

Qualifying Report
On
Casson Lake Property,
Curtin Township, Sudbury M.D., Ontario
For
MacDonald Mines Exploration Limited

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1.0 Summary

The Casson Lake Property consists of 45 claim units covering about 720 hectares, as two blocks in the east central part of Curtin Township, Sudbury Mining Division, Ontario. The eastern block consists of 38 contiguous staked claims under option from Mr. D. Brunne and Mr. R. Stringer. The western block consists of 4 units of staked claims and 3 patented and surveyed claims registered to Mr. Brunne. MacDonald currently holds a 100% interest in the patented lands and a 69% interest in the optioned lands subject to a 1% or 2% net smelter royalty referenced to the price of platinum group metals. The City of Sudbury is approximately 55 km northeast of the property, and the town of Espanola is approximately 15 km northwest of the claims.

Exploration in the early part of the 20th century focused on gold occurrences hosted at or near the margins of the Casson Lake Gabbro. In the 1970s attention was directed towards the Cu-Ni potential of the area. In 1987-88 BP Resources Canada investigated the Ni-Cu-(PGE) mineralization potential of the western 2/3 of the present land position. Since 1987 Mr D. Brunne and Mr. R. Stringer have continued exploration of both the Ni-Cu-(PGE) and gold mineralization potential of the entire property by way of stripping and sampling programs.

The geology of the property is dominated by the Casson Lake Gabbro (dyke or sill) intruded into folded Huronian sedimentary rocks. A large body of Sudbury-type breccia cuts through all lithologies. A network of narrow northwest-trending amphibolite dykes of unknown age and northwest-trending late Proterozoic age diabase dykes are also present. The Huronian rocks have been folded into east-west trending folds open folds. Major faults also trend in this direction. A system of later faults trends both northwest and northeast and offset portions of the Casson Lake Gabbro.

Platinum group elements and gold are associated with both magmatic and hydrothermal disseminated chalcopyrite and pyrrhotite in the northern 1/3 of the Casson Lake Gabbro. Copper and nickel values accompany the platinum group element mineralization Twelve Ni-Cu-(PGE) showing discovered on the eastern block of claims by previous operators are considered worthy of additional exploration. Eight of these locations are considered priority targets areas because greater than 1 g/t Pd is present in grab samples, channel samples and/or drill core samples. The other four sites have geological characteristics favourable for the occurrence of economic PGE mineralization. These target areas are listed in the following table.

Location Name	Notes
BP-1	Drill intercept of 0.9 g/t Pd, 0.3 g/t Pt, 0.5 g/t Au, 0.3% Cu, 0.1% Ni / 13 m
BP-B/G	Grab sample 1.4 g/t Pd, 0.2 g/t Pt, 0.14 g/t Au, 0.16% Cu, 0.08% Ni
BP North Bousquet	Grab sample 2.5 g/t Pd, 0.4 g/t Pt, 0.3 g/t Au, 0.03% Cu, 0.05% Ni
BP-5	Grab sample 2.1 g/t Pd, 0.7 g/t Pt, 0.3 g/t Au, 0.96 % Cu, 0.09% Ni
BP-6	Grab sample 2.4 g/t Pd, 0.5 g/t Pt, 0.8 g/t Au, 0.7% Cu, 0.2% Ni
BP-7	Grab sample 3.6 g/t Pd, 0.7 g/t Pt, 0.7 g/t Au, 0.3% Cu, 0.06% Ni
Location 54	Not previously tested for Ni-Cu-(PGE) mineralization (Sudbury type breccia)
AN-1	Not explored, gossan zones on strike with other occurrences
AN-2	Grab sample 2.2 g/t Pd, 1.1 g/t Pt, 0.7 g/t Au, 0.6% Cu, 0.2% Ni
AN-3	4.1 m channel sample 1.08 g/t Pd, 0.5 g/t Pt, 0.4 g/t Au, 0.2% Cu, 0.1% Ni
AN-4	Grab sample 2.2 g/t Pd, 0.5 g/t Pt, 0.4 g/t Au, 0.6% Cu, 0.3% Ni
Malachite Pit	Grab sample 1.8 g/t Pd, 0.3 g/t Pt

Six occurrences of gold mineralization are known on the property. One was previously mined (Bousquet) in the period 1936-38, and produced 145 kg of gold. These small gold occurrences and deposits could

add incremental value to a PGE mining operation. No significant exploration is contemplated for these occurrences in the Phase 1 program.

Since acquiring an option on the property MacDonald Mines Exploration Ltd. has completed approximately 17,500 square m of outcrop stripping at seven locations, the collection of 242 grab and channel samples, and a preliminary metallurgical test of mineralized material from the AN-3 location.

Future exploration activities should focus on the northern portion of the Casson Lake Gabbro, and attempt to demonstrate continuity of mineralization along the 7 km strike length of the known showings. This work would include both a geological / trenching and a geophysical approach.

A proposed Phase 1 exploration budget of \$350,000 is proposed to cover core re-logging, the establishment of a survey grid, detailed geological mapping, magnetic and induced polarization / resistivity surveys, and a major trenching and sampling program.

A proposed Phase 2 budget of \$650,000 is not contingent upon the Phase I budget. This budget will allow for additional trenching, geophysical surveys and 8,000 m of diamond drilling allocated to the most prospective platinum group element mineralization delineated by the Phase 1 exploration program.

2.0 Introduction and Terms of Reference

G.A. Harron & Associates ("GAHA") was retained by MacDonald Mines Exploration Limited ("MacDonald"), 347 Bay Street, Suite 201, Toronto, Ontario, M5H 2R7, to complete an independent review and qualify proposed expenditures on the Casson Lake Property. MacDonald is a public company listed on the TSX Venture Exchange. The technical report is to comply with standards set out in National Instrument 43-101. Terms of engagement are in a letter from GAHA to MacDonald dated August 19, 2002.

GAHA understands that this report may be filed with various securities regulators in Canada in support of MacDonald's financing efforts. It is further understood that the report may be used to provide information on the Casson Lake Property to prospective joint venture partners or other third parties.

In preparing this report, GAHA reviewed public domain geological reports, maps, miscellaneous technical papers, and private company-owned geological reports, geophysical maps and technical documents as listed in the "References" section of this report. GAHA has no reason to believe the data sets and reports are not complete. GAHA is of the opinion that the Corporation withheld no reports pertinent to this report. Drill core from 18 diamond drill holes completed by previous operators was also briefly examined.

The author of this report has visited the Property on numerous occasions in 2000 and 2001, at which time details of the property geology as revealed by mechanical stripping and trenching were examined. The most recent site visit was August 10, 2001 at which time additional mechanical stripping was supervised. In 2000 the author compiled the historical work on the property and made recommendations for further exploration.

Abbreviations and their meanings used throughout this report are listed in the following table.

AMAG	airborne magnetic survey
AVLF	airborne VLF-EM survey
Au	gold
cm	centimeter
Cr	chrome
Cu	copper
DDH	diamond drill hole
g/t	grams per ton
Ga	billions of years
Gm	gram(s)
ha	hectare(s)
IP/RES	induced polarization / resistivity survey
kg	kilogram (s)
km	kilometre (s)
m	metre(s)
Ma	millions of years
MAG	magnetic survey
Ni	nickel
Os	osmium
Pd	palladium
Pt	platinum
PGE	platinum group elements
PGM	platinum group minerals
ppb	parts per billion
ppm	parts per million
Rh	rhodium

3.0 Disclaimer

The author has relied upon land tenure information supplied by the Ministry of Northern Development and Mines, whom disclaim the accuracy and subsequent use of their own data. Results and conclusions of a preliminary metallurgical test are the responsibility of Lakefield Research Limited, which the author disclaims.

4.0 Property Description and Location

The property is located in the central eastern part of Curtin Township, Sudbury Mining Division, Ontario, within NTS 41 I/4 (Figure 1).

The property consists of 14 unpatented claims, 1 Mining and Surface Rights patented claim, and 2 Mining Rights only patented claims containing 45 units comprising a nominal 720 ha (Figure 2). All claims and patent are in good standing. The western block of claims consists of 3 patented and 1 staked claim as a block comprising 7 contiguous units covering a nominal 112 ha. The eastern block consists of 13 unpatented claims comprising 38 contiguous units covering a nominal 608 ha. The following table lists the claims along with assessment work requirements and due dates.

Table 1 List of Claims

Claim Number	Units	Recording Date (y/m/d)	Due Date (y/m/d)	Work Required (\$)	Total Work Applied (\$)	Work Reserve (\$)	Work Bank (\$)
S984683	1	87/05/04	04/05/04	400	6,400	0	0
S984684	1	87/05/04	04/05/04	400	6,400	19,610	0
S984685	1	87/05/04	04/05/04	400	6,400	0	0
S984686	1	87/05/04	04/05/04	400	6,400	0	0
S984687	1	87/05/04	04/05/04	400	6,400	0	0
S984688	1	87/05/04	04/05/04	400	6,400	0	0
S984689	1	87/05/04	04/05/04	400	6,400	0	0
S993985	1	89/05/11	04/05/11	400	5,600	0	0
1136064	1	90/05/28	04/05/28	400	5,200	0	40
1179658	14	93/03/04	03/03/04	4,000	46,4000	491	
1198356	4	00/03/30	04/03/30	1,608	3,732	0	0
01211238	8	99/03/31	04/03/31	3,200	9,600	0	0
01211240	1	99/03/31	04/03/31	400	1,200	0	0
1237515	6	99/03/31	03/03/31	1,600	5,600	0	0
111054	1	M patent	02/10/06	-	-	-	-
111055	1	M&S patent	02/10/06	-	-	-	-
111975	1	M patent	02/10/06	-	-	-	-
17	45			14,408	122,132	20,101	40

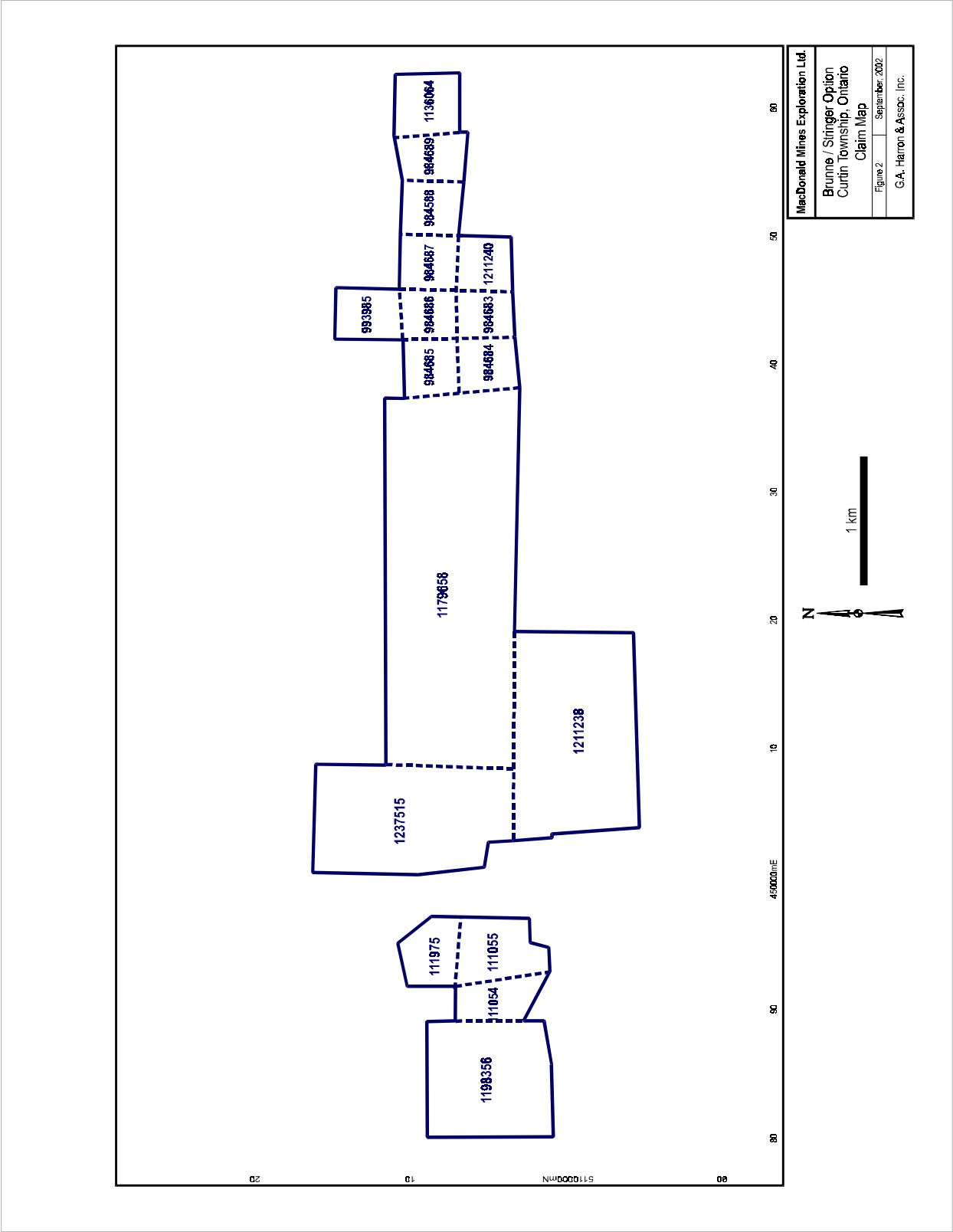
Ownership of the staked claims is divided as to Mr. D. Brunne 50% and Mr. Roger Stringer 50 % for all except claim 1198356, which is currently owned 100% by Mr. Brunne. The two “mining rights only” patented claims and the single ‘mining and surface rights patented” claim (111055) are registered to Mr. Brunne, and will be registered to MacDonald at some time in the future. Land taxes of \$228.75 are due annually on October 6th for the three patents. The optionors collectively hold a net smelter royalty of 1% on palladium and platinum and gold production up to a US\$ 500 per ounce price (per metal). The net smelter royalty rises to 2% for each metal selling for > US\$ 500 per ounce.

Assessment work credits of \$20,101 are sufficient to maintain tenure of the eastern block of claims for one additional year beyond the current anniversary dates listed in the above table.

MacDonald, Brunne/Stringer Option

The terms of the option agreement dated August 10, 1999 require periodic payments of cash and common shares of MacDonald, and work commitments in order to acquire a 100% interest. To date MacDonald has paid an aggregate of \$ 25,000 cash, issued 2,250,000 common shares and incurred expenditures of approximately \$254,000 to earn a 69% interest. Expenditures of approximately \$124,000 are required to earn the remaining 31% interest.





The 38 staked claims comprising the eastern block of the property are located within a proposed extension of Killarney Provincial Park. Tenure and rights attached to current mining claims are valid, but the claims will become part of the proposed park if they are allowed to lapse.

To the writers knowledge there are no additional restrictions or current / pending challenges to the title of the claims, except for the long standing Indian Land Claim associated with the Huron-Robinson Treaty. There are no significant outstanding environmental issues on the property. The historical workings and tailings associated with the Bousquet mine have been examined by the Ministry of Mines and Northern Development and are considered benign. Moreover, the tailings are not the responsibility of the current claim owners.

No permits issuable by the Ministry of Northern Development and Mines are required for the exploration work contemplated in the proposed work programs.

5.0 Accessibility, Climate, Local Resources, Infrastructure, Physiography

The property is located in the central eastern part of Curtin Township, Sudbury Mining Division, Ontario. Highway 6, to the west of the property, connects northward to Espanola and Highway 17. Espanola is approximately 70 km west-southwest of Sudbury via Highway 17 (Figure 1).

The main access to the western part of the property is from Willisville, located 1.5 km east of Highway 6 on the western shore of Frood Lake, then by motor boat 5 km east to Miller Bay on Charleton Lake and /or Howry Creek. Trails currently suitable for ATV and skidoo travel extend from these locations to the western, central and eastern parts of the property.

A second access route is via the "Camp Good Looking" road, which extends east from Highway 6 to Cross Lake, a distance of 6 km. At this point the Whitefish River can be forded and trails can be followed in an easterly direction for 4 km onto the western part of the property. A series of trails currently suitable for ATV and skidoo travel extend from this location to the eastern part of the property. Heavy machinery access to the property is via this route

Sudbury is the largest population center in the area and is an important mining center. Both Inco Limited and Falconbridge Limited maintain integrated Ni-Cu-(PGE) metal producing facilities in the Sudbury area. Thus Sudbury is a source of experienced mining personnel, mining related services and supplies, as well as offering a complete compliment of transportation, social and administrative amenities. Hydroelectric power is available from a major transmission line located 5 km west of the property. Process water is available from the Whitefish River system and or Lake Huron.

The property is located in the Penokean Hills Physiographic Region, characterized by folded lower Proterozoic rocks of the Southern Structural Province Card (1978). Elevations on the Property range between 213 to 243 m indicating a relief of 30 m. In the vicinity of the property the landscape is composed of low glacial scoured ridges of silicastic sedimentary rocks and diabase intrusions separated by areas of forest covered overburden and recent organic deposits. Fault structures form narrow valleys that partially control the drainage. The immature and poorly organized drainage flows southward into the Great Lakes. Forest cover consists of secondary growth maple, birch, oak, poplar, fir, spruce and rare pine trees with an under growth of juniper, alders and various grasses.

The climate is typical of a southern boreal forest area. Moderate snow cover of 1-2 m accompanied by sub-zero temperatures dominate the winter months from December through March. Summers are warm and accompanied by moderate amounts of precipitation. Prevailing climatic conditions allow year round exploration and mining activities.

The author is of the opinion that there are numerous areas on the property with sufficient space to accommodate any potential solid waste and process water storage facilities required to support a mining facility and processing plant in the future.

6.0 History

6.1 Nickel – Copper – Platinum Group Elements Exploration

In 1973 Curtin Mines Limited, a wholly owned subsidiary of Aggressive Mining Ltd. discovered low-grade Ni-Cu-(PGE) mineralization at the BP-1 location (Figure 3). In 1974 Mattagami Lake Mines Ltd., was granted an option to earn 49% in 47 claims covering the gabbro intrusion that hosts the Ni-Cu-(PGE) showings. Exploration work consisted of geological mapping, IP, VLF-EM and MAG surveys, 6 shallow drill holes on the original showing, and 13 drill holes elsewhere on the property testing IP responses hosted by the Casson Lake Gabbro. Assays were not filed. However, a composite sample obtained from 10 test pits on the original showing (by Falconbridge Limited. in 1973) returned assays of 0.79% Cu, 0.27% Ni, 0.58 g/t Pt, 2.06 g/t Pd, 0.48 g/t Au and 3.08 g/t Ag.

In 1979-80 Curtin Mines Limited drilled 6 holes at the same location. Another 4 holes tested IP responses in other parts of the gabbro, for a total of 777 m. DDH 79-2 at the current BP-1 location returned an assay of 0.51% Cu and 0.20% Ni over 23.47 m (core length). PGE assays, if any, are not in the public record.

In 1987-89, BP Resources Canada ("BPRC") acquired 30 patented claims in the area, roughly coincident with the present land holdings. Work included AMAG and AVLF surveys by Aerodat Limited with a line spacing of 125 m, geological mapping, collection of 1,164 surface rock samples, IP/RES surveying of 39 lines covering the gabbro and completion of 18 DDHs (2,615 m). Results of this work suggest that the northern 1/3 of the gabbro intrusion hosts the highest grade Ni-Cu-(PGE) mineralization. Drill holes V74-11 and V74-12 drilled in a northeast direction through the BP-1 location returned best intersections of 1.36 g/t Pd, 0.38 g/t Pt, 0.35 g/t Au over 3 m (core length), and 3.38 g/t Pd, 0.37 g/t Pt, 0.19 g/t Au over 1 m (core length) respectively. Statistics on the surface samples show that 19% (222) contained > 1 g/t Pd+Pt+Au, and 6.4% (74) contained > 2 g/t Pd+Pt+Au. The highest value recorded is 6.9 g/t Pd+Pt+Au (excluding quartz vein hosted gold samples).

