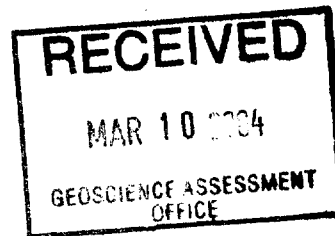


**PANGEA GOLDFIELDS INC.**  
**FENN GIB DRILLING REPORT**  
**MARCH / APRIL 2002**



**May, 2002**

**PAUL BROWN**



## 0. EXECUTIVE SUMMARY

This report summarizes the exploration program conducted on the Fenn Gib property during the winter and early spring of 2002. Exploation activity focused in the eastern half of the property, and consisted of line cutting, geophysics and diamond drilling. A total of 76.5 kilometres of line cutting, 67.5 kilometres of magnetometer and 29 kilometres of I.P surveying followed by 1465 metres of diamond drilling in five holes. Diamond drilling focused on both geological/structural and geophysical targets in several environments. The diamond drilling confirmed the interpreted position of Deformation Corridor east of L33+00E. The drilling also showed that this portion of the corridor is also anomalous for gold, unfortunately however the diamond core drilling failed to intersect any economic values for gold.

The Fenn-Gib property consisting of 68 claims totalling approximately 1088 ha is located in Guibord and Munro townships. It is centred at approximately 48° 31' North and 80° 12' West. The property lies approximately 20 kilometres east of the town of Matheson and approximately 36 kilometres west of the Holt-McDermott mine. The property can be accessed year round from highway 101 which cuts the Northwest portion of the property.

The Fenn-Gib property is located in the southern portion of the Abitibi Sub-province, which is part of the Superior Province of the Canadian Shield. The Abitibi Sub-province is principally underlain by volcanic and sedimentary assemblages which have generally been metamorphosed to greenschist facies and intruded by late tectonic plutons of tonalite and trondhjemite affinity.

The property is underlain by the dominantly volcanic Kidd-Munro Assemblage to the north and the dominantly sedimentary Hoyle Assemblage to the south. The two sequences are juxtaposed along the Contact Fault, an east-west to south-east trending shear zone, which is interpreted to be a branch of the Porcupine-Destor Fault Zone. Within the property the Contact Fault is characterized by brittle deformation accompanied by intense carbonatization and silicification. Rocks from both assemblages were intruded by a variety of late intrusions, including syenite and granitoid plugs and dykes, lamprophyre dykes and diabase dykes. A three kilometre long, by 100 to 200 metre wide, mafic intrusive complex intrudes the Kidd-Munro Assemblage at or near its southern contact.

Known significant concentrations of gold mineralization on the Fenn-Gib property occurs within two zones; 1) the Main Zone and 2) the Deformation Zone. The Main Zone is a broad zone of disseminated gold mineralization up to 250 metres wide with grades for gold between 0.50 to 3.00 g/t. This mineralization is hosted within albitized and silicified pyritic basalts. A total of 8.0 million tonnes grading 2.3 g/t with a 1.5 g/t cut off has been calculated for the Main Zone. (MRDI 1999 scoping study). The Deformation Zone contains narrower higher grade intersections associated with altered sediments, intermediate dykes and grey syenite. Gold mineralization is associated with pyrite either in quartz healed breccias or as very fine disseminations. The higher grade core of mineralization labelled "Zone 1West" has been calculated by Pangea in 1996 to contain

305,600 tonnes averaging 5.15 g/t with a 15% dilution at 0.40g/t.. It has been interpreted that the Contact Fault acted as a channel for gold-bearing hydrothermal fluids and is host to the Deformation Zone and the southern boundary of the Main Zone.

## **CONCLUSIONS AND RECOMMENDATIONS**

Historical work completed by Pangea Goldfields on the Fenn-Gib property has located two significant, albeit lower-grade, zones of gold mineralization. This mineralization is recognized to occur in several styles. The most common style of gold mineralization recognized to date consists of quartz-carbonate veins, stringers and breccias hosted within intensely altered volcanic rocks and granitoid intrusions, the Main Zone. A second style is gold associated with intensely altered sediments with variable fine crystalline pyrite within and in the hanging wall to a deformation corridor, the Deformation Zone. A third style of gold mineralization is associated with alteration, shearing and sulphides in NNE trending structures.

In all three styles of mineralization, narrow and moderately plunging higher grade zone of gold mineralization, with a short strike length, are enclosed within an envelope of lower grade mineralization. The lower grade halo associated with the Main and Deformation Zones can be traced by diamond drilling well below 300 metres vertically. Individual higher grade shoots appear to have a more restricted plunge length, and in places within the Main Zone occur as stacked lenses. Within the Deformation Zone some of the lenses are stacked while other appears to be en-echelon.

The objective of the winter of 2002 diamond drill program was to evaluate the exploration potential of the eastern portion of the Fenn Gib property east of L33+00 E, and determine the position of the eastward extension of the "Deformation Corridor" east of L33+00 E. This diamond drilling programme has identified the position of the postulated eastern extension of the Deformation Corridor. With the aid of the new magnetic survey the drilling has also better defined the distribution of a coarse crystalline gabbro body, and has also indicated the presence of a significant volume of syenite intrusion flanking both the south and north side of the gabbro east of L36+00E. See Dwg. 2002-1, Geological Compilation.

Based on the magnetic and I.P. data it appears later cross cutting and northeast trending shears has broken the gabbro into several smaller blocks. A brecciated zone and accompanied shearing intersected towards the end of DDH G-215 is interpreted to be one of these northeast trending structures. This structure has elevated values for gold, (approximately 1.00 gram per tonne across 2.00 metres core length). Potential exist for significant gold mineralization to be present along the intersection of this and similar structures and the Deformation Corridor. Anomalous values in the 0.50 gram per tonne range across approximately four metres in the cataclasite intersected in DDH G-215 also indicated the Deformation Corridor still has potential to host zones of significant gold mineralization. Mineralized zones are expected to be pipe like and plunging approximately 45° to the east. An envisaged target would be on the order of 100 metres strike length, 5 to 10 metres thick and plunge for greater than 300 metres.

The extent of gold mineralization associated with the Central Syenite is still unknown. A review of Cominco drilling and current geophysical surveys led this author to postulate that the gold mineralization encountered by Cominco could be associated with a southeast trending structure. DDH G-213 drilled on this structure approximately 200 metres to the southeast of Cominco's drilling does not support this concept, since this DDH did not encounter any anomalous gold mineralization in the shear.

I.P. has demonstrated in the various configurations that the survey was performed, that it has very limited ability to detect the disseminated pyrite associated with the Deformation Corridor. The 50 metre line spaced magnetometer survey was a valuable tool in identifying the possible position of the corridor; however it does not provide specific drill targets. With the three DDH completed during the winter of 2002 on the Deformation Corridor, the position of this corridor is now defined. Anomalous values for gold returned from two of the drill holes where it cut the deformation Corridor indicates that this portion of the corridor has received hydrothermal fluids enriched in gold. Further diamond drilling appears to be the only logical way to further test the economic potential of this portion of the corridor. Drilling would have to be closely spaced, probably less than 100 metre centres, for the size of target proposed above to be intersected.

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## 1.0 INTRODUCTION

The Fenn-Gib property, consisting of approximately 1088 ha, is situated within a segment of the Porcupine Destor Fault Zone, approximately 36 kilometres west of the Barrick's Holt McDermott mine. The Fenn-Gib property was acquired when Barrick Gold acquired Pangea Goldfields Inc in 2000. The property area is underlain by rocks of the Hoyle sedimentary Assemblage and the Kidd-Munro volcanic Assemblage, and lies on the northern portion of the Blake River Synclinorium.

The Hoyle Assemblage, a sedimentary package, consisting of feldspathic wacke, argillites, siltstone and conglomerate. The Kidd-Munro Assemblage, a volcanic package, consisting of mafic to ultramafic basalts, with peridotite to basaltic komatiite and minor rhyolite tuff. Both assemblages are considered to be north facing and in most places appear to be conformable but appear to be in an unconformable relationship in Guibord Township. This unconformity is represented by the Contact Fault.

Within the vicinity of the Fenn-Gib property the Porcupine-Destor fault Zone occurs as a "z-shaped" sigmoidal structure that splits into three branches. Both extremities of the "z-shaped" structure are east-west trending while the central portion is more south-easterly trending. This south-easterly trending structure is believed to contain the Contact Fault on the Fenn-Gib property. Due to poor exposure, the sense and magnitude of displacement along this structure in the Fenn-Gib property area is unknown, but based on more regional information it is thought to mainly be vertical.

Several styles of gold mineralization are recognized in the Fenn-Gib property area. The most common type of gold mineralization recognized to date consist of quartz-carbonate veins, stringers and breccias hosted within intensely altered volcanic rocks and granitoid intrusions, the Main Zone. A second style is gold associated with intensely altered sediments with variable fine crystalline pyrite within and in the hanging wall to the Deformation Zone. A third style of gold mineralization is associated with alteration, shearing and sulphides in NNE trending structures.

The objectives of this exploration programme are: 1: To evaluate the exploration potential of the eastern portion of the Fenn-Gib property east of L33+00 East.  
2: Determine the position of the eastward extension of the "Deformation Corridor" east of L33+00 East.

Exploration activity in 2002 consisted of 76.5 kilometres of line cutting. This line cutting was carried out at 100 metre intervals on north-south lines between L24+50 E and L49+50 E, and in conjunction with an earlier grid provides 50 metre line spacing for the eastern portion of the property. In addition between 1700 S and 2000 S from L28+00E to L35+50 E and 2050 S to 2500 S from L28+00 E to L38+00 E, 50 metre spaced east-west trending lines were cut, thus providing a box grid for the Central Syenite portion of the property.

A GEM-Systems model GSM-19 Proton-precession magnetometer survey was conducted along all recently cut lines. Readings of the magnetic field were taken every 12.5 metres along the lines. A total of 67.5 line-km of magnetic data were collected during the survey. The magnetic field measurements were corrected for diurnal drift by using data from an automatic base station collecting magnetic readings every 10 seconds. This magnetic survey was incorporated with earlier and a more widely spaced magnetic survey. The result was an enhanced magnetic picture for the eastern portion of the Fenn-Gib property.

A Time-Domain I.P. survey was carried out using a dipole-dipole electrode configuration. The dipole dimension was 25 metres and successive separations at multiples of n=1 to n=6 times the dipole dimension were used in order to investigate at depth. A total of 29 kilometres of I.P. data was collected on lines spaced either 100 metres or 200 metres. The anomalies identified from the I.P. survey were weak and did not provide any strong diamond drill targets by themselves. The results of 2002 geophysical surveys are documented in a separate report by Gérard Lambert titled "Report on Magnetic and Induced Polarization surveys" March 19, 2002.

Prior to the 2002 diamond drill programme a revised geological compilation was completed on the eastern portion of the Gib property using the enhanced magnetic survey, I.P. data and previous geological information from historical diamond drilling. The position of the Deformation Corridor was re-interpreted, shape and distribution of the gabbroic unit associated with the Deformation Corridor was re-defined, additional north-south trending diabase dykes were interpreted and several northeast trending shear structures were inferred.

Based on the revised compilation eight diamond drill targets were identified, prioritized and presented for possible testing by diamond drilling. After discussion with Holt McDermott geologist the five strongest targets were selected for diamond drilling. A total of 1465 metres of diamond drilling were performed in the five drill holes.

Diamond drilling, recovering NQ size core, was performed by Norex Drilling of Porcupine, Ontario. Assaying was performed by Swastika Labs of Swastika, Ontario. Sample preparation procedures followed by Swastika Laboratories are provided in Appendix II.

## **2.0 PROPERTY, LOCATION AND ACCESS**

The Fenn-Gib property consisting of 86 claims for 89 units totalling approximately 1424 ha is located in Guibord and Munro townships. It is centred at approximately 48° 31' north and 80° 12' west. The property lies approximately 20 kilometres east of the town of Matheson and approximately 36 kilometres west of the Holt-McDermott mine. The property can be accessed year round from highway 101 which cuts the north-west portion of the property. See *Figure 1 and Appendix IV*.



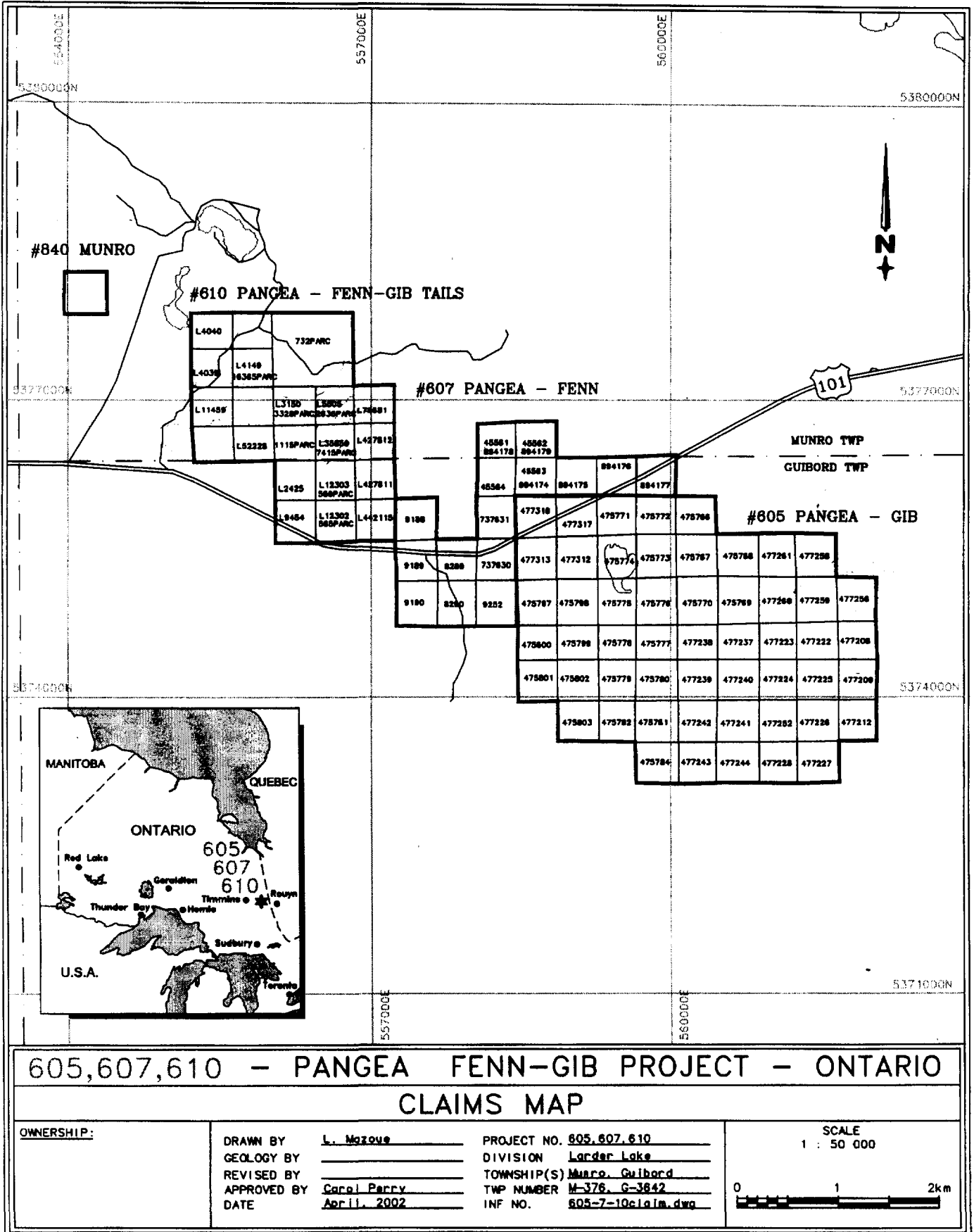


Figure 1

### **3.0 PREVIOUS EXPLORATION WORK**

The earliest recorded work in the area was at the Talisman Mine gold occurrence on the Fenn property. This prospect was originally staked in 1919 and 1921 by N. Faulkenham and F. Gardiner. During 1923 and 1924 Gardiner Guibord Mines Limited sank a shaft to a depth of 115 feet and carried out 500 feet of lateral development on the 100 foot level to test narrow gold bearing quartz veins in the Hoyle sediments. The old workings were reopened in 1934 by Talisman Gold Mines Limited and 694 feet of cross cutting 30 feet of raising and 374 feet of drifting were completed. In 1942 the property was acquired by Shareholders Securities Limited.

Other early work was done some time prior to 1944 on a five claim property called the Quinn claims located at the Fenn-Gib property boundary along highway 101. Prospecting and trenching on these claims resulted in the location of a north-easterly trending shear zone with disseminated sulphides, quartz veins and carbonate alteration. This shear is probably what is now called the Skjonsby Zone.

Perron Gold Mines Limited optioned a 17 claim block known as the Hansen-McDonnell property including the south-west corner of the current Gib property. In 1948 six diamond drill holes, five of which were abandoned in overburden, were collared approximately 700 metres south-west of Guibord Lake. The one hole which reached bedrock penetrated 214 metres of unmineralized Hoyle sediments.

A ground magnetic survey and two diamond drill holes totalling 420 metres were completed by Canadian Johns Manville Company during December 1953 and January 1954 in the north-west corner of the Gib property. These holes encountered altered volcanic rocks cut by syenite dykes.

Between 1964 and 1966 K. E. Skjonsby undertook a programme of trenching and diamond drilling on what is now a portion of the Fenn-Gib property immediately south of highway 101. The objective of this work was to test the extent of north-easterly trending mineralization encountered on the old Quinn property. Twelve shallow holes totalling 375.2 metres were completed. Values for gold returned by Skjonsby from this showing was up to 1.02 opt across narrow intervals (less than 45 cms).

Hollinger Consolidated Gold Mines Limited conducted substantial exploration programmes in Guibord Township in the mid 1960's. Seven holes totalling 1825 metres were drilled in various parts of the now current Gib property between 1964 and 1966. One of these holes G-15, drilled on the west shore of Guibord lake encountered several short intervals of gold mineralization including 0.08 opt/ over a three foot core length.

The current Gib property is included in a group of 134 claims staked by Cominco Limited in 1976. The property has since been reduced to 53 claims. A series of work programmes including geological and geophysical surveys with overburden and diamond

drilling were carried out between 1976 and 1985. The bulk of this work which included 73 overburden holes totalling 2758 metres and 27 diamond drill holes totalling 2763 metres was carried out on and adjacent to a syenite plug in the south central portion of the property. A number of gold intersections including 3.05 metres of 7.54 g/t (average of two assays), 3.94g/t over 6.13 metres and 19.55 g/t over 1.70 metres were returned. Cominco appeared to have lost interest in the project and the property became dormant after 1985.

Lacana exploration acquired the Fenn property and between 1984 and 1986 conducted a series of work programmes on the property including geological mapping, trenching, geophysical surveys and almost 4000 metres of diamond drilling. In August, 1988 Lacana's successor company, Corona Corporation, drilled FE88-10 near the eastern boundary of the Fenn property. This hole penetrated a 222.51 metre section of altered volcanics which averaged 1.632 g/t. At this point Corona tried to option the adjoining Gib property but was unsuccessful.

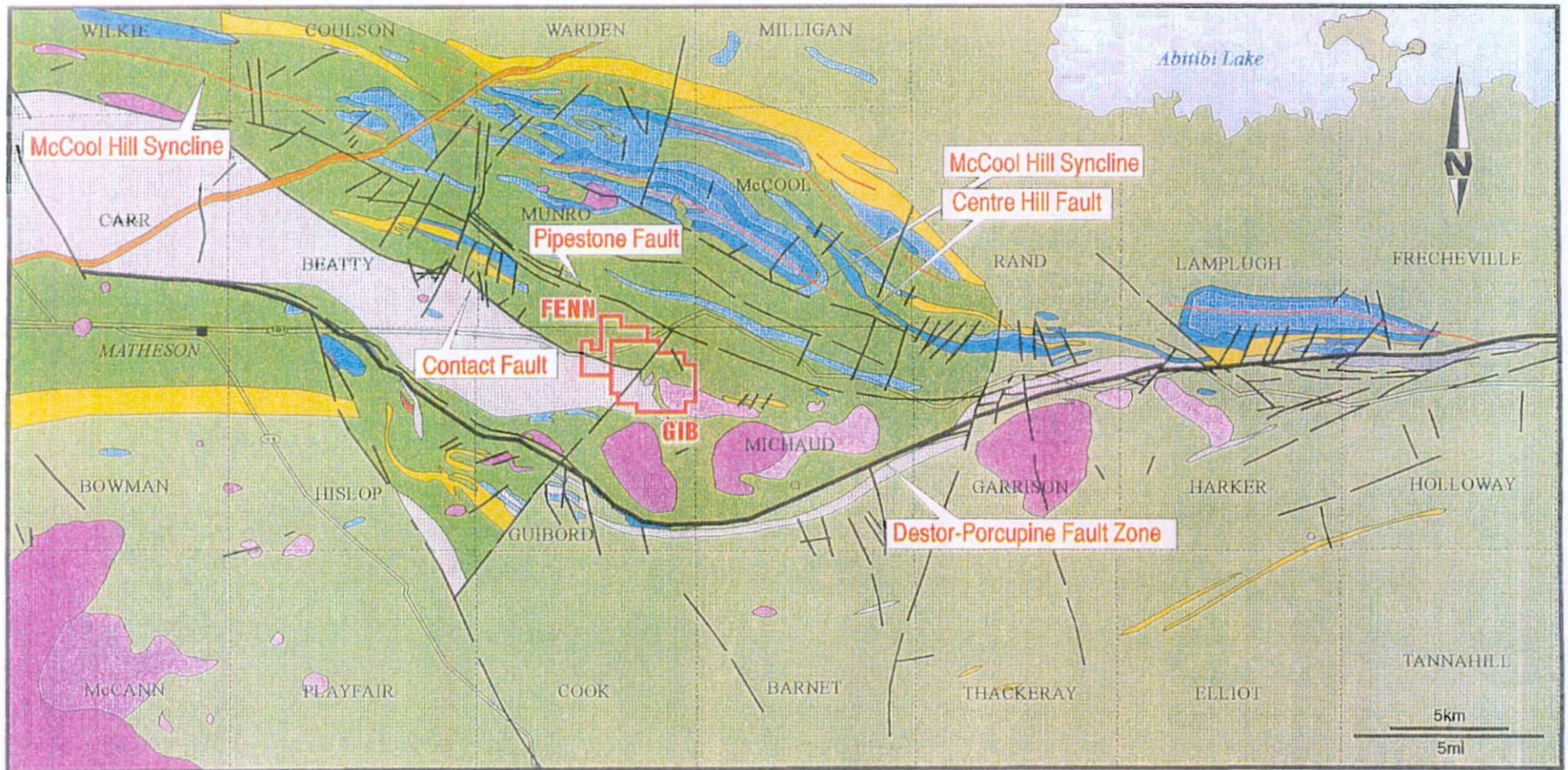
Both the Gib and Fenn properties were acquired by Normina Mineral Development Corporation in the summer of 1993. During 1993 Normina completed a programme of ground geophysics and a four-hole 2306.7 metre drill program. Pangea Goldfields Inc. acquired Normina's interest in the property in January 1994. Between 1994 and 1997 Pangea conducted additional ground geophysical surveys and 60,805 metres of diamond drilling in 202 holes on both the Fenn and Gib properties (St. Andrew Goldfields Ltd 1999 Diamond Drill Report). Their work resulted in the outlining a low grade Main Zone 8.0 million tonnes averaging 2.3 g/t using a 1.5 g/t cut-off and several higher grade lenses in the adjacent Deformation Zone (MRDI 1999 Scoping Study). By the end of 1997 Pangea had completed a number of resource estimates and was working on a pre-feasibility.

In 1998 St Andrew Goldfields Ltd. optioned the property. During 1998 and 1999 St Andrew's completed a limited I.P. survey and conducted 1430 metres of drilling in 21 holes. St Andrew's work concentrated mainly on the Main Zone, outlined previously by Pangea. As part of the option agreement Pangea completed in 1998 their planned exploration programme consisting of 14,090 metres of drilling in 69 diamond drill holes.

#### **4.0 REGIONAL GEOLOGY AND STRUCTURE**

The Fenn-Gib property is located in the southern portion of the Abitibi Sub-province, which is part of the Superior Province of the Canadian Shield. The Abitibi Sub-province is principally underlain by volcanic and sedimentary assemblages which have generally been metamorphosed to greenschist facies and intruded by late tectonic plutons of tonalite and trondhjemite affinity.

The property area is underlain by rocks of the Hoyle sedimentary Assemblage and the Kidd-Munro volcanic Assemblage, and lies on the northern portion of the Blake River Synclinorium and approximately three kilometres north of the of the Porcupine-Destor Fault. See *Figure 2*.



**PRECAMBRIAN**

**Mafic Intrusives**

- Diabase dykes

**EARLY PRECAMBRIAN**

**Felsic Intrusives**

- Trondhjemite, granodiorite, quartz monzonite, simple batholiths and stocks
- Syenite, monzonite, feldspar porphyry

**Mafic & Ultramafic Intrusives**

- Gabbro, diorite, lamprophyre
- Peridotite, dunite, pyroxenite, serpentinite

**Supracrustal Rocks**

- Greywacke, siltstone, slate, argillite & minor pebble conglomerate
- Felsic to Intermediate Metavolcanic Rocks
- Mafic to Intermediate Metavolcanic Rocks
- Mafic to Ultramafic Metavolvanic Rocks

**Structures**

- Fault
- Anticline
- Syncline

Modified from: Map 53A and Map 2205, Ontario Division Mines



**PANGEA**

**GOLDFIELDS INC.**

**MATHESON AREA - ONTARIO**

**REGIONAL COMPILATION MAP**

**FIGURE 2**

The Hoyle Assemblage, a sedimentary package, consisting of feldspathic wacke, argillites, siltstone and conglomerate. The Kidd-Munro Assemblage, a volcanic package, consisting of mafic to ultramafic basalts, with peridotite to basaltic komatiite and minor rhyolite tuff. Both assemblages are considered to be north facing and in most places appear to be conformable but appear to be in an unconformable relationship in Guibord Township. This unconformity is represented by the Contact Fault.

Several styles of gold mineralization are recognized in the Fenn-Gib property area. The most common type of gold mineralization recognized to date consist of quartz-carbonate veins, stringers and breccias hosted within intensely altered volcanic rocks and granitoid intrusions, the Main Zone). A second style is gold associated with intensely altered sediments with variable fine crystalline pyrite within and in the hanging wall to the Deformation Zone. A third style of gold mineralization is associated with alteration, shearing and sulphides in NNE trending structures.

The main structural features of the area are the Blake River Synclinorium, the Porcupine-Destor Fault Zone and the Cadillac-Larder Lake Fault Zone. The fault zones are respectively located on the north and south limbs of the synclinorium. These structures were formed during the Kenoran Orogeny, a period of north-south compression.

The Blake River Synclinorium forms a steeply dipping structure with a south-east to east trend. It consists of successive isoclinally folded strata with an east-west fabric. The two main breaks are high strain zones characterized by moderate to strong shearing, brecciation, carbonate alteration and quartz veining. The break is the preferred site of intrusion of a variety of granitoid rocks and mafic dykes with associated gold mineralization. It appears that all known major gold deposits in the southern Abitibi are located within a few kilometres of these two fault zones.

Within the vicinity of the Fenn-Gib property the Porcupine-Destor fault Zone occurs as a “z-shaped” sigmoidal structure that splits into three branches. Both extremities of the “z-shaped” structure are east-west trending while the central portion is more south-easterly trending. This south-easterly trending structure is believed to contain the Contact Fault on the Fenn-Gib property. Due to poor exposure the sense and magnitude of displacement along these structure in the Fenn-Gib property area is unknown, but based on more regional information it is thought to mainly be vertical.

## **5.0 PROPERTY GEOLOGY**

### **5.1 General Geology**

The property is underlain by the dominantly volcanic Kidd-Munro Assemblage to the north and the dominantly sedimentary Hoyle Assemblage to the south. The two sequences are juxtaposed along the Contact Fault, an east-west to south-east trending shear zone, which is interpreted to be a branch of the Porcupine-Destor Fault Zone.

Within the property the Contact Fault is characterized by brittle deformation accompanied by intense carbonatization and silicification. Rocks from both assemblages were intruded by a variety of late intrusive rocks including syenite and granitoid plugs and dykes, lamprophyre dykes and diabase dykes. A three kilometre long, by 100 to 200 metres wide mafic intrusive complex intrudes the Kidd-Munro Assemblage at or near its southern contact.

All lithologic units in and adjacent to the deformation zone are moderately to intensely altered. This alteration persists for a distance north and south of the fault outlining a major alteration halo at least two kilometres in length and 500 metres wide. A variety of alteration styles occur within the broad alteration halo including silicification, albitization, potash metasomatism, carbonatization, sericitization, chloritization and hematization. Mariposite occurrences are widespread within the deformation zone. Sulphide mineralization, chiefly pyrite occur as disseminations and fracture fillings in concentrations ranging from trace to 15% in association with the more altered areas. Gold is sometimes associated with the sulphide mineralization especially in areas of coincident silicification and albitization.

