 40 dca. Fine fracture cleavage at 40 dca also, has truncated and offset bedding on mm scale 84.00 85.00 4b. 1% wispy and finely disseminated pyrrhotite. 10% quartz flooding. 85.00 86.00 4b. 1% blebs pyrrhotite. 86.00 87.00 4b. 1% blebs and wisps pyrrhotite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			87.00 88.00 4b. 1% bedded and blebs of pyrrhotite. 88.00 89.00 4b. 1% wispy pyrrhotite in chert. 88.70 Tight left limb fold with fold axes at 48 dca. 89.00 89.80 4b. 1% wispy and finely disseminated pyrrhotite. 89.00 90.00 Numerous tight left limb folds with fold axes at 50 to 55 dca. Fracture cleavage offset beds at 50 dca. FE03980 STANDARD III 5.01 ns ns. FE03981 BLANK 0.31 ns ns. 89.80 90.65 4b. 1% wispy and blebs pyrrhotite. 90.65 92.00 4b with 2. 1% blebs pyrrhotite. 3% interbedded pyrite. 90.70 93.60 4e. Fault zone. Rubbly core and fault breccia comprising 70% 4b with chloritic interbedded sediment. Fault zone appears to become sub-vertical trending at 150 dca or at an azimuth of 200 degrees and as flat fractures perpendicular to foliation. Brittle fracture breccia throughout interval hosts 5% calcite fracture-filling up to 5% marcasite blebs and nodules less than or equal to 0.5 cm in diameter interbedded with magnetite beds. 92.00 93.00 4b. No pyrrhotite. 3% marcasite nodules. 93.00 94.00 4b. Trace to 1% fine marcasite fracture-filling.								
93.60	103.30	2	BASALT 2 - Possibly MSed. Fine grained, dark chloritic green, weakly foliated unit. Possibly FELSIC TO INTERMEDIATE VOLCANICS chloritic wacke. Non magnetic. Moderately hard. Fine weak biotitic alteration imparts foliation at 45 to 60 dca. Numerous fractures parallel foliation at 35 to 60 dca, and perpendicular to foliation at 130 to 140 dca. Whole unit is prominently fractured with at 15 to 20 joints per metre. Sub-vertical calcite fracture-filled fractures at 150 dca trend at azimuth of 200 degrees. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 3% fine weak pervasive biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 3% fine quartz-carbonate veinlets parallel to foliation, 0% calcite. 94.00 95.00 2. No sulphide. Weak biotitic alteration. 3% quartz-carbonate veinlets. 97.40 97.50 Orangey quartz-feldspar vein with sharp contacts at 55 dca. 97.89 98.05 Orangey quartz-feldspar vein with sharp contacts at 60 dca. 98.80 99.80 2. No sulphide. Barren wallrock. 99.80 100.85 24b. Bedded grunerite alteration variably left limb folded with fold axes at 44 dca. Fine fracture cleavage at 58 dca. Upper contact at 40 dca with lower contact								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			rubbly but parallel to foliation. FE03990 DUPLICATE of FE03989 0.07 0.07 NS. 99.80 101.00 24b. Finely disseminated to wispy pyrrhotite. 5% fine bedded magnetite. 10% grunerite alteration. 101.00 102.00 2. Barren weakly biotitic wallrock.								
103.30		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. No sludge return from drilling. DOWNHOLE SURVEY HISTORY:. 14.0 Metres: -50.0 Acid Test. 56.0 Metres: -48.0 Sperry Test. 101.0 Metres: -47.2 Sperry Test. DRILLING HISTORY:. 0.00 to 12.20m: Tricone and NW casing. 12.20 to 101.00m: Fluted Core Barrel. Dutem plug placed at 6 metres below casing, and one bag cement caps plug. Casing left in hole, and capped.								

DRILL HOLE RECORD

Northing: 8500.800
Easting: 8906.200
Elevation: 5307.200

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 38.00
Completed: Sept. 27, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8500NLogged: Oct. 09, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
103 m north,81 m west to post 4 of Pa529854

Drill Hole: 506-680
Northing: 8500.0N
Easting: 8911.3E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 26, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
19.5		-50.0	38.0		-49.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES# FE03993 - FE04006 (14 samples).								
.00	19.60	OB	OVERBURDEN Ob. Casing from 0.00 to 17.60 metres. Granitic and BVol boulders.								
19.60	24.66	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, yellowish grunerite altered beds with interbedded light grey chert and 20% garnetiferous beds. Coarse grained glomeroporphyritic pink garnets hosted in grunerite. 5% 4f also hosts up to 15% coarse grained porphyroblastic garnets. Very weakly to moderately magnetic. Moderately hard. Bedding of grunerite alteration and chloritic beds are wispy but averages 47 to 59 dca. From top of hole at 19.60 to 22.00 core is rubbly and fractured. Fractures parallel foliation are at 40 to 60 dca and perpendicular to foliation at 130 to 162 dca. Minor fractures 12 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			MINERALIZED ZONE:. From 22.40 to 22.75 5% wispy and stringers pyrrhotite, trace arsenopyrite, 2 specks VISIBLE GOLD at 22.67. GEOLOG DATA:. ALTERATION: 10% interbedded grunerite, 15% glomeroporphyritic, medium to coarse grained garnets, 0% silicification, 0% carbonatization, 5% interbedded chlorite, 3% interbedded biotite schist. MINERALIZATION: 1% pyrrhotite overall and one SULPHIDE MINERALIZED ZONE with up to 5% wispy pyrrhotite, 2 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 3% calcite fracture-filling. Lower contact is FELSIC TO INTERMEDIATE VOLCANICS diffuse alteration contact at 66 dca. 19.60 21.00 4ea. No sulphide. 21.00 22.00 4ea. 1% wispy pyrrhotite. 22.00 23.00 4ea. 2% wispy pyrrhotite. 1% wispy pyrite. Trace chalcopyrite and arsenopyrite. 2 specks VISIBLE GOLD in fractured garnet. 23.00 24.00 4ea. 1% wispy pyrrhotite. Trace pyrite. 24.00 24.66 4ea. 1% wispy pyrrhotite. 24.30 Tight left limb fold with fold axes at 50 dca.								
24.66	30.84	4B	CHERT - MAGNETITE IRON FORMATION 4b. Unit is FELSIC TO INTERMEDIATE VOLCANICS fine, well bedded intermixed sequence of weak grunerite alteration, chert and magnetite beds, chloritic beds and garnetiferous biotite schist. Fine grained beds are yellowish, light and dark grey, and chloritic green with pink garnets. Grunerite alteration is wispy to felted. Chert is strongly boudinaged. Bedding averages 46 to 65 dca. Foliation averages 55 dca. Fractures parallel bedding at 40 to 75 dca and perpendicular perpendicular at 130 to 140 dca. MINERALIZED ZONE:. From 27.00 to 28.50 trace to locally 1% crystals of arsenopyrite interbedded as in FELSIC TO INTERMEDIATE VOLCANICS fracture, and in cherty quartz vein or chert beds. From 29.50 to 30.89 2% wispy and disseminated pyrrhotite overall. Core of zone from 30.55 to 30.72 contains 10% semi-massive wispy and stringers of pyrrhotite in 4f bed. GEOLOG DATA:. ALTERATION: 3% interbedded grunerite, 2% interbedded garnets in chloritic beds, 0% silicification, 0% carbonatization, 5% interbedded chlorite, 3% interbedded biotite schist.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			MINERALIZATION: trace to 1% finely disseminated to wispy pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite crystals on fractures and in cherty quartz veins, 0% chalcopyrite, 5% finely interbedded magnetite. VEINING: 5% Blue-grey quartz flooding, 0% quartz-carbonate, 1% calcite fracture-filling. Lower contact at 58 dca. 24.66 26.00 4b. 1% wispy pyrrhotite. 26.00 27.00 4b. 2% wispy and blebs pyrrhotite in chert beds. 15% blue-grey quartz flooding. 27.00 28.00 4b. 1% fine wispy pyrrhotite. Trace to 1% fine crystals of arsenopyrite. 25% blue-grey quartz flooding. 28.00 29.00 4b. 1% fine wispy pyrrhotite. Trace arsenopyrite. 5% blue-grey quartz flooding. 29.00 30.00 4b. 1% blebs and wispy pyrrhotite. 15% quartz flooding. 29.50 Sub-vertical calcite fracture-filled fracture at 150 dca or at azimuth of 200 degrees. FE04000 STANDARD III 5.01 NS NS. FE04001 BLANK 0.14 NS NS. 30.00 30.84 4bf. 3% wispy and semi-massive interbedded pyrrhotite in 4f. 25% blue-grey quartz flooding parallel to foliation.								
30.84	38.00	2	BASALT 2 - Possibly MSed. Fine grained, dark chloritic green, weakly foliated unit. Possibly FELSIC TO INTERMEDIATE VOLCANICS chloritic wacke. Non magnetic. Moderately hard. Weakly bedded at 45 to 60 dca. Patchy weak biotitic alteration imparts FELSIC TO INTERMEDIATE VOLCANICS foliation of 45 to 55 dca. Fractures parallel foliation at 50 to 55 dca, and perpendicular to foliation at 135 to 160 dca. Core predominantly fractured throughout length of unit parallel foliation. Sub-vertical calcite fracture-filled fractures at 160 dca, perpendicular to foliation are at an azimuth of 210 degrees. Thin calcite veinlets parallel to foliation. At several locations a crenulation cleavage has drag-folded biotitic foliation. Fold axes at 57 dca. GEOLOG DATA:. ALTERATION: 1% interbedded grunerite in chert-magnetite-grunerite beds, 1% interbedded garnets, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 5% pervasive interbedded biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 3% quartz-carbonate veinlets parallel to foliation, 1% calcite fracture-filling. 30.84 32.00 2. No sulphide. Weak biotitic alteration.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Ausv g/t
			37.00 37.20 24e. 10% magnetite. 10% grunerite alteration. 20% quartz flooding. No sulphide. Lower contact at 65 dca.								
38.00		2	END OF HOLE CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken each 3m run. Samples stored at Musselwhite Campsite. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DOWNHOLE SURVEY HISTORY:. 19.50 Metres: -50.00 Acid Test. 38.00 Metres: -49.00 Acid Test. DRILLING HISTORY:. 0.00 to 17.60m: NW casing. 17.60 to 35.00m: Fluted Core Barrel. Dutem plug placed 6 metres below casing and one bag cement caps plug. Casing left in hole and capped.								

DRILL HOLE RECORD

Northing: 8500.800
Easting: 8923.900
Elevation: 5306.800

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 59.00
Completed: Sept. 28, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8500N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
91 m north,95 m west to post 4 of Pa529854
Logged: Oct. 09, 1993

Drill Hole: 506-682

Northing: 8500.0N
Easting: 8929.0E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 27, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
17.0		-49.0	59.0		-47.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Ausv g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES #FE04007 - FE04038 (32 Samples).								
.00	17.88	OB	OVERBURDEN OB. Casing from 0.00 to 17.00 metres. Numerous granitic boulders up to 0.5M in diameter. Also BVOL and Paleozoic limestone boulders.								
17.88	29.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVol. Fine grained, dark chloritic green mafic pyrolusite flow. Unit is FELSIC TO INTERMEDIATE VOLCANICS series of flattened pillows with very fine grained dark chloritic pillow selvages parallel to foliation at 50 dca. Thin calcite veinlets occupy the inter-selvage of pillows. Unit is non magnetic to weakly magnetic. Moderately hard. Unit is weakly biotitic imparting FELSIC TO INTERMEDIATE VOLCANICS weak foliation at 50 dca to 63 dca. Fractures at 15, 45 to 70 dca are subparallel to foliation, and at 130 to 135 dca perpendicular to foliation. The unit hosts FELSIC TO INTERMEDIATE VOLCANICS weak but uniformly fine bleach								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			fracture parallel to foliation, but increased in amount between 23.00 and 26.00 down hole. Not calcareous. Unit hosts up to 5% blue-grey cherty quartz veins parallel to foliation throughout. MINERALIZED ZONE:. From 27.75 to 27.90 5% wispy pyrrhotite, 3% wispy pyrite and trace chalcopyrite. GEOLOG DATA:. ALTERATION: 0% grunerite, 2% interbedded garnets near lower contact, 0% silicification, 0% carbonatization, 15% pervasive chlorite, 5% fine disseminated biotite. MINERALIZATION: trace pyrrhotite in quartz vein, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 5% Blue-grey cherty quartz vein at 42 to 52 dca. 0% quartz-carbonate, 0% calcite. Lower contact 60 dca. FE04010 DUPLICATE of FE04009 0.48 NS NS. 26.00 27.00 BVOL. 15% blue-grey quartz flooding and quartz veins parallel to foliation. 27.00 28.00 BVOL. 10% blue-grey quartz flooding and quartz veins parallel to foliation. Trace chalcopyrite. 28.00 29.00 BVOL. 10% garnetiferous biotite schist intermixed with chloritic BVol. 5% cherty quartz.								
29.00	34.40	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, black biotite schist with fine subhedral to euhedral interbedded garnets. Unit is non magnetic. Moderately hard. Unit hosts up to 15% 4ea beds in the 4f. 5% interbedded chloritic beds. Interbedded grunerite alteration indicates an intermixing and alteration superimposed on the 4f. Bedding is well developed but poorly defined due to the porphyroblastic growth of garnets within the biotite schist. Bedding at 45 to 65 dca. Unit is strongly folded with both right limb fold and left limb fold with average fold axes of 42 to 60 dca. Fractures at 50 to 60 dca are parallel foliation / bedding. FELSIC TO INTERMEDIATE VOLCANICS second set of fractures at 120 to 140 dca are perpendicular to foliation. MINERALIZED ZONE:. From 33.00 to 33.20 3% wispy pyrrhotite and 2% wispy pyrite in 35% blue-grey quartz flooding. No VISIBLE GOLD. GEOLOG DATA:.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			ALTERATION: 5% interbedded grunerite, 20% fine subhedral to euhedral garnetiferous beds, 0% silicification, 0% carbonatization, 5% interbedded chlorite beds, 35% biotite schist. MINERALIZATION: 1% wispy pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 5% Blue-grey quartz flooding parallel to foliation, 0% quartz-carbonate, 0% calcite fracture-filling. Lower contact at 51 dca. 29.00 30.00 4f. 1% wispy and finely disseminated pyrrhotite. 5% quartz flooding. 30.00 31.00 4f. No sulphide. 31.00 32.00 4f. No sulphide. 31.30 Tight right limb fold of garnetiferous beds with fold axes at 42 dca. 32.00 Tight left limb fold of chert beds with fold axes at 47 dca. 32.00 33.00 4f. 1% wispy pyrrhotite. 33.00 34.40 4f. 2% wispy pyrrhotite. 1% wispy pyrite. Trace chalcopyrite. 5% quartz flooding. 33.50 34.00 Tight right limb fold with fold axes at 55 to 60 dca.								
34.40	49.36	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea and 4eaf. From 34.40 to 37.50 4ea. From 37.50 to 41.18 4eaf. From 41.18 to 49.36 4ea. Unit is intermixed sequence of yellowish grunerite altered beds, light grey chert, dark chloritic beds and black biotite schist. Porphyroblastic glomeroporphyritic medium to coarse grained pink garnets at up to FELSIC TO INTERMEDIATE VOLCANICS cm in diameter noted in grunerite alteration. Fine to medium grained garnets noted in biotite schist. Unit is locally weakly magnetic to non magnetic. Moderately hard. Bedding / foliation averages 35 to 70 dca. Chloritic bedding is wispy. Bedding is strongly contorted. Left limb fold with axial planes at 42 and 53 dca. Right limb fold with axial planes at 45 to 50 dca. Fractures parallel foliation at 10, 50 to 60 dca, and perpendicular to foliation at 120 to 140 dca. MINERALIZATION:. From 37.55 to 38.54 3% wispy and stringers and semi-massive pyrrhotite intermixed with 1% pyrite. 6 specks VISIBLE GOLD noted in fractured garnet at 37.94. Included in the above mentioned zone from 37.82 to 37.94 30% semi-massive pyrrhotite with pyrite in FELSIC TO INTERMEDIATE VOLCANICS seam at 50 dca. From 44.20 to 46.90 2 to 3% stringers of pyrrhotite with 10% quartz flooding. GEOLOG DATA:. ALTERATION: 10% interbedded grunerite, 20% fine to medium grained glomeroporphyritic porphyroblastic interbedded garnets, 0% silicification, 0% carbonatization, 5% interbedded chlorite, 5% interbedded biotite schist.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			MINERALIZATION: 1% fine wispy pyrrhotite, 6 specks VISIBLE GOLD as mentioned in MINERALIZED ZONE: trace wispy pyrite, trace arsenopyrite crystals in fractures, 0% chalcopyrite, trace interbedded magnetite. VEINING: 5% blue-grey quartz flooding, 0% quartz-carbonate, 1% calcite fracture-filling. Sharp lower contact at end of grunerite alteration at 50 dca. 34.40 35.00 4eaf. 15% 4f. 1% fine wispy pyrrhotite. 35.00 36.00 4eaf. 10% 4f. 1% fine wispy pyrrhotite. Trace arsenopyrite crystals. 20% quartz flooding. 36.00 37.00 4ea. 2% fine wispy pyrrhotite. Trace arsenopyrite. 30% blue-grey quartz flooding. 37.00 38.00 4ea. 8% fine wispy and 10 cm semi-massive seam of pyrrhotite. 6 specks VISIBLE GOLD in fractured garnet in pyrrhotite seam. 38.00 39.00 4eaf. 3% fine wispy pyrrhotite. 2% fine wispy pyrite. 10% quartz flooding. 39.00 40.00 4eaf. 1% fine wispy pyrrhotite. 5% quartz flooding. 40.00 41.00 4eaf. 1% fine wispy pyrrhotite. 41.00 Tight left limb fold with fold axes at 56 dca. 41.00 42.00 4ea. No sulphide. 42.00 43.00 4ea. No sulphide. 42.30 42.63 4e interbedded. Upper contact at 38 dca and lower contact at 110 dca. M-type fold produces flame-structures in the fold nose and the offsets by the fracture cleavage. 43.00 Tight left limb fold with fold axes at 45 dca. 43.00 44.00 4eaf. 3% wispy and stringers and disseminated pyrrhotite. 10% quartz flooding. 43.12 43.25 4e with variable contacts with upper contact at 60 and lower contact at 60 dca. 44.00 45.00 4ea. 2% wispy and stringers pyrrhotite. Trace chalcopyrite. 10% quartz flooding. 45.00 46.00 4ea. 2% wispy pyrrhotite and fracture-filling in chert beds. Trace arsenopyrite. 15% quartz flooding. 45.40 Broad antiformal m-type fold in chert with fold axes at 40 dca. Hairline fractures with pyrite fracture-filling at 40 dca. FE04020 STANDARD III 5.01 NS NS. FE04021 BLANK 0.24 NS NS. FE04030 DUPLICATE of FE04029 2.50 NS NS. 46.00 47.00 4ea. 2% fine wispy and disseminated pyrrhotite. Trace chalcopyrite. 47.00 48.00 4ea. 1% disseminated pyrrhotite. 10% quartz flooding. 48.00 49.00 4ea. 1% disseminated pyrrhotite. 5% quartz flooding. 49.00 49.36 4ea. 1% disseminated pyrrhotite. 35% quartz flooding.								
49.36	50.84	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, light to dark grey chert with black interbedded magnetite. Some yellowish carbonatized and grunerite alteration at margins of chert beds.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Locally weakly to strongly magnetic. Hard. Unit is finely bedded to finely laminated. Bedding averages 43 to 60 dca. Foliation is not obvious but parallel bedding. Fractures parallel bedding average 50 to 65 dca. Fractures perpendicular to bedding average 130 to 150 dca. MINERALIZED ZONE:. From 50.27 to 50.60 MINERALIZED ZONE of blue-grey quartz flooding. 3% wispy pyrrhotite. Hairline sub-vertical fractures at 150 dca noted at an azimuth of 200 degrees. From 51.69 to 51.73 15% wispy, stringers to semi-massive pyrrhotite seam at 40 dca. 2% stringers and wispy pyrite marginal to pyrrhotite mineralization as fracture-filling. GEOLOG DATA:. ALTERATION: 3% interbedded grunerite, 5% fine mm sized subhedral to euhedral garnets, 0% silicification, 0% carbonatization, 0% chlorite, 0% biotite. MINERALIZATION: 1% wispy pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% interbedded fine laminated magnetite. VEINING: 5% Blue-grey quartz veins and quartz flooding parallel to foliation, 0% quartz-carbonate, 0% calcite. Lower contact at 55 dca. 49.36 50.25 4b. Interbedded fine laminated sediment. No sulphide. 50.25 51.00 4b. 40% blue-grey quartz flooding. 5% wispy pyrrhotite parallel to foliation.								
50.84	59.00	2	BASALT 2 - Possibly MSed. Fine grained, laminated, dark grey unit. Possibly FELSIC TO INTERMEDIATE VOLCANICS chloritic wacke. Non magnetic. Moderately hard. Foliation of weakly disseminated biotite is at 63 dca. Fractures mainly at 50 to 65 dca parallel foliation. Minor calcite fracture-filled fractures at 135 to 150 dca perpendicular to foliation. Fractures subparallel to foliation at 50 to 60 dca. Few barren white quartz-carbonate veinlets and veins up to FELSIC TO INTERMEDIATE VOLCANICS cm wide parallel to foliation. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 3% fine disseminated foliated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 3% quartz-carbonate veins and veinlets parallel to foliation, 0% calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			51.00 51.84 4b. Felted grunerite alteration of chert-magnetite beds. 3% wispy and semi-massive pyrrhotite seam at 50.7. 51.84 52.84 2. Barren wallrock. 56.30 56.37 Quartz-carbonate vein at 40 dca. 56.95 Fracture cleavage or fault line at 60 dca. Drag-folding of biotite foliation is truncated at fracture. Movement indicates west side thrust up on mm scale. 57.38 57.43 Quartz-carbonate vein at 53 dca. 58.70 59.00 Rubbly core. Fractured parallel foliation at 50 dca, and sub-vertical at 160 dca.								
59.00		2	END OF HOLE CASING LEFT IN HOLE AND CAPPED. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. No sludge return from drilling. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DOWNHOLE SURVEY HISTORY:. 17.00 Metres: -49.00 Acid Test. 59.00 Metres: -47.00 Sperry Test. DRILLING HISTORY:. 0.00m to 17.00m: Tricone and NW casing. 17.00m to 59.00m: Fluted Core Barrel. Dutem plug set 6 metres below casing, and one bag cement above plug. Casing left in hole, and capped.								

DRILL HOLE RECORD

Northing: 8500.500
Easting: 8942.400
Elevation: 5306.800

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 83.00
Completed: Sept. 29, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8500N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
79 m north,105 m west to post 4 of Pa529854
Logged: Oct. 11, 1993

Drill Hole: 506-685
Northing: 8500.0N
Easting: 8947.5E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 28, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
18.3		-49.0	83.0		-45.3						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE04039 - FE04081 (43 Samples).								
.00	18.00	OB	OVERBURDEN Ob. Granitic boulders. Casing from 0.00 to 18.30 metres.								
18.00	26.00	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVol. Unit is fine grained, light grey to creamy buff to yellowish due to weak patchy sericite alteration. Non magnetic. Moderately hard. Unit appears tuffaceous but bedding is poorly developed. Foliation averages 55 to 60 dca. Sericite alteration parallel foliation is weak to moderate and patchy. Weak calcite in sericite bleached MINERALIZED ZONEs. Weak purplish hue to core possibly due to very weak pervasive biotite. Intensely fractured and rubbly core from collar to 21.30. Fractures parallel to foliation are weakly oxidized. Fractures at all angles to core axis. Sub-vertical fault zone and associated gouge and breccia at approximate 19.0 metres. Possible trend at 160 dca or azimuth of 200 degrees.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			In more consolidated core, fractures parallel to foliation at 10, 50 to 70 dca, and perpendicular to foliation at 145 to 160 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 3% interbedded garnets in intraformational iron formation, 0% silicification, very weak carbonatization centered in sericite alteration, 0% chlorite, 3% pervasive biotite, 5% patchy sericite alteration. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 3% quartz-carbonate veinlets parallel to foliation, 3% calcite fracture-filling. Lower contact at 60 dca. 22.55 23.13 24e. Intermixed garnetiferous chloritic beds. 15% medium to coarse grained subhedral to euhedral garnets. Sharp lower contact at 58 dca. 22.95 Sub-vertical calcite fracture-filled fracture at 150 dca. At azimuth of 200 degrees. 23.67 23.80 24e. Intermixed garnetiferous chloritic beds. 15% medium to coarse grained subhedral to euhedral garnets. Sharp lower contact at 50 dca. FE04040 STANDARD III 5.07 NS NS. FE04041 BLANK 0.07 NS NS. 25.00 26.00 AVOL. Weak sericite alteration. 5% quartz veins parallel foliation.								
26.00	48.44	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVol. Fine grained, variably but weakly foliated due to biotitic alteration. Unit has FELSIC TO INTERMEDIATE VOLCANICS purplish to chocolate brown hue where biotitic altered, down hole to 28.90 and FELSIC TO INTERMEDIATE VOLCANICS dark chloritic green when unaltered. Unit is FELSIC TO INTERMEDIATE VOLCANICS mafic pyrolusite flow with thin, fine grained, dark chloritic flattened pillow selvages parallel foliation. Non magnetic. Moderately hard. Foliation from 41 to 65 dca. Fractures trend subparallel foliation at 20, 40 to 60 dca, and perpendicular to foliation at 130 to 155 dca. Quartz-carbonate fracture-filled fractures at 40 to 120 dca are weakly to strongly bleached. Fractures perpendicular to foliation are also weakly to strongly bleached. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 10% chlorite, 3% fine pervasive biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 3% quartz-carbonate veinlets parallel to foliation, 3% calcite fracture-filling perpendicular to foliation. Lower contact at 46 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			26.00 27.50 24b. Wispy, chloritic bedded garnetiferous intraformational iron formation. 3 to 4% wispy pyrrhotite, 1% wispy pyrite. 30% blue-grey quartz flooding. 26.00 26.75 24e. 3% wispy pyrrhotite in 50% quartz flooding parallel to foliation. 1% wispy pyrite. 26.75 27.50 24e. 3% wispy pyrrhotite in 30% quartz flooding. 2% wispy pyrite. 27.50 28.50 BVOL. No sulphide. Chloritic and biotitic altered. 5% blue-grey quartz veinlets. 28.50 29.40 BVOL. No sulphide. Weakly biotitic. 29.40 30.40 BVOL. 20% quartz flooding with 15% semi-massive to wispy pyrrhotite and pyrite at 29.80 to 30.00. 30.40 31.10 24e. Wispy, chloritic bedded garnetiferous intraformational iron formation. FE04050 DUPLICATE of FE04049 0.69 NS NS. 30.40 31.20 24e. 20% blue-grey quartz flooding with blebs and wispy pyrrhotite. 31.20 32.20 BVOL. No sulphide. Weakly biotitic. 47.44 48.44 BVOL. No sulphide. 5% cherty quartz veinlets.								
48.44	50.23	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, black biotite schist with up to 15% fine pink garnets. Non magnetic. Moderately hard. Poorly developed bedding due to garnet porphyroblasts. Foliation / bedding at 40 to 67 dca. Fractures parallel foliation at 35, 55 to 60 dca. Fractures perpendicular to foliation at 135 to 145 dca. 48.44 49.22 4f. No sulphide. 49.22 50.23 4f. No sulphide. 49.70 Tight isoclinal left limb fold of chert beds with fold axes at 49 dca GEOLOG DATA:. ALTERATION: 0% grunerite, 10% fine subhedral to euhedral garnets, 0% silicification, 0% carbonatization, 0% chlorite, 15% biotite schist. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 3% quartz-carbonate veinlets parallel to foliation, 0% calcite. Lower contact at 62 dca. 49.70 Tight isoclinal left limb fold of chert beds with fold axes at 49 dca								
50.23	68.58	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. Mixed 4ea and 4eaf. Both units are FELSIC TO INTERMEDIATE VOLCANICS fine grained matrix of either black biotite schist, light grey chert, or dark chloritic green beds with fine to coarse grained subhedral to euhedral porphyroblasts to glomeroporphyritic								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			garnets. Good beds of 4ea and 4f. Locally weakly magnetic. Moderately hard. Bedding strongly contorted and folded with both right limb fold and left limb fold with FELSIC TO INTERMEDIATE VOLCANICS range of fold axes at 24 to 52 dca. Bedding from 40 to 72 dca, but beds near fold closures is at 18 to 40 dca. Fractures parallel foliation at 25, 50 to 75 dca. Fractures perpendicular to foliation at 135 to 150 dca. MINERALIZED ZONES:. From 54.5 to 55.0 2% finely disseminated pyrrhotite. 1% pyrite. Trace chalcopyrite. Trace arsenopyrite. At 56.35 coarse VISIBLE GOLD. Cluster of specks in FELSIC TO INTERMEDIATE VOLCANICS linear trend 2.0 cm long by 0.3 cm wide. At 57.65 several (2) clouds of specks of VISIBLE GOLD noted. VISIBLE GOLD in fractured chloritic Wallrock fragments in FELSIC TO INTERMEDIATE VOLCANICS MINERALIZED ZONE of quartz flooding. From 58.4 to 58.7 2% finely disseminated stringers of pyrrhotite. 6 specks VISIBLE GOLD in chert bed at 58.67. GEOLOG DATA:. ALTERATION: 15% bedded grunerite, 15% medium to coarse grained garnets, 0% silicification, 0% carbonatization, 5% interbedded chlorite beds, 5% biotite schist. MINERALIZATION: 1% finely disseminated to wispy pyrrhotite, numerous zones with specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, trace chalcopyrite, 0% magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 3% calcite fracture-filling. Lower contact at 50 dca. 50.23 53.80 4eaf. Intermixed sequence of 4ea and 4f - Can possibly be logged as 4fea as units are nearly equal in proportions down hole to 53.80. 50.23 51.20 4fea. 1% finely disseminated pyrrhotite. 51.20 52.00 4eaf. 1% finely disseminated pyrrhotite in 4f beds. 52.00 Tight left limb fold of chert and 4ea with long left limbs and fold axes at 25 dca. 52.00 53.00 4eaf. 1% finely disseminated and interbedded pyrrhotite in 4f. 53.00 54.00 4ea. 1% fine wispy pyrrhotite. 54.00 55.00 4ea. 2% wispy and finely disseminated pyrrhotite. 55.00 56.00 4eaf. No sulphide. 56.00 57.00 4ea. 1% finely disseminated pyrrhotite. Coarse cloud or cluster of VISIBLE GOLD in cherty quartz flooding at 56.36. 57.00 58.00 4ea. 1% finely disseminated pyrrhotite. 1 speck VISIBLE GOLD at 57.05. 37 specks VISIBLE GOLD in fractured chloritic fragment in 30% quartz flooding at 57.55. 57.80 57.95 A 4e bed with folded garnetiferous bands / beds noted, in left limb fold. Towards mineralized zones the margins of bedded grunerite alteration become increasingly diffuse and fuzzy.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			58.00 59.00 4ea. 1% finely disseminated pyrrhotite. 6 specks VISIBLE GOLD in chert bedding at 58.67. 59.00 60.00 4eaf. 3% finely disseminated and wispy pyrrhotite. 1% wispy pyrite. 25% quartz flooding. 60.00 61.00 4e. No sulphide. Well bedded. 61.00 Metamorphic reverse graded bedding noted in FELSIC TO INTERMEDIATE VOLCANICS sequence of altered grunerite and garnetiferous chloritic sediment (4e). These cm wide beds indicate younging to the west. FELSIC TO INTERMEDIATE VOLCANICS magnetite base is now FELSIC TO INTERMEDIATE VOLCANICS fine bed of yellowish grunerite alteration grading up into, FELSIC TO INTERMEDIATE VOLCANICS grey to greyish-green pelitic core is now garnetiferous chloritic beds with fine to medium grained subhedral to euhedral pink garnets, and the very fine light grey chert cap is visually unaltered. Numerous tight folds throughout unit suggest many younging reversals over short core lengths. 61.00 62.00 4ea. Finely disseminated pyrrhotite in chert. 62.00 63.00 4ea. 1% wispy pyrrhotite. 15% quartz flooding. 63.00 64.00 4ea. 1% wispy and finely disseminated pyrrhotite. 10% quartz flooding 63.70 64.00 Numerous calcite fracture-filled fractures perpendicular to foliation 64.00 65.00 4ea. 1% finely disseminated pyrrhotite. 65.00 Tight left limb fold with fold axes at 50 dca. 65.00 66.00 4eaf. No sulphide. 10% quartz flooding. 66.00 67.00 4ea. 1% wispy pyrrhotite. 15% quartz flooding. 67.00 Tight right limb fold with fold axes at 56 dca. 67.00 68.00 4eaf. No sulphide. 68.00 68.58 4eab. No sulphide. 68.40 Tight right limb fold of chert beds with fold axes at 45 dca. FE04060 STANDARD III 4.63 NS NS. FE04061 BLANK 0.21 NS NS. FE04070 DUPLICATE of FE04069 0.10 NS NS.								
68.58	73.43	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, medium to dark grey to chloritic green, well laminated to well bedded iron formation. 10% Fine interbedded light grey chert. 10% fine bedded magnetite. Moderately to strongly magnetic. Moderately hard. Bedding from 47 to 74 dca. Chert beds indicate FELSIC TO INTERMEDIATE VOLCANICS strongly folded unit with right and left limb folding at 62 to 68 dca. Fractures subparallel to bedding at 40 to 75 dca. Perpendicular to bedding at 120 to 150 dca. With FELSIC TO INTERMEDIATE VOLCANICS fracture cleavage at 45 to 65 dca, and variably boudinaged chert beds, the unit is FELSIC TO INTERMEDIATE VOLCANICS complex of mm scale offsets. Areas of fine fracture cleavage provide a crenulation pattern due to cleavage and fine chevron folds.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. ALTERATION: 1% grunerite, 3% fine uniformly bedded garnets, 0% silicification, 0% carbonatization, 5% pervasive bedded chlorite, 0% biotite. MINERALIZATION: trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 10% bedded magnetite. VEINING: 0% quartz, 3% quartz-carbonate veinlets parallel to foliation, 3% calcite fracture-filling. Lower contact sharp at 52 dca. 68.58 69.58 4b. No sulphide. 69.00 Left limb fold and m-type fold of the fine laminated magnetite beds. 69.58 71.00 4b. No sulphide. 70.20 Right limb fold. 71.00 72.00 4b. No sulphide. 71.30 Fracture cleavage at 50 dca, with west side offset and up thrust. 72.00 73.43 4b. No sulphide.								
73.43	83.00	2	BASALT 2 - Possibly MSed. Fine grained, medium to dark grey, finely bedded to weakly foliated unit. Possibly FELSIC TO INTERMEDIATE VOLCANICS chloritic wacke. Non-magnetic. Moderately hard. Unit is similar to non-magnetic sediments of unit up hole. Pervasive weak biotitic alteration imparts FELSIC TO INTERMEDIATE VOLCANICS weak foliation at 35 to 58 dca. Fractures parallel to foliation at 30 to 60 dca. Fractures perpendicular to foliation at 125 to 160 dca are calcite fracture-filled. 5% Fine hairline calcite fracture-filled fractures parallel to foliation. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 5% pervasive to foliation biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3% quartz veinlets, 0% quartz-carbonate, 5% calcite fracture-filling. 73.43 74.43 2. No sulphide. 74.65 Drag-folding of biotitic foliation by fracture cleavage at 60 dca. West side dragged north. 79.06 79.27 24b. Left limb fold with lower contact at 50 dca. 79.73 80.47 Strongly biotitic 2. Foliation at 30 dca. FE04080 STANDARD III 4.77 NS NS. FE04081 BLANK 0.07 NS NS.								
83.00		2	END OF HOLE CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Sludge samples taken each 3m run. Samples sent for Au analysis. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DOWNHOLE SURVEY HISTORY:. 18.30 Metres: -49.00 Acid Test. 83.00 Metres: -45.25 Sperry Test. DRILLING HISTORY:. 0.00 to 18.30 metres: Tricone and NW casing. 18.30 to 83.00 metres: Fluted Core Barrel. Dutem plug set 6 metres below casing, and one bag cement above plug. Casing left in hole, and capped.								

DRILL HOLE RECORD

Northing: 8551.500
Easting: 8921.100
Elevation: 5307.400

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 55.00
Completed: Oct. 02, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8550N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
55 m north,58 m west to post 4 of Pa529854
Logged: Oct. 13, 1993

Drill Hole: 506-687
Northing: 8550.0N
Easting: 8925.6E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Sept. 29, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
17.7		-50.0	55.0		-46.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. Sample Series #FE04082 - FE04112 (31 samples).								
.00	17.90	OB	OVERBURDEN Ob. Granitic boulders up to 0.4 metre in diameter. Casing from 0.00 to 17.60 metres.								
17.90	23.86	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, chloritic green with purplish to chocolate brown unit. Non-magnetic. Moderately hard. Weak biotitic alteration imparts FELSIC TO INTERMEDIATE VOLCANICS weak foliation at 45 to 60 dca. Fractures parallel to foliation at 10, 40 to 60 dca. Fractures perpendicular to foliation at 130 to 150 dca. MINERALIZED ZONE:. From 22.48 to 23.86 quartz flooded MINERALIZED ZONE with 3% wispy and blebs of pyrrhotite. 1% wispy pyrite. Trace chalcopyrite. 1 speck VISIBLE GOLD at 22.8 and 2 specks VISIBLE GOLD at 23.35.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. ALTERATION: 0% grunerite, 1% interbedded garnet in 4e, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 10% fine disseminated biotite. MINERALIZATION: trace pyrrhotite, 3 specks VISIBLE GOLD in quartz flooding at contact with iron formation unit down hole, trace pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 10% quartz veinlets and quartz flooding, 5% quartz-carbonate veinlets parallel to foliation, 3% calcite fracture-filling. Lower contact sharp at 48 dca. 17.90 19.33 BVOL. Weak biotitic alteration. 3% quartz-carbonate veinlets parallel to foliation. 19.33 19.50 24e at 48 dca. 19.33 20.70 Biotitic BVOL. 10% garnetiferous cherty beds. 1% wispy pyrrhotite. 20% quartz flooding. 19.33 Sub-vertical fracture at 15 dca. Trends at azimuth of 215 degrees. 19.33 22.48 Sheared Biotitic BVOL. Strongly biotitic with garnetiferous BVOL. 20.17 20.35 Quartz vein at 50 dca. 20.70 21.20 BVOL. Weak biotitic alteration. 5% quartz-carbonate vein. No sulphide 21.20 22.30 Biotitic BVOL. 1% finely disseminated to wispy pyrrhotite. 20% quartz flooding. 21.25 22.12 MINERALIZED ZONE of 20% quartz flooding parallel to foliation in black biotitic altered BVOL. 22.00 Tight right limb fold of cherty quartz vein or chert bed with fold axes at 42 dca. 22.30 23.00 Biotitic BVOL. 2% wispy pyrrhotite. 1% wispy pyrite. Trace chalcopyrite. 1 speck VISIBLE GOLD at 22.80. 50% quartz flooding. 22.48 23.86 Quartz Vein System. 70% quartz veins with 3% wispy pyrrhotite, 1% blebs and wispy pyrite, and trace chalcopyrite. 3 specks VISIBLE GOLD 23.00 23.86 Biotitic BVOL. 2% wispy pyrrhotite. 1% blebs pyrite. Trace chalcopyrite. 2 specks VISIBLE GOLD at 23.35. 75% quartz flooding.								
23.86	26.63	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, dark grey to black biotite schist with fine subhedral to euhedral pink garnets. Intermixed with 20% light grey chert beds. Unit is non-magnetic. Moderately hard. Very minor 4ea interbedded. Unit grades from strong 4f to strong 4ea over 1.5 metres. Poorly defined bedding due to garnet porphyroblasts ranging in size up to several mm in the 4F unit and up to 0.5 cm in 4ea. Crude bedding from 48 to 56 dca. Unit is strongly folded with both left limb fold and right limb fold with fold axes at 45 to 56 dca. Fractures subparallel to bedding at 20, 36 to 61 and 120 to 154 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. ALTERATION: 2% interbedded grunerite, 15% garnetiferous beds, 0% silicification, 0% carbonatization, 3% interbedded chloritic beds, 15% biotite schist. MINERALIZATION: 1% wispy and finely disseminated pyrrhotite, 0 specks VISIBLE GOLD, trace to 1% wispy pyrite, 0% arsenopyrite, trace chalcopyrite, 0% magnetite VEINING: 0% quartz, 0% quartz-carbonate, 3% calcite fracture-filling. 23.86 25.00 4f. 1% wispy pyrrhotite. 10% quartz flooding. 25.00 26.00 4f. 2% wispy pyrrhotite. 1% pyrite. Trace chalcopyrite. 26.00 27.00 4fea. 1% wispy and finely disseminated pyrrhotite. 1% wispy pyrite. Trace chalcopyrite. 26.10 Tight left limb fold of chert and 4f with fold axes at 49 dca. FE04090 DUPLICATE of FE04089 2.43 NS NS.								
26.63	41.30	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, interbedded unit of chert beds and grunerite altered beds intermixed with glomeroporphyritic garnetiferous beds, and 5 to 10% chloritic beds. Unit is yellowish, with light to dark grey, chloritic green and pink. Non-magnetic. Moderately hard. Bedding is diffuse at 36 to 80 dca. Strongly folded and contorted. Foliation is parallel bedding at 55 to 60 dca. Fractures at 25, 40 to 70 dca parallel foliation and fractures perpendicular to foliation at 118 to 150 dca. Fractures perpendicular to foliation are generally calcite fracture-filled. From 35.2 to 40.5 numerous fractures (5) are sub-vertical and pyrite fracture-filled at 165 dca, or at azimuth of 215 degrees. These fractures split the core close to core axis. MINERALIZED ZONES:. From 28.35 to 30.95 2 to 3% wispy pyrrhotite. 1 to 2% wispy pyrite. Trace arsenopyrite and chalcopyrite. VISIBLE GOLD noted at the following - 28.53 (1), 29.30 (4), 29.45 (2), 29.65 (8), 29.76 (12), 31.75 (7). 15% blue-grey quartz flooding. From 31.70 to 32.30 3 to 5% wispy pyrrhotite with 2% wispy pyrite. Trace chalcopyrite. From 36.40 to 36.90 2 to 3% wispy pyrrhotite with 1% wispy pyrite. 20% quartz flooding. From 37.30 to 37.80 2% wispy pyrrhotite. 10% quartz flooding. GEOLOG DATA:. ALTERATION: 7% interbedded grunerite, 15% glomeroporphyritic garnet porphyroblasts, 0% silicification, 0% carbonatization, 5% interbedded pervasive chlorite, 0% biotite. MINERALIZATION: 1 to 2% wispy and finely disseminated pyrrhotite, 35 specks VISIBLE GOLD noted within sulphidized GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F., 1% pyrite, trace arsenopyrite, trace chalcopyrite, 0% magnetite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			VEINING: 10 to 15% Blue-grey quartz flooding, 0% quartz-carbonate, 3% calcite fracture-filling. Lower contact at 40 dca. 27.00 28.00 4ea. 2% wispy pyrrhotite. 1% pyrite. 10% quartz flooding. 28.00 29.00 4ea. 3% wispy and finely disseminated pyrrhotite. 1% wispy pyrite. Trace arsenopyrite. 15% quartz flooding. 1 speck VISIBLE GOLD. 29.00 30.00 4ea. 3% wispy pyrrhotite. 3% wispy pyrite. Trace arsenopyrite, chalcopyrite. 23 specks VISIBLE GOLD in 20% quartz flooding. 30.00 31.00 4ea. 1% wispy pyrrhotite. 1% wispy pyrite. 4 specks VISIBLE GOLD. 10% quartz flooding. 31.00 32.00 4ea. 1% wispy pyrrhotite. 1% wispy pyrite. 7 specks VISIBLE GOLD. 5% quartz flooding. 31.00 33.00 Rubbly core. Fractures at 60 and at 140 dca. 32.00 33.00 4ea. 2% wispy pyrrhotite. 3% wispy pyrite. 15% quartz flooding. 33.00 34.00 4ea. 2% wispy and finely disseminated pyrrhotite. 2% wispy pyrite. 20% quartz flooding. 34.00 35.00 4ea. 1% wispy pyrrhotite. Trace to 1% arsenopyrite. 25% quartz flooding. 35.00 36.00 4ea. 1% wispy pyrrhotite. 5% quartz flooding. 35.20 40.50 Numerous fractures (5) are sub-vertical and pyrite fracture-filled at 165 dca, or at azimuth of 215 degrees. These fractures split the core close to core axis. 35.70 Tight right-angle left limb fold with fold axes at 42 dca. 36.00 37.00 4ea. 1% wispy pyrrhotite. 5% quartz flooding. 37.00 38.00 4ea. 1% wispy pyrrhotite. 2% wispy to blebs pyrite. 5% quartz flooding. 38.00 39.00 4ea. 1% wispy pyrrhotite. 5% quartz flooding. 39.00 Tight right limb fold with fold axes at 50 dca. 39.00 40.00 4ea. 1% wispy and finely disseminated pyrrhotite. 1% wispy pyrite. 39.80 Broad left limb fold with fold axes at 40 dca. 40.00 41.00 4ea. 1% wispy pyrrhotite. 5% quartz flooding. 40.60 Tight right limb fold with fold axes at 40 dca. FE04100 STANDARD III 4.80 NS NS. FE04101 BLANK 0.07 0.07 NS. 40.70 43.50 Rubbly core due to two intersecting fractures at 45 dca and perpendicular to foliation at 125 to 140 dca. 41.00 42.00 4b w/ 4ea. 1% wispy pyrrhotite. 2% wispy pyrite. 10% quartz flooding.								
41.30	44.10	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, light to dark grey, finely laminated to well bedded. Weak yellowish carbonatized chert-magnetite beds. Moderately to strongly magnetic. Hard. Bedding at 36 to 45 dca. Chert beds strongly boudinaged. Fractures parallel bedding / foliation at 25, 40 to 50 dca. Fractures perpendicular to bedding at 130 to 140 dca. Numerous fractures perpendicular to								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			foliation are calcite fracture-filled. Core is well broken. MINERALIZED ZONES:. From 41.80 to 42.20 2% finely disseminated in pyrite. No quartz flooding. From 43.85 to 44.00 3% wispy pyrrhotite. GEOLOG DATA:. ALTERATION: 2% weak interbedded grunerite, 0% garnet, 0% silicification, 3% carbonatization associated with chert-magnetite bed, 5% pervasive chlorite, 0% biotite. MINERALIZATION: trace to 1% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5 to 10% interbedded magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 3% calcite fracture-filling. Lower contact sharp at 50 dca. 41.00 Rubbly core at 150 and 50 dca. 42.00 Rubbly core at 60 and 130 dca. 42.00 43.00 4b. 1% wispy pyrrhotite. 1% wispy pyrite. 43.00 44.00 4b. 3% wispy interbedded pyrrhotite. 1% wispy interbedded pyrite. 43.30 Rubbly core at 130 dca. 43.40 Tight fold with fold axes at 35 dca. FE04110 DUPLICATE of FE04109 0.34 NS NS. 44.00 45.00 2. No sulphide.								
44.10	55.00	2	BASALT Fine grained, light to dark grey with weak interbedded chloritic and biotitic alteration. Possibly FELSIC TO INTERMEDIATE VOLCANICS chloritic wacke. Very similar to the non-magnetic sediment interbeds of the unit up hole. Bedding is very weak with few chert beds at 50 dca. Foliation averages 47 to 59 dca. Broken core with fractures parallel foliation at 40 to 60 dca. Fractures perpendicular to foliation at 120 to 150 are calcite and pyrite fracture-filled. 3 to 5% quartz-carbonate veinlets at up to 0.3 cm parallel to foliation at 45 dca GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 10% pervasive bedded chlorite, 5% finely disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3% quartz veins parallel to foliation, 3% quartz-carbonate veinlets parallel to foliation, 3% calcite fracture-filling. 46.40 48.20 Rubbly to broken core at 60 and at 140 dca. 49.00 At 50.00 and at 50.50 Rubbly core with fractures at 60 and at 140 dca 52.00 Fracture at 140 dca perpendicular to foliation hosts fine chloritic fault gouge. 54.30 54.70 Rubbly and broken core parallel foliation at 40 to 60 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
55.00		2	END OF HOLE CASING LEFT IN HOLE AND CAPPED. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken each 3m run. Samples stored at Musselwhite camp. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DOWNHOLE SURVEY HISTORY:. 17.70 Metres -50.00 Acid Test. 55.00 Metres -46.50 Sperry Test. DRILLING HISTORY:. 00.00 to 17.60 metres: Tricone. 17.60 to 85.00 metres: Fluted Core Barrel. Dutem plug set 6 metres below casing, and one bag cement above plug. Casing left in hole, and capped.								