In addition to work at the BP-1 location, rock sampling along the gabbro indicated an additional 11 areas of anomalous Ni-Cu-(PGE) mineralization on the current property.

In 1989 BPRC shifted their focus to other properties and in 1992 terminated minerals exploration activities in Canada.

In 1987 Mr. R. Stringer staked 11 claims adjoining the eastern boundary of the BPRC claims, and contracted with Aerodat Limited for an AMAG and AVLF survey, which ties onto the BPRC airborne survey.

In 1988, Mr. D. Brunne and Mr. F. Racicot mapped and sampled 11 claims in the eastern claim block and completed limited MAG and VLF-EM surveys over the southern portion of the claims. Limited surface sampling yielded encouraging PGE values of 5 g/t Pd+Pt+Au at the AN-2 location and 2 g/t Pd+Pt+Au at the AN-4 location.

In 1989 Mr. R. Stringer transferred a 50% interest in the eastern claim block to Mr. D. Brunne. In the same year, mapping and additional sampling by Mr. Brunne at the AN-4 (Tr-4) location resulted in the discovery of 3.2 g/t Pt+Pd+Au in a grab sample.

In 1990, a mechanical stripping and channel sampling program was executed at the BP-1, AN-2, AN-3, AN-4 (Tr-4) locations. At the AN-2 showing, 102 surface samples were collected. Analyses revealed 20



samples contained > 1 g/t Pd, 4 samples contained > 1 g/t Pt and 2 samples contained > 1 g/t Au. A 1 m long sample returned a value of 0.65 g/t Pd, 0.27 g/t Pt and 0.21 g/t Au. At the AN-3 showing 88 channel samples and 8 grab samples were collected. Analyses revealed 8 samples contained > 1 g/t Pd, 1 sample contained >1 g/t Pt and 1 sample contained > 1 g/t Au. At the AN-4 location excavation of a trench returned values in excess of 3 g/t Pt+Pd+Au with 8 (19.5%) of the 41 samples yielded values > 1 g/t Pd.

In 1993 Mr. Brunne and Mr. Stringer conducted additional mechanical stripping and sampling at the BP-1 and Malachite Pit locations for Ni-Cu-(PGE) mineralization and at the Rainbow locations for Au. A total of 59 grab and 23 channel samples were collected at the Malachite Pit location. Three grab samples returned values greater than 1 g/t Pd.

In 1994 Mr. Brunne and Mr. Stringer completed additional mechanical stripping, mapping and sampling at the BP-1 location. One grab sample returned a value of 5 g/t Pt+Pd+Au.

In 1999 Mr. Brunne completed 134.1 m of diamond drilling at the BP-1 and AN-3 locations. DDH CAS 99-01 (73.15 m) was completed under a trench at the BP-1 location. While the hole stopped short of the target values of 1.1 g/t Pd, 0.5 g/t Pt and 0.5 g/t Au were obtained over a core length of 0.98 m. DDH CAS 99-03 (60.96 m) completed at the AN-3 location did not return any significant PGE values.

Individual zones of Ni-Cu-(PGE) and Au mineralization are described in the following sections, commencing with the eastern block of claims.

6.1.1 BP-1 Zone

The BP-1 site is located in the south central part of claim 1237515, approximately 1200 m east of the Upsala gold occurrence (Figure 3). Medium grained Casson Lake Gabbro containing 2-3% disseminated chalcopyrite and pyrrhotite hosts the Cu-Ni-(PGE) mineralization. This mineralization occurs in the northern part of the gabbro in close proximity to the large body of Sudbury type breccia that transects the sedimentary stratigraphy. At this site 3 varieties of gabbro can be distinguished: (a) medium grained leucogabbro/diorite, (b) coarse-grained pegmatitic hornblende gabbro, (c) amphibolitic (tremolite) melanogabbro. All varieties contain about 1-3% disseminated sulphides, with associated PGE mineralization. It is reputed that a 2 m wide shear zone accompanied by quartz veining containing Au and Ag values traverses the PGE showing (Curtin drilling 1960-61).

The Cu-Ni mineralization potential was tested by 3 DDHs in 1973-74 by Mattagami Lake Mines Ltd. However the assays are not available. The Cu-Ni mineralization was further tested by Curtin Mines in 1979-80 with DDH 79-2, which intersected 0.51% Cu and 0.20% Ni over 23.5 m (core length). Drill hole V74-11 by BPRC twinned this hole and reported assays of 1.36 g/t Pd, 0.38 g/t Pt, 0.35 g/t Au over 3 m (core length). BPRC also collected 172 surface samples from 8 trenches in the vicinity of the drilling. The Pd:Pt ratio at this site ranges from 1:1 to 4:1 with an average of 2.2:1, and the maximum reported values are 4.42 g/t Pd and 1.07 g/t Pt. Additional analyses of the analytical data suggests that PGE values have a high degree of correlation with Cu values. Also, anomalous PGE, Au, Cu and Ni values all tend to occur together. The analytical results obtained from the surface samples are listed below.

Table 2 BP-1 Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
3394	grab	4.418	1.072	1.439	0.410	0.085
3395	grab	1.779	0.400	0.107	0.189	0.059
3396	grab	1.370	0.282	0.174	0.650	0.064
3397	grab	1.821	0.207	0.538	0.407	0.107
3398	grab	3.229	0.327	1.094	0.634	0.084
3411	grab	0.437	0.269	0.241	0.400	0.077

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
3412	grab	0.275	0.176	0.137	0.255	0.078
3413	grab	0.711	0.301	0.128	0.437	0.038
3414	grab	0.876	0.305	1.051	0.240	0.034
3420	grab	0.905	0.351	0.428	0.440	0.048
3421	grab	1.160	0.444	0.361	0.439	0.059
3422	grab	0.674	0.177	0.097	0.179	0.056
3423	grab	1.275	0.436	0.316	0.415	0.160
3424	grab	0.807	0.271	0.307	0.368	0.086
3425	grab	0.851	0.349	0.225	0.351	0.107
3426	grab	1.419	0.614	0.433	1.006	0.284
3471	grab	0.797	0.276	0.180	0.229	0.078
3472	grab	0.933	0.409	0.323	0.394	0.059
3473	grab	1.283	0.629	0.504	0.434	0.037
3464	grab	1.668	0.323	0.259	0.072	0.018
3465	grab	0.083	0.021	0.014	0.022	0.006
3466	grab	0.040	0.017	0.007	0.014	0.005
3467	grab	0.991	0.191	0.136	0.092	0.035
3468	grab	0.919	0.169	0.134	0.080	0.037
3469	grab	1.256	0.239	0.153	0.092	0.012
3470	grab	0.130	0.028	0.010	0.017	0.008
3427	grab	0.753	0.359	0.303	0.546	0.158
3428	grab	0.813	0.385	0.182	0.463	0.159
3429	grab	1.133	0.483	0.740	0.701	0.157
3430	grab	0.895	0.433	0.228	0.548	0.173
3431	grab	1.042	0.511	0.352	0.593	0.209
3432	grab	1.273	0.662	0.352	0.924	0.338
3433	grab	1.338	0.521	0.226	0.522	0.187
3434	grab	0.773	0.603	0.254	0.806	0.051
3435	grab	0.601	0.248	0.243	0.492	0.101
3436	grab	0.607	0.214	0.133	0.384	0.091
3437	grab	0.894	0.331	0.177	0.452	0.164
3438	grab	0.583	0.231	0.128	0.672	0.101
3439	grab	0.978	0.311	0.156	0.490	0.098
3440	grab	0.877	0.284	0.663	0.362	0.086
3441	grab	0.933	0.471	0.773	0.656	0.214
3442	grab	0.912	0.454	0.367	0.579	0.243
3443	grab	1.035	0.517	0.334	0.660	0.269
3444	grab	0.628	0.287	0.213	0.538	0.201
3445	grab	0.615	0.268	0.187	0.508	0.172
3446	grab	0.576	0.261	0.201	0.490	0.173
3447	grab	0.707	0.308	0.226	0.556	0.134
3448	grab	0.583	0.277	0.271	0.482	0.126
3449	grab	0.473	0.221	0.120	0.476	0.102
3450	grab	0.586	0.221	0.135	0.386	0.109
3451	grab	0.725	0.269	0.223	0.464	0.168
3452	grab	0.877	0.312	0.148	0.436	0.156
3453	grab	1.535	0.651	0.476	0.984	0.283
3454	grab	1.309	0.535	0.369	0.822	0.325
3455	grab	1.363	0.555	0.411	0.780	0.321
3456	grab	1.523	0.591	0.618	0.950	0.318

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
3457	grab	1.081	0.365	0.358	0.508	0.193
3458	grab	0.974	0.400	0.309	0.484	0.146
3459	grab	1.270	0.563	1.788	1.160	0.264
3481	grab	1.083	0.476	0.426	0.681	0.208
3482	grab	1.422	0.678	0.416	0.720	0.259
3483	grab	0.919	0.402	0.193	0.657	0.186
3488	grab	0.751	0.319	0.244	0.363	0.099
3489	grab	0.936	0.409	0.374	0.473	0.077
3485	grab	0.974	0.346	0.195	0.332	0.107
3486	grab	0.942	0.354	0.224	0.398	0.186
3487	grab	1.244	0.557	0.373	0.658	0.056
3496	grab	0.791	0.353	0.312	0.218	0.078
3531	grab	0.506	0.359	0.347	0.297	0.063
3532	grab	0.509	0.303	0.294	0.498	0.137
3533	grab	0.556	0.391	0.234	0.528	0.182
3534	grab	0.714	0.468	0.261	0.441	0.125
3535	grab	0.564	0.400	0.276	0.545	0.156
3536	grab	0.632	0.437	0.343	0.893	0.146
3537	grab	0.339	0.236	0.121	0.244	0.101
3538	grab	0.641	0.454	0.237	0.706	0.159
3539	grab	0.701	0.452	0.208	0.531	0.201
3540	grab	0.505	0.341	0.188	0.513	0.162
3541	grab	0.479	0.342	0.127	0.311	0.160
3542	grab	0.561	0.309	0.157	0.507	0.114
3543	grab	0.430	0.329	0.178	0.406	0.124
3544	grab	0.391	0.273	0.154	0.301	0.124
3545	grab	0.293	0.188	0.154	0.211	0.097
3546	grab	0.392	0.255	0.148	0.281	0.112
3547	grab	0.483	0.314	0.188	0.448	0.143
3548	grab	0.548	0.385	0.252	0.615	0.093
3549	grab	0.432	0.276	0.153	0.329	0.087
3550	grab	0.318	0.222	0.150	0.259	0.064
3551	grab	0.736	0.451	0.149	0.406	0.125
3552	grab	0.798	0.513	0.206	0.525	0.204
3553	grab	0.589	0.357	0.190	0.588	0.159
3554	grab	0.547	0.371	0.293	0.526	0.167
3555	grab	0.610	0.372	0.193	0.398	0.212
3556	grab	0.735	0.398	0.175	0.351	0.154
3557	grab	0.736	0.462	0.169	0.409	0.175
3558	grab	0.581	0.388	0.141	0.407	0.138
3559	grab	0.517	0.331	0.161	0.293	0.088
3560	grab	0.599	0.425	0.283	0.480	0.158
3561	grab	0.676	0.560	0.244	0.481	0.189
3562	grab	0.702	0.471	0.321	0.571	0.145
3563	grab	0.770	0.465	0.297	0.619	0.195
3564	grab	0.689	0.533	0.360	0.591	0.195
3565	grab	0.644	0.433	0.271	0.514	0.119
3566	grab	0.657	0.414	0.157	0.545	0.153
3567	grab	0.335	0.252	0.118	0.278	0.099
3568	grab	0.011	0.016	0.002	0.011	0.007

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
3569	grab	0.124	0.093	0.032	0.069	0.027
3570	grab	0.007	0.009	0.006	0.015	0.004
3515	grab	1.107	0.454	0.339	0.370	0.127
3516	grab	1.089	0.486	0.203	0.406	0.173
3517	grab	1.201	0.651	0.342	0.222	0.068
3518	grab	1.240	0.580	0.264	0.291	0.117
3519	grab	0.914	0.501	0.119	0.445	0.044
3520	grab	1.360	0.626	0.364	0.859	0.204
3521	grab	0.953	0.457	0.379	0.455	0.122
3522	grab	1.040	0.641	0.479	0.598	0.066
3523	grab	0.471	0.230	0.111	0.188	0.085
3524	grab	0.798	0.458	0.754	0.852	0.146
3525	grab	1.195	0.603	0.335	0.543	0.135
3526	grab	0.828	0.447	0.231	0.678	0.089
3527	grab	1.004	0.493	0.383	0.740	0.181
3528	grab	0.709	0.338	0.270	0.299	0.126
3529	grab	0.387	0.161	1.125	0.176	0.075
3530	grab	0.650	0.434	0.174	0.597	0.077
3479	grab	1.467	0.481	0.196	0.364	0.175
3480	grab	1.529	0.471	0.324	1.002	0.104
3512	grab	0.584	0.202	0.464	2.000	0.064
3513	grab	0.550	0.218	0.124	0.238	0.077
3514	grab	0.930	0.371	0.129	0.425	0.077
3574	grab	0.894	0.362	0.323	0.370	0.115
3575	grab	1.012	0.441	0.545	0.534	0.132
3576	grab	0.033	0.027	0.019	0.022	0.006
3577	grab	0.016	0.020	0.009	0.024	0.005
3578	grab	0.894	0.448	0.477	0.502	0.064
3579	grab	0.432	0.192	0.144	0.164	0.045
3580	grab	0.604	0.259	0.214	0.206	0.071
3581	grab	1.475	0.657	0.481	0.792	0.197
3582	grab	0.852	0.406	0.431	0.743	0.161
3583	grab	1.327	0.665	0.708	0.803	0.229
3584	grab	1.214	0.546	0.569	0.780	0.247
3585	grab	0.955	0.515	0.340	0.639	0.141
3586	grab	0.691	0.301	0.258	0.430	0.143
3587	grab	1.265	0.572	0.502	0.724	0.272
3588	grab	0.476	0.219	0.162	0.351	0.109
3589	grab	1.006	0.503	0.548	0.636	0.209
3590	grab	1.195	0.593	0.471	0.651	0.208
3591	grab	0.637	0.277	0.239	0.338	0.120
3592	grab	1.449	0.594	0.386	0.496	0.199
3593	grab	1.212	0.548	0.491	0.668	0.232
3594	grab	0.972	0.460	0.341	0.612	0.174
3595	grab	0.425	0.238	0.171	0.233	0.069
3596	grab	0.783	0.415	0.220	0.396	0.129
3597	grab	1.244	0.555	0.726	0.878	0.169
3598	grab	1.319	0.638	0.552	0.649	0.236
3599	grab	0.615	0.347	0.215	0.346	0.128
3600	grab	0.728	0.312	0.241	0.311	0.104

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
3601	grab	1.182	0.449	0.412	0.801	0.212
3602	grab	1.344	0.509	0.488	0.898	0.288
3603	grab	1.180	0.474	0.408	0.766	0.233
3604	grab	1.011	0.398	0.377	0.738	0.192
3605	grab	0.707	0.276	0.216	0.375	0.140
3606	grab	0.696	0.274	0.247	0.515	0.132
3607	grab	0.179	0.081	0.112	0.219	0.052
3608	grab	0.994	0.384	0.421	0.667	0.215
3609	grab	1.113	0.440	0.290	0.567	0.193
3490	grab	0.004	0.005	0.007	0.009	0.006
3491	grab	0.001	0.005	0.002	0.023	0.006
3492	grab	0.160	0.074	0.106	0.063	0.031
3493	grab	0.163	0.061	0.169	0.078	0.025
3494	grab	1.123	0.371	0.352	0.386	0.088
3571	grab	0.732	0.507	0.318	0.601	0.178
3572	grab	0.483	0.342	0.198	0.461	0.155

Diamond drilling by BPRC included 6 DDHs (898 m) in a scissor array. The most intense Ni-Cu-(PGE) mineralization was encountered in DDH 74-11, where a 13 m intersection (core length) returned values of 0.9 g/t Pd, 0.3 g/t Pt, 0.5 g/t Au, 0.3% Cu and 0.1% Ni (Figure 3).

In 1999, Mr. Brunne drilled a 73.15 m hole (CAS 99-01) in hopes of duplicating a reputed 12 g/t Pd+Pt+Au over 1 m intersection previously drilled by BPRC. The hole encountered anomalous PGE values from 55.4 to 73.15 m (end of hole), with a best value of 2.1 g/t Pd+Pt+Au over 0.96 m (core length).

6.1.2 BP-B/G Zone

The B / G Zone discovered by BPRC is located on claim 1179658, and is hosted in the northern part of the Casson Lake Gabbro. The site is located on L 30+00E, approximately 550 m east of the BP-1 site (Figure 3). Rock sampling by BPRC indicated anomalous PGE values as listed in the following table.

Table 3 BP-B/G Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt(g/t)	Au (g/t)	Cu (%)	Ni (%)
3380	grab	0.460	0.161	0.126	0.124	0.032
3381	grab	0.372	0.124	0.116	0.160	0.053
3382	grab	0.178	0.061	0.049	0.050	0.023
3383	grab	0.516	0.177	0.159	0.213	0.070
3384	grab	0.588	0.204	0.210	0.241	0.059
3385	grab	0.768	0.257	0.267	0.343	0.123
3389	grab	1.372	0.195	0.137	0.164	0.077
3390	grab	0.513	0.159	0.136	0.149	0.045
3391	grab	0.330	0.098	0.086	0.086	0.033
3392	grab	0.557	0.152	0.098	0.078	0.075
3393	grab	0.483	0.162	0.127	0.216	0.076
3634	grab	0.452	0.145	0.285	0.137	0.034
3635	grab	0.347	0.120	0.076	0.156	0.052
Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
3636	grab	0.356	0.127	0.098	0.155	0.062

3637	grab	0.155	0.064	0.056	0.093	0.022
3638	grab	0.583	0.202	0.131	0.140	0.051
3645	grab	0.069	0.052	0.040	0.087	0.026
3646	grab	0.135	0.091	0.083	0.153	0.039
3647	grab	0.141	0.107	0.093	0.233	0.049
3648	grab	0.142	0.118	0.101	0.260	0.066
3649	grab	0.176	0.135	0.128	0.287	0.073
3650	grab	0.119	0.116	0.073	0.222	0.022
3651	grab	0.202	0.164	0.109	0.309	0.091
3652	grab	0.139	0.108	0.099	0.269	0.064

BP DDH 74-5 drilled 360° at –45° under the eastern portion of the surface showing returned a best intersection of 0.48 g/t Pd and 0.95 g/t Pt over 1 m in the interval 138-139 m (core length). However the DDH did not test the contact between the gabbro and the sediments as indicated in the drill log. Plotting of the mapped sedimentary contact on adjacent lines and the trace of the drill hole suggest that the gabbro dips to the north at this location.