## **5.2 Kidd Munro Assemblage**

The Kidd-Munro Assemblage consists of iron rich tholeiitic flows interlayered with komatiitic flows and peridotitic sills. Tholeiitic flows are medium to dark green, aphanitic to medium crystalline and include pillow lavas, flow top breccias and variolitic lavas. Komatiitic flows are dark green and consist of fine crystalline and massive serpentine rich rocks usually altered to talc-chlorite. These units are generally east-west trending, interpreted to be north facing, and dip gently to the south at 45 to 55 degrees.

The Kidd-Munro Assemblage is host to a highly magnetic mafic intrusive body. This intrusion is 100 to 200 metres wide with a strike length of greater than two kilometres inferred from diamond drilling and geophysical data. It consists of a biotitic gabbro with minor peridotite and komatiitic flows. The southern contact of the intrusion is truncated by the Contact fault while the northern contact with its volcanic host is often gradual and typically marked by syenitic dyklets.

## **5.3 Hoyle Assemblage**

The Hoyle Assemblage consists mainly of turbiditic greywackes interlayered with argillites and occasionally conglomerates. Greywackes are generally massive, medium grey to grey green in colour whereas the argillites are dark grey to black, massive or finely laminated. Beds dip steeply to the south and are interpreted to be north-facing, based on well developed upward fining cycles, cross bedding and rip-up clasts.

## 5.4 Late Intrusive Dykes

Several generations and compositions of late intrusions intrude the deformation zone as well as the Hoyle and Kidd-Munro Assemblages. The different lithological types of late intrusive rocks are described in MPH Consulting report on the Fenn-Gib property as follows.

1: Grey Syenite: These dykes are medium grey coloured, siliceous, fine crystalline to aphanitic with occasional tiny white feldspar phenocrysts. They are generally well mineralized with pyrite (5-10%), and are gold bearing. This unit is generally highly fractured and sheared due to its position within the Deformation Zone.

2: Feldspar porphyry: Two types of feldspar porphyry are recognized. The first one consists of a 10 to 15 metre wide body intruding the Hoyle sediments south of the Deformation Zone. This unit has abundant often well zoned euhedral to subhedral feldspar phenocrysts up to 1 cm in diameter in a sericitized light grey groundmass. This unit is not affected by the deformation and is barren. The second type of feldspar porphyry is a marker which marks the north contact of the Deformation Zone. It contains 3% to 10% less than 1 mm white feldspar phenocrysts in a fine crystalline siliceous groundmass which has been variably carbonatized, sericitized and locally hematized. It is light olive green to buff beige in colour and is generally not gold bearing.

3: Orange syenite: Orange to red porphyritic to megacrystic syenite dykes and dykelets cut the volcanic flows and intrusive complex of the Kidd-Munro Assemblage. They are not noted in the Hoyle sediments and only rarely noted within the Deformation Zone. Within the volcanics, they occur as single injections up to 20 metres wide and as swarm-like injections up to 1 metre wide. They are interpreted to be late and often have a sharp but low-angled contact with the volcanics. They generally dip 45 to 55 degrees in the volcanics and steepen to about 70 degrees in the Deformation Zone. The orange syenite dykes are thought to be closely related to gold mineralization in the Main Zone, since their contacts with the volcanics are often enriched in gold (3-8 g/t).

4: Ferro-Diorite: This unit is primarily encountered in the eastern portion of the Deformation Zone. It consists of whitish, aphanitic, feldspathic groundmass speckled with up to 10% black magnetite. It often has significant gold mineralization over narrow widths.

5: Intermediate dyke: The intermediate dyke is fine crystalline to aphanitic and often pervasively altered by carbonatization, sericitization and silicification. It is light green to beige in colour and generally massive.

6: Lamprophyre: The lamprophyre is a massive light grey to brick red dyke characterized by the presence of 3 to 8 % biotite phenocrysts in a moderately to strongly carbonatized groundmass. It is weakly to moderately magnetic and usually barren of

mineralization. Thin-section study of the lamprophyre dykes and altered intermediate dykes show that the two rocks are related and of syenitic origin. MPH Consulting 1994 Assessment Report.

The Deformation Zone represents the preferential site of intrusion of five of these late intrusive dykes. They are 1: feldspar porphyry; 2: grey syenite; 3: intermediate dyke; 4: ferro-diorite and 5: lamprophyre.

## **5.5 Mineralization**

### **5.5.1 Introduction**

Known significant concentrations of gold mineralization on the Fenn-Gib property occurs within two zones; 1) the Main Zone, and 2) the Deformation Zone. The Main Zone is a broad zone of disseminated gold mineralization up to 250 metres wide with grades for gold between 0.50 to 3.00 g/t. This mineralization is hosted within albitized and silicified pyritic basalts. The Deformation Zone contains narrower higher grade intersections associated with altered sediments, intermediate dykes and grey syenite. Gold mineralization is associated with pyrite either in quartz healed breccias or as very fine disseminations. It has been interpreted that the Contact Fault acted as a channel for gold-bearing hydrothermal fluids and is host to the Deformation Zone and the southern boundary of the Main Zone.

### **5.5.2 Main Zone**

The main zone occupies the area immediately north of the Deformation Zone between sections 12+50 East to 17+00 East and 10+00 South to 11+50 South. The bulk of the mineralization lies west of a late diabase dyke at 15+25 East. It comprises a broad area of disseminated gold mineralization containing higher grade lenses and shoots. At the east and west extremities of the zone the mineralization breaks up in to a number of narrow finger like lenses. Diamond drilling on 25 metre centres has delineated the zone to a depth of 300 metres. A few deep holes have demonstrated that a portion of this zone does extend to at least 600 metres vertically below surface.

Geologically, the Main Zone comprises a series of east-west striking, vertical to steeply south dipping massive to variolitic basalts lying near the western nose of an intrusive gabbro body. In this area the basalt has been intruded and intensely altered by a swarm of syenite dykes. The basalt, syenite and gabbro have in turn been intruded by lamprophyre and diabase dykes. The northern boundary of the zone is a series of chloritic basalts while the southern boundary is marked by highly altered and strained rocks belonging to the Contact Fault.

The mineralization is hosted in albitized and silicified variolitic mafic volcanic rocks, syenite dykes and quartz veins. Pyrite is present in the altered rocks and averages up to 12%. Magnetite is common in the syenite and altered mafic volcanics.



Individual higher-grade shoots have been interpreted within the lower grade envelope and appear to plunge steeply southeast. These shoots are reported to have a plunge length of 150 to 200 metres, strike length up to 100 metres and thickness up to 23 metres, at a 3.0g/t Au cut-off. It is felt that the overall plunge of the lower grade envelope would mimic that of the higher grade shoots.

Early exploration of the Main Zone interpreted the mineralization to be contained within a series of stacked veins, but recognized the possibility that some of the gold mineralization may be related to north-northeast trending structures. To better understand this possibility several short campaigns of east-west orientated diamond drill holes were completed between 1995 and 1999. Although a number of drill holes encountered mineralization along the western edge of a syenite complex orientated in a general north-northeast direction the overall results of this east-west drilling were inconclusive.

### **5.5.3 Deformation Zone**

The Deformation Zone mineralization extends over a length of 1.2 kilometres from about section 12+00 East and is hosted within highly strained and altered rocks associated with the Contact Fault. Drilling to date indicates that the Deformation Zone mineralization is contained within a series of lenses that strike east-west, dip vertically or steeply to the south and plunge to the southeast. The Deformation Zone mineralization has been tested by diamond drilling relatively consistently to approximately 300 metres below surface and sporadically below 300 metres to a maximum of 600 metres below surface.

The Deformation Zone is a zone of hydrothermally altered and mineralized rocks. The alteration is more pervasive and widespread in the sediments to the south than in the volcanic package to the north. As a result the gold mineralization is more extensive within the Hoyle sediments than in the Kidd-Munro volcanics.

The hanging wall of the Deformation Zone consists of moderately to strongly microfractured and brecciated sediments affected by pervasive silicification, carbonatization and sericitization. Gold mineralization is associated with disseminated pyrite but is more commonly concentrated in pyritic quartz-healed breccias and quartz-carbonate stringers. Pangea geologist's have classified the highly tectonized sediments cataclasites and these represent the southern limit of the Deformation Zone. Cataclasites can occur as mineralized lenses which have been transposed along fault planes. These lenses are also cut by late barren lamprophyre dykes.

The footwall of the Deformation Zone is marked by a highly sheared, silicified and carbonatized biotitic gabbro with disseminated pyrite. This zone occurs immediately after a feldspar porphyry which marks the northern limit of the Deformation Zone.

The Deformation Zone has been interpreted to vary in width from less than 20 metres to locally greater than 75 metres, on average it is 40 to 50 metres wide, and is host to a wide variety of syn to post mineral dykes. The hanging wall or south contact of the Deformation Zone is marked by either a lamprophyre or intermediate dyke. These dykes are barren of gold mineralization and often can be seen splitting "Zone 1 West" into two parts. Thin section work conducted by MPH Consulting on these lamprophyre and intermediate dykes indicate they are related and have a syenite association. The footwall or north contact of the Deformation Zone is almost invariably marked by a buff-beige feldspar porphyry dyke. Lesser amounts of grey syenite and ferro-diorite have also been noted within the Deformation Zone. Dykes account for anywhere 40% to 80% of the width of the Deformation Zone, with the remainder of the zone comprised of strongly altered and sheared rocks interpreted to be sediments.

Several shoots of gold mineralization are noted within or are in close proximity to this Deformation Zone. Several of the more continuous shoots have been labelled by Pangea as follows: Zone 1 West; Zone 2a West; Zone 11 West; Zone 11a West; Zone 11b West; Zone 1 East; Zone 1a East; Zone 2 East and Zone 3 East. The largest identified to date is Zone 1 West which can be traced from sub-crop at section 15+50 East to section 17+50 East at a depth of approximately 250 metres, along a plunge of -40 degrees to the east. At this point the zone is interpreted to dramatically change plunge to vertical and extrapolated to a depth of 400 metres. The horizontal strike of the zone varies from approximately 30 metres to about 80 metres. Thickness varies from an assigned minimum of 3.0 metres to 19.50 metres core length. This zone has been split by a late lamprophyre dike with the northern portion of the zone being labelled "Zone 2 West". The higher grade core of mineralization labelled "Zone 1 West" has been calculated by Pangea in 1996 to contain 305,600 tonnes averaging 5.15 g/t with a 15% dilution at 0.40g/t. This higher grade core is within a lower grade shell which averages 0.5 to 1.5 g/t over variable widths.

The "Zone 1 West" which is hosted by altered and sheared sediments starts in the hanging wall to the Deformation Zone. As this mineralized zone is followed down plunge to the east it migrates into the Deformation Zone and is split by a late barren lamprophyre dyke, the northern portion is then labelled "Zone 2 West". By section 17+50 east most of the mineralization belonging to this lens has migrated into the Deformation Zone. Once in the Deformation Zone the mineralized lens is further sheared and transported vertically to a lower elevation than its corresponding portion on the hanging wall side of the Deformation Zone.

A second series of shoots of higher grade mineralization has been intersected in a number of drill holes between section 20+50 East and 23+75 East. These shoots are interpreted to plunge at -30 degrees to -50 degrees to the east. Currently, diamond drilling has indicated a limited plunge direction of 100 metres or less, horizontal strike of 20 to 50 metres and thickness up to 17.50 metres core length. Grades vary up to 33 g/t but average between 4 g/t and 8 g/t over core lengths of 1.5 to 4.5 metres. Drilling has tested this portion of the Deformation Zone to approximately 300 metres, and has identified four separate zones.

An alternate explanation for the short plunge length is that it is possible that the more consistent shoots are all part of the same one but have been displaced vertically by late north-northeast trending shears which also host several diabase dykes noted in the immediate vicinity.

East of section 24+00 East approximately only six diamond drill holes have been collared to test for the Deformation Zone. Drill hole G94-14 drilled by Pangea on section 28+09 East intersected the Contact Fault at the sedimentary/volcanic boundary at 12+80 East at a depth of 175 metres. Drill hole G94-11 intersected the same shear with its associated dykes at 11+85 South to 12+45 South. Most assays, returned for gold, are low, the highest being 1.13g/t over a core length of 1.5 metres.

Later in 1994 Pangea drilled a fence of drill holes at approximately section 33+00 East to determine the geology and contained structures between 7+00 South and 15+00 South. This fence failed to intersect the sedimentary/volcanic contact. It did however intersect two zones of shearing and alteration in volcanics approximately 50 and 100 metres south of the gabbro intrusion contact. These shears have been interpreted by Pangea to be the eastward extension of the Contact Fault and its associated gold mineralized Deformation Zone. Drill hole G94-25 collared to the north but overlapping the toe of G94-26 intersected a shear zone at 12+00 South to 12+35 South. This shear zone contains several varieties of dykes including syenite, feldspar porphyry and lamprophyre. This variety of dykes is identical to those associated with the Deformation Zone west of 24+00 East. The significant difference is that here the shear zone is hosted completely within the biotitic gabbro and not at the south contact of the gabbro.

## **6.0 2002 EXPLORATION PROGRAMME**

### **6.1 Introduction**

During the winter and early spring of 2002 an exploration program focusing on the eastern half of the Gib portion of the property was undertaken. The objectives of this exploration programme were:

- 1: Evaluate the exploration potential of the eastern portion of the Gib property east of L28+00 East.
- 2: Determine the position of the eastward extension of the "Deformation Corridor" east of L28+00 East.

Exploration activity consisted of 76.5 kilometres of line cutting. This line cutting was carried out at 100 metre intervals on north-south lines between L24+50 E and L49+50 E, and in conjunction with an earlier grid provides 50 metre line spacing for the eastern portion of the property. In addition between 1700 S and 2000 S from L28+00E to L35+50 E and 2050 S to 2500 S from L28+00 E to L38+00 E, 50 metre spaced east-west

trending lines were cut, thus providing a box grid for the Central Syenite portion of the property.

A GEM-Systems model GSM-19 Proton-precession magnetometer survey was conducted along all recently cut lines. Readings of the magnetic field were taken every 12.5 metres along the lines. A total of 67.5 line-km of magnetic data were collected during the survey. The magnetic field measurements were corrected for diurnal drift by using data from an automatic base station collecting magnetic readings every 10 seconds. This magnetic survey was incorporated with earlier and a more widely spaced magnetic survey. The result was an enhanced magnetic picture for the eastern portion of the Fenn Gib property.

A Time-Domain I.P. survey was carried out using a dipole-dipole electrode configuration. The dipole dimension was 25 metres and successive separations at multiples of n=1 to n=6 times the dipole dimension were used in order to investigate at depth. A total of 29 kilometres of I.P. data was collected on lines spaced either 100 metres or 200 metres. The anomalies identified from the I.P. survey were weak and did not provide any strong diamond drill targets by themselves.

Prior to the 2002 diamond drill programme a revised geological compilation was completed on the eastern portion of the Gib property using the enhanced magnetic survey, I.P. data and previous geological information from historical diamond drilling. The position of the Deformation Corridor was re-interpreted, shape and distribution of the gabbroic unit associated with the Deformation Corridor was re-defined, additional north-south trending diabase dykes were interpreted and several northeast trending shear structures were inferred.

Based on the revised compilation, seven targets were identified, prioritized and presented for possible testing by diamond drilling, Table 1. After discussion with Holt McDermott geologist the five strongest targets were selected for diamond drilling. The results of this drilling are documented in this report.

**TABLE 1**

HOLE ID	EASTING	NORTHING	AZIMUTH	DIP	LENGTH
A	L3150E	2175S	180°	-60°	260M
B	L3250E	1325S	DELETED		
C	L4050E	1500S	000°	-60°	250M
D	L3650E	1400S	000°	-60°	250M
E	L3050E	1250S	DELETED		
F	L4250E	1325S	180°	-60°	285M
G	L3750E	2050S	135°	-60°	300M

**Total 1345M**

Target "A" To test a band of interpreted weak I.P. responses trending at 125 degrees. This band of weak I.P. could be related to several anomalous values intersected in the Cominco drilling in the late 1970's and early 1980's.

- Target “B” To test a moderate I.P. response which is flanking the interpreted position of the Deformation Corridor. Proposed hole is 50 metres west of DDH 94-25 which intersected the Deformation Corridor but not significant gold mineralization.
- Target “C” To test a weak I.P. response flanking the interpreted position of the Deformation Corridor. This proposed DDH would also test an interpreted 040 degree trending shear.
- Target “D” To test the interpreted position of the Deformation Corridor approximately 400 metres west of proposed DDH “C”. This proposed DDH will test both the south and north contacts of an interpreted gabbro intrusion with the surrounding volcanics.
- Target “E” To test the interpreted position of the Deformation Corridor 200 metres west of proposed DDH “B”.
- Target “F” To test the interpreted position of the deformation corridor, an interpreted 035 degree trending structure and a co-incident weak I.P. response.
- Target “G” To test intersecting north – south and east – west trending structures interpreted to be intruded by syenite and a co-incident I.P. response.

Diamond drilling, recovering NQ size core, was performed by Norex Drilling of Porcupine, Ontario. Assaying was performed by Swastika Laboratories of Swastika, Ontario.

## **6.2 Diamond Drilling Results**

A total of 1465 metres of drilling in five separate holes were completed during the 2002 winter drilling programme. Three of the holes were designed to test the eastward extension of the Deformation Corridor, while the two remaining holes tested other structures identified from the geophysical surveys.

A brief summary of the objectives and results for each of the five diamond drill holes is presented below. This section is followed by a discussion of the re-interpreted geology and economic potential for this portion of the property. A copy of each diamond drill log is appended to this report. Cross sections labelled G-213.dwg to G-217.dwg are also provided in pockets at the back of this report.

Randomly in each group of twenty samples one sample is split in to two portions and treated as separate samples. In addition one sample of the group is a laboratory standard for quality control purposes. A visual inspection of both the standard and duplicate samples was made. No significant variation was noted in the results for gold returned for

the standard sample; however no statistical analysis was performed to confirm this mathematically. Duplicate samples in general produced values close to its original, however more variability was observed than in the standard.

For all samples with elevated values for gold, a second split from the reject portion of the sample was taken at a later date, prepared in the same manner as the original and assayed for gold.

**DDH G-02-213**

**Objective:**

To test a band of interpreted weak I.P. responses trending at 125°. It was postulated that this band of weak I. P. could be related to several anomalous values intersected by Cominco in their drilling in the late 1970's and early 1980's.

**Results:**

This diamond drill hole intersected rock types as predicted from the revised geological compilation. Table 2 below summarizes the rock types encountered in this diamond drill hole.

TABLE 2

FROM	TO	DESCRIPTION
0.00M	41.00M	Overburden.
41.00M	161.45M	Medium Crystalline syenite with minor ultramafic dykes.
161.45M	245.00M	Sediments, minor syenite dyke.
245.00M	245.00M	End of hole.

A significant fault at 161.45 metres marks the transition from syenite to sediment. This shear dips approximately 70° to the northwest. Several minor shears were encountered in both the syenite and the sediments, some of which has elevated sulphide content but no significant gold mineralization. In the syenite from 125.45 metres to 127.45 metres, there is 3% to 5% stringer and disseminated pyrite and strong shearing. This sheared interval with pyrite is the probable cause of the recorded I.P. response.

No economic intersections of gold mineralization were encountered in this drill hole, however several intervals of geochemically anomalous values for gold were returned. These elevated values are presented in Table 3 below.

TABLE 3

FROM	TO	GRADE G/T	COMMENTS
83.00M	84.00M	1.17g/t/1.00m	Syenite, trace pyrite, no alteration.
125.45M	127.00M	0.17g/t/1.55m	Sheared syenite with 3% to 5% pyrite.

## DDH G-02-214

### Objective:

To test intersecting north – south and east – west trending structure interpreted to be syenite and a co-incident I.P. response.

### Results:

The geology for this hole was not as interpreted from the compilation. Magnetics indicated intersecting east-west and north-south structures and I.P. indicated a co-incident I.P. response. Table 4 below summarizes the rock types encountered in this drill hole.

TABLE 4

FROM	TO	DESCRIPTION
0.00M	32.00M	Overburden.
32.00M	165.75M	Coarse crystalline syenite Intrusion.
165.75M	239.28M	Diabase dyke.
239.28M	281.00M	Syenite cut by diorite dykes.
281.00M	281.00M	End of hole.

The intersecting east-west and north-south structure was the north-south trending diabase dyke cutting the syenite. The I.P. response is co-incident with the contact between the syenite and diabase dyke, probably reflecting earlier shearing which the diabase dyke occupied as it intruded.

No significant or elevated assays for gold were returned for this diamond drill hole.

## DDH G-02-215

### Objective:

To test the interpreted position of the deformation corridor, an interpreted 035 degree trending structure and a co-incident weak I.P. response.

### Results:

This drill hole intersected rock types as interpreted from the revised compilation. The only exception was the volume of coarse crystalline syenite encountered. Table 5 below summarizes the rock types encountered in this drill hole.

TABLE 5

FROM	TO	DESCRIPTION
0.00M	36.00M	Overburden
36.00M	128.00M	Coarse crystalline syenite cut by syenite and mafic dykes

128.00M	141.15M	Cataclasite, strongly altered and silicified
141.15M	227.65M	Coarse crystalline gabbro
227.65M	308.65M	Coarse crystalline syenite
308.65M	310.22M	Silicified shear zone
310.22M	338.62M	Medium crystalline gabbro cut by syenite and intermediate dykes
338.62M	398.00M	Medium crystalline syenite
398.00M	398.00M	End of hole

No economic intersections of gold mineralization were encountered in this drill hole, however several intervals of geochemically anomalous values for gold were returned. These elevated values are presented in Table 6 below. The drill hole was successful in intersecting the eastward extension of the Deformation Corridor between 128.00 metres and 141.15 metres. A second but narrow shear zone was intersected between 308.65 metres and 310.22 metres. Elevated values for gold in the interval 135.85 metres to 139.00 metres indicates that the Deformation Corridor is still gold enriched and may contain economic concentrations of gold mineralization.

TABLE 6

FROM	TO	GRADE G/T	COMMENTS
74.00M	74.76M	0.29g/t/0.76m	26 cm quartz vein, trace pyrite.
136.85M	139.00M	0.56g/t/3.15m	Cataclasite with 2% to 5% pyrite.
145.00M	147.00M	0.24g/t/2.00m	Gabbro, trace pyrite.
223.00M	236.00M	0.27g/t/3.00m	Syenite, trace pyrite.
308.00M	308.85M	0.63g/t/0.85m	Syenite, 2% pyrite.
308.65M	310.22M	0.63g/t/1.57m	Silicified shear zone, 5% disseminated pyrite.
320.00M	323.00M	0.67g/t/3.00m	Gabbro/intermediate dyke, 2% to 4% pyrite and 1 speck of V.G.
327.00M	328.80M	0.38g/t/1.80m	Gabbro, trace pyrite.
370.00M	372.00M	0.97g/t/2.00m	Syenite, 1% pyrite.

#### DDH G-02-216

##### Objective:

To test a weak I.P. response flanking the interpreted position of the Deformation Corridor. This proposed DDH would also test an interpreted 040 degree trending shear.



Results:

The geology encountered in this hole was as interpreted by the revised compilation, except the 358.5° trending diamond drill hole intersected a north trending diabase dyke in the interpreted position of the Deformation Corridor. Table 7 below summarizes the rock types encountered in this diamond drill hole.

TABLE 7

FROM	TO	DESCRIPTION
0.00M	35.80M	Overburden
35.80M	49.39M	Coarse crystalline syenite.
49.39M	57.75M	Medium crystalline gabbro.
57.75M	135.87M	Mixed syenite and various dykes.
135.87M	197.20M	Mixed mafic volcanic and various dykes.
197.20M	269.00M	Diabase dyke.
269.00M	269.00M	End of hole.

No economic intersections of gold mineralization were encountered in this drill hole, however two intervals of geochemically anomalous values for gold were returned. Both of these intervals are in a coarse crystalline syenite unit at the top of the hole. These elevated values are presented in Table 8 below.

TABLE 8

FROM	TO	GRADE G/T	COMMENTS
36.00M	39.00M	0.29g/t/3.00m	Coarse crystalline syenite with 1% to 2% pyrite.
45.00M	46.00M	0.65g/t/1.00m	Coarse crystalline syenite with 1% to 2% pyrite and four specks of V.G.

**DDH G-02-217**

Objective:

To test the interpreted position of the Deformation Corridor approximately 400 metres west of proposed G-216. This diamond drill hole tested both the south and north contacts of an interpreted gabbro intrusion with the surrounding volcanics.

Results:

This drill hole intersected rock types as interpreted from the revised compilation. Table 9 below summarizes the rock types encountered in this drill hole.

TABLE 9

FROM	TO	DESCRIPTION
0.00M	50.00M	Overburden.
50.00M	145.73M	Coarse crystalline syenite with mafic dykes.
145.73M	157.90M	Medium crystalline gabbro intrusion.
157.90M	177.14M	Mafic volcanic with minor syenite dykes.
177.14M	198.88M	Coarse crystalline syenite dyke cut by fine crystalline syenite dykes.
198.88M	222.40M	Coarse crystalline gabbro intrusion.
222.40M	255.50M	Mixed fine crystalline intermediate dyke, with gabbro and syenite dykes. <b>DEFORMATION CORRIDOR</b>
255.50M	272.00M	Medium crystalline gabbro cut by syenite dykes.
272.00M	272.00M	End of hole.

No economic intersections of gold mineralization were encountered in this drill hole, however two intervals of geochemically anomalous values for gold were returned. Both of these intervals are in an intermediate dyke. These elevated values are presented in Table 10 below.

TABLE 10

FROM	TO	GRADE G/T	COMMENTS
222.40M	225.40M	0.74g/t/1.00m	Intermediate to felsic dyke, strongly sheared, 1% to 3% pyrite.
227.00M	230.00M	0.41g/t/3.00m	Intermediate to felsic dyke, strongly sheared, 1% to 3% pyrite.

### 6.3 Discussion of Results

The winter 2002 diamond drilling programme was successful in determining the position of the Deformation Corridor from L33+00E to beyond L42+50E. Elevated values for gold in the 0.500 gram per tonne range and strong alteration indicates that this structure east of L33+00E is still anomalous for gold and holds the possibility of hosting economic concentrations of gold in pipe like plunging bodies. Gold mineralization was also encountered towards the end of hole G-215, collared on L42+50E. This mineralization in the 1.00 gram per tonne range over two metres and associated with brecciated syenite

indicated another possible shear structure. It may be related to a 045° structure interpreted from the geophysical results.

The one diamond drill hole, G-213, testing the southeast contact between the Central Syenite and the intruded sediments failed to intersect any anomalous gold mineralization. Sufficient sulphides (pyrite) were intersected between 125 and 127 metres to be the cause of a weak I.P. response. It was postulated prior to the 2002 winter drill programme that a string of weak southeast trending I.P. responses could be related to the structure encountered in diamond drill holes by Cominco in the early 1980's. However based on the fact that no elevated values for gold were encountered where DDH G-213 intersected this I.P. anomaly it seems less likely that they are the same structure. The significance of gold mineralization intersected by Cominco in the late 1970's and early 1980's on the west side of the Central syenite is still unresolved. The mineralization encountered by Cominco could be narrow shoots associated with a larger but deeper (greater than 200metres) gold rich body and is yet to be tested by diamond drilling.

Diamond drill hole G-214 was designed to test a moderate I.P. response and associated cross cutting north-south and east-west structures. From the core recovered in G-214 it is obvious that the intersecting structure is caused by a previously unknown diabase dyke cutting a syenite body. The I.P. response is on the edge of the diabase dyke and probably represents an earlier shear now occupied by the diabase. (Several other known diabase dykes on this property also has a flanking I.P. response).

## **7.0 CONCLUSIONS AND RECOMMENDATIONS**

Historical work completed by Pangea Goldfields on the Fenn-Gib property has located two significant, albeit lower-grade, zones of gold mineralization. This mineralization is recognized to occur in several styles. The most common style of gold mineralization recognized to date consists of quartz-carbonate veins, stringers and breccias hosted within intensely altered volcanic rocks and granitoid intrusions, the Main Zone. A second style is gold associated with intensely altered sediments with variable fine crystalline pyrite within and in the hanging wall to a deformation corridor, the Deformation Zone. A third style of gold mineralization is associated with alteration, shearing and sulphides in NNE trending structures.

In all three styles of mineralization, narrow and moderately plunging higher grade zone of gold mineralization, with a short strike length, are enclosed within an envelope of lower grade mineralization. The lower grade halo associated with the Main and Deformation Zones can be traced by diamond drilling well below 300 metres vertically. Individual higher grade shoots appear to have a more restricted plunge length, and in

places within the Main Zone occur as stacked lenses. Within the Deformation Zone some of the lenses are stacked while other appears to be en-echelon.

The objective of the winter of 2002 diamond drill program was to evaluate the exploration potential of the eastern portion of the Fenn Gib property east of L33+00 E, and determine the position of the eastward extension of the “Deformation Corridor” east of L33+00 E. This diamond drilling programme has identified the position of the postulated eastern extension of the Deformation Corridor. With the aid of the new magnetic survey the drilling has also better defined the distribution of a coarse crystalline gabbro body, and has also indicated the presence of a significant volume of syenite intrusion flanking both the south and north side of the gabbro east of L36+00E.