DRILL HOLE RECORD

Northing: 8551.000
Easting: 8936.000
Elevation: 5306.800

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 77.00
Completed: Oct. 03,1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8550N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
45 m north,69 m west to post 4 of Pa529854
Logged: Oct. 13, 1993

Drill Hole: 506-690
Northing: 8550.0N
Easting: 8940.7E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Oct. 02, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
21.3		-49.0	74.5		-46.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. Sample Series #FE04113 - FE04157 (45 Samples).								
.00	19.66	OB	OVERBURDEN Ob. Granitic boulders. From 00.00 to 17.00 Granitic boulders. From 17.00 to 18.50 BVOL. From 18.50 to 19.66 Granitic cobbles and pebbles. Unsure if drillers misplaced Ovb boulder fragments between the first intersection of BVOL at 17.00m and the second intersection at 19.66m, and start of BVOL core. Because unsure of this possible error, sided with caution and considered bedrock at the deeper of the two possible levels. Casing from 0.00 to 21.30 metres.								
19.66	36.70	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark chloritic green mafic volcanic pillowed flow. Non-magnetic. Moderately hard. Very fine, dark chloritic bands parallel foliation represent flattened chloritic								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			pillow selvages. Unit becomes biotitic and garnetiferous with up to 5% medium to coarse grained garnets from 35.00 to lower contact. Weak biotitic alteration imparts FELSIC TO INTERMEDIATE VOLCANICS weak foliation at 43 to 72 dca. Numerous thin calcite fractures parallel to foliation noted throughout unit. Fractures subparallel foliation at 15, 40 to 60 dca. Fractures perpendicular to foliation at 120 to 160 dca are calcite fracture-filled. Lower contact at 55 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 1% garnet, 0% silicification, 0% carbonatization, 15% interbedded pervasive chlorite, 5% finely disseminated foliated biotite. MINERALIZATION: trace pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 15% quartz vein system, 0% quartz-carbonate, 3% calcite fracture-filling 30.00 31.00 BVOL. No sulphide. 5% blue-grey quartz veins parallel to foliation. 31.00 32.00 BVOL. 1% Blebs pyrrhotite. 30% wispy quartz veins and quartz flooding 31.22 32.26 Quartz Vein System. 40% wispy quartz. Weak biotitic altered margins. 1% wispy pyrite and 1% blebs of pyrrhotite. 32.00 33.00 BVOL. No sulphide. 5% quartz flooding. 32.54 33.15 Quartz Vein System. 70% wispy and massive milky white to blue-grey quartz. Chloritic wallrock. No sulphide. 33.00 34.00 BVOL. No sulphide. 5% quartz veins. 34.00 34.73 Quartz Vein System. 80% massive milky to blue-grey quartz vein with biotitic wallrock. No sulphide. FE04120 STANDARD III 4.87 NS NS. FE04121 BLANK 0.14 NS NS. 34.00 35.00 BVOL. 40% quartz flooding. No sulphide. 35.00 36.00 BVOL. No sulphide. 3% quartz veinlets. 36.00 36.70 BVOL. Garnetiferous, biotitic altered. No sulphide.								
36.70	40.46	4F	GARNET-BIOTITE SCHIST 4f. Unit is FELSIC TO INTERMEDIATE VOLCANICS fine grained, black biotite schist interbedded with 25% fine grained dark green chloritic beds and 20% yellowish fine grunerite altered beds. Fine to coarse pink garnet porphyroblasts cause bedding to appear wispy. Non-magnetic. Hard. From 36.70 to 38.0 10% grunerite beds. From 38.0 to 40.46 20% light grey chert beds average up to 2 cm. Bedding at 42 to 71 dca. In places tight folded beds noted. Right limb fold with axial plane at 55 dca. Fractures parallel foliation at 30, 45 to 75 dca. Fractures perpendicular to foliation at 100 to 135 dca. MINERALIZED ZONES:.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			From 38.18 to 39.40 2% wispy pyrrhotite. 1% wispy pyrite. Trace chalcopyrite. 15% wispy quartz flooding. GEOLOG DATA:. ALTERATION: 3% interbedded grunerite, 15% interbedded fine garnets, 0% silicification, 0% carbonatization, 5% interbedded pervasive chlorite beds, 15% biotite schist. MINERALIZATION: 1% wispy pyrrhotite, 1 speck VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 5% quartz flooding and quartz veins parallel to foliation, 0% quartz-carbonate, 3% calcite fracture-filling. Lower contact 55 dca. 36.70 38.00 4f. 20% grunerite altered beds. No sulphide. 38.00 39.00 4f. 2% wispy pyrrhotite. 1% wispy pyrite. Trace chalcopyrite. 1 speck VISIBLE GOLD at 38.70. 25% blue-grey quartz flooding. 39.00 40.00 4f. 2% wispy pyrrhotite. 39.50 Tight right limb fold of chert bed with fold axes at 60 dca. 39.95 Rubbly core at 125 dca. Pyrite and calcite fracture-filling. 40.00 Tight right limb fold of garnetiferous bed with fold axes at 55 dca. 40.00 40.50 4f. 1% wispy pyrrhotite. 1% arsenopyrite.								
40.46	59.00	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, 20% light grey chert beds with 45% interbedded grunerite altered beds and 15% dark chloritic green beds. 5% black fine grained 4f interbedded. Medium to coarse grained, subhedral to euhedral, pink glomeroporphyritic garnetiferous beds. Chert beds average 1 cm wide and overall make up 20% of unit. Grunerite beds average up to 3 cm and are FELSIC TO INTERMEDIATE VOLCANICS combination of coarse garnets and fine felted grunerite. Locally weakly magnetic. Moderately hard. Bedding averages 60 dca and is strongly folded. Right limb fold and left limb fold with axial planes 40 to 60 dca. Fractures subparallel 20, 45 to 70 dca. Perpendicular to foliation at 120 to 165 dca. Fractures parallel foliation generally part along the contorted of schistose 4f with the grunerite altered beds. MINERALIZED ZONES:. From 44.70 to 45.50 metres 2% wispy pyrite. 2% wispy pyrrhotite. Trace chalcopyrite. 5% quartz flooding. 1 speck VISIBLE GOLD at 45.1. From 53.10 to 54.50 metres 2 to 3% wispy pyrrhotite. 1% wispy pyrite. 10% quartz flooding. GEOLOG DATA:. ALTERATION: 5 to 10% interbedded grunerite, 15% subhedral to euhedral, medium to coarse grained glomeroporphyritic garnets, 0% silicification, 0% carbonatization, 5% pervasive interbedded chlorite, 5% biotite schist.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			MINERALIZATION: trace to 1% wispy pyrrhotite, 10 specks VISIBLE GOLD scattered throughout, usually in fractured garnets, trace pyrite, trace arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3 to 5% wispy quartz flooding, 0% quartz-carbonate, 1% calcite fracture-filling. Lower contact sharp at 70 dca. 40.50 41.00 4ea. Trace arsenopyrite. 41.00 Tight left limb fold with fold axes at 56 dca. 41.00 42.00 4ea. No sulphide. 5% quartz flooding. 42.00 43.00 4ea. No sulphide. 5% quartz flooding. 42.40 Tight to isoclinal right limb fold of chert with fold axes at 55 dca. 43.00 44.00 4ea. 1% finely disseminated to wispy pyrrhotite. 1% wispy pyrite. 5% quartz flooding. 44.00 45.00 4ea. 1% wispy pyrrhotite. 10% quartz flooding. 45.00 46.00 4ea. 3% wispy pyrrhotite. 20% quartz flooding. Trace chalcopyrite. 1 speck VISIBLE GOLD at 45.12. 46.00 47.00 4ea. Trace to 1% finely disseminated pyrrhotite. 46.98 47.49 BVOL. Very weakly biotitic altered. Tight to isoclinal folded bedding and alteration. Lower contact at 60 dca. 47.00 48.00 4e. No sulphide. 48.00 49.00 4ea. Trace to 1% finely disseminated pyrrhotite. 48.80 50.00 Massive grunerite alteration with thin tightly folded chert beds exhibiting asymmetrical left limb fold with fold axes at 42 dca. Left limb of a left limb fold is 3x longer than right limb of left limb fold. Fold closures are tectonically thickened and limbs are attenuated. Internal angle of folds is approximate 30 degrees. 49.00 50.33 4ea. No sulphide. No quartz flooding. 50.00 50.50 Rubbly core due to fractures at 50 and 140 dca. 50.33 51.37 4e or BVOL. Few garnets. Dark chloritic green with weak finely disseminated foliated biotite. Upper contact at 35 dca. Lower contact at 85 dca. 50.33 51.37 BVOL. 4e. Very weak biotitic alteration. 51.37 52.00 4ea. 1% wispy pyrrhotite. Trace arsenopyrite. 2 specks VISIBLE GOLD at 51.80 in fractured garnets. 15% quartz flooding. 52.00 53.00 4ea. 2% wispy pyrrhotite. 1% blebs pyrite. 15% quartz flooding. 52.20 54.00 10% intermixed 4ef beds. 53.00 54.00 4eaf. 2% wispy and blebs of pyrrhotite. 1% pyrite. 15% quartz flooding. 54.00 55.00 4ea. 1% wispy and disseminated pyrrhotite. 5% quartz flooding. 55.00 56.00 4ea. No sulphide. 55.30 Broad left limb fold with fold axes at 75 dca. Internal angle of fold is 120 degrees. FE04130 DUPLICATE of FE04129 1.68 NS NS. FE04140 STANDARD III 4.94 NS NS. FE04141 BLANK 0.07 NS NS. 56.00 57.00 4ea. 2% wispy pyrrhotite. 10% quartz flooding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			57.00 58.00 4ea. 1% wispy pyrrhotite. 5% quartz flooding. 58.00 59.00 4ea. No sulphide.								
59.00	62.33	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, dark grey to chloritic green, finely laminated to well bedded sediment with up to 15% interbedded magnetite. Up to 15% interbedded 4f. Moderately to strongly magnetic. Moderately hard to hard. Poorly developed chert - magnetite bedding, but rather FELSIC TO INTERMEDIATE VOLCANICS magnetite rich sediment. Bedding at 59 to 70 dca. Fine laminated sediments are truncated and offset by fracture cleavage at 65 dca. Bedding is also strongly folded with an average fold axes of 60 dca. Fractured core parallel foliation is at 10, 50 to 60 dca and perpendicular to foliation at 125 to 150 dca. Fractures perpendicular to foliation are generally pyrite and calcite fracture-filled. GEOLOG DATA:. ALTERATION: 1% interbedded grunerite, 5% fine interbedded garnets in 4f, 0% silicification, 0% carbonatization, 5% interbedded chlorite, 5% biotite schist beds. MINERALIZATION: 1% interbedded wispy pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% interbedded magnetite. VEINING: 5% quartz veinlets parallel to foliation. 0% quartz-carbonate, 1% calcite fracture-filling. 59.00 60.00 4bf. No sulphide. 40% 4f interbedded. 59.90 M-type fold with fold axes at 65 dca. 60.00 61.00 4bf. Trace to 1% finely disseminated pyrrhotite. 2. 60.30 Sub-vertical calcite fracture-filled hairline fracture at 160 dca or azimuth of 208 degrees. FE04150 DUPLICATE of FE04149 0.48 ns ns. 60.90 Tight to isoclinal left limb fold of finely laminated sediments with fold axes at 55 dca. Internal angle at 60 dca. 61.00 62.00 4b. Grunerite alteration interbedded with chert-magnetite beds. No sulphide. 61.35 62.05 Grunerite alteration of iron formation. 62.00 63.00 2. 30% 4b. 2% wispy pyrrhotite. 1% wispy pyrite. Trace arsenopyrite.								
62.33	77.00	2	BASALT Fine grained, dark grey, finely laminated to well bedded unit. Possibly FELSIC TO INTERMEDIATE VOLCANICS chloritic wacke. Non-magnetic. Moderately hard. Foliation imparted by FELSIC TO INTERMEDIATE VOLCANICS weak but pervasive finely disseminated biotite at 54 to 64 dca. 3% Thin calcite veinlets parallel to foliation throughout. Fractures parallel to foliation at 40 to 61 dca. Fractures perpendicular to								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			foliation at 130 to 160 dca. Numerous fine fracture cleavages associated with drag-folded foliation. Fracture cleavage at 48 dca. GEOLOG DATA:. ALTERATION: 5% interbedded grunerite, 0% garnet, 0% silicification, 2% carbonatization, 15% pervasive chlorite, 5% finely disseminated, foliated biotite MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 0% calcite. 63.00 64.00 2. Weak biotitic alteration. No sulphide. 73.00 74.00 2. No sulphide. Weak biotitic alteration. Barren WALLROCK. 74.00 74.75 24b. Chert-magnetite beds with 15% wispy interbedded grunerite alteration. 15% fine magnetite. Calcareous. 74.05 75.48 24b. Finely interbedded wispy yellowish grunerite alteration of chert-magnetite beds. Up to 15% fine interbedded magnetite. Lower contact at 50 dca. 74.70 74.85 2 with contacts at 30 dca. 74.75 75.50 24b. Chert-magnetite beds with 5% wispy interbedded grunerite alteration. 5% finely disseminated magnetite. Calcareous. 75.50 76.50 2. No sulphide. Weak biotitic alteration. Barren wallrock.								
77.00		2	END OF HOLE CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples collected every 3 metres. Samples stored at Musselwhite Camp. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DOWNHOLE SURVEY HISTORY:. 21.30 Metres: -49.00 Acid Test. 74.50 Metres: -46.5 Sperry Test. DRILLING HISTORY:. 0.00 to 21.30 metres: NW casing. 21.30 to 77.00 metres: Fluted Core Barrel. Plug set 6.0 metres below casing, and one bag cement placed above plug. Casing left in hole, and capped.								

DRILL HOLE RECORD

Northing: 8550.900
Easting: 8951.200
Elevation: 5306.700

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 87.50
Completed: Oct. 04, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8550N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
36 m north,80 m west to post 4 of Pa529854
Logged: Oct. 15, 1993

Drill Hole: 506-692

Northing: 8550.0N
Easting: 8955.9E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Oct. 03, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
18.3		-50.0	87.5		-46.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. Sample Series #FE04158 - FE04222 (65 samples).								
.00	16.86	OB	OVERBURDEN Ob. Casing from 0.00 to 18.30 metres. Granitic boulders up to 0.30 magnetites intermixed with fine sand and clay.								
16.86	27.26	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, light grey, weakly bedded tuffaceous unit with patchy light yellowish sericite alteration. Non-magnetic. Moderately hard. Fragmental appearance due to feldspathic fragments up to 0.3 cm in diameter. Weak but pervasive unfoliated fine muscovite flakes scattered throughout unit. Very weak purplish hue in core due to weak biotitic alteration. Sericite alteration is diffuse and bleeds into lesser altered core. Also, prominent sericite alteration enveloping quartz veins and veinlets parallel to foliation. Unit hosts up to 3% boudinaged quartz veins average up to 1 cm wide. Foliation at 40 to 55 dca. Fractures subparallel to foliation at 30 to 65 dca. Fractures perpendicular to								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			foliation at 120 to 155 dca are weakly altered and oxidized. Weakly interbedded wispy pyrite and pyrrhotite mineralization parallel to foliation throughout unit. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% biotite, 5% sericite. MINERALIZATION: trace to 1% pyrrhotite, 0 specks VISIBLE GOLD, trace to 1% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3% quartz veinlets and veins parallel to foliation, 0% quartz-carbonate, 0% calcite. 16.86 18.00 AVOL. 5% quartz veinlets. 18.00 19.00 AVOL. 1% finely disseminated pyrrhotite. 1% finely disseminated pyrite. 3% quartz veins. 18.60 To 19.00 Rubbly core at 130 and at 50 dca. 19.00 20.00 AVOL. 1% interbedded pyrrhotite. 1% interbedded pyrite. 5% quartz veinlets. 20.00 21.00 AVOL. Trace to 1% pyrrhotite along quartz vein wall. Trace purple sphalerite in quartz vein. 10% quartz veinlets. 20.90 Mud Seam at 145 dca. 21.00 22.00 AVOL. Trace sulphide. 10% white quartz veins. 22.00 23.00 AVOL. 1% interbedded pyrite. 5% quartz veinlets. 23.00 24.50 AVOL. No sulphide. 5% quartz veinlets parallel to foliation. 24.50 26.00 AVOL. 1% fine interbedded pyrrhotite. 15% quartz veins. 26.00 27.26 5% core bleached with sericite alteration. 15% quartz veins parallel to foliation. FE04160 STANDARD III 5.07 ns ns. FE04161 BLANK 0.21 ns ns. 26.00 27.26 AVOL. 1% finely disseminated pyrrhotite at quartz vein contact. 15% white quartz veins.								
27.26	51.15	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark chloritic green mafic with variable amounts of biotitic alteration. In the unaltered BVOL unit is FELSIC TO INTERMEDIATE VOLCANICS fine grained, chloritic green mafic pyrolusite flow with dark chloritic green flattened pillow selvages. Fine calcite fractures or veinlets parallel to foliation at up to 5% noted throughout. The degree of biotitic alteration imparts differing intensities of foliation and makes the unit change from chloritic green to shades of chocolate brown. Contact with upper unit is defined by chlorite within this BVOL and no chlorite in the AVOL. Weak biotitic alteration and sericite alteration is associated with both units but chlorite is exclusive to the BVOL. Strong biotitic alteration adjacent to the intraformational iron formation. Foliation from 36 to 70 dca. Fractures are subparallel to foliation at 30 to 68 dca. Perpendicular to								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			foliation at 125 to 150 dca. Fractures perpendicular to foliation are calcite fracture-filled. GEOLOG DATA: BVOL. ALTERATION: 0% grunerite, 3% interbedded garnets, 0% silicification, 0% carbonatization, 20% pervasive chlorite, 5 to 20% finely disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3% quartz veinlets parallel to foliation, 0% quartz-carbonate, 3% calcite fracture-filling. GEOLOG DATA: 24e. ALTERATION: 5% interbedded grunerite, 15% interbedded medium to coarse grained subhedral to euhedral garnets, 0% silicification, 0% carbonatization, 10% pervasive interbedded chlorite, 3% finely disseminated biotite. MINERALIZATION: 2 to 3% wispy and blebs of pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace chalcopyrite, 0% magnetite. VEINING: 5% quartz veins and veinlets parallel to foliation, 0% quartz-carbonate, 3% calcite fracture-filling. Lower contact sharp at 63 dca. 27.26 28.50 BVOL. Strong biotitic alteration. 5% medium subhedral to euhedral garnets. No sulphide. 28.50 29.00 24e. 5% wisps and blebs of pyrrhotite. 28.56 28.85 24e. 3 to 5% pyrrhotite blebs in pressure shadows of garnetiferous beds, and wisps parallel to foliation. 20% glomeroporphyritic garnetiferous beds in FELSIC TO INTERMEDIATE VOLCANICS chloritic matrix at 45 dca. 29.00 30.00 BVOL. Medium to strong biotitic alteration. No sulphide. 30.00 31.00 BVOL. 30% 24e. No sulphide. 30.72 32.88 24e. 2 to 3% wisps and blebs of pyrrhotite in garnetiferous, grunerite altered beds. Lower contact 50 dca. 31.00 32.00 24e. 10% strong grunerite alteration. 3% wispy and blebs pyrrhotite. 32.00 33.00 24e. 80% 24e. 7% strong grunerite alteration. 2% wisps and blebs pyrrhotite. 33.00 34.00 BVOL. Strong biotitic alteration. No sulphide. 34.00 35.00 BVOL. Weak biotitic alteration. No sulphide. 34.60 36.00 Flat fractures are calcite fracture-filled and have bleached wallrock equal to their width. 35.00 36.00 BVOL. Chloritic unit. Weak carbonatization. 35.95 Rubbly core at 60 and at 130 dca. 36.00 37.00 BVOL. 45% 24e. 3% wispy pyrrhotite. Trace to 1% wispy chalcopyrite. 35% quartz flooding. 37.00 38.00 BVOL. Medium biotitic alteration. Trace to 1% wispy pyrrhotite in 3 cm quartz vein. 37.30 Rubbly core at 130 dca. 43.03 43.07 5 cm quartz vein at 40 dca. No sulphide.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			44.50 Rubbly core at 130 and at 50 dca. 45.00 46.00 Numerous rubbly sections of core fractured at 50 dca and at 140 dca. 48.16 48.24 8 cm quartz vein at 45 dca. No sulphide. 50.00 Sub-vertical fracture at 165 dca. Azimuth of 215 degrees. FE04170 DUPLICATE of FE04169 0.07 ns ns. FE04180 STANDARD III 4.49 ns ns. FE04181 BLANK 0.07 ns ns. 50.00 51.12 BVOL. No sulphide. 51.12 52.00 4f. No quartz vein or quartz flooding.								
51.15	53.74	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, black biotite schist with up to 15% fine subhedral to euhedral pink garnets. 10% Light grey chert beds interbedded. Non-magnetic. Moderately hard. Bedding is weak at 53 to 63 dca. Bedding is strongly folded with both tight left limb fold and right limb fold with fold axes at 65 dca. M type fold with axial plane at 63 dca. Foliation parallel bedding averages 60 dca. Fractures parallel bedding average 60 to 70 dca. Calcite fracture-filled fractures perpendicular to bedding averages 110 to 145 dca. GEOLOG DATA:. ALTERATION: 3% interbedded grunerite, 15% finely disseminated garnets, 0% silicification, 0% carbonatization, 5% interbedded chlorite, 20% biotite schist. MINERALIZATION: trace pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz veins, 0% quartz-carbonate, 1% calcite fracture-filling. Sharp lower contact at 65 dca. 52.00 53.00 4f. No sulphide. No quartz flooding. 53.00 53.74 4f. Trace to 1% finely disseminated pyrrhotite.								
53.74	73.74	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, yellowish grunerite alteration interbedded with garnetiferous beds are intermixed with dark chloritic green beds and light grey chert beds. Locally weakly magnetic. Moderately hard. Composed of: 60% grunerite alteration, 30% chert beds and 10% chloritic 4e beds. Unit is well bedded to finely laminated to diffusely bedded and wispy due to the garnet porphyroblasts, felted grunerite alteration and shearing superimposed on unit. Bedding at 30 to 60 dca. Bedding is strongly contorted with tight to isoclinal folds. Fold axess at 30 to 46 dca. Fractures throughout are parallel foliation at 25 to 70 dca and perpendicular to foliation at 140 to 160 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			MINERALIZED ZONES:. From 54.85 to 58.50 metres 4% stringers and wispy pyrrhotite throughout. 15% quartz flooding. Fine crystals of arsenopyrite scattered. Trace chalcopyrite. From 61.80 to 65.10 metres 3% stringers and wispy pyrrhotite with local concentrations to 5% as at 61.90 to 62.00. 15% wispy blue-grey quartz flooding. 11 fine specks VISIBLE GOLD at 61.8, 34 fine specks VISIBLE GOLD at 62.5, 5 fine specks VISIBLE GOLD at 63.5, 3 fine specks VISIBLE GOLD at 63.7, 2 fine specks VISIBLE GOLD at 64.13, and 3 fine specks VISIBLE GOLD at 63.25. Generally, VISIBLE GOLD is noted in the vicinity of concentrations of wispy pyrrhotite i.e. Re-mobilization of Au along sulphidizing conduits. VISIBLE GOLD is noted as single grains up to 0.3 mm in fractured garnets and in chert beds. Also noted as very fine grained clusters in the chloritic beds. GEOLOG DATA:. ALTERATION: 5 to 10% interbedded grunerite, 15% fine grained to glomeroporphyritic garnetiferous beds, 0% silicification, 0% carbonatization, 10% interbedded chlorite, 5% biotite schist beds. MINERALIZATION: 1% pyrrhotite, numerous specks VISIBLE GOLD noted in MINERALIZED ZONES:, trace pyrite, trace arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 1% calcite fracture-filling. Lower contact sharp at 50 dca. 53.00 Tight to isoclinal right limb fold of chert beds with fold axes at 30 dca. 53.74 55.00 4ea. 1% wispy pyrrhotite. 5% quartz flooding. 54.30 Tight left limb fold of chert beds with fold axes at 30 dca. 55.00 56.00 4ea. 4% wips and blebs of pyrrhotite. 55.50 Tight left limb fold of chert beds with fold axes at 23 dca. 56.00 57.00 4ea. 7% wisps and blebs pyrrhotite. Trace chalcopyrite, arsenopyrite. 40% quartz flooding. 57.00 58.00 4ea. 5% wispy pyrrhotite. 2% wispy pyrite. Trace chalcopyrite. 15% quartz flooding. 58.00 59.00 4ea. 1% wisps pyrrhotite. 5% quartz flooding. 58.95 60.20 Predominantly 4e with 30% interbedded 4ea. 59.00 59.50 4e. No sulphide. Minor 4ea. 59.40 Tight m-type fold of chert beds with fold axes at 50 dca. 59.50 60.40 4e. Trace to 1% finely disseminated pyrrhotite. No quartz flooding. 60.10 Tight right limb fold of chert beds with fold axes at 44 dca. 60.40 61.40 4ea. 1% finely disseminated to wispy pyrrhotite. 15% 4f. No quartz flooding. 61.40 62.40 4ea. 2% wispy pyrrhotite. 10% quartz flooding. Trace arsenopyrite. 11 specks VISIBLE GOLD at 61.8. 62.40 63.40 4ea. 2% wispy pyrrhotite. 38 fine specks VISIBLE GOLD in quartz flooding at 62.43 to 62.60. 63.40 64.40 4ea. 2% wispy pyrrhotite. 13 fine specks VISIBLE GOLD on 4 sites over sample length. 20% quartz flooding. 64.40 65.40 4ea. 2% wispy pyrrhotite. 1% wispy pyrite. 15% quartz flooding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			64.50 Tight right limb fold of chert beds with fold axes at 60 dca. 65.40 66.00 4ea. 1% wisps and blebs pyrrhotite. Trace to 1% pyrite. Trace chalcopyrite. 66.00 67.00 4ea. 1% finely disseminated pyrrhotite. No quartz flooding. 66.10 Tight left limb fold of chert and 4e beds with fold axes at 42 dca. 67.00 68.00 4ea. 1% finely disseminated pyrrhotite. 15% quartz flooding. 67.12 Fault zone at 147 dca. Fine breccia fragments and slickensides on chloritic fracture surface. 68.00 69.00 4ea. 1% finely disseminated to wispy pyrrhotite. 5% quartz flooding. 68.80 Broad fold with fold axes at 30 dca. 69.00 70.00 4ea. 10% quartz flooding and 5% quartz veining. 70.00 71.00 4ea. 10% quartz flooding. 5% quartz veining. 70.10 Tight m-type fold with fold axes at 34 dca. Internal angle of fold is 35 to 40 degrees. 71.00 72.00 4ea. 10% quartz flooding. 71.70 Numerous tight m-type fold of garnetiferous beds with fold axes at 52 dca. FE04190 DUPLICATE of FE04189 3.87 ns ns. FE04200 STANDARD III 5.07 ns ns. FE04201 BLANK 0.10 ns ns. FE04210 DUPLICATE of FE04209 0.24 ns ns. 72.00 73.00 4ea. 5% quartz flooding. 73.00 73.74 4ea. 5% quartz flooding.								
73.74	80.88	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, dark to light grey well bedded to finely laminated intermixed greywacke and magnetite beds. Locally weakly to strongly magnetic. Moderately hard. Bedding averages 63 dca. Fine mm scale garnets at up to 15% in 4e. Strongly boudinaged cherty blue-grey quartz veins and veinlets parallel fracture cleavage, crosscutting bedding. Fold axes at 77.20 magnetites is 51 dca. Fracture cleavage disrupts broad scale folds. Fracture cleavage at 60 dca offsets the fine laminated bedding. West side is up-thrust. Fractures / jointing is at 50 to 67 dca, parallel bedding and perpendicular to bedding at 135 to 144 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 5 to 10% fine garnets, 0% silicification, 0% carbonatization, 5% pervasive chlorite, 3% finely disseminated biotite. MINERALIZATION: trace finely disseminated pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 5% finely interbedded magnetite. VEINING: 5% boudinaged quartz veins, 0% quartz-carbonate, 3% calcite fracture-filling. Sharp lower contact at 46 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			73.74 74.74 4b. 15% 4ea interbedded. No sulphide. 74.40 1.00 Cm wide shear MINERALIZED ZONE parallel fracture cleavage truncates and offsets limb of previously sheared cherty bed. 74.74 76.00 4b. Chloritic MSED. No sulphide. 76.00 77.00 4b. 4e - MSED. No sulphide. 77.00 79.00 Broad to open folds with bedding sub-parallel to core axis. 77.00 78.00 4b. MSED. No sulphide. 78.00 79.00 4b. MSED. No sulphide. 79.00 80.00 4b. MSED. No sulphide. 80.00 81.00 4b. MSED. No sulphide. 80.55 80.88 Yellowish carbonatized chert-magnetite bed at 46 dca.								
80.88	87.50	2	BASALT Fine grained, dark chloritic green to dark grey with finely disseminated biotitic alteration. Non-magnetic. Moderately hard. Probably FELSIC TO INTERMEDIATE VOLCANICS chloritic wacke. Finely bedded to well foliated unit. Foliation averages 30 to 43 dca. Fractures parallel foliation at 30 to 45 dca and perpendicular to foliation at 120 to 150 dca. 5% Boudinaged blue-grey cherty quartz veins and veinlets at 40 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 15% pervasive chlorite, 5% finely disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 5% Blue-grey cherty quartz, 0% quartz-carbonate, 1% calcite fracture-filling. 81.00 82.00 2. METASEDIMENT. No sulphide. 82.00 To END OF HOLE fractured core broken at 40 dca and at 130 dca. 82.00 83.00 2. METASEDIMENT. No sulphide. 84.30 84.50 Cherty quartz vein at 40 dca. No sulphide. 86.70 Sub-vertical cm wide breccia MINERALIZED ZONE with calcite matrix. Angular fragments indicate brittle fractures. FE04220 STANDARD III 5.07 ns ns. FE04221 BLANK 0.07 ns ns.								
87.50		2	END OF HOLE CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. No sludge return from drilling. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DOWNHOLE SURVEY HISTORY:. 18.30 Metres: -50.00 Acid Test.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			87.50 Metres: -46.00 Sperry Test. DRILLING HISTORY:. 0.00 to 18.30 metres: NW casing. 18.30 to 87.50 metres: Fluted Core Barrel. Dutem plug set 6 metres below casing, and one bag cement above plug. Casing left in hole, and capped.								

DRILL HOLE RECORD

Northing: 8600.400
Easting: 8925.100
Elevation: 5310.200

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 59.30
Completed: Oct. 05, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone (open pit potential) on Section 8600N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854 (46.3m),Pa529855 (13m)
16 m north,28 m west to post 4 of Pa529854
Logged: Oct. 17, 1993

Drill Hole: 506-694

Northing: 8600.0N
Easting: 8929.0E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Oct. 04, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
16.5		-50.0	59.3		-44.8						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. Sample Series #FE04223 - FE04252 (30 Samples).								
.00	16.26	OB	OVERBURDEN Ob. Granitic and BVOL boulders up to 0.3 magnetites in diameter. Casing from 0.00 to 16.40 metres.								
16.26	27.28	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark chloritic green, mafic pyrolusite flow with thin flattened dark chloritic pillow selvages parallel foliation. Non-magnetic. Moderately hard. Foliation at 35 to 67 dca. Core from top of hole to 25.0 magnetites is rubbly. Strongly fractured core subparallel to foliation at 55 to 70 dca and perpendicular to foliation at 130 to 150 dca. Hairline flat fractures perpendicular to foliation have thin weak bleached carbonatized wallrock contacts. 5% Quartz-carbonate veins and veinlets parallel foliation.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. ALTERATION: 0% grunerite, 1% garnet, 0% silicification, 0% carbonatization, 15% pervasive chlorite, 3% finely disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 5% quartz-carbonate veins and veinlets parallel foliation, 3% calcite fracture-filling. Lower contact at 64 dca. 20.00 24.50 Sub-vertical fractures at 160 dca. At azimuth of 210 degrees. 24.00 Down hole to next unit, increased biotitic alteration imparting FELSIC TO INTERMEDIATE VOLCANICS weak foliation at 65 dca. 25.00 26.00 BVOL. Weak biotitic alteration. 3% quartz-carbonate veinlets. 26.00 27.28 Strong chloritic, weakly garnetiferous BVOL. 26.00 27.28 BVOL. Weak biotitic alteration. 1% hairline stringers and blebs pyrrhotite.								
27.28	30.15	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, black biotite schist with up to 20% fine subhedral to euhedral pink garnets intermixed with 10% 4ea beds. 25% Light grey chert beds are moderate to strongly contorted and folded. Foliation averages 65 dca. Bedding averages 34 to 63 dca. Numerous fold closures with fold axes at 45 dca. Fractures parallel bedding at 40 dca and perpendicular to foliation at 125 to 140 dca. MINERALIZED ZONE:. From 27.28 to 27.60 3% stringers and wispy pyrrhotite. 10% quartz flooding. 4 specks VISIBLE GOLD. From 28.10 to 28.80 1% wispy pyrrhotite. 2% wispy pyrite. 15% wispy quartz flooding. 4 fine specks VISIBLE GOLD at 28.65. From 29.30 to 29.80 5% wispy and finely disseminated pyrrhotite. Trace chalcopyrite and arsenopyrite. 5% quartz flooding. GEOLOG DATA:. ALTERATION: 3% grunerite, 15% fine subhedral to euhedral garnet porphyroblasts, 0% silicification, 0% carbonatization, 10% interbedded chlorite, 15% biotite schist. MINERALIZATION: 1% wispy and finely disseminated pyrrhotite, Several specks VISIBLE GOLD as noted above, trace wispy pyrite, 0% arsenopyrite, trace wispy and fine blebs chalcopyrite, 0% magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 3% calcite fracture-filling. Lower contact sharp at 54 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			27.28 28.00 4f. 2% wispy pyrrhotite at 27.28 to 27.54. 1% wispy pyrite. Trace chalcopyrite and arsenopyrite. 4 fine specks VISIBLE GOLD at 27.38. 28.00 29.00 4f. 2% wispy pyrrhotite. 2% wispy pyrite. 15% wispy quartz flooding. 4 specks VISIBLE GOLD at 28.65. 28.80 Tight right limb fold with fold axes at 45 dca. 29.00 30.15 4f. 3% wispy pyrrhotite, locally up to 7% at 29.6 to 29.8. Trace chalcopyrite and arsenopyrite. 15% quartz flooding. 29.90 Tight left limb fold with fold axes at 36 dca.								
30.15	43.37	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, yellowish grunerite altered beds with 15% medium to coarse grained pink glomeroporphyritic garnets. The gruneritized beds are intermixed with 25% light grey chert beds, and 5 to 10% dark green chloritic beds. Locally weakly magnetic. Moderately hard. Bedding at 40 to 73 dca. Bedding is diffuse due to the felted grunerite and growth of garnets, but averages 40 to 50 dca. Bedding is strongly folded with both tight left limb fold and right limb fold with FELSIC TO INTERMEDIATE VOLCANICS range in fold axes from 30 to 60 dca. Fractures parallel foliation average 40 to 60 dca. Fractures perpendicular to foliation average 130 to 140 dca. MINERALIZED ZONES:. From 31.20 to 31.60 3% wispy pyrrhotite. 30% quartz flooding. 6 fine specks VISIBLE GOLD associated near pyrrhotite in quartz flooding, or in foliation planes of chloritic wisps. From 36.40 to 37.00 3% wispy pyrrhotite. Trace to 1% arsenopyrite. 20% quartz flooding. 11 specks fine VISIBLE GOLD in quartz flooding at 36.55 magnetites. Arsenopyrite crystals along wispy pyrrhotite planes parallel fracture cleavage. From 37.60 to 38.10 3-4% pyrrhotite. 15% wispy quartz flooding at 50 dca. 4 specks fine VISIBLE GOLD in quartz flooding. 1 coarse speck VISIBLE GOLD up to 0.3 mm in fractured garnet. From 39.80 to 40.20 1% wispy pyrrhotite. 40% quartz flooding. From 41.30 to 41.95 30% wispy quartz flooding. 1% wispy pyrrhotite. 83 fine specks VISIBLE GOLD comprising Two clusters along FELSIC TO INTERMEDIATE VOLCANICS linear trend parallel foliation. GEOLOG DATA:. ALTERATION: 7 to 10% interbedded grunerite, 15% glomeroporphyritic garnets, 0% silicification, 0% carbonatization, 10% interbedded chlorite, 5% interbedded biotite schist. MINERALIZATION: 1% finely disseminated to wispy pyrrhotite, numerous specks fine VISIBLE GOLD (REFER TO MINERALIZED ZONES: and to SAMPLE DESCRIPTIONS), trace wispy and blebs pyrite, trace arsenopyrite, trace chalcopyrite, 0% magnetite. VEINING: 10% quartz flooding and 3% quartz veins parallel to foliation, 0% quartz-carbonate, 3% calcite fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			30.15 31.00 4eaf. 35% 4f interbedded. 2% wispy and finely disseminated pyrrhotite. 10% quartz flooding. 30.30 Tight left limb fold of chert with fold axes at 45 dca. Internal angle of fold is 20 degrees. 31.00 32.00 4ea. 2% wispy pyrrhotite. 10% quartz flooding. 5 specks VISIBLE GOLD at 31.3 and 2 specks at 31.95. 32.00 33.00 4ea. 1% finely disseminated pyrrhotite. 10% quartz flooding. 2 specks VISIBLE GOLD at 32.95. 33.00 34.00 4ea. 1% finely disseminated and wispy pyrrhotite. 5% quartz flooding. 33.70 Tight left limb fold of chert beds with fold axes at 50 dca. 34.00 35.00 4ea. 1% wispy and finely disseminated pyrrhotite. 5% quartz flooding. 34.40 Tight z-type fold or left limb fold of thin chert and chloritic beds with fold axes at 48 dca. 34.60 Tight m-type fold of chert beds with fold axes at 45 dca. 35.00 36.00 4ea. 2% wispy to finely disseminated pyrrhotite. Trace arsenopyrite, chalcopyrite. 36.00 37.00 4ea. 3% wispy pyrrhotite. Trace arsenopyrite. 10 specks fine VISIBLE GOLD at 36.6 and 1 speck at 36.95. 37.00 38.00 4ea. 3% wispy pyrrhotite and disseminated pyrrhotite. Trace chalcopyrite in pyrrhotite blebs. 4 specks fine VISIBLE GOLD from 37.65 to 38.00. 37.80 Broad left limb fold of chert and garnetiferous 4ea with fold axes at 56 dca. Internal angle of fold is 70 degrees. 38.00 39.00 4ea. 2% wispy and finely disseminated pyrrhotite. Trace arsenopyrite. 39.00 40.00 4ea. 1% finely disseminated pyrrhotite. 15% quartz flooding. 40.00 41.00 4ea. 3% wispy pyrrhotite. 3 specks fine VISIBLE GOLD at 40.10 and 40.60. 40.50 Sub-vertical hairline calcite fracture-filled fracture at 160 dca. At azimuth of 210 degrees. 28.80 Tight right limb fold with fold axes at 45 dca. 29.90 Tight left limb fold with fold axes at 36 dca. FE04230 DUPLICATE of FE04229 2.71 ns ns. FE04240 STANDARD III 4.87 ns ns. FE04241 BLANK 0.07 ns ns. 41.00 42.00 4ea. 2% wispy pyrrhotite. 1% wispy pyrite. 20% blue-grey quartz flooding. 83 specks fine VISIBLE GOLD at 41.75 magnetites. 42.00 43.00 4ea. 1% wispy to finely disseminated pyrrhotite. 10% quartz flooding. 43.00 43.37 4ea. 2% wispy to finely disseminated pyrrhotite. 10% quartz flooding.								
43.37	46.28	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, dark grey, well laminated to well bedded intermixed chert and wacke - Msed. Chert beds are boudinaged. Fine yellowish carbonatized borders of the chert-magnetite beds. Moderately to strongly magnetic. Hard. Bedding averages 51 to 63 dca. Fractures commonly parallel bedding, splitting along bedding planes at 45 to 70 dca. Fractures perpendicular to bedding at 135 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			MINERALIZED ZONES:. From 45.96 to 46.30 5% stringers and wispy pyrrhotite in an argillaceous bed. Sharp lower contact at 60 dca. GEOLOG DATA:. ALTERATION: 1% interbedded grunerite, 3% finely disseminated garnets, 0% silicification, 3% carbonatization, 10% finely disseminated pervasive chlorite, 5% finely disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, trace arsenopyrite, 0% chalcopyrite, 10% fine laminated interbedded magnetite. VEINING: 3% quartz flooding, 0% quartz-carbonate, 3% calcite fracture-filling. Lower contact sharp at 60 dca. 43.37 44.00 4b. 1% wispy pyrrhotite. Trace arsenopyrite. 20% quartz flooding. 44.00 45.00 4b. 1% wispy pyrrhotite. No quartz flooding. 45.00 46.28 4b. 2% wispy and blebs of pyrrhotite. 15% quartz veins and quartz flooding. 45.21 45.70 15% boudinaged to wispy blue-grey quartz veins parallel bedding with up to 5% wispy and fracture-filled pyrrhotite blebs.								
46.28	59.30	2	BASALT Fine grained, dark chloritic green to brown, finely laminated to well foliation. Weak pervasive biotitic alteration imparts FELSIC TO INTERMEDIATE VOLCANICS weak but pervasive foliation that averages 50 to 53 dca. Non-magnetic. Moderately hard. Possibly - FELSIC TO INTERMEDIATE VOLCANICS chloritic wacke, but could also be FELSIC TO INTERMEDIATE VOLCANICS pyrolusite flow with strong foliated biotitic pillow cores and dark chloritic rinds. Fractures subparallel foliation at 25 to 67 dca. Calcite fracture-filled fractures perpendicular to foliation at 140 to 160 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 10% pervasive chlorite, 5% finely disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 3% calcite fracture-filling. 46.28 47.28 2. Weak biotitic alteration. No sulphide. 50.00 51.00 2. Weak biotitic alteration. No sulphide. 51.00 51.50 24b. Weak grunerite alteration. No sulphide. 51.10 51.40 24b. Very weakly magnetic. Weak grunerite alteration with chlorite interbedded. No sulphide. Intermixed with 60% 2. Lower contact at 60 dca. 51.50 52.50 2. Weak biotitic alteration. No sulphide. 57.10 57.20 24e with lower contact at 56 dca. No sulphide.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			57.68 57.89 24e with lower contact at 50 dca. No sulphide. 58.30 Flat 3 mm wide calcite fracture-filled fracture at 145 dca. FE04250 DUPLICATE of FE04249 0.03 ns ns.								
59.30		2	END OF HOLE CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. No sludge return from drilling. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DOWNHOLE SURVEY HISTORY:. 16.50 Metres -50.00 Acid Test. 59.30 Metres -45.75 Sperry Test. DRILLING HISTORY:. 0.00 to 16.40 metres: Tricone. 16.40 to 59.30 metres: Fluted Core Barrel. Dutem plug set 6 metres below casing, and one bag cement above plug. Casing left in hole, and capped.								

DRILL HOLE RECORD

Northing: 8600.600
Easting: 8941.000
Elevation: 5309.300

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 80.00
Completed: Oct. 06, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone on Section 8600N (open pit potential)

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854 (69m),Pa529854 (11m)
5 m north,40 m west to post 4 of Pa529854
Logged: Oct. 18, 1993

Drill Hole: 506-695
Northing: 8600.0N
Easting: 8945.0E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Oct. 05, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
15.2		-50.0	77.0		-46.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES #FE04253 - FE04302 (50 Samples). SAMPLE SERIES #FE08951 - FE08953 (3 SAMPLES).								
.00	14.52	OB	OVERBURDEN Ob. Granitic boulders. Casing from 0.00 to 15.20 metres.								
14.52	44.88	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, dark chloritic green, moderate to well foliated mafic pyrolusite flow. This pyrolusite flow unit hosts fine dark chloritic bands or flattened pillow selvages generally at 40 dca. Non-magnetic. Moderately hard. Strongly banded with fine quartz-carbonate veins and veinlets parallel foliation. Fractures parallel foliation at 45 to 50 dca. Fractures perpendicular to foliation at 140 to 150 dca. Numerous fine bleach hairline fractures crosscutting the chloritic mafic perpendicular to foliation. Common to note wedges of broken core at junction of								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			these two joint/ fracture sets. 5% Quartz-carbonate and quartz veins up to 4 cm scattered throughout parallel foliation. Veins have sharp wallrock contacts, and quartz flooding with wispy to diffuse margins. GEOLOG DATA:. ALTERATION: 0% grunerite, 1% garnet in intraformational iron formation, 0% silicification, 5% carbonatization, 15% pervasive chlorite, 5% finely disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 5% quartz-carbonate veins and veinlets parallel foliation, 3% calcite fracture-filling. 14.90 16.10 Sheared BVOL. Weakly sheared and bleached mafic. Fabric at 40 dca. Trace blebs of pyrrhotite. Sericite alteration. 15.90 Rubbly core fractured parallel foliation of shear at 50 dca. 17.45 Rubbly core fractured at 130 to 140 dca. 17.50 18.50 BVOL. Weakly bleached and sheared mafic. No sulphide. 18.50 19.00 BVOL. 20% 24e with 2% wispy pyrrhotite, trace chalcopyrite. 19.00 20.00 BVOL. Weakly bleached and sheared mafic. No sulphide. 19.80 20.46 Sheared BVOL. Bleached, biotitic altered and sheared BVOL. Foliation at 48 dca. No sulphide. 20.00 21.00 BVOL. 30% weakly sheared and bleached. 10% quartz-carbonate veins and veinlets. No sulphide. 21.00 22.00 BVOL. 50% weakly sheared and bleached. Biotitic altered and foliated. 5% quartz-carbonate veinlets. No sulphide. 21.25 Rubbly core at 130 to 140 dca. 21.30 24.30 Sheared BVOL. Sheared, bleached, biotitic altered INTERMEDIATE TO MAFIC VOLCANICS. Strong foliation due to black wispy biotite at 40 dca. Minor intraformational iron formation units noted throughout. 22.00 23.00 BVOL. Strong sheared and bleached. Biotitic altered and foliated. No sulphide. 22.40 Fractures at 140 dca host fault micro breccia cemented with FELSIC TO INTERMEDIATE VOLCANICS chloritic gouge, over FELSIC TO INTERMEDIATE VOLCANICS 0.5 cm wide MINERALIZED ZONE. 23.00 24.00 BVOL. Weakly sheared and bleached mafic. Biotitic altered and foliated. No sulphide. 24.00 25.00 BVOL. Chloritic mafic. Very weak biotitic alteration. 29.88 30.24 Quartz flooding parallel foliation at 48 dca. No sulphide. Weakly sheared and bleached wallrock. 34.40 35.40 BVOL. Chloritic mafic. No sulphide. 7% blue-grey quartz veins and veinlets. 35.40 36.40 BVOL. Weakly bleached chloritic mafic. 15% quartz veins and veinlets. No sulphide. 36.40 37.40 BVOL. Weakly biotitic. 5% quartz-carbonate veins and veinlets. No sulphide.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			37.40 38.40 BVOL. Weak biotite alteration. 40% milky white ribboned quartz veins. No sulphide. 38.40 39.40 BVOL. Weak biotite alteration. 10% quartz flooding. No sulphide. 39.40 40.00 BVOL. Weak biotitic alteration. 35% milky white quartz-carbonate veinlets. 1% stringers, blebs and wispy pyrrhotite. 40.00 41.00 BVOL. Weak biotitic alteration. 40% quartz-carbonate veins. 3% wispy pyrrhotite. Trace arsenopyrite. 41.00 41.90 BVOL. Weak biotitic alteration. 20% wispy milky white quartz veins. 1% wispy pyrrhotite. 41.90 42.50 24ea. 2% wispy and blebs pyrrhotite. 5% quartz flooding. 41.93 42.43 24ea. Strong grunerite alteration. Medium to coarse grained glomeroporphyritic garnets with interbedded chloritic beds. No sulphide. Weak biotitic alteration imparts FELSIC TO INTERMEDIATE VOLCANICS weak to moderate foliation at 40 to 50 dca. 42.10 Chloritic garnetiferous bedding is strongly folded in left limb fold with fold axes at 30 dca. FE04260 STANDARD III 4.90 ns ns. FE04261 BLANK 0.07 0.07 ns. FE04270 DUPLICATE of FE04269 3.26 ns ns. 42.50 43.00 BVOL. 40% milky white quartz vein. Weak biotitic alteration. No sulphide. 43.00 44.00 BVOL. 20% 24e. Trace pyrrhotite. No sulphide. 44.00 44.88 BVOL. 10% 24e. 1% wispy pyrrhotite. No quartz flooding.								
44.88	48.00	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, black biotite schist with up to 20% fine subhedral to euhedral interbedded pink garnet porphyroblasts. Very weakly magnetic. Moderately hard. 10% interbedded 4ea. Bedding poorly developed but at 54 dca. Fractured core parallel foliation / bedding at 50 to 60 dca. Calcite fracture-filled fractures perpendicular to foliation at 130 dca. MINERALIZED ZONE:. From 44.88 to 45.40 1% wispy pyrrhotite. 1% wispy pyrite. 60% blue-grey quartz flooding. 1 speck VISIBLE GOLD, 0.25 mm in diameter in fractured garnet, in pyrrhotite rich band. From 46.65 to 47.40 2% wispy pyrrhotite. 1% wispy pyrite. Trace arsenopyrite, chalcopyrite. 20% Blue-grey quartz flooding. 43 fine to coarse specks VISIBLE GOLD throughout quartz flooding. VISIBLE GOLD noted as singular specks in chert beds, fine clusters along foliation planes in chloritic beds, and as coarse specks and foil on fracture surfaces up to 0.5 mm in diameter in fractured garnets. GEOLOG DATA:. ALTERATION: trace interbedded grunerite, 15% fine interbedded garnets, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			silicification, 0% carbonatization, 0% chlorite, 20% interbedded biotite schist. MINERALIZATION: trace pyrrhotite, numerous specks VISIBLE GOLD in quartz flooding, trace pyrite, trace arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 20% quartz flooding, 0% quartz-carbonate, 3% calcite fracture-filling. 44.88 45.50 4f. 70% quartz flooding. 3% wispy pyrrhotite. 1% wispy and blebs pyrite. 1 speck fine VISIBLE GOLD at 45.2 medium. 45.50 46.50 4f. 1% wispy pyrrhotite. 5% quartz flooding. 46.40 Rubbly core fractured at 145 dca. Sub-vertical fractures with mm scale offset. Fault at 190 degrees. 46.40 48.00 4fea. 20% fine interbedded 4ea. 46.50 47.50 4f. 10% 4ea interbedded. 3% wispy pyrrhotite. 2% wispy pyrite. Trace chalcopyrite. 40% blue-grey quartz flooding. 43 fine to coarse specks VISIBLE GOLD. 47.50 48.00 4fea. 20% fine interbedded 4ea. 1% finely disseminated pyrrhotite.								
48.00	63.43	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Grey, green and pink. Non-magnetic. Hard. Strong grunerite alteration. Interbedded within grunerite alteration are up to 15% medium to coarse grained, subhedral to euhedral, glomeroporphyritic, pink garnet porphyroblasts. Foliation at 60 dca. Bedding averages 55 to 60 dca. Beds 0.5 cm to 4 cm wide. Both left limb fold and right limb fold noted throughout, with fold axes at 30 to 50 dca. Chert beds in 4ea average 0.3 mm but range up to 0.6 mm. MINERALIZED ZONES:. From 48.40 to 51.00 1 to 2% wispy pyrrhotite. 1% wispy pyrite. Trace crystals of arsenopyrite, and trace wispy chalcopyrite. 10 to 15% blue-grey quartz flooding parallel foliation. Numerous fine specks VISIBLE GOLD throughout. From 58.20 to 58.50 1% wispy pyrrhotite interbedded with foliation. GEOLOG DATA:. ALTERATION: 5 to 10% interbedded grunerite, 15% medium to coarse grained glomeroporphyritic subhedral to euhedral garnet porphyroblasts, 0% silicification, 0% carbonatization, 5% interbedded chlorite beds, 5% interbedded biotite schist beds. MINERALIZATION: trace to 1% finely disseminated to wispy pyrrhotite, numerous specks VISIBLE GOLD noted in unit, trace pyrite, trace crystals of arsenopyrite, trace wispy chalcopyrite, 0% magnetite. VEINING: 5% quartz flooding, 0% quartz-carbonate, 3% calcite fracture-filling. 48.00 49.00 4ea. 2% wispy and finely disseminated pyrrhotite. Trace arsenopyrite, pyrite. 10% quartz flooding. 48.25 Tight right limb fold of 4ea bed with fold axes at 40 dca. Fractures parallel bedding average 55 dca. Calcite and pyrite fracture-filling								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			fractures perpendicular to bedding at 135 to 140 dca. 49.00 50.00 4ea. 3% wispy and blebs pyrrhotite. 15% quartz flooding. Trace crystals of arsenopyrite and wispy chalcopyrite. 1 speck VISIBLE GOLD at 49.7 and 9 specks VISIBLE GOLD at 49.95. 50.00 51.00 4ea. 2% wispy pyrrhotite. 1% wispy pyrite. 15% quartz flooding. Trace arsenopyrite and chalcopyrite. 1 speck fine VISIBLE GOLD at 50.34 and 1 speck VISIBLE GOLD at 50.95. 51.00 Rubbly core due to intersection of flat and sub-vertical fracture set 51.00 52.00 4ea. 1% finely disseminated pyrrhotite. 10% quartz flooding. 11 specks VISIBLE GOLD at 51.4 in chloritic bed. 51.80 Tight left limb fold of chert beds with fold axes at 47 dca. Internal angle of folds at 30 degrees. 52.00 52.60 Broad left limb fold and m-type fold of chert beds with fold axes at 45 dca. Bedding at FELSIC TO INTERMEDIATE VOLCANICS low angle to core axis. 52.00 53.00 4ea. 1% finely disseminated pyrrhotite. 5% quartz flooding. 53.00 53.71 4ea. No sulphide. No quartz flooding. 53.70 54.95 4b. Fine grained, finely bedded, chloritic green MSED with magnetite interbedded with dark grey chert beds. Sharp upper contact and lower contact at 50 dca. 53.71 54.95 4b. No sulphide. Weak magnetite. 10% 4ea. 53.85 Tight right limb fold of chert bed with fold axes at 40 dca. 54.95 56.00 4ea. Trace to 1% finely disseminated pyrrhotite. 5% quartz flooding. 56.00 57.00 4eab. 1% wispy pyrrhotite. 35% CHERT - MAGNETITE IRON FORMATION. 56.64 58.80 4bea. Strong well bedded chert-magnetite beds with very weak fine grunerite alteration. Chert beds are boudinaged and contorted left limb fold of chert bed at 57.7. Chert beds average up to 1.0 cm wide. 57.00 58.00 4bea. 1% wispy pyrrhotite. 20% 4ea beds. 58.00 59.00 4bea. 1% wispy pyrrhotite. 1% fine wispy pyrite. No quartz flooding. 59.00 60.00 4ea. 1% finely disseminated and wispy pyrrhotite. 10% quartz flooding 59.70 Tight left limb fold of 4ea bed with fold axes at 43 dca. 60.00 61.00 4ea. No sulphide. 20% quartz flooding. 1% fine pyrite. 60.90 Tight right limb fold of 4ea bed with fold axes at 37 dca. 61.00 62.00 4ea. 1% finely disseminated pyrrhotite. 5% quartz flooding. 61.70 Tight right limb fold of 4ea bed with fold axes at 35 dca. 62.00 63.00 4ea. 1% finely disseminated pyrrhotite. 10% quartz flooding. 62.70 Tight right limb fold of 4EA bed with fold axes at 15 dca. FE04280 STANDARD III 5.07 ns ns. FE04281 BLANK 0.14 ns ns. FE04290 DUPLICATE of FE04289 0.14 ns ns. 63.00 63.43 4ea. No sulphide. 10% quartz flooding.								
63.43	66.80	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, dark grey, well bedded wacke - Msed. Weakly to strongly magnetic. Moderately hard. Bedding strongly folded and also contorted due to fracture cleavage. Bedding averages 35 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fractures predominantly parallel bedding / foliation at 60 dca. Calcite fracture-filled fractures perpendicular to foliation at 130 to 140 dca. Throughout, core is broken with 10 to 15 flat joints per metre i.e. Fractures. Fracture cleavage throughout at 55 to 60 dca, offset bedding on mm scale. GEOLOG DATA:. ALTERATION: 2% interbedded grunerite, 3% interbedded fine garnet porphyroblasts, 0% silicification, 3% pervasive carbonatization, 5% pervasive chlorite, 5% interbedded biotite schist. MINERALIZATION: trace to 1% wispy pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite, trace arsenopyrite, 0% chalcopyrite, 5% interbedded magnetite. VEINING: 0% quartz, 0% quartz-carbonate, 3% calcite fracture-filling. 63.43 64.50 4b. Very weak grunerite alteration along margins of chloritic beds. 64.50 65.30 4eab. 70% strong grunerite altered beds. Intermixed 4b. 64.50 65.50 4eab. No sulphide. 64.60 Tight right limb fold and m-type fold of chert beds with fold axes at 55 dca. 65.30 Tight right limb fold of chert beds with fold axes at 36 dca. FE04300 STANDARD III 4.70 ns ns. FE04301 BLANK 0.07 ns ns. 65.50 66.50 4b. 1% finely disseminated pyrrhotite. 1% finely disseminated pyrite. Weak carbonatized. 66.50 67.00 4b. 2% wispy pyrrhotite. Trace to 1% arsenopyrite crystals. 1% finely disseminated pyrite. Weak carbonatized.								
66.80	80.00	2	BASALT Fine grained, dark grey, finely laminated to well foliated mafic unit. Non-magnetic. Soft to moderately hard. Possibly FELSIC TO INTERMEDIATE VOLCANICS chloritic wacke or MSed. Foliation at 48 dca is due to FELSIC TO INTERMEDIATE VOLCANICS weak but pervasive biotitic alteration. Core broken due to fractures parallel foliation at 40 to 50 dca. Fractures perpendicular to foliation at 130 to 150 dca are sometimes calcite fracture-filled. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 15% pervasive chlorite, 5% finely disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3% boudinaged quartz veinlets and veins, 0% quartz-carbonate, 3% calcite fracture-filling parallel foliation. 67.00 68.00 2. No sulphide. 3% fine quartz-carbonate veinlets. 73.00 74.00 Rubbly Core. 75.80 Numerous sub-vertical, en echelon, orangy-coloured, feldspathic, wispy tensional veinlets at 160 dca. Therefore at azimuth of 210								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			degrees. Chalcopyrite bleb in veinlet.								
			77.00 To END OF HOLE weak carbonate alteration with up to 5% calcite fracture-filling.								
			78.75 79.03 Folded 5 cm quartz-carbonate vein perpendicular to foliation. 3% finely disseminated pyrrhotite.								
80.00		2	END OF HOLE								
			CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. No sludge return from drilling.								
			DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.								
			DOWNHOLE SURVEY HISTORY:. 15.20 Metres: -50.00 Acid Test. 77.00 Metres: -46.50 Sperry Test.								
			DRILLING HISTORY:. 0.00m to 12.20m: Tricone. 0.00m to 15.20m: NW Casing. 15.20m to 80.00m: Fluted Core Barrel. Dutem plug set 6 metres below casing, and one bag cement above plug. Casing left in hole, and capped.								