6.1.3 BP- LINE 33E Zone]

The Line 33E Zone discovered by BPRC is located on claim 1179658, and hosted in the northern part of the Casson Lake Gabbro. The site is located on L 33+00E, approximately 850 m east of the BP-1 site, and 300 m east of the BP-B/G Zone (Figure 3). Rock sampling by BPRC indicates weakly anomalous Ni-Cu-(PGE) values as listed in the following table.

Table 4 BP-Line 33E Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
3734	grab	0.047	0.101	0.026	0.026	0.014
3735	grab	0.104	0.316	0.084	0.131	0.048
3736	grab	0.242	0.813	0.260	0.306	0.123
3737	grab	0.136	0.358	0.159	0.123	0.044
3738	grab	0.156	0.470	0.141	0.149	0.059
3739	grab	0.169	0.480	0.103	0.139	0.064
3740	grab	0.154	0.347	0.108	0.123	0.050
3741	grab	0.099	0.224	0.074	0.057	0.038
3742	grab	0.041	0.081	0.023	0.028	0.013
3743	grab	0.136	0.353	0.109	0.082	0.044
3744	grab	0.049	0.104	0.030	0.038	0.014
3745	grab	0.055	0.062	0.029	0.062	0.020

BPRC DDH 74-6 drilled 360° at –45° under the surface showing returned a best intersection of 0.29 g/t Pd and 0.048 g/t Pt along with 0.02% Cu and 0.016% Ni over 4 m (core length) in the interval 127-131 metres. The DDH did not extend far enough to test the sediment-gabbro contact. A plot of the IP/RES coverage for this line and the trace of the drill hole suggest that the strongest IP response remains untested.

6.1.4 Line 34E Zone

The Line 34E Zone discovered by BPRC is located on claim 1179658, and hosted in the northern part of the Casson Lake Gabbro. The site is located on L 34+00E, approximately 950 m east of the BP-1 site, and 400 m east of the BP-B/G Zone (Figure 3). Rock sampling by BPRC indicates weakly anomalous Ni-Cu-(PGE) values as listed in the following table.

Table 5 BP-Line 35E Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
3716	grab	0.140	0.067	0.039	0.072	0.025
3717	grab	0.144	0.082	0.054	0.061	0.025
3718	grab	0.217	0.118	0.104	0.168	0.052
3719	grab	0.312	0.190	0.133	0.254	0.060
3720	grab	0.563	0.165	0.312	0.210	0.820
3721	grab	0.256	0.094	0.064	0.099	0.390

The depth extension of this mineralization has not been tested with diamond drilling

6.1.5 Line 36+50 E Zone

The Line 36E Zone discovered by BPRC is located on claim 1179658, and hosted in the northern part of the Casson Lake Gabbro. The site is located on L 36+00E, approximately 1050 m east of the BP-1 site, and 400 m east of the BP-B/G Zone (Figure 3). Rock sampling by BPRC indicates anomalous PGE values as listed in the following table.

Table 6 BP-Line 36E Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
3752	grab	0.820	0.208	0.270	0.240	0.790
3753	grab	0.615	0.155	0.202	0.183	0.670
3754	grab	0.247	0.081	0.068	0.061	0.310
3755	grab	0.112	0.56	0.026	0.182	0.085
3756	grab	0.567	0.114	0.139	0.985	0.510
3757	grab	0.063	0.019	0.013	0.249	0.083

The depth extension of this mineralization has not been tested with diamond drilling

6.1.6 BP-North Bousquet Zone

The North Bousquet Zone discovered by BPRC is located on claim 1179658, and hosted in the northern part of the Casson Lake Gabbro. The site is located on L 40+00E, approximately 1,550 m east of the BP-1 site, and 700 m east of the BP-B/G Zone (Figure 3). Rock sampling by BPRC indicates potentially economic Ni-Cu-(PGE) values as listed in the following table.

Table 7 BP-North Bousquet Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
3815	grab	1.340	0.520	0.450	0.483	0.151
3816	grab	0.161	0.098	0.050	0.024	0.012
3817	grab	0.414	0.122	0.080	0.060	0.025
3818	grab	2.489	0.401	0.335	0.029	0.051

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
3819	grab	0.725	0.194	0.161	0.098	0.066
3820	grab	0.173	0.138	0.094	0.336	0.081
3858	grab	1.938	0.377	0.462	0.296	0.079

Drill hole 74-7 drilled 180° at –45° under the surface mineralization returned a best intersection of 0.134 g/t Pd and 0.109 g/t Pt with 0.176% Cu and 0.06% Ni over 4 m (core length) that appears to correlate with a vertical projection of the surface mineralization. This hole also intersected a 1 m core length interval containing 20 g/t Au.

6.1.7 BP-5 Zone

The BP-5 Zone discovered by BPRC is located on claim 1179658, and hosted in the northern part of the Casson Lake Gabbro. The site is located on L 48+75E, approximately 2.43 km east of the BP-1 site, and 875 m east of the North Bousquet Zone (Figure 3). Rock sampling by BPRC indicates potentially economic Ni-Cu-(PGE) values as listed in the following table.

Table 8 BP-5 Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
1450	grab	1.896	0.445	0.258	0.307	0.121
1454	grab	1.241	0.504	0.757	0.509	0.041
1455	grab	0.928	0.505	0.146	0.054	0.043
1456	grab	0.199	0.057	0.043	0.103	0.023
1457	grab	0.748	0.239	0.325	0.103	0.053
1458	grab	0.828	0.566	0.211	0.208	0.103
1459	grab	0.383	0.218	0.128	0.183	0.051
1460	grab	1.285	0.489	0.651	0.575	0.028
1461	grab	1.095	0.435	0.430	1.04	0.151
1462	grab	1.077	0.780	0.337	0.546	0.084
1463	grab	2.083	0.749	0.324	0.958	0.090
1464	grab	1.124	0.563	0.250	0.715	0.085
1466	grab	1.164	0.470	0.345	0.393	0.105
1467	grab	0.469	0.195	0.117	0.222	0.079
1472	grab	1.279	0.244	0.163	0.076	0.058
1476	grab	1.044	0.487	0.322	0.350	0.161
1477	Grab	1.714	0.740	0.429	0.792	0.068

Drill hole 74-8 drilled 180° at –45° beneath this mineralized zone and returned a best intersection of 0.40g/t Pd, 0.09 g/t Pt, 0.05% Cu and 0.03% Ni over 5 m (core length). The Au content was negligible.

6.1.8 BP-6 Zone

The BP-6 Zone discovered by BPRC is located on claim 1179658, and hosted in the northern part of the Casson Lake Gabbro. The site is located on L 50+50E, approximately 2.6 km east of the BP-1 site, and 175 m east of the BP-5 Zone (Figure 3). Rock sampling by BPRC indicates potentially economic Ni-Cu-(PGE) values as listed in the following table.

Table 9 BP-6 Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
4313	grab	2.428	0.528	0.768	0.701	0.168
4314	grab	1.296	0.313	0.509	0.488	0.106
4315	grab	1.077	0.282	0.386	0.355	0.044
4323	grab	1.377	0.306	0.338	0.434	0.131
4324	grab	1.039	0.244	0.316	0.226	0.073
4325	grab	1.107	0.259	0.341	0.369	0.103
4326	grab	1.879	0.423	0.542	0.209	0.043
4327	grab	1.248	0.293	0.292	0.302	0.143
4328	grab	1.643	0.442	0.544	0.268	0.058
4329	grab	1.307	0.324	0.324	0.296	0.103
4330	grab	0.435	0.161	0.109	0.120	0.047
4331	grab	0.278	0.092	0.063	0.086	0.036

Drill hole 74-9 drilled 180° at -45° beneath this mineralized zone and returned a best intersection of 0.32 g/t Pd, 0.11 g/t Pt, 0.09 g/t Au, 0.14% Cu and 0.06% Ni over 14 m (core length). The best individual value is 1.00 g/t Pd, 0.30 g/t Pt, 0.13 g/t Au, 0.35% Cu and 0.06% Ni over 1 m (core length).

6.1.9 BP-7 Zone

The BP-7 Zone discovered by BPRC is located on claim 1179658, and hosted in the northern part of the Casson Lake Gabbro. The site is located on L 53+00E, approximately 2.9 km east of the BP-1 site, and 250 m east of the BP-6 Zone (Figure 3). Rock sampling by BPRC indicates potentially economic Ni-Cu-(PGE) values as listed in the following table.

Table 10 BP-7 Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
4373	grab	3.629	0.702	0.664	0.257	0.063
4374	grab	0.989	0.336	0.265	0.264	0.092
4375	grab	0.725	0.252	0.314	0.297	0.095
4376	grab	0.585	0.240	0.154	0.192	0.083

Drill hole 74-10 drilled at 180°, -45° beneath this mineralized zone and returned negligible Ni-Cu-(PGE) and Au values, suggesting the mineralization has a shallow dip, or the mineralization is erratic.

6.1.10 BP-8 Zone

The BP-8 Zone discovered by BPRC is located on claim 1179658, and hosted in the northern part of the Casson Lake Gabbro. The site is located on L 1+00E, approximately 2.4 km west of the BP-1 site at the western edge of the property (Figure 3). Rock sampling by BPRC indicates potentially economic Ni-Cu-(PGE) values as listed in the following table.

Table 11 BP-8 Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
14949	grab	0.787	0.430	0.274	0.647	0.144
14950	grab	0.564	0.370	0.233	0.613	0.068

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
14951	grab	0.629	0.360	0.353	0.535	0.162
14952	grab	0.620	0.363	0.193	0.475	0.084
14953	grab	0.482	0.282	0.171	0.817	0.104
14954	grab	0.723	0.464	0.441	0.444	0.141
14955	grab	0.519	0.350	0.231	0.832	0.064

Drill hole 75-5 drilled 180° at –45° tested this mineralized zone and returned negligible PGE, Au, Cu and Ni values. Available data suggests that the drill hole was sited too far south to intersect the mineralization.

6.1.11 BP-9 Zone

The BP-9 Zone discovered by BPRC is located on claim 1198356, and hosted in the northern part of the Casson Lake Gabbro. The site is located on L 5+00E, approximately 1.9 km west of the BP-1 site in the western part of the property, approximately 400 m west of the BP-8 Zone (Figure 3). Rock sampling by BPRC indicates potentially economic Ni-Cu-(PGE) values as listed in the following table.

Table 12 BP-9 Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
800	grab	0.173	0.157	0.168	0.398	0.104
801	grab	0.219	0.179	0.111	0.353	0.116
802	grab	0.035	0.037	0.019	0.055	0.020
803	grab	0.434	0.265	0.150	0.277	0.103
804	grab	0.420	0.383	0.228	0.629	0.118
805	grab	0.201	0.160	0.162	0.404	0.113
3265	grab	0.067	0.035	0.041	0.125	0.043
3266	grab	0.970	0.820	0.70	0.251	0.069
3267	grab	0.126	0.094	0.103	0.284	0.091
3268	grab	0.076	0.066	0.055	0.159	0.049
3269	grab	0.154	0.127	0.121	0.308	0.104
3270	grab	0.154	0.127	0.277	0.321	0.095
3284	grab	0.138	0.102	0.134	0.391	0.087
3285	grab	0.120	0.111	0.101	0.368	0.091
3292	grab	0.533	0.292	0.119	0.389	0.103
3293	grab	0.357	0.232	0.123	0.410	0.092
3294	grab	0.129	0.113	0.068	0.169	0.049
3295	grab	0.259	0.173	0.137	0.280	0.097
3296	grab	0.108	0.072	0.073	0.168	0.049
3297	grab	0.119	0.121	0.093	0.245	0.061
3298	grab	0.083	0.075	0.065	0.155	0.047
3299	grab	0.168	0.136	0.116	0.353	0.126
3300	grab	0.164	0.128	0.113	0.318	0.099

Drill hole 75-4 drilled 180° at –45° collared in gabbro and did not test the contact between the sediments and the gabbro. Core assays returned negligible PGE, Au, Cu and Ni values.

6.1.12 BP-10 Zone

The BP-10 Zone discovered by BPRC is located on claim 1198356, and hosted in the northern part of the Casson Lake Gabbro. The site is located on L 5+00E, approximately 1.7 km west of the BP-1 site in the western part of the property, approximately 225 m west of the BP-9 Zone (Figure 3). Rock sampling by BPRC potentially economic Ni-Cu-(PGE) values as listed in the following table.

Table 13 BP-10 Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
817	grab	1.919	0.425	0.626	0.574	0.268
818	grab	2.064	0.504	0.892	0.839	0.281
857	grab	0.183	0.070	0.063	0.098	0.025
858	grab	1.582	0.436	0.432	0.416	0.210
859	grab	1.196	0.342	0.397	0.427	0.193
860	grab	0.232	0.076	0.069	0.099	0.035
861	grab	0.713	0.214	0.328	0.408	0.101

Drill hole 75-3 drilled 180° at –45° tested this mineralized zone and returned negligible PGE, Au, Cu and Ni values. This suggests that the mineralization is either shallow dipping, or the mineralization is erratically distributed.

6.1.13 BP-11 Zone

The BP-11 Zone discovered by BPRC is located on claim 1198356, and hosted in the northern part of the Casson Lake Gabbro. The site is located on L 8+25E, approximately 1.6 km west of the BP-1 site in the western part of the property, 100 m west of the BP-10 Zone (Figure 3). Rock sampling by BPRC indicates weakly anomalous Ni-Cu-(PGE) values as listed in the following table.

Table 14 BP-11 Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
838	grab	0.321	0.177	0.108	0.208	0.080
839	grab	0.111	0.073	0.050	0.069	0.032
840	grab	0.141	0.090	0.025	0.083	0.040
841	grab	0.164	0.106	0.071	0.103	0.039
842	grab	0.109	0.108	0.106	0.351	0.097
843	grab	0.226	0.161	0.101	0.150	0.062
844	grab	0.289	0.219	0.133	0.360	0.130

Drill hole 75-2 drilled 180° at –45° tested a 100 m interval of gabbro adjacent to the sediment contact and returned a best intersection of 0.26 g/t Pd, 0.14 g/t Pt, 0.09 g/t Au, 0.14% Cu and 0.07% Ni over 3 m (core length).

6.1.14 BP-12 Zone

The BP-12 Zone discovered by BPRC is located on claim 111054, and hosted in the northern part of the Casson Lake Gabbro. The site is located on L 9+75E, approximately 1.4 km west of the BP-1 site in the western part of the property, 150 m west of the BP-11 Zone (Figure 3). Rock sampling by BPRC indicates potentially economic Ni-Cu-(PGE) values as listed in the following table.

Table 15 BP-12 Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
1114	grab	1.504	0.335	0.336	0.335	0.181
1115	grab	1.424	0.346	0.552	0.369	0.217
1116	grab	0.292	0.177	0.106	0.237	0.081
1117	grab	0.537	0.345	0.178	0.334	0.171
1118	grab	0.368	0.258	0.113	0.302	0.079
1119	grab	0.165	0.119	0.066	0.199	0.059
1120	grab	0.304	0.322	0.163	0.3125	0.097
1121	grab	0.088	0.073	0.050	0.156	0.050
1122	grab	0.087	0.075	0.040	0.117	0.055
1123	grab	0.067	0.049	0.072	0.156	0.037

Drill hole 75-1 drilled 180° at -45° tested the sediment / gabbro contact and returned negligible PGE, Au, Cu and Ni values. This drill result suggests that the mineralization is either shallow dipping, or is erratically distributed.

6.1.15 AN-1 Zone

The AN-1 Ni-Cu-(PGE) showing is located on claim 984683, approximately 25 m northwest of the AN-2 Ni-Cu-(PGE) occurrence, along the southern shore of Casson Lake (Figure 3). It is hosted in the northern portion of the Casson Lake Gabbro, at the same stratigraphic level as the AN-4 (Tr-4) showing. It has not been explored in detail by trenching, sampling or drilling.

6.1.16 AN-2 Zone

The AN-2 Ni-Cu-(PGE) showing is located on claim 984683, immediately south of Casson Lake (Figure 3). The bedrock at this location consists of Gowganda sediments intruded by the Casson Lake Gabbro. The AN-2 showing is represented by a 6-7 m wide and 225 m long zone of medium grained leucogabbro containing 3-5% disseminated chalcopyrite and pyrrhotite.

Trenching by Mr. Brunne in 1990 has resulted in a 300 m long trench oriented northeast. Detailed sampling of the two outcrops includes 90 systematically collected grab samples and a 6 m long channel sample. Analytical results of this sampling indicate potentially economic Ni-Cu-(PGE) values and are shown in the following table.

Table 16 AN-2 Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
Outcrop "K"						
11701	grab	0.027	0.025	0.020	0.009	0.012
117032	grab	0.023	0.024	0.009	0.007	0.015
11703	grab	0.282	0.180	0.096	0	0.004
11704	grab	0.066	0.053	0.057	0.096	0.018
11705	grab	0.478	0.264	0.338	0.200	0.088
11706	grab	0.759	0.376	0.257	0.510	0.015
11707	grab	0.206	0.121	0.072	0.170	0.057
11708	grab	0.297	0.183	0.118	0.280	0.087

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
11709	grab	0.749	0.407	0.305	0.640	0.180
11710	grab	0.709	0.333	0.282	0.580	0.170
11711	grab	0.993	0.395	0.385	0.710	0.240
11712	grab	0.876	0.358	0.387	0.750	0.220
11713	grab	0.268	0.148	0.115	0.230	0.078
11714	grab	0.604	0.366	0.295	0.450	0.120
11715	grab	0.316	0.171	0.110	0.150	0.064
11716	grab	0.460	0.257	0.143	0.260	0.077
11717	grab	0	0	0.025	0.140	0.009
11718	grab	0.311	0.142	0.112	0.140	0.064
11719	grab	0.086	0.059	0.031	0.048	0.026
11720	grab	0.587	0.358	0.200	0.160	0.083
11721	grab	0	0.015	0.008	0.260	0.011
11722	grab	1.759	0.950	0.307	0.730	0.180
11723	grab	0.097	0.053	0.055	0.310	0.020
11724	grab	0.080	0.045	0.014	0.020	0.015
11725	grab	0.137	0.066	0.033	0.034	0.027
11726	grab	0.811	0.438	0.647	0.510	0.110
11727	grab	0.445	0.300	0.265	0.240	0.013
11728	grab	0.801	0.250	0.188	0.110	0.053
11729	grab	0.426	0.155	0.095	0.097	0.064
11730	grab	0.029	0.037	0.036	0.110	0.012
11731	grab	0.057	0.043	0.027	0.049	0.018
11732	grab	0.241	0.131	0.092	0.056	0.027
Outcrop "L"						
204801	grab	0.520	0.250	0.821	0.140	0.052
204802	grab	1.540	1.032	0.316	0.300	0.072
204803	grab	1.000	0.359	0.246	0.310	0.140
204804	grab	0.953	0.340	0.268	0.330	0.140
204805	grab	1.201	0.449	0.290	0.410	0.190
204806	grab	1.876	1.338	0.687	0.730	0.310
204807	grab	1.371	0.478	0.347	0.370	0.140
204808	grab	1.239	0.453	0.295	0.340	0.820
204809	grab	1.545	1.085	0.383	0.180	0.380
204810	grab	1.624	0.505	0.455	0.460	0.190
204813	grab	0.955	0.302	0.224	0.350	0.100
204814	grab	0.471	0.211	0.187	0.180	0.076
204815	grab	0.504	0.218	0.160	0.190	0.083
204816	grab	0.896	0.295	0.225	0.280	0.094
204817	grab	1.032	0.321	0.265	0.300	0.140
204818	grab	1.418	0.460	0.370	0.440	0.170
204819	grab	0.786	0.265	0.234	0.260	0.099
204820	grab	0.228	0.171	0.059	0.029	0.016
204821	grab	0.177	0.102	0.054	0.064	0.032
204822	grab	0.940	0.282	0.159	0.150	0.087
204823	grab	0.282	0.130	0.079	0.120	0.065
204824	grab	1.027	0.404	0.251	0.260	0.100
204825	grab	0.836	0.337	0.239	0.300	0.085
204826	grab	0.203	0.074	0.064	0.110	0.052
204827	grab	0.423	0.190	0.171	0.140	0.056