Based on the magnetic and I.P. data it appears later cross cutting and northeast trending shears has broken the gabbro into several smaller blocks. A brecciated zone and accompanied shearing intersected towards the end of DDH G-215 is interpreted to be one of these northeast trending structures. This structure has elevated values for gold, (approximately 1.00 gram per tonne across 2.00 metres core length). Potential exist for significant gold mineralization to be present along the intersection of this and similar structures and the Deformation Corridor. Anomalous values in the 0.50 gram per tonne range across approximately four metres in the cataclasite intersected in DDH G-215 also indicated the Deformation Corridor still has potential to host zones of significant gold mineralization. Mineralized zones are expected to be pipe like and plunging approximately 45° to the east. An envisaged target would be on the order of 100 metres strike length, 5 to 10 metres thick and plunge for greater than 300 metres.

The extent of gold mineralization associated with the Central Syenite is still unknown. A review of Cominco drilling and current geophysical surveys led this author to postulate that the gold mineralization encountered by Cominco could be associated with a southeast trending structure. DDH G-213 drilled on this structure approximately 200 metres to the southeast of Cominco’s drilling does not support this concept, since this DDH did not encounter any anomalous gold mineralization in the shear.

I.P. has demonstrated in the various configurations that the survey was performed, that it has very limited ability to detect the disseminated pyrite associated with the Deformation Corridor. The 50 metre line spaced magnetometer survey was a valuable tool in identifying the possible position of the corridor; however it does not provide specific drill targets. With the three DDH completed during the winter of 2002 on the Deformation Corridor, the position of this corridor is now defined. Anomalous values for gold returned from two of the drill holes where it cut the deformation Corridor indicates that this portion of the corridor has received hydrothermal fluids enriched in gold. Further diamond drilling appears to be the only logical way to further test the economic potential of this portion of the corridor. Drilling would have to be closely spaced, probably less than 100 metre centres, for the size of target proposed above to be intersected.

## 8.0 REFERENCES

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## APPENDIX I

# Canadian Geomagnetic Reference Field (CGRF)

REQUESTED:

The magnetic declination in 2002 at Latitude 48 ° 31' N Longitude 80 ° 12' W :

CALCULATED:

The magnetic declination in 2002 at Latitude 48 ° 31' N Longitude 80 ° 12' W:

**11° 57' W**

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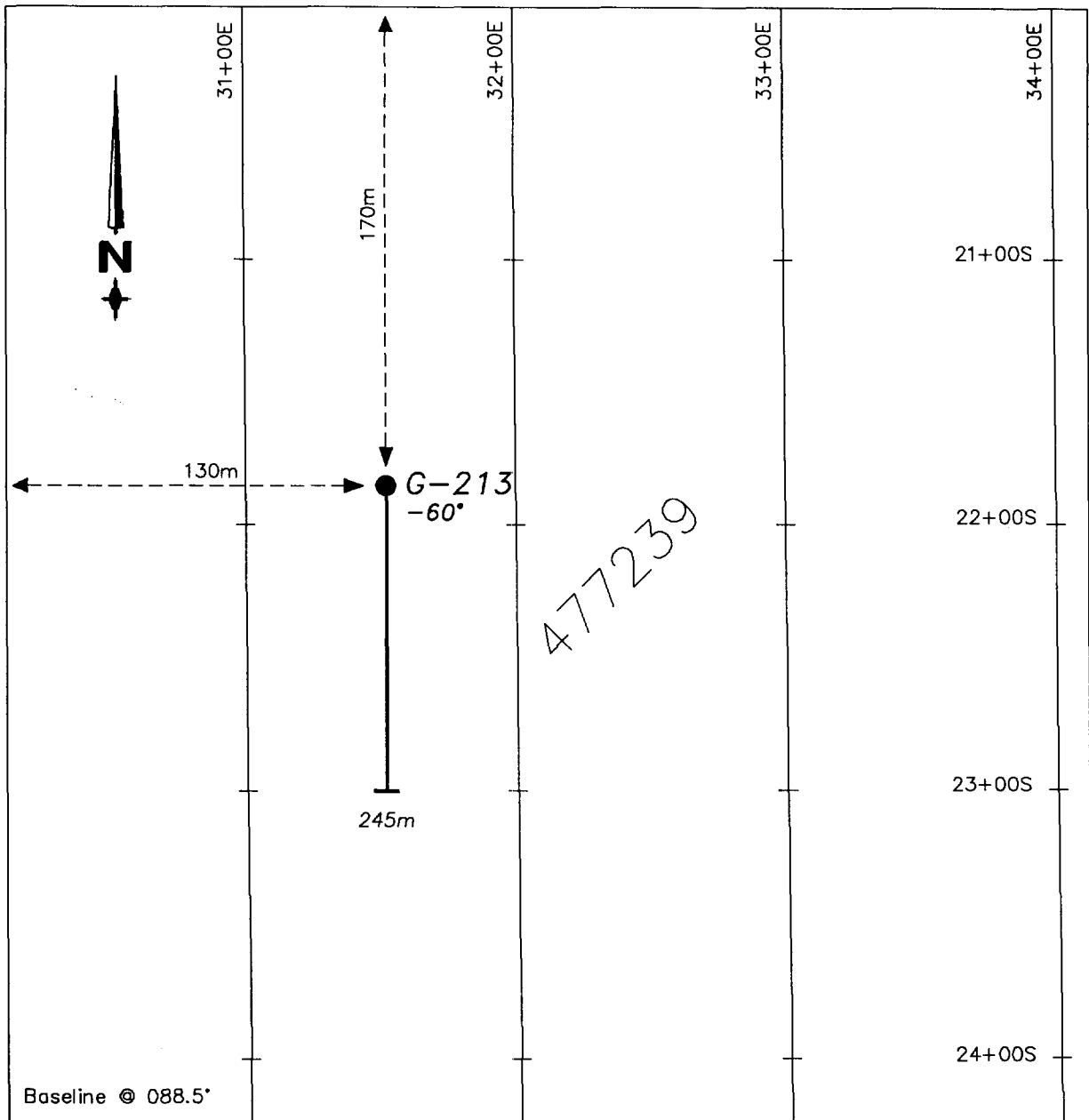
Further information about the CGRF, IGRF and MIRP may be obtained by contacting [Larry Newitt](#)



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PANGEA

GOLDFIELDS INC.

FENN-GIB PROPERTY

DRILL HOLE LOCATION MAP

DDH G-213

Guibord Township/Claim number 477239

Scale 1 : 2 500 100m



**DRILLING COMPANY**  
Norex Drilling Limited  
P.O. Box 88  
Porcupine, Ontario P0N 1 C0

**LOCATION**  
Gib Property Guibord Township  
L31+50 E, 21+75S

**HOLE NUMBER**

**G-213**

**DATE STARTED**      **DATE COMPLETED**  
March 24th, 2002      March 26th, 2002

**CLAIM NUMBER**  
477239

**HOLE DEPTH**  
245.00 METRES

**DATE LOGGED**  
March 25th, 2002 to March 27th, 2002

*Paul Brown*

**CORE SIZE**  
NQ

Gold Assays in G/Tonne

**LOGGED BY**  
Paul Brown

**TARGET FOR DDH**  
I.P. Response, Syenite/Sediment contact  
Shear zone

**CORE STORED**  
Holt McDermott Mine Site

**DOWN HOLE TEST**

DEPTH	AZIMUTH	DIP
Metres	Corrected	Degrees
0.00	178.5	-60.0
47.00	177.1	-59.7
98.00	184.0	-60.2
146.00	181.4	-60.4
197.00	183.5	-60.7
239.00	182.0	-60.7

**DISTANCE TO POST**

130 metres west and 170 metres north to post # 4 of claim 477239

FROM	TO	ROCK DESCRIPTION
0.00	41.00	Casing and Overburden
41.00	108.55	SYENITE

Medium grained medium to light green to locally reddish brown, massive syenite. Syenite has 30% 1 to 3 mm feldspar crystals with mottled weak to locally moderate epidote alteration. Unit has 2% to 5% coarse grained to medium grained biotite. Unit is moderately magnetic throughout. At 54.56m a 70 cm later syenite dyke at 30° to core axis. Dyke has sharp contacts. The syenite dyke is fine grained and non magnetic. Less than 1% quartz carbonate veinlets, usually less than 2mm in width and at various angles to core axis. At 45.57m to 46.68m medium grained, dark green, chloritic mafic volcanic inclusion. Upper contact 45° to core axis. Lower contact 45° to core axis. At 59.90m to 61.78m fine grained to locally medium grained reddish green syenite dyke. Upper contact approximately 40° to core axis. Lower contact is irregular. Fractures generally greater than 45° to core axis, minor manganese on fractures. At 62.62m and 63.1m a 5 cm and a 15 cm dyke at 45° and 50° to core axis respectively. Dykes are similar to one at 59.90m.

At 64.10m a 12 cm syenite dyke. Dyke is fine grained. Upper contact at 40° to core axis.

From 65.90m to 66.40m fracture at 0° to core axis.

At 85.30m a 75cm light green, fine grain to medium grain, intermediate dyke. Upper contact 60° to core axis. Lower contact in broken core. At 86.80m, 1 to 2% disseminated pyrite for 30cm. Syenite has moderate epidote alteration.

At 85.46m, 2cm irregular broken carbonate vein at 0° at core axis for 25cm. No sulphides in vein.

At 94.50m, 2cm quartz and pink carbonate vein at 40° to core axis. No sulphides in vein. The syenite has 3 to 5

1 to 3mm carbonate veinlets at various angles to the core axis per metre. No significant sulphides associated with the veinlets.

From 91.00m to 98.00m only trace sulphide noted in the core as disseminations.

Number of minor shears usually less than 2cm in width noted at various angles to the core axis.

At 90.65m, a 1.5 to 2 cm quartz carbonate vein at 30° to core axis. No sulphides in vein.

Lower contact in broken and core at 60° to core axis. The last six meters is medium grain to coarse grain and has 1mm to 4mm biotite crystals. No preferred orientation to the biotite crystals.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62001	63.50	64.50	1.00	0.080			Syenite with 1 to 3% disseminated pyrite.
62002	71.00	72.00	1.00	NIL			Syenite with 1 to 3% disseminated and stringer pyrite. 1 cm quartz carbonate vein at 50° to core axis. No sulphides in vein.
62003	80.00	81.00	1.00	0.020			Syenite trace to 1% disseminated pyrite.
62004	81.00	82.00	1.00	0.030			Syenite trace to 1% disseminated pyrite.
62005	82.00	83.00	1.00	0.030			Syenite trace to 1% disseminated pyrite.
62006	83.00	84.00	1.00	1.170	1.100	1.120	Syenite trace to 1% disseminated pyrite.
62007	84.00	85.00	1.00	0.020			Syenite trace to 1% disseminated pyrite.
62008	85.00	86.00	1.00	0.020			Syenite trace to 1% disseminated pyrite.
62009	86.00	87.00	1.00	0.010			Syenite trace to 1% disseminated pyrite.
62010	87.00	88.00	1.00	0.040			Syenite trace to 1% disseminated pyrite.
62011	88.00	89.00	1.00	0.080	0.015		Syenite trace to 1% disseminated pyrite.
62012	88.00	89.00		0.150			Duplicate of 62011
62013	94.40	95.40	1.00	0.020			Syenite trace to 1% pyrite
62014	98.00	99.00	1.00	0.030			Syenite trace to 1% pyrite
62015	99.00	100.00	1.00	0.010			Syenite trace to 1% pyrite
62016	100.00	101.00	1.00	0.010	0.010		Syenite trace to 1% pyrite
62017	104.00	105.00	1.00	0.010			Syenite trace to 1% pyrite
62018	105.00	106.00	1.00	0.010			Syenite trace to 1% pyrite
62019				0.580			Standard

108.55 114.25

#### GABBRO

The Gabbro is medium grained, dark green, chloritic, massive and magnetic.

The gabbro has 5% 1 mm to 3 mm biotite phenocrysts in a fine grained to medium grained matrix.

There are no quartz veining and only trace quartz carbonate veining in the gabbro.

The gabbro has 20% to 30% 1 mm to 3 mm altered feldspar phenocrysts. Alteration appears to be epidote.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62020	113.25	114.25	1.00	0.020			Gabbro intrusion, minor carbonate veining, trace sulphides

114.25 125.45

**ULTRAMAFIC INTRUSIONS**

Fine grained, dark green, talc carbonate rich (altered ultramafic dyke). Unit is occupying a possible shear zone. Dyke is fine grain, massive and magnetic. Locally within dyke, narrow shears generate less than 30° to core axis.

The dyke has minor carbonate veining and trace sulphides. Upper contact has trace pyrite as disseminations. There are no significant chill margins to the dyke, but the first 30cm is a paler green.

Lower contact of ultramafic is strongly sheared at the 30 to 40° to core axis. Last 50cm of the ultramafic intrusion has 3 to 5% pyrite as stringers and disseminations.

Numerous approximately 5 to 10% irregular stringers and blebs of carbonate in the last 50cm of the ultramafic intrusion.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62021	114.25	115.25	1.00	0.010			Ultramafic intrusion, minor carbonate veining, trace sulphides
62022	116.00	117.00	1.00	0.010			Ultramafic intrusion, minor carbonate veining, trace sulphides
62023	117.00	118.00	1.00	NIL			Ultramafic intrusion, minor carbonate veining, trace sulphides
62024	121.00	122.00	1.00	NIL			Ultramafic intrusion, minor carbonate veining, trace sulphides
62025	122.00	123.00	1.00	0.150			Ultramafic intrusion, minor carbonate veining, trace sulphides
62026	124.00	125.00	1.00	0.020			Ultramafic intrusion, minor carbonate veining, trace sulphides
62027	125.00	126.00	1.00	0.070			Ultramafic intrusion, minor carbonate veining, 3 to 5% sulphides
62028	123.00	124.00	1.00	0.030			Ultramafic intrusion, trace pyrite

125.45 142.23

**SYENITE**

Medium grain reddish brown to medium green. Unit is massive and non magnetic to locally weakly magnetic. The reddish brown syenite is non magnetic while the light green syenite is variably magnetic. The light green syenite is also finer grain and may be in part partly absorbed ultramafic. There are less than 1cm to 5cm rounded to irregular blebs of ultramafic to mafic rock in the red syenite. Locally these blebs amount to 1 to 5% of the core.

The first two meters of the syenite appears to be strongly sheared, possibly silicified and has 3 to 5% stringer and disseminated pyrite, below which there is only trace pyrite in the syenite.

Locally 1cm to 10cm shear zones at 30° to 50° to core axis cut the syenite.

No significant sulphides noted in the syenite.

From 130.80m to 135.40m bright red syenite. Syenite is medium grain with inclusions of ultramafic to mafic dyke.

From 137.50m to 142.23m red syenite, with minor ultramafic to mafic inclusions as fragments, most are less than 2 cm in diameter.

Contact at 125.45m and immediately below in syenite is the probable I.P. anomaly and one of the targets for this hole. Lower contact at 142.23m in broken core, fault zone. 140.50m to 142.23m fault zone at 0 to 10° to core axis.

From 128.92 metres to 129.80 metres and 130.18 metres to 130.78 metres, fine grained, dark green, chloritic mafic dykes.

Contacts appear to be partially reabsorbed by the syenite.

There are trace amounts of quartz carbonate stringers in the dykes, no quartz veining and no sulphides.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62029	125.45	126.00	0.55	0.140	0.090		Syenite, 3 to 5% pyrite, strongly altered.
62030	126.00	127.00	1.00	0.190	0.540		Syenite, 2 to 4% pyrite, strongly altered.
62031	127.00	128.00	1.00	0.080	0.090		Syenite, 1 to 2% pyrite, widely altered.
62032	127.00	128.00	1.00	0.080			Duplicate of sample #62031.

62447	131.00	132.00	1.00	0.030	Syenite, trace pyrite, 1 to 2% quartz stringers
62448	132.00	133.00	1.00	0.010	Syenite, trace pyrite, 1 to 2% quartz stringers
62449	133.00	134.00	1.00	0.020	Syenite, trace pyrite, 1 to 2% quartz stringers

142.23 148.00

**ULTRA MAFIC INTRUSION**

Fine grained, dark grained, massive, and magnetic. Ultra mafic is similar to unit above. 3 to 5% , 1mm to 4mm quartz carbonate stringers. There are no significant sulphides noted in the ultra mafic intrusions. Lower contact is irregular and not distinct.

148.00 152.50

**SYENITE**

Reddish brown, medium grained, massive syenite. Lower contact is gradation over a 1mm interval. The syenite is weakly magnetic. There are no significant quartz veins or stringers noted in the syenite. No significant sulphides present.

152.50 161.45

**GABBRO TO MAFIC DYKE**

Fine grained, to locally medium grained, dark green to medium green, chloritic, massive and non magnetic gabbro to mafic dyke. The upper is indistinguishable with the syenite and appears to be partly absorbed by the syenite. Lower contact is in a fault zone at 45° to core axis. There is 2% pyrite as disseminations to 157 metres, below which there is 1% to 3% disseminated pyrite. There are no quartz veins or quartz stringers in this interval.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62033	153.00	154.00	1.00	0.070			gabbro to mafic dyke less than 2% pyrite.
62034	154.00	155.00	1.00	NIL			gabbro to mafic dyke less than 2% pyrite.
62035	155.00	156.00	1.00	0.020			gabbro to mafic dyke less than 2% pyrite.
62036	156.00	157.00	1.00	0.020			gabbro to mafic dyke less than 2% pyrite.
62037	157.00	158.00	1.00	0.030			gabbro to mafic dyke less than 2% pyrite.
62038				0.640			Standard
62039	158.00	159.00	1.00	0.030			gabbro to mafic dyke less than 2% pyrite.
62040	159.00	160.00	1.00	0.160	0.080		gabbro to mafic dyke less than 2% pyrite.
62041	160.00	161.00	1.00	0.080			gabbro to mafic dyke less than 2% pyrite.
62042	161.00	161.45	0.45	0.110	0.140		gabbro to mafic dyke trace pyrite.

161.45 225.20

**SEDIMENTS - GREYWACKE and ARGILLITE**

Fine grained to locally medium grained, grey green to medium green sediments. No noticeable layering noted in the sediments. Number of 1mm to 3mm quartz carbonate plus or minus ankerite veins at various angles to the core axis. Sediments are non-magnetic. There are no significant sulphides noted in the sediments. At 178.75m a 3mm quartz and carbonate vein at 10° to core axis. Trace to 1% pyrite in vein and vein salvage. From 189.00m to 193.00m altered pale green argillite. This interval appears to be weakly silicified. Trace to locally 1% pyrite as to disseminations. At 221.15m a 75cm re-healed and silicified fault zone, trace pyrite associated. Fault is at 45 to 50° to core axis. At 225.81m, 3mm quartz carbonate vein at 75° to core axis. 1 to 3% chalcopyrite in vein. Lower contact of sediments is irregular.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62043	178.00	179.00	1.00	0.020			Sediments, trace to 1% pyrite.

62044	188.00	189.00	1.00	0.010				Sediments, trace pyrite.
62045	189.00	190.00	1.00	0.030				Altered sediments, trace pyrite.
62046	190.00	191.00	1.00	0.010				Altered sediments, trace pyrite.
62047	191.00	192.00	1.00	0.010				Altered sediments, trace pyrite.
62048	192.00	193.00	1.00	0.010				Altered sediments, trace pyrite.
62049	193.00	194.00	1.00	0.010				Sediments, trace pyrite.
62050	210.80	212.00	1.20	0.010				Fault zone in sediments, trace pyrite.
62051	224.20	225.20	1.00	0.090				Sediments, trace pyrite.

225.20 233.10

**SYENITE HYBRID**

Pale green with reddish brown tinges. Unit is medium grained and massive. Lower contact is sharp at 80° to core axis. Upper contact is indistinct and appears to have partly re-absorbed sediments. Syenite is weakly to locally moderately magnetic.

At 227.10m, 5mm red hematite vein at 15° to core axis. 1 to 3% pyrite in vein and vein salvage.

At 228.60m, a 1.5cm quartz and pink carbonate vein at 60° to core axis.

There is only trace disseminated pyrite noted in the syenite, usually associated with a few quartz carbonate veinlets.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62052	225.20	226.20	1.00	0.020			Syenite, trace pyrite.
62053	226.50	227.50	1.00	0.050			Syenite with a 5mm hematite vein at 15° at core axis, 1 to 3% pyrite in vein.

233.10 245.00

**ARGILLITE**

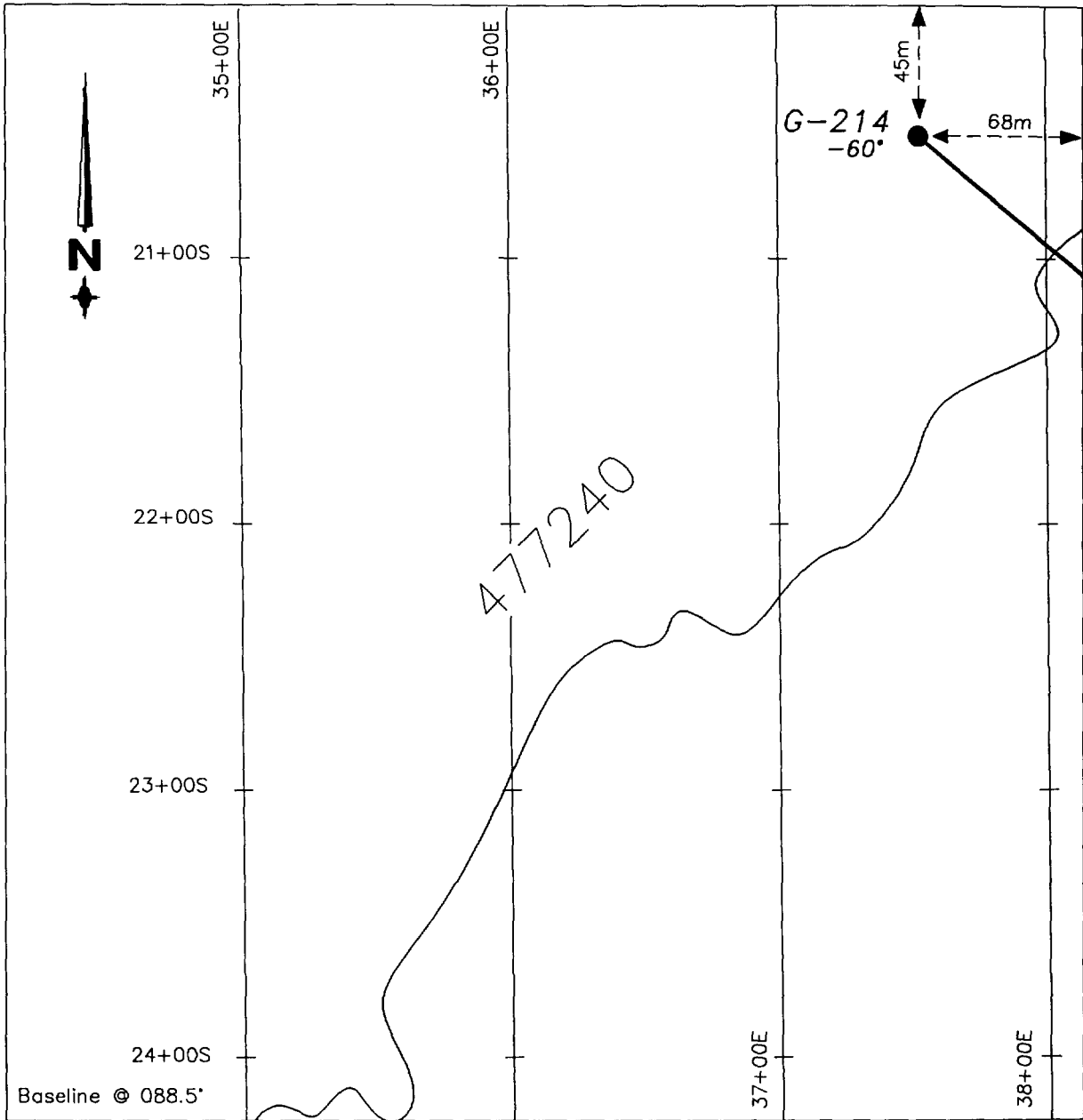
Fine grained, pale grey green argillite, moderately foliated at 30 to 35° to core axis. Locally the sediments are coarser grained and are probably greywacke.

From 236.30m to 237.60m, a medium grained intermediate dyke with broken upper and lower contact. 2% to locally 5% pyrite, in sediments adjacent to dyke contacts for 20cm to 30cm.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62054	235.80	236.30	0.50	0.080			Sediments, 2 to 4% pyrite.
62055	236.30	236.80	0.50	0.140	0.150		Intermediate dyke, 1 to 3% pyrite.
62056	236.30	236.80	0.50	0.200			Duplicate of #62055
62450	236.80	238.00	1.20	0.090	0.110		Sediments, 1% to 2% pyrite

245.00 245.00

**END OF HOLE**



**PANGEA**


**GOLDFIELDS INC.**

FENN-GIB PROPERTY

DRILL HOLE LOCATION MAP

DDH G-214

Guibord Township/Claim number 477240

Scale 1 : 2 500  100m

**DRILLING COMPANY**  
 Norex Drilling Limited  
 P.O. Box 88  
 Porcupine, Ontario P0N 1 C0

**LOCATION**  
 Gib Property Guibord Township  
 L37+50E, 20+50S

**HOLE NUMBER**

**G-214**

**DATE STARTED**      **DATE COMPLETED**  
 March 26th, 2002      March 29th, 2002

**CLAIM NUMBER**  
 477240 ( 235 metres)  
 477224 (46 metres)  
**HOLE DEPTH**  
 281.00 METRES

**DATE LOGGED**  
 March 27th, 2002 to March 30th, 2002

*Paul Brown*

**CORE SIZE**  
 NQ

Gold Assays in G/Tonne

**LOGGED BY**  
 Paul Brown

**TARGET FOR DDH**  
 Intersecting structures and co-incident  
 I.P. Response.

**CORE STORED**  
 Holt McDermott Mine Site

**DOWN HOLE TEST**  
 DEPTH      AZIMUTH      DIP  
 Metres      Corrected      Degrees  
 0.00      133.5      -60.0  
 35.00      127.3      -59.6  
 95.00      128.3      -59.9  
 146.00      128.4      -59.5  
 194.00      131.5      -60.0  
 245.00      132.6      -60.2  
 275.00      129.9      -60.2

**DISTANCE TO POST**  
 68 metres east and 45 metres north to post #1 of claim 477240

FROM	TO	ROCK DESCRIPTION
0.00	32.00	Casing and Overburden
32.00	35.64	GABBRO INTRUSION

The gabbro is medium grained, dark green, massive and moderately to strongly magnetic.  
 The intrusion has 60% 2 mm to 5 mm altered feldspar phenocrysts and 10% to 20% biotite and hornblende in a fine grained matrix.  
 The feldspar crystals appear to have saussurite alteration.  
 There is 1% to locally 5% stringer pyrite associated this this interval of gabbro. The gabbro has minor less than 1 mm quartz carbonate veinlets at various angles to the core axis.  
 There is weak carbonate alteration of the matrix of the gabbro.  
 The last 30 cm of gabbro has pink feldspar phenocrysts similar to those in the syenite intrusion below.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T Original	Au G/T Rerun	Au G/T Reject	DESCRIPTION
62057				0.600			Standard
62058	32.00	33.00	1.00	0.010			Altered Gabbro 2% to 5% disseminated pyrite.

62059	33.00	34.00	1.00	0.280	0.270	Altered Gabbro 2% to 5% disseminated pyrite.
62060	34.00	35.00	1.00	0.080		Altered Gabbro 2% to 5% disseminated pyrite.
62061	35.00	35.64	0.64	0.020		Altered Gabbro 2% to 5% disseminated pyrite.