DRILL HOLE RECORD

Northing: 8600.600
Easting: 8956.500
Elevation: 5308.500

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 101.00
Completed: Oct. 07, 1993
Drilled by:
Logged by: G.R.Yule
Purpose: To test OP Zone on Section 8600N (open pit potential)Logged:

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529847 (7m),Pa529854 (84.4m),Pa529855 (9.6m)
5 m south,51 m west to post 3 of Pa529847

Drill Hole: 506-697
Northing: 8600.0N
Easting: 8960.5E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Oct. 06, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
14.6		-50.0	101.0		-44.8						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES# FE04303 - FE04362 (60 Samples).								
.00	15.17	OB	OVERBURDEN Ob. Overburden depth: 14.0m. Granitic boulders. Casing from 0.00 to 14.60 metres.								
15.17	27.80	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, light to dark grey, tuffaceous appearing unit with patchy sericite alteration. Non-magnetic. Moderately hard. MINERALIZED ZONEs of sericite alteration up to 5 cm wide, parallel to foliation, are buff to light grey, moderate to strongly sericitized with boudinaged milky-white quartz veins and veinlets and up to locally 3% finely disseminated to interbedded sulphide as pyrite. Also, locally, up to 3%, coarse grained muscovite booklets in seams in sericite alteration. Weakly to well bedded at 45 to 50 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Feldspathic fragments at up to 0.2 cm foliated at 50 dca. Prominent fractures at 50 dca parallel to foliation, and minor set at 130 dca. Flat fracture as at 16.5 magnetites magnetites and at 18.0 magnetites. Are calcite fracture-filled at 140 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 2% finely disseminated biotite, 5% interbedded sericite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace to 1% fine interbedded to wispy pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 4% fine quartz veinlets parallel to foliation, 3% quartz-carbonate veinlets parallel to foliation, 3% calcite fracture-filling. Lower contact gradual at 54 dca. 15.17 16.00 AVOL. Weak sericite altered. 1% fine wispy pyrrhotite at quartz vein contact. 3% wisps to stringers pyrite at quartz veinlets. 16.00 17.00 AVOL. Very weak sericite altered. 1% fine stringers pyrrhotite. 1% fine stringers pyrite parallel to foliation. 17.00 18.00 AVOL. Very weak sericite altered. 1% fine interbedded to wispy pyrrhotite. 1% fine interbedded to wispy pyrite parallel to foliation. 18.00 19.00 AVOL. Very weak sericite altered. 1% fine interbedded to wispy pyrrhotite. 1% fine interbedded pyrite parallel to foliation. 19.00 20.00 AVOL. Very weak sericite altered. 1% wispy pyrrhotite. 5% quartz veinlets. 20.00 21.00 AVOL. Weak sericite altered. 1% interbedded to wispy pyrrhotite. 21.00 22.00 AVOL. Weak sericite altered. Trace sulphide on margins of quartz veinlets. 22.00 Sub-vertical fractures at 160 dca trend at 208 degrees. 22.00 23.00 AVOL. Very weak sericite alteration. 1% blebs and interbedded wispy pyrrhotite. 1% fine wispy pyrite. 23.00 24.00 AVOL. Weak sericite alteration. No sulphide. 24.67 Drag-folded foliation due to fracture cleavage. Fracture cleavage at 70 dca. FE04310 DUPLICATE of FE04309 0.07 ns ns. 26.35 Drag-folded foliation due to fracture cleavage. Fracture cleavage at 70 dca. 27.00 27.80 AVOL. Weak sericite alteration. 5% interbedded garnetiferous, chloritic beds.								
27.80	28.94	24F	INTRAFORMATIONAL IRON FORMATION 24fea. Fine grained with glomeroporphyritic garnets, up to 1 cm, brown, pink, green, grey, non-magnetic and moderately hard. This unit is composed of 75% 4f beds, 20% 4ea beds and 5% stringer chlorite. Poorly to moderately preserved bedding at 48 dca. One fracture parallel to bedding at 50 dca and one fracture perpendicular to bedding at 148 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. ALTERATION: 5% interbedded felted grunerite, 50% finely disseminated subeuhedral, glomeroporphyritic garnets, 0% silicification, 0% carbonatization, 5% interbedded pervasive chlorite, 30% biotite schist. MINERALIZATION: 1% wispy pyrrhotite, 0 specks VISIBLE GOLD, trace wispy pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: trace folding quartz, 1% quartz-carbonate veinlets parallel to foliation, trace calcite fracture-filling. Lower contact gradual at 64 dca. 27.80 28.94 24fea. 1% finely disseminated to wispy pyrrhotite. 70% 4f with 30% 4ea. 3% quartz flooding.								
28.94	31.62	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, dark chloritic green, weakly foliated mafic pyrolusite flow. Fine dark chloritic bands or rinds represent flattened pillow selvages at 45 dca. Non-magnetic. Moderately hard. Weak foliation due to finely disseminated biotitic alteration at 50 dca. Numerous fractures at 45 to 55 dca parallel to foliation. Fractures at 120 to 150 dca perpendicular to foliation are calcite fracture-filled. Numerous fine hairline fractures perpendicular to foliation have weakly bleached wallrock margins. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, trace carbonatization associated with flat fractures, 15% pervasive chlorite. 3% Finely disseminated biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace pyrite as plating and fracture-filling of flat fractures, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 3-5% Blue-grey quartz veins and veinlets, 3-5% quartz-carbonate veins and veinlets parallel to foliation, 3% calcite fracture-filling. Lower contact gradual at 70 dca. 28.94 30.00 Biotitic BVOL. No sulphide. 30.00 31.00 Biotitic BVOL. No sulphide. 31.00 31.62 Biotitic BVOL. No sulphide.								
31.62	32.70	24EA	INTRAFORMATIONAL IRON FORMATION 24ea. Fine grained with glomeroporphyritic garnets, up to 1 cm, green, grey, pink, yellow, non-magnetic and moderately hard. This unit is composed of 86% 4ea beds, 10% stringer chlorite, 3% folding quartz and 1% stringer quartz-carbonate.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Poorly to moderately preserved bedding at 72 dca. GEOLOG DATA:. ALTERATION: 10% bedded grunerite, 30% glomeroporphyritic garnet, 0% silicification, 0% carbonatization, 10% bedded chlorite, trace bedded biotite. MINERALIZATION: 2% wispy pyrrhotite, 0 specks VISIBLE GOLD, 1% wispy pyrite, 0% arsenopyrite, trace wispy chalcopyrite, 0% magnetite. VEINING: 3% folding quartz, 1% stringer quartz-carbonate, 0% calcite. Lower contact sharp at 56 dca. 31.62 32.00 24ea. 3% finely disseminated to stringers wispy pyrrhotite. 1% wispy pyrite. 10% blue-grey quartz flooding. 32.00 32.70 24ea. 2% wispy to semi-massive pyrrhotite seam. Trace wispy chalcopyrite. 20% blue-grey quartz flooding.								
32.70	60.17	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, grey, white, non-magnetic and moderately hard. Poorly to moderately foliated at 45 to 68 dca. Fractures parallel to foliation at 45 to 70 dca and fractures perpendicular to foliation at 20 to 160 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, trace bedded biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 1% vein quartz, trace stringer quartz-carbonate, 0% calcite. Lower contact gradual at 73 dca. 33.00 34.00 BVOL. 3% quartz-carbonate veinlets. No sulphide. Barren wallrock. 34.00 35.44 Sheared BVOL. Trace pyrite. Bleached. 34.30 35.44 Sheared, Bleached BVOL. Bleached, sericite altered, well foliated INTERMEDIATE TO MAFIC VOLCANICS. Foliation at 55 dca. Foliation is flaser banded due to shearing. Trace pyrite grains. 35.44 36.44 BVOL. Trace to 1% plated pyrite on flat fracture. Barren wallrock. 39.50 41.00 Numerous (5 to 10%) wispy quartz-carbonate veins and veinlets parallel to foliation with weak brown biotitic altered wallrock margins. 41.60 Rubbly core. Fractured core at 130 to 145 dca. 46.40 Rubbly core. Fractured core at 140 to 150 dca. 52.50 3.00 Mm wide Flat mirolitic fractures perpendicular to foliation with fine calcite crystals. 52.70 3.00 Mm wide Flat mirolitic fractures perpendicular to foliation with fine calcite crystals. FE04320 STANDARD III 4.73 ns ns.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			FE04321 BLANK 0.07 ns ns. 58.00 59.00 BVOL. 10% biotitic, garnetiferous beds in chloritic unit. No sulphide 59.00 60.17 BVOL. 10% 4ea with 1 to 2% wispy pyrrhotite. 1% finely disseminated pyrite.								
60.17	62.79	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, black biotite schist with up to 15% fine to medium grained, subhedral to euhedral, garnet porphyroblasts and 20% interbedded light grey chert Non-magnetic. Moderately hard. Bedding at 60 to 70 dca, is diffuse to wispy due to garnet porphyroblasts, grunerite alteration, and sheared chloritic iron formation. Bedding is tightly folded with both left limb fold and right limb fold. Fold axes average 40 dca. MINERALIZED ZONES:. From 60.88 to 61.15 30% blue-grey quartz flooding. 2% finely disseminated to wispy pyrrhotite and pyrite. 3 specks fine VISIBLE GOLD at 61.05 are hosted with pyrrhotite beside a garnet. FELSIC TO INTERMEDIATE VOLCANICS single speck at 61.07 is up to 0.3 mm in diameter in foliated chloritic bedding. Trace chalcopyrite. GEOLOG DATA:. ALTERATION: 3% fine interbedded grunerite, 15% fine to medium grained subhedral to euhedral pink garnets, 0% silicification, 0% carbonatization, 5% interbedded chlorite, 20% interbedded biotite schist. MINERALIZATION: trace to 1% finely disseminated to wispy pyrrhotite, 4 specks VISIBLE GOLD in quartz flooding, trace finely disseminated pyrite, 0% arsenopyrite, trace wispy chalcopyrite, 0% magnetite. VEINING: 5% blue-grey quartz flooding, 0% quartz-carbonate, 1% calcite fracture-filling. Lower contact gradual at 42 dca. 60.17 60.90 4f. Massive bed. 60.17 61.17 4f. 1% finely disseminated to wispy pyrrhotite. 1% finely disseminated to wispy pyrite. 10% blue-grey quartz flooding. 3 specks fine VISIBLE GOLD with garnets, and 1 coarse grained speck associated with foliated chloritic beds. 60.90 62.79 4fea. 20% interbedded 4ea beds. 61.17 61.79 4fea. No sulphide. No quartz flooding. 61.79 62.79 4fea. 1% pyrrhotite and 1% pyrite enveloping garnets. Chloritic Fault breccia. 61.80 Fault Zone. Sub-vertical calcite and pyrite fracture-filled chloritic gouge and breccia at 155 dca. At azimuth of 200 degrees. Oxidized fracture at 62.30, and chloritic, calcite fracture-filled fracture at 62.65. Both parallel fault zone. At 61.70 Tight left limb fold of garnetiferous bed with fold axes at 35 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			FE04330 DUPLICATE of FE04329 0.17 ns ns.								
62.79	80.85	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Yellowish grunerite altered, garnetiferous beds up to 4 cm wide intermixed with light grey chert beds and dark green chloritic, garnetiferous beds. Locally weakly magnetic. Moderately hard. Bedding is strongly contorted with both left limb fold and right limb fold with fold axes ranging from 35 to 55 dca. Bedding averages 50 to 55 dca. Foliation averages 50 dca. Fractures at 40 to 55 dca parallel to foliation, and at 130 to 140 dca perpendicular to foliation. MINERALIZED ZONES:. From 66.40 to 67.70 4% wispy to stringers pyrrhotite. 1% fine wispy pyrite. 35% blue-grey quartz flooding. Greater than 100 fine specks VISIBLE GOLD noted uniformly scattered throughout MINERALIZED ZONE in quartz flooding, associated with sulphide. VISIBLE GOLD found in fractures in chert beds, in fractured garnets, on fracture planes. From 75.80 to 78.4 Area of Note with 20% blue-grey quartz flooding. No sulphide. No VISIBLE GOLD noted. GEOLOG DATA:. ALTERATION: 5 to 10% interbedded felted grunerite, 15% fine to coarse grained interbedded, glomeroporphyritic garnet porphyroblasts, 0% silicification, 0% carbonatization, 5% pervasive chlorite beds, 3% biotite schist beds. MINERALIZATION: 1 to 2% finely disseminated, blebs, wisps to stringers pyrrhotite, Greater than 100 fine specks VISIBLE GOLD, trace to 2% wispy pyrite, trace fine crystals arsenopyrite, trace wispy chalcopyrite, 0% magnetite. VEINING: 10% blue-grey quartz flooding. 3% quartz-carbonate veinlets parallel to foliation, 3% calcite fracture-filling. Lower contact sharp at 74 dca. 62.79 63.40 BVOL. 30% 4ea. No sulphide. 5% quartz flooding. 63.00 63.40 BVOL. Dark chloritic green, fine grained unit. Contacts at 60 dca. No sulphide. Fold axes of chert and garnetiferous beds at 50 dca. 63.40 64.40 4ea. 1% finely disseminated pyrrhotite. 5% quartz flooding. 63.60 Sub-vertical calcite fracture-filled fracture at 160 dca. At azimuth of 210 degrees. 64.20 Rubbly core fractures at 140 dca. Possible Fault Zone. 64.30 Tight left limb fold of chert beds with fold axes at 30 dca. 64.40 65.40 4ea. 1% finely disseminated pyrrhotite. 1% fracture-filled pyritic fractures. 65.40 66.40 4ea. 2% finely disseminated to wispy pyrrhotite. Trace arsenopyrite, chalcopyrite. 5% quartz flooding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			66.40 67.40 4ea. 5% wispy to stringers pyrrhotite. 3% wispy pyrite. 35% blue-grey quartz flooding. Greater than 90 fine specks VISIBLE GOLD throughout WHOLE SAMPLE. 67.40 68.40 4ea. 3% wispy to stringers pyrrhotite. 1% wispy pyrite. 10% quartz flooding. 2 specks fine VISIBLE GOLD at 67.6. 68.40 69.40 4ea. 1% finely disseminated pyrrhotite. 5% quartz flooding. 68.50 69.50 Well bedded 4ea at 60 dca with tight to isoclinal folds. Can almost define reverse graded bedding. More i.e. 60% 4e and 40% 4a beds. 69.40 69.80 Rubbly core due to fractured core at 140 dca. 69.40 70.00 4ea. No sulphide. 20% chloritic 4e interbedded. 69.60 Tight m-type fold with fold axes at 40 dca. 70.00 71.00 4ea. 1% finely disseminated pyrrhotite. 10% quartz flooding. 71.00 72.00 4ea. 2% finely disseminated to wispy pyrrhotite. 1% wispy and fracture-filled pyrite. 20% quartz flooding. 71.35 To 72.0 Broad open folded chert bed, sub-parallel to core axis. Fold axes at 60 dca. Radial fractures in chert bed ranging from 55 to 120 dca. 72.00 73.00 4ea. 1% finely disseminated to wispy pyrrhotite. 1% wispy pyrite. 25% quartz flooding. 73.00 74.00 4ea. 1% finely disseminated to wispy pyrrhotite. 1% wispy pyrite. 15% quartz flooding. 73.30 Tight right limb fold of chert beds with fold axes at 30 dca. 73.50 Tight left limb fold of thin chert beds with fold axes at 40 dca. 74.00 75.00 4ea. 2% finely disseminated to blebs pyrrhotite. 5% quartz flooding. 75.00 76.00 4ea. No sulphide. 30% quartz flooding. 10% quartz veins. 75.90 Tight right limb fold of 4ea bed with fold axes at 40 dca. Internal angle of fold is 25 dca. 76.00 77.00 4ea. No sulphide. 20% quartz flooding. 77.00 78.00 4ea. No sulphide. 30% quartz flooding. 77.40 Tight folded interbedded 4f with fold axes at 42 dca. 78.00 79.00 4ea. No sulphide. 20% quartz flooding. 78.50 Moderate left limb fold of chert and garnetiferous beds with fold axes at 68 dca. FE04340 STANDARD III 5.01 ns ns. FE04341 BLANK 0.07 ns ns. FE04350 DUPLICATE of FE04349 0.07 ns ns. 79.00 80.00 4ea. No sulphide. 5% quartz flooding. 80.00 80.85 4ea. No sulphide. 10% quartz flooding.								
80.85	85.64	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained with garnets, up to 2 mm, grey, green, yellow, pink, brown, strongly magnetic and hard. This unit is composed of 72% 4b beds, 25% 4ea beds and 3% folding quartz. Moderately well preserved bedding at 55 to 85 dca. Right limb fold, axial plane at 40 dca. Fold, axial plane at 57. Undetermined limb orientation.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fractures parallel to bedding at 63 to 83 dca and fractures perpendicular to bedding at 20 to 130 dca. MINERALIZED ZONES:. From 83.55 to 83.70 5% finely disseminated to semi-massive pyrrhotite. 5% blebs pyrite. MINERALIZED ZONE at 64 dca. 5% quartz flooding. GEOLOG DATA:. ALTERATION: trace bedded grunerite, 10% bedded garnet, 0% silicification, 0% carbonatization, 0% chlorite, trace bedded biotite. MINERALIZATION: trace vein pyrrhotite, 0 specks VISIBLE GOLD, 1% vein pyrite, 0% arsenopyrite, 0% chalcopyrite, 40% laminae magnetite. VEINING: 3% folding quartz, trace stringer quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 65 dca. 80.85 82.00 4b. 10% interbedded 4f with fine garnets. No sulphide. No quartz flooding. 82.00 83.00 4b. 1% bleb pyrite in 5% quartz flooding. 83.00 84.00 4b. 2% finely disseminated to fracture-filled semi-massive pyrrhotite. 1% blebs pyrite. 3% quartz flooding. 84.00 85.00 4b. No sulphide. No quartz flooding. 85.00 85.64 4b. 1% fine wispy pyrrhotite. 1% wispy pyrite in 20% 24b. 85.50 85.64 Grun altd 4b. Yellowish with garnets. Fine wispy pyrrhotite and pyrite. Contacts at 65 dca.								
85.64	101.00	2	BASALT 2 - possibly metased. Fine grained, grey, white, brown, non-magnetic and moderately hard. Well foliated at 47 to 78 dca. Fractures parallel to bedding at 45 to 77 dca and fractures perpendicular to bedding at 12 to 165 dca. GEOLOG DATA:. ALTERATION: trace bedded grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, trace bedded biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, 3% stringer quartz-carbonate, trace calcite as fracture-filling. 85.64 86.64 2 93.38 94.04 24be trace wispy pyrrhotite, 3% quartz flooding, upper contact and lower contact sharp at 60 dca. 93.38 94.04 24be 3% quartz flooding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			94.68 95.56 24be trace bleb and wispy pyrrhotite, 4 cm quartz vein, 3% quartz flooding, upper contact and lower contact sharp at 60 dca.								
			FE04360 STANDARD III 5.07 ns ns.								
			FE04361 BLANK 0.17 ns ns.								
			94.68 95.56 24be 4% quartz veining, 3% quartz flooding.								
101.00		2	END OF HOLE								
			CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO.								
			No sludge return from drilling.								
			DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.								
			DOWNHOLE SURVEY HISTORY:.								
			14.60 Metres: -50.00 Acid Test.								
			101.00 Metres: -44.75 Sperry Test.								
			DRILLING HISTORY:.								
			0.00m to 14.60m: Tricone and NW casing.								
			14.60m to 101.00m: Fluted Core Barrel.								
			Dutem plug set 6 metres below casing, and one bag cement above plug.								
			Casing left in hole, and capped.								

DRILL HOLE RECORD

Northing: 8600.600
Easting: 8956.900
Elevation: 5308.500

Collar Azi.: 228.40
Collar Dip: -62.00

Hole Length: 119.00
Completed: Oct. 08, 1993
Drilled by:
Logged by: B. D'Silva
Purpose: To test OP Zone (open pit potential) on section 8600N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529847 (10.5m),Pa529854 (106.4m),Pa529855 (2.1m)
6 m south,51 m west to post 3 of Pa529847
Logged: October 24 - 26, 1993

Drill Hole: 506-699

Northing: 8600.0N
Easting: 8961.0E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: Oct. 07, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
11.6		-61.0	75.0		-57.0	119.0		-54.5			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES # FE04363 TO FE04400 (38 SAMPLES). SAMPLE SERIES # FE03628 TO FE03645 (18 SAMPLES).								
.00	11.86	OB	OVERBURDEN OB/granitic boulders. From 0.00 to 11.60 casing.								
11.86	33.65	AVOL	FELSIC TO INTERMEDIATE VOLCANICS AVOL. Fine grained, grey, white, non-magnetic and moderately hard. Moderately foliated at 30 to 45 dca. Fractures parallel to foliation at 30 to 46 dca and fractures perpendicular to foliation at 20 to 136 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, trace wispy chlorite, trace bedded biotite. MINERALIZATION: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace wispy pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 6% vein and folding quartz, 1% stringer quartz-carbonate, trace calcite								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			as fracture-filling, 5% vein quartz tourmaline. Lower contact gradual at 35 dca. 13.00 14.00 Quartz vein, Avol. Trace wispy pyrite, 73% quartz vein, 27% Avol. 13.18 13.88 Quartz vein, broken core. Trace wispy pyrrhotite, trace wispy and stringer pyrite, trace yellow wispy carbonate, trace wispy chlorite. Upper contact and lower contact sharp at 48 dca. 15.30 17.20 Quartz tourmaline vein. Trace bleb pyrrhotite, 1% bleb pyrite, 1% wispy chlorite, upper contact sharp at 37 dca and lower contact sharp at 54 dca. 15.30 16.18 Quartz vein. 1% bleb pyrite. 16.18 17.20 Quartz tourmaline vein. 1% stringer pyrite, 3% clustered tourmaline. 17.40 Quartz-carbonate vein. 1.5 cm, vuggy with 2% stringer and bleb pyrite. Contacts at 40 dca. 33.50 33.54 Quartz vein. 4 cm, contacts at 47 dca.								
33.65	35.80	24F	INTRAFORMATIONAL IRON FORMATION 24f. Fine grained with glomeroporphyritic garnets, up to 1 cm, brown, grey, green, pink, yellow, non-magnetic and moderately hard. This unit is composed of 83% 4f beds, 15% 4ea beds and 2% stringer chlorite. Poorly to moderately preserved bedding at 34 dca. TWO fractures perpendicular to bedding at 115 and 145 dca and one fracture parallel to bedding at 35 dca. GEOLOG DATA:. ALTERATION: trace bedded grunerite, 30% glomeroporphyritic garnet, 0% silicification, 0% carbonatization, 2% stringer chlorite, 40% bedded biotite. MINERALIZATION: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, trace stringer quartz-carbonate, 0% calcite. Lower contact sharp at 48 dca. 33.65 35.00 24f. 35.00 35.80 24f.								
35.80	42.66	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. From 38.00 to 38.45 24ea. Fine grained, brown, green, grey, white, non-magnetic and moderately hard. Moderately well foliated at 36 to 48 dca. Fractures perpendicular to foliation at 113 to 145 dca and fractures parallel to foliation at 29 to 47 dca. GEOLOG DATA:. ALTERATION: trace bedded grunerite, trace glomeroporphyritic garnet, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			silicification, 0% carbonatization, trace bedded chlorite, 40% bedded biotite. MINERALIZATION: trace stringer pyrrhotite, 0 specks VISIBLE GOLD, trace wispy pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, trace stringer quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 52 dca. 38.00 38.45 24ea 1% stringer pyrrhotite, trace wispy pyrite, 45% quartz flooding. 38.00 38.45 24ea trace wispy pyrite, 45% quartz flooding.								
42.66	44.87	24EA	INTRAFORMATIONAL IRON FORMATION 24ea. From 43.40 to 44.87 24a. Fine grained with glomeroporphyritic garnets, up to 1 cm, grey, yellow green, non-magnetic and hard. This unit is composed of 65% 4a beds, 35% 4ea beds. Poorly to moderately preserved bedding at 27 to 30 dca. Fractures parallel to bedding at 40 to 50 dca. GEOLOG DATA:. ALTERATION: 10% bedded grunerite, 1% bedded garnet, 0% silicification, 0% carbonatization, 2% bedded chlorite, 0% biotite. MINERALIZATION: 1% stringer pyrrhotite, 7 specks VISIBLE GOLD, trace wispy pyrite, 0% arsenopyrite, trace wispy chalcopyrite, 0% magnetite. VEINING: 2% vein quartz, 30% folding quartz, 2% stringer quartz-carbonate, 0% calcite. MINERALIZED ZONE:. From 42.66 to 43.30 24ea 1% stringer pyrrhotite, 7 specks VISIBLE GOLD, trace wispy pyrite, trace wispy chalcopyrite, 3% quartz veining, 10% quartz flooding, contacts sharp at 52 dca. Lower contact sharp at 43 dca. FE04370 DUPLICATE OF FE04369 2.37 ns ns. 42.66 43.40 24ea trace wispy pyrite, trace wispy chalcopyrite, 3% quartz veining, 10% quartz flooding, 5% quartz-carbonate vein. 43.40 44.00 24a trace wispy chalcopyrite, 25% quartz flooding. 44.00 44.87 24a trace wispy chalcopyrite, 40% quartz flooding.								
44.87	65.98	BVOL	INTERMEDIATE TO MAFIC VOLCANICS BVOL. Fine grained, grey, green, white, brown, non-magnetic and moderately hard. Poorly to moderately foliation at 28 to 51 dca. Fractures parallel to bedding at 30 to 55 dca and fractures perpendicular to bedding at 20 to 168 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, trace bedded biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 1% vein quartz, trace stringer quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 43 dca.								
65.98	68.00	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets, up to 5 mm, brown, grey, white, locally moderately magnetic and hard. This unit is composed of 70% 4f beds, 20% 4b beds and 10% quartz-carbonate vein and stringer. Moderately preserved bedding at 50 dca. Fractures parallel to bedding at 50 dca and fractures perpendicular to bedding at 123 dca. GEOLOG DATA:. ALTERATION: 1% bedded grunerite, 30% glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 40% bedded biotite. MINERALIZATION: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace wispy pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% bedded magnetite. VEINING: 0% quartz, 10% vein quartz-carbonate, 0% calcite. Lower contact sharp at 55 dca. 65.98 67.00 4f trace wispy pyrite, 10% vein quartz-carbonate. 67.00 68.00 4f trace wispy pyrite.								
68.00	72.45	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with glomeroporphyritic garnets, up to 1 cm, grey, yellow, green, pink, brown, strongly to moderately magnetic and hard. This unit is composed of 65% 4ea beds, 25% folding quartz and 10% 4f beds. Moderately preserved bedding at 34 to 54 dca. Right limb fold, axial planes at 35 and 36 dca. Fractures perpendicular to bedding at 20 to 150 dca and fractures parallel to bedding at 40 to 59 dca. GEOLOG DATA:. ALTERATION: 5% bedded grunerite, 30% glomeroporphyritic and bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 7% bedded biotite. MINERALIZATION: trace wispy and bleb pyrrhotite, 30 specks VISIBLE GOLD, trace wispy and bleb pyrite, 0% arsenopyrite, trace wispy chalcopyrite, 0% magnetite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			VEINING: 25% folding quartz, 0% quartz-carbonate, 0% calcite. MINERALIZED ZONE:. From 70.45 to 70.56 11 cm quartz flooding, 1% wispy pyrrhotite, >30 specks clustered VISIBLE GOLD, trace wispy chalcopyrite. Upper contact sharp at 62 and lower contact sharp at 57 dca. Lower contact sharp at 59 dca. 68.00 69.00 4ea 45% quartz flooding, trace bleb pyrite, trace CRYSTALS ARSENOPYRITE. 69.00 70.00 4ea 25% quartz flooding, right limb fold at 69.01, axial plane at 35 dca. 70.00 71.00 4ea >30 specks VISIBLE GOLD, 30% quartz flooding, trace wispy chalcopyrite, right limb fold at 70.74, axial plane at 36 dca. 71.00 72.00 4ea 20% quartz flooding, trace bleb pyrite. 71.57 71.95 Blocky core. 72.00 72.45 4ea 5% quartz flooding, trace bleb pyrite. 72.12 72.45 Blocky core. 78.90 79.00 Ground core. Fractures perpendicular to bedding at 20, 140 and 150 dca.								
72.45	74.50	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, green, YELLOW, strongly magnetic and hard. This unit is composed of 80% 4b beds and 20% 4EA beds. Moderately well preserved bedding at 53 dca. M-type fold, axial plane at 53 dca. Fold with axial plane at 51 dca. Undetermined limb orientation. Fractures parallel to bedding at 55 to 70 dca and fractures perpendicular to bedding at 35 to 112. GEOLOG DATA:. ALTERATION: 0% grunerite, 5% glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 0% biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 60% laminae magnetite. VEINING: 3% folding quartz, 0% quartz-carbonate, 0% calcite. Lower contact sharp at 70 dca. FE04380 STANDARD III 4.66 ns ns. FE04381 BLANK 0.07 ns ns. 72.45 73.43 4b 5% quartz flooding, trace bleb pyrite, fold at 72.76, axial plane at 51 dca. 73.43 74.50 4b m-type fold at 73.58, axial plane at 53 dca.								
74.50	91.91	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			4ea. Fine grained with glomeroporphyritic garnets, up to 1 cm, grey, yellow, green, pink, brown, strongly to moderately magnetic and hard. This unit is composed of 65% 4ea beds, 15% folding quartz, 10% 4B beds and 10% 4f beds. Moderately well preserved bedding at 28 to 60 dca. Right limb fold, axial planes at 33 and 36 dca. M-type fold, axial plane at 36. Folds with axial planes at 27 and 48 dca. Undetermined limb orientation. Fractures perpendicular to bedding at 20 to 155 dca and fractures parallel to bedding at 30 to 60 dca. GEOLOG DATA:. ALTERATION: 10% bedded grunerite, 30% glomeroporphyritic and bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 7% bedded biotite. MINERALIZATION: trace wispy and bleb pyrrhotite, 8 specks VISIBLE GOLD, trace wispy and bleb pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 5% bedded magnetite. VEINING: 15% folding quartz, trace vein and stringer quartz-carbonate, trace fracture-filling calcite. MINERALIZED ZONE:. From 74.50 to 78.90 4ea, trace wispy pyrrhotite, 3 specks VISIBLE GOLD, 10% quartz flooding, trace bleb pyrite, trace bleb ARSENOPYRITE. M-type fold at 74.81, axial plane at 37 dca. Upper contact gradual at 70 dca and broken lower contact, fractured at 140 dca. From 85.50 to 85.60 4ea, trace wispy pyrrhotite, 5 specks VISIBLE GOLD, 60% quartz flooding, trace bedded chlorite. Lower contact gradual at 51 dca. FE04390 DUPLICATE OF FE04389 0.14 ns ns. FE03630 DUPLICATE OF FE03629 0.03 ns ns. 74.50 75.00 4ea 2 specks VISIBLE GOLD, 20% quartz flooding, trace bleb pyrite, m-type fold at 74.80, axial plane at 37 dca. 75.00 76.00 4ea 10% quartz flooding, trace wispy pyrite. 76.00 77.00 4ea 20% quartz flooding, trace bleb pyrite. 77.00 78.00 4ea 1 speck VISIBLE GOLD, 10% quartz flooding, trace bleb pyrite, trace bleb ARSENOPYRITE. 78.00 79.00 4ea 20% quartz flooding, trace wispy pyrite. 79.00 80.00 4ea 25% quartz flooding, trace wispy pyrite, fold at 79.16, axial plane at 38 dca. 80.00 81.00 4ea 20% quartz flooding, right limb fold at 80.36, axial plane at 31 dca. 81.00 82.00 4ea 20% quartz flooding, right limb fold at 81.07, axial plane at 32 dca. 82.00 83.00 4ea 20% quartz flooding. 83.00 84.00 4ea 10% quartz flooding, right limb fold at 83.48, axial plane at 36 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			84.00 85.00 4ea 3% quartz flooding, fold at 84.75, axial plane at 27 dca. 85.00 86.00 4ea 5 specks VISIBLE GOLD, 5% quartz flooding, fold at 85.64, axial plane at 48 dca. 86.00 87.00 4ea 10% quartz flooding. 87.00 88.00 4ea 10% quartz flooding. 88.00 89.00 4ea 5% quartz flooding. 89.00 90.00 4ea 5% quartz flooding. 90.00 91.00 4ea 10% quartz flooding, m-type fold at 90.58, axial plane at 36 dca. 91.00 91.91 4ea 5% quartz flooding.								
91.91	104.10	4B	CHERT - MAGNETITE IRON FORMATION 4b. From 91.91 to 99.25 4be. From 99.25 to 104.10 4b. Fine grained, with bedded garnets, up to 5 mm, grey, black, yellow, green, strongly magnetic and hard. This unit is composed of 75% 4b beds, 24% folding quartz and 1% 4e beds. Well preserved bedding, up to 1.5 cm, at 48 to 70 dca. Folds, axial planes at 44, 37, 35 and 40 dca. Undetermined limb orientation. Fractures perpendicular to bedding at 70 to 140 dca and fractures parallel to bedding at 42 to 65 dca. GEOLOG DATA:. ALTERATION: 10% bedded grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 0% biotite. MINERALIZATION: trace wispy pyrrhotite, 46 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, trace wispy chalcopyrite, 60% laminae magnetite. VEINING: 25% folding quartz, trace stringer quartz-carbonate, trace fracture-filling calcite. MINERALIZED ZONE. From 95.00 to 99.25 4be trace wispy and stringer pyrrhotite, 46 specks VISIBLE GOLD, 15% quartz flooding, trace bleb and wispy pyrite, trace wispy chalcopyrite, 10% 4e beds, upper contact gradual at 51 dca, 4b breccia at lower contact, lower contact gradual at 60 dca. Lower contact sharp at 43 dca. 91.91 99.25 4be 10% quartz flooding, 10% 4e beds, upper contact gradual at 51 dca and lower contact gradual at 60 dca. 91.91 93.00 4be 7% quartz flooding, fold at 92.07, axial plane at 45 dca. 93.00 94.00 4be 5% quartz flooding. 94.00 95.00 4be 10% quartz flooding. 95.00 96.00 4be 27 specks VISIBLE GOLD, 25% quartz flooding, 1% bleb and stringer pyrite, trace wispy chalcopyrite. 96.00 97.00 4be 30% quartz flooding. 97.00 98.00 4be 19 specks VISIBLE GOLD, 35% quartz flooding, trace bleb pyrite. 98.00 99.25 4be 50% quartz flooding, 1% stringer and bleb pyrite, 12 cm 4b								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			breccia. 99.05 99.17 4b breccia at lower contact of 4be. FE03640 STANDARD III 4.87 ns ns. FE03641 BLANK 0.14 ns ns. 99.25 100.00 4b 35% quartz flooding. 100.00 101.00 4b 10% quartz flooding, fold at 100.16, axial plane at 44 dca. 101.00 102.00 4b 25% quartz flooding, folds at 101.50 and 101.84, axial planes at 37 and 35 dca respectively. 102.00 103.00 4b 25% quartz flooding, fold at 102.54, axial plane at 40 dca. 103.00 104.10 4b 30% quartz flooding.								
104.10	119.00	2	BASALT 2 - possibly metased. Fine grained, grey, white, non-magnetic and moderately hard. Moderately well foliated at 12 to 48 dca. Fractures parallel to bedding at 27 to 48 dca and fractures perpendicular to bedding at 20 to 175 dca. GEOLOG DATA:. ALTERATION: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 1% bedded biotite. MINERALIZATION: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. VEINING: 0% quartz, trace vein and stringer quartz-carbonate, trace fracture-filling calcite. 104.10 105.10 2 10% quartz-carbonate vein. 104.18 104.25 Quartz-carbonate vein. 105.06 105.10 Quartz-carbonate vein. 108.40 108.50 Fractured Bvol, numerous fractures at 20 to 33 dca. 108.50 108.69 4b upper contact and lower contact fractured at 48 dca.								
119.00		2	END OF HOLE CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. No sludge return from drilling. DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. DOWNHOLE SURVEY HISTORY:. 11.60 Metres: -61.00 Acid Test. 75.00 Metres: -57.00 Sperry Sun Test. 119.00 Metres: -54.50 Sperry Sun Test. DRILLING HISTORY:. 0.00m to 11.6m: Tricone. 11.60m to 119.00m: Fluted Core Barrel. Dutem plug set 6 metres below casing, and one bag cement above plug.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			CASING LEFT IN HOLE AND CAPPED.								

PQ Zone

DDH #	Collar Location N/S to Post	E/W to Post	Post #	Claim #	Total Length	Length per Claim Claim	Length	Claim	Length	Claim	Length
669	3m N	88m E	2	529854	41m						
671	25m S	127m E	2	529854	47m						
673	35m S	115m E	2	529854	62m						
677	40m S	111m E	2	529854	86m						
679	70m S	153m E	2	529854	71						
681	82m S	215m E	2	529854	35m						
683	96m S	197m E	2	529854	56m						
684	108m S	184m E	2	529854	92m						
688	114m S	176m E	2	529854	119m						
689	155m S	278m E	2	529854	56m						
691	177m S	253m E	2	529854	101m						
693	186m S	240m E	2	529854	140m						
696	194m S	308m E	2	529854	68m						
698	224m S	274m E	2	529854	125m						
716	226m S	346m E	2	529854	77m						

Camp Zone

DDH #	Collar Location N/S to Post	E/W to Post	Post #	Claim #	Total Length	Length per Claim Claim	Length	Claim	Length	Claim	Leng
636	92m S	132m E	2	369764	53m						
637	95m S	116m E	2	369764	53m						
638	102m S	110m E	2	369764	61m						
639	109m S	117m E	2	369764	46 27m						
640	104m S	122m E	2	369764	61m						

RECEIVED
AUG - 3 '94
PATRICIA MINING DIVISION

53B09SW0012 W9430.00052 ZEEMEL LAKE

DRILL HOLE RECORD

Northing: 7802.900
Easting: 9110.500
Elevation: 5301.800

Collar Azi.: 228.40
Collar Dip: -55.00

Hole Length: 41.00
Completed: September 22, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone (open pit potential) on Section 7800NLogged: September 24, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
3 m north,88 m east to post 2 of Pa529854

Drill Hole: 506-669
Northing: 7800.0N
Easting: 9121.4E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: September 21, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
9.1		-54.0	41.0		-54.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES #FE03037 TO FE03063 (27 SAMPLES).								
.00	8.49	OB	OVERBURDEN OB. Casing from 0.00 to 9.10 metres.								
8.49	20.90	4B	CHERT - MAGNETITE IRON FORMATION 4b and 4bf. From 8.49 to 13.20 4b. From 13.20 to 20.90 4bf. Fine grained with garnets up to 3 mm, black, grey, yellow, pink, brown, strongly magnetic, and hard. This unit is composed of 75% 4b beds, 20% 4f beds, and 5% 4ea beds. Moderately well preserved bedding, up to 2 cm, at 34 to 57 dca. Left limb fold, axial plane 54 to 61 dca. Fractures perpendicular to bedding at 64 to 146 dca and fractures parallel to bedding at 42 to 110 dca. GEOLOG DATA:. Alteration: 2% bedded grunerite, 10% bedded garnets up to 1 mm, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			silicification, 10% bedded carbonatization, trace bedded chlorite, 10% bedded biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 50% bedded magnetite. Veining: trace vein quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 56 dca. 8.49 9.50 4b. Trace quartz veining, 1% quartz flooding. 8.49 13.20 4b. 9.50 10.00 4b. Trace quartz veining, trace quartz flooding. 10.00 11.00 4b. 2% quartz flooding, trace pyrite. 11.00 12.00 4b. 12.00 13.20 4b. 13.20 20.90 4b. FE03040 STANDARD II 8.57 8.57 ns. FE03041 BLANK 0.07 ns ns. FE03050 DUPLICATE OF FE03049 0.27 ns ns. 13.20 14.00 4bf. Left limb fold, axial plane at 54 dca. 14.00 15.00 4bf. Left limb fold, axial plane at 54 dca. 15.00 16.00 4bf. 3% quartz flooding, trace pyrite, left limb fold, axial plane at 61 dca. 16.00 17.00 4bf. 3% quartz veining, 1% quartz flooding, left limb fold, axial plane at 55 dca. 17.00 17.30 BLOCKY CORE. 17.00 18.00 4bf. Trace quartz veining, 10% quartz flooding, trace pyrite. 18.00 19.00 4bf. 19.00 20.00 4bf. 20.00 20.90 4bf.								
20.90	27.15	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with garnets and glomeroporphyritic clusters up to 1 cm, grey, green, yellow, pink, moderately magnetic, and hard. This unit is composed of 50% 4ea beds, 45% 4b beds, and 5% 4e beds. Moderately well preserved bedding, up to 6 cm, at 39 to 57 dca. Fractures perpendicular to bedding at 38 to 147 dca and fractures parallel to bedding at 52 to 68 dca. GEOLOG DATA:. Alteration: 2% bedded grunerite, 20% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, 1% bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 20% bedded magnetite. Veining: 0% quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 60 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			20.90 22.00 4ea. 5% quartz flooding. 22.00 23.00 4ea. 3% quartz flooding, trace pyrite, trace chalcopyrite. 23.00 24.00 4ea. Trace quartz flooding. 24.00 25.00 4ea. 3% quartz flooding, 1% pyrite. 25.00 26.00 4ea. 2% quartz flooding, 1% pyrite. 26.00 27.15 4ea. Trace pyrite.								
27.15	41.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, grey, brown, yellow, pink, non-magnetic, and hard. Moderately to well foliated at 53 to 68 dca. Fractures perpendicular to foliation at 33 to 170 dca and fractures parallel to foliation at 25 to 140 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, 0% chlorite, 30% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 2% vein quartz, 0% quartz-carbonate, 0% calcite. 27.15 27.80 Bvol. 27.80 29.29 24e. 1% pyrrhotite, trace pyrite, 3% quartz flooding, trace grunerite, upper contact and lower contact sharp at 74 dca. 27.80 28.50 24e. 3% quartz flooding, trace pyrite. 28.50 29.29 24e. Trace quartz flooding, trace pyrite, fault zone. 28.59 28.75 FAULT ZONE. Fractures perpendicular to bedding at 43 dca, bedding at 65 dca, strongly carbonatized. 35.00 35.65 FAULT ZONE. Fractures perpendicular to foliation from 111 to 170 dca, fractures parallel to foliation at 44 dca, foliation at 65 dca, strongly carbonatized. 37.83 37.95 24ea. 1% pyrrhotite, 1% pyrite, upper contact and lower contact sharp at 68 dca. FE03060 STANDARD II 9.26 9.26 ns. FE03061 BLANK 0.14 ns ns.								
41.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. No sludge return from drilling. DRILLING HISTORY.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Overburden was drilled using a tricone bit. 0.00 to 9.10 hole cased with 9.10 m of NW casing. 8.49 to 41.00 standard 3 m corebarrel used. Dutem plug placed in upper part of hole and one bag of cement above. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 9.10 -54.00. 41.00 -54.00.								

DRILL HOLE RECORD

Northing: 7852.200
Easting: 9100.300
Elevation: 5301.500

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 47.00
Completed: September 23, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone on Section 7850N (open pit potential)

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: 529854
25 m south,127 m east to post 2 of Pa529854
Logged: September 27-28, 1993

Drill Hole: 506-671
Northing: 7850.0N
Easting: 9110.4E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: September 22, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
6.1		-50.0	47.0		-51.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE03064 TO FE03085 (22 SAMPLES).								
.00	6.81	OB	OVERBURDEN OB. Casing from 0.00 to 6.10 metres.								
6.81	20.95	4B	CHERT - MAGNETITE IRON FORMATION 4bf. Fine grained, grey, green, brown, yellow, pink, strongly magnetic, and hard. This unit is composed of 70% 4b beds, 20% 4f beds and 5% 4e beds. Moderately preserved bedding, up to 2 cm, at 36 to 53 dca. Left limb fold, axial plane at 49 to 70 dca. Fractures parallel to bedding at 29 to 137 dca and fractures perpendicular to bedding at 127 to 176 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 10% bedded garnet, 0% silicification, 0% carbonatization, 0% chlorite, 20% bedded biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 40% bedded magnetite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Veining: 0% quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 60 dca. FE03070 DUPLICATE OF FE03069 0.17 NS NS. 6.81 7.89 4b. 7.89 9.00 4bf. 9.00 10.00 4bf. 10.00 11.00 4bf. 11.00 12.00 4bf. 12.00 13.00 4b. Left limb fold, axial plane at 59 dca. 13.00 14.00 4bf. Left limb fold, axial plane at 56 dca. 14.00 15.00 4bf. Left limb fold, axial plane at 50 to 70 dca. 15.00 16.00 4bf. Left limb fold, axial plane at 64 dca. 16.00 17.00 4b. 17.00 18.00 4b. 18.00 19.00 4b. 19.00 20.00 4b. Trace pyrite. 20.00 20.95 4bf. Trace pyrite, left limb fold, axial plane at 49 dca.								
20.95	22.45	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with garnets up to 1 cm, green, grey, yellow, pink, weakly magnetic, and moderately hard. This unit is composed of 80% 4ea beds, 15% 4b beds, and 5% 4f beds. Well preserved bedding, up to 2 cm, at 51 to 57 dca. Fractures parallel to bedding at 58 dca and fractures perpendicular to bedding at 137 dca. GEOLOG DATA:. Alteration: 10% bedded grunerite, 20% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 1% bedded biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 2% bedded magnetite. Veining: 3% vein quartz, trace stringer quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 65 dca. FE03080 STANDARD II 10.05 9.81 ns. FE03081 BLANK 0.03 ns ns. 20.95 21.50 4ea. Trace pyrite. 21.50 22.45 4ea. 1% pyrite.								
22.45	24.14	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnet, brown, pink, green, non-magnetic, and moderately hard.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			This unit is composed of 95% 4f beds, 4% 4e beds, and 1% 4b beds. Poor to moderately preserved bedding at 57 to 45 dca. Fractures parallel to bedding at 60 to 70 dca. GEOLOG DATA:. Alteration: 0% grunerite, 30% glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 70% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, trace bedded magnetite. Veining: 5% vein quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 42 dca. 22.45 23.40 4f. 5% quartz veining. 23.40 24.14 4f. 5% quartz veining.								
24.14	47.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown, green, grey, yellow, non-magnetic and moderately hard. Moderately well foliated at 50 to 60 dca. Fractures perpendicular to foliation at 21 to 171 dca and fractures parallel to foliation at 38 to 89 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 20% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 2% vein quartz, 1% stringer quartz-carbonate, trace calcite as fracture-filling. 24.14 25.00 Bvol. 1% quartz veining.								
47.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 10 metres. Samples stored at Musselwhite camp. DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 to 6.10 hole cased with 6.1 m of NW casing. 6.10 to 47.00 standard 3 m corebarrel used. Dutem plug in upper part of hole and one bag of cement on top.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 6.82 -50.00. 47.00 -51.00.								

DRILL HOLE RECORD

Northing: 7852.200
Easting: 9114.700
Elevation: 5301.600

Collar Azi.: 228.40
Collar Dip: -55.00

Hole Length: 62.00
Completed: September 24, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone on Section 7850N (open pit potential)Logged: September 28-30, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: 529854
35 m south, 115 m east to post 2 of Pa529854

Drill Hole: 506-673
Northing: 7850.0N
Easting: 9124.7E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: September 23, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
9.8		-55.0	62.0		-54.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE03086 TO FE03122 (37 SAMPLES).								
.00	6.70	OB	OVERBURDEN OB. Casing from 0.00 to 6.70 metres. Granite boulders.								
6.70	15.80	2	BASALT 2 - possibly metased. Fine grained, green, brown, grey, yellow, non-magnetic and moderately hard. Moderately well foliated at 46 to 55 dca. Fractures perpendicular to bedding at 30 to 158 dca and fractures parallel to bedding at 24 to 54 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 3% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, trace stringer quartz-carbonate, trace calcite as								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			fracture-filling. Lower contact sharp at 47 dca.								
15.80	39.15	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, yellow, pink, strongly magnetic and hard. This unit is composed of 90% 4b beds, 5% 4e beds and 5% 4f beds. Moderately preserved bedding, up to 1 cm, at 37 to 58 dca. M-type fold, axial plane at 47 dca, right limb fold, axial plane at 48 to 63 dca and left limb fold, axial plane at 69 dca. Fractures perpendicular to bedding at 32 to 145 dca and fractures parallel to bedding at 26 to 49 dca. GEOLOG DATA:. Alteration: 2% bedded grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, 0% chlorite, 2% bedded biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, trace bleb chalcopyrite, 50% laminated magnetite. Veining: 0% quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 51 dca. 15.80 17.00 4b. 17.00 18.00 4b. 1% pyrite. 18.00 19.00 4b. Trace pyrite. 19.00 20.00 4b. Trace pyrite. 20.00 21.00 4b. Trace pyrite. 21.00 22.00 4b. 22.00 23.00 4b. 23.00 24.00 4b. Trace pyrite. 24.00 25.00 4b. Trace pyrite. 25.00 26.00 4b. 26.00 27.00 4b. 27.00 28.00 4b. 28.00 29.00 4b. 29.00 30.00 4b. M-type fold, axial plane at 47 dca. 30.00 31.00 4b. 31.00 32.00 4b. 32.00 33.00 4b. 33.00 34.00 4b. 34.00 35.00 4b. 1% pyrite, right limb fold, axial plane at 48 to 63 dca. 35.00 36.00 4b. Fault Zone. 35.10 36.00 FAULT ZONE. Numerous fractures perpendicular to bedding at 32 to 112 dca. 36.00 37.00 4b. 1% pyrite, left limb fold, axial plane at 60 dca. 37.00 38.00 4b.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			38.00 39.15 4b. 38.95 39.15 SEDIMENT. Fine grained beds and laminae at lower contact. FE03090 DUPLICATE of FE03089 0.07 ns ns. FE03100 STANDARD III 4.46 ns ns. FE03101 BLANK 0.17 ns ns. FE03110 DUPLICATE OF FE03089 4.46 ns ns.								
39.15	43.70	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with garnets up to 1 cm, grey, green, yellow, pink, weakly to moderately magnetic, and moderately hard. This unit is composed of 75% 4ea beds, 20% 4b beds and 5% 4f beds. Moderately to well preserved bedding at 35 to 51 dca. Fractures perpendicular to bedding at 119 to 131 dca and fractures parallel to bedding at 55 dca. GEOLOG DATA:. Alteration: 20% bedded grunerite, 40% bedded garnet, 0% silicification, 0% carbonatization, 2% bedded chlorite, trace bedded biotite. Mineralization: trace wispy pyrrhotite, 1 speck VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% bedded magnetite. Veining: 3% folding quartz, trace stringer quartz-carbonate, 0% calcite. MINERALIZED ZONE. From 43.13 to 43.51, 5% wispy pyrrhotite, 1 speck VISIBLE GOLD, 1% bleb pyrite, 10% quartz flooding and 1 fracture at 127 dca. Lower contact sharp at 35 dca. 39.15 40.00 4ea 5% quartz flooding. 40.00 41.00 4ea 3% quartz flooding. 41.00 42.00 4ea 5% quartz flooding, trace pyrite. 42.00 43.00 4ea 3% quartz flooding, trace pyrite. 43.00 43.70 4ea 3% quartz flooding, 1% pyrite, 15% chlorite, trace quartz-carbonate. 43.51 43.70 Msed. 80% chlorite and 20% quartz-carbonate stringer alteration at lower contact.								
43.70	45.55	4F	GARNET-BIOTITE SCHIST 4f. Fine grained, brown, pink, grey, green, non-magnetic and moderately hard. This unit is composed of 90% 4f beds and 10% vein quartz. Weakly preserved bedding at 50 dca. Fractures parallel to bedding at 43 dca. GEOLOG DATA:. Alteration: 0% grunerite, 40% bedded garnet, 0% silicification, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			carbonatization, trace bedded chlorite, 50% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 10% vein quartz, 0% quartz-carbonate, 0% calcite. Lower contact gradual at 58 dca. 43.70 44.60 4f. 44.60 45.55 4f. 20% vein quartz. 45.10 45.29 QV. Upper contact and lower contact at 58 dca. FE03120 STANDARD III 5.09 5.12 NS. FE03121 BLANK 0.24 NS NS.								
45.55	62.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, brown, grey, non-magnetic and moderately hard. Moderately to well foliated at 37 to 58 dca. Fractures perpendicular to foliation at 123 to 149 dca. GEOLOG DATA:. Alteration: 0% grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 7% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace wispy pyrite, 0% arsenopyrite, trace wispy chalcopyrite, 0% magnetite. Veining: 0% quartz, trace wispy quartz-carbonate, 0% calcite. 45.55 46.50 Bvol.								
62.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 3 metres. Samples stored at Musselwhite camp. DRILLING HISTORY. 0.00 to 6.70 hole cased with 6.70 m of NW casing. 6.70 to 62.00 standard 3 m corebarrel used. Dutem plug placed in upper part of hole and one bag of cement above. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 9.75 -55.00. 62.00 -53.00.								

DRILL HOLE RECORD

Northing: 7852.100
Easting: 9123.400
Elevation: 5301.700

Collar Azi.: 228.40
Collar Dip: -60.00

Hole Length: 86.00
Completed: September 26, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone (open pit potential) on Section 7850N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
42 m south, 111 m east to post 2 of Pa529854
Logged: September 30 - October 2, 1993

Drill Hole: 506-677

Northing: 7850.0N
Easting: 9133.4E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: September 23, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
6.7		-60.0	86.0		-60.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE03123 TO FE03170 (48 SAMPLES).								
.00	7.39	OB	OVERBURDEN Casing from 0.00 to 6.70 metres. Granite boulders.								
7.39	29.77	2	BASALT 2 - possibly metased. Fine grained, green, brown, grey, non-magnetic and moderately hard. Moderately to well foliated at 38 to 57 dca. Fractures perpendicular to bedding at 23 to 160 dca and fractures parallel to bedding at 37 to 59 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 10% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 10% stringer quartz-carbonate, trace calcite as fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 64 dca.								
29.77	52.14	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, black, yellow, green, pink, strongly magnetic and hard. This unit is composed of 95% 4b beds and 5% 4e beds. Moderately well preserved bedding, up to 3 cm, at 32 to 65 dca. Right limb fold, axial plane at 54 dca and left limb fold, axial plane at 60 dca. Fractures perpendicular to bedding at 88 to 138 dca and fractures parallel to bedding at 26 to 123 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 60% laminae magnetite. Veining: 0% quartz, trace vein quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 62 dca. FE03130 DUPLICATE OF FE03129 0.03 ns ns. FE03140 STANDARD III 5.62 ns ns. FE03141 BLANK 0.03 0.03 ns. 29.77 31.00 4b. 31.00 32.00 4b. 1% stringer pyrite. 32.00 33.00 4b. Trace stringer pyrite. 33.00 34.00 4b. 34.00 35.00 4b. 35.00 36.00 4b. Right limb fold, axial plane at 54 dca. 36.00 37.00 4b. 37.00 38.00 4b. 38.00 39.00 4b. 39.00 40.00 4b. 40.00 41.00 4b. Left limb fold, axial plane at 60 dca. 41.00 42.00 4b. 42.00 43.00 4b. 43.00 44.00 4b. 44.00 45.00 4b. 45.00 46.00 4b. 46.00 47.00 4b. 47.00 48.00 4b. 48.00 49.00 4b. 49.00 50.00 4b. 50.00 51.00 4b. 51.00 52.14 4b.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
52.14	63.63	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained, grey, green, yellow, brown, moderately magnetic and moderately hard This unit is composed of 70% 4ea beds, 10% 4b beds, 10% 4f beds and 10% 4e beds. Moderately well perserved bedding, up to 2 cm, at 34 to 64 dca. Left limb fold, axial plane at 48 dca. Fractures perpendicular to bedding at 53 to 160 dca and fractures parallel to bedding at 43 to 90 dca. GEOLOG DATA:. Alteration: 10% bedded grunerite, 20% bedded garnet, 0% silicification, 0% carbonatization, 5% bedded chlorite, 10% bedded biotite. Mineralization: trace stringer pyrrhotite, 0 specks VISIBLE GOLD, trace vein pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% bedded magnetite. Veining: 2% folding quartz, trace stringer quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 48 dca. 52.14 53.00 4ea. 53.00 54.00 4ea. 54.00 55.00 4ea. 55.00 56.00 4ea 2% quartz flooding. 56.00 57.00 4ea 2% quartz flooding. 57.00 58.00 4ea 2% quartz flooding. 58.00 59.00 4ea 5% quartz flooding, trace pyrite. 59.00 60.00 4ea 10% quartz flooding, 1% pyrite. 60.00 61.00 4ea 5% quartz flooding, left limb fold, axial plane at 48 dca. 61.00 62.00 4ea 2% quartz flooding. 62.00 63.00 4ea 2% quartz flooding. 63.00 63.63 4ea 2% quartz flooding, trace pyrite. 63.23 63.43 BROKEN CORE. 30% chlorite, 10% stringer quartz-carbonate, trace wispy pyrite. FE03150 DUPLICATE OF FE03149 0.45 ns ns. FE03160 STANDARD III 5.90 ns ns. FE03161 BLANK 2.23 ns ns.								
63.63	69.43	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets up to 1 cm, brown, green, pink, grey, non-magnetic and moderately hard. This unit is composed of 85% 4f beds and 15% 4e beds. Moderately preserved bedding, up to 3 cm, at 51 to 54 dca. Fractures perpendicular to bedding at 24 to 170 dca. GEOLOG DATA:. Alteration: 0% grunerite, 40% glomeroporphyritic garnet, 0% silicification, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			carbonatization, trace chlorite, 50% bedded biotite. Mineralization: trace stringer pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, trace stringer quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 61 dca. 63.63 64.50 4f. 64.50 65.50 4f. 65.50 66.50 4f. 66.50 67.50 4f. 67.50 68.50 4f. 68.50 69.43 4f.								
69.43	86.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, brown, grey, non-magnetic, and moderately hard. Weakly foliated at 47 to 67 dca. Fractures perpendicular to foliation at 105 to 155 dca and fractures parallel to foliation at 36 to 86 dca. GEOLOG DATA:. Alteration: 0% grunerite, 2% glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 5% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 3% vein quartz, 2% stringer quartz-carbonate, trace calcite as fracture-filling. 69.43 69.62 BROKEN CORE. 50% METASEDIMENT, 50% Bvol at upper contact. 69.43 70.49 Bvol trace quartz flooding. 77.20 78.36 24f. 50% 4f beds. 81.25 82.00 QUARTZ VEINS. 70% quartz veining, contact sharp at 56 dca. FE03170 DUPLICATE OF FE03169 0.65 ns ns.								
86.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 3 metres. Samples stored at Musselwhite camp. DRILLING HISTORY. 0.00 to 6.70 hole cased with 6.70 m of NW casing.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			7.39 to 86.00 standard 3 m corebarrel used. Dutem plug placed in upper part of hole. One bag of cement above. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 6.71 -60.00. 86.00 -60.00.								