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
204828	grab	1.716	0.950	0.672	0.420	0.120
204829	grab	0.983	0.306	0.289	0.320	0.120
204830	grab	2.271	1.197	0.764	0.610	0.150
204831	grab	1.575	0.466	1.764	0.840	0.340
204832	grab	0.714	0.257	0.162	0.300	0.130
204833	grab	2.602	0.532	0.786	0.750	0.260
204834	grab	0.918	0.318	0.345	0.360	0.031
204835	grab	1.458	0.464	0.527	0.760	0.088
204836	grab	1.172	0.365	0.375	0.480	0.170
204837	grab	1.657	0.995	0.697	0.790	0.240
204838	grab	1.261	0.418	0.399	0.480	0.250
204839	grab	0.235	0.119	0.087	0.110	0.052
204840	grab	0.110	0.064	0.156	0.073	0.023
204841	grab	0.674	0.210	0.144	0.170	0.087
204842	grab	0.525	0.167	0.153	0.170	0.071
204843	grab	0.273	0.128	0.085	0.220	0.089
204844	grab	0.784	0.344	0.227	0.550	0.081
204845	grab	0.848	0.326	0.291	0.450	0.083
204846	grab	0.719	0.261	0.138	0.460	0.081
204847	grab	0.652	0.272	0.265	0.450	0.058
204848	grab	0.261	0.128	0.119	0.450	0.047
204849	grab	0.279	0.120	0.149	0.230	0.044
204850	grab	0.515	0.220	0.276	0.240	0.084
204851	grab	0.523	0.229	0.352	0.180	0.090
204852	grab	0.510	0.222	0.145	0.240	0.110
204853	grab	0.893	0.365	0.237	0.410	0.170
204854	grab	0.353	0.160	0.142	0.240	0.088
204855	grab	0.222	0.102	0.183	0.100	0.042
204856	grab	0.251	0.126	0.070	0.061	0.038
204857	grab	0.252	0.124	0.105	0.048	0.037
204858	grab	0.228	0.114	0.068	0.082	0.055
204859	grab	0.838	0.285	0.192	0.230	0.10
204860	grab	0.360	0.149	0.081	0.110	0.082
Outcrop "L"						
204789	0.5 m channel	0.433	0.188	0.170	0.200	0.084
204790	0.5 m channel	0.871	0.344	0.247	0.290	0.130
204791	0.5 m channel	0.062	0.062	0.024	0.023	0.023
204792	0.5 m channel	0.163	0.096	0.047	0.070	0.033
204793	0.5 m channel	0.137	0.072	0.037	0.049	0.032
204794	0.5 m channel	0.108	0.079	0.07	0.064	0.036
204795	0.5 m channel	0.072	0.054	0.024	0.025	0.020
204796	0.5 m channel	0.129	0.084	0.043	0.053	0.027
204797	0.5 m channel	0.144	0.082	0.041	0.044	0.035
204798	0.5 m channel	0.043	0.045	0.013	0.023	0.015
204799	0.5 m channel	0.055	0.048	1.144	0.030	0.018
204800	0.5 m channel	0.015	0.040	0.022	0.068	0.013

Inspection of the data in the above table indicated that 20 of the 90 grab samples (22%) contain more than 1 g/t Pd suggesting the presence of potentially economic PGE mineralization.

6.1.17 AN-3 Zone

The AN-3 location is on claim 984684, about 300 m west of the AN-2 location (Figure 3). The Ni-Cu-(PGE) mineralization occurs within a brecciated pegmatitic gabbro layer containing irregular masses of actinolite and tremolite. A small chrome-rich ultramafic horizon, or an xenolith (1300-5100 ppm Cr) containing Ni-Cu-(PGE) mineralization is located within the pegmatoidal gabbro. The rock types and element associations is similar to the “discordant pipe” deposits at Mooihoek and Driekop in the Bushveld Complex. The thickness of the pegmatoidal layer is considered to be in excess of 10 m or 30 m, depending upon the orientation of the differentiated gabbroic units. In 1995 Mr. Brunne collected 90 channel samples (0.5 m long) from an area measuring about 37 m by 70 m, which are listed in the following table.

Table 17 AN-3 Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
<u>Channel A</u>						
204707	0.5 m channel	0.020	0.025	0.006	0.160	0.071
204708	0.5 m channel	0.020	0.025	0.006	0.089	0.076
204709	0.5 m channel	0.033	0.032	0.009	0.100	0.090
204710	0.5 m channel	0.025	0.027	0.001	0.160	0.007
204711	0.5 m channel	0.022	0.034	0.007	0.130	0.011
204712	0.5 m channel	0.047	0.033	0.006	0.190	0.017
204713	0.5 m channel	0.038	0.033	0.006	0.120	0.016
204714	0.5 m channel	0.076	0.052	0.007	0.130	0.013
204715	0.5 m channel	0.183	0.063	0.011	0.330	0.011
204716	0.5 m channel	0.128	0.061	0.012	0.110	0.015
204717	0.5 m channel	0.077	0.064	0.009	0.210	0.008
204718	0.5 m channel	0.119	0.073	0.015	0.320	0.006
204719	0.5 m channel	0.148	0.069	0.015	0.390	0.009
204720	0.5 m channel	0.016	0.036	0.007	0.130	0.017
204721	0.5 m channel	0.016	0.027	0.007	0.055	0.018
204722	0.5 m channel	0.011	0.028	0.015	0.170	0.024
204723	0.5 m channel	0.011	0.026	0.001	0.029	0.019
204724	0.5 m channel	0.012	0.021	0.001	0.025	0.007
204725	0.5 m channel	0.001	0.017	0.001	0.041	0.004
<u>Channel B</u>						
204726	0.5 m channel	0.032	0.067	0.173	0.180	0.036
204727	0.5 m channel	0.047	0.042	0.034	0.110	0.032
204728	0.5 m channel	0.111	0.044	0.019	0.009	0.022
204729	0.5 m channel	0.067	0.042	0.010	0.250	0.051
<u>Channel C</u>						
204730	0.5 m channel	0.042	0.033	0.123	0.1000	0.045
204731	0.5 m channel	0.042	0.047	0.086	0.012	0.022
204732	0.5 m channel	0.042	0.034	0.176	0.010	0.030
204733	0.5 m channel	0.025	0.045	0.137	0.017	0.058
204734	0.5 m channel	0.013	0.025	0.022	0.001	0.032
204735	0.5 m channel	0.027	0.029	0.040	0.017	0.053
<u>Channel D</u>						
204736	0.5 m channel	0.050	0.041	0.051	0.041	0.015
204737	0.5 m channel	0.400	0.131	0.122	0.080	0.044
204738	0.5 m channel	0.173	0.091	0.081	0.023	0.013
204739	0.5 m channel	0.158	0.091	0.036	0.029	0.014

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
204740	0.5 m channel	0.260	0.124	0.060	0.029	0.020
204741	0.5 m channel	0.423	0.190	0.043	0.053	0.038
204742	0.5 m channel	0.293	0.098	0.031	0.056	0.019
204743	0.5 m channel	0.268	0.121	0.050	0.020	0.029
204744	0.5 m channel	0.033	0.042	0.160	0.009	0.038
204745	0.5 m channel	0.061	0.056	0.022	0.008	0.030
204746	0.5 m channel	0.167	0.076	0.022	0.009	0.018
204747	0.5 m channel	0.031	0.025	0.008	0.005	0.031
204748	0.5 m channel	0.158	0.055	0.018	0.024	0.031
204749	0.5 m channel	0.039	0.035	0.014	0.016	0.017
204750	0.5 m channel	0.031	0.032	0.011	0.017	0.009
204751	0.5 m channel	0.029	0.026	0.013	0.018	0.012
204752	0.5 m channel	0.027	0.025	0.010	0.009	0.007
204753	0.5 m channel	0.024	0.034	0.010	0.009	0.008
204754	0.5 m channel	0.032	0.049	0.008	0.008	0.006
204755	0.5 m channel	0.030	0.037	0.006	0.007	0.007
204756	0.5 m channel	0.035	0.037	0.007	0.008	0.007
<u>Channel E</u>						
204757	0.5 m channel	0.036	0.036	0.009	0.013	0.007
204758	0.5 m channel	0.050	0.044	0.013	0.012	0.008
204759	0.5 m channel	0.037	0.035	0.010	0.017	0.010
204760	0.5 m channel	0.021	0.031	0.007	0.010	0.014
204761	0.5 m channel	0.134	0.109	0.024	0.012	0.025
<u>Channel F</u>						
204762	0.5 m channel	0.364	0.313	0.191	0.098	0.044
204763	0.5 m channel	0.781	0.349	0.301	0.160	0.072
204764	0.5 m channel	0.444	0.210	0.108	0.100	0.056
204765	0.5 m channel	0.500	0.295	0.172	0.071	0.068
204766	0.5 m channel	0.382	0.232	0.111	0.080	0.056
204767	0.5 m channel	0.047	0.075	0.014	0.015	0.081
204768	0.5 m channel	0.130	0.119	0.018	0.018	0.016
204769	0.5 m channel	0.339	0.157	0.074	0.057	0.040
204770	0.5 m channel	0.039	0.071	0.011	0.011	0.016
204771	0.5 m channel	0.208	0.084	0.021	0.020	0.014
204772	0.5 m channel	0.148	0.080	0.021	0.017	0.013
<u>Channel G-1</u>						
204773	0.5 m channel	0.358	0.169	0.067	0.038	0.029
204774	0.5 m channel	0.283	0.165	0.170	0.046	0.028
204775	0.5 m channel	0.113	0.079	0.043	0.023	0.012
204776	0.5 m channel	0.050	0.056	0.007	0.012	0.011
204777	0.5 m channel	0.160	0.068	0.021	0.016	0.027
204778	0.5 m channel	0.224	0.150	0.220	0.340	0.230
204779	0.5 m channel	4.507	3.400	0.978	0.300	0.120
<u>Channel G</u>						
2139	0.7 m channel	1.326	0.705	0.523	0.294	0.195
2140	0.5 m channel	0.549	0.310	0.181	0.099	0.093
2141	0.5 m channel	1.067	0.471	0.283	0.121	0.080
2142	0.5 m channel	0.884	0.377	0.390	0.060	0.068
2143	0.5 m channel	1.071	0.576	0.335	0.196	0.103
2144	0.5 m channel	1.842	0.667	0.304	0.257	0.123

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
2145	0.5 m channel	0.570	0.236	1.002	0.125	0.179
2146	0.4 m channel	0.904	0.233	0.283	0.075	0.136
2158	grab	0.122	0.026	0.040	0.126	0.070
2159	grab	0.550	0.234	0.193	0.171	0.136
2160	grab	0.423	0.173	0.074	0.124	0.066
2161	grab	0	0	0	0.005	0.003
2162	grab	1.309	0.545	0.264	0.287	0.236
2163	grab	2.162	0.924	0.793	0.239	0.158
2164	grab	1.236	0.591	0.958	0.262	0.083
Channel H						
204780	0.5 m channel	0.055	0.043	0.017	0.017	0.009
204781	0.5 m channel	0.049	0.041	0.011	0.013	0.018
204782	0.5 m channel	0.283	0.118	0.060	0.028	0.015
204783	0.5 m channel	0.064	0.053	0.013	0.017	0.009
204785	0.5 m channel	0.219	0.111	0.027	0.015	0.008
204786	0.5 m channel	0.216	0.156	0.057	0.023	0.012
204787	0.5 m channel	0.227	0.101	0.133	0.090	0.018
204788	0.5 m channel	0.018	0.037	0.029	0.002	0.016

Trench G1 also contains 0.27% Cr over 2.5 m, indicating the presence of chromite mineralization.

In 1999, Mr. Brunne drilled CAS 99-03 (60.96 m) under a portion of the showing. The PGE mineralization was not encountered, suggesting that perhaps the mineralization zone contains discontinuities.

6.1.18 Malachite Pit Zone

The Malachite Pit area is located on claim 984588, approximately 400 m east of the AN-1 occurrence (Figure 3). The PGE mineralization occurs within pegmatitic gabbro as very fine-grained disseminated sulphides. Mr. Brunne and Mr. Stringer initially stripped the area in 1993, with further mechanical stripping in 2000. A total of 23 channel samples (0.5m each) were taken across an 11.5 m north / south traverse in 1993. This sampling indicates that potentially economic Ni-Cu-(PGE) values are present over short intervals.

Table 18 Malachite Pit Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
195801	grab	<0.010	<0.015	0.021	0.062	0.031
195802	grab	0.058	0.055	0.108	0.240	0.043
195803	grab	0.038	0.030	0.071	0.250	0.110
195804	grab	0.065	0.052	0.148	0.410	0.170
195805	grab	<0.010	<0.015	0.007	0.020	0.021
195806	grab	0.319	0.145	0.461	0.530	0.310
195807	grab	<0.010	<0.015	0.097	0.019	0.054
195808	grab	<0.010	<0.015	0.007	0.020	0.016
195809	blast rock	0.353	0.440	0.900	4.13	0.850
195810	grab	0.017	<0.015	0.031	0.023	0.021
195811	grab	<0.010	<0.015	0.085	0.010	0.013
195812	dump rock	<0.010	<0.015	5.274	0.0015	0.170
195888	grab	<0.010	<0.015	0.010	0.075	0.003
198889	grab	<0.010	<0.015	0.030	0.360	0.002

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
195890	grab	<0.010	<0.015	0.007	0.250	0.003
195891	grab	<0.010	<0.015	0.023	0.037	0.001
195892	grab	<0.010	<0.015	<0.005	0.022	0.002
195893	grab	<0.010	<0.015	0.013	0.140	0.004
195894	grab	<0.010	<0.015	0.008	0.052	0.004
195895	grab	<0.010	<0.015	0.067	0.014	0.003
195896	grab	<0.010	<0.015	0.008	0.091	0.005
000001	grab	0.011	<0.015	0.011	-	-
000002	grab	<0.010	<0.015	0.009	-	-
000003	grab	<0.010	<0.015	0.005	-	-
000004	grab	<0.010	<0.015	0.006	-	-
000005	grab	0.105	0.049	0.034	-	-
000006	dump rock	-	-	5.881	-	-
000007	dump rock	-	-	1.079	-	-
000008	dump rock	-	-	0.435	-	-
000009	grab	-	-	0.006	-	-
000010	grab	<0.010	<0.015	0.006	-	-
000011	grab	1.219	0.563	0.462	-	-
000012	grab	0.940	0.448	0.225	-	-
000013	grab	0.012	<0.015	0.006	-	-
000014	grab	0.163	0.037	0.074	-	-
000015	grab	-	-	0.040	-	-
000016	grab	-	-	1.089	-	-
000017	grab	-	-	0.198	-	-
000018	grab	1.431	0.563	0.369	-	-
000019	grab	1.566	0.573	0.487	-	-
000020	grab	-	-	0.134	-	-
000021	grab	-	-	4.129	-	-
000022	grab	-	-	0.316	-	-
000055	0.5 m channel	-	-	0.023	-	-
000056	0.5 m channel	-	-	0.044	-	-
000057	0.5 m channel	-	-	0.026	-	-
000058	0.5 m channel			0.047	-	-
000059	0.5 m channel			<0.005	-	-
000060	0.5 m channel			0.005	-	-
000061	0.5 m channel			<0.005	-	-
000062	0.5 m channel			<0.005	-	-
000063	0.5 m channel			<0.005	-	-
000064	0.5 m channel	0.122	0.054	0.002	-	-
000065	0.5 m channel	<0.010	<0.015	<0.005	-	-
000066	0.5 m channel	<0.01	<0.015	<0.005	-	-
000067	0.5 m channel	0.028	0.019	0.010	-	-
000068	0.5 m channel	0.025	<0.015	0.009		
000069	0.5 m channel	0.242	0.181	0.097	-	-
000070	0.5 m channel	0.337	0.249	0.135	-	-
000071	0.5 m channel	0.449	0.249	0.552	-	-
000072	0.5 m channel	0.385	0.246	0.132	-	-
000073	0.5 m channel	0.478	0.310	0.124	-	-
000074	0.5 m channel	0.503	0.301	0.205	-	-
000075	0.5 m channel	0.428	0.275	0.148	-	-

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
000076	0.5 m channel	0.477	0.307	0.143	-	-
000077	0.5 m channel	0.325	0.222	0.106	-	-
195813	grab	0.228	0.113	0.181	-	-
195814	grab	0.110	0.047	0.031	-	-
195815	grab	<0.01	<0.015	0.125	-	-
195816	grab	1.303	0.266	0.433	-	-
195817	grab	1.821	0.319	0.494	-	-
195818	grab	1.164	0.218	0.299	-	-
195819	grab	0.015	<0.015	0.008		
195820	grab	0.397	0.210	0.146	-	-
195821	grab	0.070	0.042	0.026	-	-
195822	grab	0.133	0.096	0.034	-	-
195823	grab	0.013	<0.015	<0.005	-	-
195824	grab	0.035	0.025	0.019	-	-
195825	grab	<0.010	<0.015	<0.005	-	-
195826	grab	<0.010	<0.015	<0.005	-	-
195827	grab	0.011	<0.015	0.026	-	-
195828	grab	0.013	<0.015	0.020	-	-

An analysis of the data indicates 6 samples (6%) contain greater than 1 g/t Pd, suggesting the potential to discover additional quantities of potentially economic mineralization.

6.1.19 AN-4 (TR-4 Trenches)

The AN-4 location is on claim 984688, about 400 m east of the AN-2 location (Figure 3). Pegmatitic gabbro hosts the Ni-Cu-(PGE) mineralization. In 1990 Mr. Brunne trenched and collected 42 grab samples from this location. The analytical values obtained are listed in the following table and indicate the presence of potentially economic Ni-Cu-(PGE) values.