G-214

35.64 165.75

**SYENITE**

Coarse grained. Reddish brown, massive and moderately magnetic syenite. Magnetism is caused by magnetite. Syenite has 30% to 50% 2 mm to greater than 1 cm red feldspar phenocrysts in a fine grained matrix. There are also 20% to 30% light grey altered crystals with irregular boundaries. These crystals appear to be hornblende, which are now altered to fine grained mica and carbonate. There is minor carbonate alteration in the matrix of the syenite. The syenite has 1% to locally 2% fine grained disseminated pyrite throughout. There are about 5 mm of quartz carbonate stringers per metre. The stringers are void of sulphides. Most stringers are greater than 45° to core axis. Below 45 metres the sulphide content of the syenite is closer to 1%. At 57.70 metres there is minor specular hematite in a 5 mm carbonate vein at 45° to core axis. From 64.60 metres to 65.60 metres a fine grained reddish brown later syenite dyke. Dyke is at 70° to core axis. Trace pyrite in the later dyke. At 77.35 metres a 30 cm fine grained to medium grained later syenite dyke with 1% to 2% disseminated pyrite. At 83.95 metres a 55 cm reddish brown fine grained syenite dyke at 15° to core axis. There is no sulphides noted in this later dyke. At 92.30 metres a 75 cm fine grained, reddish brown syenite dyke at 70° to core axis. This 75 cm dyke has 15% altered 5 mm mafic phenocrysts. There is trace to 1% disseminated pyrite in this later dyke. At 109.32 metres a 5 cm biotite rich dyke at 45° to core axis, probably lamprophyre dyke. At 109.65 metres a 5 mm biotite rich dyke similar to one above but at 30° to core axis. At 116.00 metres a 5 cm dark green, fine grained to medium grained, biotite rich dyke, probably a lamprophyre dyke. Dyke is at 45° to core axis. From 121.00 metres to 133.00 metres about 30% 3 cm to 4 cm feldspar phenocrysts in a biotite and hornblende rich matrix. Locally in this 12 metre interval a weak foliation is defined by the feldspar and biotite crystals. Foliation is at 40° to core axis. At 129.75 metres trace chalcopyrite is noted in a 1 to 2 mm vein. From 141.30 metres to 142.60 metres medium grained, dark grey syenite? Contacts are gradational with the coarse grained syenite above and below. There is moderate epidote alteration in the syenite above and below this dyke for 50 cm to 100 cm. Below 149.00 metres there is a general increase in the epidote alteration of feldspar phenocrysts and also of the matrix. Lower contact at 165.75 metres is sharp at 45° to core axis. There is also a slight increase in sulphide content towards the lower contact, but still less than 1%.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62062	35.64	37.00	1.36	0.020			Syenite. 1% to 2% pyrite. 20 cm inclusion of partly assimilated gabbro.
62063	41.00	42.00	1.00	0.010			Syenite 1% disseminated pyrite.
62064	42.00	43.00	1.00	0.060			Syenite 1% disseminated pyrite.
62065	43.00	44.00	1.00	0.020			Syenite 1% disseminated pyrite.
62066	44.00	45.00	1.00	0.030			Syenite 1% disseminated pyrite.
62067	45.00	46.00	1.00	0.010			Syenite 1% disseminated pyrite.
62068	46.00	47.00	1.00	0.020			Syenite 1% disseminated pyrite.
62069	56.00	57.00	1.00	0.010			Syenite, trace pyrite



62070	57.00	58.00	1.00	0.010		Syenite, trace pyrite
62071	58.00	59.00	1.00	0.040		Syenite, trace pyrite
62072	64.60	65.60	1.00	0.030	0.010	Syenite, minor stringer pyrite in dyke.
62073	64.60	65.60	1.00	0.020		Duplicate of 62072
62074	77.00	78.00	1.00	0.050		Syenite with 1% to 25 disseminated pyrite.
62075				0.590		Standard
62076	80.00	81.00	1.00	0.020		Syenite, trace pyrite
62077	81.00	82.00	1.00	0.010		Syenite, trace pyrite
62078	82.00	83.00	1.00	0.020		Syenite, trace pyrite
62079	92.30	93.05	0.75	0.020		Syenite, trace pyrite
62080	107.00	108.00	1.00	0.050		Syenite, no significant sulphides
62081	108.00	109.00	1.00	NIL		Syenite, no significant sulphides
62082	109.00	110.00	1.00	0.010		Syenite, no significant sulphides
62083	128.00	129.00	1.00	NIL		Syenite, no significant sulphides.
62084	129.00	130.00	1.00	NIL		Syenite, trace chalcopyrite
62085	130.00	131.00	1.00	0.020	0.020	Syenite, no significant sulphides.
62086	141.00	142.00	1.00	0.070		Syenite? No significant sulphides.
62087	149.00	150.00	1.00	NIL		Syenite, moderate epidote alteration.
62088	150.00	151.00	1.00	0.010		Syenite, moderate epidote alteration.
62089	151.00	152.00	1.00	0.030	0.020	Syenite, moderate epidote alteration.
62090	164.00	165.00	1.00	0.010		Syenite, less than 1% pyrite
62091	165.00	165.75	0.75	0.010		Syenite, less than 1% pyrite
62092	165.00	165.75	0.75	0.020		Duplicate of 62091

165.75 239.28

**DIABASE DYKE**

Medium grained, dark green, chloritic, massive and magnetic diabase dyke.

The first 1.5 metres to 2.0 metres is fine grained and is a chill margin. The dyke has no veining and only occasional speck of fine grained pyrite.

Fractures in the dyke are generally less than 30° and 45° to core axis.

At 166.75 metres to 167.75 metres broken core due to fractures at 10° to 20° to core axis.

Throughout much less than 1% 3 mm to 2 cm pale cream coloured fine grained masses of feldspar.

The feldspar crystals (masses) are altered and have irregular boundaries.

Below 234.50 metres the dyke becomes finer grained and is a chill margin for the lower contact of the dyke.

Lower contact at 239.28 metres is sharp at 40° to core axis.

The last 1.00 metre of the dyke is strongly broken due to fractures at a low angle to core axis.

The only alteration noted in the dyke is chlorite.

239.28 265.00

**SYENITE**

Medium grained to coarse grained, reddish brown syenite. A continuation of the syenite intrusion intersected above the cross cutting diabase dyke.

The syenite is weakly to locally moderately magnetic. The syenite is massive with no significant alteration.

There is no significant veining and only trace disseminated pyrite noted in the syenite.

At 247.50 metres, 30 cm with 5% to 7% stringer pyrite.

The lower contact of this syenite intrusion is gradational over 1 metre to 2 metres and becomes finer grained towards the lower contact.

At 262.30 m a 50 cm fine grained reddish brown later syenite dyke at 10° to core axis

At 253.45 metres a 64 cm dark green to black, fine grained mafic dyke. Upper contact is at 45° and lower contact is at 85° to core axis.

There is no veining or sulphides noted in this 64 cm dyke.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62093				0.580			Standard
62094	240	241.00	1.00	0.070			Syenite, trace pyrite
62095	241	242.00	1.00	NIL			Syenite, trace pyrite
62096	247	248.00	1.00	0.040			Syenite, trace pyrite
62097	248	249.00	1.00	0.130	0.140		Syenite, 3% to 5% pyrite
62098	262	263.00	1.00	0.020			Syenite, trace pyrite

265.00 276.85

**SYENITE INTRUSION**

Medium grained, reddish brown, massive and magnetic syenite intrusion. This syenite intrusion is composed of 30% to 50% less than 1 mm to 1 cm pink feldspar phenocrysts and 20% to 30% biotite phenocrysts in a pale cream coloured matrix.

There is no veining in the syenite and only occasional trace disseminated pyrite.

At 268.04 metres, a 5 cm fine grained, dark green, chloritic mafic dyke at 50° to core axis.

At 269.15 metres, a 75 cm mafic dyke similar to one at 268.04 metres. This dyke has irregular contacts but greater than 70° to core axis

At 273.55 metres, a 12 cm fine grained to medium grained syenite dyke at 60° to core axis. No sulphides noted in this 12 cm dyke.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62099	272.00	273.00	1.00	0.030			Syenite, no sulphides noted.

276.85 281.00

**DIORITE**

Medium grained, dark green to black, foliated. Mafic intrusion, probably diorite.

Unit is moderately magnetic throughout.

The diorite consists of 1m to 4m crystals of feldspar, biotite, and hornblende in a fine grain matrix.

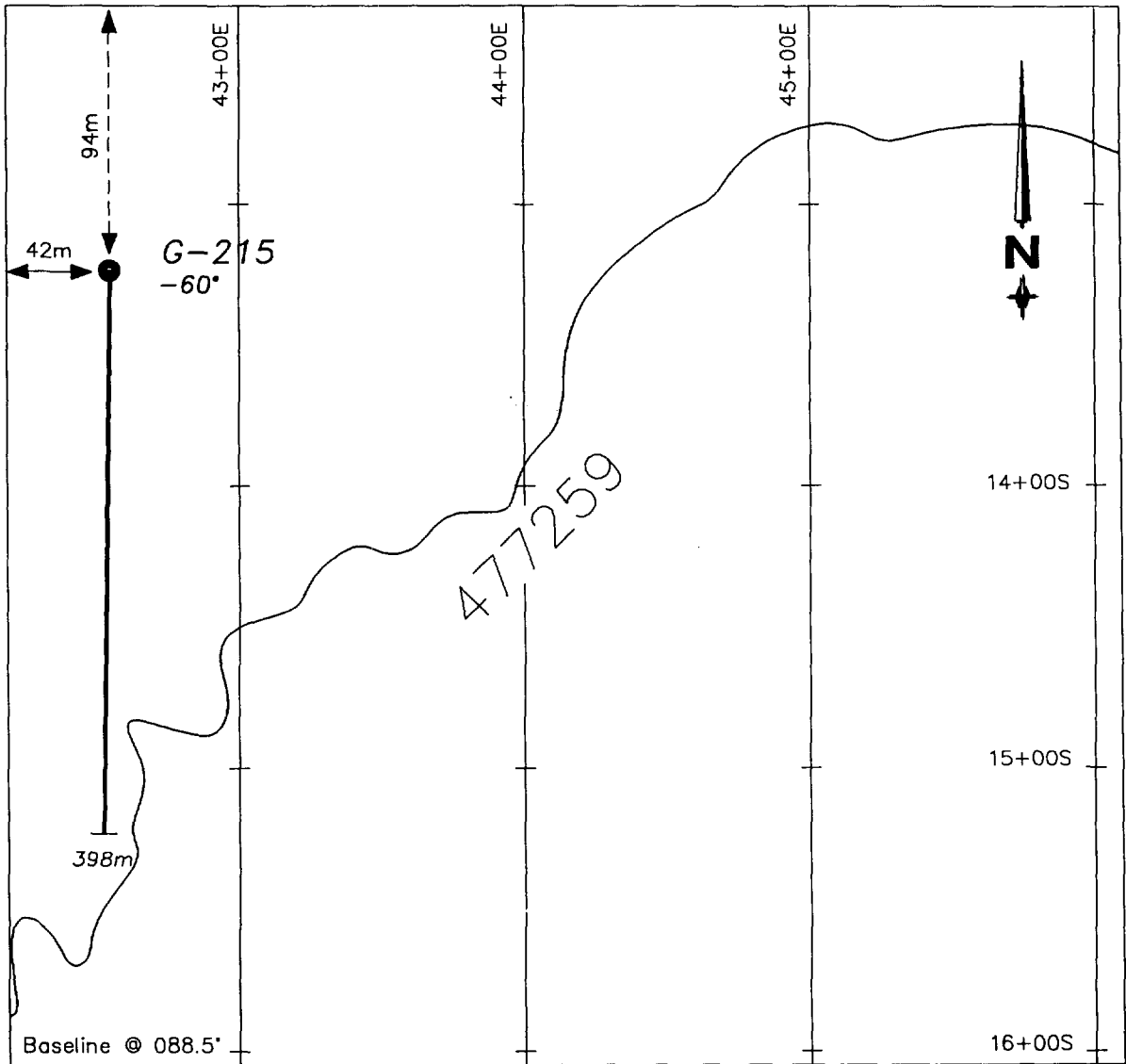
Foliation weakly developed at 30 to 40° to core axis.

Trace disseminated pyrite and no veining noted in the intrusion.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62100	276.85	278.00	1.15	0.020			Diorite, trace pyrite
62101	278.00	279.00	1.00	0.010			Diorite, trace pyrite
62102	279.00	280.00	1.00	0.010			Diorite, trace pyrite

281.00 281.00

**END OF HOLE**



PANGEA

GOLDFIELDS INC.

FENN-GIB PROPERTY

DRILL HOLE LOCATION MAP

DDH G-215

Guibord Township/Claim number 477259

Scale 1 : 2 500 100m

**DRILLING COMPANY**  
 Norex Drilling Limited  
 P.O. Box 88  
 Porcupine, Ontario P0N 1 C0

**LOCATION**  
 Gib Property Guibord Township  
 L42+50E, 13+25S

**HOLE NUMBER**

**CLAIM NUMBER**  
 477259

**DATE STARTED**      **DATE COMPLETED**  
 March 29th, 2002      April 3rd, 2002

**HOLE DEPTH**  
 398.00 METRES

**DATE LOGGED**  
 March 30th, 2002 to April 5th, 2002

*Paul Brown*

**CORE SIZE**  
 NQ

Gold Assays in G/Tonne

**LOGGED BY**  
 Paul Brown

**TARGET FOR DDH**  
 Deformation Corridor

**CORE STORED**  
 Holt McDermott Mine Site

DOWN HOLE TEST		
DEPTH	AZIMUTH	DIP
Metres	Corrected	Degrees
0.00	178.5	-60.0
44.00	179.9	-59.2
95.00	178.1	-59.2
146.00	175.9	-59.9
197.00	173.7	-59.9
245.00	176.2	-60.5
296.00	183.4	-60.6
344.00	181.8	-60.6
392.00	187.1	-60.3

**DISTANCE TO POST**  
 42 metres west and 94 metres north to post # 4 of claim 477259

FROM	TO	ROCK DESCRIPTION
0.00	36.00	<b>CASING and OVERBURDEN</b>
36.00	80.85	<b>SYENITE INTRUSION</b>

Syenite is coarse grained, reddish brown to greyish pink, magnetic and tectonized. Foliation developed by tectonism at 40° to core axis. Feldspar phenocrysts (30% to 50%) are up to 3 cm and are always fractured by the tectonism. This interval of syenite has numerous less than 10 cm wide shears usually at a low angle to core axis, less than 30°, often 10° to 20°. The syenite has no significant veining and only trace disseminated sulphides. There is abundant carbonate alteration in the matrix of the syenite. The syenite has numerous 1 mm to 2 mm carbonate stringers and veinlets at various angles to core axis, usually less than 20°. Fractures in the syenite down to 47 metres are oxidized. Below 47 metres oxidation on fractures is less common. From 60.00 metres to 62.00 metres strongly broken core with about 80% core recovery. From 65.00 metres to 67.00 metres strongly broken core with 80% to 90% core recovery. From 52.00 metres to 66.00 metres strongly tectonized syenite with numerous less than 2 mm quartz carbonate stringers at various angles to the core axis. There are no quartz veins noted and only trace disseminated pyrite in the syenite. Minor pyrite is also found as coatings on fractures. The matrix of the syenite has strong carbonate alteration as well as possibly chlorite.

From 70.25 metres to 74.50 metres a fine grained, reddish brown, massive later syenite dyke. The dyke's contacts are in broken core. The upper contact is at approximately 60° to core axis, and the lower contact is at 70° to core axis. The later dyke is weakly magnetic. There is also trace disseminated pyrite noted in the dyke. From 74.50 metres to 74.76 metres a quartz vein at 70 ° to core axis. There is trace disseminated pyrite noted in the vein. Lower contact of the syenite at 80.85 metres is at 20° to core axis. The pyrite content increases to 2% to 35 towards the lower contact.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun1	Reject1	Rerun2	Reject2	
62103	41.00	42.00	1.00	0.040					Syenite, Trace to 1% pyrite.
62104	42.00	43.00	1.00	0.040					Syenite, Trace to 1% pyrite.
62105	43.00	44.00	1.00	0.040					Syenite, Trace to 1% pyrite.
62106	44.00	45.00	1.00	0.010					Syenite, Trace to 1% pyrite.
62107	45.00	46.00	1.00	0.010	0.040				Syenite, Trace to 1% pyrite.
62108	46.00	47.00	1.00	0.020					Syenite, Trace to 1% pyrite.
62109	47.00	48.00	1.00	NIL					Syenite, Trace to 1% pyrite.
62110	48.00	49.00	1.00	NIL					Syenite, Trace to 1% pyrite.
62111	49.00	50.00	1.00	0.020					Syenite, Trace to 1% pyrite.
62112	50.00	51.00	1.00	0.010					Syenite, Trace to 1% pyrite.
62113	51.00	52.00	1.00	0.030					Syenite, Trace to 1% pyrite.
62114	51.00	52.00	1.00	0.040					Duplicate of 62113
62115	55.00	56.00	1.00	0.020					Syenite, Trace to 1% pyrite.
62116				0.590					Standard
62117	56.00	57.00	1.00	0.010					Syenite, Trace to 1% pyrite.
62118	57.00	58.00	1.00	0.010					Syenite, Trace to 1% pyrite.
62119	58.00	59.00	1.00	0.040	0.050				Syenite, Trace to 1% pyrite.
62120	59.00	60.00	1.00	0.030					Syenite, Trace to 1% pyrite.
62121	62.00	63.00	1.00	0.070					Syenite, Trace to 1% pyrite.
62122	63.00	64.00	1.00	0.100	0.080				Syenite, Trace to 1% pyrite.
62123	64.00	65.00	1.00	0.010					Syenite, Trace to 1% pyrite.
62124	73.00	74.00	1.00	0.130					Fine grained Syenite, trace pyrite
62125	74.00	74.50	0.50	0.260	0.250				Fine grained Syenite, trace pyrite
62126	74.50	74.76	0.26	0.340				0.360	Quartz vein at 70° to core axis, trace pyrite.
62127	74.76	75.76	1.00	0.070					Coarse grained Syenite, trace pyrite.
62128	75.76	77.00	1.24	0.050					Coarse grained Syenite, trace pyrite.
62129	77.00	78.00	1.00	0.020					Coarse grained Syenite, trace pyrite.
62130	79.85	80.85	1.00	0.050					Coarse grained Syenite, 2% to 3% disseminated pyrite.

80.85

94.43

**MAFIC DYKE**

The mafic dyke is fine grained to medium grained, dark green to black with a reddish tinge to the matrix. The dyke is massive and weakly magnetic. There is trace to locally 1% pyrite noted in this dyke. The more abundant mineralization appears to be concentrated adjacent to the contacts of the dyke. There is moderate to locally strong carbonate alteration in the matrix of the dyke. There are up to 10% less than 1 mm to 3 mm pale pink to clear rounded quartz grains in the dyke. The dyke has been tectonized and has a number of less than 1 cm to 1 cm rounded carbonate rich fragments. There is also 5% to 20% less than 2 mm to 5 mm biotite crystals in the dyke. Lower contact of the dyke is at 35° to core axis, the contact is undulating. The mafic dyke has been cut by a tectonized syenite dyke at 84.00 metres to 86.30 metres. The contacts are gradational. There is up to 2% fine grained and disseminated pyrite in the cross cutting syenite dyke.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun1	Reject1	Rerun2	Reject2	
62131	80.85	82.00	1.15	0.020					Mafic dyke, trace to 1% pyrite.
62132	83.00	84.00	1.00	0.010					Mafic dyke, trace to 1% pyrite.
62133	84.00	85.00	1.00	0.020					Syenite, 2% pyrite.
62134	85.00	86.00	1.00	0.060					Syenite, 2% pyrite.
62135	85.00	86.00	1.00	0.050					Duplicate of 62134
62136	86.00	87.00	1.00	0.030	0.030				Mafic dyke, trace to 1% pyrite.
62137	87.00	88.00	1.00	0.010					Mafic dyke, trace to 1% pyrite.
62138	88.00	89.00	1.00	0.010					Mafic dyke, trace to 1% pyrite.
62139	89.00	90.00	1.00	0.020					Mafic dyke, trace to 1% pyrite.
62140				0.590					Standard
62141	90.00	91.00	1.00	NIL					Mafic dyke, trace to 1% pyrite.
62142	91.00	92.00	1.00	NIL					Mafic dyke, trace to 1% pyrite.
62143	92.00	93.00	1.00	0.040	0.040				Mafic dyke, trace to 1% pyrite.
62144	93.00	94.43	1.43	NIL					Mafic dyke, trace to 1% pyrite.

94.43 118.81

**SYENITE**

The syenite is medium grained to coarse grained, reddish brown, massive, moderately magnetic and tectonized. There is strong carbonate alteration in the matrix of the syenite. Foliation defined by the tectonic fabric is 20° to 45° to core axis. There are no quartz veins and trace to locally 1% disseminated pyrite noted in the dyke.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun1	Reject1	Rerun2	Reject2	
62145	98.00	99.00	1.00	0.040					Syenite, Trace to 1% pyrite.
62146	99.00	100.00	1.00	0.020					Syenite, Trace to 1% pyrite.
62147	100.00	101.00	1.00	NIL					Syenite, Trace to 1% pyrite.
62148	101.00	102.00	1.00	NIL					Syenite, Trace to 1% pyrite.
62149	102.00	103.00	1.00	0.020					Syenite, Trace to 1% pyrite.
62150	103.00	104.00	1.00	0.060					Syenite, Trace to 1% pyrite.
62151	104.00	105.00	1.00	0.020					Syenite, Trace to 1% pyrite.
62152	105.00	106.00	1.00	0.070	0.060				Syenite, Trace to 1% pyrite.
62153	106.00	107.00	1.00	0.030					Syenite, Trace to 1% pyrite.
62154	107.00	108.00	1.00	0.030					Syenite, Trace to 1% pyrite.
62155	108.00	109.00	1.00	0.020					Syenite, Trace to 1% pyrite.
62156	109.00	110.00	1.00	0.010					Syenite, Trace to 1% pyrite.
62157	113.00	114.00	1.00	0.020					Syenite, Trace to 1% pyrite.
62158	113.00	114.00	1.00	0.020					Duplicate of 62157
62159	114.00	115.00	1.00	0.010					Medium grained Syenite, Trace to 1% pyrite.
62160				0.590					Standard
62161	115.00	116.00	1.00	0.020					Medium grained Syenite, Trace to 1% pyrite.
62162	116.00	117.00	1.00	0.010					Medium grained Syenite, Trace to 1% pyrite.
62163	117.00	118.00	1.00	0.080	0.070				Medium grained Syenite, Trace to 1% pyrite.
62164	118.00	118.81	1.00	0.060					Medium grained Syenite, Trace to 1% pyrite.

118.81 124.23

**SYENITE**

This syenite appears to be a later dyke. The dyke is fine grained, reddish brown, massive and weakly magnetic. Lower contact is gradational in to a strongly bleached and altered syenite. The altered syenite is a pale reddish cream colour. The finer grained syenite has no quartz veining, minor less than 1 mm carbonate stringers throughout. There is trace to 1% disseminated pyrite in the fine grained syenite.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun1	Reject1	Rerun2	Reject2	
62165	118.81	120.00	1.00	0.030					Fine grained Syenite, Trace to 1% pyrite.
62166	120.00	121.00	1.00	NIL					Fine grained Syenite, Trace to 1% pyrite.
62167	121.00	122.00	1.00	NIL					Fine grained Syenite, Trace to 1% pyrite.
62168	122.00	123.00	1.00	NIL					Fine grained Syenite, Trace to 1% pyrite.
62169	123.00	124.23	1.23	0.030					Fine grained Syenite, Trace to 1% pyrite.

124.23 128.00

**SYENITE**

Fine grained, reddish brown to bleached cream coloured, massive and weakly magnetic syenite dyke.  
There is an increase in the intensity of alteration and deformation towards the lower contact. The lower contact is gradational.  
The main alteration appears to be silicification. Foliation caused by the tectonic deformation is approximately 30° to core axis.  
The dyke has minor quartz veining, and a few quartz fragments. There is only trace pyrite noted in this syenite dyke.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun1	Reject1	Rerun2	Reject2	
62170	124.23	125.00	0.77	0.030					Altered syenite, Trace pyrite
62171	125.00	126.00	1.00	NIL					Altered syenite, Trace pyrite
62172	126.00	127.00	1.00	0.050	0.060				Altered syenite, Trace pyrite
62173	127.00	128.00	1.00	0.050					Altered syenite, Trace pyrite

128.00 141.15

**CATACLASITE**

Unit is fine grained, pale green to cream coloured, weakly magnetic and strongly altered.  
The original rock type is uncertain. The rock is now strongly altered by silicification, carbonatization and minor fuchsite.  
The rock is strongly sheared at 40° to core axis.  
There are several generations of quartz veins, with the earlier generation being completely sheared and now occur as rounded fragments in the cataclasite.  
From 134.67 metres to 135.85 metres a fine grained black mafic dyke at 40° to core axis. Dyke is moderately magnetic and highly fractured.  
The mafic dyke has no significant sulphides or veining.  
From 135.85 metres to 136.25 metres a fault gouge at 40° to core axis.  
At 130.60 metres a 5 mm quartz vein at 20° to core axis. There is minor pyrite and fuchsite in the vein selvage.  
At 132.40 metres an irregular 1 cm to 3 cm quartz vein at 40° to core axis. Minor pyrite in the selvage of the vein.  
At 132.85 metres fragments of fuchsite up to 1.5 cm in the cataclasite.  
At 133.60 metres a 3 cm quartz vein at 40° to core axis. 5% to 10% pyrite in the vein.  
At 133.90 metres a 3 cm to 8 cm fragment of quartz vein with minor pyrite.  
Lower contact is at 15° to core axis.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun1	Reject1	Rerun2	Reject2	
62174	128.00	129.00	1.00	0.050					Cataclasite, 2% to 3% pyrite
62175	128.00	129.00	1.00	NIL					Duplicate of 62174
62176	129.00	130.00	1.00	0.030				0.030	Cataclasite, Trace to 1% pyrite
62177				0.580					Standard
62178	130.00	131.00	1.00	0.060					Cataclasite, Trace to 1% pyrite
62179	131.00	132.00	1.00	0.020					Cataclasite, Trace to 1% pyrite
62180	132.00	133.00	1.00	NIL					Cataclasite, Trace to 1% pyrite
62181	133.00	134.00	1.00	0.100					Cataclasite, Trace to 1% pyrite
62182	134.00	134.67	0.67	0.120	0.130				Cataclasite, 1% to 2% pyrite
62183	134.67	135.85	1.18	NIL					Cataclasite, No Sulphides noted.
62184	135.85	136.25	0.40	0.310				0.270	Cataclasite, 1% to 2% pyrite
62185	136.25	137.00	0.75	0.390	0.350			0.380	Cataclasite, 2% to 3% pyrite





				Original	Rerun1	Reject1	Rerun2	Reject2	
62195	149.00	150.00	1.00	0.090					Gabbro
62196	150.00	151.00	1.00	0.110					Gabbro
62197				0.610					Standard
62198	151.00	152.00	1.00	0.020					Gabbro
62199	152.00	153.00	1.00	0.030					Gabbro
62200	153.00	154.00	1.00	0.030					Gabbro, trace disseminated chalcopyrite.
62201	154.00	155.00	1.00	0.040					Gabbro
62202	160.00	161.00	1.00	0.020					Gabbro, no sulphides.
62203	166.50	167.15	0.65	NIL					Gabbro, 90% syenite, no sulphides.
62204	176.00	177.00	1.00	0.030					Gabbro, with 9cm syenite dyke.
62205	182.40	183.50	1.10	0.020					Gabbro, with 6cm syenite dyke.
62206	200.50	201.50	1.00	0.160					Gabbro, no sulphides, 35cm mafic dyke.
62207	208.00	209.00	1.00	0.030					Gabbro, with 3cm quartz vein.
62208	214.00	215.00	1.00	0.090					Gabbro, 5% syenite as fragments.
62209	220.00	221.00	1.00	0.010	0.010				Gabbro, with 7cm quartz vein. 50% of vein composed of gabbro fragments with epidote alteration. Vein is at 45° at core axis. No sulphides in vein.

227.65 301.00

**SYENITE INTRUSION**

Coarse grained, reddish brown, weakly foliated, and weakly magnetic syenite. There is weak alteration in the syenite at best. The syenite has approximately 30% feldspar phenocrysts. Some as large as 3cm but most are less than 1cm. Feldspar phenocrysts are in a biotite rich matrix. The weak foliation is generally around 45° in core axis.

The syenite has trace fine grained disseminated pyrite throughout. There are also minor less than 2mm carbonate stringers in the syenite but no quartz veining.

At 242.03m a 35cm late coarse grained syenite dyke at 40° to core axis.

At 243.09m a 20cm late fine grained syenite dyke at 70° to core axis.

Fractures in syenite are irregular and usually have chlorite coatings and at various angles to core axis.

Between 248.00m and 260.00m, the syenite is mega crystalline with square and rounded feldspar phenocrysts up to 4cm in size.

These phenocrysts are set in a matrix of finer grained feldspar crystals ranging in size from less than 5mm to 1.5cm.

The matrix to the feldspar phenocrysts is pale green coloured and has sericite alterations.

There are no quartz veins and no significant sulphides noted in this interval.

Below 262.00m to 288.25m, the syenite intrusion is becoming more medium grained with a cream coloured matrix.

There is no significant biotite in the matrix below 262.00m. Trace to locally 1% disseminated pyrite noted below 262.00m.

Foliation at 279.00m is at 40° to core axis.

From 288.25 metres to 301.00 metres, coarse grained, reddish brown, mega crystalline gabbro. There is only weak to no sericite alteration noted in the matrix of this 12.75 metre interval.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun1	Reject1	Rerun2	Reject2	
62210	233.00	234.00	1.00	0.250					Syenite, trace disseminated pyrite.
62211	233.00	234.00	1.00	0.280					Duplicate of 62210
62212	234.00	235.00	1.00	0.380	0.240				Syenite, trace disseminated pyrite.
62213	235.00	236.00	1.00	0.140					Syenite, trace disseminated pyrite.
62214	236.00	237.00	1.00	0.080					Syenite, trace disseminated pyrite.
62215				0.640					Standard
62216	248.00	249.00	1.00	0.030					Syenite, no significant sulphides.
62217	253.00	254.00	1.00	0.030					Syenite, no significant sulphides.
62218	257.00	258.00	1.00	0.010					Syenite, no significant sulphides.