DRILL HOLE RECORD

Northing: 7902.100
Easting: 9112.400
Elevation: 5302.000

Collar Azi.: 228.40
Collar Dip: -55.00

Hole Length: 71.00
Completed: September 27, 1993
Drilled by:
Logged by: B. D'Silva
Purpose: To test PQ Zone (open pit potential) on Section 7900NLogged: October 2 - 3, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
70 m south,153 m east to post 2 Pa529854

Drill Hole: 506-679

Northing: 7900.0N
Easting: 9122.1E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: September 26,1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
7.9		-55.0	71.0		-54.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE03171 TO FE03204 (34 SAMPLES).								
.00	8.20	OB	OVERBURDEN Casing from 0.00 to 7.90 metres. Granite boulders.								
8.20	32.78	2	BASALT 2 - possibly metased. Fine grained, green, brown, grey, non-magnetic and moderately hard. Moderately well foliated at 43 to 66 dca. Fractures perpendicular to foliation at 0 to 167 dca and fractures parallel to foliation at 47 to 61 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 5% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, trace stringer quartz-carbonate, trace calcite as fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 56 dca.								
32.78	53.65	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, black, yellow, pink, strongly magnetic and hard. This unit is composed of 98% 4b beds and 2% 4ea beds. Moderately to well preserved bedding, up to 1 cm, at 31 to 69 dca. Fractures perpendicular to bedding at 100 to 147 dca and fractures parallel to bedding at 34 to 61 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Mineralization: trace stringer pyrrhotite, 0 specks VISIBLE GOLD, trace vein pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 40% laminae magnetite. Veining: 2% folding quartz, trace vein quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 53 dca. FE03180 STANDARD II 9.81 9.91 ns. FE03181 BLANK 0.14 ns ns. FE03190 DUPLICATE OF FE03189 0.99 ns ns. 32.78 34.00 4b 2% quartz flooding, trace pyrite. 34.00 35.00 4b 10% quartz flooding, 2% pyrite, trace arsenopyrite. 35.00 36.00 4b trace quartz flooding, 1% pyrite. 36.00 37.00 4b trace quartz flooding. 37.00 38.00 4b 5% quartz flooding. 38.00 39.00 4b 10% quartz flooding, trace pyrite. 39.00 40.00 4b 2% quartz flooding, trace pyrite. 40.00 41.00 4b trace quartz flooding. 41.00 42.00 4b trace quartz flooding. 42.00 43.00 4b trace quartz flooding, trace pyrite. 43.00 44.00 4b trace quartz flooding. 44.00 45.00 4b trace quartz flooding. 45.00 46.00 4b 1% quartz flooding. 46.00 47.00 4b 2% quartz flooding. 47.00 48.00 4b trace quartz flooding. 48.00 49.00 4b trace quartz flooding, trace pyrite. 49.00 50.00 4b trace quartz flooding, trace pyrite. 50.00 51.00 4b trace quartz flooding. 51.00 52.00 4b trace quartz flooding. 52.00 53.00 4b trace quartz flooding. 53.00 53.65 4b trace quartz flooding.								
53.65	58.65	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained, grey, yellow, pink, grain, moderately magnetic and moderately hard. This unit is composed of 80% 4ea beds, 15% 4b beds, 3% 4f beds and 2% 4e beds. Moderately well preserved bedding, up to 2 cm, at 45 to 69 dca. Left limb fold, axial plane at 43 dca. Fractures perpendicular to bedding at 107 to 140 dca and fractures parallel to bedding at 49 dca. GEOLOG DATA:. Alteration: 10% bedded grunerite, 20% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 1% bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 10% bedded magnetite. Veining: 2% folding quartz, trace stringer quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 58 dca. 53.65 55.00 4ea trace quartz flooding, left limb fold, axial plane at 43 dca. 55.00 56.00 4ea 10% quartz flooding. 56.00 57.00 4ea 10% quartz flooding. 57.00 58.00 4ea 5% quartz flooding, trace ARSENOPYRITE. 58.00 58.65 4ea trace pyrite, trace ARSENOPYRITE.								
58.65	61.05	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets, up to 1 cm, brown, pink, green, grey, non-magnetic and moderately hard. This unit is composed of 75% 4f beds, 15% vein quartz and 10% 4e beds. Moderately preserved bedding, up to 10 cm, at 46 to 49 dca. Fractures perpendicular to bedding at 113 to 139 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 40% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 40% bedded biotite. Mineralization: trace stringer pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 15% vein quartz, 0% quartz-carbonate, 0% calcite. Lower contact sharp at 55 dca. 58.65 60.00 4f 30% quartz veining, 2% quartz flooding, trace ARSENOPYRITE. 59.70 60.00 QUARTZ VEIN. 30 cm, upper contact and lower contact at 52 dca. FE03200 STANDARD II 9.60 9.60 ns. FE03201 BLANK 0.10 ns ns. 60.00 61.05 4f.								
61.05	71.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Bvol. Fine grained, grain, brown, grey, non-magnetic and moderately hard. Weakly to moderately foliated at 55 to 63 dca. Fractures perpendicular to foliation at 100 to 160 dca and fractures parallel to foliation at 59 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 30% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: trace vein quartz, 20% stringer quartz-carbonate, 0% calcite. 61.05 62.00 Bvol.								
71.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 3 metres. Samples stored at Musselwhite camp. DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 - 7.90 hole cased with 7.90 m of NW casing. 8.20 - 71.00 standard 3 m corebarrel used. Dutem plug in upper part of hole. One bag of cement above plug. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 7.92 -55.00. 71.00 -54.00.								

DRILL HOLE RECORD

Northing: 7951.200
Easting: 9073.800
Elevation: 5302.600

Collar Azi.: 228.40
Collar Dip: -55.00

Hole Length: 35.00
Completed: September 27, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone (open pit potential) on Section 7950N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
82 m south,215 m east top post 2 of Pa529854
Logged: October 5, 1993

Drill Hole: 506-681
Northing: 7950.0N
Easting: 9083.3E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: September 27, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
6.1		-55.0	35.0		-54.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE03205 TO FE03219 (15 SAMPLES).								
.00	6.00	OB	OVERBURDEN Overburden. Casing from 0.00 to 6.00 metres.								
6.00	11.75	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained with garnets up to 5 mm, grey, green, pink, yellow, strongly magnetic and hard. This unit is composed of 50% 4b beds, 30% folding and vein quartz, and 20% 4ea beds. Moderately to well preserved bedding, up to 2 cm, at 43 to 57 dca. Fractures perpendicular to bedding at 110 to 125 dca and fractures parallel to bedding at 34 to 90 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 10% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			arsenopyrite, 0% chalcopyrite, 40% laminae magnetite. Veining: 5% folding and vein quartz, trace stringer quartz-carbonate, 0% calcite. Lower contact gradual at 44 dca. 6.00 7.00 4b 5% quartz flooding. 7.00 8.00 4b 10% quartz flooding. 8.00 9.00 4b 10% quartz flooding. 9.00 10.00 4b 15% quartz flooding. 9.09 9.27 QUARTZ VEIN 1% bleb pyrite, upper contact and lower contact sharp at 52 dca. FE03210 DUPLICATE OF FE03209 0.45 ns ns. 10.00 11.00 4b 3% quartz flooding. 11.00 11.75 4b 30% quartz flooding, trace pyrite.								
11.75	15.15	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with garnets up to 5 mm, green, grey, pink, yellow, moderately magnetic and hard. This unit is composed of 50% 4ea beds, 45% 4b beds and 5% folding quartz. Moderately to well preserved bedding, up to 1 cm, at 45 to 60 dca. Fractures perpendicular to bedding at 125 to 156 dca. GEOLOG DATA:. Alteration: 20% bedded grunerite, 30% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 50% laminae magnetite. Veining: 5% folding quartz, trace stringer quartz-carbonate, 0% calcite. Lower contact sharp at 55 dca. 11.75 13.00 4ea 10% quartz flooding. 13.00 14.00 4ea 3% quartz flooding. 14.00 15.15 4ea 5% quartz flooding.								
15.15	20.18	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets up to 1 cm, brown, pink, grey, yellow non-magnetic and moderately hard. This unit is composed of 80% 4f beds, 15% folding quartz and 5% 4e beds. Moderately preserved bedding at 55 to 57 dca. Fractures perpendicular to bedding at 115 to 145 dca and fractures parallel to bedding at 50 to 55 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 40% glomeroporphyritic garnet, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			silicification, 0% carbonatization, trace bedded chlorite, 50% bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace wispy pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 5% vein quartz, 2% vein quartz-carbonate, 0% calcite. Lower contact gradual at 65 dca. 15.15 16.00 4f trace quartz flooding, trace wispy pyrite. 16.00 17.00 4f 3% vein quartz-carbonate. 17.00 18.00 4f 30% vein quartz, trace bleb arsenopyrite. 17.15 17.43 QUARTZ VEIN 2% wispy pyrrhotite, trace bleb arsenopyrite, upper contact gradual at 60 dca and lower contact sharp at 65 dca. 18.00 19.00 4f 2% vein quartz-carbonate. 19.00 20.18 4f.								
20.18	35.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, grain, brown, grey, non-magnetic and moderately hard. Moderately to well foliated at 64 to 67 dca. Fractures perpendicular to foliation at 109 to 148 dca and fractures parallel to foliation at 27 to 45 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, trace bedding chlorite, 30% bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace wispy pyrite, 0% arsenopyrite, trace wispy chalcopyrite, 0% magnetite. Veining: 1% vein quartz, 1% stringers quartz-carbonate, trace calcite as fracture-filling.								
35.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. No sludge return from drilling. DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 to 6.00 hole cased with 6.00 m of NW casing. 6.00 to 35.00 standard 3 m corebarrel used. Dutem plug placed in upper part of hole and one bag of cement on top. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Acid Tests:. 6.10 -55.00. Sperry Sun. 35.00 -54.00.								

DRILL HOLE RECORD

Northing: 7951.200
Easting: 9097.500
Elevation: 5302.500

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 56.00
Completed: September 28, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone (open pit potential) on Section 7950NLogged: October 6, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
96 m south,197 m east to post 2 of Pa 529854

Drill Hole: 506-683
Northing: 7950.0N
Easting: 9107.0E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: September 27, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
6.0		-50.0	56.0		-50.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOGS. SAMPLE SERIES FE03220 TO FE03246 (27 SAMPLES).								
.00	6.70	OB	OVERBURDEN OB. Casing from 0.00 to 6.00 metres.								
6.70	29.20	2	BASALT 2 - possibly metased. Fine grained, green, brown, grey, non-magnetic and moderately hard. Moderately well foliated at 53 to 67 dca. Fractures perpendicular to foliation at 1 to 170 dca and fractures parallel to foliation at 49 to 77 dca. Numerous Fe-coated fractures. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 30% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 1% vein quartz-carbonate, trace calcite as fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 56 dca.								
29.20	41.00	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, black, yellow, pink, green, strongly magnetic and hard. This unit is composed of 70% 4b beds, 20% chert beds, 5% 4e beds and 5% 4ea beds. Well preserved bedding, up to 2 cm, at 45 to 65 dca. Left limb fold, axial plane at 60 dca. Fractures perpendicular to bedding at 131 to 178 dca and fractures parallel to bedding at 49 to 77 dca. GEOLOG DATA:. Alteration: 1% bedded grunerite, 1% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb and wispy pyrite, 0% arsenopyrite, 0% chalcopyrite, 50% laminae magnetite. Veining: 0% quartz veining, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 70 dca. FE03220 STANDARD II 9.43 9.43 ns. FE03221 BLANK 0.27 ns ns. FE03230 DUPLICATE OF FE03229 0.34 0.37 ns. 29.20 30.00 4b, trace bleb pyrite. 30.00 31.00 4b, 1% wispy pyrite. 31.00 32.00 4b, left limb fold, axial plane at 60 dca. 32.00 33.00 4b, trace bleb pyrite. 33.00 34.00 4b. 34.00 35.00 4b. 35.00 36.00 4b. 36.00 37.00 4b. 37.00 38.00 4b. 38.00 39.00 4b, trace wispy pyrite. 39.00 40.00 4b. 40.00 41.00 4b, trace bleb pyrite.								
41.00	49.76	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with garnets up to 1 cm, grey, yellow, pink, green, moderately magnetic and moderately hard. This unit is composed of 55% 4ea beds, 40% 4b beds and 5% 4f beds. Moderately preserved bedding, up to 1 cm, at 39 to 65 dca. Left limb fold, axial planes at 60 and 66 dca. Fractures perpendicular to bedding at 27 to 165 dca and fractures parallel to bedding at 49 to 60 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. Alteration: 10% bedded grunerite, 20% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 40% bedded magnetite. Veining: 10% folding quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 58 dca. FE03240 STANDARD III 4.49 ns ns. FE03241 BLANK 0.51 0.51 ns. 41.00 42.00 4ea 10% quartz flooding, left limb fold, axial plane at 66 dca. 42.00 43.00 4ea 10% quartz flooding. 43.00 44.00 4ea 5% quartz flooding, left limb fold, axial plane at 60 dca. 44.00 45.00 4ea 10% quartz flooding, trace bleb pyrite. 45.00 46.00 4ea 20% quartz flooding, trace bleb pyrite. 46.00 47.00 4ea 20% quartz flooding. 47.00 48.00 4ea 10% quartz flooding. 48.00 49.00 4ea 5% quartz flooding. 49.00 49.76 4ea 5% quartz flooding.								
49.76	51.10	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets up to 1 cm, brown, pink, green, non-magnetic and moderately hard. This unit is composed of 80% 4f beds and 20% 4e beds. Moderately preserved bedding at 51 dca. Fractures perpendicular to bedding at 159 and 124 dca and fractures parallel to bedding at 64, 59 and 46 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 50% glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 40% bedded biotite. Mineralization: 1% vein pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, trace stringer quartz-carbonate, 0% calcite. Lower contact gradual at 66 dca. 49.76 51.10 4f.								
51.10	56.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, brown, pink, yellow, non-magnetic and moderately hard. Fractures perpendicular to foliation at 13 to 163 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. Alteration: trace bedded grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 25% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 1% folding quartz, 1% stringer quartz-carbonate, trace calcite as fracture-filling.								
56.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 3 metres. Samples stored at Musselwhite camp. DRILLING HISTORY. 0.00 to 6.00 hole cased with 6.00 m of NW casing. 6.00 to 56.00 standard 3 m corebarrel used. Dutem plug placed in upper part of hole and one bag of cement above. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 6.01 -50.00. 56.00 -50.00.								

DRILL HOLE RECORD

Northing: 7950.600
Easting: 9114.200
Elevation: 5301.900

Collar Azi.: 228.40
Collar Dip: -55.00

Hole Length: 92.00
Completed: September 30, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone (open pit potential) on Section 7950NLogged: October 7-8, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE
Claim: Pa529854
108 m south,184 m east to post 2 of 529854

Drill Hole: 506-684
Northing: 7950.0N
Easting: 9123.7E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: September 28, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
6.7		-55.0	92.0		-51.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE03247 TO FE03285 (39 SAMPLES).								
.00	7.25	OB	OVERBURDEN OB. Casing from 0.00 to 6.70 metres.								
7.25	50.60	2	BASALT 2 - possibly metased. Fine grained, green, grey, brown, non-magnetic and moderately hard. Moderately foliated at 37 to 70 dca. Fractures parallel to foliation at 48 to 70 dca and fractures perpendicular to foliation at 5 to 169 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, trace disseminated carbonatization, trace bedded chlorite, 1% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: trace vein quartz, 1% vein and stringer quartz-carbonate, trace calcite as fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 55 dca. 7.25 26.00 Numerous fractures coated with FeO. 25.40 25.61 Fault Zone with 8 cm quartz vein, upper contact and lower contact sharp at 64 dca, fault zone coated with FeO, one fracture at 135 dca.								
50.60	68.80	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained with garnets up to 3 mm, grey, green, yellow, pink, strongly magnetic and hard. This unit is composed of 75% 4b beds and 25% 4ea beds. Moderately well preserved bedding, up to 1 cm, at 33 to 58 dca. Left limb fold, axial plane at 65 dca and m-type fold. Fractures parallel to bedding at 35 to 60 dca and fractures perpendicular to bedding at 68 to 155 dca. From 62.00 to 67.00 moderately developed axial planar cleavage at 62 to 85 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 10% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 50% laminae magnetite. Veining: 7% folding quartz, trace vein quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 57 dca. FE03250 DUPLICATE OF FE03249 0.17 0.24 ns. FE03260 STANDARD III 4.77 ns ns. FE03261 BLANK 0.24 0.27 ns. 50.60 51.85 4b 10% quartz flooding, 1% stringer quartz-carbonate. 51.85 53.00 4b 20% quartz flooding. 53.00 54.00 4b 2% vein quartz-carbonate. 54.00 55.00 4b 1% quartz flooding. 55.00 56.00 4b 1% quartz flooding. 56.00 57.00 4b 5% quartz flooding. 57.00 58.00 4b 10% quartz flooding, trace bleb pyrite. 58.00 59.00 4b 5% quartz flooding, trace wispy pyrite. 59.00 60.00 4b 20% quartz flooding, trace stringer quartz-carbonate. 60.00 61.00 4b 15% quartz flooding. 61.00 62.00 4b 10% quartz flooding, trace vein quartz-carbonate. 62.00 63.00 4b 10% quartz flooding, m-type fold. 63.00 64.00 4b 10% quartz flooding, left limb fold, axial plane at 65 dca. 64.00 65.00 4b 10% quartz flooding. 65.00 66.00 4b 5% quartz flooding, trace bleb pyrite. 66.00 67.00 4b 5% quartz flooding. 67.00 68.00 4b 5% quartz flooding, trace pyrite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			68.00 68.80 4b 5% quartz flooding, trace vein quartz-carbonate.								
68.80	72.55	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with glomeroporphyritic garnets up to 1 cm, grey, green, pink, yellow, brown, moderately magnetic and moderately hard. This unit is composed of 70% 4ea beds, 25% 4b beds and 5% 4f beds. Moderately well preserved bedding, up to 2 cm, at 51 to 57 dca. Fractures parallel to bedding at 50 to 60 dca and fractures perpendicular to bedding at 127 to 149 dca. GEOLOG DATA:. Alteration: 20% bedded grunerite, 50% glomeroporphyritic garnet, 0% silicification, 0% carbonatization, 0% chlorite, 5% bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, trace wispy chalcopyrite, 20% bedded magnetite. Veining: 10% folding quartz, trace stringer quartz-carbonate, 0% calcite. Lower contact sharp at 57 dca. FE03270 DUPLICATE OF FE03269 4.25 ns ns. 68.80 70.00 4ea 4% quartz flooding, trace stringer quartz-carbonate, trace wispy chalcopyrite. 70.00 71.00 4ea 5% quartz flooding. 71.00 72.00 4ea 10% quartz flooding, trace pyrite. 72.00 72.55 4ea 25% quartz flooding.								
72.55	73.70	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, grey, yellow, non-magnetic and moderately hard. Moderately well foliated at 42 to 57 dca. Four fractures perpendicular to bedding at 143, 149, 149 and 153 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 1% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 2% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 5% folding quartz, 1% stringer quartz-carbonate, 0% calcite. Lower contact sharp at 41 dca. 72.55 73.70 Bvol 5% quartz flooding.								
73.70	83.35	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets up to 1 cm, brown, pink, grain, grey, non-magnetic and moderately hard.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			This unit is composed of 80% 4b beds, 15% folding quartz and 5% 4ea beds. Moderately preserved bedding at 41 to 70 dca. Fractures perpendicular to bedding at 128 to 160 dca and fractures parallel to bedding at 41 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 30% bedded garnet, 0% silicification, trace disseminated carbonatization, trace bedded chlorite, 50% bedded biotite. Mineralization: trace stringer pyrrhotite, 0 specks VISIBLE GOLD, trace stringer pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 15% folding quartz, trace stringer quartz-carbonate, 0% calcite. Lower contact gradual at 40 dca. FE03280 STANDARD III 4.59 ns ns. FE03281 BLANK 0.14 ns ns. 73.70 75.00 4f 25% quartz flooding. 75.00 76.00 4f 10% quartz flooding. 76.00 77.00 4f 10% quartz flooding. 77.00 78.00 4f. 78.00 79.00 4f 1% quartz flooding, 1% vein quartz-carbonate, trace stringer pyrite. 79.00 80.00 4f 30% quartz flooding, 2% stringer quartz-carbonate, 1% stringer pyrite. 80.00 81.00 4f 1% stringer quartz-carbonate. 81.00 82.00 4f 1% quartz flooding. 82.00 83.35 4f 7% quartz flooding.								
83.35	92.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown, green, white, non-magnetic and moderately hard. Moderately well foliated at 56 to 63 dca. Fractures perpendicular to foliation at 128 to 154 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 1% disseminated carbonatization, trace bedded chlorite, 50% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 5% vein and wispy quartz-carbonate, 0% calcite. 83.35 84.00 Bvol.								
92.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 3 metres. Samples stored at Musselwhite camp. DRILLING HISTORY. 0.00 to 6.70 hole cased with 6.70 m of NW casing. 6.70 to 92.00 standard 3 m corebarrel used. Dutem plug placed in upper part of hole. One bag of cement above. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 6.70 -55.00. Sperry Sun:. 92.00 -51.50.								

DRILL HOLE RECORD

Northing: 7950.300
Easting: 9124.000
Elevation: 5301.800

Collar Azi.: 228.40
Collar Dip: -60.00

Hole Length: 119.00
Completed: October 1, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone (open pit potential) on Section 7950NLogged: October 9-11, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
114 m south,176 m east to post 2 of Pa529854

Drill Hole: 506-688
Northing: 7950.0N
Easting: 9133.5E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: September 30, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
4.9		-60.0	59.0		-57.0	119.0		-55.0			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE03286 TO FE03353 (68 SAMPLES).								
.00	5.35	OB	OVERBURDEN OB. Casing from 0.00 to 4.80 metres.								
5.35	16.55	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, yellow, strongly magnetic and hard. This unit is composed of 95% 4b beds and 5% folding quartz. Moderately well preserved bedding, up to 2 cm, at 40 to 62 dca. Left limb fold, axial plane at 40 dca and m-type fold. Moderately developed axial planar cleavage at 69 to 96 dca. Fractures parallel to bedding at 45 to 75 dca and fractures perpendicular to bedding at 115 to 140 dca. Numerous FeO coated fractures. GEOLOG DATA:. Alteration: 2% bedded grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% biotite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Mineralization: 1% wispy pyrrhotite, 0 specks VISIBLE GOLD, trace wispy pyrite, 0% arsenopyrite, 0% chalcopyrite, 70% laminae magnetite. Veining: 2% folding quartz, trace stringer quartz-carbonate, trace calcite as fracture-filling. MINERALIZED ZONE:. From 14.38 to 15.00 magnetites, 10% wispy pyrrhotite, 2% wispy and bleb pyrite, 5% quartz flooding, left limb fold with axial plane at 40 dca and M-type folds. Lower contact sharp at 61 dca. 5.37 6.00 4b 10% quartz flooding. 6.00 7.00 4b 5% quartz flooding. 7.00 8.00 4b 2% quartz flooding. 8.00 9.00 4b 5% quartz flooding, trace bleb pyrite. 9.00 10.00 4b 10% quartz flooding, trace stringer pyrite. 10.00 11.00 4b 2% quartz flooding, trace bleb pyrite, brecciated fault zone. 10.48 10.67 QUARTZ CARBONATE VEIN/BRECCIATED FAULT ZONE. 5 cm quartz-carbonate vein, FeO coated fractures parallel to bedding at 58 to 60 dca, trace pyrite. FE03290 DUPLICATE OF FE03289 0.48 0.41 ns. 11.00 12.00 4b 1% quartz flooding. 12.00 13.00 4b 2% quartz flooding. 13.00 14.00 4b 3% quartz flooding. 14.00 15.00 4b 5% quartz flooding, 1% wispy pyrite. 15.00 16.00 4b 2% vein quartz-carbonate. 16.00 16.55 4b 1% vein quartz-carbonate.								
16.55	68.65	2	BASALT 2 - possibly metased. Fine grained, green, brown, grey, non-magnetic and moderately hard. Moderately foliated at 40 to 66 dca. Fractures perpendicular to foliation at 90 to 159 dca and fractures parallel to foliation at 49 to 66 dca. Numerous fractures FeO coated from 16.55 to 24.00 magnetites. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 50% pervasive carbonatization, 0% chlorite, 5% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 2% vein quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 41 dca.								
68.65	84.48	4B	CHERT - MAGNETITE IRON FORMATION								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			4b. Fine grained, grey, white, yellow, strongly magnetic and hard. This unit is composed of 80% 4b beds and 20% chert beds. Moderately well preserved bedding at 28 to 56 dca. Left limb fold, axial planes at 54 and 65 dca. Six fractures perpendicular to bedding at 119 to 144 dca and one fracture parallel to bedding at 51 dca. Moderately developed axial planar cleavage at 78 dca. GEOLOG DATA:. Alteration: 3% bedded grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace wispy and bleb pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 60% bedded magnetite. Veining: 0% quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 52 dca. FE03300 STANDARD III 5.07 ns ns. FE03301 BLANK 0.24 ns ns. FE03310 DUPLICATE OF FE03309 0.34 ns ns. 68.65 70.00 4b 5% quartz flooding. 70.00 71.00 4b, trace bleb pyrite, trace arsenopyrite. 71.00 72.00 4b. 72.00 73.00 4b, trace wispy pyrite. 73.00 74.00 4b. 74.00 75.00 4b. 75.00 76.00 4b. 76.00 77.00 4b, left limb fold, axial plane at 65 dca. 77.00 78.00 4b. 78.00 79.00 4b. 79.00 80.00 4b, left limb fold, axial plane at 54 dca. 80.00 81.00 4b. 81.00 82.00 4b, trace bleb pyrite, trace arsenopyrite. 82.00 83.00 4b, trace bleb pyrite. 83.00 84.00 4b. 84.00 84.48 4b.								
84.48	97.94	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with glomeroporphyritic garnets up to 1 cm, grey, green, pink, yellow, moderately magnetic and moderately hard. This unit is composed of 60% 4ea beds, 30% folding quartz and 10% 4b beds. Moderately well preserved bedding, up to 2 cm, at 26 to 73 dca. Left limb fold, axial planes at 47, 60 and 24 dca. Right limb fold, axial plane at 48 dca. Four fractures perpendicular to bedding at 27, 129, 129 and 135 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. Alteration: 20% bedded grunerite, 30% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Mineralization: trace wispy pyrrhotite, 25 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 10% laminae magnetite. Veining: 30% folding quartz, 0% quartz-carbonate, 0% calcite. MINERALIZED ZONE:. From 96.30 to 96.85 magnetites, 1% wispy pyrrhotite, 25 specks VISIBLE GOLD in 1 mm area, 40% folding quartz. Lower contact sharp at 37 dca. FE03320 STANDARD III 5.07 ns ns. FE03321 BLANK 0.17 0.14 ns. FE03330 DUPLICATE OF FE03329 4.83 ns ns. 84.48 85.00 4ea. 85.00 86.00 4ea 10% quartz flooding. 86.00 87.00 4ea 10% quartz flooding, trace wispy pyrite. 87.00 88.00 4ea 20% quartz flooding, trace bleb pyrite. 88.00 89.00 4ea 20% quartz flooding, left limb fold, axial plane at 47 dca. 89.00 90.00 4ea 30% quartz flooding, left limb fold, axial plane at 60 dca. 90.00 91.00 4ea 40% quartz flooding. 91.00 92.00 4ea 50% quartz flooding. 92.00 93.00 4ea 50% quartz flooding. 93.00 94.00 4ea 50% quartz flooding, trace wispy pyrite, right limb fold, axial plane at 48 dca, left limb fold, axial plane at 24 dca. 94.00 95.00 4ea 50% quartz flooding. 95.00 96.00 4ea 20% quartz flooding. 96.00 97.00 4ea 25 specks VISIBLE GOLD, 40% quartz flooding. 97.00 97.94 4ea 30% quartz flooding, left limb fold, axial plane at 57 dca.								
97.94	105.12	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets, up to 1 cm, brown, pink, grey, yellow, non-magnetic and moderately hard. This unit is composed of 90% 4f beds, 7% 4ea beds and 3% folding quartz. Moderately preserved bedding at 38 to 44 dca. Left limb fold, axial plane at 79 dca. Fractures perpendicular to bedding at 125 to 143 dca and fractures parallel to at 39 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 50% glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 40% bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb and wispy pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 3% folding quartz, 0% quartz-carbonate, 0% calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 50 dca. FE03340 STANDARD III 4.94 ns ns. FE03341 BLANK 0.14 ns ns. 97.94 99.00 4f. 99.00 100.00 4f. 100.00 101.00 4f 2% quartz flooding. 101.00 102.00 4f 2% quartz flooding, left limb fold, axial plane at 79 dca. 102.00 103.00 4f 3% quartz flooding. 103.00 104.00 4f. 104.00 105.12 4f 20% quartz flooding, trace bleb pyrite.								
105.12	109.43	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown, green, non-magnetic and moderately hard. Moderately foliated at 35 to 66 dca. Folded, axial plane at 63 dca. Fractures perpendicular to foliation at 132 dca and fractures parallel to foliation at 35 and 66 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 50% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 1% stringer quartz-carbonate, 0% calcite. Lower contact sharp at 49 dca. 105.12 106.00 Bvol. 106.00 107.00 Bvol. 107.00 108.00 Bvol, 5% vein quartz-carbonate. 108.00 109.00 Bvol, folded, axial plane at 63 dca. 109.00 109.43 Bvol.								
109.43	111.90	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets, up to 5 mm, brown, pink, grey, green, yellow, non-magnetic and moderately hard. This unit is composed of 90% 4f beds, 5% 4ea beds and 5% folding quartz. Moderately preserved bedding at 46 to 48 dca. Fractures perpendicular to bedding at 68 to 150 dca and fractures parallel to bedding at 40 to 68 dca. GEOLOG DATA:. Alteration: 7% bedded grunerite, 40% glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 50% bedded biotite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace wispy pyrite, 0% arsenopyrite, trace wispy chalcopyrite, 0% magnetite. Veining: 5% folding quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 80 dca. FE03350 DUPLICATE OF FE03349 0.07 0.10 NS. 109.43 110.00 4f. 110.00 111.00 4f 3% quartz flooding. 111.00 111.90 4f 10% quartz flooding, trace wispy pyrite, trace wispy chalcopyrite.								
111.90	119.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, brown, grey, non-magnetic and moderately hard. Moderately foliated at 56 to 70 dca. Fractures perpendicular to bedding at 125 to 149 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, trace bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace wispy pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 3% stringer quartz-carbonate, 0% calcite. 111.90 113.00 Bvol 5% stringer quartz-carbonate.								
119.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 3 metres. Samples stored at Musselwhite camp. DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 to 4.80 hole cased with 4.80 m of NW casing. 4.80 to 119.00 standard 3 m corebarrel used. Dutem plug placed in upper part of hole. One bag of cement above. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 4.88 -60.00.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Sperry Sun:. 59.00 -57.00. 119.00 -55.00.								

DRILL HOLE RECORD

Northing: 8050.300
Easting: 9078.000
Elevation: 5307.200

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 56.00
Completed: October 2, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone (open pit potential) on Section 8050NLogged: October 11-12, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
155 m south,278 m east to post 2 of Pa529854

Drill Hole: 506-689
Northing: 8050.0N
Easting: 9086.9E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: October 2, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
6.1		-50.0	56.0		-47.5						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). References to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE03354 TO FE03385 (32 SAMPLES).								
.00	6.43	OB	OVERBURDEN OB. Casing from 0.00 to 6.00 metres.								
6.43	24.61	2	BASALT 2 - possibly metased. Fine grained, green, grey, brown, non-magnetic and moderately hard. Moderately well foliated at 50 to 72 dca. Fractures perpendicular to foliation at 120 to 171 dca and fractures parallel to foliation at 59 to 66 dca. Numerous fractures FeO coated. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 2% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 1% stringer and vein quartz-carbonate, trace calcite as								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			fracture-filling. Lower contact sharp at 60 dca. 6.43 9.06 BLOCKY CORE. Numerous fractures parallel to foliation at 63 dca, two fractures perpendicular to foliation at 149 and 133 dca. Numerous fractures FeO coated. 21.33 21.85 BLOCKY CORE. Numerous fractures parallel to foliation at 67 dca, two fractures perpendicular to foliation at 144 and 139 dca. Numerous fractures FeO coated.								
24.61	35.13	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, black, yellow, strongly magnetic and hard. This unit is composed of 65% 4b beds, 30% chert beds and 5% 4e beds. Moderately well preserved bedding, up to 1 cm, at 50 to 71 dca. Fractures perpendicular to bedding at 129 to 131 dca and fractures parallel to bedding at 51 to 70 dca. GEOLOG DATA:. Alteration: 10% bedded grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, trace fracture-filling chlorite, trace bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb and wispy pyrite, trace wispy arsenopyrite, 0% chalcopyrite, 35% bedded magnetite. Veining: 2% vein quartz, trace stringer quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 59 dca. 24.61 26.00 4b, 1% wispy pyrite. 26.00 27.00 4b, trace bleb pyrite, trace wispy ARSENOPYRITE. 27.00 28.00 4b. 28.00 29.00 4b. 29.00 30.00 4b, trace bleb pyrite. 30.00 31.00 4b, trace bleb pyrite. 31.00 32.00 4b. 32.00 33.00 4b. 33.00 34.00 4b, 21 cm quartz vein, trace bleb pyrite. 33.16 33.37 QUARTZ VEIN. 21 cm quartz vein, fracture at 70 dca, trace chlorite along fracture, upper contact at 84 dca and lower contact at 56 dca. FE03360 STANDARD III 4.87 ns ns. FE03361 BLANK 0.24 ns ns. 34.00 35.13 4b, trace bleb pyrite.								
35.13	44.90	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained with glomeroporphyritic garnets up to 1 cm, grey, green, pink, brown, moderately to strongly magnetic and moderately hard. This unit is composed of 65% 4ea beds, 20% 4f beds, 10% folding quartz and 5% 4b beds. Moderately preserved bedding at 59 to 70 dca. Left limb fold, axial plane at 107 dca. Disrupted folding, axial plane at 109, 84 and 69 dca. Fractures perpendicular to bedding at 137 to 151 dca and fractures parallel to bedding at 59 dca. GEOLOG DATA:. Alteration: 20% bedded grunerite, 50% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 10% bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace wispy pyrite, trace wispy arsenopyrite, 0% chalcopyrite, 5% bedded magnetite. Veining: 0% quartz, trace stringer quartz-carbonate, 0% calcite. Lower contact sharp at 80 dca. 35.13 36.00 4ea 10% quartz flooding. 36.00 37.00 4ea 10% quartz flooding. 37.00 38.00 4ea 10% quartz flooding, left limb fold, axial plane at 107 dca. 38.00 39.00 4ea 10% quartz flooding, trace wispy ARSENOPYRITE. 39.00 40.00 4ea 10% quartz flooding. 40.00 41.00 4ea 10% quartz flooding, trace wispy pyrite. 41.00 44.90 DISRUPTED BEDS/FOLDING. Folded with axial planes at 109, 84 and 69 dca. Fold limbs indistinguishable. Trace wispy pyrrhotite, trace wispy pyrite and trace wispy ARSENOPYRITE. FE03370 DUPLICATE OF FE03369 1.10 ns ns. 41.00 42.00 4ea 10% quartz flooding, trace wispy pyrite, trace wispy ARSENOPYRITE 42.00 43.00 4eaf 10% quartz flooding, foliated, axial plane at 107 dca. 43.00 44.00 4eaf 10% quartz flooding, foliated, axial plane at 84 dca. 44.00 44.90 4ea 10% quartz flooding, foliated, axial plane at 69 dca.								
44.90	48.52	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets up to 5 mm, pink, brown, green, grey, non-magnetic and moderately hard. This unit is composed of 80% 4f beds, 15% 4e beds and 5% quartz vein. Moderately preserved bedding at 45 to 60 dca. One fracture perpendicular to bedding at 127 dca. GEOLOG DATA:. Alteration: 0% grunerite, 60% glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 30% bedded biotite. Mineralization: trace vein pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 5% vein quartz, trace vein quartz-carbonate, 0% calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact gradual at 71 dca. 44.90 46.00 4f trace quartz flooding. 46.00 47.00 4f trace quartz flooding. 47.00 48.00 4f 15% quartz veining, 2% quartz flooding, trace bleb pyrite. 47.35 47.50 QUARTZ VEINING. 15 cm quartz veining, 1% bleb pyrite, 5% 4f beds, upper contact and lower contact at 60 dca. FE03380 STANDARD III 5.01 NS NS. FE03381 BLANK 0.10 NS NS. 48.00 48.52 4f.								
48.52	56.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, grey, brown, non-magnetic and moderately hard. Moderately well foliated at 47 to 66 dca. Fractures perpendicular to bedding at 124 to 149 dca and fractures parallel to bedding at 50 to 58 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 20% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 1% vein quartz, 1% stringer quartz-carbonate, 0% calcite. 48.52 49.00 Bvol trace stringer quartz-carbonate. 49.00 50.00 Bvol 10% quartz veining, 1% stringer quartz-carbonate. 50.00 51.00 Bvol 1% stringer quartz-carbonate, trace bleb pyrite.								
56.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. No sludge return from drilling. DRILLING HISTORY. 0.00 to 6.10 hole cased with 6.10 m of NW casing. 6.10 to 56.00 standard 3 m corebarrel used. Dutem plug placed in upper part of hole. One bag of cement above. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			6.10 -50.00. Sperry Sun:. 56.00 -47.50.								

DRILL HOLE RECORD

Northing: 8049.400
Easting: 9109.900
Elevation: 5306.600

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 101.00
Completed: October 4, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone (open pit potential) on Section 8050N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
177 m south,253 m east top post 2 of 529854
Logged: October 13 - 15, 1993

Drill Hole: 506-691
Northing: 8050.0N
Easting: 9119.0E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: October 2, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
3.0		-50.0	56.0		-48.3	101.0		-47.0			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE03386 TO FE03438 (53 SAMPLES).								
.00	3.39	OB	OVERBURDEN OB. Casing from 0.00 to 3.00 metres.								
3.39	5.80	2	BASALT 2 - possibly metased. Fine grained, grey, green, yellow, non-magnetic and hard. Weakly foliated at 70 dca. Intensely fractured. Fractures parallel to bedding at 43 to 70 dca and fractures perpendicular to bedding at 115 to 153 dca. All fractures FeO coated. GEOLOG DATA:. Alteration: trace bedded grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 0% quartz-carbonate, trace calcite as fracture-filling.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact sharp at 50 dca.								
5.80	23.30	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, black, grey, yellow, strongly magnetic and hard. This unit is composed of 95% 4b beds and 5% chert beds. Moderately well preserved bedding, up to 1 cm, at 42 to 57 dca. Folds, axial plane at 60 and 66 dca. Fold limbs indistinguishable. Fractures parallel to bedding at 29 to 57 dca and fractures perpendicular to bedding at 123 to 141 dca. Numerous fractures FeO coated. Moderately developed axial planar fracture cleavage at 66 to 80 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 0% biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 50% laminae magnetite. Veining: trace quartz veining and vein quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 70 dca. 5.80 7.00 4b, folded, axial plane at 60 dca. 7.00 8.00 4b. 8.00 9.00 4b. 9.00 10.00 4b. 10.00 11.00 4b, folded, axial plane at 66 dca. 11.00 12.00 4b. 12.00 13.00 4b. 13.00 14.00 4b, trace bleb pyrite. 14.00 15.00 4b. 15.00 16.00 4b. 16.00 17.00 4b. 17.00 18.00 4b, 10% vein quartz, trace bleb pyrite. 17.77 17.88 QUARTZ VEIN 11 cm vuggy quartz vein, 5% vein quartz-carbonate, trace pyrite, trace chlorite, upper contact and lower contact, FeO coated, at 60 dca. FE03390 DUPLICATE OF FE03389 0.17 NS NS. FE03400 STANDARD III 6.14 NS NS. FE03401 BLANK 0.07 NS NS. 18.00 19.00 4b. 19.00 20.00 4b, trace bleb pyrite. 20.00 21.00 4b, trace bleb pyrite. 21.00 22.00 4b. 22.00 23.30 4b.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
23.30	64.20	2	BASALT 2 - possibly metased. Fine grained, grey, green, white, non-magnetic and moderately hard. Poorly to moderately foliated at 43 to 69 dca. Fractures perpendicular to foliation at 90 to 165 dca and fractures parallel to foliation at 52 to 60 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, trace pervasive carbonatization, trace bedded chlorite, 1% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, trace bleb chalcopyrite, 0% magnetite. Veining: trace vein quartz, 1% stringer quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 50 dca. 42.09 42.43 Quartz veining. 10% bedded chlorite, 5% bedded biotite, 5% stringer quartz-carbonate, fractured upper contact at 57 dca, fractured lower contact at 90 dca, broken core at lower contact.								
64.20	76.87	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, black, yellow, green, pink, strongly magnetic and hard. This unit is composed of 65% 4b beds, 20% chert beds, 10% 4e beds and 5% 4f beds. Moderately preserved bedding, up to 1 cm, at 36 to 68 dca. Fractures perpendicular to bedding at 80 to 165 dca and fractures parallel to bedding at 40 to 65 dca. GEOLOG DATA:. Alteration: 5% bedded grunerite, 1% bedded garnet, 0% silicification, 0% carbonatization, 0% chlorite, 1% bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace wispy pyrite, trace wispy arsenopyrite, 0% chalcopyrite, 40% bedded magnetite. Veining: 0% quartz, 0% quartz-carbonate, 0% calcite. Lower contact gradual at 54 dca. FE03410 DUPLICATE OF FE03409 0.07 0.07 NS. 64.20 65.00 4b, trace wispy pyrite. 65.00 66.00 4b, 1% stringer pyrite. 66.00 67.00 4b. 67.00 68.00 4b. 68.00 69.00 4b. 69.00 70.00 4b. 70.00 71.00 4b, 1% pyrite. 71.00 72.00 4b.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			72.00 73.00 4b, trace bleb pyrite. 73.00 74.00 4b, trace bleb pyrite. 74.00 75.00 4b. 75.00 76.00 4b, trace wispy ARSENOPYRITE. 76.00 76.87 4b.								
76.87	90.93	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with glomeroporphyritic garnets, up to 1 cm, grey, pink, yellow, brown, green, moderately magnetic and moderately hard. This unit is composed of 75% 4ea beds, 15% folding quartz, 5% 4b beds and 5% 4f beds. Moderately well preserved bedding, up to 3 cm, at 40 to 63 dca. Right limb fold, axial plane at 55 dca, m-type fold, and left limb fold, axial planes at 84 dca. Fractures perpendicular to bedding at 111 to 153 dca and fractures parallel to bedding at 39 to 60 dca. GEOLOG DATA:. Alteration: 5% bedded grunerite, 40% glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 5% bedded biotite. Mineralization: trace stringer pyrrhotite, 25 specks VISIBLE GOLD, trace bleb pyrite, trace bleb arsenopyrite, trace wispy chalcopyrite, 5% bedded magnetite. Veining: 15% folding quartz, 0% quartz-carbonate, trace calcite as fracture-filling. MINERALIZED ZONE. From 81.22 to 90.93 magnetites, trace stringer pyrrhotite, 25 specks VISIBLE GOLD, 20% folding quartz, trace bleb and stringer pyrite, trace bleb ARSENOPYRITE, trace wispy chalcopyrite, m-type fold and left limb fold, axial planes at 84 dca. Lower contact sharp at 47 dca. FE03420 STANDARD III 4.80 NS NS. FE03421 BLANK 0.07 NS NS. FE03430 DUPLICATE OF FE03429 1.61 NS NS. 76.87 78.00 4ea 5% quartz flooding. 78.00 79.00 4ea 10% quartz flooding. 79.00 80.00 4ea 10% quartz flooding. 80.00 81.00 4ea 10% quartz flooding, right limb fold, axial plane at 55 dca, fold, axial plane at 64 dca. 81.00 82.00 4ea 10% quartz flooding, 1 speck VISIBLE GOLD. 82.00 83.00 4ea 10% quartz flooding, trace bleb ARSENOPYRITE, trace wispy chalcopyrite, m-type fold. 83.00 84.00 4ea 20% quartz flooding, 1 speck VISIBLE GOLD, trace bleb ARSENOPYRITE. 84.00 85.00 4ea 20% quartz flooding, left limb fold, axial plane at 84 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			85.00 86.00 4ea 10% quartz flooding, trace bleb pyrite, left limb fold, axial plane at 84 dca. 86.00 87.00 4ea 10% quartz flooding, trace bleb pyrite, trace bleb ARSENOPYRITE. 87.00 88.00 4ea 10% quartz flooding, 20 specks VISIBLE GOLD, trace bleb pyrite, trace bleb ARSENOPYRITE. 88.00 89.00 4ea 50% quartz flooding, 3 specks VISIBLE GOLD, trace bleb pyrite, trace bleb ARSENOPYRITE. 89.00 90.00 4ea 10% quartz flooding, trace bleb pyrite. 90.00 90.93 4ea 50% quartz flooding, 1% stringer pyrite, trace bleb ARSENOPYRITE.								
90.93	101.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, brown, grey, non-magnetic and moderately hard. Moderately foliated at 50 to 72 dca. Fractures perpendicular to foliation at 128 to 149 dca and fractures parallel to foliation at 43 dca. GEOLOG DATA:. Alteration: 0% grunerite, 5% bedded garnet, 0% silicification, 40% pervasive carbonatization, trace bedded chlorite, 40% bedded biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 3% folding quartz, 5% vein quartz-carbonate, trace calcite as fracture-filling. 90.93 92.00 Bvol trace quartz flooding, 10% vein quartz-carbonate. 93.00 94.17 24f trace bleb pyrrhotite, 20% quartz flooding, 1% stringer quartz-carbonate, fracture perpendicular to bedding at 125 dca and fracture parallel to bedding at 50 dca. 93.00 94.17 24f 20% quartz flooding, 1% stringer quartz-carbonate.								
101.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 3 metres. Samples stored at Musselwhite camp. DRILLING HISTORY. 0.00 to 3.00 hole cased with 3.00 m of NW casing. 3.00 to 101.00 standard 3 m corebarrel used. Dutem plug placed in upper part of hole. One bag of cement above. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Acid Tests:. 3.05 -50.00. Sperry Sun:. 56.00 -48.25. 101.00 -47.00.								