Table 19 AN-4 Zone Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
10918	grab	0.134	0.077	0.033	0.045	0.026
10919	grab	0.427	0.153	0.116	0.110	0.050
10920	grab	0.083	0.055	0.027	0.032	0.015
10921	grab	0.217	0.086	0.066	0.910	0.031
10922	grab	2.216	0.488	0.443	0.630	0.250
10923	grab	0.791	0.194	0.206	0.220	0.077
10924	grab	1.682	0.376	0.377	0.420	0.150
10925	grab	0.913	0.196	0.187	0.210	0.094
10927	grab	0.185	0.084	0.041	0.042	0.034
10928	grab	1.271	0.343	0.358	0.230	0.012
10929	grab	1.244	0.283	0.297	0.190	0.087
10930	grab	0.020	0.023	0.009	0.022	0.010
10931	grab	0.046	0.033	0.018	0.030	0.012
10932	grab	0.001	0.001	0.009	0.031	0.005
10933	grab	0.012	0.035	0.008	0.026	0.004
10934	grab	0.001	0.021	0.005	0.026	0.004
10935	grab	0.015	0.027	0.006	0.006	0.004
10936	grab	0.111	0.063	0.009	0.009	0.008

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
10937	grab	0.044	0.036	0.017	0.018	0.012
10938	grab	0.301	0.113	0.089	0.084	0.033
10939	grab	1.771	0.502	0.679	0.400	0.100
10940	grab	0.327	0.177	0.113	0.110	0.036
10941	grab	0.465	0.083	0.234	0.190	0.041
10942	grab	0.529	0.163	0.207	0.160	0.043
10943	grab	0.915	0.210	0.333	0.200	0.076
10944	grab	1.266	0.351	0.227	0.170	0.097
10945	grab	0.534	0.166	0.318	0.120	0.055
10946	grab	0.212	0.091	0.067	0.084	0.033
10947	grab	0.430	0.153	0.126	0.120	0.046
10948	grab	0.532	0.183	0.142	0.150	0.061
10949	grab	0.065	0.039	0.030	0.029	0.016
10950	grab	0.023	0.023	0.031	0.020	0.012
10951	grab	0.995	0.247	0.148	0.035	0.045
10952	grab	2.087	0.460	0.381	0.230	0.120
10953	grab	0.515	0.132	0.128	0.120	0.042
10954	grab	1.085	0.200	0.209	0.170	0.061
10955	grab	0.127	0.086	0.046	0.056	0.030
10956	grab	0.143	0.047	0.041	0.047	0.027
10957	grab	0.001	0.020	0.048	0.017	0.009
10958	grab	0.001	0.023	0.007	0.023	0.009
10959	grab	0.001	0.024	0.007	0.017	0.007
109560	grab	0.015	0.031	0.022	0.035	0.015

Of the 42 samples in the above list, 8 (19%) returned values of greater than 1 g/t Pd. One grab sample contained 2.2 g/t Pd, 0.49 g/t Pt, 0.44 g/t Au, 0.63% Cu and 0.25% Ni.

6.2 Gold Exploration

Exploration for gold in the late 1890s to the 1930s resulted in limited production from the McMillan mine in adjacent Mongowin Township, the Bousquet # 2 in Curtin Township and the Long Lake Mine in neighboring Eden Township. At the Bridger Pond location (also known as Bousquet # 1), gold was discovered in 1910-11 (Figure 3). In 1920-21, an inclined shaft was excavated to a depth of 13.4 m. Later a vertical shaft was completed to a depth of 33.5 m with 85.3 m of lateral development on the 30.5 m level). In 1953 Mr J.R. Bridger completed 326 m of diamond drilling (4 holes) at this location in a search for Au and uranium. In 1959 Mr. F.M. Mylrae further tested the gold zone with 1 additional DDH (31.4 m). Results of this drill test are unknown.

In 1930 Upsala Gold Mines, excavated a shallow shaft and an open cut on a small gold occurrence on claim 111975. In 1960-61 Aggressive Mining completed 274 m (9 DDHs) along the same quartz vein with little success. At the Bousquet # 2 location a 91.4 m vertical shaft was completed in 1929-30. In the period 1936-38 the shaft was extended to 137.2 m and 15,536 tonnes grading 9.3 g/t was mined. Immediately southeast of the current property, Howry Creek Gold Mines Limited completed a 76.2 m adit and a 15.2 m vertical shaft in 1934.

In 1993 Mr. D. Brunne and Mr. R. Stringer completed a mechanical stripping, mapping and sampling program on the Rainbow gold showings, with cursory examination of the "Location 54" site and the Bousquet West location. A grab sample returned an assay of 36.7 g/t Au from the Rainbow location. One grab sample from "Location 54" returned values of 78 ppb Au and 0.14% Cu from a diorite fragment

hosted in a large breccia zone. One grab sample from the Bousquet West site returned a value of 13 g/t Au.

In 1994 Mr. Brunne and Mr. Stringer undertook additional mechanical stripping, trenching and sampling at the Bousquet West, Rainbow and Bridger Pond locations. The Bousquet Mine shaft is approximately 400 m west of the Rainbow gold occurrence. Six grab samples containing variable amounts of arsenopyrite returned values ranging from 5.54 to 119.22 g/t Au.

In 1995 Mr. Brunne and Mr. Stringer completed additional trenching, mapping and sampling at the Rainbow location, with 1 surface sample returning a value of 43.5 g/t Au.

In 1996 grab samples collected by Cameco Gold Inc. at the Rainbow, Bridger Pond and Bousquet West confirmed the presence of gold mineralization.

In 1996 Mr. Brunne completed 66.6 m of diamond drilling at 4 sites, oriented towards testing the gold potential of the property. Diamond drill hole CAS 99-02 (20.02 m) was drilled at the Rainbow 3 location and drill hole 96-04 (12.2 m) was drilled at the Rainbow 5 location.

In 1999 Mr. Brunne complete diamond drill hole CSA 99-02 (56.08 m) at the Rainbow location beneath a surface grab sample that returned a value of 101.5 g/t Au.

6.2.1 Location 54

Location 54 is a reference to an area in the northern part of 12357515 (Harding, 1953). The brecciated bedrock at this location contains large fragments of conglomerate, quartzite, gabbro and small granitic clasts within a mylonitic mafic matrix (Sudbury type breccia). Rusty bands and patches within the clasts are attributed to disseminated pyrite. This area is also coincident with a northwest trending linear magnetic anomaly. A grab sample of the magnetic mafic matrix returned values of 78 ppb Au and 1389 ppm Cu. A PGE analysis on this sample was not completed. A petrographic description of the sample indicates chlorite-carbonate alteration of a diorite. Other analytical results obtained from grab samples at this location are shown in the following table.

Table 20. Location 54 Zone Rock Sample Analytical Results

Sample #	Sample Type	Au (g/t)	Notes
B2170	grab	0.071	medium to coarse grained slightly magnetic diorite, trace pyrite
B2171	grab	0.012	medium to coarse grained strongly magnetic diorite
B2232	grab	0.008	?

6.2.2 Black Fox Location

The Black Fox gold location (Figure 3) is in the northeast part of claim 1211238, adjacent to the northern boundary of the claim. Ancient trenches indicate that the area was prospected in the 1930s. The area is underlain by Gowganda quartzite in close proximity to the Sudbury type breccia, and about 200 m north of another old gold occurrence. A 24 m wide silicified and carbonatized alteration zone is bounded on both sides by a dark green/grey porphyritic intrusive rock. The alteration zone trends northwest, parallel to the southern margin of the nearby Sudbury type breccia. Grab samples taken across the 24 m width of the alteration zone returned values of 80 to 2878 ppb Au. PGE determinations were not completed on the samples.

6.2.3 Bousquet Gold Mine Location

The mine workings are located near the center of claim 1179658, approximately 400 m west of the Rainbow gold occurrences. At this location Gowganda sediments are intruded by the Casson Lake Gabbro. A system of quartz veins is developed along the south contact of the gabbro and also within the gabbro body. Within this system, the Rivers vein is about 1.2 m wide, 130 m long, rakes 60° east and could be followed to a depth of 137 m. Apparently gold values decreased with depth. Underground drifting on the 137 m level discovered another vein 25 m north of and parallel to the Rivers vein which assayed 5.9 g/t Au over 1.7 m, hosted with the Casson Lake Gabbro. This vein has not been mined nor further explored.

The main vein (Rivers Vein) consists of quartz with arsenopyrite, pyrite, chalcopyrite and native gold. Siderite, ankerite and calcite altered wall rocks also contain gold mineralization. Five grab samples of quartz with arsenopyrite and 1 sample of the alteration envelope (from the dump) returned high gold values shown in the following table.

Table 21 Bousquet Mine Rock Sample Analytical Results

Sample #	Sample Type	Au (g/t)	Notes
B2018	grab	119.2	massive sugary quartz, 20% arsenopyrite
B2166	grab	44.7	gray/white quartz, 70% arsenopyrite
B2167	grab	53.7	gray/white quartz, 80% arsenopyrite
B2168	grab	27.8	massive sugary white quartz, 20% arsenopyrite
B2169	grab	25.1	massive sugary white quartz, 20% arsenopyrite
B2231	grab	5.5	Rivers vein wall rock, carbonatized, 10% arsenopyrite

6.2.4 Bousquet West Location

This location on claim 1179658 is 100-150 m west of the mine site, and is located along the northeastern margin of the Sudbury type breccia. Gold mineralization is confined to albitite and ankerite alteration zones adjacent to the Sudbury type breccia. The alteration zone sampled in 1993-94 contains disseminated arsenopyrite and pyrite. The values returned in 5 grab samples are shown in the following table.

Table 22 Bousquet West Zone Rock Sample Analytical Results

Sample #	Sample Type	Au (g/t)	Notes
B2152	grab	0.67	carbonatized quartzite, 8% arsenopyrite + pyrite, trace chalcopyrite
B2153	grab	0.008	carbonatized, sheared amphibolite, 2% disseminated pyrite
B2154	grab	0.008	carbonatized, sheared amphibolite, 2% disseminated pyrite
B2155	grab	0.009	carbonatized, sheared amphibolite, 2% disseminated pyrite
B2173	grab	13	quartzite breccia with amphibolite matrix, 1% disseminated pyrite

6.2.5 Bridger Pond Location

The Bridger Pond location is in the center of claim 993985, approximately 500 m north-northeast of the AN-3 location (Figure 3). Gowganda sediments are sheared and altered by an east-west trending zone of silicification and faulting. The zone was tested over a 120 m strike length by a 13.4 m inclined shaft and

several trenches (Card, 1976), by Bousquet Mines in the 1910-11 period. In 1921 Bousquet Gold Mines limited reported an assay of 6.5 g/t Au over 5.5 m on the 30.5 m level. The drilling by Mr. Bridger in 1953 indicated values of 1.4 g/t Au over a width of 12.2 m (core interval ?) in 1 hole. Mechanical stripping by Mr. Brunne in 1994 suggests a 36.5 m wide zone of gold values over a strike length of 330 m, as listed in the following table. Grab samples collected by Cameco in 1996 are also included in the following table.

Table 23 Bridger Pond Zone Rock and Channel Sample Analytical Results

Sample #	Sample Type	Au (g/t)	Notes
North Trench			
B2027	grab	5.51	2.5 cm quartz vein, 20% arsenopyrite and minor pyrite
B2028	grab	24.55	5.0 cm quartz vein, 40% arsenopyrite
B2029	grab	1.83	2.5 cm quartz vein, 15% pyrite and minor arsenopyrite
B2030	grab	24.38	5.0 cm quartz vein, 30% arsenopyrite and minor pyrite
B2104	grab	2.31	3.2 cm quartz vein, 30% pyrite and minor hematite
B2105	grab	20.65	6.4 cm quartz vein, 40% arsenopyrite and minor pyrite
B2106	grab	33.32	2.5 cm quartz vein, 50% arsenopyrite and minor pyrite
B2107	0.5 m channel	0.09	quartzite, trace pyrite
B2108	0.5 m channel	0.03	quartzite, trace pyrite
B2109	0.5 m channel	13.55	quartzite, 3% pyrite
B2110	grab	2.23	quartzite, massive pyrite in fracture
B2111	grab	33.63	2.5 cm quartz vein, 20% arsenopyrite and minor pyrite
B2112	grab	3.05	quartzite, 10% pyrite in fractures
B2113	grab	10.30	hematized quartzite, blebs of pyrite
B2114	grab	0.06	hematized quartzite, trace pyrite
B2115	0.5 m channel	6.34	dark gray greywacke, 5% pyrite
B2116	0.5 m channel	0.37	dark gray greywacke, trace pyrite
B2117	0.5 m channel	0.08	dark gray greywacke, trace pyrite
ON346-5	grab Cameco	0.08	quartz stringers in sediment east of B2212
ON346-7	grab Cameco	0.33	sediment with quartz stringers near B2115
South Trench			
B2118	0.3 m channel	0.17	buff-brown quartzite with quartz-carbonate stringers
B2119	0.6 m channel	0.59	buff-pink quartzite, 15% arsenopyrite
B2120	0.3 m channel	0.28	buff-pink quartzite, 3% arsenopyrite and 10% pyrite
B2121	grab	8.94	1.3 cm quartz-carbonate, 50% arsenopyrite in fracture
B2122	grab	0.12	5.0 cm quartz-carbonate vein, 20% disseminated pyrite
B2123	0.5 m channel	4.37	schistose sandstone, trace pyrite
B2124	0.5 m channel	0.21	schistose sandstone, trace pyrite
B2125	0.5 m channel	0.49	schistose sandstone, trace pyrite
B2126	0.5 m channel	0.75	schistose sandstone, trace pyrite
B2127	0.5 m channel	2.21	schistose sandstone, trace pyrite
B2128	0.5 m channel	1.41	schistose sandstone, trace pyrite
B2129	0.5 m channel	1.58	schistose sandstone, trace pyrite
B2130	0.5 m channel	1.07	schistose sandstone, trace pyrite
B2131	0.5 m channel	0.94	schistose sandstone, trace pyrite
B2132	0.5 m channel	0.52	schistose sandstone, trace pyrite
B2133	0.5 m channel	1.45	schistose sandstone, trace pyrite
B2134	0.5 m channel	0.16	schistose sandstone, trace pyrite
B2135	0.5 m channel	0.27	schistose sandstone, trace pyrite
B2136	0.5 m channel	0.43	schistose sandstone, trace pyrite
B2137	0.5 m channel	0.33	schistose sandstone, trace pyrite
B2138	0.5 m channel	0.37	schistose sandstone, trace pyrite

Sample #	Sample Type	Au (g/t)	Notes
ON346-1	grab Cameco	11.59	arsenopyrite-rich rock
ON346-2	grab Cameco	1.89	sericitic sediment 3-5% arsenopyrite
ON346-3	grab Cameco	0.07	sheared sediment near B2127
ON346-4	grab Cameco	5.35	same as ON346-3 with 1 cm quartz vein
ON346-6	grab Cameco	0.39	strongly sheared sediment north of B2129

6.2.6 Rainbow 1, 2, 3, 4, 5 Location

The 5 Rainbow trenches extend over 600 m and are located in the southeast quarter of claim 1179658. Bedrock consists of Gowganda sediments and the Casson Lake Gabbro intruded by a narrow highly magnetic mafic dyke, which shows petrographic similarities with Sudbury type breccia. A 3-5 m wide alteration zone characterized by carbonatization, silicification and hematization accompanied by shearing hosts the Au mineralization. Enrichments of Cu, Ni and Co accompany the precious metal mineralization, which suggests that PGE mineralization may be present. A 12.2 m DDH (96-04) completed in 1996 by Mr. Brunne intersected 5.6 g/t Au over 1.0 m (core length) below the Rainbow 5 trench. In 1999, Mr. Brunne drilled CAS 99-02 beneath the Rainbow 3 trench from which grab samples containing up to 101.5 g/t Au. The best drill core intersection returned a value of 1.27 g/t Au over 0.23 m (core length).

Other gold values obtained in the Rainbow trenches are shown in the following tables. Samples collected by Cameco in 1996 are also included.

Table 24 Rainbow 2, 3 and 5 Zones Rock and Channel Sample Analytical Results

Sample #	Sample Type	Au (g/t)	Notes
Trench # 3			
B2147	0.5 m channel	0.17	silicified, banded, quartz-carbonate sandstone, 3% pyrite and trace hematite
B2148	0.5 m channel	0.02	silicified, carbonate banded amphibolite, 3% pyrite and trace hematite
B2149	0.5 m channel	0.01	silicified, carbonate banded amphibolite, 5% magnetite and trace pyrite
B2150	0.5 m channel	0.02	silicified, carbonate banded amphibolite, 3% pyrite and trace hematite
B2151	grab	3.18	white quartz-carbonate vein, 15-20% pyrite
B2157	grab	12.78	sugary white quartz, rusty carbonate
B2175	grab	0.69	dark green amphibolite, 1.2 cm ankerite vein, 20% chalcopyrite –magnetite
ON346-11	grab	13.03	
Trench # 5			
ON346-8	grab,Cameco	0.11	quartz-carbonate vein, 20% pyrite
ON346-9	grab,Cameco	3.33	quartz vein with pyrite from main shear
Trench # 2			
ON346-10	grab,Cameco	0.03	quartz-carbonate vein, trace pyrite

7.0 Geological Setting

7.1 Regional Geology of Southern Structural Province

The Southern Province is localized along the southern edge of the Archean age Superior Province (Figure 4). The northern contact is generally an unconformity developed upon a deformed Archean basement. The southern boundary is called the Grenville Front, a zone of metamorphic and deformational events, which separates the predominantly greenschist facies rocks of the Southern Province from the amphibolite grade gneissic terrain of the Grenville Province.

The early Aphebian (~2.45 Ga) sedimentary Huronian Supergroup rocks have the characteristics typical of deposition on a passive continental margin. Minor volcanic lithologies present within the sedimentary sequence have petrogenetic characteristic of continental volcanism. Nipissing Gabbro Intrusions (~2.22 Ga) of the Nipissing Magmatic Province (Lightfoot and Naldrett, 1996) intrude the Huronian sedimentary sequence and the underlying Archean basement rocks. In an approximate 150 km long northeast-trending linear area stretching from approximately Whitefish in the southwest to River Valley in the northeast, numerous PGE-Ni-Cu occurrences have been recorded. This trend also parallels the trajectory of the Grenville Front.

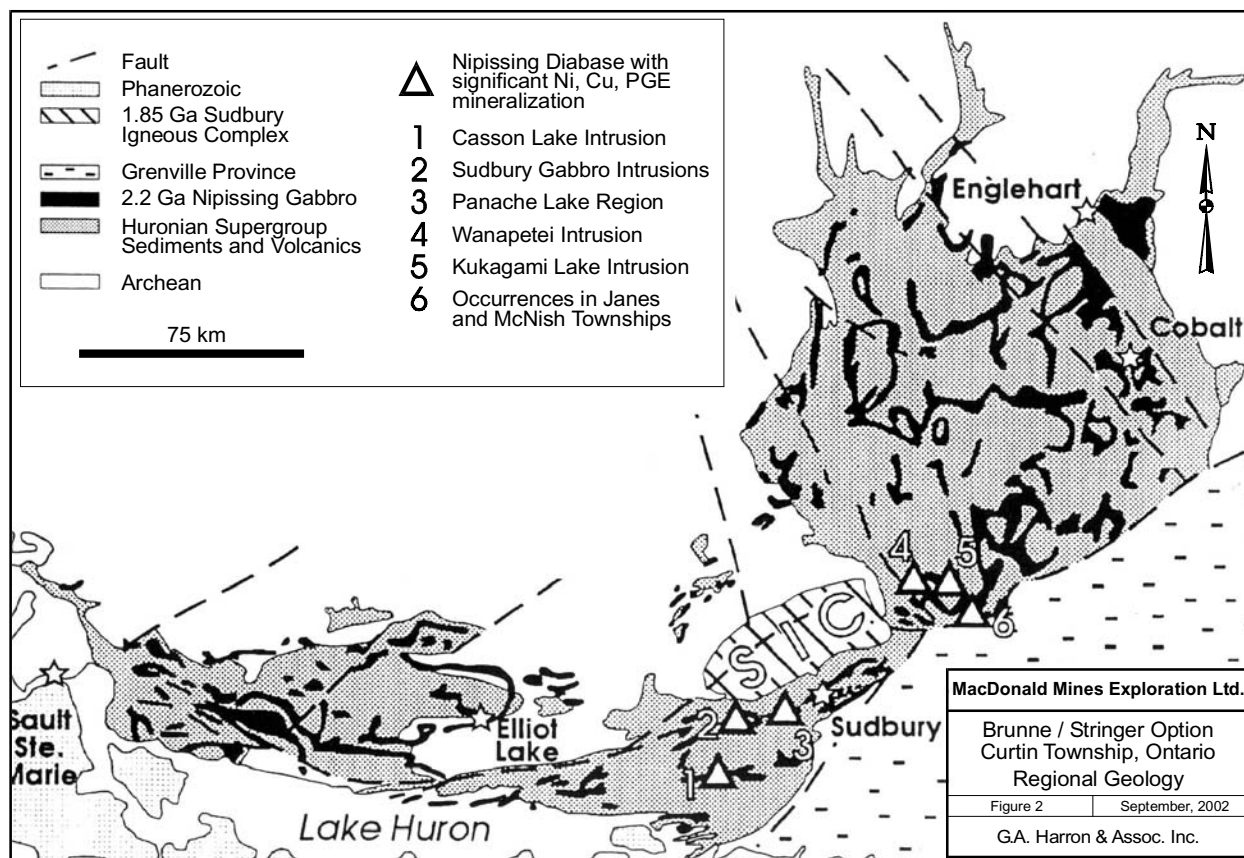
The Sudbury Igneous Complex (~1850 Ga), which is a layered intrusion and genetically related to the world class PGE enriched Ni-Cu ore deposits owned by Inco Limited and Falconbridge Limited is located in the middle of this linear 150 km long trend. While no age dates are available to demonstrate a metallogenetic relationship between the Sudbury Igneous Complex ore deposits and PGE enriched Ni-Cu mineralization associated with the Nipissing Gabbro Intrusions, such a correlation is suspected. Lode gold mineralization is probably related to a 1700 Ma hydrothermal event (Schandl et al, 1992).