62219	260.00	261.00	1.00	0.030						Syenite, no significant sulphides.
62220	262.00	263.00	1.00	0.060						Syenite 1% disseminated pyrite.
62221	266.00	267.00	1.00	0.050						Syenite, trace pyrite.
62222	269.00	270.00	1.00	0.130						Syenite, trace pyrite.
62223	271.00	272.00	1.00	0.070						Syenite, trace pyrite.
62224	272.00	273.00	1.00	0.010						Syenite, trace pyrite.
62225	277.00	278.00	1.00	0.030						Syenite, trace to 1% pyrite.
62226	278.00	279.00	1.00	0.150						Syenite, trace to 1% pyrite.
62227	279.00	280.00	1.00	0.380						Syenite, trace to 1% pyrite.
62228	284.00	285.00	1.00	0.110						Syenite, 1% pyrite
62229	285.00	286.00	1.00	0.190						Syenite, trace pyrite.
62230	286.00	287.00	1.00	0.110	0.180					Syenite, trace pyrite.
62231	287.00	288.00	1.00	0.460	0.400				0.430	Syenite, 1% pyrite
62232	288.00	289.00	1.00	0.020						Syenite, trace pyrite.
62233	288.00	289.00	1.00	0.020						Duplicate of 62232

301.00 308.65

**MIXED SYENITE AND MAFIC VOLCANIC**

This interval is a mixture of 60% fine grained to coarse grained, reddish brown, magnetic syenite and 40% mafic volcanic. The mafic volcanic is fine grained, light green and epidote altered. The mafic volcanic portions have almost been completely absorbed by the syenite. Both upper and lower contacts of the syenite are gradational. There is only trace disseminated pyrite noted in this interval. The syenite looks, sheared and silicified. Shearing is at 30° to core axis. There are no significant quartz veins in this mixed interval of syenite and mafic volcanic.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun1	Reject1	Rerun2	Reject2	
62234				0.590					Standard
62235	301.00	302.00	1.00	NIL					Syenite, Trace to 1% pyrite.
62236	302.00	303.00	1.00	0.030					Syenite, Trace to 1% pyrite.
62237	303.00	304.00	1.00	0.020					Syenite, Trace to 1% pyrite.
62238	304.00	305.00	1.00	0.030					Syenite, 1% to 2% pyrite
62239	305.00	306.00	1.00	0.160	0.160				Syenite, 2% pyrite
62240	306.00	307.00	1.00	0.050					Syenite, 2% pyrite
62241	307.00	308.00	1.00	0.130					Syenite, 2% pyrite
62242	308.00	308.85	0.85	0.630				0.630	Syenite, 2% pyrite

308.65 310.22

**SILICIFIED SHEAR ZONE**

Interval is a mixture of syenite and mafic volcanic. Interval is pale cream coloured and well sheared at 45° to core axis. The silicified shear zone has 3% to 5% disseminated pyrite in the matrix. Upper contact is gradational, lower contact is sharp at 45° to core axis. The shear is non magnetic to locally weakly magnetic.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun1	Reject1	Rerun2	Reject2	
62243	308.65	309.65	1.00	0.450				0.460	Silicified shear zone 5% disseminated pyrite.
62244	309.65	310.22	0.57	0.950				0.950	Silicified shear zone 5% disseminated pyrite.

310.22 312.20

**LAMPROPHYRE DYKE**

The dyke is medium grained, black, moderately magnetic and massive.

The dyke has a 15 cm quartz vein at the lower contact at 40° to core axis. 5% pyrite in the vein.  
There is trace to 1% pyrite in the dyke.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun1	Reject1	Rerun2	Reject2	
62245	310.22	311.00	0.78	0.030					Dyke 1% pyrite
62246	311.00	312.20	1.22	0.040	0.020				Dyke, 15 cm quartz vein, 5% pyrite in vein.

312.20 338.62

**GABBRO INTRUSION**

This intrusion is medium grained, dark green, magnetic and massive. The gabbro has been cut by several pale reddish brown massive intermediate dykes to syenite. The gabbro also has a minor fine grained, medium green, carbonate rich mafic volcanic inclusions or narrow mafic dykes.

From 312.20 metres to 313.95 metres, intermediate dyke, lower contact at 45° to core axis.

From 315.10 metres to 315.80 metres, intermediate dyke, at 40° to core axis.

From 322.30 metres to 323.00 metres, intermediate dyke, at 40° to core axis. This dyke has 2% to 3% fine grained pyrite as disseminations.

At 322.90 metres this intermediate dyke has a 2.5 cm quartz vein at 606 to core axis. There is no sulphides in the vein but one speck of what looks like V.G.

From 323.20 metres to 323.70 metres, intermediate dyke to syenite.

Most of the dykes in the interval 312.20 metres to 338.62 metres are weakly to moderately silicified.

From 324.70 metres to 325.40 metres, intermediate dyke.

From 323.70 metres to 324.65 metres, gabbro injected with 30% syenite.

From 324.65 metres to 325.65 metres, Syenite to intermediate dyke with 20% gabbro. Intermediate to syenite dyke is silicified and has trace pyrite.

From 325.65 metres to 328.80 metres, Gabbro with 2% to 3% injected syenite.

From 328.80 metres to 330.03 metres, intermediate dyke to syenite, lower contact at 50° to core axis. Dyke is moderately silicified.

Between 312.20 metres and 325.70 metres the portion which is not dyke is fine grained, light green, massive gabbro to mafic volcanic.

The gabbro or mafic volcanic is variably carbonate altered and locally weakly magnetic.

Below 325.70 metres the core is coarser grained, moderately magnetic and definitely gabbro.

At 329.20 metres a 2 cm quartz vein at 50° to core axis. There is trace pyrite in the vein.

Lower contact of the gabbro at 338.62 metres is sharp at 50° to core axis.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun1	Reject1	Rerun2	Reject2	
62452	317.00	318.00	1.00	0.240					Gabbro, trace pyrite
62453	318.00	319.00	1.00	0.010					Gabbro, trace pyrite
62454	319.00	320.00	1.00	0.020					Gabbro, trace pyrite
62247	320.00	321.00	1.00	0.950				0.930	Gabbro, trace pyrite
62248	321.00	322.30	1.30	0.130				0.120	Gabbro, trace pyrite
62249	322.30	323.00	0.70	0.940	0.820			0.930	Intermediate dyke, 2% to 4% pyrite.
62250	323.00	324.00	1.00	0.030					Intermediate dyke, mafic volcanic, trace pyrite.
62455	324.00	325.00	1.00	0.010					Gabbro/Syenite, trace pyrite
62456	324.00	325.00	1.00	0.010					Duplicate of 62455
62457	325.00	326.00	1.00	0.030					Gabbro/Syenite, trace pyrite
62458	326.00	327.00	1.00	0.110					Gabbro, trace pyrite.
62459	327.00	328.00	1.00	0.300				0.310	Gabbro, trace pyrite.
62460	328.00	328.80	0.80	0.480	0.460			0.400	Gabbro, trace pyrite.
62461	328.80	330.03	1.23	0.050					Intermediate dyke/Syenite, 2 cm quartz vein, trace pyrite in vein.

338.62 380.18

**SYENITE INTRUSION**

This interval of syenite is fine grained to medium grained, reddish brown to pale cream coloured, non magnetic to locally weakly magnetic and silicified.

and silicified.

There is moderate sericite alteration in the matrix of the syenite.

There are numerous 1 mm carbonate stringers and occasional 5 mm to 1 cm barren quartz veins.

There is only trace disseminated pyrite noted in the syenite.

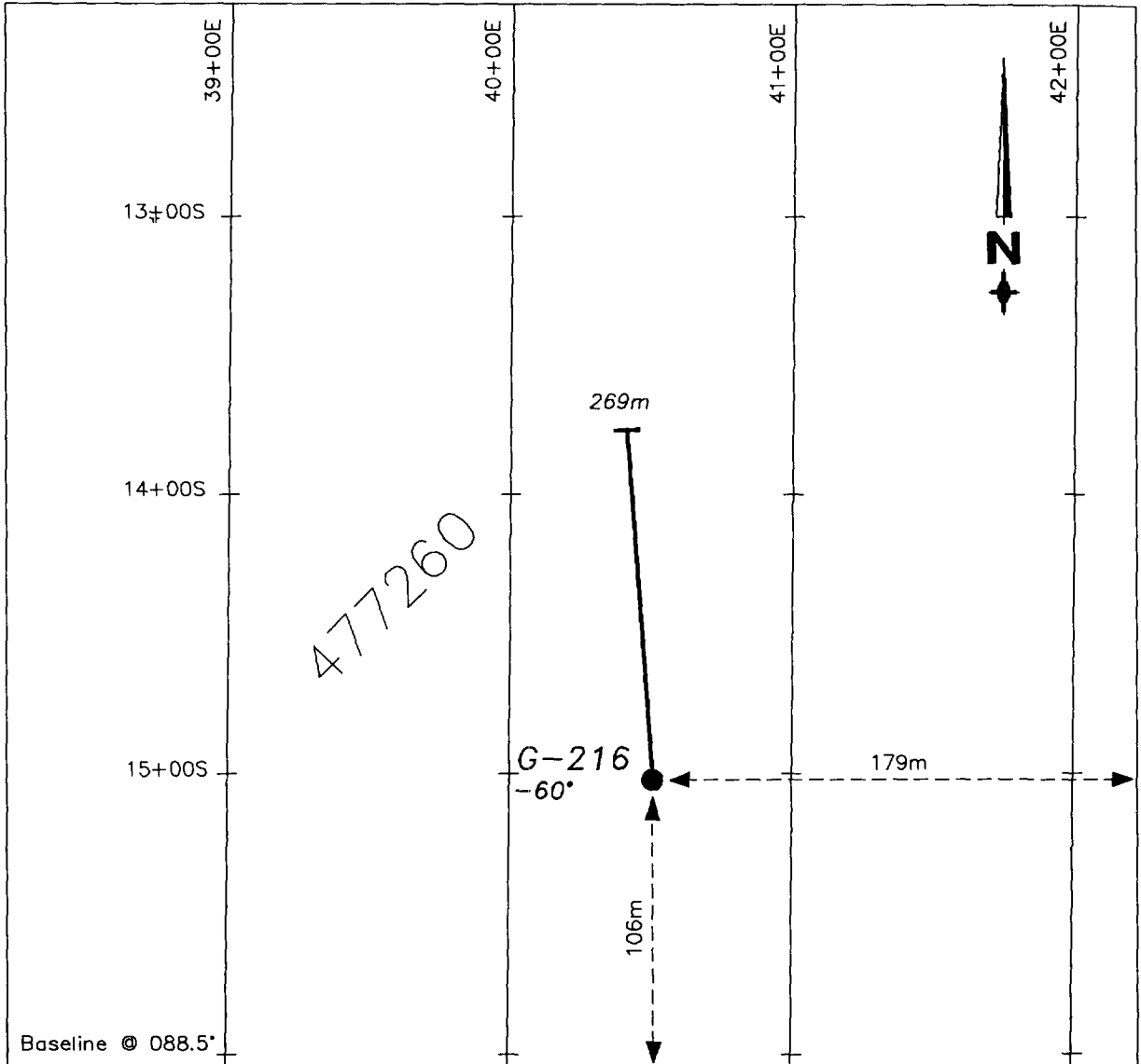
At 343.50 metres a 3 to 5 mm stringer of pyrite at 0° to core axis for 40 cms.

Below 359.00 metres the syenite is brecciated with fragments up to 3 cm to 4 cm in size. In the brecciated zone the syenite is silicified and has trace to 1% pyrite.

From 379.00 metres to 380.00 metres one metre of re-drilled core.

Lower contact of syenite is gradational over a 20 cm width into the intermediate dyke below.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun1	Reject1	Rerun2	Reject2	
62251	338.62	340.00	1.38	0.300					Syenite, Trace pyrite.
62252	340.00	341.00	1.00	0.090					Syenite, Trace pyrite.
62253	340.00	341.00	1.00	0.120					Duplicate of 62252
62254	341.00	342.00	1.00	0.020					Syenite, Trace pyrite.
62255	342.00	343.00	1.00	0.050					Syenite, Trace pyrite.
62256	343.00	344.00	1.00	0.070					Syenite, 1% Pyrite.
62257	344.00	345.00	1.00	0.350	0.280				Syenite, Trace pyrite.
62258	345.00	346.00	1.00	0.080					Syenite, Trace pyrite.
62259	346.00	347.00	1.00	0.070					Syenite, Trace pyrite.
62260				0.590					Standard
62261	359.00	360.00	1.00	0.050					Syenite, Trace to 1% Pyrite.
62262	360.00	361.00	1.00	0.120					Syenite, Trace to 1% Pyrite.
62263	361.00	362.00	1.00	NIL					Syenite, Trace to 1% Pyrite.
62264	362.00	363.00	1.00	NIL					Syenite, Trace to 1% Pyrite.
62265	363.00	364.00	1.00	NIL					Syenite, Trace to 1% Pyrite.
62266	368.00	369.00	1.00	0.130					Syenite, Trace pyrite.
62267	369.00	370.00	1.00	0.140					Syenite, Trace pyrite.
62268	370.00	371.00	1.00	1.610	1.300	0.530	0.790	1.600	Syenite, Trace pyrite.
62462	371.00	372.00	1.00	0.320	0.320				Syenite, 1% Pyrite.
62463	372.00	373.00	1.00	0.010					Syenite, Trace pyrite.
62464	373.00	374.00	1.00	0.030					Syenite, Trace pyrite.
62465	374.00	375.00	1.00	0.030					Syenite, Trace pyrite.
62466	375.00	376.00	1.00	0.330	0.280				Syenite, Trace pyrite.
62269	376.00	377.00	1.00	0.110					Syenite, Trace pyrite.
62270	377.00	378.00	1.00	0.040					Syenite, Trace pyrite.
390.18	392.00	<b>INTERMEDIATE DYKE</b>							
		The intermediate dyke is fine grained to medium grained and pale grey green in colour. The last 1.00 meter is reddish brown and looks like a transition in to a syenite. Lower contact is irregular over a 50 cm interval and at a low angle to core axis.							
		The dyke is chloritic and non magnetic. There are minor 1 mm to 2 mm carbonate veinlets.							
		There is no foliation, no quartz veining and no sulphides noted in the intermediate dyke.							
392.00	398.00	<b>SYENITE INTRUSION</b>							
		The syenite is medium grained to coarse grained, reddish brown, massive and non magnetic.							
		The syenite does not appear to be altered. There are no quartz veins or sulphides noted in the dyke.							
398.00	398.00	<b>END OF HOLE</b>							



PANGEA


GOLDFIELDS INC.

FENN-GIB PROPERTY

DRILL HOLE LOCATION MAP

DDH G-216

Guibord Township/Claim number 477260

Scale 1 : 2 500  100m

**DRILLING COMPANY**  
 Norex Drilling Limited  
 P.O. Box 88  
 Porcupine, Ontario P0N 1 C0

**LOCATION**  
 Gib Property Guibord Township  
 L40+50 E, 15+00S

**HOLE NUMBER**

**G-216**

**DATE STARTED**      **DATE COMPLETED**  
 April 3rd, 2002      April 6th, 2002

*Paul Brown*

**CLAIM NUMBER**  
 477260

**HOLE DEPTH**  
 269.00 METRES

**DATE LOGGED**  
 April 5th, 2002 to April 9th, 2002

**CORE SIZE**  
 NQ

Gold Assays in G/Tonne

**LOGGED BY**                      **TARGET FOR DDH**  
 Paul Brown                      Deformation Corridor

**CORE STORED**  
 Holt McDermott Mine Site

<b>DOWN HOLE TEST</b>		
DEPTH	AZIMUTH	DIP
Metres	Corrected	Degrees
0.00	358.5	-60.0
44.00	353.3	-61.1
95.00	353.2	-61.1
146.00	355.1	-61.5
191.00	056.27	-61.7
263.00	002.5	-62.5

**DISTANCE TO POST**  
 179 metres east and 106 metres south to post # 2 of claim 477260

**FROM**      **TO**  
 0.00      35.80  
 35.80      49.39

**ROCK DESCRIPTION**  
**CASING and OVERBURDEN**  
**SYENITE INTRUSION**

The intrusion is coarse grained to medium grained, reddish brown and locally weakly magnetic. Lower contact is sharp at 55° to core axis. Syenite is moderately tectonized, but now well healed and massive looking. The matrix of the intrusion has moderate to strong sericite alteration, (pale cream colour). There is 1% to 3% very fine grained disseminated and stringer pyrite in the matrix of the syenite. The syenite also has moderate silicification throughout. There are no significant quartz veins but minor quartz stringers associated with the silicification. At 45.80 metres several (four) specks of visible gold is noted to be associated with the silicification. The syenite has several fragments of a mafic intrusion (gabbro), most are less than 30 cms. A larger mafic fragment at 44.13 metres is 70 cms. These mafic fragments have contacts which are at various angles to the core axis.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62271	36.00	37.00	1.00	0.460	0.460		Syenite, 1% to 2% Pyrite.
62272	37.00	38.00	1.00	0.170			Syenite, 1% to 2% Pyrite.

62273	38.00	39.00	1.00	0.230			Syenite, 1% to 2% Pyrite.
62274	39.00	40.00	1.00	0.070			Syenite, 1% to 2% Pyrite.
62275	40.00	41.00	1.00	0.060			Syenite, 1% to 2% Pyrite.
62276	40.00	41.00	1.00	0.030			Duplicate of 62275
62277	41.00	42.00	1.00	0.120			Syenite, 1% to 2% Pyrite.
62278	42.00	43.00	1.00	0.190			Syenite, 1% to 2% Pyrite.
62279				0.620			Standard
62280	43.00	44.00	1.00	0.070			Syenite, 1% to 2% Pyrite.
62281	44.00	45.00	1.00	0.090			Syenite, 1% to 2% Pyrite.
62282	45.00	46.00	1.00	0.650	0.450	0.680	Syenite, 1% to 2% Pyrite. Four specks of visible gold noted.
62283	46.00	47.00	1.00	0.170			Syenite, 1% to 2% Pyrite.
62284	47.00	48.00	1.00	0.110			Syenite, 1% to 2% Pyrite.
62285	48.00	49.39	1.39	0.010			Syenite, 1% to 2% Pyrite.

49.39 57.75

**GABBRO INTRUSION**

The gabbro is medium grained, dark green, chloritic, massive and weakly magnetic. The gabbro has no quartz veins and only minor quartz carbonate stringers.

Locally the gabbro has a weak pink tinge, possibly minor injection of syenite fluid. At 49.90 metres a 1 cm syenite dyke at 35° to core axis. The 1 cm dyke has 1% to 2% fine grained disseminated pyrite associated.

There are no quartz veins in the gabbro. The gabbro has only trace disseminated pyrite associated.

From 53.00 metres to 55.90 metres a fine grained to medium grained reddish brown, massive syenite dyke.

Lower contact is at a low angle to the core axis less than 10°. The syenite dyke is non magnetic and has only trace disseminated pyrite.

Lower contact of the gabbro is approximately 30° to core axis.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62286	49.39	50.00	1.00	0.010			Gabbro, with 1 cm syenite dyke, 1% to 2% pyrite in the syenite dyke.

57.75 75.20

**SYENITE INTRUSION**

The syenite is medium grained to locally coarse grained, reddish brown, massive and weakly magnetic.

Down to 62.00 metres this syenite is very similar to the syenite above the gabbro in terms of alteration, deformation and sulphide content.

Below 62.00 metres, the amount of deformation and sericite alteration are less but silicification noted to 68.20 metres.

Below 68.20 metres the syenite is finer grained, and a brighter red. It is also more weakly altered, deformed and has less disseminated pyrite.

At 71.54 metres, a 12 cm carbonate vein at 40° to core axis. Vein has been brecciated and then re-healed. No sulphides noted in the vein.

At 72.50 metres, trace chalcopyrite noted as disseminations.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62287	57.75	59.00	1.25	0.020			Syenite, Trace to 1% pyrite.
62288	59.00	60.00	1.00	0.030			Syenite, Trace to 1% pyrite.
62289	60.00	61.00	1.00	0.020			Syenite, Trace to 1% pyrite.
62290	61.00	62.00	1.00	0.010			Syenite, Trace to 1% pyrite.
62291	61.00	62.00	1.00	0.010			Duplicate of 62290
62292	62.00	63.00	1.00	0.030			Syenite, Trace pyrite.

62293	63.00	64.00	1.00	0.030		Syenite, Trace pyrite.
62294				0.620		Standard
62295	64.00	65.00	1.00	0.040	0.030	Syenite, Trace pyrite.
62296	65.00	66.00	1.00	0.040		Syenite, Trace pyrite.
62297	66.00	67.00	1.00	0.040		Syenite, Trace pyrite.
62298	70.00	71.00	1.00	0.040		Syenite, Trace to 1% pyrite.
62299	71.00	72.00	1.00	0.030		Syenite, Trace to 1% pyrite.
62300	72.00	73.00	1.00	0.030		Syenite, Trace to 1% pyrite.
62301	73.00	74.00	1.00	0.020		Syenite, Trace to 1% pyrite.
62302	74.00	75.20	1.20	0.020		Syenite, Trace to 1% pyrite.

75.20 88.63

**GABBRO/SYENITE HYBRID**

This interval is fine grained to medium grained, dark green to pale reddish brown mixed gabbro/syenite.

The rock is variably magnetic

The core looks to have been originally a gabbro but has since been partly absorbed by a syenite intrusion and then the hybrid rock has been cut by a number of later syenite dykes. These later syenite dykes are non magnetic to weakly magnetic at best.

The pyrite content in this interval is generally less than 1%, however for short 5 cm to 10 cm intervals there could be as much as 3% to 5% pyrite.

At 77.64 metres a 60 cm bright red syenite dyke. Upper contact at 35° to core axis. There are no significant quartz veins or sulphides noted in this syenite dyke.

At 80.24 metres a 12 cm bright red syenite dyke at 40° to core axis. No sulphides noted in the dyke.

From 84.15 metres to 84.20 metres, 5 cms with 3% to 5% fine grained disseminated pyrite.

From 85.00 metres to 86.00 metres, a bright red syenite dyke. Upper contact at 15° to core axis. Lower contact is irregular.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62303	75.20	76.20	1.00	0.060			Gabbro/Syenite Hybrid, Trace to 1% pyrite.
62304	76.20	77.00	0.80	0.020			Gabbro/Syenite Hybrid, Trace to 1% pyrite.
62305	80.50	81.50	1.00	0.010	NIL		Gabbro/Syenite Hybrid, Trace to 1% pyrite.
62306	83.50	84.50	1.00	0.030			Gabbro/Syenite Hybrid, 3% to 5% pyrite for 5 cms.
62307	87.63	88.63	1.00	NIL			Gabbro/Syenite Hybrid, 1% pyrite.

88.63 96.50

**ULTRAMAFIC INTRUSION**

This ultramafic dyke/sill is fine grained, dark green, massive, weakly to moderately magnetic with moderate talc development throughout.

Both upper and lower contacts to the dyke are sharp at 40° to core axis.

Between 89.33 metres and 92.12 metres there is a medium grained, dark reddish brown syenite dyke cutting the ultramafic.

The later syenite dyke has a sharp upper contact at 60° to core axis and a sharp lower contact at 40° to core axis.

This syenite dyke has is weakly magnetic and has 1% medium grained disseminated pyrite throughout.

The ultramafic dyke/sill has trace carbonate veinlets and no sulphides except at the contacts with the syenite.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62308	88.63	89.63	1.00	0.070			Ultramafic dyke/sill, 2% to 3% pyrite at contact of unit.
62309	90.00	91.00	1.00	0.030			Syenite, 1% pyrite
62310	91.00	92.00	1.00	NIL			Syenite, 1% pyrite

96.50 100.18

**SYENITE DYKE**



This dyke is fine grained to medium grained, bright red, massive and non magnetic.  
The syenite has trace quartz carbonate veining and trace to locally 1% disseminated pyrite.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62311	98.50	99.50	1.00	0.150			Syenite, 1% pyrite.
62312	98.50	99.50	1.00	0.150			Duplicate of 62311

100.18 101.89 **SYENITE DYKE**

This syenite dyke is fine grained and light grey to pale red to pink. This dyke has no quartz veins and less than 1% fine grained and disseminated pyrite. The dyke is also moderately magnetic and massive.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62313	100.18	101.89	1.71	0.010			Syenite, less than 1% pyrite.

101.89 105.11 **SYENITE DYKE**

This dyke is medium grained, reddish brown, non magnetic and massive. The syenite dyke has no significant alteration, veining and only trace to locally 1% disseminated pyrite.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62314	103.00	104.00	1.00	0.030			Syenite, trace to 1% pyrite.
62315	104.00	105.11	1.11	0.050			Syenite, trace to 1% pyrite.
62316				0.600			Standard

105.11 114.48 **ULTRAMAFIC INTRUSION**

This ultramafic dyke/sill is fine grained, dark green and weakly magnetic. The ultramafic intrusion has been cut by several fine grained grey to pale red, massive and magnetic syenite dykes.

The ultramafic has only minor carbonate stringers, trace disseminated pyrite as best. Lower contact of the ultramafic is sharp at 50° to core axis.

From 107.40 metres to 109.59 metres a grey to pale red syenite dyke. Lower contact is at 60° to core axis. The syenite is magnetic and has trace to 1% disseminated pyrite.

At 110.10 metres a 10 cm interval of re-drilled core.

From 111.01 metres to 111.91 metres, a grey to pale red syenite dyke. Lower contact at 40° to core axis.

From 112.80 metres to 113.20 metres, a fine grained pale green to cream coloured intermediate dyke. Contacts are at 40° to core axis but not parallel. The dyke has trace pyrite but more concentrated to 1% to 2% in dyke selvage.

At 113.42 metres a 28 cm medium grained, pale grey and magnetic intermediate dyke. Upper contact at 306 to core axis.

Lower contact at 40° to core axis. The dyke has 3% to 5% stringer pyrite.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62317	107.60	108.60	1.00	NIL			Syenite, 1% Pyrite.
62318	108.60	109.60	1.00	NIL			Syenite, 1% Pyrite.
62319	112.80	114.00	1.20	0.020	0.020		Intermediate dykes and Ultramafic intrusion. Up to 3% to 5% pyrite in one of the intermediate dykes.

111.48 121.80

**SYENITE DYKE**

This dyke is fine grained, reddish brown, massive, non magnetic and weakly silicified. Lower contact is sharp at 15° to core axis. At 121.42 metres a 8 cm fault gouge. Upper contact at 25° to core axis. Lower contact at 55° to core axis.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62320	114.48	116.00	1.52	0.050			Syenite, Trace to 1% pyrite.
62321	116.00	117.00	1.00	0.010			Syenite, Trace to 1% pyrite.
62322	117.00	118.00	1.00	0.020			Syenite, Trace to 1% pyrite.
62323	118.00	119.00	1.00	0.100	0.090		Syenite, Trace pyrite.
62324	119.00	120.00	1.00	0.120			Syenite with 1% pyrite as stringers.
62451	120.00	121.53	1.53	0.050			Syenite, 1% to 2% pyrite.

121.80 133.65

**ULTRAMAFIC INTRUSION**

The ultramafic dyke/sill is fine grained, dark green, massive and magnetic. Lower contact is sharp at 50° to core axis.

The dyke/sill is talcy, has minor quartz carbonate veinlets and no significant sulphides.

The ultramafic has been cut by a variety of syenite dykes.

From 124.20 metres to 124.87 metres, a medium grained syenite dyke with a lower contact at 70° to core axis.

From 125.60 metres to 126.28 metres a fine grained, dark reddish brown syenite dyke. Upper contact at 30° to core axis.

Lower contact at 45° to core axis. There is trace pyrite in this syenite dyke.

From 126.28 metres to 129.55 metres, a medium grained, reddish brown to greenish brown, massive and magnetic syenite dyke.

Lower contact at 45° to core axis.

At 123.75 metres a 1 cm quartz carbonate vein at 40° to core axis. No sulphides in the vein.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62325	125.50	125.50	1.00	0.110			Syenite and Ultramafic, Minor Pyrite.

133.65 135.87

**SYENITE DYKE**

This dyke is medium grained, pink to reddish brown in colour, massive and moderately magnetic. This dyke is similar to the dyke in the interval 126.28 metres to 129.55 metres. There is trace to 1% pyrite associated with the syenite dyke. No significant quartz veins were noted.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62326	133.65	134.87	1.22	0.030			Syenite, trace to 1% disseminated Pyrite.
62327	134.87	135.87	1.00	0.010			Syenite, trace to 1% stringer Pyrite.

135.87 144.80

**MAFIC VOLCANIC**

This interval is fine grained, dark green, chloritic and weakly magnetic. Lower contact is sharp at 25° to core axis.