DRILL HOLE RECORD

Northing: 8048.900
Easting: 9126.600
Elevation: 5304.900

Collar Azi.: 228.40
Collar Dip: -56.00

Hole Length: 140.00
Completed: October 5, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone (open pit potential) on Section 8050NLogged: October 16 - 19, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
186 m south,240 m east to post 2 Pa529854

Drill Hole: 506-693
Northing: 8050.0N
Easting: 9135.8E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: October 4, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
3.0		-56.0	65.0		-51.0	140.0		-47.0			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE03439 TO FE03522 (84 SAMPLES).								
.00	3.25	OB	OVERBURDEN OB. Casing from 0.00 to 3.00 metres.								
3.25	16.70	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, white, yellow, strongly magnetic and hard. Well preserved bedding, up to 1 cm, at 39 to 77 dca. Locally intensely folded, left limb fold, axial planes at 126, 55 and 60 dca, m-type fold, right limb fold, axial planes at 56 to 74 dca. Fractures parallel to bedding at 35 to 78 dca and fractures perpendicular to bedding at 15 to 155 dca. Moderately developed axial planar fracture cleavage at 60 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			trace bleb arsenopyrite, 0% chalcopyrite, 60% laminae magnetite. Veining: trace folding quartz, 0% quartz-carbonate, trace calcite as fracture-filling. From 3.25 to 4.43 blocky core - 4b, intensely fractured, fractures perpendicular to bedding at 107 to 155 dca, fractures parallel to bedding at 35 dca and fractures FeO coated. Lower contact sharp at 37 dca. FE03440 STANDARD III 4.77 ns ns. FE03441 BLANK 0.03 ns ns. FE03450 DUPLICATE OF FE03449 0.17 ns ns. 4.43 5.00 4b trace bleb ARSENOPYRITE. 5.00 6.00 4b trace bleb pyrite, left limb fold, axial plane at 126 dca. 6.00 7.00 4b right limb fold, axial plane at 74 dca. 7.00 8.00 4b. 8.00 9.00 4b trace bleb ARSENOPYRITE, right limb fold, axial plane at 61 dca. 9.00 10.00 4b right limb fold, axial plane at 56 dca. 10.00 11.00 4b trace bleb ARSENOPYRITE. 11.00 12.00 4b left limb fold, axial plane at 55 dca. 12.00 13.00 4b m-type fold, right limb fold, axial plane at 70 dca. 13.00 14.00 4b right limb fold, axial plane at 60 dca, m-type fold. 14.00 15.00 4b right limb fold, axial plane at 57 dca. 15.00 16.00 4b 5% folding quartz, left limb fold, axial plane at 60 dca. 16.00 16.70 4b 7% folding quartz, trace bleb pyrite.								
16.70	28.19	2	BASALT 2 - possibly metased. Fine grained, green, grey, white, non-magnetic and moderately hard. Weakly foliated at 34 to 66 dca. Locally intensely fractured, fractures perpendicular to foliation at 0 to 153 dca and fractures parallel to foliation at 45 to 86 dca. Numerous FeO coated fractures. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace fracture-filling chlorite, 0% biotite. Mineralization: trace stringer pyrrhotite, 0 specks VISIBLE GOLD, trace vein pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, trace stringer quartz-carbonate, 1% calcite as fracture-filling. Lower contact sharp at 62 dca. 16.70 17.41 2. 5% quartz tourmaline veins, 3% folding quartz, 2% vein pyrite. 17.41 18.00 2 18.00 21.00 Blocky core/fault gouge. Intensely fractured, FeO coated fractures,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			fractures perpendicular to foliation at 87 to 143 dca and fractures parallel to foliation at 45 to 67 dca.								
28.19	42.96	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, yellow, strongly magnetic and hard. This unit is composed of 97% 4b beds and 3% 2 - metasediment. Moderately well preserved bedding, up to 1 cm, at 47 to 69 dca. Right limb fold, axial planes at 52 to 61 dca. Fractures perpendicular to bedding at 29 to 175 dca, fractures parallel to bedding at 41 to 67 dca, locally intensely fractured and locally fractures FeO coated. GEOLOG DATA:. Alteration: trace bedded grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace fracture-filling chlorite, 0% biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 50% laminated magnetite. Veining: 0% quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 47 dca. 28.19 29.00 4b. 29.00 30.00 4b. 30.00 31.00 4b. 1% stringer pyrite, trace bleb ARSENOPYRITE, right limb fold, axial plane at 61 dca. 31.00 32.00 4b. Trace bleb pyrite. 32.00 33.00 4b/2. 43 cms of 2, quartz flooding, right limb fold, axial plane at 52 dca. 33.00 34.00 4b. Trace bleb pyrite. 34.00 35.00 4b. 35.00 36.00 4b. Trace bleb pyrite. 36.00 37.00 4b. Trace bleb pyrite, trace bleb ARSENOPYRITE. 37.00 38.00 4b. 9 cm quartz-carbonate vein / breccia, trace bleb pyrite, trace bleb ARSENOPYRITE. 38.00 39.00 4b. Trace bleb ARSENOPYRITE. 39.00 40.00 4b. Trace bleb ARSENOPYRITE. 39.73 41.23 4b intensely fractured, fractures perpendicular to bedding at 59 to 129 dca, numerous FeO coated fractures. FE03460 STANDARD III 4.77 ns ns. FE03461 BLANK 0.21 ns ns. FE03470 DUPLICATE 0.48 ns ns. 40.00 41.00 4b. Intensely fractured perpendicular to bedding. 41.00 42.00 4b. Trace pyrite. 42.00 42.94 4b. Trace pyrite, trace ARSENOPYRITE.								
42.96	91.47	2	BASALT 2 - possibly metased.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained, green, grey, brown, non-magnetic and moderately hard. Moderately foliated at 41 to 73 dca. Fractures perpendicular to foliation at 80 to 159 dca and fractures parallel to foliation at 53 to 65 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, trace bedded biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, trace wispy chalcopyrite, 0% magnetite. Veining: trace vein quartz, trace stringer quartz-carbonate, 0% calcite. Lower contact sharp at 57 dca.								
91.47	110.97	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, black, yellow, green, pink, strongly magnetic and hard. This unit is composed of 85% 4b beds, 7% folding quartz, 5% 4f beds and 3% 4ea beds. Well preserved bedding, up to 1.5 cm, at 37 to 73 dca. Left limb fold, axial planes at 63 and 59 dca, m-type fold, axial plane at 65 dca, folds with undetermined limb orientation at 69 and 70 dca. Fractures perpendicular to bedding at 105 to 160 dca and fractures parallel to bedding at 35 to 70 dca. Moderately developed axial planar fracture cleavage at 61 to 90 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 3% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 3% bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, trace wispy arsenopyrite, 0% chalcopyrite, 50% laminae magnetite. Veining: 7% folding quartz, trace vein quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 70 dca. FE03480 STANDARD III 4.80 ns ns. FE03481 BLANK 0.07 ns ns. FE03490 DUPLICATE OF FE03489 0.14 ns ns. 91.47 92.00 4b. 92.00 93.00 4b 2% quartz flooding, fold, axial plane at 70 dca. 93.00 94.00 4b trace bleb pyrite. 94.00 95.00 4b. 95.00 96.00 4b trace bleb pyrite, trace bleb ARSENOPYRITE. 96.00 97.00 4b 3% quartz flooding, trace bleb pyrite. 97.00 98.00 4bf 5% quartz flooding, trace bleb pyrite. 98.00 99.00 4b 3% quartz flooding, fold, axial plane at 69 dca. 99.00 100.00 4b 2% quartz flooding, trace bleb pyrite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			100.00 101.00 4b 2% quartz flooding, trace bleb pyrite. 101.00 102.00 4b 2% quartz flooding. 102.00 103.00 4b 5% quartz flooding, trace bleb pyrite, left limb fold, axial plane at 63 dca. 103.00 104.00 4b 2% quartz flooding, trace bleb pyrite. 104.00 105.00 4b 5% quartz flooding, left limb fold, axial plane at 59 dca. 105.00 106.00 4b 20% quartz flooding, m-type fold, axial plane at 65 dca. 106.00 107.00 4b 20% quartz flooding, trace wispy ARSENOPYRITE. 107.00 108.00 4b 20% quartz flooding. 108.00 109.00 4b 20% quartz flooding, trace bleb pyrite. 109.00 110.00 4bf 20% quartz flooding. 110.00 110.97 4bea 5% quartz flooding.								
110.97	124.54	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with glomeroporphyritic garnets, up to 1.5 cm, grey, brown, green, pink, yellow, moderately magnetic and hard. This unit is composed of 65% 4ea beds, 15% 4b beds, 10% 4f beds and 10% folding quartz. Moderately well preserved bedding, up to 2 cm, at 43 to 79 dca. Left limb fold, axial plane at 61 dca. Folds, axial planes at 73 and 49 dca. Fold limbs indistinguishable. Fractures perpendicular to bedding at 124 to 143 dca and fractures parallel to bedding at 70 dca. GEOLOG DATA:. Alteration: 5% bedded grunerite, 40% glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 10% bedded biotite. Mineralization: trace wispy pyrrhotite, 10 specks VISIBLE GOLD, trace bleb pyrite, trace wispy arsenopyrite, 0% chalcopyrite, 15% laminae magnetite. Veining: 10% folding quartz, trace vein quartz-carbonate, trace calcite as fracture-filling. MINERALIZED ZONE. From 114.50 to 120.50 magnetites trace wispy pyrrhotite, 10 specks VISIBLE GOLD, 5% folding quartz, trace bleb pyrite, trace wispy ARSENOPYRITE, folds with fold limbs indistinguishable, axial planes at 46 and 73 dca. Lower contact sharp at 66 dca. FE03500 STANDARD III 4.77 ns ns. FE03501 BLANK 0.07 ns ns. FE03510 DUPLICATE OF FE03509 1.17 ns ns. 110.97 112.00 4ea 3% quartz flooding, trace bleb pyrite. 112.00 113.00 4ea 7% quartz flooding. 113.00 114.00 4ea 5% quartz flooding. 114.00 115.00 4ea 7% quartz flooding, right limb fold, axial plane at 46 dca. 115.00 116.00 4ea 30% quartz flooding.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			116.00 117.00 4ea 5% quartz flooding, trace wispy ARSENOPYRITE. 117.00 118.00 4ea 2% quartz flooding. 118.00 119.00 4ea 10 specks VISIBLE GOLD, 20% quartz flooding, trace bleb pyrite. 119.00 120.00 4ea 20% quartz flooding. 120.00 121.00 4eaf 10% quartz flooding, fold, axial plane at 73 dca. 121.00 122.00 4ea 10% quartz flooding, fold, axial plane at 49 dca. 122.00 123.00 4eaf 10% quartz flooding, trace bleb pyrite, trace wispy ARSENOPYRITE, fold, axial plane at 98 dca. 123.00 124.00 4ea 10% quartz flooding. 124.00 124.54 4ea 20% quartz flooding, trace bleb pyrite, left limb fold, axial plane at 61 dca.								
124.54	128.82	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets, up to 5 mm, brown, grey, pink, green, non-magnetic and moderately hard. This unit is composed of 87% 4f beds, 10% 4e beds, 3% folding quartz. Moderately preserved bedding at 55 to 61 dca. Fractures perpendicular to bedding at 121 to 163 dca and fractures parallel to bedding at 56 to 83 dca. GEOLOG DATA:. Alteration: 0% grunerite, 30% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 50% bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 3% folding quartz, trace vein quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 82 dca. 124.54 125.00 4f 15% quartz flooding, trace wispy pyrite. 125.00 126.00 4f trace quartz flooding, trace wispy pyrite. 126.00 127.00 4f 5% vein quartz-carbonate, trace wispy pyrite. 127.00 128.00 4f trace wispy pyrite. 128.00 128.82 4f trace wispy pyrite.								
128.82	140.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, grey, brown, non-magnetic and moderately hard. Poorly to moderately foliated, at 55 to 83 dca. Fractures perpendicular to foliation at 46 to 157 dca. GEOLOG DATA:. Alteration: 0% grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 30% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Veining: 0% quartz, 4% vein quartz-carbonate, trace calcite as fracture-filling.								
			FE03520 STANDARD III 4.77 ns ns. FE03521 BLANK 0.14 0.10 ns.								
			128.82 130.00 Bvol.								
140.00		BVOL	END OF HOLE								
			DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.								
			CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. No sludge return from drilling.								
			DRILLING HISTORY. 0.00 to 3.00 hole cased with 3.00 m of NW casing. 3.00 to 140.00 standard 3 m corebarrel used. Dutem plug placed in upper part of hole. One bag of cement above. CASING LEFT IN HOLE AND CAPPED.								
			SURVEY HISTORY. Acid Tests:. 3.05 -56.00. Sperry Sun:. 65.00 -51.00. 140.00 -47.00.								

DRILL HOLE RECORD

Northing: 8099.400
Easting: 9080.400
Elevation: 5308.400

Collar Azi.: 228.40
Collar Dip: -53.00

Hole Length: 68.00
Completed: October 6, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone (open pit potential) on Section 8100NLogged: October 19, 1993

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
194 m south,308 m east to post 2 of Pa529854

Drill Hole: 506-696
Northing: 8100.0N
Easting: 9089.3E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: October 5, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
7.9		-53.0	65.0		-52.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE03523 TO FE03553 (31 SAMPLES).								
.00	8.33	OB	OVERBURDEN OB. Casing from 0.00 to 7.90 metre.								
8.33	37.55	2	BASALT 2 - possibly metased. Fine grained, green, grey, brown, non-magnetic and moderately hard. Moderately foliated at 54 to 75 dca. Fractures perpendicular to foliation at 47 to 157 dca and fractures parallel to foliation at 45 to 89 dca. Locally blocky core with FeO coated fractures. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 10% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 1% vein and stringer quartz-carbonate, trace calcite as								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			fracture-filling. Lower contact sharp at 52 dca. 8.33 9.67 Blocky core, numerous FeO coated fractures. 20.09 20.35 A 34 cm quartz vein, upper contact and lower contact at 90 dca.								
37.55	49.17	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, black, strongly magnetic and hard. This unit is composed of 75% 4b beds, 20% folding quartz and 5% 4e beds. Moderately preserved bedding, up to 1.5 cm, at 48 to 60 dca. Fractures perpendicular to bedding at 115 to 165 dca and fractures parallel to bedding at 45 to 65 dca. GEOLOG DATA:. Alteration: 1% bedded grunerite, 3% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, trace stringer arsenopyrite, 0% chalcopyrite, 50% laminae magnetite. Veining trace vein quartz, trace vein quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 69 dca. FE03530 DUPLICATE OF FE03529 0.03 ns ns. 37.55 38.00 4b. 38.00 39.00 4b. 1% stringer and bleb pyrite. 39.00 40.00 4b. Trace bleb pyrite. 40.00 41.00 4b. 41.00 42.00 4b. 42.00 43.00 4b. 43.00 44.00 4b. 44.00 45.00 4b. Trace bleb pyrite. 45.00 46.00 4b. Trace bleb pyrite. 46.00 47.00 4b. 47.00 48.00 4b 8% vein quartz, trace bleb pyrite, trace bleb ARSENOPYRITE. 48.00 49.17 4b trace bleb pyrite, 1% stringer ARSENOPYRITE.								
49.17	59.50	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with glomeroporphyritic garnets, up to 1 cm, grey, green, yellow, pink, brown, moderately magnetite and hard. This unit is composed of 65% 4ea beds, 10% folding quartz, 10% 4b beds, 10% 4f beds and 5% 4e beds. Moderately well preserved bedding, up to 1.5 cm, at 45 to 80 dca. Left limb fold, axial planes at 60 and 65 dca and fold with axial plane at 65 dca Fractures perpendicular to bedding at 153 to 120 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. Alteration: 10% bedded grunerite, 40% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 10% bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 5% bedded magnetite. Veining: 10% folding quartz, 0% quartz-carbonate, 0% calcite. Lower contact sharp at 80 dca. FE03540 STANDARD III 4.80 ns ns. FE03541 BLANK 0.07 ns ns. FE03550 DUPLICATE OF FE03549 0.14 ns ns. 49.17 50.00 4ea 1% quartz flooding, fold, axial plane at 65 dca. 50.00 51.00 4ea 10% quartz flooding, left limb fold, axial plane at 65 dca. 51.00 52.00 4ea 10% quartz flooding. 52.00 53.00 4ea 10% quartz flooding, trace bleb ARSENOPYRITE, left limb fold, axial plane at 60 dca. 53.00 54.00 4ea 20% quartz flooding, trace bleb pyrite. 54.00 55.00 4ea 10% quartz flooding. 55.00 56.00 4ea 15% quartz flooding. 56.00 57.00 4ea 5% quartz flooding. 57.00 57.56 4ea 2% quartz flooding, trace bleb pyrite, trace bleb ARSENOPYRITE. 57.56 58.04 4f. 58.04 58.80 4ea 20% quartz flooding. 58.80 59.50 4fe 5% stringer quartz-carbonate.								
59.50	63.55	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, grey, brown, non-magnetic and moderately hard. Moderately foliated at 54 to 66 dca. Fractures perpendicular to foliation at 125 and 144 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, trace wispy chalcopyrite, 0% magnetite. Veining: 5% vein and folding quartz, trace vein quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 85 dca. 59.50 60.00 Bvol.								
63.55	65.15	4F	GARNET-BIOTITE SCHIST 4f. Fine grained with glomeroporphyritic garnets up to 1 cm, brown, green, pink,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			yellow, non-magnetic and moderately hard. This unit is composed of 70% 4f beds and 30% 4e beds. Moderately preserved bedding at 68 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 10% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 60% bedded biotite. Mineralization: trace wispy pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 0% quartz-carbonate, 0% calcite. Lower contact gradual at 77 dca. 63.55 64.00 4f. 64.00 65.15 4f.								
65.15	68.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown, grey, green, non-magnetic and moderately hard. Moderately well foliated at 53 to 74 dca. Fractures parallel to foliation at 60 to 61 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 50% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 1% stringer quartz-carbonate, 0% calcite.								
68.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 3 metres. Samples stored at Musselwhite camp. DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 to 7.90 hole cased with 7.90 m of NW casing. 7.90 to 68.00 standard 3 m corebarrel used. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 7.90 -53.00.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			65.00 -52.00.								

DRILL HOLE RECORD

Northing: 8099.100
Easting: 9125.600
Elevation: 5305.400

Collar Azi.: 228.40
Collar Dip: -50.00

Hole Length: 125.00
Completed: October 8, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone (open pit potential) on Section 8100N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
224 m south,274 m east to post 2 of Pa529854
Logged: October 20 - 22, 1993

Drill Hole: 506-698
Northing: 8100.0N
Easting: 9134.5E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: October 6, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
3.0		-50.0	65.0		-47.5	125.0		-46.5			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole. For detailed structural data see attached STRIP LOG. For geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES FE03554 TO FE03627 (74 SAMPLES).								
.00	3.73	OB	OVERBURDEN OB. Casing from 0.00 to 3.60 metres.								
3.73	21.61	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, black, yellow, strongly magnetic and hard. This unit is composed of 95% 4b beds and 5% folding quartz. Moderately preserved bedding, up to 5 mm, at 46 to 79 dca. Left limb fold, axial planes at 70, 73, and 90 dca. Folds at 54 and 61 dca. Undetermined limb orientation. Fractures perpendicular to bedding at 110 to 129 dca and fractures parallel to bedding at 43 to 57 dca. Moderately developed axial planar fracture cleavage at 71 to 75 dca. Locally blocky core. GEOLOG DATA:. Alteration: trace bedded grunerite, 0% garnet, 0% silicification, 0%								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			carbonatization, 0% chlorite, 0% biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 60% laminae magnetite. Veining: 5% folding quartz, 0% quartz-carbonate, 0% calcite. Lower contact sharp at 79 dca. FE03560 STANDARD III 4.70 ns ns. FE03561 BLANK 0.17 ns ns. FE03570 DUPLICATE OF FE03569 0.34 ns ns. 3.73 5.00 4b 2% quartz flooding. 5.00 6.00 4b 2% quartz flooding. 6.00 7.00 4b 7% quartz flooding. 7.00 8.00 4b 20% quartz flooding. 8.00 9.00 4b 5% quartz flooding, left limb fold, axial plane at 73 dca. 9.00 10.00 4b 3% quartz flooding, trace bleb ARSENOPYRITE. 10.00 11.00 4b 2% quartz flooding. 11.00 12.00 4b 2% quartz flooding, trace ARSENOPYRITE, fold, axial plane at 54 dca. 12.00 13.00 4b 10% quartz flooding. 13.00 14.00 4b 7% quartz flooding. 14.00 15.00 4b 10% quartz flooding. 15.00 16.00 4b 10% quartz flooding, trace bleb ARSENOPYRITE. 16.00 17.00 4b 10% quartz flooding, fold, axial plane at 61 dca. 17.00 18.00 4b 7% quartz flooding. 18.00 19.00 4b 5% quartz flooding, left limb fold, axial plane at 70 dca. 19.00 20.00 4b 10% quartz flooding. 20.00 21.00 4b 10% quartz flooding, left limb fold, axial plane at 90 dca. 21.00 21.61 4b 10% quartz flooding.								
21.61	31.56	2	BASALT 2 - possibly metased. Fine grained, green, grey, non-magnetic and moderately hard. Poorly foliated at 73 dca. Fractures perpendicular to foliation at 39 to 163 dca and fractures parallel to foliation at 71 to 77 dca. Numerous FeO coated fractures. Locally blocky core. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace fracture-filling chlorite, 0% biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, trace wispy quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 83 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
31.56	44.40	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, black, yellow, strongly magnetic and hard. This unit is composed of 85% 4b beds and 15% folding quartz. Well preserved bedding, up to 1 cm, at 57 to 78 dca. Right limb fold, axial plane at 60 dca. Fractures perpendicular to bedding at 107 to 150 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 0% biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 50% laminae magnetite. Veining: 15% folding quartz, 0% quartz-carbonate, 0% calcite. Lower contact sharp at 140 dca. FE03580 STANDARD III 4.32 ns ns. FE03581 BLANK 0.07 ns ns. FE03590 DUPLICATE OF FE03589 0.24 ns ns. 31.56 32.00 4b 1% quartz flooding. 32.00 33.00 4b 10% quartz flooding. 33.00 34.00 4b 10% quartz flooding, trace bleb pyrite. 34.00 35.00 4b 15% quartz flooding. 35.00 36.00 4b 15% quartz flooding. 36.00 37.00 4b 10% quartz flooding. 37.00 38.00 4b 5% quartz flooding. 38.00 39.00 4b 2% quartz flooding. 39.00 40.00 4b 5% quartz flooding, trace bleb ARSENOPYRITE. 40.00 41.00 4b 5% quartz flooding, trace bleb ARSENOPYRITE. 41.00 42.00 4b 7% quartz flooding. 42.00 43.00 4b 7% quartz flooding, trace bleb pyrite. 43.00 44.00 4b 3% quartz flooding, trace bleb pyrite, right limb fold, axial plane at 60 dca. 44.00 44.40 4b 2% quartz flooding.								
44.40	95.27	2	BASALT 2 - possibly metased. Fine grained, green, grey, white, brown, non-magnetic and moderately hard. Moderately foliated at 47 to 79 dca. Fractures perpendicular to foliation at 39 to 167 dca and fractures parallel to foliation at 45 to 74 dca. Numerous FeO coated fractures. Locally blocky core. GEOLOG DATA:.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace bleb chlorite, 0% biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, trace bleb chalcopyrite, 0% magnetite. Veining: trace vein quartz, 3% vein and stringer quartz-carbonate, 0% calcite. Lower contact sharp at 64 dca. 46.92 47.06 Quartz-carbonate vein, 14 cm, 1% bleb chlorite. Upper contact sharp at 85 dca and lower contact sharp at 90 dca. 70.33 70.47 Quartz vein, 14 cm, trace stringer quartz-carbonate. Upper contact sharp at 68 dca and lower contact gradual at 70 dca.								
95.27	102.91	4B	CHERT - MAGNETITE IRON FORMATION 4b. Fine grained, grey, black, yellow, brown, pink, strongly magnetic and hard. This unit is composed of 76% 4b beds, 20% folding quartz, 2% 4f beds and 2% 4ea beds. Moderately preserved bedding, up to 5 mm, at 43 to 51 dca. M-type fold, axial plane at 75 dca. Fold, axial plane at 68 dca. Undetermined limb orientation. Fractures perpendicular to bedding at 125 to 175 dca and fractures parallel to bedding at 50 to 53 dca. GEOLOG DATA:. Alteration: 2% bedded grunerite, trace bedded garnet, 0% silicification, 0% carbonatization, 0% chlorite, trace bedded biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 30% bedded magnetite. Veining: 20% folding quartz, 0% quartz-carbonate, trace calcite as fracture-filling. Lower contact gradual at 70 dca. 95.27 96.00 4b 30% quartz flooding, 1% bleb pyrite, trace bleb ARSENOPYRITE. 96.00 97.00 4b 20% quartz flooding, trace bleb ARSENOPYRITE. 97.00 98.00 4b 30% quartz flooding. 98.00 99.00 4b 20% quartz flooding. 99.00 100.00 4b 20% quartz flooding, m-type fold, axial plane at 75 dca. 100.00 101.00 4b 10% quartz flooding, trace bleb pyrite, fold, axial plane at 68 dca. 100.11 Ground core. 101.00 102.00 4b 10% quartz flooding. 102.00 102.91 4b 10% quartz flooding.								
102.91	116.69	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with glomeroporphyritic garnets, up to 1 cm, grey, yellow, pink,								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			grain, brown, moderately to strongly magnetic and hard. This unit is composed of 59% 4ea beds, 30% 4b beds, 10% folding quartz and 1% vein quartz. Moderately preserved bedding at 31 to 62 dca. Left limb fold, axial plane at 55 dca and m-type fold, axial plane at 49 dca. Fractures perpendicular to bedding at 129 to 149 and fractures parallel to bedding at 67 dca. GEOLOG DATA:. Alteration: 10% bedded grunerite, 40% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, trace bedded biotite. Mineralization: trace stringer pyrrhotite pyrrhotite, 25 specks VISIBLE GOLD, trace bleb pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 20% bedded magnetite Veining: 10% folding quartz, 0% quartz-carbonate, 0% calcite. MINERALIZED ZONE. From 108.00 to 116.69, 1% stringer pyrrhotite, 25 specks VISIBLE GOLD, trace bleb pyrite, trace bleb ARSENOPYRITE, quartz vein, 10% folding quartz, left limb fold, axial plane at 55 dca, m-type fold, axial plane at 49 dca, 13 cm quartz vein at lower contact. Lower contact gradual at 68 dca. 102.91 104.00 4ea 5% quartz flooding. 104.00 105.00 4ea 5% quartz flooding. 105.00 106.00 4ea 3% quartz flooding. 106.00 107.00 4ea 5% quartz flooding. 107.00 108.00 4ea 7% quartz flooding. 108.00 109.00 4ea 10% quartz flooding. 109.00 110.00 4ea 10% quartz flooding. 110.00 111.00 4ea 2 specks VISIBLE GOLD, 10% quartz flooding, trace bleb pyrite. 111.00 112.00 4ea 1 speck VISIBLE GOLD, 15% quartz flooding. 112.00 113.00 4ea 10 specks VISIBLE GOLD, 10% quartz flooding, trace bleb pyrite, left limb fold, axial plane at 55 dca. 113.00 114.00 4ea 1 speck VISIBLE GOLD, 10% quartz flooding. 114.00 115.00 4ea 1 speck VISIBLE GOLD, 10% quartz flooding. 115.00 116.00 4ea 10 specks VISIBLE GOLD, 10% quartz flooding, m-type fold, axial plane at 49 dca. 116.00 116.69 4ea 40% quartz veining, 20% quartz flooding, trace bleb ARSENOPYRITE. 116.56 116.69 Quartz vein, 13 cm, 1% bleb chlorite, upper contact gradual at 66 dca and lower contact sharp at 68 dca. FE03600 STANDARD III 4.59 ns ns. FE03601 BLANK 0.07 ns ns. FE03610 DUPLICATE OF FE03609 11.83 ns ns.								
116.69	122.84	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Fine grained, grain, grey, brown, non-magnetic and moderately hard. Moderately foliated at 5 to 71 dca. Fold, axial plane at 71 dca. Undetermined limb orientation. Fractures parallel to foliation at 45 to 65 dca and fractures perpendicular to foliation at 149 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 0% garnet, 0% silicification, 0% carbonatization, trace fracture-filling chlorite, trace bedded biotite. Mineralization: trace bleb and wispy pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 1% vein quartz, trace stringer quartz-carbonate, trace calcite as fracture-filling. Lower contact sharp at 64 dca. 116.69 118.00 Bvol/24f 5% quartz veining, 2% quartz flooding, trace bleb pyrite. 116.89 117.05 Quartz vein, 16 cm, upper contact sharp at 62 dca and lower contact sharp at 69 dca. 117.05 117.26 24f, trace bleb pyrrhotite, trace bleb pyrite, 25% quartz flooding. 117.42 117.53 24f. 118.00 119.00 Bvol/24a 2% quartz flooding. 118.32 118.40 24a. 118.74 118.83 24a. Trace wispy pyrrhotite. 119.00 120.00 Bvol/24a 5% quartz flooding, 1% vein quartz-carbonate, trace bleb pyrite. 119.14 119.55 24a, trace wispy pyrrhotite, trace bleb pyrite. 119.91 119.93 Quartz-carbonate vein, 1.5 cm, 5 mm fracture-filling chlorite along lower contact, fractures at upper contact and lower contact parallel to foliation at 65 dca. 120.00 120.84 Bvol/24a 1% quartz flooding, trace bleb pyrite. 120.15 120.25 24a, trace wispy pyrrhotite. 120.84 Ground core. 120.84 122.00 Bvol/24a 2% quartz flooding, trace bleb pyrite, fold, axial plane at 71 dca. 120.90 121.21 24a. Trace bleb pyrite. 121.50 121.77 24a trace stringer pyrrhotite, trace bleb pyrite. FE03620 STANDARD III 4.70 ns ns. FE03621 BLANK 0.07 ns ns. 122.00 122.84 Bvol 1% quartz flooding.								
122.84	124.47	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. Fine grained with glomeroporphyritic garnets, up to 5 mm, grey, green, yellow, pink, brown, non-magnetic and hard. This unit is composed of 50% 4ea beds, 47% 4a beds and 3% 4f beds. Poorly to moderately preserved bedding, up to 2 cm, at 59 dca. Left limb fold, axial plane at 63 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			GEOLOG DATA:. Alteration: 10% bedded grunerite, 20% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 1% bedded biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: trace folding quartz, 0% quartz-carbonate, 0% calcite. Lower contact sharp at 68 dca. 122.84 124.00 4ea 1% quartz flooding. 124.00 124.47 4ea trace quartz flooding, left limb fold, axial plane at 63 dca.								
124.47	125.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained with rare glomeroporphyritic garnets, up to 5 mm, brown, green, grey, pink, non-magnetic and moderately hard. Moderately well foliated at 65 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, trace glomeroporphyritic garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 40% bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 1% stringer quartz-carbonate, 0% calcite. 124.47 125.00 Bvol.								
125.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. Sludge sample taken every 3 metres. Samples stored at Musselwhite camp. DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 to 3.60 hole cased with 3.60 m of NW casing. 3.60 to 125.00 standard 3 m corebarrel used. Dutem plug placed in upper part of hole. One bag of cement above. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 3.05 -56.00. Sperry Sun:.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			65.00 -47.50. 125.00 -46.50.								

DRILL HOLE RECORD

Northing: 8151.000
Easting: 9075.000
Elevation: 5309.300

Collar Azi.: 228.40
Collar Dip: -57.00

Hole Length: 77.00
Completed: October 18, 1993
Drilled by:
Logged by: B.D'Silva
Purpose: To test PQ Zone (open pit potential) on 8150N

Grid: EAST BAY
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa529854
226 m south,346 m east to post 2 of Pa529854
Date(s) Logged: Oct. 31 - Nov. 1, 1993

Drill Hole: 506-716

Northing: 8150.0N
Easting: 9084E
Survey: YES
Property Name: PROJECT 506
Measre: METRIC
Core Size: NQ
Date Started: October 16, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
4.9		-57.0	77.0		-54.8						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb - are looking down the plunge of the deposit (i.e. Northwest). Reference to fracture orientation (0 to 180 degrees) are relative to uphole*. For detailed structural data see attached STRIP LOG. For detailed geotechnical data see GEOTECHNICAL LOG. SAMPLE SERIES # FE08909 TO FE08939 (31 SAMPLES).								
.00	5.82	OB	OVERBURDEN OB. From 0.00 to 4.88 casing.								
5.82	44.94	2	BASALT 2 - possibly metased. Fine grained, grey, green, white, non-magnetic and moderately hard. Moderately foliated at 45 to 64 dca. Fractures parallel to foliation at 35 to 67 dca and fractures perpendicular to foliation at 22 to 178 dca. Numerous FeO coated fractures. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, trace bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: trace vein quartz, trace stringer and veinlet quartz-carbonate, trace								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			fracture-filling calcite. Lower contact sharp at 54 dca. 6.65 7.00 Blocky core. 9.00 9.40 Blocky core. 10.04 10.26 Blocky core. 12.35 12.42 Blocky core. 17.23 Quartz vein 1 cm. Contacts sharp at 45 dca. 17.38 Quartz vein 4 cm, chloritic and carbonaceous. Contacts sharp at 46 dca. 19.02 Blocky core. 23.91 Quartz-carbonate vein 1 cm, vuggy. 25.17 25.40 Ground core. 26.09 26.15 Quartz-carbonate vein 5.5 cm. Contacts sharp at 68 dca. 27.16 27.22 Quartz vein 6 cm, carbonaceous. Contacts sharp at 69 dca. 43.36 44.07 Blocky core.								
44.94	58.22	4B	CHERT - MAGNETITE IRON FORMATION 4b. From 44.94 to 53.00 4b. From 53.00 to 58.22 4bf. Fine grained, grey, black, white strongly magnetic and hard. This unit is composed of 90% 4b beds, 7% 4f beds and 3% folding and vein quartz. Moderately well preserved bedding at 38 to 57 dca. Left limb fold with axial planes at 59, 61 and 66 dca. Fractures parallel to bedding at 30 to 63 dca. Fractures perpendicular to bedding at 75 to 125 dca. GEOLOG DATA:. Alteration: trace bedded grunerite, 1% bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 1% bedded biotite. Mineralization: trace vein and bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, trace bleb arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 3% folding and vein quartz, 0% quartz-carbonate, 0% calcite. Lower contact sharp at 60 dca. 44.94 53.00 4b. FE08910 DUPLICATE OF FE08909 0.31 ns ns. 44.94 46.00 4b with 7% quartz veining and 20% quartz flooding. At 45.06 quartz flooding over 17 cm with trace bleb pyrrhotite. From 45.56 to 45.63 quartz vein 7 cm, chloritic with 1% bleb pyrrhotite. Upper contact sharp at 49 dca and lower contact irregular at 61 dca. 46.00 47.00 4b with 17% quartz veining, 10% quartz flooding, 1% bleb pyrite and trace bleb ARSENOPYRITE. From 46.44 to 46.61 quartz vein 17 cm, chloritic with CORE LOST at upper contact and lower contact sharp at 77 dca. 47.00 48.00 4b with 45% quartz flooding. From 47.00 to 47.40 quartz flooding								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			over 40 cm. 1% disseminated and bleb pyrrhotite and trace bleb pyrite. 48.00 49.00 4b with 2% quartz flooding. 49.00 50.00 4b with 2% quartz flooding. 50.00 51.00 4b with 5% quartz flooding and trace bleb pyrite. 51.00 52.00 4b with 2% quartz flooding. 52.00 53.00 4b with 12% quartz veining, 7% quartz flooding and trace bleb pyrite. From 52.70 to 52.79 quartz vein 9 cm with 10% veinlet pyrrhotite and 7% stringer pyrite. From 52.87 to 52.90 quartz vein 3 cm, chloritic with 1% bleb pyrrhotite and 1% bleb pyrite. 53.00 58.34 4bf. FE08920 STANDARD III 5.25 ns ns. FE08921 BLANK 0.17 ns ns. 53.00 54.00 4bf. 54.00 55.00 4bf. Left limb fold at 54.24 with axial plane at 59 dca. 55.00 56.00 4bf. Left limb fold at 55.04 with axial plane at 66 dca. 56.00 57.00 4bf. 57.00 58.22 4bf. Left limb fold at 57.82 with axial plane at 61 dca.								
58.22	67.09	4EA	GARNET-AMPHIBOLE-CHERT-GRUNERITE I.F. 4ea. From 58.22 to 62.21 4eab. From 62.21 to 67.09 4ea. Fine grained with glomeroporphyritic garnets, up to 1 cm, grey, green, pink, yellow, brown, moderately to strongly magnetic and moderately hard to hard. This unit is composed of 70% 4ea beds, 15% 4b beds, 10% 4f beds and 5% folding quartz. Moderately preserved bedding at 55 to 65 dca. Right limb fold with axial plane at 56 dca. Left limb fold with axial plane at 56 dca. Fold with axial plane at 57 dca. Fractures perpendicular to bedding at 15 to 135 dca. Fractures parallel to bedding at 55 to 65 dca. GEOLOG DATA:. Alteration: 5% bedded grunerite, 30% glomeroporphyritic and bedded garnet, 0% silicification, 0% carbonatization, trace bedded chlorite, 5% bedded biotite. Mineralization: trace veinlet, and bleb pyrrhotite, 0 specks VISIBLE GOLD, trace bleb pyrite, trace bleb arsenopyrite, trace bleb chalcopyrite, 20% bedded magnetite. Veining: 5% folding quartz, trace vein quartz-carbonate, trace fracture-filling calcite. Lower contact sharp at 53 dca. 58.22 62.21 4eab. 58.22 59.00 4eab with 2% quartz flooding. 59.00 60.00 4eab with trace quartz flooding. 60.00 61.00 4eab with trace quartz flooding, 1% bleb pyrite and trace bleb chalcopyrite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			61.00 62.21 4eab with 2% quartz flooding, trace bleb pyrite, trace bleb chalcopyrite and trace bleb ARSENOPYRITE. 62.21 67.06 4ea. FE08930 DUPLICATE OF FE08929 0.45 ns ns. 62.21 63.00 4ea with 2% quartz flooding, 1% quartz-carbonate veins, trace bleb pyrite and trace bleb chalcopyrite. Right limb fold at 62.85 with axial plane at 56 dca. 63.00 64.00 4ea with 3% quartz flooding. Fold at 63.28 with axial plane at 57 dca 64.00 65.00 4ea with 10% quartz flooding, 1% bleb pyrite, trace bleb ARSENOPYRITE 65.00 66.00 4ea with 15% quartz flooding, trace bleb pyrite and trace bleb chalcopyrite. Left limb fold at 65.12 with axial plane at 56 dca. 66.00 67.09 4ea with 10% quartz flooding.								
67.09	68.91	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, green, white, brown, non-magnetic and moderately hard. Moderately foliated at 58 to 61 dca. Fractures parallel to foliation at 57 to 70 dca and fractures perpendicular to foliation at 140 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, trace bedded biotite. Mineralization: 0% pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 0% quartz, 20% vein and stringer quartz-carbonate, 0% calcite. Lower contact gradual at 63 dca. 67.09 68.00 Bvol. At 67.09 quartz-carbonate vein 5 cm. At 67.51 quartz-carbonate vein 5 cm, chloritic. At 67.90 quartz-carbonate vein 6 cm. 68.00 68.91 Bvol. At 68.13 quartz-carbonate vein 9 cm, chloritic and biotitic. At 68.81 quartz-carbonate vein 1 cm.								
68.91	71.05	24F	INTRAFORMATIONAL IRON FORMATION 24fea. Fine grained with glomeroporphyritic garnets, up to 1 cm, brown, green, grey yellow non-magnetic and moderately hard to hard. This unit is composed of 50% 4f beds, 43% 4ea beds and 7% folding and vein quartz Moderately preserved bedding at 54 dca. Fractures parallel to bedding at 45 to 70 dca. GEOLOG DATA:. Alteration: 3% bedded grunerite, 5% glomeroporphyritic and bedded garnet, 0% silicification, 0% carbonatization, 0% chlorite, 40% bedded biotite. Mineralization: trace bleb pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, 0% chalcopyrite, 0% magnetite. Veining: 7% folding and vein quartz, trace stringer quartz-carbonate, 0% calcite.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Lower contact gradual at 60 dca. 68.91 70.00 24fea with 35% 4ea beds and 15% quartz flooding. At 68.74 quartz flooding over 13 cm, chloritic with trace wispy pyrrhotite. 70.00 71.05 24fea with 2% quartz veining.								
71.05	77.00	BVOL	INTERMEDIATE TO MAFIC VOLCANICS Bvol. Fine grained, brown, green, grey, white, non-magnetic and moderately hard. Moderately foliated at 55 to 66 dca. Fractures parallel to foliation at 55 to 75 dca. Fractures perpendicular to bedding at 30 to 150 dca. GEOLOG DATA:. Alteration: 0% grunerite, 0% garnet, 0% silicification, 0% carbonatization, 0% chlorite, 40% bedded biotite. Mineralization: trace bleb and stringer pyrrhotite, 0 specks VISIBLE GOLD, 0% pyrite, 0% arsenopyrite, trace wispy chalcopyrite, 0% magnetite. Veining: trace vein quartz, 3% vein and stringer quartz-carbonate, 0% calcite. 71.05 72.00 Bvol.								
77.00		BVOL	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sample prep at Chemex Labs in Thunder Bay, Ont. Samples analyzed at Chemex and XRAL Lab Inc., 30 gram sample, fire assayed with gravimetric finish. No sludge samples taken. DRILLING HISTORY. Overburden was drilled using a tricone bit. 0.00 to 4.88 hole cased with NW casing. 5.50 to 77.00 standard 3 m corebarrel used. Dutem plug set 6 metres below casing and one bag cement above. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY. Acid Tests:. 4.88 -57.00. Sperry Sun:. 77.00 -54.75.								

DRILL HOLE RECORD

Northing: 11952.100
Easting: 7471.800
Elevation: 5305.800

Collar Azi.: 43.00
Collar Dip: -45.50

Hole Length: 173.90
Completed: JUNE 13, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST THE CAMP ZONE ON SECTION 77N

Grid: WEST ANTICLINE - CAMP ZONE
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa369764
53 m south 124 m east to post 2 of Pa369764
Date(s) Logged: JUNE 12 - 13, 1993

Drill Hole: 506-636
Northing: 32+35S
Easting: 2+50E
Survey: YES
Property Name: PROJECT 506
Measre: IMPERIAL
Core Size: NQ
Date Started: JUNE 11, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
23.2		-45.0	98.0		-45.0	164.0		-45.0			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB FOLDS ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT (I.E. NORTHWESTERLY). Sample Series E47301 to E47335.								
.00	23.20	OB	OVERBURDEN								
23.20	150.70	4B	CHERT - MAGNETITE IRON FORMATION 4B. 0.1 to 1 INCH chert-magnetite beds. Strongly magnetic. Poorly to well bedded at 10 to 83 dca. Folding occurs throughout unit with axial planes at 32 to 52 dca. Many beds display 0.01 inch microfaults. Fractures subparallel to bedding at 12 to 30 dca and perpendicular at 20 to 47 dca. Strong pale yellow calcite alteration - pervasive throughout unit and also concentrated as 0.1 inch rims along magnetite bed selvages. Magnetite beds locally garnetiferous. From 23.20 to 46.00 trace disseminated pyrrhotite and <2% quartz stringers. Stringers are stratabound, locally appearing to replace chert beds and also axial planar. From 46.00 to 58.00 3% to 20% stratabound and axial planar pyrrhotite. Trace arsenopyrite. Several specks VISIBLE GOLD. 20% to 65% quartz flooding and stratabound quartz stringers. From 58.00 to 119.00 <1% pyrrhotite, 1% to 5% quartz stringers. From 119.00 to 150.70 5% to 25% pyrrhotite. Up to 70% quartz flooding. Lower contact broken.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			23.20 28.00 4b. 10% quartz stringers. At 23.8 a 6.0 INCH broken quartz vein with trace pyrrhotite. At 26.5 bedding 85 dca. 28.00 33.00 4b. 8% axial planar and stratabound quartz stringers. At 28.6 bedding 85 dca. At 29.3 left limb fold with axial plane at 32 dca. At 31.3 a 2 INCH barren quartz vein at 47 dca. 30.20 Fracture at 17 dca. 33.00 38.00 4b. 5% axial planar quartz stringers with trace pyrrhotite. At 33.4 bedding 72 dca. At 35.3 left limb fold with axial plane at 47 dca. At 36.7 a 0.05 INCH axial planar quartz stringer with trace arsenopyrite. 35.50 Fracture at 29 dca. 38.00 43.00 4b. 5% axial planar and stratabound quartz stringers with trace pyrrhotite. At 38.8 left limb fold with axial plane at 40 dca. At 39.7 bedding 51 dca. At 40.7 minor quartz stringers parallel to axial plane at 47 dca. 41.60 Fracture at 12 dca. 43.00 46.00 4b. 5% axial planar and stratabound quartz stringers and quartz flooding. At 45.8 bedding 83 dca. 46.00 51.00 4b. Trace arsenopyrite. Bedding disrupted by 65% axial planar and stratabound quartz veining and quartz flooding. At 49.6 bedding 12 dca. 51.00 54.00 4b. Trace arsenopyrite. 20% quartz flooding. Bedding disrupted and brecciated. 54.00 58.00 5% pyrrhotite mineralization - both axial planar and stratabound. E47310 DUPLICATE of E47309 0.18 ns ns. 54.00 58.00 4b. 20% quartz flooding and stratabound quartz veining. 2 specks VISIBLE GOLD. At 54.5 bedding 10 dca and right limb fold with axial plane at 37 dca. At 57.8 bedding 70 dca. 58.00 63.00 4b. 5% quartz veining. Trace arsenopyrite. At 58.4 bedding 65 dca. At 62.7 right limb fold with axial plane at 40 dca. 63.00 68.00 4b. At 63.6 bedding 13 dca. At 66.4 right limb fold with axial plane 50 dca. At 67.4 bedding 10 dca. 64.00 Fracture 25 dca. 68.00 73.00 4b. At 69.8 bedding 15 dca. 70.00 Fracture 20 dca. 72.00 73.00 Broken core. 73.00 Fracture 20 dca. 73.00 76.00 4b. 1% irregular blebs quartz. At 75.9 bedding 70 dca. 76.00 81.00 5% stratabound pyrrhotite mineralization. 76.00 81.00 4b. At 76.0 bedding 65 dca. At 76.8 right limb fold with axial plane at 35 dca. At 79.6 right limb fold with axial plane at 36 dca. 81.00 86.00 4b. 3% irregular, stratabound and axial planar quartz stringers. At 81.5 left limb fold with axial plane at 39 dca. At 83.4 bedding 30 dca. 84.00 Fracture 25 dca. 86.00 91.00 4b. 3% irregular quartz stringers with trace pyrrhotite. At 86.5 bedding 11 dca. At 90.5 bedding 10 dca. 87.00 Fracture 7 dca. E47320 STANDARD I 4.36 ns ns. E47321 BLANK 0.04 ns ns. 91.00 96.00 4b. 7% stratabound quartz stringers with trace pyrrhotite. At 92.6								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			bedding 15 dca. At 95.6 bedding 8 dca. At 95.8 right limb fold with axial plane at 40 dca. 96.00 101.00 4b. 5% stratabound and irregular quartz stringers. At 97.0 right limb fold with axial plane at 47 dca. Bedding 10 dca. At 99.7 right limb fold with axial plane at 50 dca. 101.00 104.00 4b. 20% stratabound quartz stringers. At 102.8 bedding 8 dca. 104.00 109.00 4b. Trace arsenopyrite. 40% quartz flooding and quartz veining with trace pyrrhotite. At 104.5 bedding 20 dca. At 106.0 bedding 18 dca. At 108.8 left limb fold with axial plane at 47 dca. 109.00 114.00 4b. Trace arsenopyrite. 5% irregular quartz stringers. At 110.6 bedding 80 dca. 114.00 119.00 4b. Trace arsenopyrite. 5% irregular quartz stringers. At 116.4 bedding 52 dca and left limb fold with axial plane at 42 dca. At 117.4 bedding 27 dca. 119.00 124.00 4b. At 119.7 bedding 63 dca. At 120.8 left limb fold with axial plane at 52 dca. At 121.0 axial plane at 40 dca. 124.00 127.00 4b. Trace arsenopyrite. At 126.5 right limb fold with axial plane at 40 dca. 127.00 129.00 QV. Contacts broken. 5% pyrrhotite and minor calcite. 129.00 132.00 4b. At 131.0 2 specks VISIBLE GOLD. 50% quartz flooding. At 129.7 bedding 73 dca. 130.00 Fracture 41 dca. 131.00 150.70 Bedding disrupted by up to 70% quartz flooding. E47330 DUPLICATE of E47329 0.60 ns ns. Lower contact broken. 132.00 137.00 4b. At 132.0 1 speck VISIBLE GOLD. 70% quartz flooding. Moderate carbonate alteration. Bedding disrupted. 136.00 Fracture 25 dca. 137.00 142.00 4B. Trace arsenopyrite. 1% pyrite. 40% quartz flooding. Moderate carbonate alteration. Bedding disrupted. 142.00 Fracture 28 dca. 142.00 147.00 4b. 30% quartz flooding. Moderate carbonate alteration. Bedding disrupted. 147.00 150.70 4b. 30% quartz flooding. Strong carbonate alteration. Bedding disrupted. 149.00 Fracture 47 dca.								
150.70	173.90	2	BASALT Fine grained, dark grey to green-grey, non-magnetic. Weakly to moderately calcareous. Foliation at 30 to 50 dca. Fractures at 37 to 59 dca. Barren. 150.70 155.70 2. Moderately calcareous. 153.00 Foliation at 30 dca. Fracture 37 dca. 154.00 Fracture 37 dca. 158.00 Foliation at 47 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			160.00 165.00 2. Weakly calcareous. 25% 1 INCH to 5 INCH quartz stringers at 43 dca. 162.00 Fracture 38 dca. 163.00 Foliation at 50 dca. 170.00 Fracture 59 dca. 171.00 Fracture 44 dca. 173.00 173.90 Broken core.								
173.90		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY:. .00 23.20 TRICONE BIT. 23.20 173.90 FLUTED CORE BARREL USED. CASING LEFT IN HOLE AND CAPPED. SURVEY HISTORY:. Acid tests taken.								

DRILL HOLE RECORD

Northing: 11926.300
Easting: 7523.900
Elevation: 5306.700

Collar Azi.: 43.00
Collar Dip: -45.50

Hole Length: 173.90
Completed: JUNE 14, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST CAMP ZONE ON SECTION 76N

Grid: WEST ANTICLINE - CAMP ZONE
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa369764
69 m south' 69 m east to post 2 of Pa369764
Date(s) Logged: JUNE 14-15, 1993

Drill Hole: 506-637

Northing: 32+60S
Easting: 4+25E
Survey: YES
Property Name: PROJECT 506
Measre: IMPERIAL
Core Size: NQ
Date Started: JUNE 13, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
23.5		-46.0	98.4		-45.0	173.9		-45.0			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB FOLDS - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E47336 to E47356.								
.00	23.50	OB	OVERBURDEN								
23.50	80.50	4B	CHERT - MAGNETITE IRON FORMATION 4B. Contorted to well banded CHERT - MAGNETITE IRON FORMATION. Beds 0.1 INCH to 0.5 INCH. Strongly magnetic. Hard. Bedding 23 to 55 dca. Right limb folding throughout unit with axial planes at 30 to 45 dca. Fractures subparallel to bedding at 20 to 45 dca and perpendicular at 15 dca. Moderate to strong pale yellow carbonate alteration. Pervasive to fracture filling throughout unit and as 0.02 to 0.1 inch rims along selvages of magnetite beds. From 23.5 to 55.0 trace to 2% pyrrhotite. 20% to 30% axial planar quartz veining and quartz flooding with 1% pyrrhotite. At 28.2 Ten specks VISIBLE GOLD. From 55.0 to 77.2 2% to 15% pyrrhotite in blebs, disseminated, stratabound and fracture-filling. 3% to 70% quartz flooding and quartz veining. Bedding contorted and disrupted by quartz veining and flooding. From 77.2 to 80.5 semi-massive pyrrhotite. Occasional quartz-calcite vein. Lower contact sharp at 42 dca. 23.50 47.00 Bedding contorted, brecciated and displaced by 0.1 inch microfaults.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			Core blocky. 30% axial planar quartz veining and flooding with 1% to 2% pyrrhotite. 23.50 28.00 4b. 5% quartz stringers and quartz flooding. Axial planar stringers at 10 to 41 dca. Bedding perpendicular to quartz stringers at 25 dca. 25.00 Fracture parallel to bedding at 28 dca and perpendicular at 15 dca. 28.00 Fracture parallel to bedding at 49 dca. 28.00 31.00 4b. At 28.2 10 specks of VISIBLE GOLD. From 28.0 to 29.8 60% axial planar quartz flooding and quartz veining with trace pyrrhotite perpendicular to bedding at 42 dca. From 29.8 to 31.0 15% quartz veining. 30.00 Bedding 32 dca. E47340 STANDARD I 4.19 ns ns. E47341 BLANK 0.08 ns ns. 31.00 36.10 4b. 30% quartz veining and quartz flooding with trace pyrrhotite. At 33.2 A 9 INCH quartz vein with trace pyrrhotite. Lower contact 32 dca. At 35.2 a 1.1 foot quartz vein with irregular contacts. At 32.8 bedding 29 dca. 35.00 Fracture 47 dca. 36.10 41.00 4b. 30% quartz stringers and quartz flooding with trace pyrrhotite. Stringers at 15 and 80 dca. Bedding contorted and folded. At 36.8 bedding 45 dca. At 39.0 bedding 23 dca. 40.00 Fracture parallel to bedding at 27 dca. 41.00 44.00 4b. 35% quartz flooding and quartz stringers and irregular blebs with 2% pyrrhotite. Stringers cross-cut bedding at 56 dca. At 43.0 bedding 37 dca 44.00 Fracture parallel to bedding at 37 dca. 44.00 47.00 4b. 20% quartz stringers and flooding with 2% pyrrhotite crosscutting bedding at 12 dca. 47.00 50.00 4b. 3% quartz stringers with trace pyrrhotite crosscutting bedding at 12 dca. At 47.0 bedding 42 dca. 48.00 Fracture parallel to core axis. 50.00 Fracture parallel to bedding at 15 dca and perpendicular at 20 dca. 50.00 53.00 4b. 5% quartz stringers crosscutting bedding at 15 and 73 dca. Siliceous. At 52.5 bedding 40 dca. 53.00 55.00 4b. 20% axial planar and stratabound quartz stringers and quartz flooding with 1% pyrrhotite. 55.00 80.50 Bedding contorted and disrupted by quartz veining and flooding. 3% to 20% pyrrhotite in blebs and fracture-filling. 55.00 58.30 4b. 60% barren quartz-calcite veins. At 55.2 a 10 INCH quartz-calcite stringer with contacts at 75 and 65 dca. At 56.4 a 5 INCH quartz-calcite stringer at 70 dca. At 57.6 a 10 INCH quartz-calcite stringer at 75 dca. 58.30 61.00 4b. 40% quartz flooding. At 60.5 an 8 inch quartz-calcite stringer with contacts at 40 dca. 61.00 Fracture 61 dca. 61.00 64.00 4b. 70% quartz flooding with 8% pyrrhotite. Bedding folded and disrupted. 64.00 68.00 4b. 3% quartz stringers parallel to bedding. At 66.0 right limb fold with axial plane at 45 dca. 68.00 69.50 Quartz vein. 3% fracture filling pyrrhotite. Contacts 57 dca. 69.00 Fracture 46 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			69.50 73.00 4b. Siliceous. 5% quartz stringers with 5% pyrrhotite subparallel to bedding at 70 dca. Minor quartz flooding and stratabound mineralization. At 272.2 axial plane at 30 dca. 73.00 77.20 4B. 10% quartz flooding. At 75.0 bedding 60 dca. 77.20 80.50 4h. 70% fine grained, semi-massive pyrrhotite. At 79.5 axial plane at 30 dca. 79.00 Fracture perpendicular to bedding at 45 dca. E47350 DUPLICATE of E47349 1.69 ns ns.								
80.50	173.90	2	BASALT Fine grained, dark grey to green-grey. Non-magnetic. Moderately hard. Foliation at 32 to 45 dca. Fractures subparallel to foliation at 10 to 18 dca, and 34 to 50 dca. Perpendicular to foliation at 24 to 43 dca. Locally chloritic. Occasional silicified zone. Trace disseminated pyrrhotite. 80.50 83.50 2. A 0.5 INCH quartz-calcite stringer with 2% pyrrhotite. 82.00 Foliation 35 dca. Fracture perpendicular to foliation at 42 dca. 92.00 Foliation 32 dca. Fracture perpendicular to foliation at 30 dca. 96.00 Fracture 16 dca. 105.00 Foliation 45 dca. Fracture perpendicular to foliation at 43 dca. 110.00 Foliation 45 dca. Fracture parallel to 55 dca. 112.00 Fracture parallel to foliation at 34 dca. 120.00 Foliation 45 dca. Fracture 18 and 50 dca. 130.00 Fracture and foliation parallel at 27 dca. 140.00 Foliation 30 dca and foliation perpendicular at 39 dca. 150.00 Foliation 25 dca and fracture parallel at 45 and perpendicular at 60 dca. 152.00 155.00 Siliceous. 154.00 163.00 Strongly fractured core. 157.00 158.00 Siliceous. 162.00 163.00 Fault gouge. 164.00 Fracture at 45 dca and perpendicular at 24 dca. 171.00 Fracture 15 dca. 173.00 Fracture at 35 dca and perpendicular at 25 dca.								
173.90		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY:. 0.00 23.2 Tricone Bit. 23.2 173.9 Fluted Core Barrel used. CASING LEFT IN HOLE AND CAPPED.								