7.2 Local Geology

Curtin Township was mapped in 1965-66 by the Ontario Department of Mines at a scale of 1:15,840 (Figure 5). The township is largely underlain by Paleoproterozoic Huronian Supergroup sedimentary rocks (2.45 Ga - 2.2 Ga). Huronian sedimentary rocks in the area belong to the upper part of the sedimentary sequence (Quirke Lake and Cobalt Groups). These rocks include limestone, siltstone, argillite sandstone and conglomerate deposited in a passive south-sloping continental margin setting. A 200 to 400 m wide (outcrop exposure) Nipissing gabbro intrusion (Casson Lake Gabbro), with a general east-west trend intrudes the sedimentary sequence. Later narrow amphibolite dykes (1900 Ma), with variable trends, and Sudbury swarm diabase dykes (1238 Ma), which trend southeast are common throughout the area. All lithologies exhibit greenschist facies metamorphic mineralogy.

All rock types older than the amphibolite dykes have been brecciated. Card (1976) indicates that this is probably a type of Sudbury breccia, and occurs as bodies measuring metres to kilometres in horizontal dimensions. The breccia consists of angular to rounded fragments of country rock (< 1 cm to 3 m) in a fine grained "rock flour" matrix. In places the fragments are bleached and/or have alteration rims resulting from albitization and silicification. Breccia bodies cut the early fold structures, but are affected by the second and third deformational events, and exhibit greenschist facies metamorphism.

Card (1976) suggests that the area was affected by three deformational-metamorphic events, which began prior to the intrusion of the Nipissing gabbro and ended before the intrusion of the Sudbury swarm diabase dykes. Radiometric (K/Ar) age dates on micas (Leech et al., 1963) suggest the possibility of 2 main metamorphic culminations at about 1900 Ma and 1700 Ma.

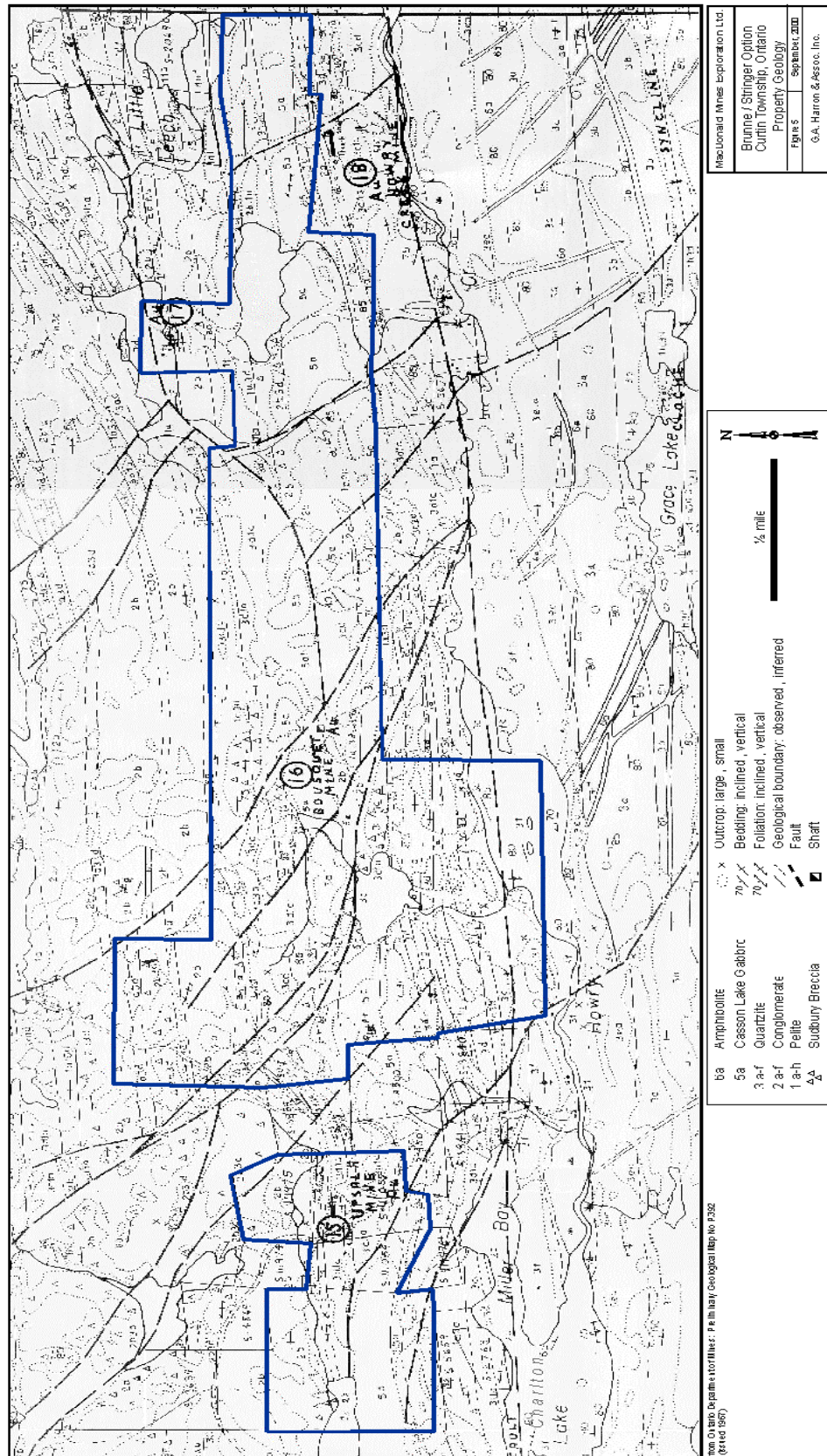


The early east-west trending folds and faults are probably the southern manifestation of the crustal scale Murray Fault Zone, which extends along the north shore of Lake Huron. Faults of this type pass to the north and south of the subject property. These near vertical faults are probably major reverse faults having a south side up sense of movement and exhibit horizontal displacements of 100s of metres (Card, 1976). The second deformational event resulted in refolding of the earlier folds about northeast-trending axes. The third deformational event resulted in northwest and northeast-trending brittle faults, which cross the area and may represent a conjugate set of dip-slip faults resulting from north-south compression (at some unspecified time).

Age dating of minerals related to sodium metasomatism (and gold deposition) in Huronian rocks indicates a hydrothermal event at 1700 Ma, which is close to the age of the Cutler and Killarney plutons (Schandl et al, 1992).

7.3 Property Geology

The geology of the property is relatively simple (Figure 5). Paleoproterozoic age Gowganda sediments composed of greywacke, argillite and conglomerate dominant the bedrock. Argillaceous units near the top and bottom of the sedimentary sequence are magnetite-rich, giving rise to positive aeromagnetic anomalies. The Gowganda sediments trend generally east and dip vertically, on the north limb of the LaCloche Syncline. The east-trending Charlton Lake Fault parallels the southern boundary of the property.



The Casson Lake Gabbro (Nipissing gabbro intrusion) intrudes the sedimentary sequence as a steeply north-dipping dyke (O.G.S., 1977, Map 2361), prior to the development of northwest-trending extensional faults. Phemister (1939) suggests that the gabbro occurs as a sill, and the mapping completed by BPRC is inconclusive. Continuity of the Casson Lake Gabbro is disrupted by northwest-trending faults, which appear to show both sinistral and dextral horizontal offsets. Likewise, the Casson Lake Gabbro is disrupted by a southeast-trending body of Sudbury type breccia. The close spatial relationship between the faults and the breccia suggests a common temporal relationship.

Structurally controlled gold mineralization on the property occurs both within the Gowganda sediments and in the Casson Lake Gabbro as sulphide-bearing quartz veins exhibiting carbonate minerals, pyrite, arsenopyrite and Na-metasomatic alteration minerals. Potentially economic Ni-Cu-(PGE) mineralization preferentially occurs in the northern third of the Casson Lake Gabbro, and may occur in the Sudbury type breccia.

7.4 Property Geophysics

In 1987, BPRC contracted Aerodat Limited to complete a combined airborne magnetic and VLF-EM survey of the western 2/3 of the present property. This survey was flown with a line spacing of 125 m in a north-south direction. An elevated magnetic response was measured over some magnetite-rich beds within the Gowganda sediments, and a relative magnetic low is associated with the Casson Lake Gabbro. Major east-west faults are not obvious in the magnetic pattern. However northwest-trending faults are distinguishable. The northwest-trending Sudbury type breccia has a moderate positive magnetic response and can be traced for several kilometres.

The anomalous AVLF responses appear to correlate with lake bottom sediments and swampy areas on the property.

Aerodat Limited also completed a similar, airborne survey over adjacent lands staked by Mr. Stringer in 1987. This survey shows much the same magnetic pattern. However, AVLF conductors appear to be associated with disseminated sulphides (PGE occurrences) at the AN-2, AN-3 and AN-4 locations.

In 1974, Mattagami Lake completed an IP/RES survey over the western 2/3 of the current property, including large areas of Gowganda sediments on both sides of the Casson Lake Gabbro. Survey specifications were $a=60$ m, $n=1,2$. The chargeability responses are mainly located in the center of the Casson Lake Gabbro and appear to be related to low volumes of pyrite and chalcopyrite as well as swampy terrane.

BPRC also conducted an IP/RES survey over selected portions of the Casson Lake Gabbro. The survey specifications were $a=25$ m and $n=1-5$. A review of the data in view of the surface sampling and correlating drill holes indicates that most Ni-Cu-(PGE) mineralization is associated with weak to moderate chargeability anomalies. In the eastern part of claim 1179658, east of the Bousquet mine and west of Casson Lake, Ni-Cu-(PGE) mineralization is associated with strong chargeability responses (BP-5, 6 Zones).

A very small IP/RES survey covered the AN-3 showing area in 1974, prior to the stripping of the AN-3 showing. The survey parameters were $a=25$ m and $n=1$. Three east-west trending parallel zones were detected, which generally coincide with the location of the Ni-Cu-(PGE) mineralization.

8.0 Deposit Type

A study of the petrology and geochemistry of the Nipissing gabbro intrusions in an area extending from Sault Ste. Marie to the Temagami and Englehart regions by Lightfoot and Naldrett (1996) documents several favourable characteristics for the occurrence of Ni-Cu-(PGE) mineralization. This study shows that both crustal contamination and fractionation cause the observed differentiation of the parental tholeiitic magma. Crustal contamination resulting in the addition of silica and sulphur to the magma is an essential step in the precipitation of PGE enriched Ni-Cu sulphide mineralization. Geochemical analyses indicate the Nipissing gabbro intrusions are enriched in SiO₂, suggesting that limited differentiation or contamination resulted in sulphur saturation of the Nipissing magma (Irvine, 1975). Moreover, the spatial distribution of the Nipissing intrusions suggests that they are the feeder system for the emplacement of a now eroded 'Continental Flood Basalt' lithology, similar to the Upper Sequence lavas of the Siberian Trap at Noril'sk and the diabase sills related to the Insizwa Complex of the Karoo Province.

The Ni-Cu dominated deposits are conveniently classified in terms of their petro-tectonic settings. Four categories account for 95% of known Ni-Cu ores (Naldrett, 1981).

- (1) Noritic rocks associated with an astrobleme. Sudbury is the only example of this type of deposit in the world.
- (2) Intrusive equivalents of flood basalts associated with intracontinental rifting. Examples include the Noril'sk Camp in Russia, East Bull Lake, Ontario, and the deposits in the Crystal Lake Gabbro along the western edge of the Duluth Complex in Minnesota.
- (3) Two types of magmatic activity associated with the development of Archean greenstone belts
 - (a) Tholeiitic intrusions hosting the Lynn Lake, Manitoba, and the Pechenga (Kola Peninsula), Russia nickel deposits.
 - (b) Komatiitic lavas and related ultramafic intrusions. Related deposits types include the Kambalda Camp in Western Australia, Raglan in the Ungava area of Quebec and the mines of the Thompson nickel belt in Manitoba.
- (4) Syn-kinematic tholeiitic intrusions within Phanerozoic orogens, such as the Rana deposit in Norway.

The Curtin Township Ni-Cu-(PGE) mineralization is associated with a Nipissing gabbro intrusion thought to be a conduit for lavas of a "Continental Flood Basalt" formation, and therefore belongs to the type 2 deposits of which Noril'sk is an example.

The Noril'sk ore deposit type suggests that massive sulphide Ni-Cu-(PGE) mineralization may be associated with the Casson Lake Gabbro, and therefore electromagnetic surveys would provide a useful exploration tool. However, field examination of the known mineralized zones suggests that disseminated, narrow hydrothermal veins and "discordant pipe" types of Ni-Cu-(PGE) mineralization are present. These types of mineralization respond well to IP/RES surveys, which is the preferred geophysical exploration tool. Mechanical stripping is also an important exploration tool as it allows examination of the fine geological features within the Casson Lake Gabbro that control the distribution of the Ni-Cu-(PGE) mineralization.

9.0 Mineralization

Mineralization on the property has been described in section 6.1.1 through 6.2.6. The company has conducted mechanical stripping programs which further expose these historical showings.

10.0 Exploration

In 2000, MacDonald initiated a mechanical stripping program using a backhoe followed by outcrop washing. This work was contracted to Lordan Exploration Services of Whitefish Falls, Ontario. Stripping was undertaken at 7 locations as detailed in the following table.

Table 25 Year 2000 Stripping Statistics*

Location	Area (sq. m.)*
BP-1 Zone	1,000
BP-B/G Zone	50
BP-5 Zone	600
BP-6 Zone	600
BP-7 Zone	400
AN-3 Zone	200
Malachite Pit Zone	150
Total	3,000

* excludes stripping by historical operators of the property.

In 2001 MacDonald initiated a second mechanical stripping program using a backhoe followed by outcrop washing. This work was also contracted to Lordan Exploration Services of Whitefish Falls, Ontario. Stripping was undertaken at 4 locations as detailed in the following table.

Table 26 Year 2001 Stripping Statistics

Location	Area (sq. m)
BP-1 Zone	12,000
BP-2 Zone	500
BP-B/G Zone	500
BP-12 Zone	1,500
Total	14,500

Following the mechanical stripping and washing operations, channel sampling was undertaken at the locations described below. However detailed geological mapping has been completed, consequently the locations of the channel samples are tied into the existing survey grid.

10.1 BP-1 Location

A total of 151 channel samples and 21 grab samples were collected from this area in 2001. Each sample is 0.5 m in length. Sample locations in relation to the survey grid and geology are to be determined at a future date.

Table 27 BP-1 Zone Year 2000 Rock and Channel Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
BP1-200	0.5 m channel	<0.004	<0.005	0.002	0.001	0.015
BP1-201	0.5 m channel	<0.004	<0.005	<0.002	0.001	0.014
BP1-202	0.5 m channel	0.007	0.008	0.008	0.002	0.010
BP1-203	0.5 m channel	0.063	0.038	0.005	0.001	0.011
BP1-204	0.5 m channel	<0.004	<0.005	0.005	0.010	0.010
BP1-205	0.5 m channel	0.005	0.006	0.004	0.006	0.015
BP1-206	0.5 m channel	0.004	0.006	0.004	0.001	0.012

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
BP1-207	0.5 m channel	0.004	0.007	0.003	0.001	0.013
BP1-208	0.5 m channel	0.011	0.010	0.004	0.001	0.014
BP1-209	0.5 m channel	0.011	0.009	0.005	<0.001	0.016
BP1-210	0.5 m channel	<0.004	<0.005	0.002	0.001	0.015
BP1-211	0.5 m channel	<0.004	<0.005	0.002	0.001	0.014
BP1-212	0.5 m channel	<0.004	<0.005	<0.002	0.001	0.013
BP1-213	0.5 m channel	<0.004	<0.005	0.003	0.001	0.015
BP1-214	0.5 m channel	<0.004	<0.005	<0.002	0.005	0.014
BP1-215	0.5 m channel	0.004	<0.005	0.006	0.001	0.014
BP1-216	0.5 m channel	<0.004	<0.005	<0.002	0.001	0.014
BP1-217	0.5 m channel	<0.004	<0.005	0.087	0.003	0.014
BP1-218	0.5 m channel	<0.004	0.005	<0.002	0.001	0.014
BP1-219	0.5 m channel	<0.004	<0.005	0.008	0.001	0.014
BP1-220	0.5 m channel	<0.004	<0.005	<0.002	0.001	0.001
BP1-221	0.5 m channel	<0.004	<0.005	<0.002	0.001	0.009
BP1-222	0.5 m channel	<0.004	<0.005	0.002	0.002	0.017
BP1-223	0.5 m channel	0.005	<0.005	0.002	0.002	0.013
BP1-224	0.5 m channel	<0.004	<0.005	0.004	0.004	0.013
BP1-225	0.5 m channel	0.005	0.006	0.004	0.001	0.013
BP1-226	0.5 m channel	<0.004	<0.005	0.003	0.001	0.015
BP1-227	0.5 m channel	<0.004	<0.005	<0.002	0.001	0.015
BP1-228	0.5 m channel	<0.004	<0.005	<0.002	0.001	0.013
BP1-229	0.5 m channel	<0.004	<0.005	0.002	0.011	0.013
BP1-230	0.5 m channel	<0.004	<0.005	0.003	0.001	0.011
BP1-231	0.5 m channel	0.004	<0.005	<0.002	0.001	0.012
BP1-232	0.5 m channel	<0.004	<0.005	0.004	0.001	0.012
BP1-233	0.5 m channel	<0.004	<0.005	<0.002	<0.001	0.014
BP1-234	0.5 m channel	0.004	<0.005	0.005	0.001	0.013
BP1-235	0.5 m channel	0.005	0.005	0.004	<0.001	0.014
BP1-236	0.5 m channel	<0.004	<0.005	<0.002	0.001	0.013
BP1-237	0.5 m channel	0.004	0.005	0.005	0.001	0.017
BP1-238	0.5 m channel	<0.004	0.005	<0.002	<0.001	0.017
BP1-239	0.5 m channel	0.004	0.006	<0.002	0.001	0.015
BP1-240	0.5 m channel	0.005	0.006	<0.002	0.001	0.014
BP1-241	0.5 m channel	0.004	<0.005	0.002	<0.001	0.014
BP1-242	0.5 m channel	<0.004	<0.005	0.020	0.001	0.016
Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
BP1-243	0.5 m channel	0.008	0.009	0.010	0.001	0.019
BP1-244	0.5 m channel	0.009	0.007	0.007	0.001	0.019
BP1-245	0.5 m channel	<0.004	<0.005	0.005	<0.001	0.018
BP1-246	0.5 m channel	0.015	0.010	0.003	0.001	0.016
BP1-247	0.5 m channel	0.008	0.009	0.007	0.011	0.019
BP1-248	0.5 m channel	0.006	0.005	0.006	0.006	0.019
BP1-249	0.5 m channel	0.007	0.007	0.006	0.003	0.016
BP1-250	0.5 m channel	0.007	0.005	<0.002	0.001	0.016
BP1-251	0.5 m channel	<0.004	<0.005	<0.002	<0.001	0.018
BP1-252	0.5 m channel	0.010	0.010	0.002	<0.001	0.016
BP1-253	0.5 m channel	0.005	<0.005	0.002	<0.001	0.013
BP1-254	0.5 m channel	0.005	<0.005	0.003	0.001	0.014
BP1-255	0.5 m channel	<0.004	<0.005	<0.002	<0.001	0.013
BP1-256	0.5 m channel	<0.004	0.005	<0.002	<0.001	0.014