The mafic volcanic is massive, has no quartz veins, minor 1 mm quartz carbonate stringers and no significant sulphides.

The mafic volcanic has been cut by several later dykes.

From 137.06 metres to 139.23 metres, a medium grained, pinkish brown, massive syenite dyke. Lower contact is sharp at 40° to core axis. The dyke appears to be unaltered, has no quartz veining and no significant sulphides.

From 139.23 metres to 140.04 metres, basalt flow which has been fragmented. Basalt fragments are up to 5 cm and vary from angular to rounded. In addition there are a number of irregular shaped syenite fragments, probably brecciated syenite dykes.

The basalt has minor quartz carbonate stringers, no significant quartz veins and no sulphides noted.

From 140.04 metres to 142.30 metres, a fine grained to medium grained, massive, medium green to pale brown, non magnetic mafic to

intermediate dyke.

This dyke has 5% to 10% less than 1 mm white unaltered feldspar phenocrysts in a fine grained, chloritic and mafic matrix.

The contacts of this dyke are irregular, there are no quartz veining and no significant sulphides noted in the intermediate to mafic dyke.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62328	139.00	140.00	1.00	0.010			Syenite and basalt, no sulphides.

144.80 150.55

#### SYENITE DYKE

This interval of dyke is medium grained, reddish brown to pinkish brown, weakly to locally moderately magnetic, massive and variably altered.

The syenite has 1 mm to 3 mm feldspar phenocrysts varying from fresh looking to epidote altered. There are several short later looking cross cutting syenite dykes. All are less than 1.00 metre and are mainly concentrated between 144.80 metres and 146.00 metres.

Between 147.00 metres and 147.50 metres there is 5% to 7% stringer pyrite. There are minor 1 mm to 3 mm barren quartz carbonate stringers in the syenite. There is only trace disseminated pyrite noted.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62329	144.80	146.00	1.00	0.010			Syenite, Trace Pyrite.
62330	146.00	147.00	1.00	NIL			Syenite, Trace Pyrite.
62331	147.00	148.00	1.00	NIL			Syenite, 0.50% Pyrite.
62332	148.00	149.00	1.00	0.020			Syenite, Trace Pyrite.
62333	148.00	149.00	1.00	0.010			Duplicate of 62332

150.55 153.90

#### MAFIC DYKE

This dyke is fine grained, mottled brown, massive and non magnetic. Both the upper and lower contacts are in broken core.

The dyke has minor 1 mm to 2 mm carbonate stringers, no quartz veins and trace disseminated pyrite.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62334	152.00	153.00	1.00	0.030			Mafic dyke, Trace Pyrite.

153.90 164.82

#### MIXED MAFIC VOLCANIC and ULTRAMAFIC DYKES

This interval is fine grained, dark green, chloritic, non magnetic to locally weakly magnetic and massive.

The mafic volcanic has been cut by several short (less than 1.00 metre) talcose ultramafic dykes. The ultramafic dykes are massive and carbonate rich. There are no quartz veins or sulphides noted in the ultramafic dykes.

From 162.20 metres to 163.92 metres there is a fine grained to locally medium grained pale purple syenite dyke. This dyke has 1% to 2% disseminated pyrite.

At 161.51 metres a 1 cm to 2 cm barren white carbonate vein at 40° to core axis.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62335				0.590			Standard
62336	158.00	159.00	1.00	0.010			Mixed mafic volcanic and ultramafic dykes
62337	159.00	160.00	1.00	0.010			Mixed mafic volcanic and ultramafic dykes
62338	160.00	161.00	1.00	NIL			Mixed mafic volcanic and ultramafic dykes
62339	161.00	162.20	1.00	NIL			Mixed mafic volcanic and ultramafic dykes
62340	162.20	163.92	1.72	0.050	0.040		Syenite dyke, 1% to 2% Pyrite in Dyke.

164.82 173.50 **MAFIC VOLCANIC**  
This interval of mafic volcanic, is fine grained, dark green, chloritic, massive and weakly magnetic. The mafic volcanic has no quartz veins, trace quartz carbonate stringers and trace disseminated pyrite.

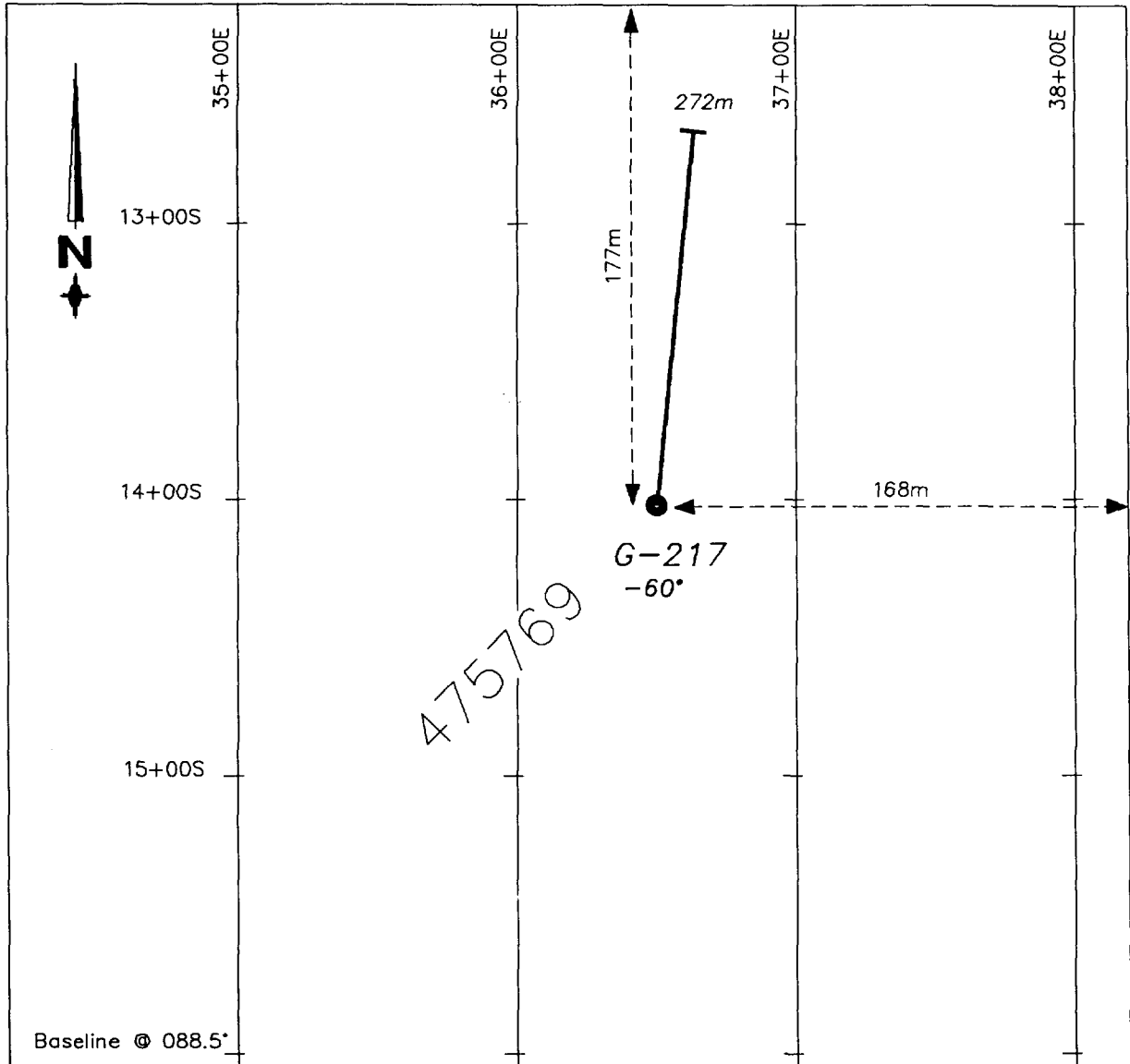
173.50 176.50 **MAFIC DYKE**  
This mafic dyke is medium grained to fine grained, light green and epidote altered.  
The dyke is strongly broken with an RQD of 0.  
The dyke has 10% to 20% epidote alteration throughout and on numerous fractures.  
The dyke is weakly magnetic.  
Both the upper and lower contacts are in very broken core. The actual position of the contacts are approximate.  
The angle to the core axis for the contacts of the mafic dyke is unknown.  
There are no quartz veins and no sulphides noted in this dyke.

176.50 197.20 **MAFIC VOLCANIC**  
This interval of mafic volcanic is fine grained, dark green, chloritic, massive and moderately to weakly magnetic.  
The volcanic has been cut by several short, less than 30 cm, biotite rich and epidote altered gabbro? Dykes.  
Between 184.08 metres and 184.20 metres there is a fine grained to medium grained, reddish brown syenite dyke. This syenite dyke has a upper contact at 60° to core axis.  
The mafic volcanic has no quartz veins, trace quartz carbonate stringers and no significant sulphides.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62341	179.00	180.00	1.00	NIL			Mafic volcanic, No sulphides
62342	180.00	181.00	1.00	NIL			Mafic volcanic, No sulphides
62343	181.00	182.00	1.00	NIL			Mafic volcanic, No sulphides
62344	193.00	194.00	1.00	NIL			Syenite, trace pyrite.
62345	195.00	196.00	1.00	NIL			Mafic volcanic, No sulphides

197.20 269.00 **DIABASE DYKE**  
The diabase dyke is medium grained, olive green, massive, magnetic and epidote altered.  
The diabase dyke has no quartz veining or sulphides noted.  
From 197.20 metres to 211.00 metres, the diabase dyke is fine grained and is a chilled margin to the main portion of the dyke.  
The angle to the core axis for the upper contact of the diabase dyke is uncertain, but appears to be at a low angle to the core axis, less than 30°.  
Below 211.00 metres the diabase dyke becomes more medium grained, with a more uniform texture and has more uniform magnetism.  
From 216.00 metres to 216.50 metres, there are several 1 cm to 3 cm pale green altered feldspar? Aggregates in the diabase dyke.  
From 228.50 metres to 236.50 metres strongly broken core with chlorite coated fractures.  
Dominate fracture sets at both 70° to 80° to core axis and 0° to 15° to core axis.  
From 252.00 metres to 254.00 metres, strongly broken core.

269.00 269.00 **END OF HOLE**



PANGEA


GOLDFIELDS INC.

FENN-GIB PROPERTY

DRILL HOLE LOCATION MAP

DDH G-217

Guibord Township/Claim number 475769

Scale 1 : 2 500  100m

**DRILLING COMPANY**  
Norex Drilling Limited  
P.O. Box 88  
Porcupine, Ontario P0N 1 C0

**LOCATION**  
Gib Property Guibord Township  
L36+50E, 14+00S

**HOLE NUMBER**

**G-217**

**DATE STARTED**      **DATE COMPLETED**  
April 6th, 2002      April 9th, 2002

**CLAIM NUMBER**  
475769

**HOLE DEPTH**  
272.00 METRES

**DATE LOGGED**  
April 10th, 2002 to April 12th, 2002

*Paul Brown*

**CORE SIZE**  
NQ

Gold Assays in G/Tonne

**LOGGED BY**  
Paul Brown

**TARGET FOR DDH**  
Deformation Corridor

**CORE STORED**  
Holt McDermott Mine Site

**DOWN HOLE TEST**

DEPTH Metres	AZIMUTH Corrected	DIP Degrees
0.00	358.5	-60.0
62.00	001.0	-60.5
113.00	005.5	-60.7
161.00	006.0	-60.0
209.00	011.2	-59.8
266.00	006.1	-60.2

**DISTANCE TO POST**

168 metres east and 177 metres north to post # 1 of claim 475769

**FROM**      **TO**  
0.00      50.00  
50.00      85.87

**ROCK DESCRIPTION**  
**CASING and OVERBURDEN**  
**SYENITE INTRUSION**

The syenite intrusion is coarse grained, reddish brown to greenish brown, massive, moderately magnetic and mega crystalline.

The syenite has 0.5 cm to 3 cm pink to white rectangular feldspar phenocrysts in a biotite and hornblende rich matrix.

There are no quartz veins and only minor 1 mm to 3 mm quartz carbonate stringers in this syenite intrusion.

No significant alteration is noted in this interval of syenite. Many of the larger feldspar phenocrysts are fractured with hairline fractures. Fractures are in several directions and cross cutting.

There is only trace disseminated pyrite noted in this syenite intrusion.

The first 12 metres from 50.00 metres to 62.00 metres is very blocky with numerous fractures. Most fractures are either at 50° to 70° to core axis or 0° to 30° to core axis.

Fractures have rusty (oxidized) surfaces. By 77.00 metres most of the fractures are free of oxidation.

There are only very minor late fine grained to medium grained syenite dykes cutting the coarse grained syenite intrusion.

At 57.15 metres a 15 cm fine grained to medium grained, reddish brown syenite dyke at 40° to core axis. There is 1% to 2% stringer pyrite noted in this later syenite dyke.

Between 75.40 metres and 79.00 metres there is a reduction in the number of large feldspar phenocrysts in the syenite intrusion. At 85.47 metres and 85.63 metres there is a 4 cm and 7 cm ultramafic dyke. They are fine grained, dark green, chloritic and talcy. The upper dyke is at 70° to core axis and the lower dyke is at 50° to 55° to core axis. Lower contact of the syenite intrusion at 85.87 metres is sharp at 70° to cote axis.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62346	53.00	54.00	1.00	0.020			Syenite, Trace Pyrite.
62347	57.00	58.00	1.00	0.030			Syenite, Trace Pyrite.
62348	61.00	62.00	1.00	0.040			Syenite, Trace Pyrite.
62349	64.00	65.00	1.00	0.020			Syenite, Trace Pyrite.
62350	66.00	67.00	1.00	0.120	0.160		Syenite, Trace Pyrite.
62351	70.00	71.00	1.00	NIL			Syenite, Trace Pyrite.
62352	71.00	72.00	1.00	NIL			Syenite, Trace Pyrite.
62353	74.00	75.00	1.00	0.050			Syenite, Trace Pyrite.
62354	74.00	75.00	1.00	0.060			Duplicate of 62363
62355	79.00	80.00	1.00	0.010			Syenite, Trace Pyrite.
62356	82.00	83.00	1.00	0.190	0.180		Syenite, Trace Pyrite.
62357				0.620			Standard
62358	84.87	85.87	1.00	0.040			Syenite, Trace Pyrite.

85.87 96.04

**INTERMEDIATE to MAFIC DYKE**

The dyke is medium grained, dark grey to light green, chloritic and non magnetic. There are 10% to 30% 1 mm to 4 mm pink feldspar phenocrysts in a chloritic matrix. In addition both fine grained biotite and hornblende appear to be present as matrix to the feldspar phenocrysts. The dyke appears to have in part absorbed fluids with a syenite composition. Minor fragments and inclusions of syenite are noted in this dyke. Fragments are 3 cm to 5 cm in size. The lower contact of the intermediate to mafic dyke is sharp at 80° to core axis. The dyke has also been cut by two very fine grained, dark green, chloritic, massive and hard mafic dykes. These short mafic dykes occur at 88.75 metres to 89.51 metres and 90.61 metres to 91.25 metres. Both mafic dykes are moderately magnetic. Both are at 30° to 35° to core axis. There are no quartz veins or sulphides noted in the mafic dyke. The intermediate to mafic dyke has no quartz veining, trace quartz carbonate stringers and trace disseminated pyrite. There is also 1% to 2% pyrite in the 10 cm adjacent to the later mafic dykes. This sulphide looks to be a selvage to the later dyke. At 90.00 metres 25 cm of broken core which has been re-cemented with a carbonate vein. There are no sulphides in this carbonate vein. At 91.65 metres a 20 cm fault gouge at 60° to core axis.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62359	87.75	88.75	1.00	0.020			Intermediate dyke, trace Pyrite.
62360	88.75	89.51	0.76	0.010			Mafic dyke, Trace Pyrite.
62361	89.51	90.61	1.10	0.020			Intermediate dyke, trace Pyrite.
62362	90.61	91.25	0.64	0.010			Mafic dyke, Trace Pyrite.
62363	93.00	94.00	1.00	NIL			Intermediate dyke, trace Pyrite.
62364	94.00	95.00	1.00	NIL			Intermediate dyke, trace Pyrite.
62365	95.00	96.04	1.04	0.020			Intermediate dyke, trace Pyrite.

96.04 130.68

**SYENITE INTRUSION**

This syenite intrusion is a continuation of the intrusion above the intermediate to mafic dyke in the interval 85.87 metres to 96.04 metres. The syenite is coarse grained, reddish brown to greenish brown, massive, moderately magnetic and mega crystalline. There are no significant fractures noted in this portion of the syenite intrusion. The syenite has no significant alteration, veining or sulphides. Weak sericite alteration is noted in the matrix of the syenite intrusion.

At 99.11 metres a 5 mm carbonate vein at 35° to core axis. There is no sulphides noted in the vein.

From 115.80 metres to 117.31 metres, there is a fine grained, brownish green and massive intermediate to syenite dyke. Upper contact is sharp at 55° to core axis, lower contact is at 35° to core axis. The intermediate to syenite dyke is moderately magnetic. Dyke has minor 1 mm to 3 mm barren quartz carbonate stringers. There is no sulphides noted in this later dyke.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62366	98.50	99.50	1.00	0.100			Syenite, Trace Pyrite and 5 mm carbonate vein.
62367	101.00	102.00	1.00	0.050			Syenite, Trace Pyrite.
62368	107.00	108.00	1.00	0.020			Syenite, Trace Pyrite.
62369	110.00	111.00	1.00	0.170	0.220		Syenite, Trace Pyrite.
62370	111.00	112.00	1.00	0.220			Syenite, Trace Pyrite.
62371	112.00	113.00	1.00	0.120			Syenite, Trace Pyrite.
62372	112.00	113.00	1.00	0.130			Duplicate of 62371
62373	113.00	114.00	1.00	0.100			Syenite, Trace Pyrite.
62374	115.80	117.31	0.51	0.200	0.200		Intermediate dyke, No Sulphides.
62375	119.00	120.00	1.00	0.110			Syenite, Trace Pyrite.
62376	120.00	121.00	1.00	0.390	0.380	0.410	Syenite, Trace Pyrite.
62377	121.00	122.00	1.00	0.070			Syenite, Trace Pyrite.
62378				0.600			Standard
62379	127.00	128.00	1.00	0.170			Syenite, Trace Pyrite.

130.68 138.53

**MAFIC DYKE**

This mafic dyke is fine grained to slightly medium grained, olive green to medium green, massive and magnetic. The dyke has a number of 1 mm quartz carbonate stringers, no quartz veining, and no sulphides noted. Both the upper and lower contact of the dyke is sharp. The upper contact is at 40° to core axis, the lower contact is at 90° to core axis. At 136.50 metres a 6 cm quartz carbonate vein at 70° to core axis. No sulphides are noted in the vein. At 137.50 metres, a 20 cm inclusion of syenite on one side of the core.

138.53 145.73

**SYENITE INTRUSION**

This syenite intrusion is a continuation of the one above the mafic dyke in the interval 130.68 metres to 138.53 metres. The first 30 cm of syenite below the mafic dyke is very fine grained and bright red. This 30 cm also has 1% pyrite.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62380	138.53	139.53	1.00	0.020			Syenite, Trace to 1% Pyrite.
62381	144.73	145.73	1.00	0.170			Syenite, Trace to 1% Pyrite.

145.73 157.90

**GABBRO INTRUSION**

The gabbro is medium grained, dark green, massive, magnetic and chloritic.



Epidote alteration is present throughout the gabbro.

The upper contact is sharp at 60° to core axis.

The first 5 cm of the gabbro is fine grained, bleached and has 5% pyrite, (chill margin).

There are only minor less than 5 mm quartz carbonate stringers in the gabbro.

From 145.73 metres to 150.50 metres, trace to 1% disseminated pyrite present in the gabbro.

From 150.50 metres to 157.90 metres, 1% to 2% to locally 3% to 5% pyrite noted in the gabbro.

At 147.68 metres, a 75 cm fine grained, olive green mafic dyke similar to one in the interval 130.68 metres to 138.53 metres.

The mafic dyke is at 30° to core axis. There is no veining or sulphides in this short mafic dyke.

At 149.86 metres, a 70 cm coarse grained, reddish brown to cream coloured syenite dyke.

Upper contact of the syenite dyke is at 70° to core axis, lower contact is irregular. 1% disseminated pyrite noted in the syenite dyke.

The lower contact of the gabbro is sharp at 20° to core axis.

The last 1.00 metre of the gabbro is fine grained and has been injected with pink feldspar.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62382	145.73	147.73	1.00	0.070	0.060		Gabbro, Trace to 1% Pyrite.
62383	146.73	147.68	0.95	0.040			Gabbro, Trace to 1% Pyrite.
62384	147.68	148.43	0.75	0.010			Mafic dyke, No Sulphides.
62385	148.43	149.00	0.57	NIL			Gabbro, Trace to 1% Pyrite.
62386	149.00	149.86	0.86	0.020			Gabbro, Trace to 1% Pyrite.
62387	149.86	150.56	0.70	0.010			Syenite, 1% Pyrite.
62388	150.56	151.56	1.00	0.080			Gabbro, 2% to 3% Pyrite.
62389	151.56	152.56	1.00	0.020			Gabbro, 2% to 3% Pyrite.
62390	152.56	153.50	0.94	0.010			Gabbro, 1% to 2% Pyrite.
62391	153.50	154.50	1.00	NIL			Gabbro, 1% to 2% Pyrite.
62392	154.50	155.50	1.00	0.020			Gabbro, 1% to 2% Pyrite.
62393	155.50	156.50	1.00	0.020	0.020		Gabbro, 1% to 2% Pyrite.
62394	156.50	157.50	1.00	0.010			Gabbro, 1% to 2% Pyrite.
62395	157.50	157.90	0.40	NIL			Gabbro, 1% to 2% Pyrite.

157.90 177.14

#### MAFIC VOLCANIC

The mafic volcanic is fine grained, dark green, chloritic, massive and magnetic.

At 159.15 metres there is a 15 cm fault gouge at 20° to core axis. The fault has been re-healed with silica and is cut by a number of 1 mm to 3 mm quartz carbonate stringers.

There are no sulphides noted in this 15 cm fault zone

At 165.00 metres a 5 mm to 1 cm healed fracture at 0° to core axis for 60 cms. No sulphides in the fracture.

Locally the mafic volcanic has 1% to 2% syenite as dykelets and possible syenite fluid injection.

From 169.00 metres to 170.00 metres broken rock which has been healed with carbonate veins. No sulphides in the veins.

At 171.70 metres, a 2 cm fault, re-healed with quartz carbonate, no sulphides are associated.

From 158.45 metres to 159.10 metres, a fine grained to medium grained, grey syenite dyke. Upper contact is at 70° to core axis, lower contact is in a fault zone at 20° to core axis.

The mafic volcanic has numerous 1 mm to 3 mm quartz carbonate stringers, but no significant sulphides noted.

At 166.25 metres a 2 cm quartz carbonate vein at 70° to core axis, no sulphides noted.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	

62396	159.10	160.10	1.00	0.010	Mafic volcanic, No Sulphides.
62397	159.10	160.10	1.00	0.010	Duplicate of 62396
62398	160.10	161.00	0.90	0.010	Mafic volcanic, No Sulphides.
62399	163.00	164.00	1.00	NIL	Mafic volcanic, No Sulphides.
62400	166.00	167.00	1.00	NIL	Mafic volcanic, No Sulphides.
62401	168.65	169.65	1.00	NIL	Mafic volcanic, No Sulphides.
62402				0.600	Standard

177.14 184.50 **SYENITE DYKE**

This dyke is fine grained, dark greyish brown to green and massive. Lower contact is sharp but irregular, approximately 45° to core axis. The dyke is non magnetic. There are a number of 1 mm to 3 mm quartz carbonate stringers and veinlets. There are no sulphides associated with the stringers and veinlets. There is also no significant sulphides noted in the syenite dyke. At 181.50 metres, coarse grained, reddish brown syenite dyke at 0° to core axis for 40 cms. Syenite is very similar to the syenite in the interval below.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62403	178.00	179.00	1.00	0.170	0.150		Syenite, No Sulphides
62404	182.00	183.00	1.00	NIL			Syenite, No Sulphides

184.50 199.88 **SYENITE INTRUSION**

This interval of syenite intrusion is coarse grained, reddish brown, mega crystalline, massive and magnetic. The syenite has 30% to 40% 5 mm to 3 cm pink feldspar phenocrysts in a fine grained biotite and sericite rich matrix. Many of the larger feldspar phenocrysts are fractured with hairline fractures. There is only trace disseminated pyrite noted in the syenite. There are also minor 1 mm to 4 mm barren quartz carbonate stringers in the syenite intrusion. Other than grey sericite in the matrix of the syenite, no significant alteration is noted. At 193.33 metres a 83 cm interval of fine grained, greyish brown syenite. From 196.30 metres to 197.90 metres, the syenite is fine grained and bright reddish brown in colour. From 198.30 metres, a 50 cm interval which is strongly broken and now re-healed. The broken zone has 3% to 5% fine grained pyrite associated. From 189.80 metres to 199.20 metres, there is 5% to 10% fine grained stringer and disseminated pyrite in the syenite.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62405	188.00	189.00	1.00	0.020			Syenite, trace Pyrite.
62406	194.20	195.20	1.00	0.020			Syenite, Trace to 1% Pyrite.
62407	197.00	198.00	1.00	0.030			Syenite, trace Pyrite.
62408	198.00	199.00	1.00	0.110			Syenite, 2% to 4% Pyrite.
62409	199.00	199.88	0.88	0.030			Syenite, 1% to 2% Pyrite.

198.88 222.40 **GABBRO INTRUSION**

The gabbro intrusion is coarse grained, dark green, chloritic, magnetic and massive. There is moderate pervasive epidote alteration throughout the gabbro. The gabbro has been cut by several later syenite dykes. There is only minor quartz carbonate veining and trace to locally 1% to 2% pyrite noted in the gabbro. At 204.65 metres a 70 cm fine grained, brown syenite dyke at 60° to core axis. There are no veins or sulphides noted in the syenite dyke. From 206.86 metres to 207.94 metres, there is a fine grained to medium grained, reddish brown syenite dyke at 45° to core axis.

The syenite dyke has a 8 cm inclusion of gabbro.

There is a significant increase in the pyrite content in the 30 cm of gabbro immediately up hole of the syenite dyke. The 30 cm interval has 3% to 5% stringer and disseminated pyrite.

At 215.17 metres, a 32 cm brown, fine grained syenite dyke at 70° to core axis. No sulphides or quartz veining noted in the syenite dyke.

From 216.20 metres to 218.10 metres there is 2% to 4% fine grained disseminated and stringer pyrite in the gabbro.

From 216.20 metres to 222.40 metres shows signs of deformation and is a grey green in colour.

The last 2.40 metres of gabbro is fine grained, silicified with a number of 2 mm to 4 mm quartz veins. There is no sulphides noted in the veins.

Lower contact of the gabbro is in a 2 cm fault zone at 60° to core axis.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T	Au G/T	Au G/T	DESCRIPTION
				Original	Rerun	Reject	
62410	202.00	203.00		0.020			Gabbro, Trace Pyrite.
62411	205.50	205.50		0.020			Gabbro, Trace Pyrite.
62412	207.00	208.00		0.100			Syenite, Trace Pyrite.
62413	209.00	210.00		0.040			Gabbro, Trace Pyrite.
62414	209.00	210.00		0.040			Duplicate of 62413
62415	210.00	211.00		0.010			Gabbro, Trace Pyrite.
62416				0.600			Standard
62417	211.00	212.00		0.010			Gabbro, Trace Pyrite.
62418	212.00	213.00		0.030			Gabbro, Trace Pyrite.
62419	213.00	214.00		0.130			Gabbro, Trace Pyrite.
62420	214.00	215.00		0.040	0.030		Gabbro, Trace Pyrite.
62421	215.00	216.00		0.040			Gabbro, Trace Pyrite.
62422	216.00	217.00		0.010			Gabbro, 2% to 4% Pyrite.
62423	217.00	217.00		0.010			Gabbro, 2% to 4% Pyrite.
62424	218.00	219.00		NIL			Gabbro, Trace to 1% Pyrite.
62425	219.00	220.00		NIL			Gabbro, Trace Pyrite.
62426	220.00	221.00		0.010			Gabbro, Trace Pyrite.
62427	221.00	222.40		0.020			Gabbro, Trace Pyrite.

222.40 255.50

#### INTERMEDIATE TO FELSIC DYKE WITH SYENITE.

The intermediate to felsic dyke is fine grained greyish brown to cream brown coloured.

Dyke has 5% 1 mm to 2 mm white feldspar phenocrysts to 226.20 metres.

The dyke is non magnetic. There are no quartz veins and only minor quartz carbonate stringers noted in this dyke.

The dyke has trace disseminated pyrite.

From 224.40 metres to 225.40 metres, 1% to 3% disseminated pyrite.

From 232.35 metres to 233.15 metres, an inclusion of strongly sheared mafic volcanic. Shearing is at 60° to core axis in the inclusion.