DRILL HOLE RECORD

Northing: 11928.400
Easting: 7547.900
Elevation: 5306.000

Collar Azi.: 43.00
Collar Dip: -45.50

Hole Length: 200.10
Completed: JUNE 15, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST CAMP ZONE ON SECTION 76N

Grid: WEST ANTICLINE - CAMP ZONE
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa369764
86 m south , 52 m east to post 2 of Pa369764
Date(s) Logged: JUNE 16-17, 1993

Drill Hole: 506-638
Northing: 32+28S
Easting: 5+03E
Survey: YES
Property Name: PROJECT 506
Measre: IMPERIAL
Core Size: NQ
Date Started: JUNE 14, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
22.6		-45.0	98.4		-45.0	200.1		-44.0			

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: REFERENCE TO FOLDING - BOTH RIGHT AND LEFT LIMB FOLDS - ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample Series E47357 to E47407.								
.00	22.60	OB	OVERBURDEN								
22.60	109.00	4B	CHERT - MAGNETITE IRON FORMATION 4B. Well bedded 4B. Beds 0.1 to 0.5 inches thick. 10% Garnetiferous beds with 30% 1 mm garnets. Strongly magnetic. Hard. Bedding generally at shallow angles to core axis and gently folded throughout. Beds occasionally boudinaged. Fractures 10 to 60 dca. Fracture cleavage 35 to 70 dca. Local weak pervasive, bedding and fracture controlled carbonate alteration. From 22.6 to 101.0 trace to 1% disseminated and blebs pyrrhotite. Minor 0.5 INCH thick beds with stratabound mineralization. Minor quartz veining throughout unit - both stratabound locally appearing to replace quartz beds and axial planar with up to 1% pyrrhotite. From 101.0 to 109.0 zone of contorted bedding with up to 25% quartz flooding 3% to 8% fracture-filling and blebs of pyrrhotite. Trace arsenopyrite and VISIBLE GOLD. Lower contact sharp at 47 dca. 22.60 26.00 4b. 1% quartz stringers parallel to bedding. At 24.5 bedding 6 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			25.00 Fracture parallel to bedding at 10 dca. 26.00 29.00 4b. <1% quartz stringers parallel to bedding. At 27.5 fracture cleavage 35 dca. 29.00 32.00 4b. At 29.5 fracture cleavage 36 dca and bedding 5 dca. At 31.8 right limb fold with axial plane at 55 dca. 32.00 Fracture subparallel to bedding at 60 dca. 32.00 35.00 4b. At 34.5 bedding 2 dca. Fracture cleavage 32 and 55 dca. 35.00 38.00 4b. At 35.5 and 37.5 right limb fold with axial plane at 55 dca. At 37.5 bedding 8 dca. 38.00 41.00 4b. At 38.5 fracture cleavage 64 dca. At 39.3 bedding 5 dca. 41.00 44.00 4b. 1% quartz stringers parallel to bedding. At 41.6 right limb fold with axial plane at 60 dca. Bedding 2 dca. 44.00 47.00 4b. 7% quartz veining replacing chert beds. At 46.5 right limb fold with axial plane at 50 dca. Bedding 9 dca. 47.00 Fracture parallel to bedding at 25 dca. 47.00 50.00 4b. 1% quartz stringers parallel to bedding. At 47.7 fracture cleavage 70 dca and bedding 13 dca. 50.00 53.00 4b. 20% quartz veining with 5% pyrrhotite. Veins parallel to bedding and axial planar. At 51.5 right limb fold with axial plane at 75 dca. 52.00 Fracture subparallel to bedding at 52 dca. E47360 STANDARD I 4.27 4.14 NS. E47361 BLANK 0.04 ns ns. E47370 DUPLICATE of E47369 0.02 ns ns. E47380 STANDARD I 4.14 ns ns. E47381 BLANK 0.04 0.04 ns. 53.00 56.00 4b. At 53.7 right limb fold with axial plane at 56 dca. At 54.6 bedding 20 dca. 56.00 59.00 4b. 3% stratabound quartz veining with trace pyrrhotite. At 56.8 bedding 19 dca and fracture cleavage at 65 dca. 59.00 61.00 4b. One semi-massive stratabound 0.5 inch pyrrhotite bed at 10 dca. At 59.7 bedding 9 dca. 61.00 64.00 4b. One semi-massive 0.5 inch pyrrhotite bed at 10 dca. 10% stratabound and irregular quartz veining with minor pyrrhotite. At 61.6 right limb fold with axial plane at 42 dca. Fracture cleavage 49 dca. 64.00 67.00 4b. At 65.8 bedding 1 dca. 67.00 68.30 Quartz vein. 3% fracture-filling pyrrhotite. Contacts 57 dca. At 67.0 fractures 40 and 70 dca. 68.30 71.00 4b. At 70.5 bedding 11 dca. Fracture cleavage 69 dca. 71.00 74.00 4b. At 72.5 bedding 18 dca. At 73.0 a 0.5 INCH barren quartz vein parallel to bedding. Fracture cleavage 63 dca. 74.00 77.00 4b. At 76.5 bedding 35 dca. Fracture cleavage perpendicular at 48 dca 77.00 80.00 4b. At 78.0 bedding 37 dca. Fracture cleavage 48 dca. Fracture subparallel to bedding at 18 dca. 80.00 83.00 4b. Pyrrhotite mineralization stratabound. 1% stratabound quartz stringers. At 80.5 bedding 25 dca. At 81.5 bedding 67 dca. At 82.8 axial plane at 63 dca. 83.00 86.00 4b. 2% stratabound and cross-cutting quartz stringers. At 83.5 bedding 32 dca. At 85.6 left limb fold with axial plane at 44 dca. Bedding 45 dca								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			86.00 89.00 4b. 10% irregular quartz flooding with 1% pyrrhotite. At 86.5 bedding 50. At 88.1 M fold with axial plane at 42 dca. At 88.5 bedding 57 dca. 89.00 Fracture perpendicular to bedding at 24 dca. 89.00 92.00 4b. 1% stratabound quartz stringers with trace pyrrhotite. At 89.0 bedding 63 dca. At 90.2 a 0.1 INCH wide shear at 50 dca. At 90.7 M fold with axial plane at 54 dca. 92.00 95.00 4b. 2% stratabound quartz stringers with trace pyrrhotite. At 92.5 bedding 70 dca and left limb fold with axial plane at 70 dca. At 93.5 bedding 26 dca. 95.00 97.80 4b. At 96.6 broad M fold. At 97.5 bedding 75 dca. 97.80 98.80 Quartz vein. Contacts 70 dca. 98.80 101.00 4b. 3% stratabound quartz stringers with trace pyrrhotite. At 99.5 broad right limb fold. At 100.4 bedding 24 dca. 100.00 109.00 Zone of disrupted and contorted bedding. Silicified with up to 35% quartz flooding. Moderate to strong pervasive and fracture-filling, pale yellow calcite alteration. 1% to 3% fracture-filling and blebs pyrrhotite. Trace arsenopyrite. At 108.8 nine specks of VISIBLE GOLD. 101.00 104.00 4b. Silicified. Strongly calcareous. 35% quartz flooding. Pyrrhotite fracture-filling and disseminated. Bedding disrupted and contorted. 104.00 Fracture subparallel to bedding at 44 dca. E47390 DUPLICATE of E47389 0.28 ns ns. 104.00 107.00 4b. Trace arsenopyrite. Silicified. Strongly calcareous. 10% quartz flooding. At 104.7 bedding 85 dca. 107.00 109.00 4b. At 108.8 11 specks VISIBLE GOLD. Silicified. Strongly calcareous. 35% quartz flooding.								
109.00	200.10	2	BASALT Fine grained, dark green-grey. Moderate hardness. Non-magnetic. Biotitic and chloritic. Locally calcareous. Foliation 45 to 58 dca. Fractures subparallel to foliation at 35 to 55 dca and perpendicular at 24 to 30 dca and 60 dca. 0% To trace pyrrhotite. Minor calcite stringers. Occasional quartz vein. From 111.5 to 112.9 and 116.3 to 118.5 zone of 70% quartz flooding and veining with 5% pyrrhotite. At 116.4 and 127.3 one speck VISIBLE GOLD. 109.00 111.50 2. Biotitic. 3% quartz-calcite stringers at 52 dca. Foliation 55 dca. 110.00 Fracture 34 dca. 111.50 112.90 Similar to 109.0 to 130.0. Zone of 70% quartz flooding and quartz veining. Strongly calcareous. Pyrrhotite is fracture-filling and blebs. Contacts 60 dca. 112.90 116.30 2. Biotitic. 1% quartz-calcite stringers. At 114.0 foliation 47 dca 116.30 118.50 Similar to 109.0 to 130.0. Zone of 70% quartz flooding and quartz veining. Strongly calcareous. 1 speck VISIBLE GOLD at 116.4. Pyrrhotite fracture-filling and in blebs. Contacts 65 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			118.00 Fracture parallel to foliation at 57 dca.								
			118.50 121.50 2. Biotitic. Foliation 52 dca.								
			121.50 123.60 2. Biotitic.								
			123.60 124.70 Quartz-calcite vein. Contacts 72 dca.								
			124.70 125.50 2. Biotitic.								
			125.50 127.30 Quartz vein. Contacts 55 dca.								
			127.00 Fracture 27 dca and perpendicular at 33 dca.								
			E47400 STANDARD I 4.37 4.41 ns.								
			E47401 BLANK 0.08 ns ns.								
			127.30 130.00 Zone of 90% quartz veining. Contacts 55 dca. 1 speck VISIBLE GOLD at 127.3.								
			130.00 133.00 2								
			138.00 161.00 Blocky core.								
			140.00 Foliation 45 dca. Fracture parallel at 24 dca.								
			143.50 144.50 6 inch quartz vein at 60 dca.								
			150.00 Foliation 50 dca. Fracture 24 dca.								
			160.00 Foliation 50 dca. Fractures parallel at 35 dca.								
			170.00 Foliation 58 dca.								
			180.00 Foliation 67 dca. 181.0 fracture subparallel to foliation at 42 dca								
			190.00 Foliation 58 dca.								
			196.00 Fracture 55 dca and perpendicular at 30 dca.								
200.10		2	END OF HOLE								
			DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA.								
			CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO.								
			Sludge samples taken every 3 metres. Samples stored at Musselwhite Camp.								
			DRILLING HISTORY:.								
			.00 22.60 Tricone Bit.								
			22.60 200.10 Fluted core barrel used.								
			CASING LEFT IN HOLE AND CAPPED.								
			SURVEY HISTORY:.								
			Acid tests taken.								

DRILL HOLE RECORD

Northing: 11960.800
Easting: 7550.000
Elevation: 5305.500

Collar Azi.: 43.00
Collar Dip: -46.00

Hole Length: 151.80
Completed: JUNE 16, 1993
Drilled by:
Logged by: T. TENNENT
Purpose: TO TEST CAMP ZONE ON SECTION 77N

Grid: WEST ANTICLINE - CAMP ZONE
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa369764
109 m south, 73 m east to post 2 of Pa369764
Date(s) Logged: JUNE 18, 1993

Drill Hole: 506-639
Northing: 31+20S
Easting: 4+83E
Survey: YES
Property Name: PROJECT 506
Measre: IMPERIAL
Core Size: NQ
Date Started: JUNE 15, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
23.0		-45.0	151.8		-45.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: ALL REFERENCES TO FOLDING - BOTH RIGHT AND LEFT LIMB FOLDS ARE LOOKING DOWN THE PLUNGE OF THE DEPOSIT. Sample series E47408 to E47454.								
.00	23.00	OB	OVERBURDEN								
23.00	30.10	4B	CHERT - MAGNETITE IRON FORMATION 4B. Well bedded 4B. Beds 0.1 to 0.5 inches thick. 2% garnetiferous beds. Strongly magnetic. Hard. Well bedded from 47 to 86 dca. Minor M folding with axial plane at 47 dca. Fractures 32 dca. Local weak bedding and fracture-controlled calcite alteration. Trace disseminated pyrrhotite. Minor barren stratabound quartz veining. Lower contact sharp at 70 dca. E47410 DUPLICATE of E47409 0.08 ns ns. 23.00 26.00 4b. At 23.8 bedding 65 dca. At 25.5 bedding 86 dca. 26.00 29.00 4b. 5% quartz stringers. At 27.7 a 2 INCH barren quartz vein parallel to bedding at 35 dca. At 26.8 bedding 82 dca. At 28.3 bedding 47 dca. At 28.6 micro M folds with axial plane at 44 dca. 29.00 30.10 4b. At 29.5 bedding 29 dca.								
30.10	114.40	4BE A	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. AND CHERT - MAGNETITE IRON FORMATION								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			4be and 4b. 70% 4b Beds. 15% to 20% 4e beds. 5% to 10% 4ea beds. Bedding 0.1 INCH to 1.0 INCH thick. Strongly magnetic. Hard. Well bedded at 51 to 86 dca. Bedding folded with left and right limb folding with axial planes 29 to 63 dca. Fractures 20 to 40 dca. Parallel and perpendicular to bedding. Weak to moderate pale yellow calcite alteration - pervasive, fracture and bedding controlled. Weak grunerite alteration in some beds. From 30.10 to 105.00 trace stratabound and disseminated pyrrhotite mineralization. Occasional semi-massive pyrrhotite bed. Trace pyrite. Up to 20% stratabound quartz stringers with 0% to trace pyrrhotite. From 30.1 to 48.0 bedding locally contorted and disrupted. 5% to 15% irregular and stratabound quartz veining with trace pyrrhotite. From 105.00 to 114.40 Bedding contorted, sheared and folded. Silicified. 20% to 40% irregular and stratabound quartz stringers with up to 5% pyrrhotite. Moderate to strong pale yellow calcite alteration. Lower contact 75 dca. 27.0 Fracture perpendicular to bedding at 32 dca. 30.10 33.00 4be. 5% irregular and stratabound quartz veining. At 31.2 axial plane at 42 dca. Bedding 47 dca. 33.00 36.00 4be. 10% irregular and stratabound quartz veining with trace pyrrhotite. At 33.7 fracture cleavage 40 dca. At 34.8 bedding 34 dca and M fold with axial plane at 45 dca. 35.00 Fracture parallel to bedding at 23 dca. 36.00 39.00 4be. 15% barren stratabound and irregular quartz veining and quartz flooding. At 37.6 bedding 73 dca. At 38.4 fracture cleavage 47 dca. 39.00 42.00 4be. 20% quartz flooding and quartz veining parallel to bedding with trace pyrite and pyrrhotite. At 39.5 bedding 55 dca. 42.00 45.00 4be. 5% barren quartz stringers parallel to bedding. At 42.0 bedding 51 dca. At 44.5 bedding 65 dca. At 43.0 fracture cleavage 42 dca. 45.00 Fracture perpendicular to bedding at 20 dca. 45.00 48.00 4be. 10% quartz veining parallel to bedding and quartz flooding. At 45.5 bedding 74 dca. At 45.9 left limb fold with axial plane at 63 dca. At 47.1 left limb fold with axial plane at 47 dca. 48.00 51.00 4be. 5% quartz veining parallel to bedding. At 49.1 bedding 71 dca and fracture cleavage 37 dca. At 50.3 bedding 57 dca and left limb fold with axial plane at 55 dca. 51.00 54.00 4be. At 52.3 bedding 55 dca. At 52.5 left limb fold with axial plane at 47 dca. 54.00 57.00 4be. At 54.5 left limb fold with axial plane 29 dca and a 3 INCH bed with semi-massive pyrrhotite. At 55.5 bedding 67 dca. At 56.7 bedding 78 dca. 55.00 Fracture perpendicular to bedding at 40 dca. 57.00 60.00 4be. Pyrrhotite mineralization stratabound. 1% quartz veining. At 57.2 left limb fold with axial plane at 45 dca. At 58.5 bedding 52 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			60.00 63.00 4be. At 60.6 bedding 60 dca and left limb fold with axial plane at 44 dca. 63.00 66.00 4be. Pyrrhotite mineralization stratabound. At 63.5 bedding 55 dca. Left limb fold with axial plane 35 dca. 66.00 69.00 4be. 5% stratabound quartz veining with trace pyrrhotite. At 66.3 bedding 75 dca. At 67.5 left limb fold with axial plane at 45 dca. 69.00 72.00 4be. 1% quartz veining. At 69.5 bedding 45 dca. At 70.7 left limb fold with axial plane at 42 dca. 72.00 75.00 4be. 1% irregular and stratabound quartz veining. At 72.5 bedding 58 dca. At 74.3 left limb fold with axial plane at 50 dca. 75.00 Fracture parallel to bedding. E47420 STANDARD I 4.37 ns ns. E47421 BLANK 0.04 ns ns. E47430 DUPLICATE of E47429 0.02 ns ns. E47440 STANDARD I 4.36 4.47 ns. E47441 BLANK 0.04 ns ns. 75.00 78.00 4be. 7% barren quartz veining irregular and crosscutting. At 75.8 left limb fold with axial plane at 44 dca. At 76.8 bedding 37 dca. 78.00 81.00 4be. 20% barren to trace stratabound and irregular quartz veining. Bedding disrupted. At 78.2 left limb fold with axial plane at 50 dca. At 80.0 fracture cleavage 35 dca. 81.00 84.00 4b. 3% barren quartz stringers parallel to bedding. At 82.5 bedding 24 dca. 84.00 87.00 4be. 3% barren stratabound quartz veining. At 85.0 bedding 33 dca. 87.00 90.00 4be. 3% barren stratabound quartz veining. At 87.0 bedding 45 dca. 90.00 93.00 4be. 10% barren stratabound quartz veining. At 90.7 left limb fold with axial plane at 42 dca. At 92.5 bedding 67 dca. 93.00 96.00 4be. At 94.0 bedding 70 dca. At 96.5 bedding 80 dca. 96.00 99.00 4be. 2% stratabound quartz stringers. At 96.5 bedding 80 dca. At 98.0 bedding 72 dca. 99.00 102.00 4be. 5% stratabound quartz stringers. At 100.0 bedding 70 dca. Fracture cleavage 57 dca. 102.00 105.00 4b. 5% stratabound quartz stringers. At 103.5 fracture cleavage 55 dca. 105.00 114.40 Bedding contorted, sheared and folded. Silicified. 20% to 40% irregular and stratabound quartz stringers with up to 5% pyrrhotite. Pyrrhotite fracture-filling and stratabound. Moderate to strong pale yellow calcite alteration. 105.00 108.00 4b. Silicified. Calcareous. 20% irregular and stratabound quartz stringers. At 106.0 bedding 65 dca. 108.00 111.00 4b. Silicified. Calcareous. 40% quartz flooding. 111.00 114.40 4b. Silicified. Calcareous. 40% quartz flooding.								
114.40	124.70	2	BASALT Fine grained to medium grained, dark green-grey. Non-magnetic. Moderately soft. Foliation 75 dca. Sheared. Moderate to strongly calcareous and weakly silicified. 0% To trace pyrrhotite. At 123.35 4 specks VISIBLE GOLD.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			20% Irregular quartz-carbonate stringers. Lower contact sharp at 77 dca. 114.40 121.00 Broken core. 114.40 117.40 2. 20% irregular quartz-carbonate stringers. Calcareous. 117.40 120.40 2. 20% irregular quartz-carbonate stringers. Calcareous. 120.40 123.70 2. At 123.35 4 specks smeared VISIBLE GOLD. 20% irregular quartz-carbonate stringers. Calcareous. 123.70 124.70 Quartz-carbonate vein. Contacts 77 dca.								
124.70	134.70	4b	CHERT - MAGNETITE IRON FORMATION Silicified 4b. Similar to 105.0 to 114.4 metres. Moderately magnetic. Bedding and shearing parallel at 72 to 87 dca. Silicified, strongly calcareous. 70% Quartz flooding and irregular quartz veining. 3% to 7% pyrrhotite in blebs, stringers, fracture-filling and stratabound. Trace pyrite. Lower contact folded. E47450 DUPLICATE of E47449 0.84 ns ns. 124.70 127.70 4b. Silicified. 70% quartz flooding and quartz veining. At 126.0 a 1 foot barren quartz-calcite vein at 78 dca. At 127.5 bedding 50 dca. 127.70 130.70 4B. Silicified. 70% quartz flooding and quartz veining. At 129.0 bedding 72 dca. 130.70 133.70 4b. Trace pyrite. Silicified. 70% quartz flooding and quartz veining. At 132.0 bedding 87 dca. 133.70 134.70 4b. Silicified. 70% quartz flooding and quartz veining. At 134.0 bedding 81 dca.								
134.70	151.80	2	BASALT Fine grained, dark green-grey. Non-magnetic. Moderately soft. Foliation at 50 dca. Fractures 10 to 15 dca. Chloritic. Calcareous along fractures. Barren. 134.70 137.70 2								
151.80		2	END OF HOLE DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musselwhite Camp. DRILLING HISTORY:. .00 30.10 Tricone Bit.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			30.10 151.80 Fluted core barrel. CASING LEFT IN HOLE AND CAPPED. DOWNHOLE SURVEY HISTORY:. Acid tests taken.								

DRILL HOLE RECORD

Northing: 11958.200
Easting: 7524.500
Elevation: 5305.700

Collar Azi.: 43.00
Collar Dip: -46.00

Hole Length: 200.10
Completed: JUNE 18, 1993
Drilled by:
Logged by: T. TENNENT, P. LINDSAY
Purpose: TO TEST CAMP ZONE ON SECTION 77N

Drill Hole: 506-640

Northing: L31+59S
Easting: 4+03E
Survey: YES
Property Name: PROJECT 506
Measre: IMPERIAL
Core Size: NQ
Date Started: JUNE 16, 1993

Grid: WEST ANTICLINE - CAMP ZONE
Property: MUSSELWHITE GRUBSTAKE (1973)
Claim: Pa369764
93 m south, 90 m east to post 2 of Pa369764
Date(s) Logged: JUNE 19, 1993

Survey Tests

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
26.2		-45.0	200.1		-45.0						

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			NOTE: All references to folding - both right and left limb folds are looking down the plunge of the deposit (ie. Northwesterly). Samples Series E47455 to E47500 and E53201 to E53217.								
.00	26.20	OB	OVERBURDEN								
26.20	100.00	4B	CHERT - MAGNETITE IRON FORMATION 4B. Locally 10% 4e beds with 20% 1 mm garnets. Strongly magnetic. Hard. Unit well bedded with bed thickness 0.1 to 0.5 inches wide. Bedding at 2 to 12 dca and gently folded throughout. Fractures subparallel to bedding at 7 to 14 dca. Minor fractures perpendicular at 52 to 21 dca. Axial planar cleavage at 26 to 43 dca. From 26.20 to 100.00 feet 0% to trace pyrrhotite. Trace arsenopyrite at 97.00 to 100.00 feet. Generally no quartz veining but localized zones with up to 10% stratabound and minor axial planar and cross-cutting quartz stringers. From 73.00 to 76.00 40% quartz veining with 3% fracture-filling and blebs pyrrhotite and 4 specks VISIBLE GOLD. Lower contact gradational. E47460 STANDARD I 4.40 4.47 ns. E47461 BLANK 0.06 ns ns. 26.20 29.00 4B. At 26.7 fracture cleavage at 38 dca. At 27.5 bedding 3 dca. 29.00 32.00 4B. At 29.5 bedding 12 dca. At 30.8 fracture cleavage 32 dca with 0.05 INCH micro-faults.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			32.00 35.00 4B. At 32.8 bedding 8 dca. At 34.5 a chloritic fracture at 30 dca. 35.00 38.00 4B. At 36.5 bedding 8 dca. 38.00 41.00 4B. At 40.0 fracture cleavage 45 dca. At 39.5 bedding at 2 dca. 41.00 44.00 4B. At 41.8 right limb fold fold with axial plane at 36 dca. 44.00 47.00 4B. At 44.0 bedding 2 dca. 47.00 50.00 4B. At 49.5 a 0.8 INCH axial planar quartz vein at 8 dca with 3% pyrrhotite. At 47.8 fracture cleavage 26 dca. At 49.0 fracture 26 dca. 50.00 53.00 4B. At 51.5 fracture cleavage 42 dca. At 52.5 bedding 7 dca. 52.00 Fracture 8 dca. 52.00 78.00 10% 4E beds with 20% 0.03 INCH garnets. E47470 DUPLICATE of E47469 0.06 ns ns. 53.00 56.00 4B. At 53.8 5 inches of irregular axial planar quartz veining at 30 dca with 1% pyrrhotite. 56.00 59.00 4B. At 56.4 micro-fault at 49 dca with 1 INCH displacement. At 56.5 bedding 8 dca. 59.00 61.00 4B. Bedding at 8 dca. 61.00 65.00 4B. 20% stratabound quartz veining at 14 dca. Trace pyrrhotite. At 63.5 bedding 14 dca. 63.00 Fracture 14 dca. 65.00 68.00 4B. At 66.3 fracture cleavage 22 dca and bedding at 2 dca. 68.00 71.00 4B. 20% cross-cutting irregular quartz veins with 2% pyrrhotite. At 68.3 right limb fold with axial plane 49 dca. 71.00 73.00 4B. At 72.2 right limb fold with axial plane at 43 dca. 73.00 76.00 4B. 40% quartz veining. A 2 INCH stratabound quartz vein with 5% fracture-filling and blebs pyrrhotite and 4 specks VISIBLE GOLD at 2 dca. 76.00 79.00 4B. 77.5 bedding at 3 dca. 79.00 82.00 4B. At 80.5 bedding at 2 dca. 82.00 85.00 4B. At 82.5 fracture cleavage 9 dca. At 84.3 bedding 3 dca. At 84.5 fracture parallel to bedding at 3 dca. 84.00 96.00 Core fractured parallel to bedding at 3 dca. E47480 STANDARD I 4.27 4.47 ns. E47481 BLANK 0.04 ns ns. 85.00 88.00 4B. At 85.5 fracture parallel to bedding at 3 dca. At 87.5 fracture perpendicular to bedding at 21 dca. 88.00 91.00 4B. At 90.5 fracture perpendicular to bedding at 24 dca. 91.00 94.00 4B. At 92.3 fracture cleavage 26 dca. At 91.5 bedding at 3 dca. 94.00 97.00 4B. At 95.5 bedding at 9 dca. Fracture parallel to bedding. 97.00 100.00 4B. Trace arsenopyrite. At 97.3 fracture cleavage 15 dca. At 99.3 bedding at 12 dca.								
100.00	163.00	4BE	CHERT-MAGNETITE / GARNET-AMPHIBOLE I.F. 4be. 80% 4b Beds. 20% 4e Beds. Strongly magnetic. Hard. Bedding 46 to 75 dca. Minor folding throughout unit with axial planes at 38 to 55 dca. Minor fractures subparallel to bedding at 15 to 35 dca and perpendicular at 15								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			to 35 dca. Axial planar fracture cleavage well developed at 15 to 40 dca. From 100.0 to 150.0 trace blebs of pyrrhotite. 1% to 5% stratabound quartz veining and minor cross-cutting quartz stringers. Some stratabound quartz veins appear to be remobilized chert beds. From 150.0 to 163.0 5% to 10% blebs, stringers and disseminated pyrrhotite. Trace arsenopyrite. From 150.0 to 153.0 six specks VISIBLE GOLD. 70% to 80% quartz flooding. Sheared. Strongly calcareous. Lower contact gradual. E47490 DUPLICATE of E47489 0.64 ns ns. E47500 STANDARD I 4.41 4.41 ns. E53201 BLANK 0.02 ns ns. 100.00 Fracture parallel to bedding at 5 dca. 100.00 103.00 4BE. 5% stratabound quartz veins with 1% pyrrhotite. At 106.0 fracture cleavage 40 dca. 103.00 106.00 4BE. 5% stratabound quartz veining with 1% pyrrhotite. At 103.7 fracture at 35 dca. At 104.5 fracture cleavage 26 dca. 106.00 109.00 4BE. 10% stratabound and cross-cutting quartz stringers with 1% pyrrhotite. At 106.0 fracture cleavage 49 dca. At 107.5 bedding 12 dca. 109.00 112.00 4BE. 10% stratabound and cross-cutting quartz stringers with 3% pyrrhotite. At 109.2 bedding 30 dca. At 110.4 fracture cleavage 29 dca. 110.00 Fracture perpendicular to bedding at 15 dca and parallel at 35 dca. 112.00 115.00 4BE. At 112.2 left limb fold with axial plane 44 dca. At 113.8 bedding 70 dca. 115.00 118.00 4BE. At 117.0 right limb fold with axial plane at 43 dca. 118.00 121.00 4BE. At 119.5 bedding 55 dca. 120.00 Fracture parallel to bedding at 30 dca. 121.00 124.00 4BE. 5% stratabound quartz-calcite vein with trace pyrrhotite. At 122.8 right limb fold axial plane at 52 dca. At 122.3 fracture cleavage 40 dca. At 123.5 bedding 52 dca. 124.00 127.00 4BE. 20% stratabound and irregular quartz veining with trace pyrrhotite. At 124.9 right limb fold axial plane at 35 dca. 127.00 130.00 4BE. At 127.5 bedding 35 dca. 130.00 133.00 4BE. At 130.8 right limb fold axial plane at 55 dca. 131.00 Fracture parallel to bedding at 15 dca. 133.00 136.00 4BE. At 135.4 fracture cleavage 43 dca. 136.00 139.00 4BE. At 137.8 bedding 75 dca. 139.00 142.00 4BE. 5% stratabound quartz-calcite stringers with trace pyrrhotite. At 139.0 bedding at 70 dca. 142.00 145.00 4BE. At 142.0 quartz-calcite filled fracture cleavage at 29 dca. 145.00 148.00 4BE. At 146.0 bedding 60 dca. 148.00 150.00 4BE. 2% quartz veinlets with trace pyrrhotite cross-cutting bedding. At 149.8 bedding 58 dca. 150.00 163.00 4be. Silicified, strongly calcareous. 70% quartz flooding. Trace arsenopyrite. 5% to 10% pyrrhotite. Bedding contorted and sheared. 150.00 153.00 4BE. Silicified, 70% quartz flooding. 6 specks VISIBLE GOLD. Strongly calcareous. Sheared at 45 dca.								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			153.00 156.00 4BE. Silicified, 70% quartz flooding. Strongly calcareous. Sheared at 45 dca. 156.00 159.00 4be. Silicified, 70% quartz flooding. Strongly calcareous. Sheared at 30 dca. Trace arsenopyrite at 156.5. At 158.5 left limb fold, axial plane at 38 dca. 159.00 162.00 4BE. Silicified, 80% quartz flooding. Strongly calcareous. 162.00 163.00 4BE. Silicified, 70% quartz flooding. Strongly calcareous.								
163.00	172.10	2	BASALT Fine grained, dark green. Non-magnetic. Moderately soft. Shearing at 45 dca. Strongly calcareous, chloritic. Trace disseminated pyrrhotite. >50% calcite veining. Lower contact 60 dca. 163.00 167.00 2. 50% quartz-calcite veining with trace pyrrhotite. Sheared at 45 dca, gradual upper contact. 167.00 169.50 CALCITE VEIN. 169.50 172.10 CALCITE VEIN lower contact at 60 dca.								
172.10	179.50	4B	CHERT - MAGNETITE IRON FORMATION 4B. Similar to 150.0 to 163.0 feet. Sheared at 29 dca. Strongly silicified and calcareous. 2% to 3% fracture-filling and blebs pyrrhotite. 4 specks VISIBLE GOLD and trace arsenopyrite. 80% Quartz-calcite veining. 172.10 174.80 4B. Silicified, 30% quartz flooding. Strongly calcareous. Sheared at 29 dca. 174.80 176.80 95% quartz veining. 4 specks VISIBLE GOLD. Trace arsenopyrite. Strongly calcareous. Upper contact at 83 dca. 176.80 179.50 95% quartz veining. Strongly calcareous. Lower contact at 46 dca.								
179.50	200.10	2	BASALT Fine grained, light green, non-magnetic. Moderately soft with foliation at 47 to 55 dca. Fractures at 54 to 60 dca with minor chlorite and carbonate alteration. Barren of any sulphides. 4% Quartz veining parallel and cross-cutting foliation, barren of sulphides. 179.50 182.50 2. 2% quartz-carbonate veins parallel and cross-cutting foliation. 191.30 192.50 Quartz vein. Upper contact at 67 dca and lower contact at 73 dca.								
200.10		2	END OF HOLE								

From (m)	To (m)	Rock Type	Geology	Sample	From (m)	To (m)	Lngt (m)	Au g/t	Aure g/t	Aurj g/t	Auav g/t
			DRILLING BY MIDWEST DRILLING, 180 CREE CRESC. WINNIPEG, MANITOBA. CORE STORED AT MUSSELWHITE CAMPSITE, OPAPIMISKAN LAKE, ONTARIO. Sludge samples taken every 3 metres. Samples stored at Musslewhite Camp. DRILLING HISTORY. .00 26.20 Tricone Bit. 26.20 200.10 Fluted core barrel used. Casing left in hole and capped. SURVEY HISTORY. Acid tests taken.								

SCHEDULE
REPORT OF WORK CONDUCTED
AFTER RECORDING CLAIM

Work Report Number for Applying Reserve	CLAIM NUMBER	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	Pa 529385	1	0.00	400.00	0.00	0.00
	Pa 529386	1	0.00	400.00	0.00	0.00
	Pa 529387	1	0.00	400.00	0.00	0.00
	Pa 529388	1	0.00	400.00	0.00	0.00
	Pa 529389	1	0.00	400.00	0.00	0.00
	Pa 529390	1	0.00	400.00	0.00	0.00
	Pa 529391	1	0.00	400.00	0.00	0.00
	Pa 529392	1	0.00	400.00	0.00	0.00
	Pa 529393	1	0.00	400.00	0.00	0.00
	Pa 529394	1	0.00	400.00	0.00	0.00
	Pa 529395	1	0.00	400.00	0.00	0.00
	Pa 529396	1	0.00	400.00	0.00	0.00
	Pa 529406	1	0.00	800.00	0.00	0.00
	Pa 529407	1	0.00	800.00	0.00	0.00
	Pa 529408	1	0.00	800.00	0.00	0.00
	Pa 529409	1	0.00	800.00	0.00	0.00
	Pa 529410	1	0.00	800.00	0.00	0.00
	Pa 529411	1	0.00	800.00	0.00	0.00
	Pa 529412	1	0.00	800.00	0.00	0.00
	Pa 529425	1	0.00	800.00	0.00	0.00
	Pa 529426	1	0.00	800.00	0.00	0.00
	Pa 529427	1	0.00	800.00	0.00	0.00
	Pa 529428	1	0.00	800.00	0.00	0.00
	Pa 529429	1	0.00	800.00	0.00	0.00
	Pa 529444	1	0.00	800.00	0.00	0.00
	Pa 529445	1	0.00	800.00	0.00	0.00
	Pa 529446	1	0.00	800.00	0.00	0.00
	Pa 529447	1	0.00	800.00	0.00	0.00
	Pa 529448	1	0.00	800.00	0.00	0.00
	Pa 529449	1	0.00	800.00	0.00	0.00
	Pa 529464	1	0.00	800.00	0.00	0.00

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SCHEDULE
REPORT OF WORK CONDUCTED
AFTER RECORDING CLAIM

Work Report Number for Applying Reserve	CLAIM NUMBER	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	Pa 529465	1	0.00	800.00	0.00	0.00
	Pa 529466	1	0.00	800.00	0.00	0.00
	Pa 529467	1	0.00	800.00	0.00	0.00
	Pa 529468	1	0.00	400.00	0.00	0.00
	Pa 529469	1	0.00	400.00	0.00	0.00
	Pa 529470	1	0.00	400.00	0.00	0.00
	Pa 529471	1	0.00	400.00	0.00	0.00
	Pa 529479	1	0.00	400.00	0.00	0.00
	Pa 529480	1	0.00	400.00	0.00	0.00
	Pa 529481	1	0.00	400.00	0.00	0.00
	Pa 529482	1	0.00	400.00	0.00	0.00
	Pa 529483	1	0.00	400.00	0.00	0.00
	Pa 529484	1	0.00	400.00	0.00	0.00
	Pa 529485	1	0.00	400.00	0.00	0.00
	Pa 529486	1	0.00	400.00	0.00	0.00
	Pa 529488	1	0.00	400.00	0.00	0.00
	Pa 529489	1	0.00	400.00	0.00	0.00
	Pa 529490	1	0.00	800.00	0.00	0.00
	Pa 529491	1	0.00	800.00	0.00	0.00
	Pa 529492	1	0.00	800.00	0.00	0.00
	Pa 529508	1	0.00	400.00	0.00	0.00
	Pa 529509	1	0.00	400.00	0.00	0.00
	Pa 529510	1	0.00	400.00	0.00	0.00
	Pa 529511	1	0.00	400.00	0.00	0.00
	Pa 529514	1	0.00	400.00	0.00	0.00
	Pa 529515	1	0.00	400.00	0.00	0.00
	Pa 529517	1	0.00	800.00	0.00	0.00
	Pa 529518	1	0.00	800.00	0.00	0.00
	Pa 529521	1	0.00	800.00	0.00	0.00
	Pa 529522	1	0.00	800.00	0.00	0.00
	Pa 529525	1	0.00	800.00	0.00	0.00

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	Pa 529526	1	0.00	800.00	0.00	0.00
	Pa 529529	1	0.00	800.00	0.00	0.00
	Pa 529530	1	0.00	800.00	0.00	0.00
	Pa 529533	1	0.00	800.00	0.00	0.00
	Pa 529534	1	0.00	800.00	0.00	0.00
	Pa 529537	1	0.00	800.00	0.00	0.00
	Pa 529538	1	0.00	800.00	0.00	0.00
	Pa 529541	1	0.00	800.00	0.00	0.00
	Pa 529542	1	0.00	800.00	0.00	0.00
	Pa 529545	1	0.00	800.00	0.00	0.00
	Pa 529547	1	0.00	800.00	0.00	0.00
	Pa 529548	1	0.00	800.00	0.00	0.00
	Pa 529551	1	0.00	800.00	0.00	0.00
	Pa 529552	1	0.00	800.00	0.00	0.00
	Pa 529553	1	0.00	800.00	0.00	0.00
	Pa 529554	1	0.00	800.00	0.00	0.00
	Pa 529555	1	0.00	800.00	0.00	0.00
	Pa 529556	1	0.00	800.00	0.00	0.00
	Pa 529557	1	0.00	800.00	0.00	0.00
	Pa 529558	1	0.00	800.00	0.00	0.00
	Pa 529559	1	0.00	800.00	0.00	0.00
	Pa 529560	1	0.00	800.00	0.00	0.00
	Pa 529561	1	0.00	800.00	0.00	0.00
	Pa 529566	1	0.00	800.00	0.00	0.00
	Pa 529567	1	0.00	800.00	0.00	0.00
	Pa 529568	1	0.00	800.00	0.00	0.00
	Pa 529569	1	0.00	800.00	0.00	0.00
	Pa 529570	1	0.00	800.00	0.00	0.00
	Pa 529571	1	0.00	800.00	0.00	0.00
	Pa 529572	1	0.00	800.00	0.00	0.00
	Pa 529573	1	0.00	800.00	0.00	0.00

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AFTER RECORDING CLAIM

Work Report Number for Applying Reserve	CLAIM NUMBER	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	Pa 529574	1	0.00	800.00	0.00	0.00
	Pa 529580	1	0.00	800.00	0.00	0.00
	Pa 529581	1	0.00	800.00	0.00	0.00
	Pa 529592	1	0.00	800.00	0.00	0.00
	Pa 529593	1	0.00	800.00	0.00	0.00
	Pa 529604	1	0.00	400.00	0.00	0.00
	Pa 529605	1	0.00	400.00	0.00	0.00
	Pa 529616	1	0.00	400.00	0.00	0.00
	Pa 529617	1	0.00	400.00	0.00	0.00
	Pa 529628	1	0.00	400.00	0.00	0.00
	Pa 529629	1	0.00	400.00	0.00	0.00
	Pa 529640	1	0.00	400.00	0.00	0.00
	Pa 529641	1	0.00	400.00	0.00	0.00
	Pa 529642	1	0.00	400.00	0.00	0.00
	Pa 529654	1	0.00	400.00	0.00	0.00
	Pa 529655	1	0.00	400.00	0.00	0.00
	Pa 529656	1	0.00	400.00	0.00	0.00
	Pa 529657	1	0.00	400.00	0.00	0.00
	Pa 529658	1	0.00	400.00	0.00	0.00
	Pa 529667	1	0.00	400.00	0.00	0.00
	Pa 529668	1	0.00	400.00	0.00	0.00
	Pa 529669	1	0.00	400.00	0.00	0.00
	Pa 529670	1	0.00	400.00	0.00	0.00
	Pa 529671	1	0.00	400.00	0.00	0.00
	Pa 529672	1	0.00	400.00	0.00	0.00
	Pa 529673	1	0.00	400.00	0.00	0.00
	Pa 529674	1	0.00	400.00	0.00	0.00
	Pa 529675	1	0.00	400.00	0.00	0.00
	Pa 529676	1	0.00	400.00	0.00	0.00
	Pa 529677	1	0.00	400.00	0.00	0.00
	Pa 529684	1	0.00	400.00	0.00	0.00

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SCHEDULE
REPORT OF WORK CONDUCTED
AFTER RECORDING CLAIM

Work Report Number for Applying Reserve	CLAIM NUMBER	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	Pa 529685	1	0.00	400.00	0.00	0.00
	Pa 529686	1	0.00	400.00	0.00	0.00
	Pa 529687	1	0.00	400.00	0.00	0.00
	Pa 529688	1	0.00	400.00	0.00	0.00
	Pa 529689	1	0.00	400.00	0.00	0.00
	Pa 529691	1	0.00	400.00	0.00	0.00
	Pa 529692	1	0.00	400.00	0.00	0.00
	Pa 529693	1	0.00	400.00	0.00	0.00
	Pa 529694	1	0.00	400.00	0.00	0.00
	Pa 529695	1	0.00	400.00	0.00	0.00
	Pa 529696	1	0.00	400.00	0.00	0.00
	Pa 529699	1	0.00	400.00	0.00	0.00
	Pa 529700	1	0.00	400.00	0.00	0.00
	Pa 529728	1	0.00	800.00	0.00	0.00
	Pa 529729	1	0.00	800.00	0.00	0.00
	Pa 529730	1	0.00	800.00	0.00	0.00
	Pa 529731	1	0.00	800.00	0.00	0.00
	Pa 529736	1	0.00	800.00	0.00	0.00
	Pa 529737	1	0.00	800.00	0.00	0.00
	Pa 529738	1	0.00	800.00	0.00	0.00
	Pa 529739	1	0.00	800.00	0.00	0.00
	Pa 529746	1	0.00	800.00	0.00	0.00
	Pa 529747	1	0.00	800.00	0.00	0.00
	Pa 529748	1	0.00	800.00	0.00	0.00
	Pa 529749	1	0.00	800.00	0.00	0.00
	Pa 529758	1	0.00	800.00	0.00	0.00
	Pa 529759	1	0.00	800.00	0.00	0.00
	Pa 529760	1	0.00	800.00	0.00	0.00
	Pa 529761	1	0.00	800.00	0.00	0.00
	Pa 529772	1	0.00	800.00	0.00	0.00
	Pa 529773	1	0.00	800.00	0.00	0.00

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PATRICIA MINING DIVISION

SCHEDULE
REPORT OF WORK CONDUCTED
AFTER RECORDING CLAIM

Work Report Number for Applying Reserve	CLAIM NUMBER	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	Pa 529774	1	0.00	800.00	0.00	0.00
	Pa 529775	1	0.00	800.00	0.00	0.00
	Pa 529781	1	0.00	800.00	0.00	0.00
	Pa 529782	1	0.00	800.00	0.00	0.00
	Pa 529791	1	0.00	800.00	0.00	0.00
	Pa 529792	1	0.00	800.00	0.00	0.00
	Pa 529793	1	0.00	800.00	0.00	0.00
	Pa 529794	1	0.00	800.00	0.00	0.00
	Pa 529807	1	0.00	800.00	0.00	0.00
	Pa 529808	1	0.00	800.00	0.00	0.00
	Pa 529809	1	0.00	800.00	0.00	0.00
	Pa 529810	1	0.00	800.00	0.00	0.00
	Pa 529819	1	0.00	800.00	0.00	0.00
	Pa 529820	1	0.00	800.00	0.00	0.00
	Pa 529821	1	0.00	800.00	0.00	0.00
	Pa 529916	1	0.00	800.00	0.00	0.00
	Pa 529917	1	0.00	800.00	0.00	0.00
	Pa 529918	1	0.00	800.00	0.00	0.00
	Pa 529919	1	0.00	800.00	0.00	0.00
	Pa 529920	1	0.00	800.00	0.00	0.00
	Pa 529921	1	0.00	800.00	0.00	0.00
	Pa 529922	1	0.00	800.00	0.00	0.00
	Pa 529923	1	0.00	800.00	0.00	0.00
	Pa 529924	1	0.00	800.00	0.00	0.00
	Pa 529925	1	0.00	800.00	0.00	0.00
	Pa 599163	1	0.00	400.00	0.00	0.00
	Pa 599164	1	0.00	400.00	0.00	0.00
	Pa 599167	1	0.00	400.00	0.00	0.00
	Pa 599168	1	0.00	400.00	0.00	0.00
	Pa 599171	1	0.00	400.00	0.00	0.00
	Pa 599172	1	0.00	400.00	0.00	0.00

RECEIVED
AUG - 3/94
PATRICIA MINING DIVISION

SCHEDULE
REPORT OF WORK CONDUCTED
AFTER RECORDING CLAIM

Work Report Number for Applying Reserve	CLAIM NUMBER	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	Pa 599175	1	0.00	400.00	0.00	0.00
	Pa 599176	1	0.00	400.00	0.00	0.00
	Pa 599179	1	0.00	400.00	0.00	0.00
	Pa 599180	1	0.00	400.00	0.00	0.00
	Pa 1173215	1	0.00	800.00	0.00	0.00
	Pa 1173216	1	0.00	800.00	0.00	0.00
	Pa 1173217	1	0.00	594.00	0.00	0.00
*** Total ***			0.00	121794.00	0.00	0.00

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AUG - 3 '94
PATRICIA MINING DIVISION

SCHEDULE "B"
List of Leased Claims
work was performed on

Parcel #	Claim #	Lease #	Claim Hectars	Meters drilled	Expended on claim	Distributed from claim	banked on claim
813	Pa 369764	103830	13.91	274.27	33,087.00	10,432.00	22,655.00
951	Pa 529854	104835	40.78	3,331.00	403,051.00	30,585.00	372,466.00
947	Pa 529855	104831	9.94	54.70	6,619.00	6,619.00	0.00
2127	Pa 529496	106193	16.78	7.00	847.00	847.00	0.00
956	Pa 529497	104849	11.69	8,380.00	1,014,288.00	8,768.00	1,005,521.00
871	Pa 529498	103895	4.98	152.00	18,392.00	3,735.00	14,657.00
872	Pa 529499	103862	10.53	105.00	12,705.00	7,898.00	4,807.00
957	Pa 529500	104848	11.13	2,225.00	269,025.00	8,347.00	260,678.00
942	Pa 529826	104826	18.38	933.80	112,900.00	13,785.00	99,115.00
870	Pa 508459	103894	15.23	11.00	1,331.00	1,331.00	0.00
955	Pa 508460	104851	15.03	440.00	53,240.00	11,272.00	41,968.00
945	Pa 529845	104829	12.72	80.00	9,680.00	9,540.00	140.00
948	Pa 529846	104832	8.69	1081.70	130,883.00	6,518.00	124,365.00
950	Pa 529847	104834	22.04	17.50	2,117.00	2,117.00	0.00
TOTAL:			211.83	17,093.00	2,068,165.00	121,794.00	1,946,372.00

TOTAL CLAIMED IN 1994: $121,794.00

Mcl

Ministry of Northern Development and Mines
Ontario

Report of Work Conducted After Recording Claim

Mining Act

Transaction Number: W9430.00052

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

Instructions:
- Please type or print and submit in duplicate.
- Refer to the Mining Act and Regulations for Recorder.
- A separate copy of this form must be compl
- Technical reports and maps must accompany this form in duplicate.
- A sketch, showing the claims the work is assigned to, must accompany this form.

53B09SW0012 W9430.00052 ZEEMEL LAKE

900

Recorded Holder(s): PLACER DOME CANADA LIMITED		Client No.: 300210
Address: P.O.BOX 350;Suite 2422, Royal Trust Tower;T-D Centre;TORONTO; M5K 1N3		Telephone No.: 416 363 4962
Mining Division: Patricia	Township/Area: Zeemel & Skinner Lake	M or G Plan No.: G-2278 + G-2210
Dates Work Performed: From: February 1993	To: October 1993	

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	
Physical Work, Including Drilling	Midwest Drilling ; (W20) PHYSICAL WORK (PDRILL)
Rehabilitation	
Other Authorized Work	
Assays	
Assignment from Reserve	

Total Assessment Work Claimed on the Attached Statement of Costs $ $ 2,068,165.00

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
Midwest Drilling	180 Cree Crescent; Winnipeg; Manitoba R3J 3W1

RECORDED
AUG - 3 1994
Receipt JK

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date: July 28/1994	Recorded Holder or Agent (Signature): M.Luba Vcislo; Land Manager

Certification of Work Report

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

Name and Address of Person Certifying: Paul Brown;PLACER DOME CANADA LIMITED; 1440 Hugh Allan Drive; Kamloops, B.C. V1S 1L8		
Telepone No.: 604 371 3500	Date: July 28/1994	Certified By (Signature): Paul Brown; Project Manager

For Office Use Only

Total Value Cr. Recorded	Date Recorded	Mining Recorder	Received Stamp
# 2,068,165	94 AUGUST 03	ACTING	RECEIVED AUG - 3/94 PATRICIA MINING DIVISION
	Deemed Approval Date: NA	Date Approved: 94 AUGUST 03	
	Date Notice for Amendments Sent: NA		

0241 (03/91)

Ministry of Northern Development and Mines
Ontario

Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction
W9430.00052

Personal information collected on this form is obtained under the authority of the **Mining Act**. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la **Loi sur les mines** et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	218,861	$218,861
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type MIDWEST Drilling		$1,686,465
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type	$18,885	
			$18,885
	Total Direct Costs Total des coûts directs		$1,924,211

2. Indirect Costs/Coûts indirects

** **Note:** When claiming Rehabilitation work Indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type Travel -Air	$31,987	$31,987
	Car exp.	21,129	$21,129
			$53,116
Food and Lodging Nourriture et hébergement		$10,510	$10,510
Mobilization and Demobilization Mobilisation et démobilisation		580,328	$30,328
	Sub Total of Indirect Costs Total partiel des coûts indirects		$143,954
	Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)		$384,840
	Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs) Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)		$2,068,165

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
× 0.50 =	

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale demandée
× 0.50 =	

Certification Verifying Statement of Costs

I hereby certify
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as Land Manager
Recorded Holder, Agent, Position in Company, am authorized

to make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ je suis autorisé
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

RECEIVED AUG - 3/94 PATRICIA MINING DIVISION

Signature	Date
M.Luba Vcislo; Land Manager	July 28/1994

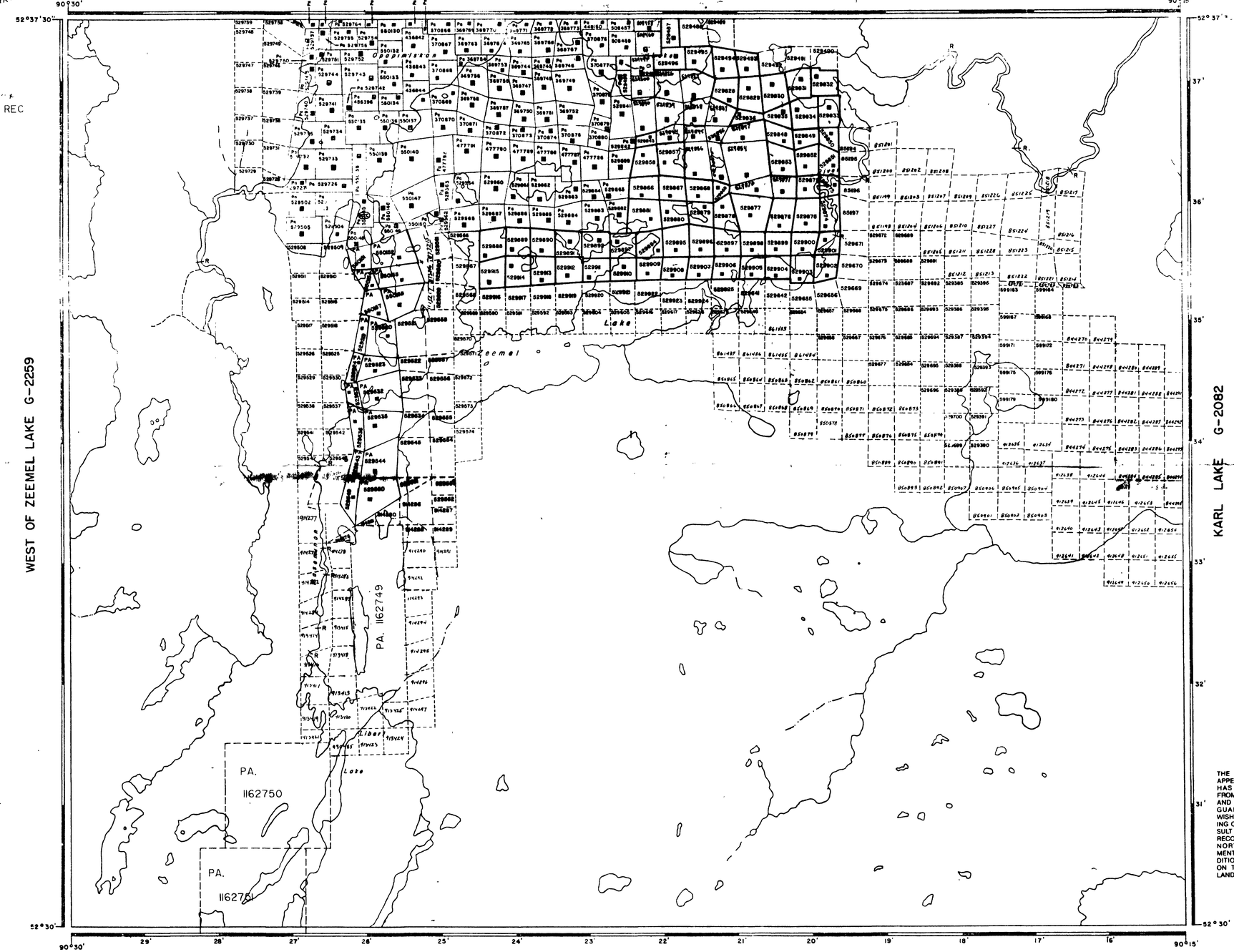
0212 (04/91)

Note : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.