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
BP1-257	0.5 m channel	<0.004	<0.005	<0.002	<0.001	0.013
BP1-258	0.5 m channel	0.005	0.006	0.002	<0.001	0.017
BP1-259	0.5 m channel	0.004	<0.005	0.004	<0.001	0.015
BP1-260	0.5 m channel	1.384	0.973	0.619	10.300	0.300
BP1-261	0.5 m channel	0.371	0.085	0.074	0.016	0.044
BP1-262	0.5 m channel	0.025	0.014	0.015	0.036	0.019
BP1-263	0.5 m channel	0.024	0.017	0.016	0.015	0.013
BP1-264	0.5 m channel	0.022	0.020	0.008	0.019	0.015
BP1-265	0.5 m channel	0.436	0.236	0.122	0.091	0.045
BP1-266	0.5 m channel	0.064	0.033	0.022	0.100	0.049
BP1-267	0.5 m channel	0.050	0.048	0.012	0.032	0.015
BP1-268	0.5 m channel	0.016	0.012	0.027	0.035	0.010
BP1-269	0.5 m channel	<0.004	<0.005	0.034	0.031	0.008
BP1-270	0.5 m channel	0.007	<0.005	0.010	0.018	0.013
BP1-271	0.5 m channel	0.324	0.217	0.176	0.072	0.035
BP1-272	0.5 m channel	0.085	0.046	0.033	0.109	0.042
BP1-273	0.5 m channel	0.018	0.012	0.007	0.025	0.012
BP1-274	0.5 m channel	0.022	0.010	0.014	0.026	0.009
BP1-275	0.5 m channel	0.004	0.005	0.003	0.015	0.006
BP1-276	0.5 m channel	0.216	0.153	0.057	0.113	0.033
BP1-277	0.5 m channel	<0.004	<0.005	0.003	0.012	0.006
BP1-278	0.5 m channel	<0.004	<0.005	0.048	0.139	0.009
BP1-279	0.5 m channel	<0.004	<0.005	0.030	0.069	0.012
BP1-280	0.5 m channel	<0.004	<0.005	0.002	0.013	0.006
BP1-281	0.5 m channel	<0.004	<0.005	<0.002	0.016	0.006
BP1-282	0.5 m channel	<0.004	<0.005	<0.002	0.011	0.007
BP1-283	0.5 m channel	<0.004	<0.005	0.006	0.011	0.005
BP1-284	0.5 m channel	0.544	0.306	0.143	0.397	0.066
BP1-285	0.5 m channel	1.695	0.916	0.741	0.627	0.385
BP1-286	0.5 m channel	1.795	0.895	0.447	0.455	0.372
BP1-287	0.5 m channel	1.682	0.771	0.503	0.634	0.349
BP1-288	0.5 m channel	1.674	0.714	0.519	0.524	0.288
BP1-289	0.5 m channel	1.421	0.660	0.583	0.598	0.245
BP1-290	0.5 m channel	1.423	0.589	0.463	0.521	0.214
BP1-291	0.5 m channel	1.244	0.626	0.462	0.511	0.177
BP1-292	0.5 m channel	1.123	0.522	0.367	0.448	0.143
BP1-293	0.5 m channel	0.150	0.067	0.050	0.089	0.039
Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
BP1-294	0.5 m channel	1.313	0.544	0.537	0.421	0.217
BP1-295	0.5 m channel	1.703	0.679	0.437	0.452	0.250
BP1-296	0.5 m channel	1.296	0.488	0.827	0.339	0.224
BP1-297	0.5 m channel	1.543	0.667	0.591	0.397	0.277
BP1-298	0.5 m channel	1.449	0.574	0.487	0.312	0.230
BP1-299	0.5 m channel	0.025	0.018	0.021	0.028	0.009
BP1-300	0.5 m channel	0.019	0.010	0.020	0.040	0.007
BP1-301	0.5 m channel	0.076	0.026	0.028	0.049	0.020
BP1-302	0.5 m channel	0.004	<0.005	0.017	0.029	0.008
BP1-303	0.5 m channel	<0.004	<0.005	0.006	0.017	0.007
BP1-304	0.5 m channel	<0.004	<0.005	0.006	0.023	0.008
BP1-305	0.5 m channel	<0.004	<0.005	0.003	0.016	0.007
BP1-306	0.5 m channel	0.024	0.016	0.003	0.005	0.008

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
BP1-307	0.5 m channel	0.074	0.041	0.021	0.029	0.013
BP1-308	0.5 m channel	0.804	0.464	0.517	0.435	0.188
BP1-309	0.5 m channel	1.284	0.738	0.667	0.564	0.193
BP1-310	0.5 m channel	1.155	0.488	0.160	0.278	0.197
BP1-311	0.5 m channel	0.819	0.341	0.227	0.324	0.143
BP1-312	0.5 m channel	0.126	0.057	0.050	0.018	0.028
BP1-313	0.5 m channel	0.143	0.116	0.039	0.105	0.049
BP1-314	0.5 m channel	0.449	0.296	0.103	0.318	0.146
BP1-315	0.5 m channel	0.442	0.140	0.197	0.146	0.066
BP1-316	0.5 m channel	0.194	0.092	0.061	0.079	0.024
BP1-317	0.5 m channel	0.012	0.009	0.002	0.008	0.006
BP1-318	0.5 m channel	0.023	0.017	0.005	0.014	0.008
BP1-319	0.5 m channel	0.423	0.171	0.121	0.177	0.007
BP1-320	0.5 m channel	0.048	0.023	0.013	0.031	0.012
BP1-321	0.5 m channel	0.026	0.011	<0.002	0.011	0.008
BP1-322	0.5 m channel	0.013	0.012	0.002	0.013	0.006
BP1-323	0.5 m channel	0.015	0.012	0.003	0.008	0.007
BP1-324	0.5 m channel	0.015	0.010	0.006	0.019	0.007
BP1-325	0.5 m channel	0.010	0.010	0.002	0.007	0.008
BP1-326	0.5 m channel	0.006	<0.005	0.006	0.020	0.008
BP1-327	0.5 m channel	0.748	0.196	0.359	0.188	0.007
BP1-328	0.5 m channel	1.658	0.646	0.247	0.134	0.009
BP1-329	0.5 m channel	0.876	0.412	0.170	0.160	0.121
BP1-330	0.5 m channel	0.26	0.025	0.012	0.011	0.007
BP1-331	0.5 m channel	0.066	0.047	0.021	0.025	0.009
BP1-367	0.5 m channel	1.080	0.184	0.255	1550	0.071
BP1-368	0.5 m channel	0.718	0.100	0.031	0.076	0.027
BP1-369	0.5 m channel	0.157	0.027	0.014	0.044	0.014
BP1-370	0.5 m channel	0.732	0.100	0.359	0.550	0.050
BP1-371	0.5 m channel	0.810	0.090	0.113	0.339	0.034
BP1-372	0.5 m channel	0.021	0.011	0.04	0.019	0.011
BP1-373	0.5 m channel	0.044	0.017	0.005	0.014	0.014
CAS.00.119	grab	0.064	0.047	0.063	0.144	0.060
CAS.00.120	grab	0.131	0.082	0.686	0.272	0.160
CAS.00.121	grab	0.332	0.151	0.108	0.151	0.081
CAS.00.122	grab	0.629	0.269	0.186	0.515	0.175
CAS.00.123	grab	0.603	0.333	0.222	0.440	0.203
CAS.00.124	grab	0.719	0.485	0.270	0.677	0.292
Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
CAS.00.125	grab	0.068	0.056	0.048	0.143	0.048
CAS.00.126	grab	0.082	0.071	0.012	0.029	0.030
CAS.00.127	grab	0.084	0.089	0.109	0.156	0.053
CAS.00.128	grab	0.124	0.099	0.073	0.236	0.105
CAS.00.129	grab	0.152	0.116	0.104	0.349	0.112
CAS.00.130	grab	0.168	0.135	0.117	0.470	0.177
CAS.00.131	grab	0.094	0.071	0.042	0.160	0.067
CAS.00.132	grab	0.147	0.134	0.065	0.107	0.059
CAS.00.133	grab	0.155	0.123	0.089	0.143	0.068
CAS.00.134	grab	0.099	0.109	0.074	0.448	0.109
CAS.00.135	grab	0.061	0.058	0.042	0.169	0.043
CAS.00.136	grab	0.064	0.054	0.038	0.167	0.063

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
CAS.00.137	grab	0.085	0.066	0.039	0.048	0.016
CAS.00.139	grab	0.103	0.079	0.064	0.171	0.099
CAS.00.140	grab	0.056	0.053	0.040	0.163	0.082

Examination of the above table indicates that there are zones of Pd and Pt enrichment. Geological mapping is required to spatially relate the anomalous values with the geology and structures present at the site.

10.2 BP-5 Location

Following mechanical stripping of the outcrop in 2000, a total of 7 grab samples were collected for analyses. The results are listed in the following table. Sample locations in relation to the survey grid and geology are to be determined at a future date.

Table 28 BP-5 Zone Year 2000 Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
CAS.00.145	grab	0.896	0.512	0.198	0.599	0.212
CAS.00.146	grab	1.090	0.538	0.292	0.582	0.257
CAS.00.148	grab	1.150	0.573	0.423	0.655	0.083
CAS.00.149	grab	0.317	0.160	0.148	0.202	0.093
CAS.00.150	grab	0.666	0.346	0.204	0.385	0.188
CAS.00.151	grab	0.711	0.373	0.413	0.535	0.176
CAS.00.152	grab	0.296	0.149	0.064	0.139	0.081

Perusal of the table indicates that 2 of the samples contain > 1 g/t Pd and appreciable Pt enrichment. Geological mapping is required to assess the significance of these results.

10.3 PB-7 Location

Following mechanical stripping of the outcrop in 2000, a total of 4 grab samples were collected for analyses. The results are listed in the following table. Sample locations in relation to the survey grid and geology are to be determined at a future date.

Table 29 BP-7 Zone Year 2000 Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
CAS.00.141	grab	1.170	0.159	0.083	0.059	0.048
CAS.00.142	grab	0.643	0.206	0.317	0.199	0.668
CAS.00.143	grab	0.474	0.167	0.104	0.123	0.071
CAS.00.144	grab	0.728	0.250	0.168	0.277	0.139

In 2001 a total of 35 channel samples were collected at the site. The results are listed in the following table.

Table 30 BP-7 Zone Year 2001 Channel Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
BP7-332	0.5 m channel	0.022	0.013	0.007	0.005	0.006
BP7-333	0.5 m channel	0.033	0.015	0.003	0.006	0.007
BP7-334	0.5 m channel	0.023	0.013	0.004	0.006	0.007
BP7-335	0.5 m channel	0.051	0.017	0.004	0.007	0.008
BP7-336	0.5 m channel	0.018	0.012	0.003	0.007	0.006
BP7-337	0.5 m channel	0.027	0.012	0.004	0.009	0.006

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
BP7-338	0.5 m channel	0.032	0.014	<0.002	0.004	0.007
BP7-339	0.5 m channel	0.046	0.015	0.008	0.007	0.008
BP7-340	0.5 m channel	0.060	0.020	0.007	0.007	0.008
BP7-341	0.5 m channel	0.335	0.055	0.022	0.014	0.016
BP7-342	0.5 m channel	0.685	0.096	0.036	0.021	0.018
BP7-343	0.5 m channel	0.051	0.021	0.010	0.019	0.007
BP7-344	0.5 m channel	0.041	0.018	0.007	0.013	0.007
BP7-345	0.5 m channel	0.034	0.020	0.006	0.011	0.006
BP7-346	0.5 m channel	0.029	0.014	0.005	0.007	0.006
BP7-347	0.5 m channel	0.039	0.017	0.007	0.011	0.007
BP7-348	0.5 m channel	0.077	0.026	0.008	0.014	0.006
BP7-349	0.5 m channel	0.037	0.021	0.003	0.011	0.006
BP7-350	0.5 m channel	0.051	0.021	0.008	0.007	0.007
BP7-351	0.5 m channel	0.037	0.017	0.007	0.007	0.007
BP7-352	0.5 m channel	0.041	0.023	0.011	0.013	0.007
BP7-353	0.5 m channel	0.021	0.014	0.007	0.011	0.006
BP7-354	0.5 m channel	0.027	0.015	0.010	0.014	0.006
BP7-355	0.5 m channel	0.034	0.020	0.005	0.011	0.007
BP7-356	0.5 m channel	0.025	0.018	0.009	0.012	0.001
BP7-357	0.5 m channel	0.024	0.017	0.004	0.007	0.015
BP7-358	0.5 m channel	0.021	0.020	0.046	0.005	0.002
BP7-359	0.5 m channel	0.027	0.016	0.014	0.008	0.001
BP7-360	0.5 m channel	0.022	0.020	0.036	0.013	0.009
BP7-361	0.5 m channel	0.026	0.016	0.007	0.011	0.006
BP7-362	0.5 m channel	0.060	0.026	0.011	0.022	0.011
BP7-363	0.5 m channel	0.039	0.022	0.007	0.029	0.009
BP7-364	0.5 m channel	0.023	0.020	<0.002	0.007	0.009
BP7-365	0.5 m channel	0.063	0.028	0.009	0.013	0.015
BP7-366	0.5 m channel	0.080	0.026	0.005	0.015	0.009

Perusal of the above table indicates that only modestly Pd and Pt enriched mineralization was sampled. Detailed geological mapping of the sampled areas is required to provide a basis for interpreting the results.

10.4 AN-3 Location

At the AN-3 location a total of 15 channel samples, each 0.5 m long were collected across an 11.5 m wide pegmatoidal phase of the Casson Lake Gabbro in 2000. The sampling locations have not been tied into the survey grid, as geological mapping of the local areas has not been completed. The analytical values for these samples are listed in the following table.

Table 31 AN-3 Location Year 2000 Channel Sample Analytical Results

Sample #	Sample Type)	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
CAS.00.100	0.5 m channel	0.801	0.346	0.085	0.136	0.088
CAS.00.101	0.5 m channel	1.000	0.508	0.103	0.132	0.098
CAS.00.102	0.5 m channel	0.401	0.189	0.079	0.087	0.088
CAS.00.103	0.5 m channel	0.320	0.176	0.065	0.062	0.067
CAS.00.104	0.5 m channel	0.112	0.056	0.054	0.011	0.044
CAS.00.105	0.5 m channel	0.068	0.052	0.029	0.088	0.036
CAS.00.106	0.5 m channel	0.456	0.308	0.117	0.043	0.062

Sample #	Sample Type)	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
CAS.00.107	0.5 m channel	0.393	0.247	0.116	0.054	0.053
CAS.00.108	0.5 m channel	0.544	0.311	0.215	0.073	0.071
CAS.00.109	0.5 m channel	0.492	0.280	0.099	0.063	0.058
CAS.00.110	0.5 m channel	0.653	0.265	0.107	0.053	0.052
CAS.00.111	0.5 m channel	0.276	0.193	0.056	0.052	0.052
CAS.00.112	0.5 m channel	0.234	0.135	0.053	0.054	0.077
CAS.00.113	0.5 m channel	0.469	0.179	0.133	0.081	0.066
CAS.00.114	0.5 m channel	0.167	0.097	0.026	0.039	0.039

The values confirm the earlier sampling in the vicinity, and indicate the presence of 2 samples containing > 1 g/t Pd+Pt (CAS.00.100 and 101). Detailed geological mapping is required in order to provide a basis for interpreting the analytical results.

10.5 Malachite Pit Location

Following mechanical stripping of the outcrop in 2000, a total of 4 grab samples were collected for analyses. The results are listed in the following table. Sample locations in relation to the survey grid y are to be determined at a future date.

Table 32 Malachite Pit Location Rock Sample Analytical Results

Sample #	Sample Type	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
CAS.00.153	grab	1.330	0.650	0.399	1.170	0.245
CAS.00.154	grab	0.509	0.356	0.337	0.356	0.188
CAS.00.155	grab	0.220	0.155	0.091	0.224	0.093
CAS.00.156	grab	0.087	0.069	0.055	0.218	0.088

Further sampling and detailed geological mapping is required in order to assess the economic potential of this site.

11.0 Drilling

The Corporation has not undertaken any diamond drilling on the property since acquiring the option.

12. Sampling Method and Approach

Surface sampling conducted by BPRC consisted of collecting samples containing visible chalcopyrite and or pyrrhotite. Sample density was predicated on the presence of outcrop and the presence of sulphide minerals, or gossan. It is the authors opinion that the sample density is adequate to define the northern third of the Casson Lake Gabbro as the most favourable environment for the occurrence of Ni-Cu-(PGE) mineralization.

Drill core sampling conducted by BPRC consisted of splitting all of the gabbro rock in the drill core. The most common sample interval was 1.0 m, and occasionally smaller intervals to recognize geological contacts and or unique features, such as quartz veins. Uniquely numbered multiple paper tags were used

to mark the sample locations in the core boxes and to identify the bagged sample. Half of the split core, complete with meter blocks was archived.

A cursory examination of the core indicates that all of the gabbro intersections were sampled. However, in a minority of cases the sample intervals did not respect geological features such as shear zones. On balance the sampling is adequate to characterize the element concentrations present in core at an early exploration stage.

There are no records by BPRC of any drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results. Consequently these factors were not investigated nor verified.

Channel sampling conducted on behalf of MacDonald by Lordan Exploration Services Limited utilized a diamond blade rock saw. The most common sample length used is 0.5 m, from which a 5 cm wide by 5 cm deep rock slab was recovered. A metal tag bearing the same unique number as the sample number is fixed to the bedrock to record the sample location.

Grab samples collected by Lordan Exploration Services Limited are marked by flagging tape temporarily secured to the bedrock at the sample site. Unique numbers on the tape match numbers of the bagged samples.

13.0 Sample Preparation, Analyses and Security

The details of the security measures taken by BPRC are unknown. However, security of samples probably was adequate and followed industry best practices.