The intermediate to felsic dyke looks in places very much like a syenite dyke, and it is possible it is closely related.

From 222.40 metres to 226.20 metres the dyke looks intermediate to felsic in composition, below which the dyke looks more closely related to a syenite.

The dyke looks variably silicified down to 226.20 metres and is also locally bleached.

Locally deformation is also present in the dyke, and this interval is most likely the eastward extension of the DEFORMATION CORRIDOR.

The lower contact at 255.50 metres is sharp but irregular.

At 239.05 metres a 45 cm inclusion of mafic volcanic. Lower contact of the inclusion is at 45° to core axis.

From 239.50 metres to 241.83 metres, intermediate to felsic dyke with 5% 1 mm to 3 mm white feldspar phenocrysts.

At 241.83 metres, a 1 cm quartz vein at 45° to core axis. Vein has inclusions of syenite but no sulphides are noted.

From 241.92 metres to 246.25 metres, reddish brown fine grained syenite to intermediate dyke.

At 244.00 metres a 75 cm inclusion of mafic volcanic, foliated at 60° to core axis. The volcanic inclusion appears to be partly assimilated by the dyke.

From 249.00 metres to 255.50 metres, the core is most likely a syenite dyke. The dyke is fine grained and very bright reddish brown in colour.

This last 6.50 metres has only trace disseminated pyrite associated.

The lower contact of the interval is sharp at 20° to core axis.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62428	222.40	225.40	1.00	0.740	0.810	0.790	Intermediate to Felsic dyke, 1% to 3% Pyrite.
62429	227.00	228.00	1.00	0.330		0.400	Intermediate to Felsic dyke, 1% to 2% Pyrite.
62430	228.00	229.00	1.00	0.350		0.370	Intermediate to Felsic dyke, 1% to 2% Pyrite.
62431	229.00	230.00	1.00	0.540		0.550	Intermediate to Felsic dyke, Trace Pyrite.
62432	229.00	230.00	1.00	0.520			Duplicate of 62431
62433	235.00	236.00	1.00	0.070			Intermediate dyke/Syenite no sulphides.
62434	240.00	241.00	1.00	0.280			Intermediate dyke, 15 cm quartz vein no sulphides.
62435	241.00	242.00	1.00	0.030			Syenite/Intermediate dyke, Trace Pyrite.
62436				0.580			Standard
62437	244.00	245.00	1.00	0.040			Mafic volcanic inclusion.
62438	245.00	245.50	0.50	0.050			Syenite, two 5 mm barren quartz veins.
62439	248.00	249.00	1.00	0.060	0.040		Syenite, Trace Pyrite.
62440	251.00	252.00	1.00	0.090			Syenite, Trace Pyrite.

255.50 263.31

#### GABBRO INTRUSION

The gabbro intrusion is medium grained to coarse grained, dark green, chloritic, massive and magnetic. There is moderate to locally strong epidote alteration on fractures and as 1 mm to 3 mm selvages to the fractures.

There are minor 1 cm to 10 cm inclusions of syenite in the gabbro.

The gabbro has trace to locally 1% disseminated pyrite.

The gabbro has no significant quartz veins and only minor 1 mm to 3 mm quartz carbonate stringers.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T			DESCRIPTION
				Original	Rerun	Reject	
62441	256.00	257.00	1.00	NIL			Gabbro, Trace to 1% Pyrite.
62442	257.00	258.00	1.00	NIL			Gabbro, Trace to 1% Pyrite.
62443	258.00	259.00	1.00	0.020			Gabbro, Trace to 1% Pyrite.
62444	259.00	260.00	1.00	0.010			Gabbro, Trace to 1% Pyrite.
62445	260.00	261.00	1.00	0.030			Gabbro, Trace to 1% Pyrite.

263.31 269.09

#### SYENITE DYKE

The dyke is fine grained, brownish green and magnetic. Upper contact is irregular.

At 264.80 metres a 60 cm interval of brecciated gabbro/syenite as fragments in a re-healed fault zone.

The fault is at 30° to core axis.

The syenite has a number of 1 mm to 3 mm irregular and barren quartz carbonate veinlets and stringers.

There is only trace pyrite noted in the syenite.

The last 1.5 metres of the syenite appears to have been broken and re-healed. Angular fragments are up to 5 cms.

At 267.20 metres a 40 cm inclusion of gabbro.

SAMPLE NUMBER	FROM	TO	WIDTH	Au G/T Original	Au G/T Rerun	Au G/T Reject	DESCRIPTION
62446	268.00	269.09	1.09	0.040			Syenite, Trace Pyrite.
269.09	271.68	<b>GABBRO INTRUSION</b> The gabbro is fine grained to medium grained, dark green, chloritic and magnetic. The gabbro has only minor quartz carbonate stringers and trace disseminated pyrite.					
271.68	272.00	<b>SYENITE INTRUSION</b> The syenite is coarse grained, reddish brown, magnetic and mega crystalline, with feldspar phenocrysts greater than 3 cms. The syenite does not have any quartz veins or sulphides noted.					
272.00	272.00	<b>END OF HOLE</b>					

## APPENDIX II



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## Assay Certificate

2W-0756-RA1

Company: **PANGEA GOLDFIELDS INC**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 50 Core samples submitted APR-04-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne
62001	0.08	-	-
62002	Nil	-	-
62003	0.02	-	-
62004	0.03	-	-
62005	0.03	-	-
62006	1.17	1.10	1.12
62007	0.02	-	-
62008	0.02	-	-
62009	0.01	-	-
62010	0.04	-	-
62011	0.08	0.15	-
62012	0.15	-	-
62013	0.02	-	-
62014	0.03	-	-
62015	0.01	-	-
62016	0.01	0.01	-
62017	0.01	-	-
62018	0.01	-	-
62019	0.58	-	-
62020	0.02	-	-
62021	0.01	-	-
62022	0.01	-	-
62023	Nil	-	-
62024	Nil	-	-
62025	0.15	-	-
62026	0.02	-	-
62027	0.07	-	-
62028	0.03	-	-
62029	0.14	0.09	-
62030	0.19	0.54	-

One assay ton portion used.

Certified by *Denis Chute*



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# Swastika Laboratories Ltd

Assaying - Consulting - Representation

Page 2 of 2

## Assay Certificate

2W-0756-RA1


Company: **PANGEA GOLDFIELDS INC**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 50 Core samples submitted APR-04-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne
62031	0.08	0.09	-
62032	0.08	-	-
62033	0.07	-	-
62034	Nil	-	-
62035	0.02	-	-
62036	0.02	-	-
62037	0.03	-	-
62038	0.64	-	-
62039	0.03	-	-
62040	0.16	0.08	-
62041	0.08	-	-
62042	0.11	0.14	-
62043	0.02	-	-
62044	0.01	-	-
62045	0.03	-	-
62046	0.01	-	-
62047	0.01	-	-
62048	0.01	-	-
62049	0.01	-	-
62050	0.01	-	-

One assay ton portion used.

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## Assay Certificate

2W-0757-RA1

Company: **PANGEA GOLDFIELDS INC**  
Project: Fenn Gibb  
Attn: P. Brown

Date: APR-15-02

We hereby certify the following Assay of 36 Core samples submitted APR-04-02 by .

Sample Number	Au g/tonne	Au Check g/tonne
62051	0.09	-
62052	0.02	-
62053	0.05	-
62054	0.08	-
62055	0.14	0.15
62056	0.20	-
62057	0.60	-
62058	0.01	-
62059	0.28	0.27
62060	0.08	-
62061	0.02	-
62062	0.02	-
62063	0.01	-
62064	0.06	-
62065	0.02	-
62066	0.03	-
62067	0.01	-
62068	0.02	-
62069	0.01	-
62070	0.01	-
62071	0.04	-
62072	0.03	0.01
62073	0.02	-
62074	0.05	-
62075	0.59	-
62076	0.02	-
62077	0.01	-
62078	0.02	-
62079	0.02	-
62080	0.05	-

One assay ton portion used.

Certified by Denis Chantre



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## Assay Certificate

**2W-0757-RA1**

Company: **PANGEA GOLDFIELDS INC**  
Project: Fenn Gibb  
Attn: P. Brown

Date: APR-15-02

*We hereby certify* the following Assay of 36 Core samples submitted APR-04-02 by .

Sample Number	Au g/tonne	Au Check g/tonne
62081	Nil	-
62082	0.01	-
62083	Nil	-
62084	Nil	-
62085	0.02	0.02
62086	0.07	-

One assay ton portion used.

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## Assay Certificate

2W-0758-RA1

Company: **PANGEA GOLDFIELDS INC**  
Project: Fenn Gibb  
Attn: P. Brown

Date: APR-15-02

We hereby certify the following Assay of 36 Core samples submitted APR-04-02 by .

Sample Number	Au g/tonne	Au Check g/tonne
62087	Nil	-
62088	0.01	-
62089	0.03	0.02
62090	0.01	-
62091	0.01	-
62092	0.02	-
62093	0.58	-
62094	0.07	-
62095	Nil	-
62096	0.04	-
62097	0.13	0.14
62098	0.02	-
62099	0.03	-
62100	0.02	-
62101	0.01	-
62102	0.01	-
62103	0.04	-
62104	0.04	-
62105	0.04	-
62106	0.01	-
62107	0.01	0.04
62108	0.02	-
62109	Nil	-
62110	Nil	-
62111	0.02	-
62112	0.01	-
62113	0.03	-
62114	0.04	-
62115	0.02	-
62116	0.59	-

One assay ton portion used.

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## Assay Certificate

2W-0758-RA1

Company: **PANGEA GOLDFIELDS INC**  
Project: Fenn Gibb  
Attn: P. Brown

Date: APR-15-02

We hereby certify the following Assay of 36 Core samples submitted APR-04-02 by .

Sample Number	Au g/tonne	Au Check g/tonne
62117	0.01	-
62118	0.01	-
62119	0.04	0.05
62120	0.03	-
62121	0.07	-
62122	0.10	0.08

One assay ton portion used.

Certified by *Denis Chantre*

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244 Fax (705) 642-3300



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# Swastika Laboratories Ltd

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## Assay Certificate

2W-0798-RA1

Company: **PANGEA GOLDFIELD**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 69 Core samples submitted APR-09-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne
62123	0.01	-	-
62124	0.13	-	-
62125	0.26	0.25	-
62126	0.34	-	0.36
62127	0.07	-	-
62128	0.05	-	-
62129	0.02	-	-
62130	0.05	-	-
62131	0.02	-	-
62132	0.01	-	-
62133	0.02	-	-
62134	0.06	-	-
62135	0.05	-	-
62136	0.03	0.03	-
62137	0.01	-	-
62138	0.01	-	-
62139	0.02	-	-
62140	0.59	-	-
62141	Nil	-	-
62142	Nil	-	-
62143	0.04	0.04	-
62144	Nil	-	-
62145	0.04	-	-
62146	0.02	-	-
62147	Nil	-	-
62148	Nil	-	-
62149	0.02	-	-
62150	0.06	-	-
62151	0.02	-	-
62152	0.07	0.06	-

One assay ton portion used.

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## Assay Certificate

2W-0798-RA1

Company: **PANGEA GOLDFIELD**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 69 Core samples submitted APR-09-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne
62153	0.03	-	-
62154	0.03	-	-
62155	0.02	-	-
62156	0.01	-	-
62157	0.02	-	-
62158	0.02	-	-
62159	0.01	-	-
62160	0.59	-	-
62161	0.02	-	-
62162	0.01	-	-
62163	0.08	0.07	-
62164	0.06	-	-
62165	0.03	-	-
62166	Nil	-	-
62167	Nil	-	-
62168	Nil	-	-
62169	0.03	-	-
62170	0.03	-	-
62171	Nil	-	-
62172	0.05	0.06	-
62173	0.05	-	-
62174	0.05	-	-
62175	Nil	-	-
62176	0.03	-	0.03
62177	0.58	-	-
62178	0.06	-	-
62179	0.02	-	-
62180	Nil	-	-
62181	0.10	-	-
62182	0.12	0.13	-

One assay ton portion used.

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## Assay Certificate

2W-0798-RA1

Company: **PANGEA GOLDFIELD**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 69 Core samples submitted APR-09-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne
62183	Nil	-	-
62184	0.31	-	0.27
62185	0.39	0.35	0.38
62186	0.78	0.86	0.85
62187	0.57	-	0.56
62188	0.15	-	-
62189	0.17	-	-
62190	0.05	-	-
62191	0.10	-	-

One assay ton portion used.

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## Assay Certificate

2W-0799-RA1


Company: **PANGEA GOLDFIELD**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 70 Core samples submitted APR-09-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne
62192	0.30	-	-
62193	0.36	-	-
62194	0.12	0.14	-
62195	0.09	-	-
62196	0.11	-	-
62197	0.61	-	-
62198	0.02	-	-
62199	0.03	-	-
62200	0.03	-	-
62201	0.04	-	-
62202	0.02	-	-
62203	Nil	-	-
62204	0.03	-	-
62205	0.02	-	-
62206	0.16	-	-
62207	0.03	-	-
62208	0.09	-	-
62209	0.01	0.01	-
62210	0.25	-	-
62211	0.28	-	-
62212	0.38	0.24	-
62213	0.14	-	-
62214	0.08	-	-
62215	0.64	-	-
62216	0.03	-	-
62217	0.03	-	-
62218	0.01	-	-
62219	0.03	-	-
62220	0.06	-	-
62221	0.05	-	-

One assay ton portion used.

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## Assay Certificate

2W-0799-RA1

Company: **PANGEA GOLDFIELD**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 70 Core samples submitted APR-09-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne
62222	0.13	-	-
62223	0.07	-	-
62224	0.01	-	-
62225	0.03	-	-
62226	0.15	-	-
62227	0.38	-	-
62228	0.11	-	-
62229	0.19	-	-
62230	0.11	0.18	-
62231	0.46	0.40	0.43
62232	0.02	-	-
62233	0.02	-	-
62234	0.59	-	-
62235	Nil	-	-
62236	0.03	-	-
62237	0.02	-	-
62238	0.03	-	-
62239	0.16	0.16	-
62240	0.05	-	-
62241	0.13	-	-
62242	0.63	-	0.63
62243	0.45	-	0.46
62244	0.95	-	0.95
62245	0.03	-	-
62246	0.04	0.02	-
62247	0.95	-	0.93
62248	0.13	-	0.12
62249	0.94	0.82	0.93
62250	0.03	-	-
62251	0.30	-	-

One assay ton portion used.

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## Assay Certificate

2W-0799-RA1


Company: **PANGEA GOLDFIELD**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 70 Core samples  
submitted APR-09-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne
62252	0.09	-	-
62253	0.12	-	-
62254	0.02	-	-
62255	0.05	-	-
62256	0.07	-	-
62257	0.35	0.28	-
62258	0.08	-	-
62259	0.07	-	-
62260	0.59	-	-
62261	0.05	-	-

One assay ton portion used.

Certified by 

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244 Fax (705) 642-3300



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## Assay Certificate

2W-0823-RA1

Company: **PANGEA GOLDFIELDS INC.**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 40 Core samples submitted APR-12-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne	Au 2ndCk g/tonne	Au 3rd g/tonne
62262	0.12	-	-	-	-
62263	Nil	-	-	-	-
62264	Nil	-	-	-	-
62265	Nil	-	-	-	-
62266	0.13	-	-	-	-
62267	0.14	-	-	-	-
62268	1.61	1.30	0.53	0.79	1.60
62269	0.11	-	-	-	-
62270	0.04	-	-	-	-
62271	0.46	0.46	-	0.49	-
62272	0.17	-	-	-	-
62273	0.23	-	-	-	-
62274	0.07	-	-	-	-
62275	0.06	-	-	-	-
62276	0.03	-	-	-	-
62277	0.12	-	-	-	-
62278	0.19	-	-	-	-
62279	0.62	-	-	-	-
62280	0.07	-	-	-	-
62281	0.09	-	-	-	-
62282	0.65	0.45	-	0.68	-
62283	0.17	-	-	-	-
62284	0.11	-	-	-	-
62285	0.01	-	-	-	-
62286	0.01	-	-	-	-
62287	0.02	-	-	-	-
62288	0.03	-	-	-	-
62289	0.02	-	-	-	-
62290	0.01	-	-	-	-
62291	0.01	-	-	-	-

One assay ton portion used.

Certified by *Denis Chantre*



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# Swastika Laboratories Ltd

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Page 2 of 2

## Assay Certificate

2W-0823-RA1

Company: **PANGEA GOLDFIELDS INC.**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 40 Core samples  
submitted APR-12-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne	Au 2ndCk g/tonne	Au 3rd g/tonne
62292	0.03	-	-	-	-
62293	0.03	-	-	-	-
62294	0.62	-	-	-	-
62295	0.04	0.03	-	-	-
62296	0.04	-	-	-	-
62297	0.04	-	-	-	-
62298	0.04	-	-	-	-
62299	0.03	-	-	-	-
62300	0.03	-	-	-	-
62301	0.02	-	-	-	-

One assay ton portion used.

Certified by Denis Chantre

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244 Fax (705) 642-3300



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# Swastika Laboratories Ltd

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## Assay Certificate

2W-0824-RA1

Company: **PANGEA GOLDFIELDS INC.**  
Project: Fenn Gibb  
Attn: P. Brown

Date: APR-18-02

We hereby certify the following Assay of 44 Core samples submitted APR-12-02 by .

Sample Number	Au g/tonne	Au Check g/tonne
62302	0.02	-
62303	0.06	-
62304	0.02	-
62305	0.01	Nil
62306	0.03	-
62307	Nil	-
62308	0.07	-
62309	0.03	-
62310	Nil	-
62311	0.15	-
62312	0.15	-
62313	0.01	-
62314	0.03	-
62315	0.05	-
62316	0.60	-
62317	Nil	-
62318	Nil	-
62319	0.02	0.02
62320	0.05	-
62321	0.01	-
62322	0.02	-
62323	0.10	0.09
62324	0.12	-
62325	0.11	-
62326	0.03	-
62327	0.01	-
62328	0.01	-
62329	0.01	-
62330	Nil	-
62331	Nil	-

One assay ton portion used.

Certified by Denis Chantre



Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation

Page 2 of 2

## Assay Certificate

2W-0824-RA1

Company: **PANGEA GOLDFIELDS INC.**  
Project: Fenn Gibb  
Attn: P. Brown

Date: APR-18-02

We hereby certify the following Assay of 44 Core samples submitted APR-12-02 by .

Sample Number	Au g/tonne	Au Check g/tonne
62332	0.02	-
62333	0.01	-
62334	0.03	-
62335	0.59	-
62336	0.01	-
62337	0.01	-
62338	Nil	-
62339	Nil	-
62340	0.05	0.04
62341	Nil	-
62342	Nil	-
62343	Nil	-
62344	Nil	-
62345	Nil	-

One assay ton portion used.

Certified by Denis Chouh



Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation

Page 1 of 2

## Assay Certificate

2W-0863-RA1

Company: **PANGEA GOLDFIELDS INC.**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 36 Core samples submitted APR-16-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne
62346	0.02	-	-
62347	0.03	-	-
62348	0.04	-	-
62349	0.02	-	-
62350	0.12	0.16	-
62351	Nil	-	-
62352	Nil	-	-
62353	0.05	-	-
62354	0.06	-	-
62355	0.01	-	-
62356	0.19	0.18	-
62357	0.62	-	-
62358	0.04	-	-
62359	0.02	-	-
62360	0.01	-	-
62361	0.02	-	-
62362	0.01	-	-
62363	Nil	-	-
62364	Nil	-	-
62365	0.02	-	-
62366	0.10	-	-
62367	0.05	-	-
62368	0.02	-	-
62369	0.17	0.22	-
62370	0.22	-	-
62371	0.12	-	-
62372	0.13	-	-
62373	0.10	-	-
62374	0.20	0.20	-
62375	0.11	-	-

One assay ton portion used.

Certified by Denis Chantre



Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation

Page 2 of 2

## Assay Certificate

2W-0863-RA1

Company: **PANGEA GOLDFIELDS INC.**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

*We hereby certify* the following Assay of 36 Core samples submitted APR-16-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne
62376	0.39	0.38	0.41
62377	0.07	-	-
62378	0.60	-	-
62379	0.17	-	-
62380	0.02	-	-
62381	0.17	-	-

One assay ton portion used.

Certified by Denis Chantre

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244 Fax (705) 642-3300





Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation

Page 1 of 2

## Assay Certificate

2W-0864-RA1

Company: **PANGEA GOLDFIELDS INC**  
Project: **Fenn Gibb**  
Attn: **P. Brown**

Date: APR-24-02

We hereby certify the following Assay of 40 Core samples submitted APR-16-02 by .

Sample Number	Au g/tonne	Au Check g/tonne
62382	0.07	0.06
62383	0.04	-
62384	0.01	-
62385	Nil	-
62386	0.02	-
62387	0.01	-
62388	0.08	-
62389	0.02	-
62390	0.01	-
62391	Nil	-
62392	0.02	-
62393	0.02	0.02
62394	0.01	-
62395	Nil	-
62396	0.01	-
62397	0.01	-
62398	0.01	-
62399	Nil	-
62400	Nil	-
62401	Nil	-
62402	0.60	-
62403	0.17	0.15
62404	Nil	-
62405	0.02	-
62406	0.02	-
62407	0.03	-
62408	0.11	-
62409	0.03	-
62410	0.02	-
62411	0.02	-

One assay ton portion used.

Certified by *Denis Chamber*



Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation

Page 2 of 2

## Assay Certificate

2W-0864-RA1

Company: **PANGEA GOLDFIELDS INC**  
Project: Fenn Gibb  
Attn: P. Brown

Date: APR-24-02

We hereby certify the following Assay of 40 Core samples submitted APR-16-02 by .

Sample Number	Au g/tonne	Au Check g/tonne
62412	0.10	-
62413	0.04	-
62414	0.04	-
62415	0.01	-
62416	0.60	-
62417	0.01	-
62418	0.03	-
62419	0.13	-
62420	0.04	0.03
62421	0.04	-

One assay ton portion used.

Certified by *Dennis Chawthorn*



Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation

Page 1 of 2

## Assay Certificate

2W-0865-RA1

Company: **PANGEA GOLDFIELDS INC.**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 40 Core samples submitted APR-16-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne
62422	0.01	-	-
62423	0.01	-	-
62424	Nil	-	-
62425	Nil	-	-
62426	0.01	-	-
62427	0.02	-	-
62428	0.74	0.81	0.79
62429	0.33	-	0.40
62430	0.35	-	0.37
62431	0.54	-	0.55
62432	0.52	-	-
62433	0.07	-	-
62434	0.28	-	-
62435	0.03	-	-
62436	0.58	-	-
62437	0.04	-	-
62438	0.05	-	-
62439	0.06	0.04	-
62440	0.09	-	-
62441	Nil	-	-
62442	Nil	-	-
62443	0.02	-	-
62444	0.01	-	-
62445	0.03	-	-
62446	0.04	-	-
62447	0.03	-	-
62448	0.01	-	-
62449	0.02	-	-
62450	0.09	0.11	-
62451	0.05	-	-

One assay ton portion used.

Certified by Denis Chantre



Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation

Page 2 of 2

## Assay Certificate

2W-0865-RA1

Company: **PANGEA GOLDFIELDS INC.**  
Project: Fenn Gibb  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 40 Core samples submitted APR-16-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne
62452	0.24	0.22	-
62453	0.01	-	-
62454	0.02	-	-
62455	0.01	-	-
62456	0.01	-	-
62457	0.03	-	-
62458	0.11	-	-
62459	0.30	-	0.31
62460	0.48	0.46	0.40
62461	0.05	-	-

One assay ton portion used.

Certified by Denis Chantre



Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation

## Assay Certificate

2W-0911-RA1

Company: **PANGEA GOLDFIELDS INC**  
Project: Fonn Fib  
Attn: P. Brown

Date: MAY-14-02

We hereby certify the following Assay of 5 Core samples  
submitted APR-22-02 by .

Sample Number	Au g/tonne	Au Check g/tonne	Au 2nd g/tonne
62462	0.32	0.32	0.34
62463	0.01	-	-
62464	0.03	-	-
62465	0.03	-	-
62466	0.33	0.28	-

One assay ton portion used.

Certified by *Denis Chant*

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244 Fax (705) 642-3300

## APPENDIX III



Established 1928

# Swastika Laboratories

Assaying - Consulting - Representation

## ROUTINE SAMPLE PREPARATION

- 1) Dry samples if required.
- 2) Crush total sample to 1/2 inch (Jaw Crusher)
- 3) Crush total sample to 10 mesh (Rolls Crusher)
- 4) Split Approximately 350 grams using a Jones riffle.
- 5) The remaining reject is placed in a plastic bag, and packed in cartons with sample numbers listed on the outside.
- 6) Pulverize the 350g sample
  
- 7) Homogenize the pulp, it is then ready for assay.

Sample preparation quality is assured by regular inspection, maintenance of crushing equipment, training and supervision of our staff to ensure that proper technique is utilized.

We prepare and analyze second pulps from stored rejects. The resulting data is compared with original results to verify sample sequence and also that repeatability is within acceptable limits.

To ensure that there is no dilution or concentration of various minerals, dust loss is kept at a minimum. For the critical pulverizing step, we have equipped our pulverizers with automatic draft shut off damper to eliminate sample pulp loss.

To prevent cross contamination, we use compressed air jets to clean the equipment between samples. The rolls crusher is cleaned using a wire brush combined with air jets. this system does a thorough cleaning. Also barren abrasive material is crushed between batches as an extra precaution.

## APPENDIX IV



## APPENDIX IV

### FENN-GIB PROPERTY

#### LIST OF CLAIMS

L9454	L477208
L9252	L475803
L9190	L475802
L9189	L475801
L9188	L475800
L894179	L475799
L894178	L475798
L894177	L475797
L894176	L475784
L894175	L475782
L894174	L475781
L8290	L475780
L8289	L475779
L78681	L475778
L737631	L475777
L737631	L475776
L737630	L475775
L737630	L475774
L52228	L475773
L477317	L475772
L477316	L475771
L477313	L475770
L477312	L475769
L477261	L475768
L477260	L475767
L477259	L475766
L477258	L45564
L477256	L45563
L477252	L45562
L477244	L45561
L477243	L442115
L477242	L427812
L477241	L427811
L477240	L4040
L477239	L4039
L477238	L2425
L477237	L16365PARC
L477228	L11459
L477227	L03328PARC
L477226	L02636PARC
L477225	L01115PARC
L477224	L00732PARC
L477223	L00566 PARC
L477222	L00565 PARC
L477212	
L477209	

**Work Report Summary**

**Transaction No:** W0480.00437                                  **Status:** APPROVED  
**Recording Date:** 2004-MAR-10                                  **Work Done from:** 2002-MAR-24  
**Approval Date:** 2004-MAR-22                                  **to:** 2002-JUN-13

**Client(s):**  
303583      PANGEA FENN-GIB LTD

**Survey Type(s):**  
ASSAY                                  PDRILL

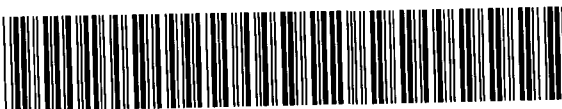
**Work Report Details:**

Claim#	Perform	Perform Approve	Applied	Applied Approve	Assign	Assign Approve	Reserve	Reserve Approve	Due Date
G 8080047	\$91,190	\$91,190	\$0	\$0	\$4,800	4,800	\$86,390	\$86,390	
L 737630	\$0	\$0	\$800	\$800	\$0	0	\$0	\$0	\$0 2007-FEB-06
L 737631	\$0	\$0	\$800	\$800	\$0	0	\$0	\$0	\$0 2007-FEB-06
L 894174	\$0	\$0	\$800	\$800	\$0	0	\$0	\$0	\$0 2007-JUL-14
L 894175	\$0	\$0	\$800	\$800	\$0	0	\$0	\$0	\$0 2007-JUL-14
L 894176	\$0	\$0	\$800	\$800	\$0	0	\$0	\$0	\$0 2007-JUL-14
L 894177	\$0	\$0	\$800	\$800	\$0	0	\$0	\$0	\$0 2007-JUL-14
	\$91,190	\$91,190	\$4,800	\$4,800	\$4,800	\$4,800	\$86,390	\$86,390	

**External Credits:**                                  \$0

**Reserve:**  
\$86,390      Reserve of Work Report#: W0480.00437  
            
\$86,390      Total Remaining

Status of claim is based on information currently on record.



Date: 2004-MAR-23

GEOSCIENCE ASSESSMENT OFFICE  
933 RAMSEY LAKE ROAD, 6th FLOOR  
SUDBURY, ONTARIO  
P3E 6B5

PANGEA FENN-GIB LTD  
EASTERN CANADA LAND DEPARTMENT  
ATT: CAROL PERRY, C.P. 3058  
301 NORRIE RD., ROUTE 117  
MALARTIC, QUEBEC  
J0Y 1Z0 CANADA

Tel: (888) 415-9845  
Fax: (877) 670-1555

**Submission Number:** 2.27367  
**Transaction Number(s):** W0480.00437

Dear Sir or Madam

**Subject: Approval of Assessment Work**

We have approved your Assessment Work Submission with the above noted Transaction Number(s). The attached Work Report Summary indicates the results of the approval.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

If you have any question regarding this correspondence, please contact BRUCE GATES by email at [bruce.gates@ndm.gov.on.ca](mailto:bruce.gates@ndm.gov.on.ca) or by phone at (705) 670-5856.