May 8/90C
Aug 16/90 RE
Sept. 5/90 L
Feb 11/91C
March 5/91 C.T.R.
April 3/91 L
Apr 23/91C
May 9/91
June 11/91
JULY 25/91 L
Apr 1/92
Apr 1/92

94MAR04 REC

SKINNER LAKE G-2210



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

525902

REFERENCES

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

94 OCT 18 A9:30
MINING RECORDER
PATRICIA
MINING DIVISION

REMOTE TOURIST SET-UP

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 MUSKEG
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 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

AREA

ZEEMEL LAKE

M.N.R. ADMINISTRATIVE DISTRICT
SIOUX LOOKOUT
MINING DIVISION
PATRICIA
LAND TITLES / REGISTRY DIVISION
KENORA / PATRICIA PORTION

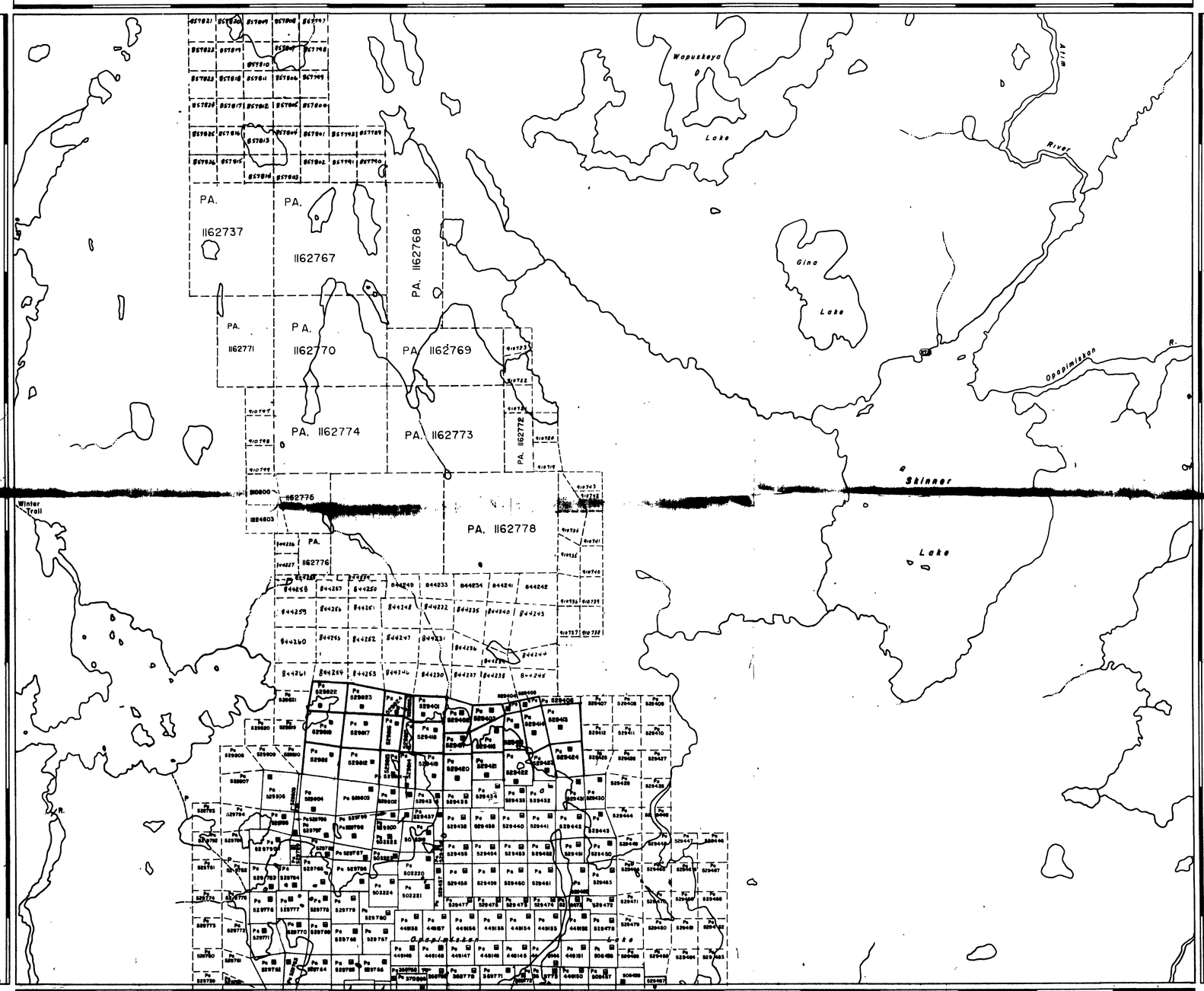
Ontario Ministry of Natural Resources — Land Management Branch

Date JANUARY, 1983

Number G-2278

53B09SW0012 W9430 00052 ZEEMEL LAKE

AKOW LAKE G-1928



ZEEMEL LAKE G-2278

Sept 9/88
Aug 14/90 R
Dec 1/90 C
Feb 5/91
March 13/91 C
MAY 8/91
JULY 25/91 L
94 MAR 04 (NC)
Sept 14/94 R

REFERENCES

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

94 OCT 18 A9:30
MINING RECORDER
PATRICIA
MINING DIVISION

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 MUSKEG
MINES
TRAVERSE MONUMENT
REMOTE TOURIST SET-UP

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 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

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AREA

SKINNER LAKE

M.N.R. ADMINISTRATIVE DISTRICT
SIOUX LOOKOUT
MINING DIVISION
PATRICIA
LAND TITLES / REGISTRY DIVISION
KENORA / PATRICIA PORTION

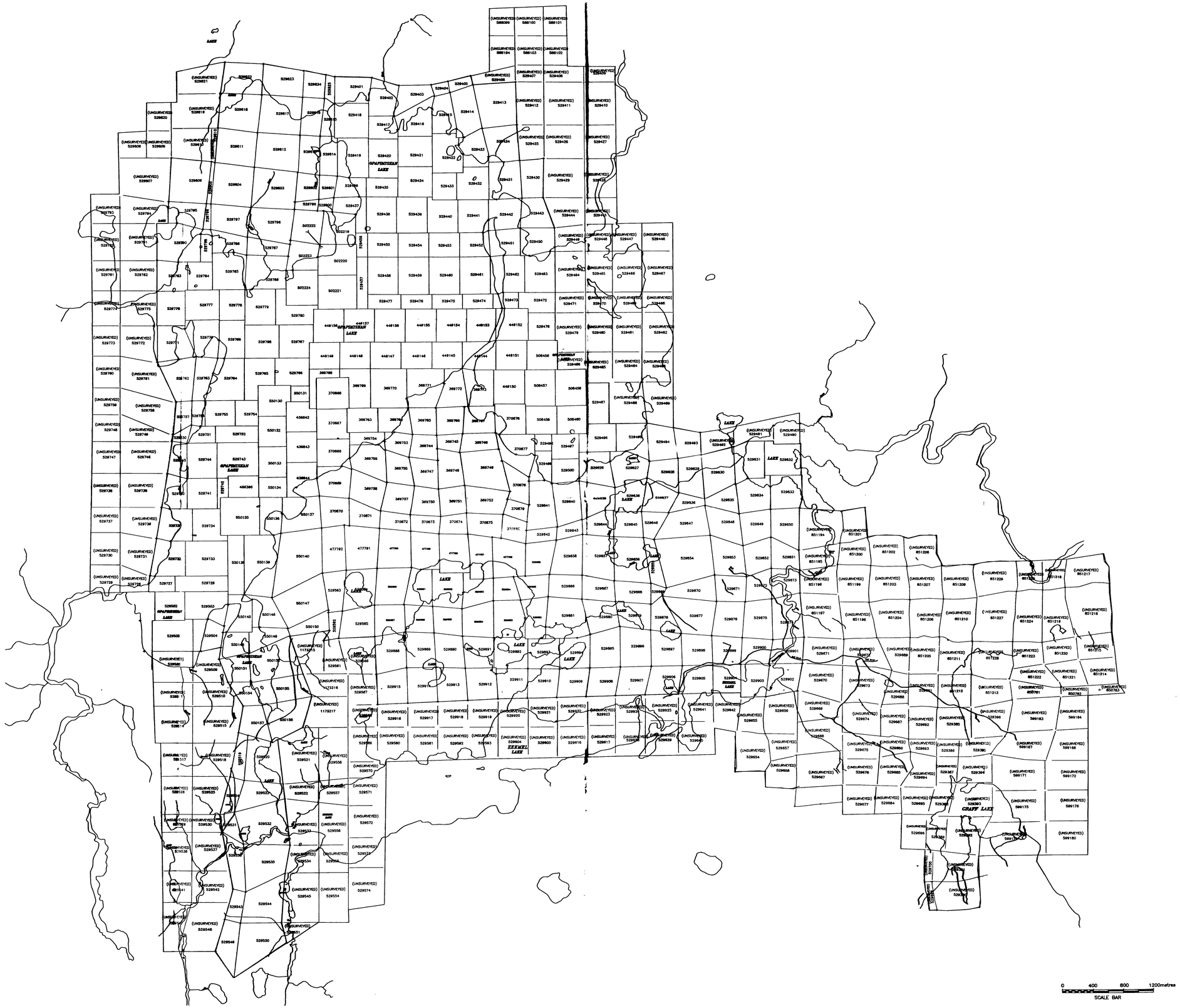
Ontario Ministry of Natural Resources — Land Management Branch

Date JANUARY, 1990

Number G-2210

5269

63B089W0012 W9430 00052 ZEEMEL LAKE



PLACER DOME INC.

PROJECT NO. 506

MUSSELWHITE AREA, ONTARIO.

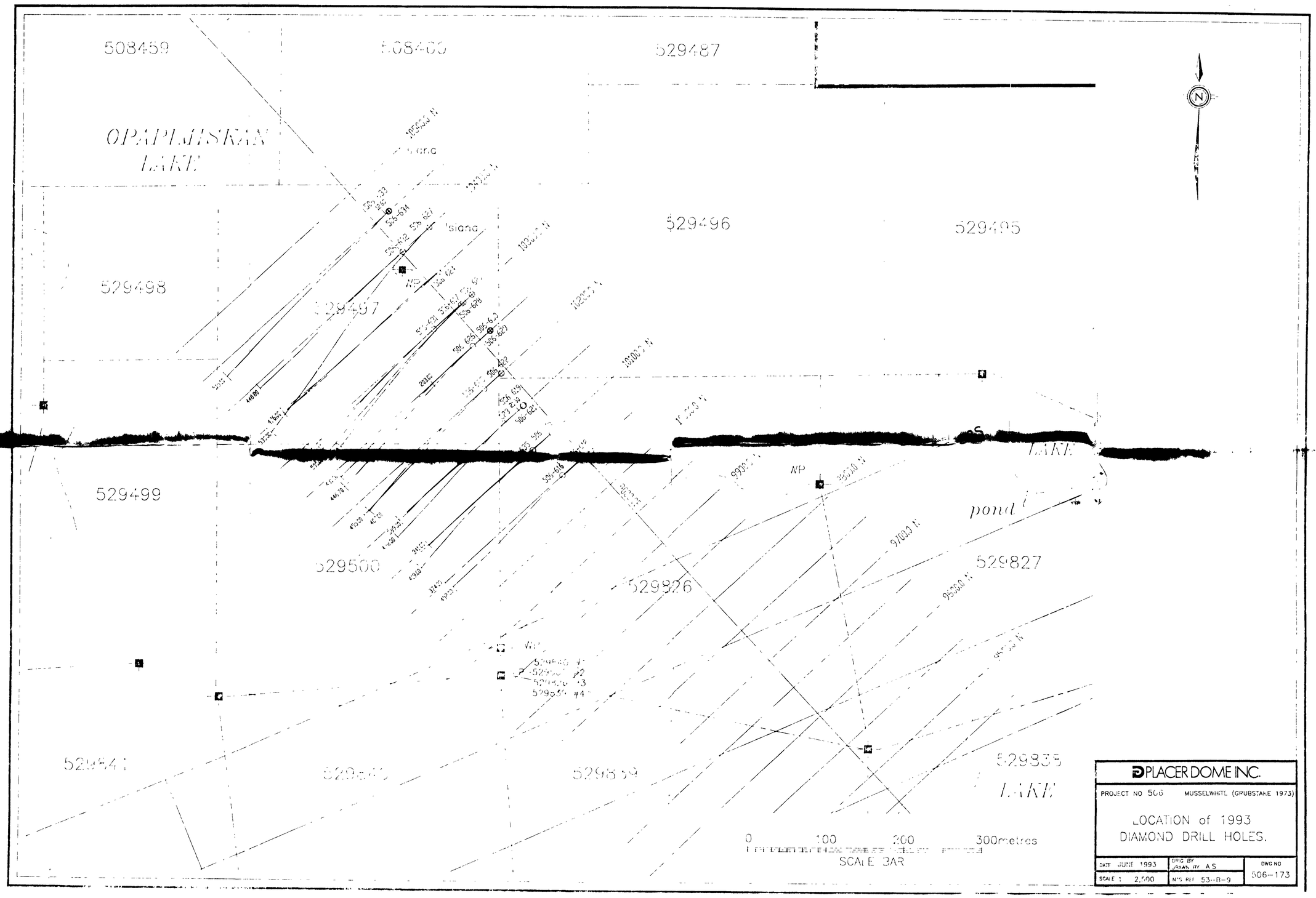
MUSSELWHITE GRUBSTAKE PROPERTY.

CLAIM MAP.

DATE: MARCH 1992	ORIG BY: DRAWN BY: A.S.	DWG.NO. 506-22
SCALE: 1 : 20,000	NTS REF. 53-B	

03B093V0012 W9430 00082 ZEEMEL LAKE

220



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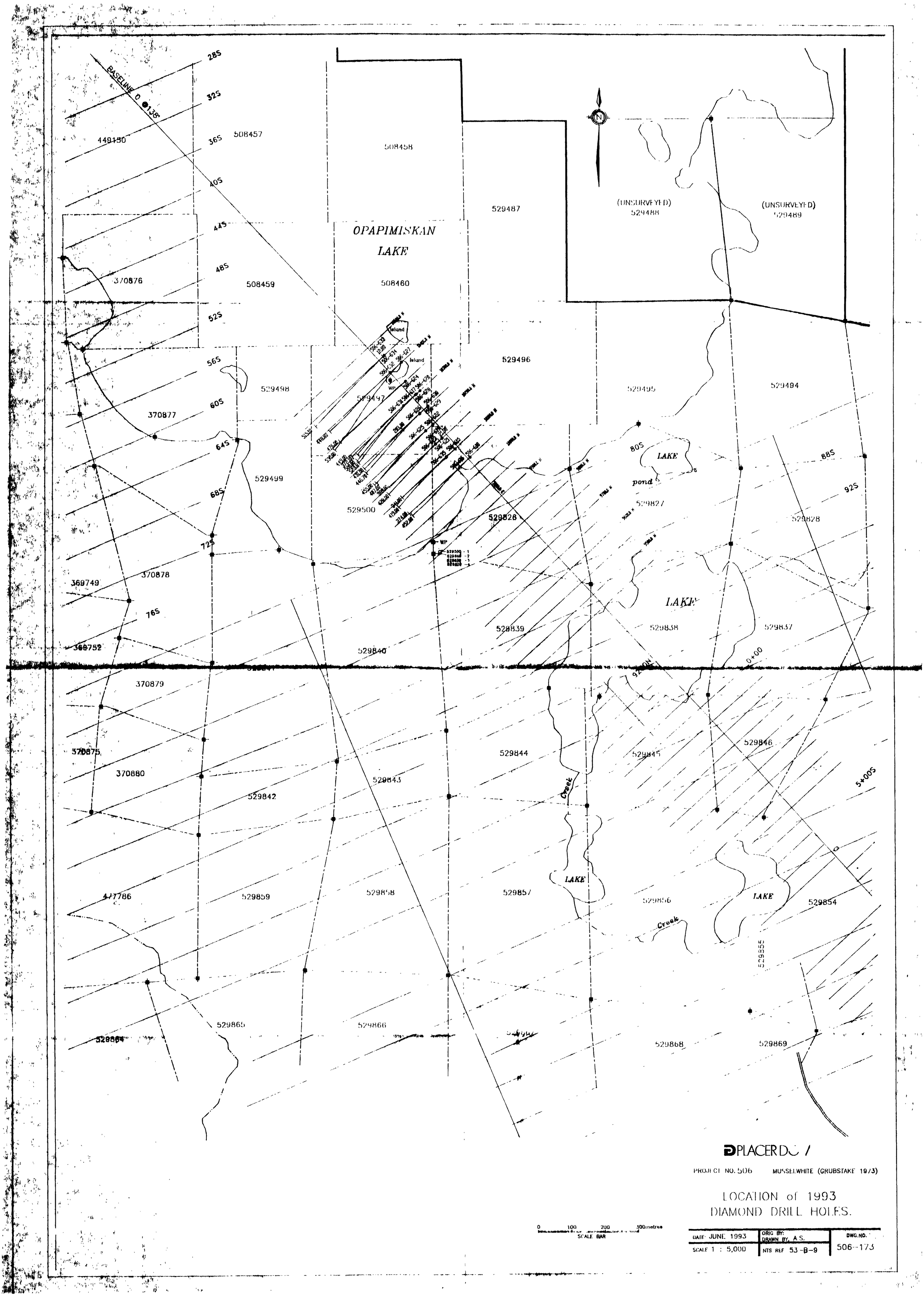
BASELINE 0 @138
285
325
365
405
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645
685
725
765
449180
508457
508458
529487
(UNSURVEYED)
529488
(UNSURVEYED)
529489
OPAPIMISKAN
LAKE
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370876
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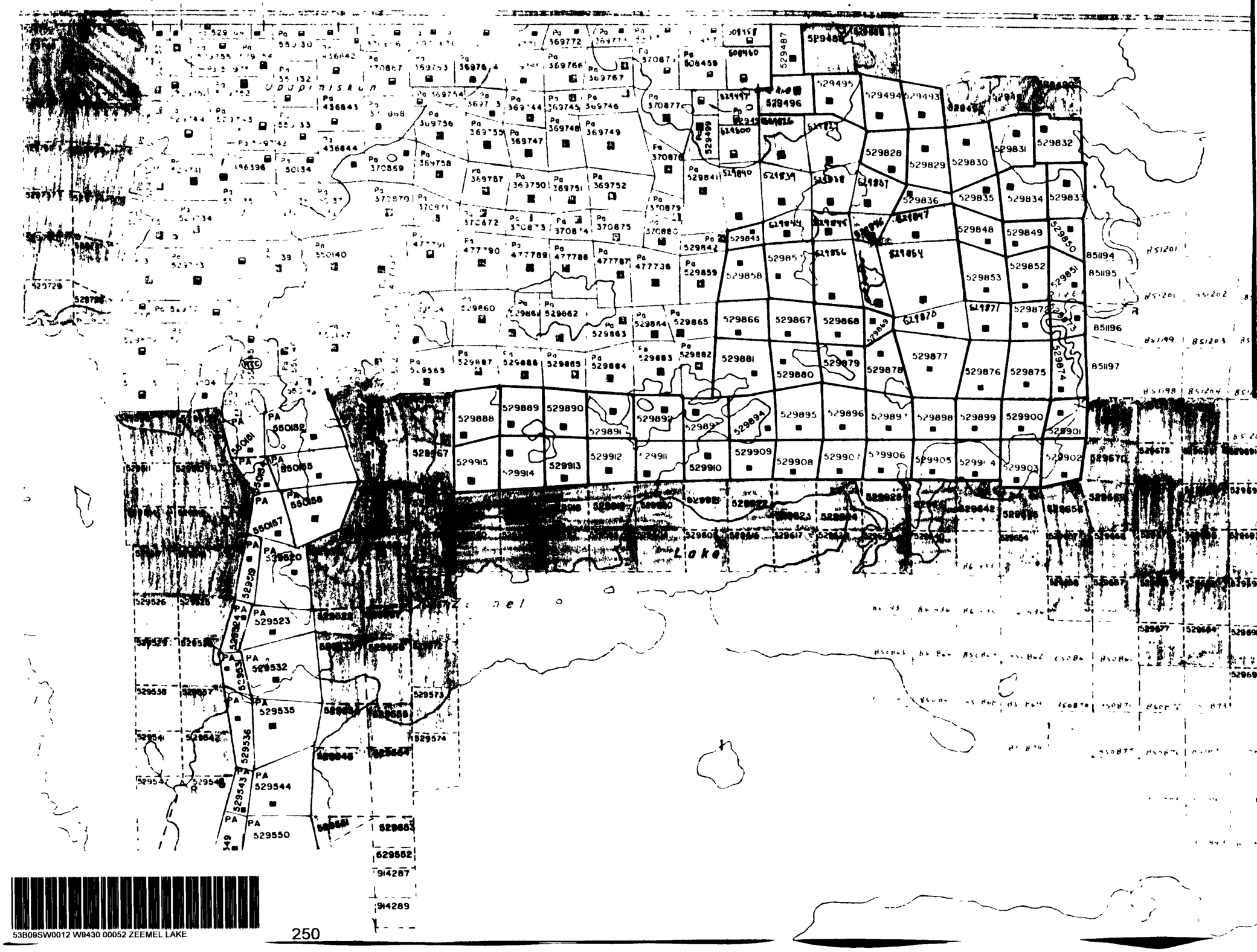
529846
529843
529842
Creek
LAKE
529859
529858
529857
529856
LAKE
529854
Creek
529855
529865
529866
529868
529869
Island
Island
WP
0+00
5+00S
PLACER DOME
PROJECT NO. 506
MUSSELWHITE (GRUBSTAKE 1973)
LOCATION of 1993
DIAMOND DRILL HOLES.
0 100 200 300metres
SCALE BAR
DATE: JUNE 1993
ORIG BY:
DRAWN BY: A.S.
DWG.NO.
SCALE 1 : 5,000
NTS REF 53-B-9
506-173

SKINNER LAKE G-2210



AREA

ZEEMEL LAKE

M.N.R. ADMINISTRATIVE DISTRICT

SIOUX LOOKOUT

MINING DIVISION

PATRICIA

LAND TITLES / REGISTRY DIVISION

KENORA / PATRICIA PO

Ontario

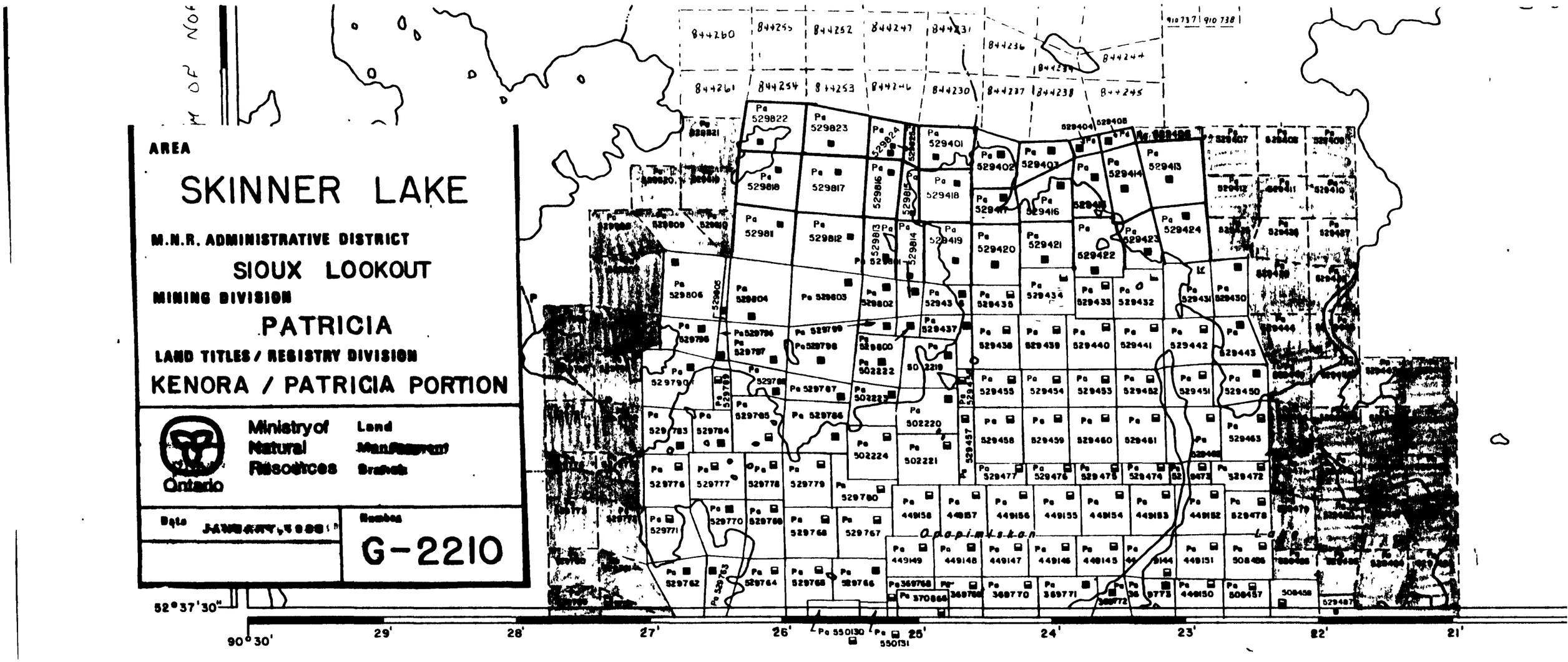
Ministry of Natural Resources

Land Management Branch

Date JANUARY, 1983

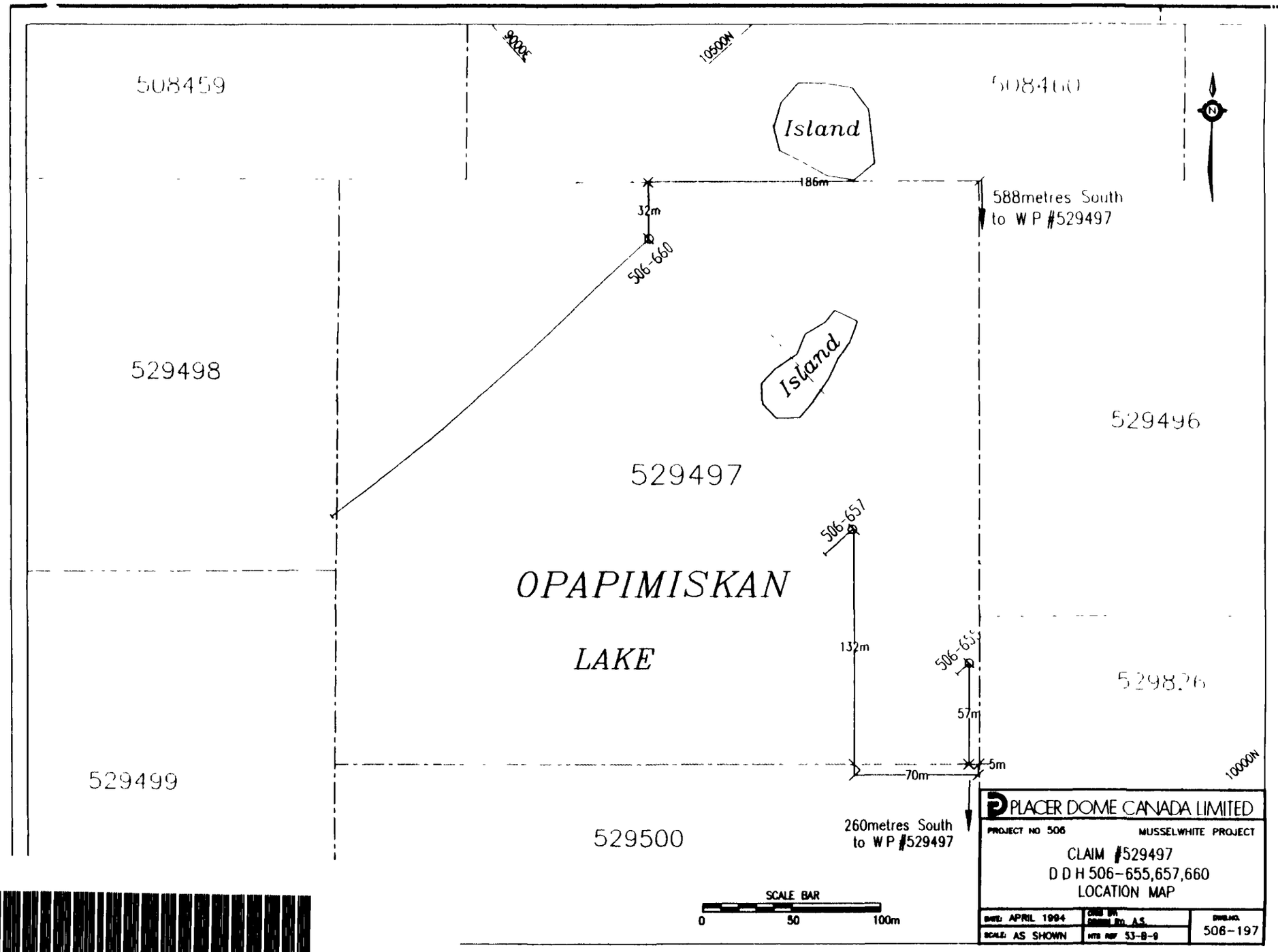
Number G-2

53B09SW0012 W9430 00052 ZEEMEL LAKE

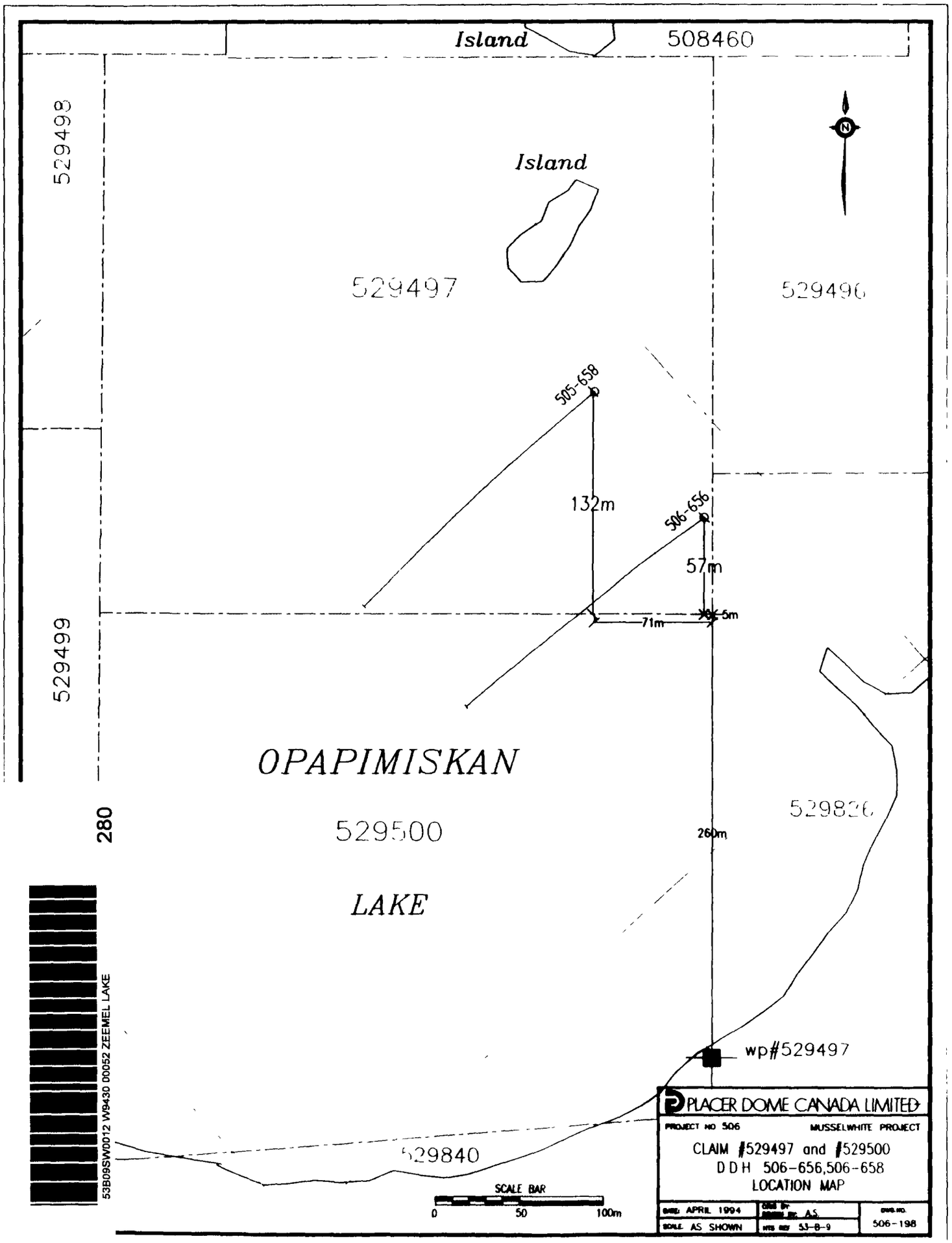


ZEEMEL LAKE G-2278

53B09SW0012 W9430 00052 ZEEMEL LAKE



53B09SW0012 W9430 00052 ZEEMEL LAKE



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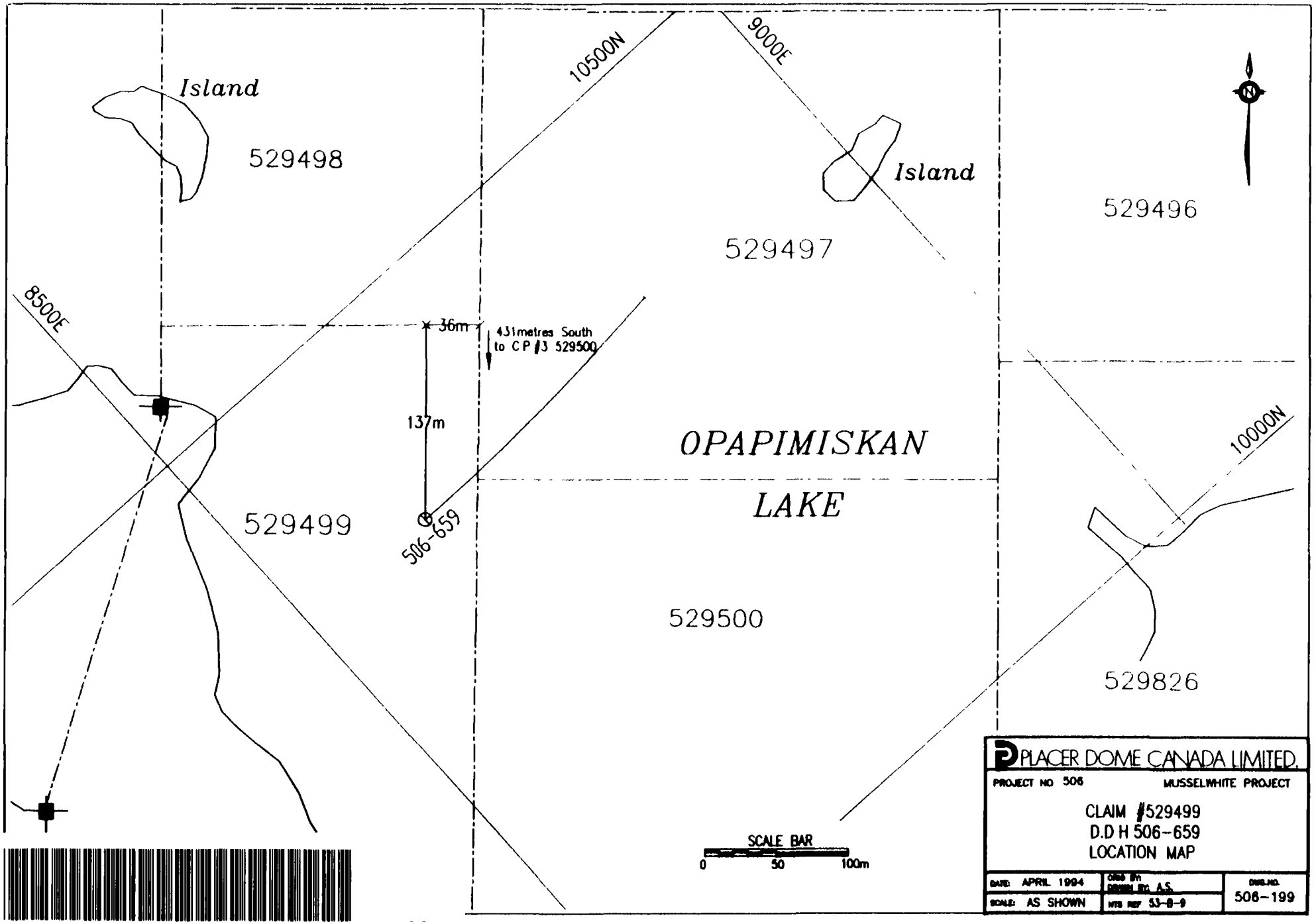

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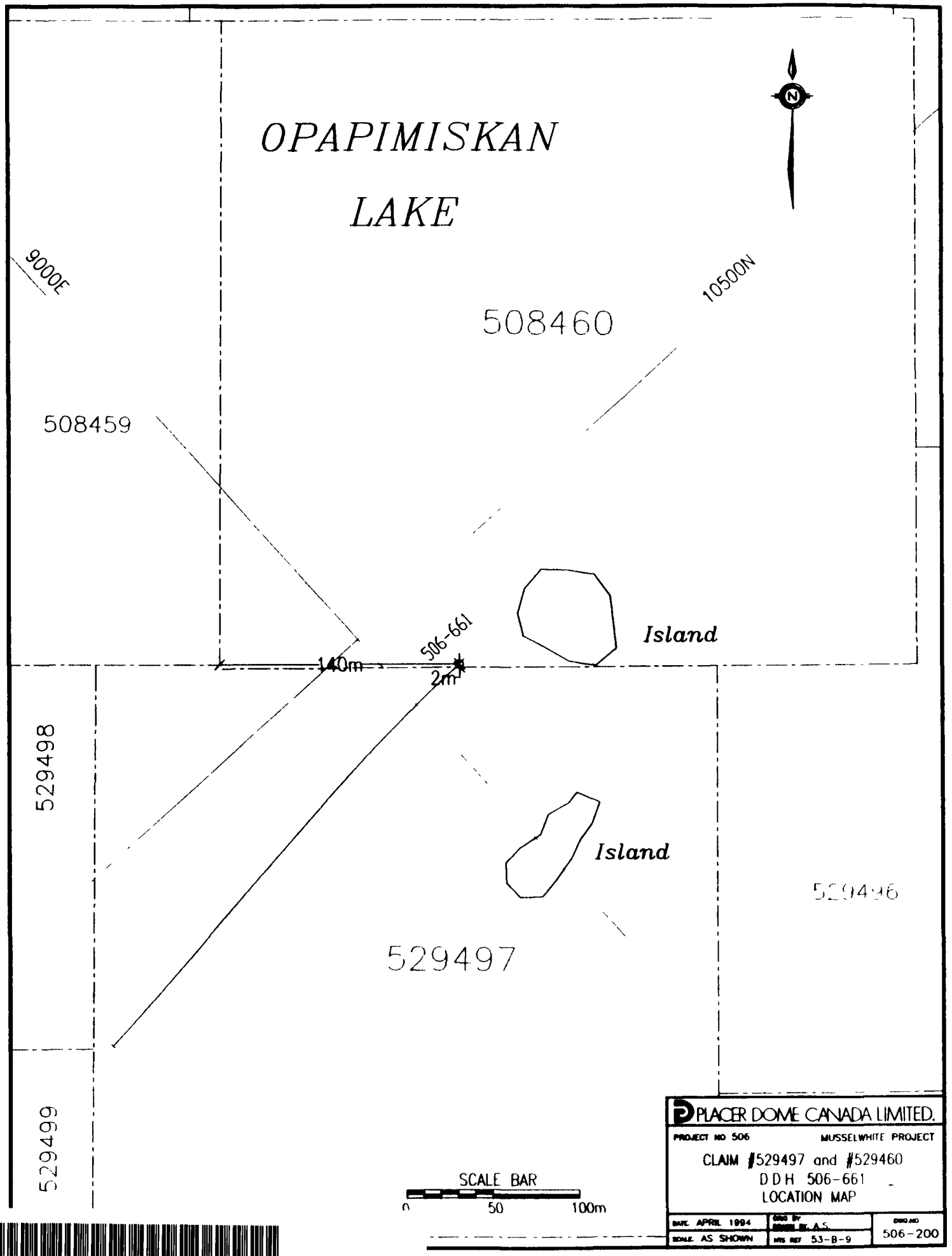

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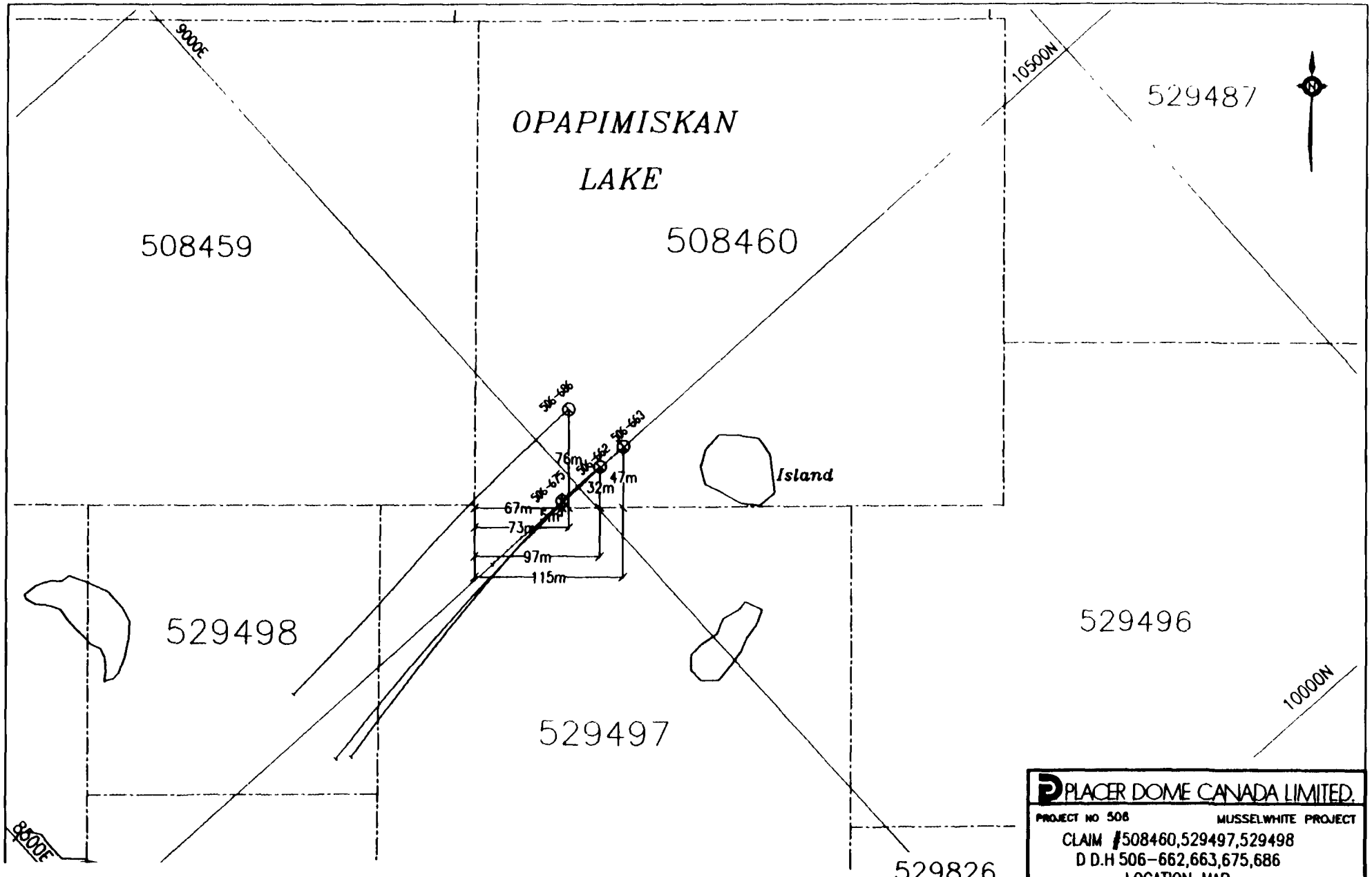

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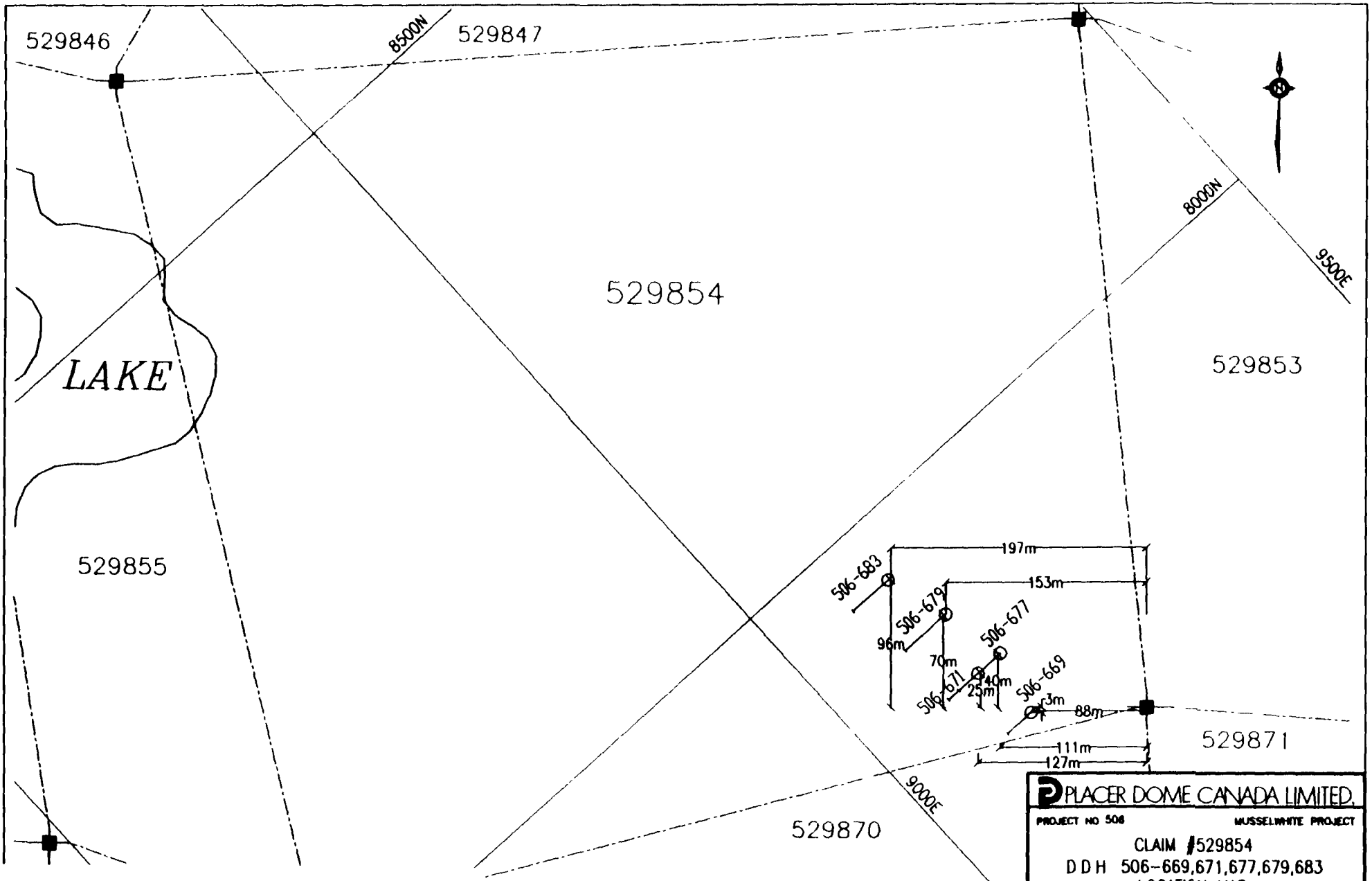

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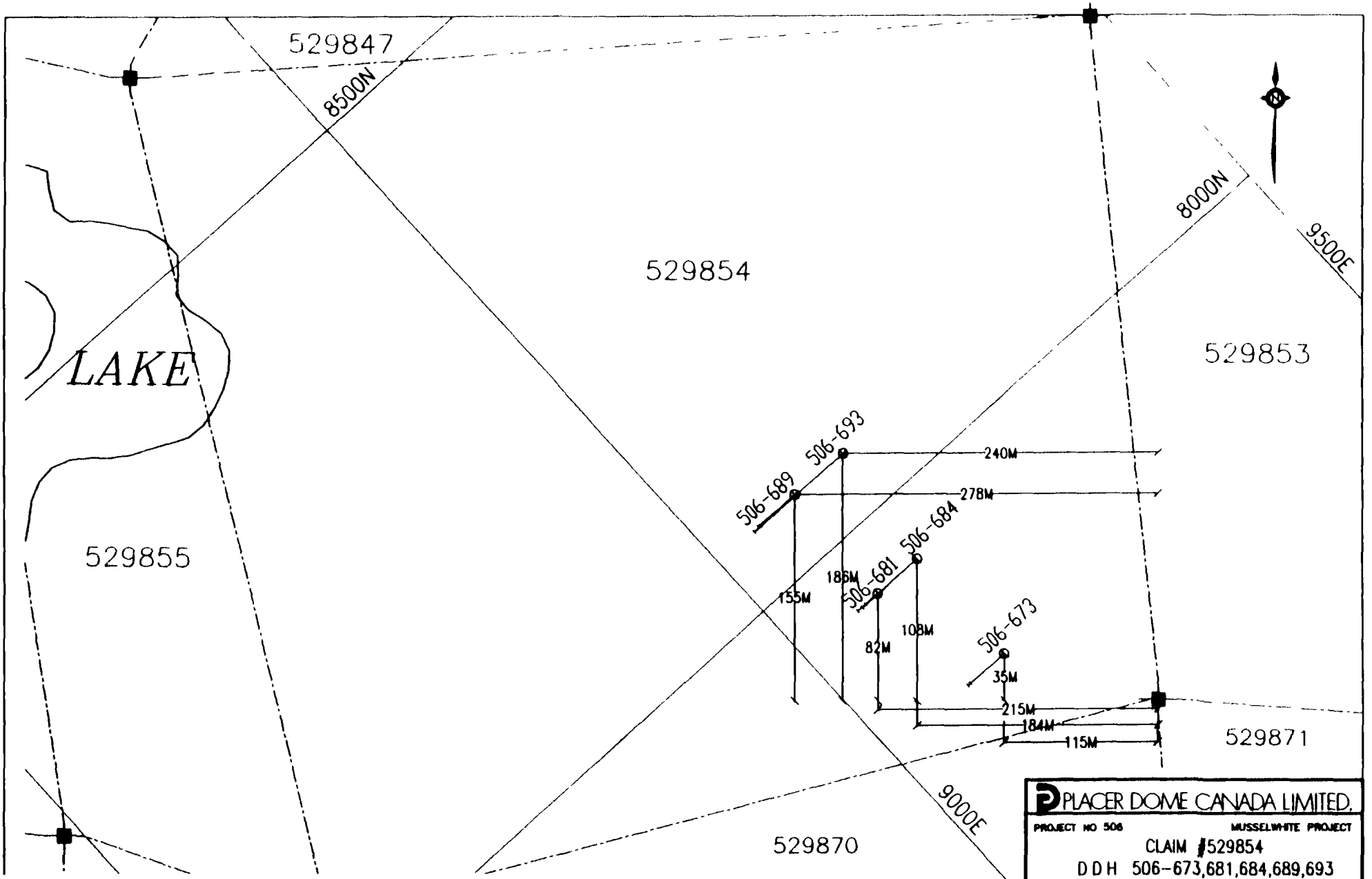

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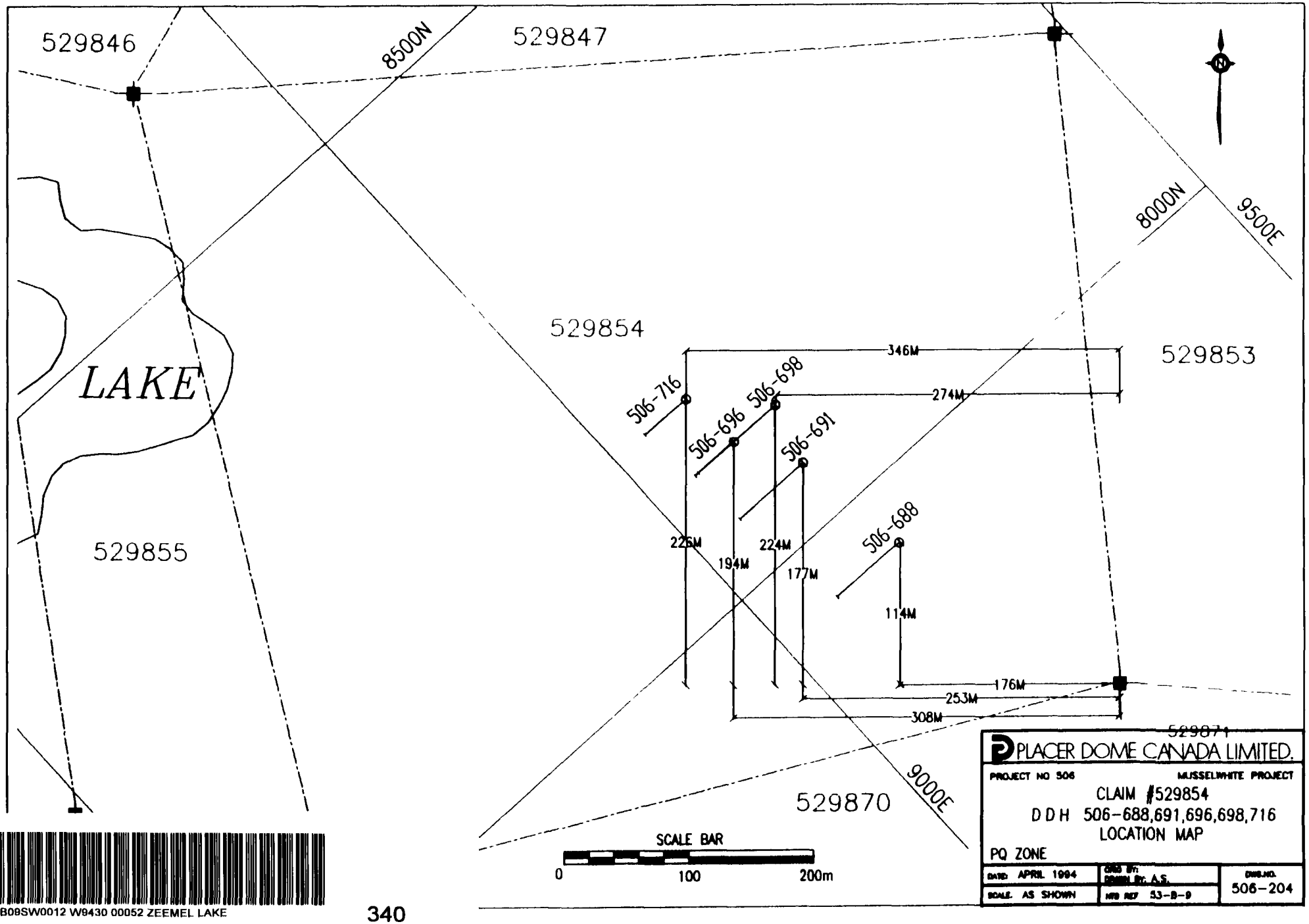