Sample preparation and analyses of all BPRC samples was carried out by Bondar-Clegg & Company Limited, Ottawa, Ontario. Sample preparation included drying, crushing to –8 mesh size, riffle splitting of a 250 gm sample, and pulverizing to 95% at –200 mesh. Cleaner sand is used between each sample. Cu and Ni were determined by atomic absorption methods following extraction by a 1:3 HCl – HNO₃ mixture. The lower detection limit for Cu is 1 ppm and 2 ppm for Ni. Analyses for Au, Pd and Pt were performed on a 1 assay ton sample following extraction by aqua regia. Determinations utilized DC Plasma / optical emission spectroscopy following pre-concentration by fire assay techniques. Lower detection limits for Au, Pd and Pt are 1, 1, and 5 ppb respectively.

Analytical data sheets for the BPRC surface and drill core sampling indicate that a rigorous quality control program was utilized. Both standards and pulp duplicates were randomly inserted into batches at a rate of 1:15 and 1:10 respectively by the analytical laboratory. Thus precision and accuracy of the analytical results relied on the integrity of the analytical laboratories internal quality control procedures.

The author is of the opinion that sufficient quality control was exercised in the sampling and analyses of the BPRC samples for the purposes of preliminary exploration. Sample security is assumed to have been of acceptable standards.

Security measures utilized by the MacDonald include working in a secluded area free of unauthorized vehicle and pedestrian traffic. All samples are removed from the field site and secured in a locked storage shed at the end of each shift. Sample descriptions and unique identifier numbers are recorded prior to shipping to the assay laboratory. Shipping containers are sealed and are sufficiently robust to complete the journey to Activation Laboratories Limited without incident.

Activation Laboratories Limited (“ActLabs”) of Ancaster, Ontario maintains a rigorous chain of custody program to insure the integrity of the samples received and the results reported.

Sample preparation includes drying, crushing to a nominal –10 mesh size, riffle splitting to obtain a 100 gm representative sample and then pulverizing to at least 95% minus 150 mesh. Cleaner sand is used

between each sample. Gold, Pd and Pt analyses use a 30 gm sample with an aqua regia extraction followed by fire assay pre-concentration and determinations by ICP-Optical Emission Spectroscopy. Lower detection limits for Au, Pd and Pt are 2, 4 and 5 ppb respectively. Cu and Ni values were determined by ICP-Mass Spectroscopy techniques following an aqua regia extraction. Lower detection limits are 0.1 ppb for both elements.

Samples submitted by MacDonald did not contain blanks, duplicates nor standards inserted by MacDonald. The Corporation relies on the quality control procedures provided by ActLabs, which maintains an ISO Guide 25 accreditation and a CAN-P-1579 accreditation.

Routine procedures performed by ActLabs include a second determination of every 15th pulp sample, the insertion of standards with every 30 sample batch, and a report of the data generated by the quality control samples.

The author is of the opinion that adequate security measures have been exercised by MacDonald, and the precision and accuracy of the analytical work is acceptable.

14.0 Data Verification

In the BPRC data set 74 pairs of duplicate analyses performed on pulps over a range of values from 0 to 800 ppb Pt and from 0 to 5000 ppb Pd are present. Analytical precision associated with duplicate analyses has been estimated by the Thompson and Howarth (1978) method. Pd precision is about 11-12% in the 1-5 ppm concentration range and about 5-6% for Pt in the 0.5-1 ppm concentration range.

This indicates that the determinations are of high quality precision and can be used with confidence in defining economically interesting Pd and Pt values. Analytical accuracy was not examined as results from duplicate sampling are not available in the BPRC data set.

An analyses of duplicate pair data has not been performed on the ActLabs data due to a statistically insignificant population of pairs.

It is the author's opinion that ActLabs quality control procedures are sufficient and adequate at this preliminary stage of exploration. Analytical results received to date from ActLabs appear normal and credible with respect to earlier results generated by BPRC.

15.0 Adjacent Properties

There are no adjacent properties of relevance to discuss.

16.0 Mineral Processing and Metallurgical Testing

In October 2000 an approximate 1 tonne sample of material from the AN-3 location was submitted to Lakefield Research Limited from metallurgical testing. Standard bench scale flotation tests indicate about a 97% recovery of the sulphide minerals and associated PGE values (Lakefield, 2001, Rept LR10174).

The head grade of the sample subjected to metallurgical testing is shown in the following table.

Table 33 Head Analyses of AN-3 Sample

Element	Assay
Pt	0.57 g/t
Pd	0.72 g/t
Rh	0.02 g/t
Ru	<0.02 g/t
Ir	<0.02 g/t
Os	-
Au	0.15 g/t
Ag	<0.05 g/t
Cu	0.085%
Cr	0.28%
Ni	0.087%
S	0.38%

A dry chlorination leach method was also applied to the recovered concentrate to examine the recovery of base, precious and PGE metals. Recoveries achieved in this bench scale test are shown in the following table.

Table 34 Chlorination Recoveries

Element	Recovery %
Pd	99.7
Pt	99.6
Rh	90.2
Os	-
Ir	90.6
Ru	37.6
Au	96.4
Cu	99.3
Ni	86.7
Cr	58.3

The sample chosen for test work contained approximately 1% sulphide minerals, low PGE, Au, Cu and Ni values. This sample is representative of low grade mineralization common to many areas on the property. Results of the dry chlorination process yield excellent recoveries for metals of interest.

17.0 Mineral Resources and Mineral Reserve Estimates

There is insufficient data in the third dimension (diamond drill results) to calculate a resource of PGE mineralization on the property. Consequently there are no resources to report.

18.0 Interpretation and Conclusions

The property consists of a western block of 7 claim units and an eastern block of 38 claim units. In the western block, 4 claim units are staked, 2 claims are mineral rights only patents and 1 claim is both surface and mineral rights patented. Claims in the eastern block are all unpatented claims. The claims comprising the property are arranged in an 8 km long east-trending array covering the east-trending Casson Lake Gabbro intrusion.

The geology of the property is dominated by folded Huronian age sediments of the Quirke Lake and Cobalt groups intruded by a Nipissing age gabbro (Casson Lake Gabbro), similar to the host lithologies of other PGE occurrences in the Sudbury area. Generally the sediments are vertically dipping and south facing. It is unclear whether the gabbro is a dyke or a sill. A series of narrow amphibolite dykes intrudes both the sediments and the gabbro. A large body of Sudbury type breccia intrudes all of the above lithologies. Northwest and northeast-trending faults displace the Casson Lake Gabbro. Northwest-trending faults exhibit approximately 500 m of displacement. PGE mineralization accompanies chalcopyrite, pyrrhotite and pentlandite, which occur as disseminations, and along fractures accompanied by chloritic alteration. The mineralogy of the PGE bearing minerals has not been investigated.

Palladium to platinum ratios in surface samples at the BP-1 location range from 1:1 to 4:1 and average about 2.2:1. A \$US 335/ ounce price for palladium (current price) with an exchange rate of \$C1 = \$US 1.57, indicates that 1 gram of palladium has a value of \$C 15.34. Similarly, 1 gram of platinum with a current price of \$US565/ ounce has a value of \$C 25.87. Applying these values to the assays listed for the individual PGE occurrences indicates that "economically interesting" mineralization (about \$ C 23 per tonne gross metal value) is represented by samples reporting greater than 1.25 g/t combined Pd + Pt at the average palladium to platinum ratio, and applying the recoveries indicated by the metallurgical test work. Combined Pd + Pt values of this magnitude are present at all of the known mineralized locations distributed over the 5.5 km length of the eastern block of the property.

Previous exploration on the property has discovered 19 Ni-Cu-(PGE) occurrences. An investigation of historical duplicate pair analyses for Pd and Pt as found in the BPRC data indicates that the analytical precision (approximately 10%) is adequate for the recognition of potentially economic PGE mineralization. The Ni-Cu-(PGE) occurrences were discovered by surface sampling of gossanous gabbro outcrops. The mineralization occurs only in the gabbro and possibly the Sudbury type breccia. To date the highest values have been found in the northern 1/3 of the Casson Lake Gabbro along the length of the property. Ni-Cu-(PGE) occurrences in the western block of claims have been drilled without significant economic success, and are of little further interest. However the 14 occurrences in the eastern segment of the property plus the "#54 location" merit additional work to investigate their economic potential. The Cu-Ni-(PGE) values returned to date indicate that a bulk tonnage deposit is an appropriate mining model for this property.

Top priority Ni-Cu-(PGE) mineralization locations include the BP-1, BP-B/G Zone, BP-Bousquet Zone, and BP Zones 5 to 7 near the center of the property. Top priority targets are those where sampling has indicated greater than 1.25 g/t Pd +Pt. The AN 1-4 occurrences and the #54 Location will also be examined in detail. The AN-1 location is untested, due to it's close proximity to Casson Lake, and the # 54 Location will be a test of the Ni-Cu-(PGE) mineralization potential of the Sudbury type breccia. In this regard it is recommended that the original BPRC grid be re-established to provide survey control in re-locating previous work.

Sampling by MacDonald in the 2000-2001 period indicates that potentially economic mineralization is present. However, detailed geological mapping is required to assess the significance of the analytical values. Additional stripping and sampling can be utilized to locate extensions of the known mineralized areas. Geophysical surveys will also be used to guide this work.

The 6 known gold occurrences on the property are quartz vein lodes associated with carbonate alteration and occur mainly in structures developed in the sediments adjacent to the gabbro. One gold deposit (Bousquet) produced 145.3 kg of gold from 15,549 tonnes of rock in the 1936-38 period. It is author's opinion that the veins are too narrow for a stand alone gold mining operation. However, it is suggested that some of this mineralization could be processed along with Ni-Cu-(PGE) mineralization, provided that exploitation of the Ni-Cu-(PGE) mineralization occurs.

19.0 Recommendations

The author is of the opinion that the property has sufficient merit to justify the program recommended. Previous workers have identified 19 areas of anomalous Ni-Cu-(PGE) in the northern portion of the Casson Lake Gabbro. It remains to be demonstrated that the Ni-Cu-(PGE) mineralization is continuous between these sampled outcrops, that would allow the delineation of a large tonnage low grade deposit with economic characteristics.

The proposed Phase 1 exploration program consists of the following activities listed below.

- Re-logging of the BPRC drill core. The core is in excellent condition, complete with meter blocks assay delimiters and box labels.
- Additional rock sampling is recommended for the eastern part of the property (from the eastern part of claim 1179658 to the township border. Historical sampling by BPRC in this area is sparse, and limited on claims held by Mr. Brunne and Mr Stringer. Further exploration in this area should include considerable trenching to expose the favourable horizons for sampling.
- A review of the IP/RES survey in conjunction with the BPRC diamond drill records and surface sample results suggests the northern part of the Casson Lake Gabbro between BP's L 48+00E and L55+00E (northeast part of claim 1179658) hosts additional potentially economic PGE mineralization. This area has been partially tested by DDH 74-9 which returned values of 0.32 g/t Pd, 0.11 g/t Pt, 0.09 g/t Cu and 0.06% Ni over 14 m core length). The best individual values are 1.00 g/t Pd, 0.30 g/t Pt, 0.13 g/t Au, 0.35% Cu and 0.06% Ni over 1 m (core length). Trenching is recommended as a first pass exploration effort at this location.
- Magnetic and IP/RES surveying of the entire property is recommended to search out areas of disseminated sulphides hosted in the Casson Lake Gabbro.
- A program of geological mapping of claims 1211238 and 1136064 is recommended, as these claims have not previously been mapped in detail. Claim 1211238 contains the southeastern extension of the Sudbury type breccia, and claim 1136064 contains the eastern extension of the Casson Lake Gabbro.
- Detailed geological mapping is recommended in order to assess the significance of the sampling undertaken by MacDonald at the mechanically stripped areas. Also a small sample of high grade mineralization should be collected from this site for mineralogical determination of the PGE-bearing minerals.

19.1 Proposed Phase 1 Exploration Program and Budget

The following Phase 1 budget is proposed to carry out the recommended work.

Table 35 Proposed Phase 1 Budget

Phase I Proposed Budget

<u>Activity</u>	<u>Details</u>	<u>Expenditure (\$)</u>
Survey Grid	60 km	\$ 21,000
Geophysics	MAG, VLF, IP/RES	\$ 90,800
Geology	3 months & assistant	\$ 63,150
Mechanical Stripping	1.5 months, excavator	\$ 38,600
Sampling / Assaying	600 samples	\$ 27,450

Transportation & Travel	trucks & ATVs	\$ 24,240
Room & Board	3 months, 4 persons	\$ 36,000
Consumables	blades, bags, etc.	\$ 4,100
Reporting	report, graphics, telephone	\$ 16,000
Contingency	8%	\$ 28,660
Total		\$350,000

19.2 Proposed Phase 2 Exploration Program and Budget

A Phase 2 program is not contingent upon the results of the Phase 1 program. Phase 2 will be required to drill test existing targets and other targets delineated in the Phase 1 program.

Table 36 Proposed Phase 2 Budget

Proposed Phase 2 Budget

<u>Activity</u>	<u>Details</u>	<u>Expenditure (\$)</u>
Geophysics	down hole IP/RES	\$ 36,000
Drilling	8,000 m	\$374,000
Geology	2 months & assistant	\$ 52,350
Sampling/ Assaying	1,000 samples	\$ 49,300
Transportation & Travel	trucks & ATVs	\$ 23,520
Room & Board	2 months, 4 persons	\$ 36,000
Consumables	blades, bags, etc.	\$ 5,500
Reporting	report & graphics & telephone	\$ 17,000
Contingency	9%	\$ 56,330
Total		\$650,000

20. 0 References

- Card, K.D., 1967, Curtin Township, District of Sudbury; Ont. Dept. Mines, Prelim. Geol. Map P.392, scale 1"=1/4 mile (1:15840)
- Card, K.D., 1976, Geology of the Espanola – Whitefish Falls Area, District of Sudbury, Ontario; Ont. Div. Mines GR 131, 70 p. Accompanied by Maps 2311, 2312, scale 1"= 1/2 mile (1:31680) and 2 charts
- Card, K.D., 1978, Geology of the Sudbury-Manitoulin Area, Districts of Sudbury and Manitoulin; Ont. Geol. Surv. Report 166, 238 p., accompanied by Map 2360, scale 1:126,720, and 4 charts.
- Easton, R.M., Davidson, A. and Murphy, E., 1999, Transects across the Grenville Front near Sudbury, Ontario, GAC-MAC Sudbury 1999, field Trip A2, Guidebook 52 p.
- Easton, R.M., and Hrominchuk, J., 1999, Geology and copper-platinum group element mineral potential of Dana and Crerar Townships, River Valley area, Grenville Province, In Summary of Field Work and Other Activities 1999, Ont. Geol. Surv., OFR 6000, p.30-1-30-36.
- Harding, W.D., 1953, Preliminary report on ground investigations of aeromagnetic and aeroradioactive anomalies in the Espanola - Lake Huron area, Ont. Dept. Mines, Prelim. Rpt 1953-01, 9 p.
- Hrominchuk, J., 1999, Geology, stratigraphy and copper-platinum group element mineralization of the River Valley intrusion, Dana township, Ontario, In Summary of Field Work and Other Activities 1999, Ont. Geol. Surv., OFR 6000, p. 31-1-31-9.
- Johnson Matthey PLC, 1999, Platinum 1999, Interim Review, 28 p.
- Lakefield Research Limited, 2001, An Investigation of the Recovery of PGM's from a Casson Lake Ore Sample, Submitted by MacDonald Mines Exploration Limited, Rept LR10174, 13 p., 1 append.
- Lightfoot, P.C. and Naldrett, A.J., 1996, Petrology and geochemistry of the Nipissing Gabbro: Exploration strategies for nickel, copper, and platinum group elements in a large igneous province; Ont. Geol. Surv. Study 58, 81 p.
- Meyer, G., Cosca, M., Grabowski, G.P.B., Guindon, D.L., Chaloux, E.C. and Charette, M., 2000; Report of Activities 1999, Resident Geologist Program, Kirkland Lake Regional Resident Geologist Report: Kirkland Lake and Sudbury Districts; Ont. Geol. Surv., OFR 6007, 91 p.
- Naldrett, J.A., 1981, Platinum-Group Element Deposits; In L. J. Cabri ed. Platinum-Group Elements: Mineralogy, Geology, Recovery, C.I.M.M. Special Vol. 23, p. 197-232.
- Peck, D.C., James, R.S. and Chubb, P.T., 1993, Geological environments for PGE-Cu-Ni mineralization in the East Bull Lake gabbro-anorthosite intrusion, Ontario; Explor. Mining Geol., v. 2, # 1, p. 85-104.
- Pemister, T.C., 1939, Notes on several properties in the District of Sudbury; Ont. Dept. Mines, v. 48, pt. 10, p. 16-28
- Rowell, W.F. and Edgar, A.D., 1986, Platinum group element mineralization in a hydrothermal Cu-Ni sulphide occurrence, Rathburn Lake, Northeastern Ontario; Econ. Geol. v. 81, p.1272-1277.
- Schandl, E.S., Gorton, M.P., Davis, D.W., Wasteneys, H.A. and Martin, R.F., 1992, Paragenesis and geochronology of sodium metasomatism in the Espanola-Sudbury-Wanapitei Lake area, In Geoscience Research Grant Program, Summary of Research 1991-1992, Ont. Geol. Surv, Misc. Paper 159, p. 65-84.

21.0 Certification

I, Gerald A. Harron, M.Sc., P. Eng., and P. Geo. am a Professional Engineer and Professional Geoscientist [President of G.A. Harron & Associates Inc.] of 133 Richmond Street West, Suite 615, M5H 2L3, in the City of Toronto, in the Province of Ontario.

1. I am a member of the Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories and Nunavut; a member of the Professional Engineers of Ontario; the Society of Economic Geologists; and the Association of Exploration Geochemists.
2. I graduated from Carleton University with a Bachelor of Science degree in 1969, and also graduated from The University of Western Ontario with a Master of Science degree in economic geology in 1972, and I have practiced my profession continuously since 1969.
3. Since 1969 I have been involved in minerals exploration for base, precious and noble metals and uranium throughout North America, South America and Africa, during which time I directed, managed and evaluated regional and local exploration programs.
4. As a result of my education, professional experience and professional qualifications, I am a Qualified Person as defined in NI 43-101.
5. I am a Consulting Geologist and have been so since January 1989.
6. I last visited the Brunne /Stringer Property of MacDonald Mines Exploration Ltd., located in Curtin Township on August 10, 2001 for the purpose of supervising a mechanical stripping program. Several previous visits to the property occurred earlier in the year, and in 2000
7. This report was prepared by Mr. G.A. Harron
8. Most of the technical information in this report is based on examination of public and private documents pertaining to the property. Information on historical work was obtained from private company files. The sources of all information not based on personal examination are referenced in the report.
9. In the disclosure pertaining to lease status I have relied on information provided by the Mining Recorder in Sudbury. The author disclaims responsibility for such information, as found in Item 4 of this report.
10. I am not aware of any material fact or material change with respect to the subject matter of this technical report that is not reflected in this report, the omission to disclose which would make this report misleading.
11. I am independent of MacDonald Mines Exploration Ltd. in accordance with the application of Section 1.5 of NI 43-101.
12. I previously prepared a technical report on this Property in May 2000, and have filed assessment work reports pertaining to the property in January and February 2002.
13. I have read NI 43-101, Form 43-101F1 and this technical report has been prepared in compliance with NI 43-101 and Form 43-101F1.

[signed] and sealed

Toronto, Ontario
September 27, 2002

Gerald A. Harron, M.Sc., P.Eng., P.Geo.
Consulting Geologist