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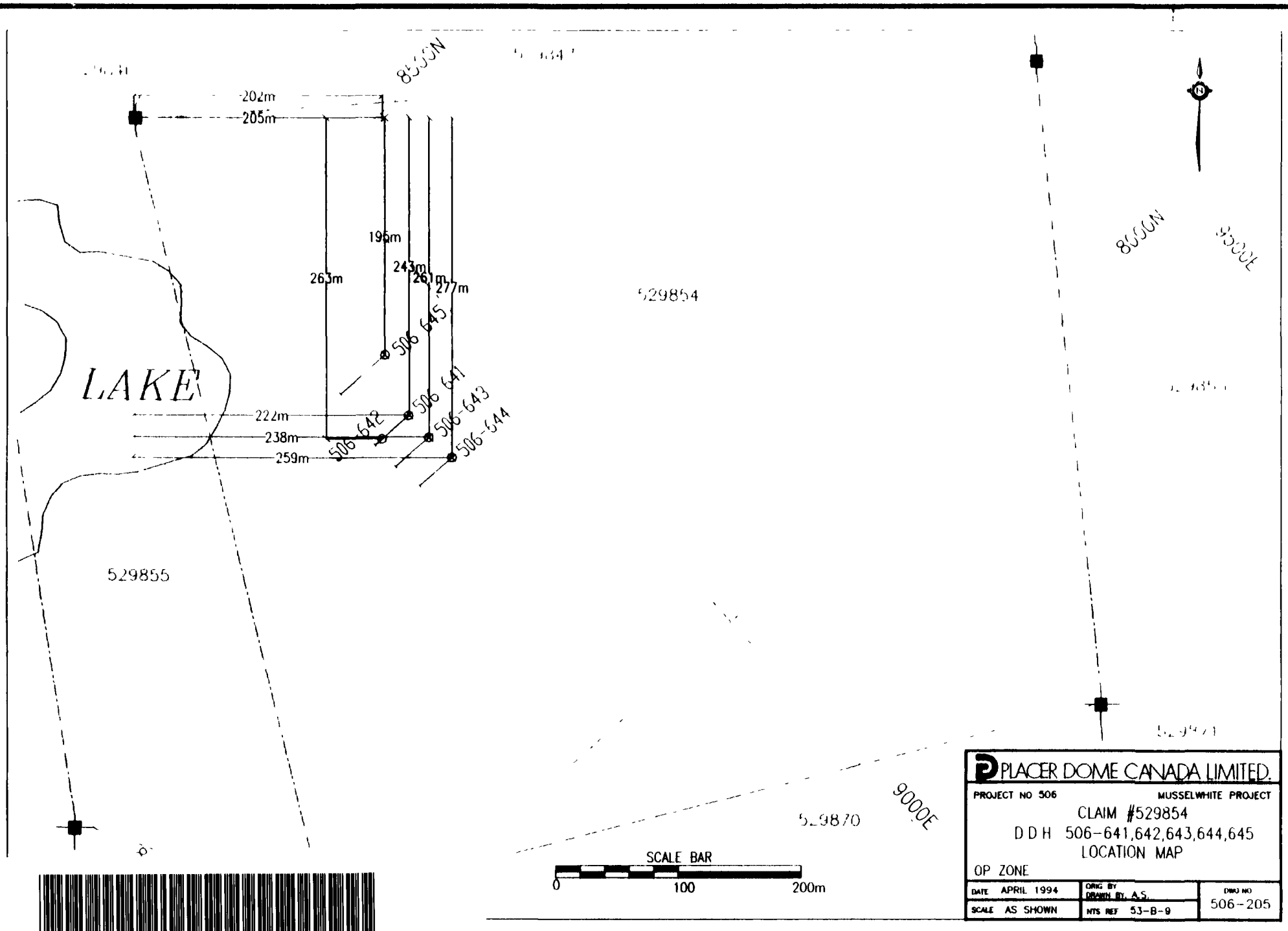

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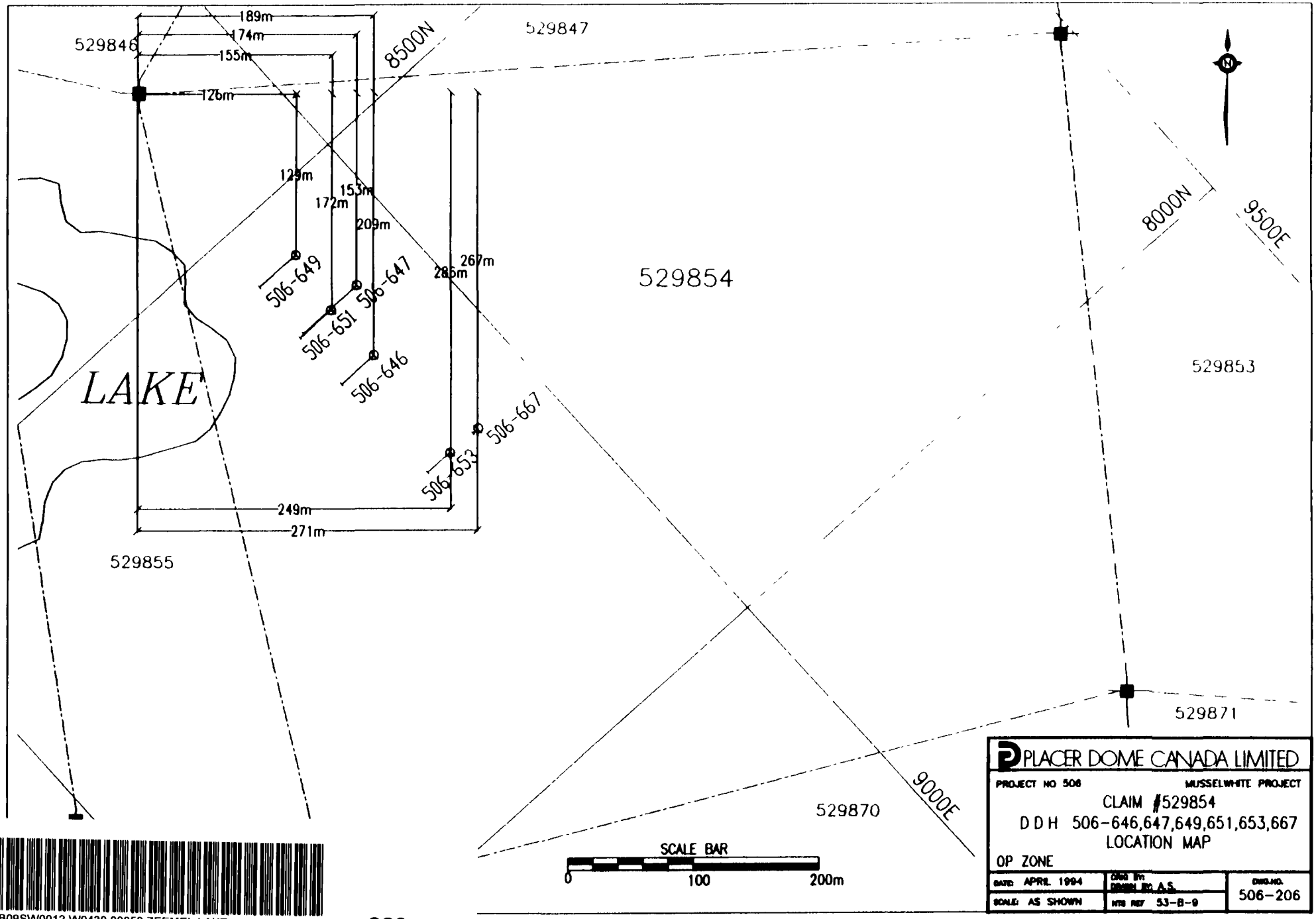

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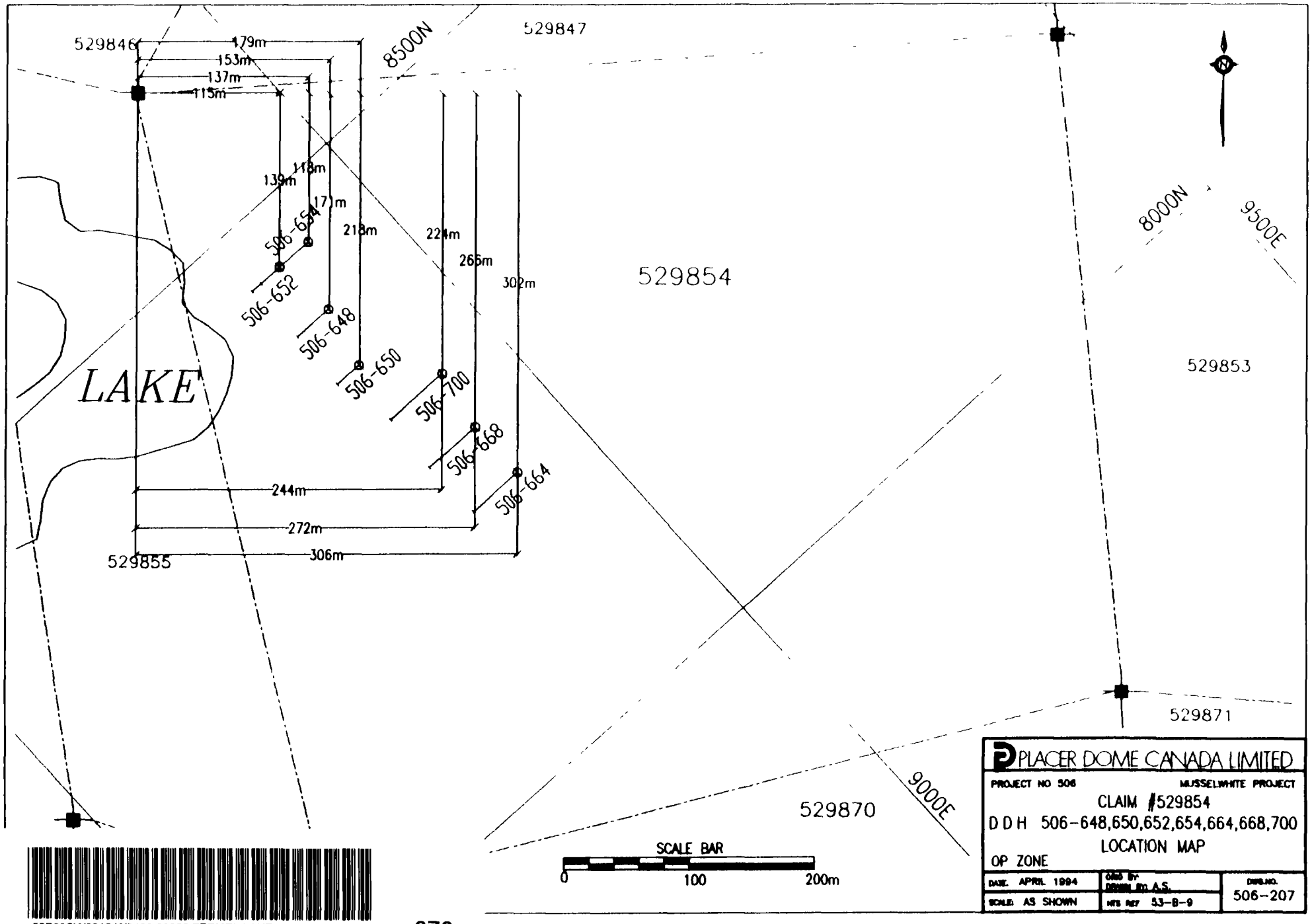

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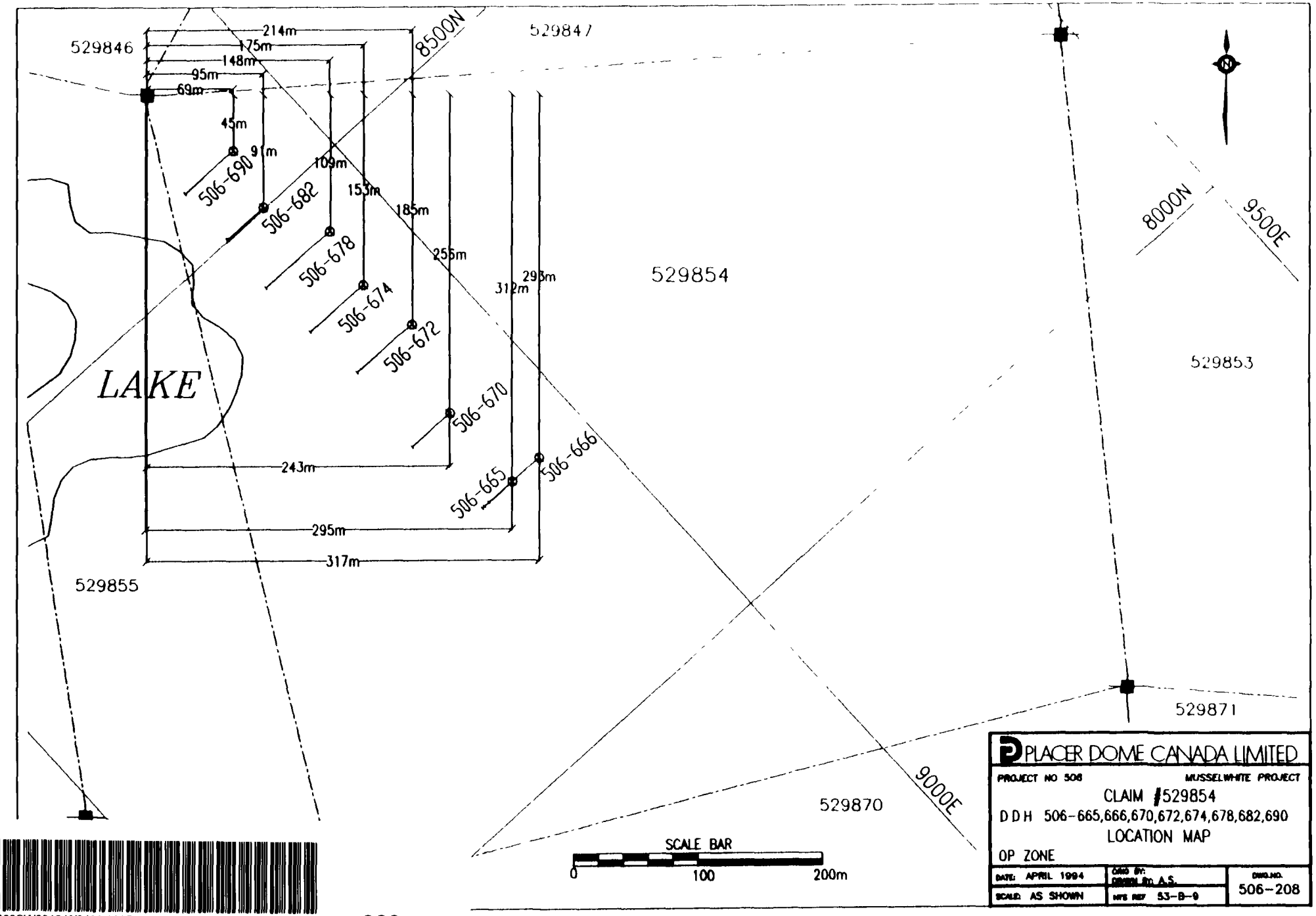

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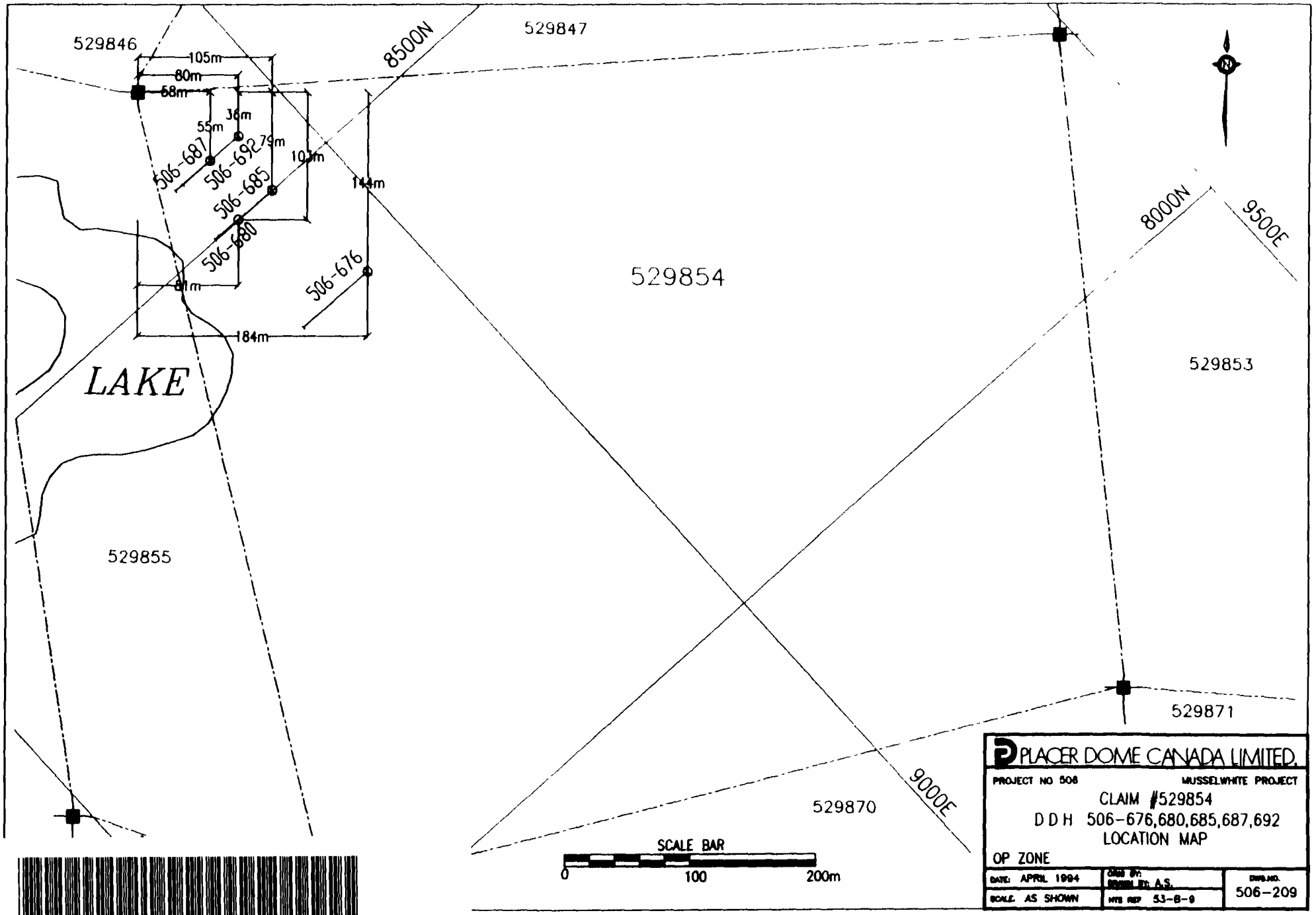

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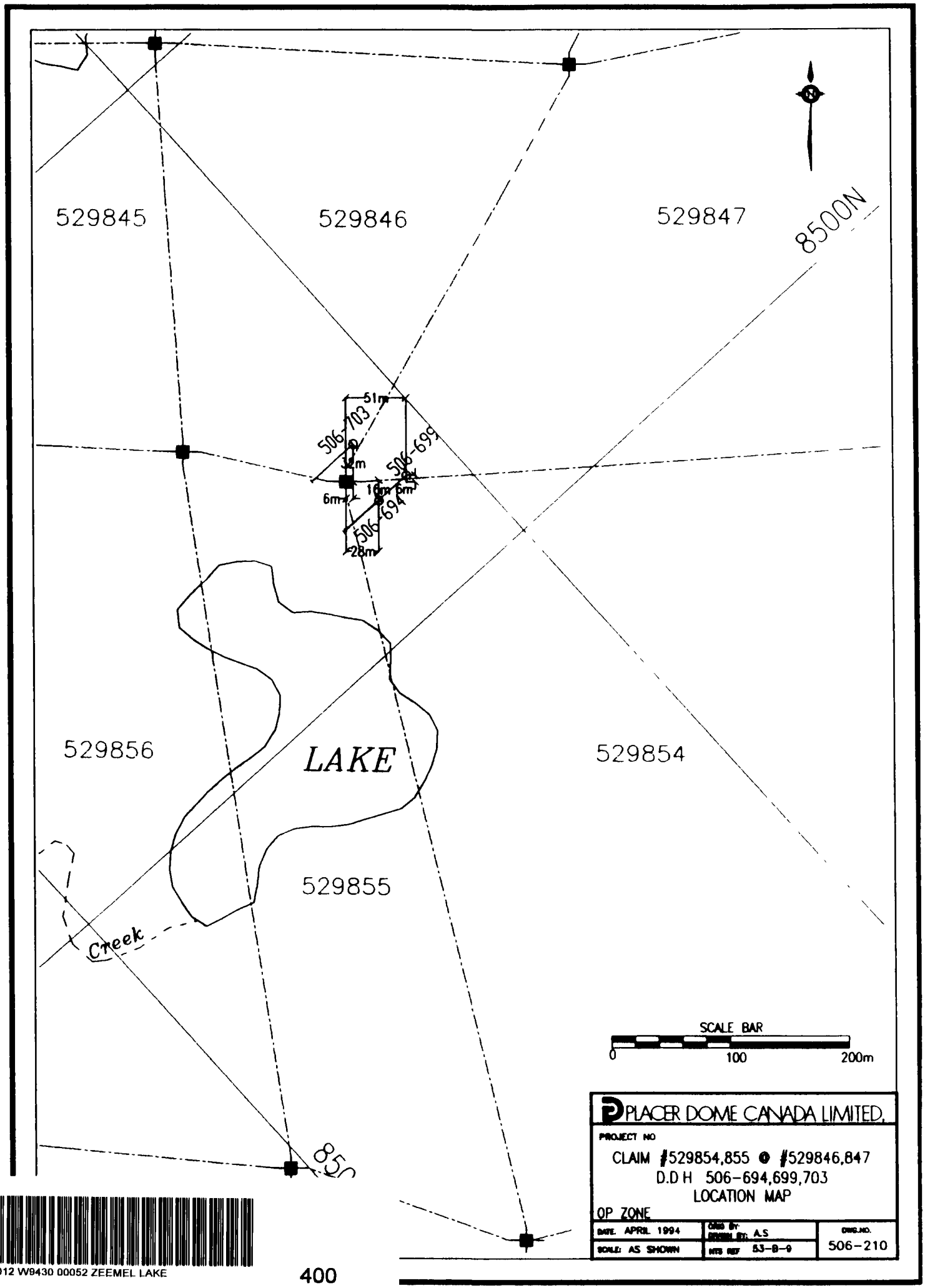

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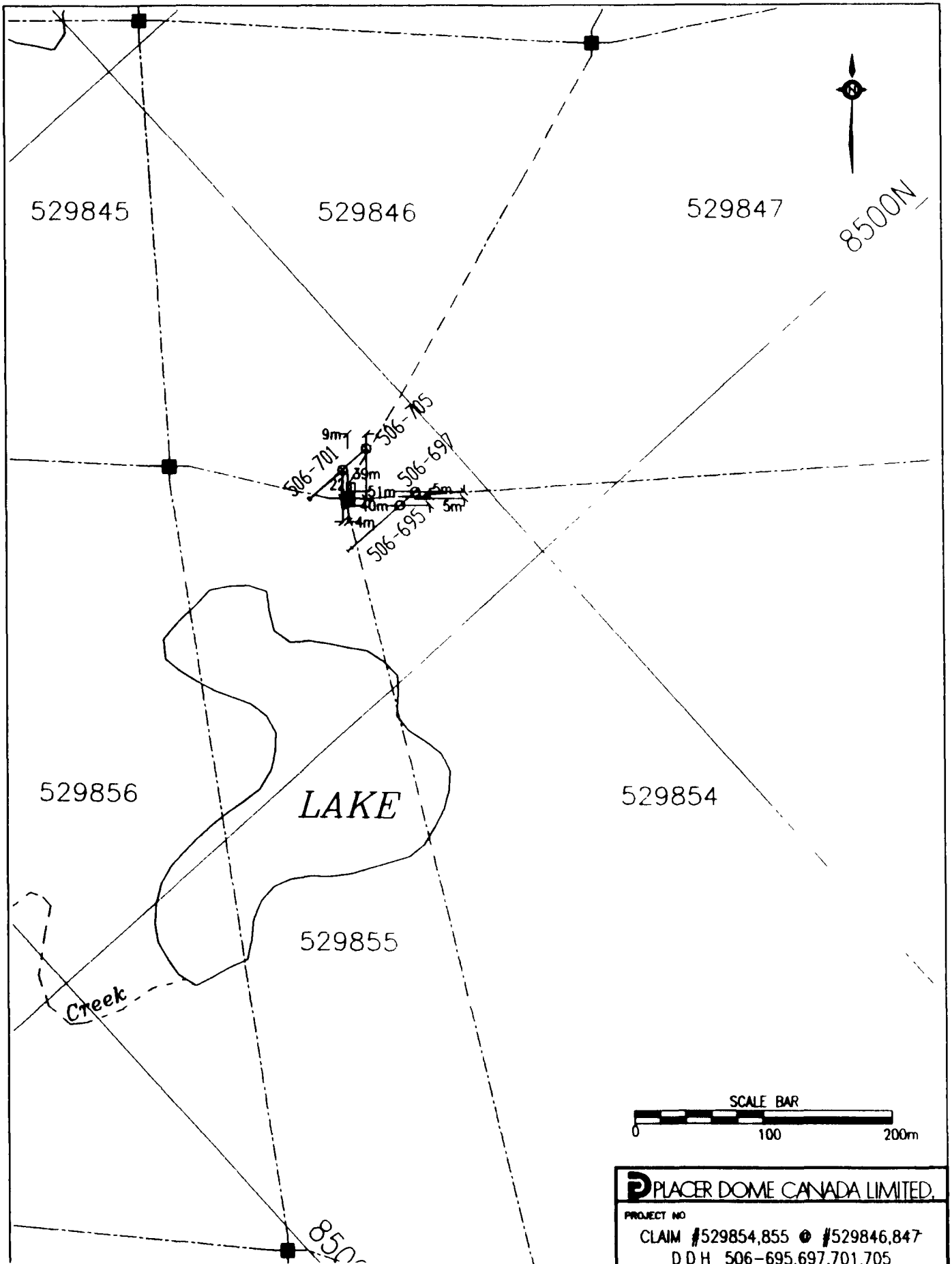


PLACER DOME CANADA LIMITED.

PROJECT NO

CLAIM #529854,855 @ #529846,847

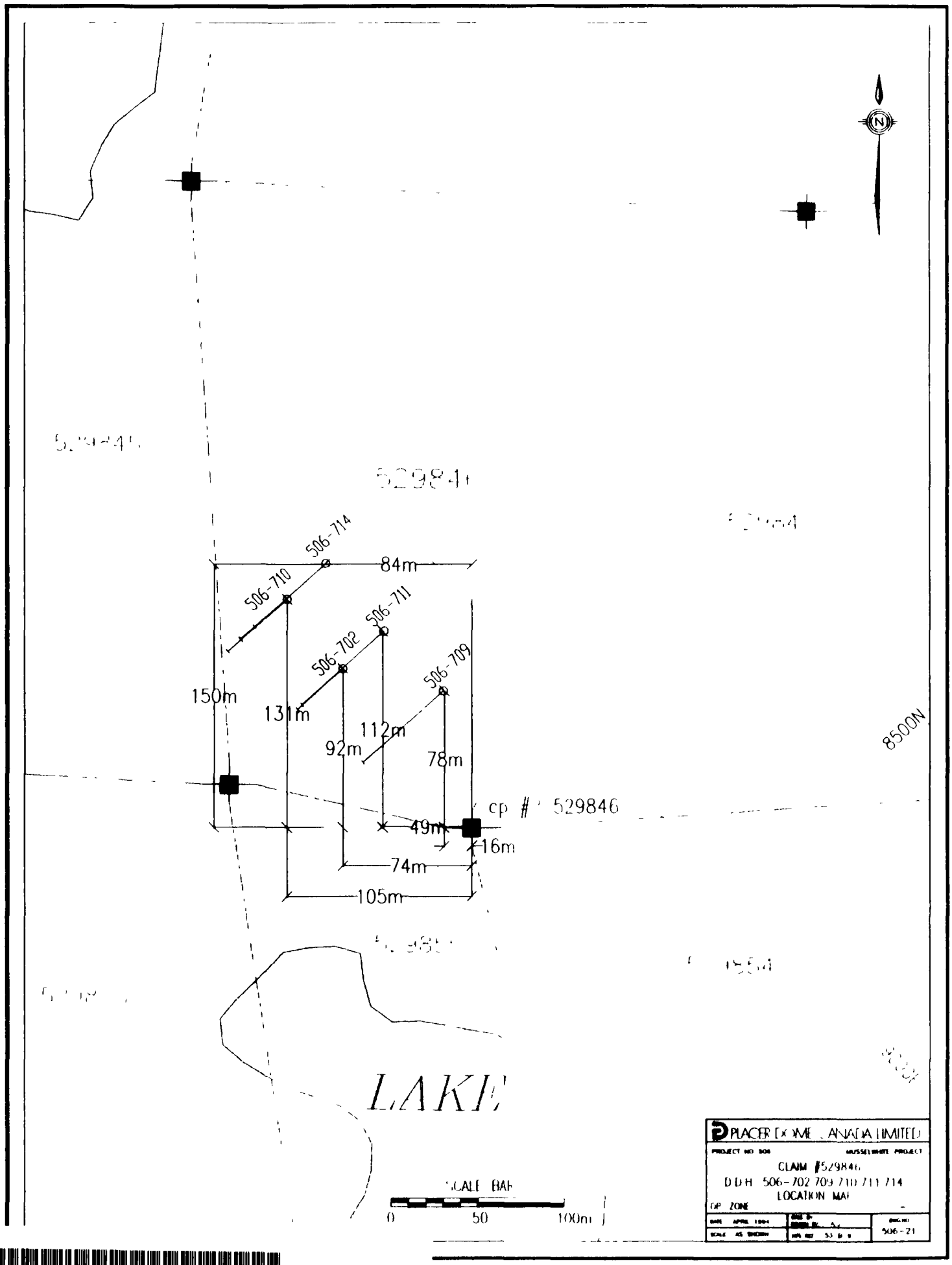
D D H 506-695,697,701,705

LOCATION MAP

OP ZONE

DATE APRIL 1994	DRAWN BY: A.S	DWG.NO
SCALE: AS SHOWN	NTS REF 53-B-9	506-211

53B09SW0012 W9430 00052 ZEEMEL LAKE



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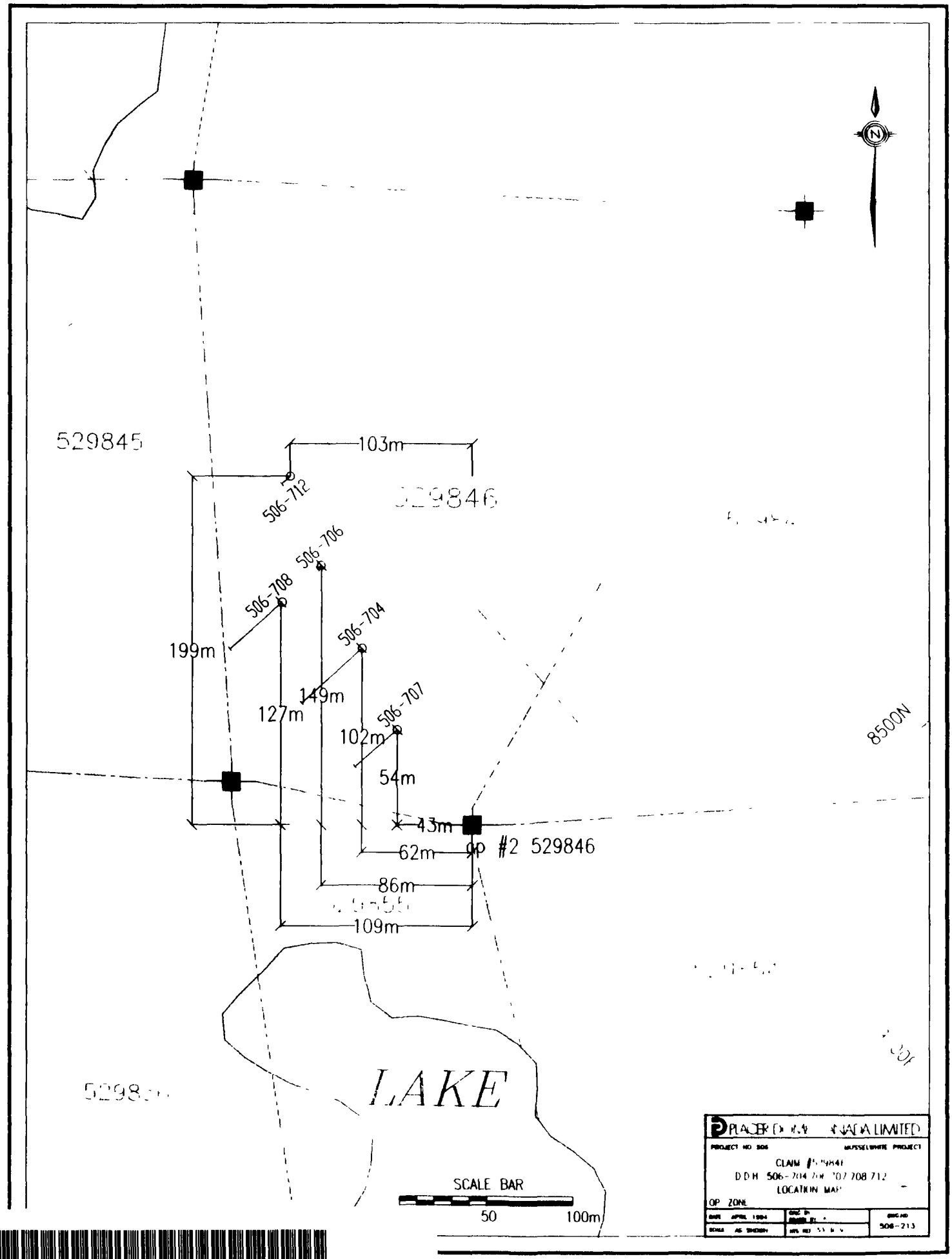

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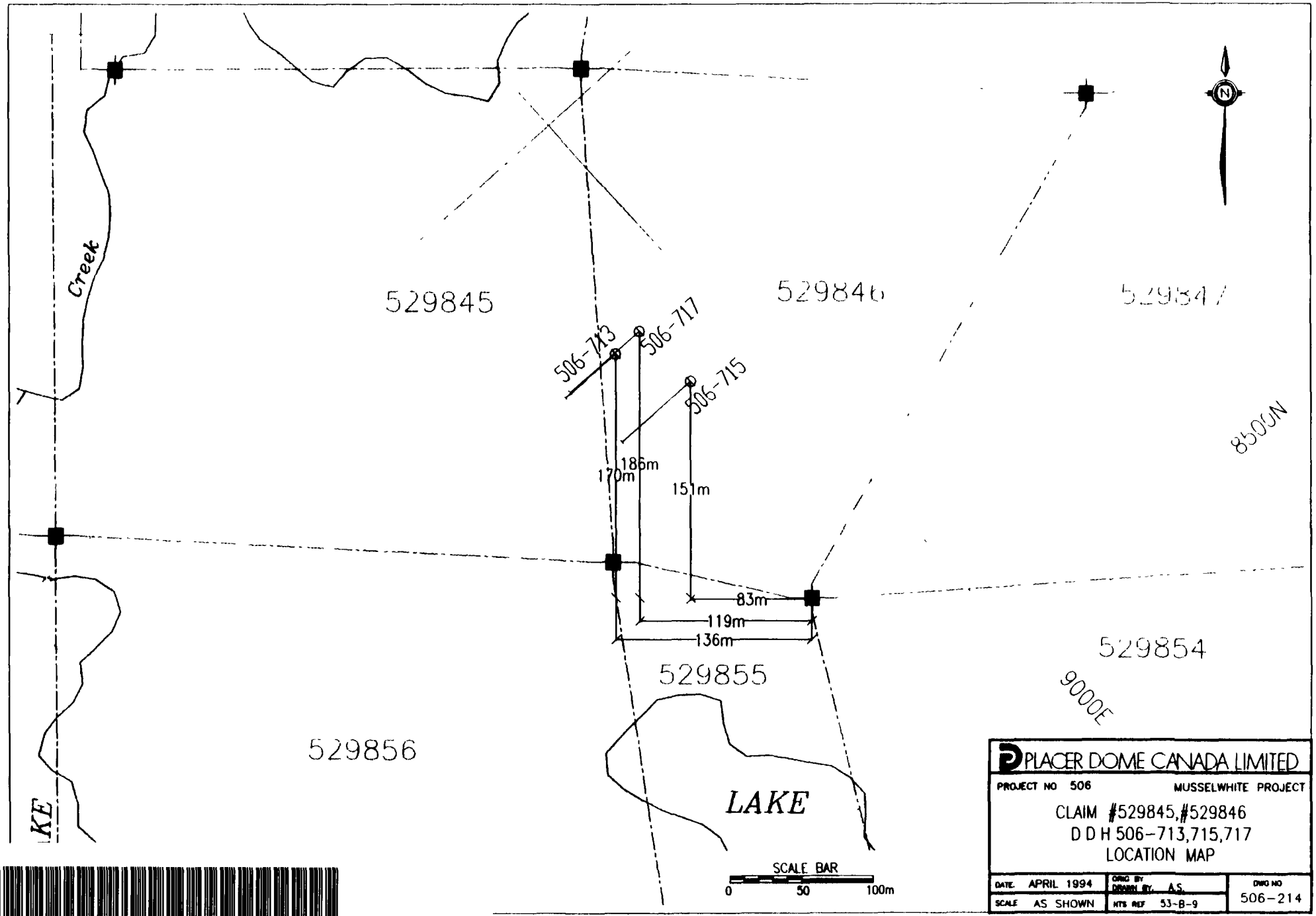

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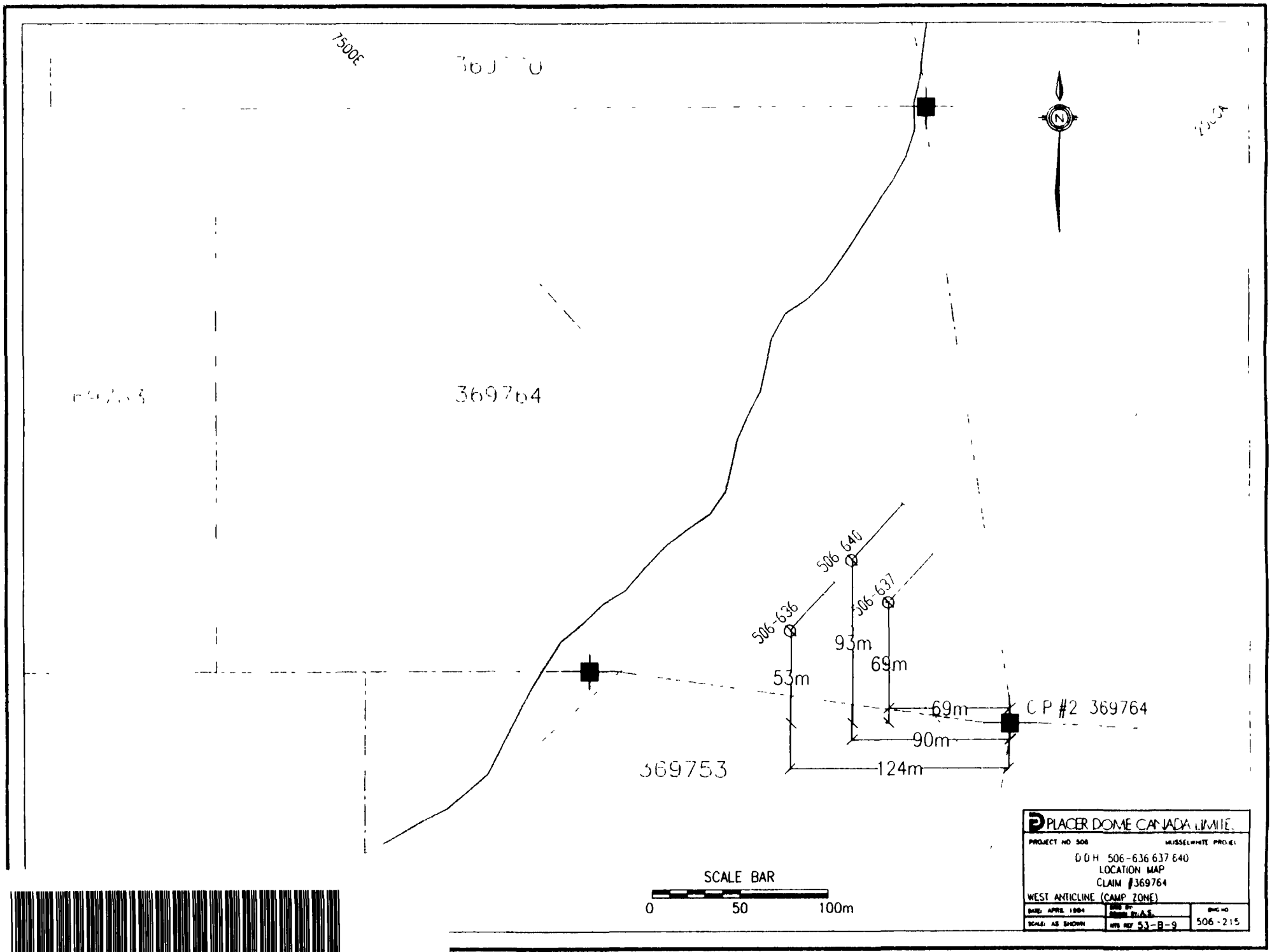

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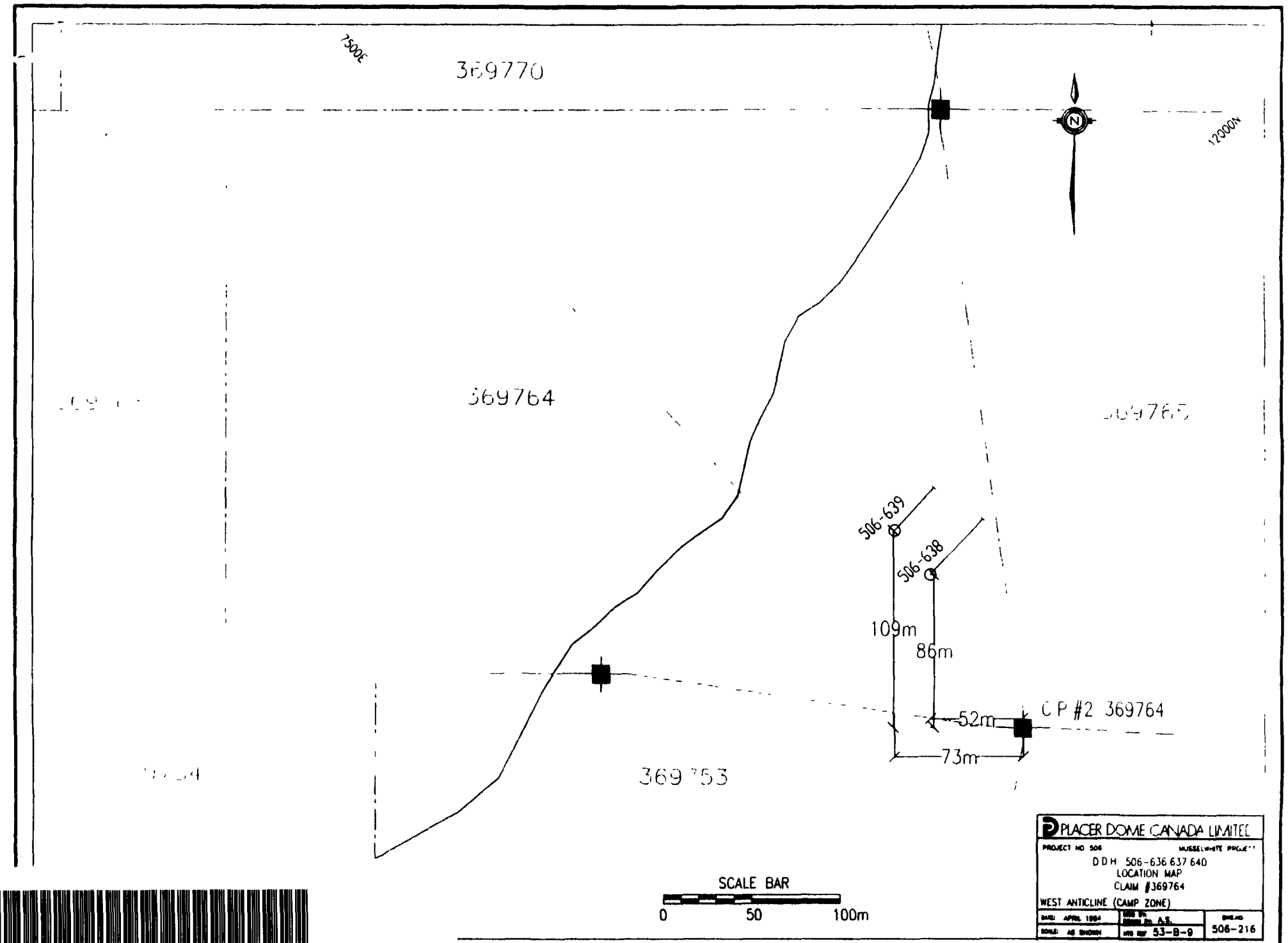

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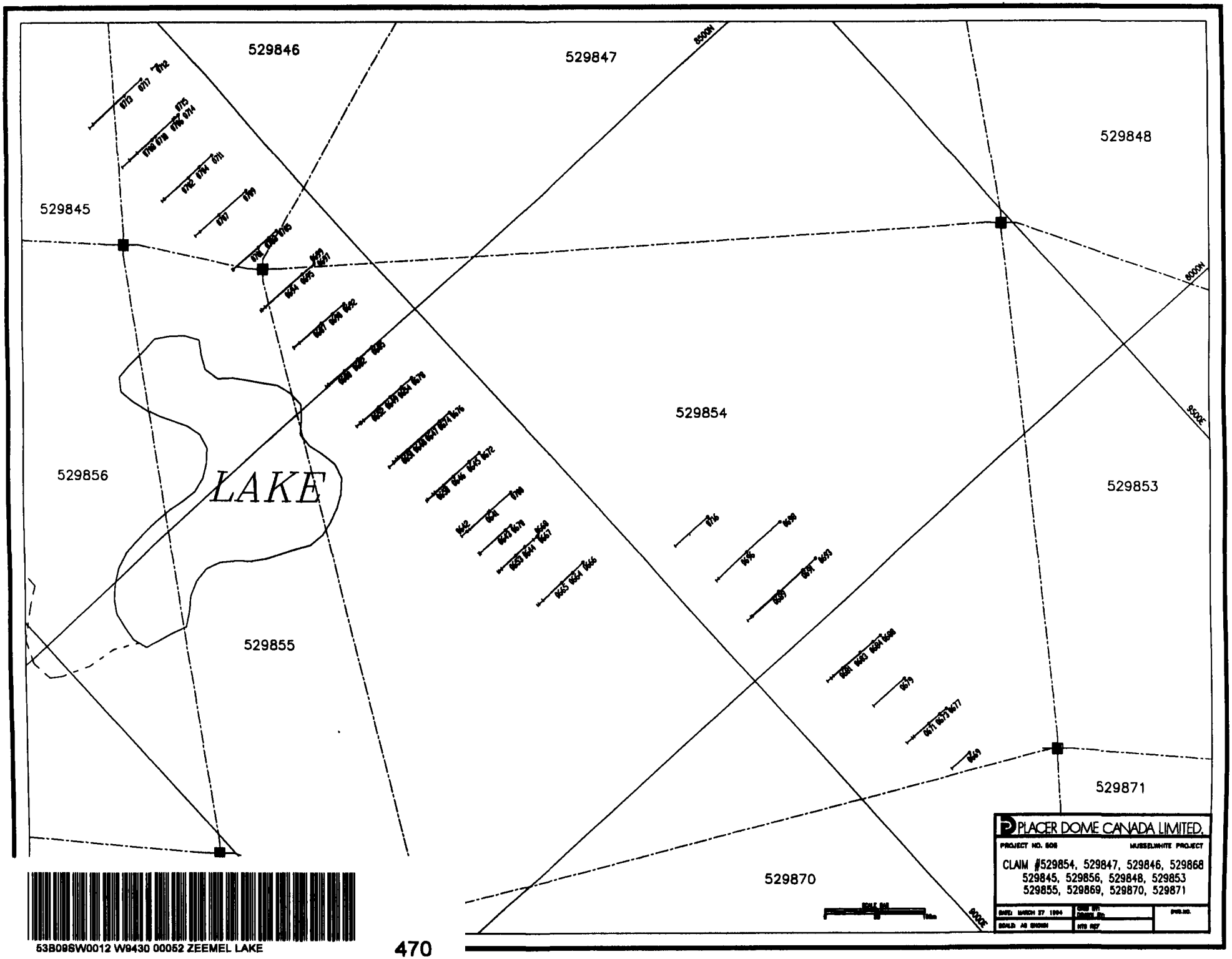

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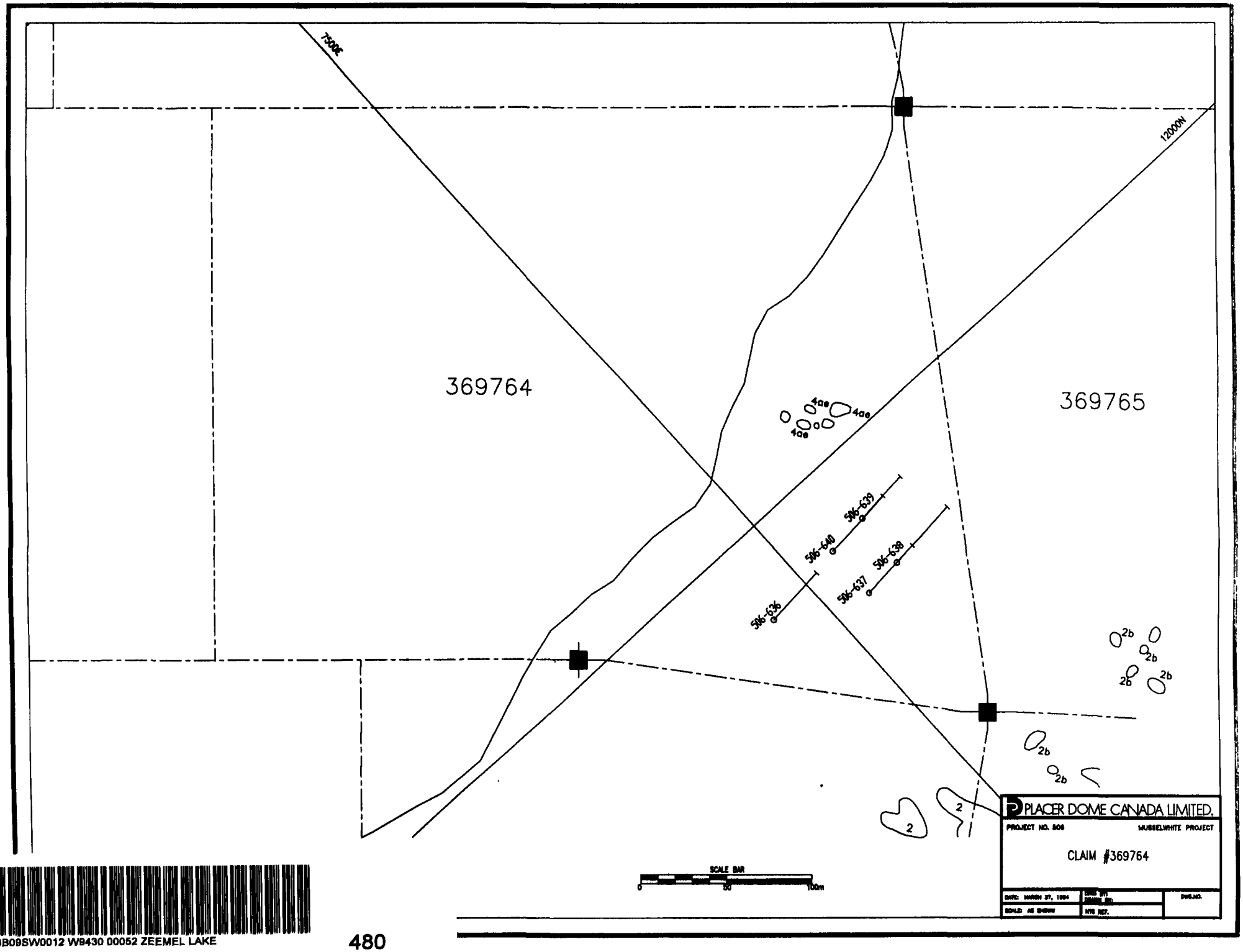

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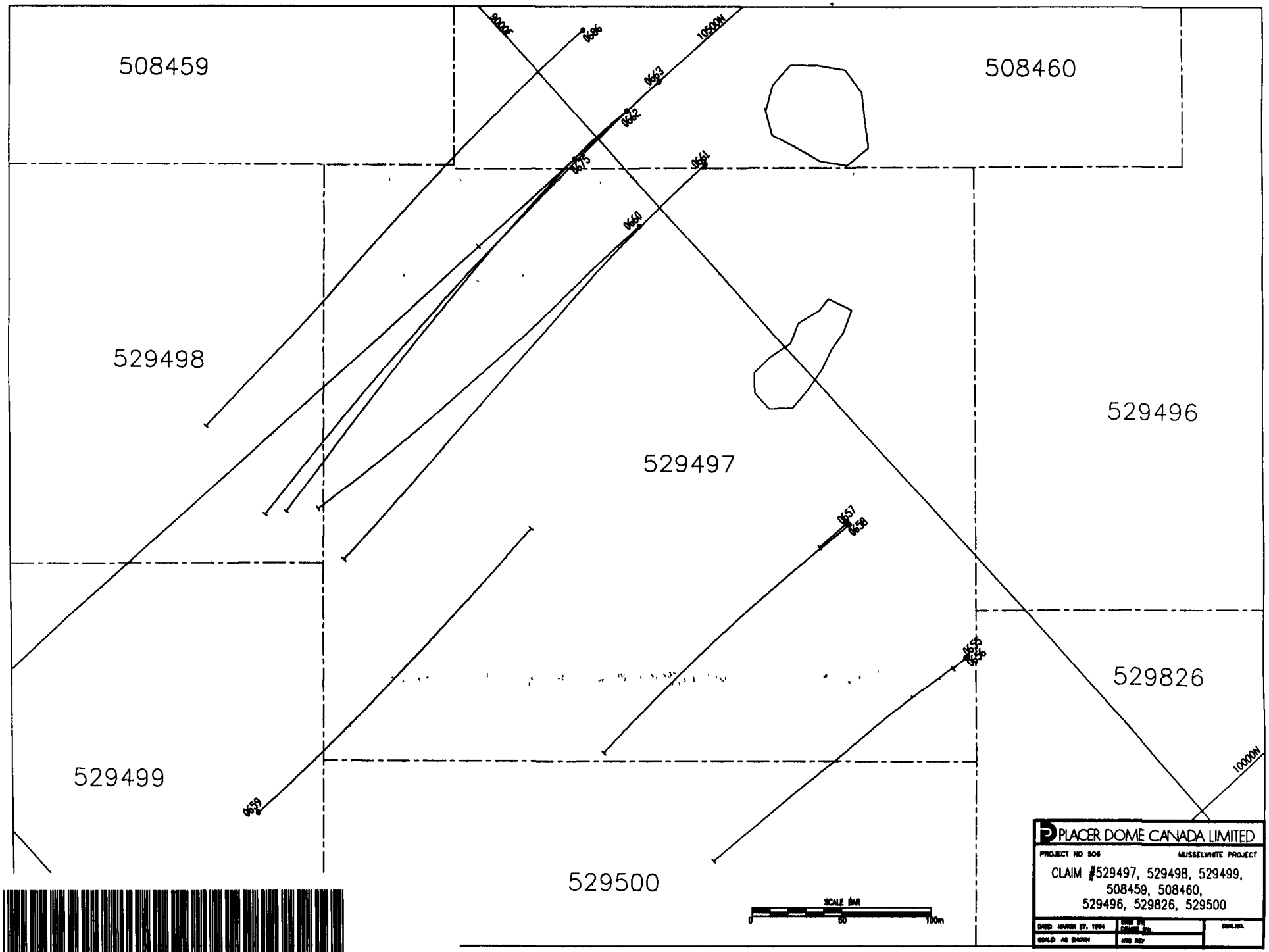

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