Yours Sincerely,

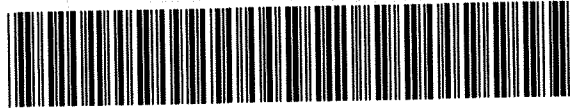


Ron C. Gashinski  
Senior Manager, Mining Lands Section

**Cc:** Resident Geologist  
Pangea Fenn-Gib Ltd  
(Claim Holder)

Assessment File Library  
Pangea Fenn-Gib Ltd  
(Assessment Office)

Cy L. Wilsey  
(Agent)



42A09SE2043 2.27367 GUIBORD

200

ONTARIO CANADA

MINISTRY OF NORTHERN DEVELOPMENT AND MINES  
PROVINCIAL MINING RECORDERS' OFFICE

Mining Land Tenure Map

Date / Time of Issue: Tue Mar 30 11:10:12 EST 2004

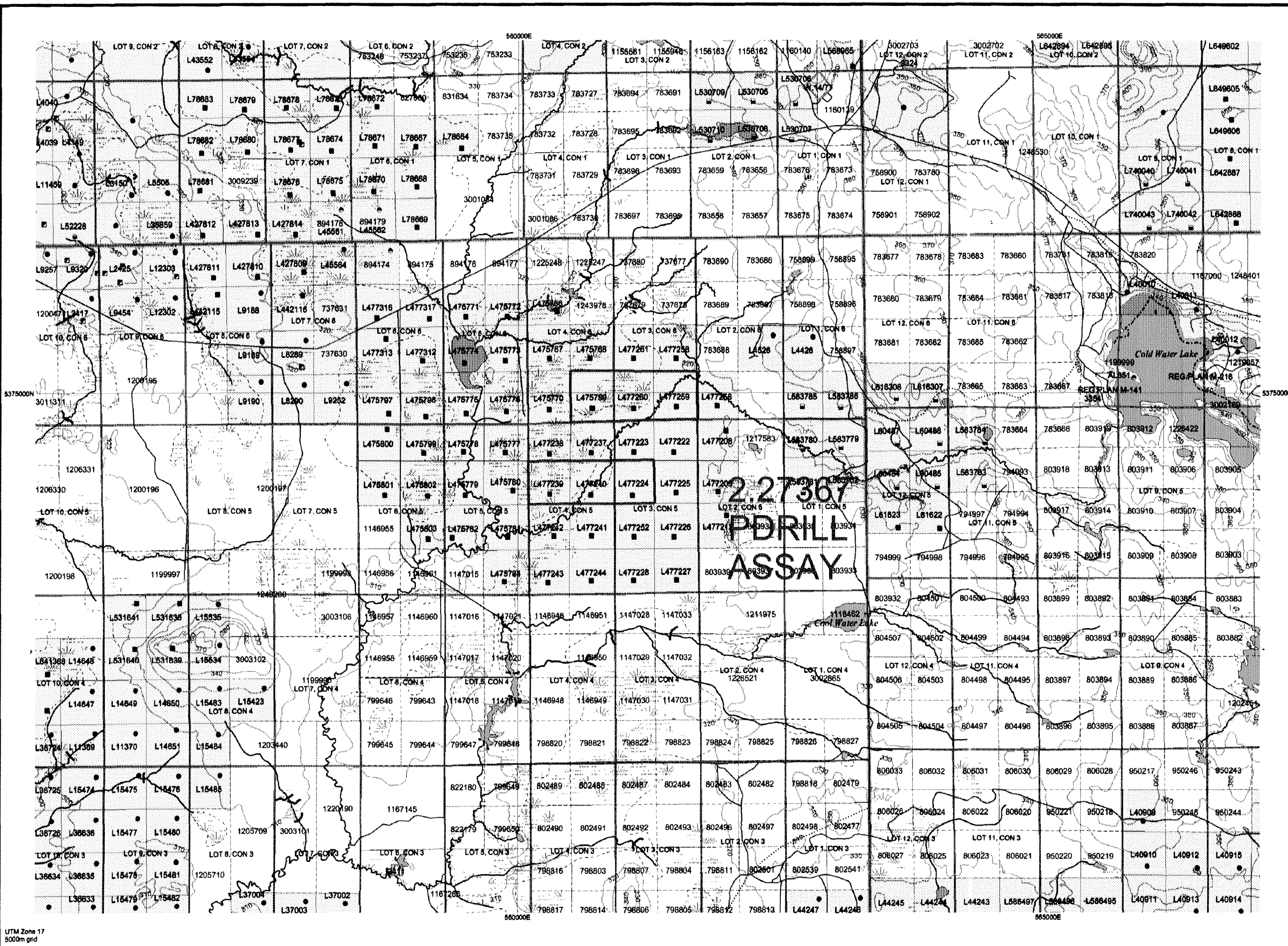
TOWNSHIP / AREA  
GUIBORD

PLAN  
G-3642

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division  
Land Titles/Registry Division  
Ministry of Natural Resources District

Larder Lake  
COCHRANE  
KIRKLAND LAKE



UTM Zone 17  
500m grid

TOPOGRAPHIC

- Administrative Boundaries
- Township
- Concession Lot
- Provincial Park
- Indian Reserve
- Cliff, Pit & Pile
- Contour
- Mine Shafts
- Mine Headframe
- Railway
- Road
- Trail
- Natural Gas Pipeline
- Utilities
- Tower

Land Tenure

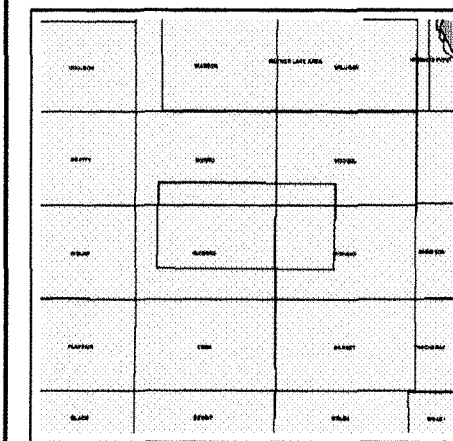
- Freehold Patent**
  - Surface And Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- Leasehold Patent**
  - Surface And Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- License of Occupation**
  - Uses Not Specified
  - Surface And Mining Rights
  - Surface Rights Only
  - Mining Rights Only
  - Land Use Permit
  - Order In Council (Not open for staking)
  - Water Power Lease Agreement

- Mining Claim
- Filed Only Mining Claims

LAND TENURE WITHDRAWALS

- 1234 Areas Withdrawn from Disposition
- Mining Acts Withdrawal Types
  - Wsm Surface And Mining Rights Withdrawn
  - Ws Surface Rights Only Withdrawn
  - Wm Mining Rights Only Withdrawn
  - Order In Council Withdrawal Types
  - W'm Surface And Mining Rights Withdrawn
  - W's Surface Rights Only Withdrawn
  - W'm Mining Rights Only Withdrawn

IMPORTANT NOTICES



LAND TENURE WITHDRAWAL DESCRIPTIONS

Identifier	Type	Date	Description
03002273	Wsm	Dec 22, 2003	<a href="http://www.mdm.gov.on.ca/Claims/Cf_Claims/cim_csm/Claim_View_Clm_Num=03002273">400 FT SURFACE RIGHTS RESERVATION ALONG THE SHORES OF LAKES & RIVERS
3301	Wsm	Jan 1, 2001	400 FT SURFACE RIGHTS RESERVATION ALONG THE SHORES OF LAKES & RIVERS
3302	Ws	Jan 1, 2001	SURFACE RIGHTS WITHDRAWN FROM STAKING, SECTION 164366 9/1/89
3306	Ws	Jan 1, 2001	SEC. 39(d) R.S.O.80 SRO 41322'
3324	Ws	Jan 1, 2001	SEC.42 (R.S.O.80) SRO 184588'
3354	Ws	Jan 1, 2001	SURFACE RIGHTS WITHDRAWN FROM STAKING SECTION 42(R.S. FILE 184588
3411	Wsm	Jan 1, 2001	400 FT SURFACE RIGHTS RESERVATION ALONG THE SHORES OF LAKES & RIVERS
W.1477	Ws	Feb 10, 2001	SURFACE RIGHTS WITHDRAWN FROM STAKING, SECTION 168522 14/77, 10/277

Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown hereon. This map is not intended for navigational, survey, or land title determination purposes as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources.

The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Mines web site.

General Information and Limitations

Contact Information:  
Provincial Mining Recorders' Office  
Willie Green Miller Centre 933 Ramsey Lake Road  
Sudbury ON P3E 6B5  
Home Page: www.mndm.gov.on.ca/MNDM/MINES/LANDS/mimnpgp.htm

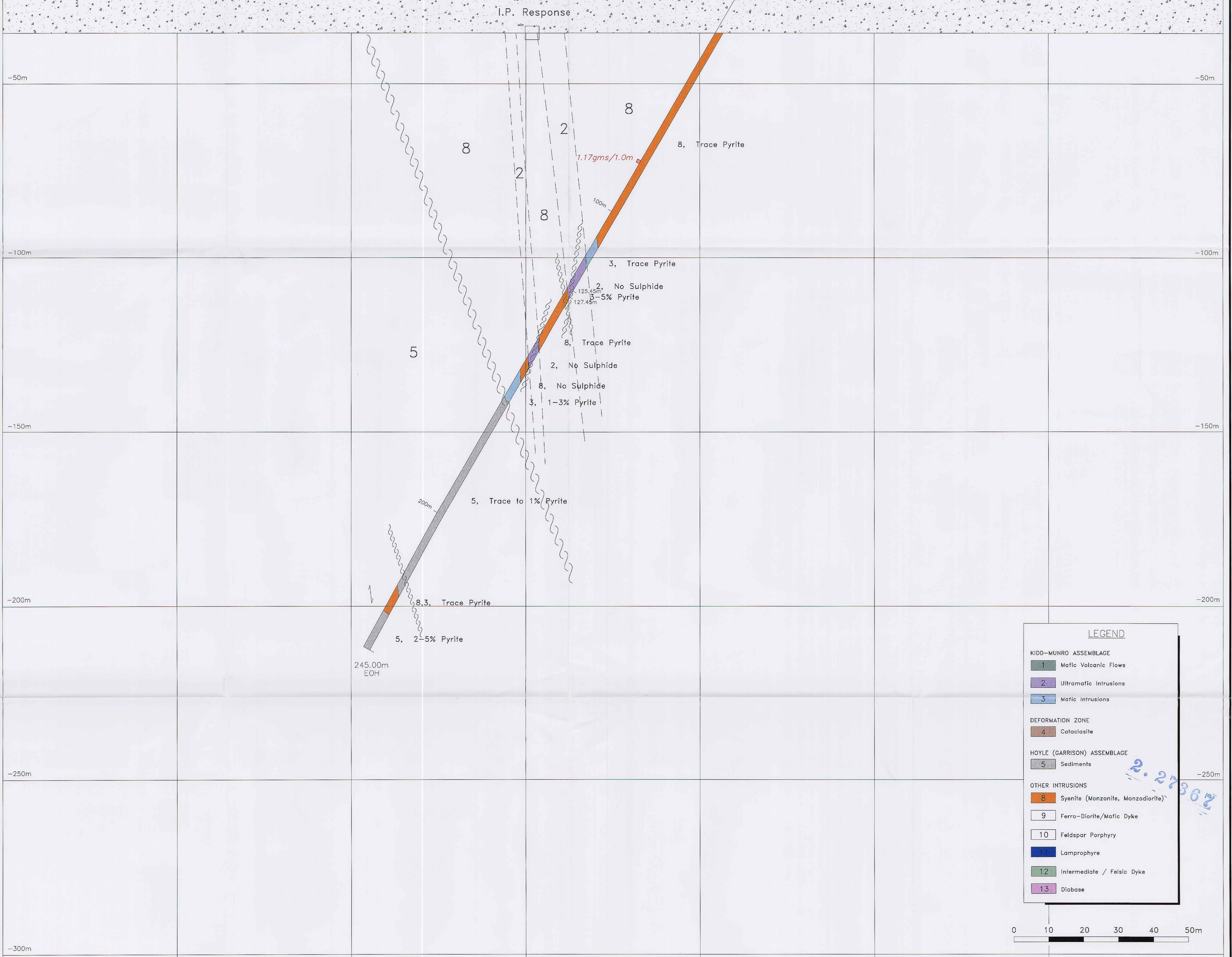
Toll Free  
Tel: 1 (888) 415-9845 ext 577  
Fax: 1 (877) 670-1444

Map Datum: NAD 83  
Projection: UTM (6 degree)  
Topographic Data Source: Land Information Ontario  
Mining Land Tenure Source: Provincial Mining Recorders' Office

This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licences, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.

Surface Surface

G-213 DIP -60° AZIMUTH 178.5°



**LEGEND**

**KIDD-MUNRO ASSEMBLAGE**

- 1 Mafic Volcanic Flows
- 2 Ultramafic Intrusions
- 3 Mafic Intrusions

**DEFORMATION ZONE**

- 4 Cataclasite

**HOYLE (GARRISON) ASSEMBLAGE**

- 5 Sediments

**OTHER INTRUSIONS**

- 8 Syenite (Monzonite, Monzodiorite)
- 9 Ferro-Diorite/Mafic Dyke
- 10 Feldspar Porphyry
- 11 Lamprophyre
- 12 Intermediate / Felsic Dyke
- 13 Diabase



CLAIM NUMBER 477239

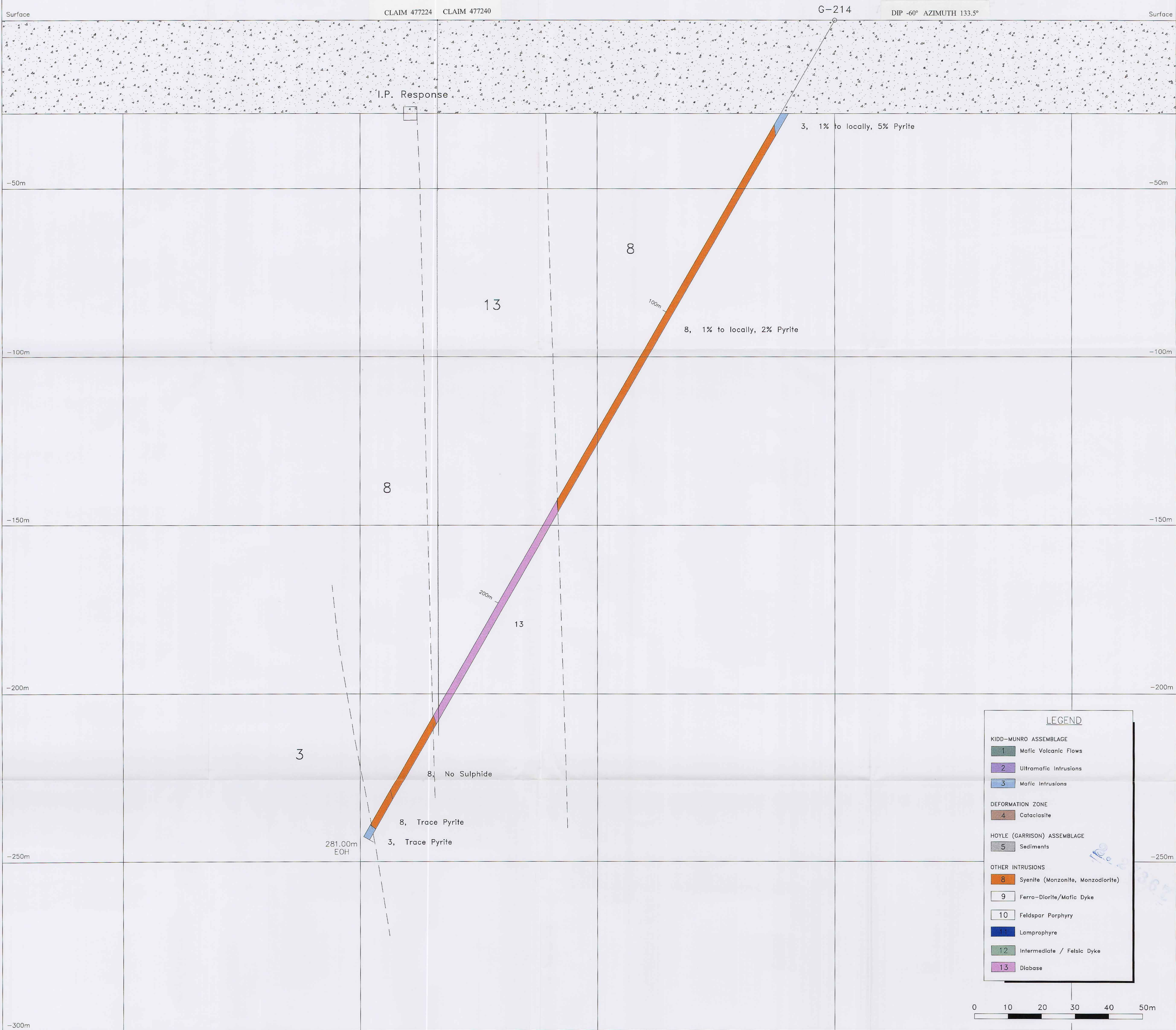


**PANGEA**  
GOLDFIELDS INC.

FENN-GIB PROPERTY  
SECTION 31+50 EAST  
DDH G-213 ( Looking West)

Compiled by: Paul Brown	Date compiled: May, 2002
Drawn by: Lisette Mazoué	Date drawn: May, 2002
File: G-213.dwg	Scale: 1: 500





**LEGEND**

**KIDD-MUNRO ASSEMBLAGE**

- 1 Mafic Volcanic Flows
- 2 Ultramafic Intrusions
- 3 Mafic Intrusions

**DEFORMATION ZONE**

- 4 Cataclasite

**HOYLE (GARRISON) ASSEMBLAGE**

- 5 Sediments

**OTHER INTRUSIONS**

- 8 Syenite (Monzonite, Monzodiorite)
- 9 Ferro-Diorite/Mafic Dyke
- 10 Feldspar Porphyry
- 11 Lamprophyre
- 12 Intermediate / Felsic Dyke
- 13 Diabase



CLAIM NUMBER 477240; 235 METRES CLAIM NUMBER 477224; 46 METRES

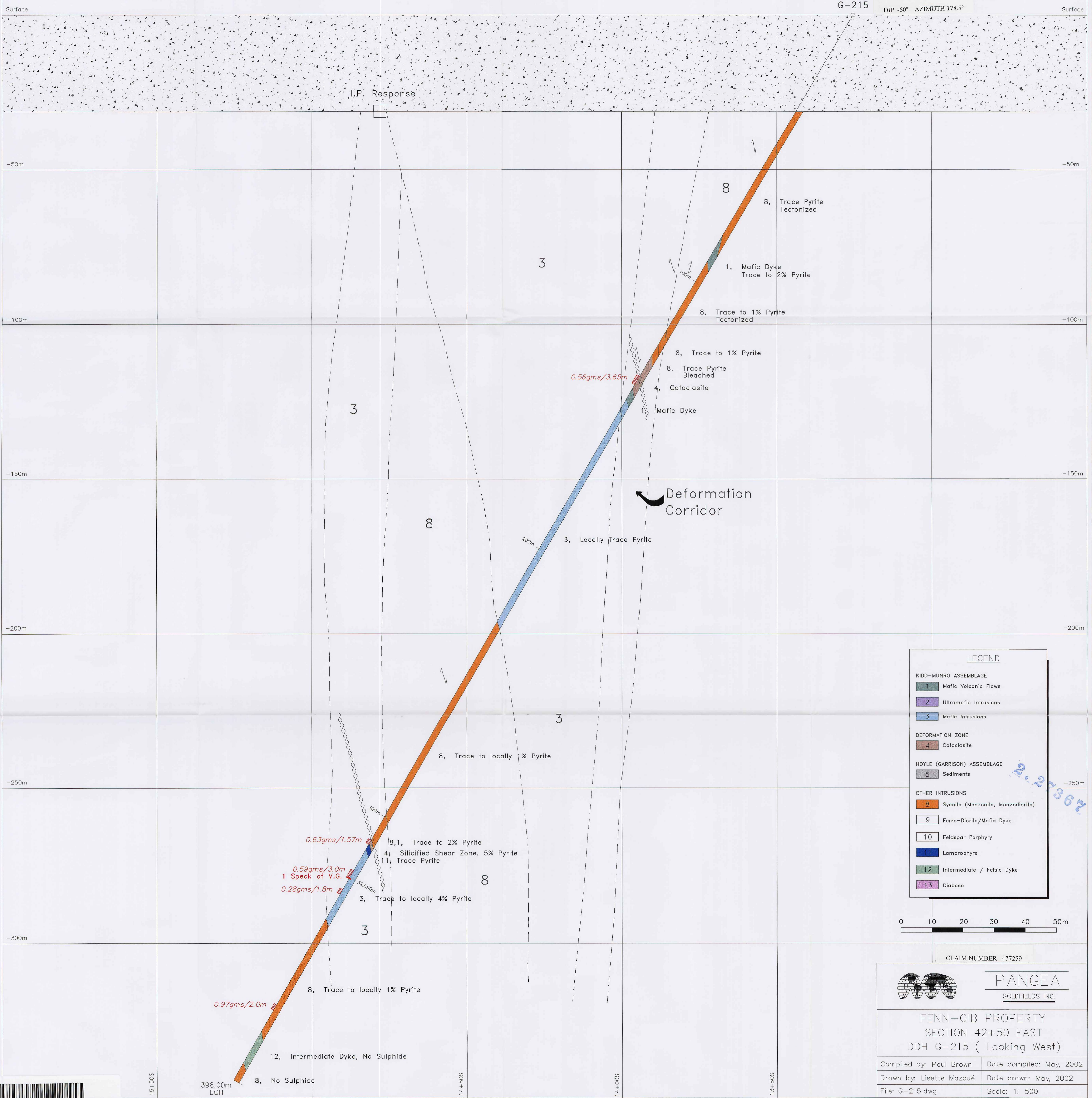


FENN-GIB PROPERTY  
SECTION 37+50 EAST  
DDH G-214 ( Looking Southwest)

Compiled by: Paul Brown	Date compiled: May, 2002
Drawn by: Lisette Mazoué	Date drawn: May, 2002
File: G-214.dwg	Scale: 1: 500

NOTE: Hole G-214 is plotted looking southwest, therefore for example, the 50 metre interval from 2100 south to 2150 south is actually 70.71 on the cross section. Measurements down hole and vertically are not changed, 50 metres is 50 metres.





**LEGEND**

**KIDD-MUNRO ASSEMBLAGE**

- 1 Mafic Volcanic Flows
- 2 Ultramafic Intrusions
- 3 Mafic Intrusions

**DEFORMATION ZONE**

- 4 Cataclasite

**HOYLE (GARRISON) ASSEMBLAGE**

- 5 Sediments

**OTHER INTRUSIONS**

- 8 Syenite (Monzonite, Monzodiorite)
- 9 Ferro-Diorite/Mafic Dyke
- 10 Feldspar Porphyry
- 11 Lamprophyre
- 12 Intermediate / Felsic Dyke
- 13 Diabase



CLAIM NUMBER 477259

**PANGEA**  
GOLDFIELDS INC.

FENN-GIB PROPERTY  
SECTION 42+50 EAST  
DDH G-215 ( Looking West)

Compiled by: Paul Brown Date compiled: May, 2002  
 Drawn by: Lisette Mazoué Date drawn: May, 2002  
 File: G-215.dwg Scale: 1: 500

Surface

G-216

DIP -60° AZIMUTH 358.5°

I.P. Response

-50m

-50m

-100m

-100m

-150m

-150m

-200m

-200m

-250m

-300m

1-2% Pyrite, 8  
Trace Pyrite, 3

0.29gms/3.0m  
0.65gms/1.0m  
4 Specks of V.G.

Trace to locally 1% Pyrite, 8

Trace to 1% Pyrite, 3,8

Trace to locally 2% Pyrite, 2

Trace to 1% Pyrite, 8

Trace Pyrite, 2

Trace to 1% Pyrite, 8

Trace Pyrite, 2

Trace to 1% Pyrite, 8

No Sulphide, 1

Trace Pyrite, 8

Trace Pyrite, Mafic Dyke, 1

Locally Trace Pyrite, 1,2

Trace Pyrite, 1

No Sulphide, Mafic Dyke, 1

No Sulphide, 1

1

No Sulphide, Diabase Dyke, 1

269.00m  
EOH

LEGEND

- KIDD-MUNRO ASSEMBLAGE
  - 1 Mafic Volcanic Flows
  - 2 Ultramafic Intrusions
  - 3 Mafic Intrusions
- DEFORMATION ZONE
  - 4 Cataclasite
- HOYLE (GARRISON) ASSEMBLAGE
  - 5 Sediments
- OTHER INTRUSIONS
  - 8 Syenite (Monzonite, Monzodiorite)
  - 9 Ferro-Diorite/Mafic Dyke
  - 10 Feldspar Porphyry
  - 11 Lamprophyre
  - 12 Intermediate / Felsic Dyke
  - 13 Diabase



CLAIM NUMBER 477260



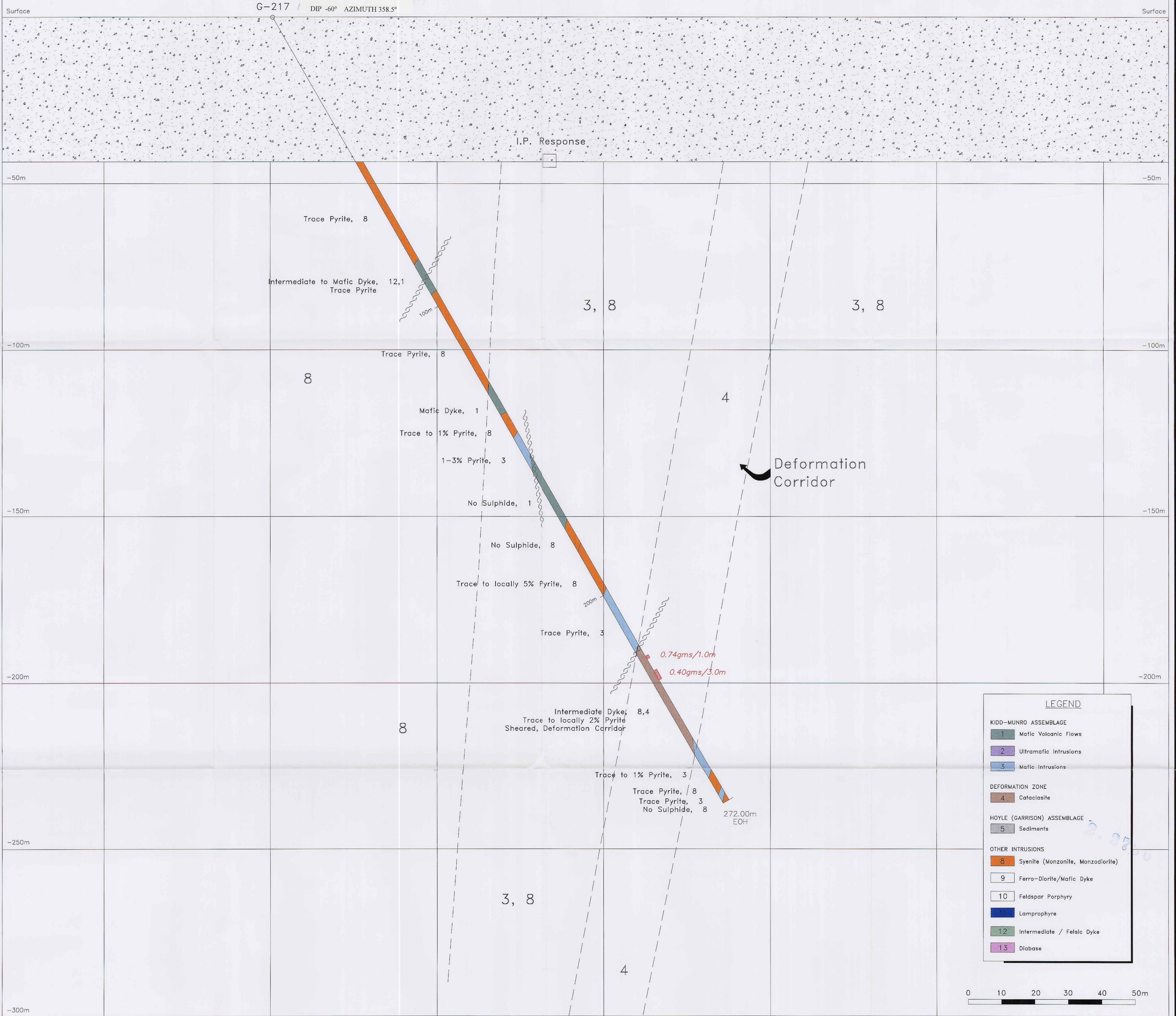
PANGEA  
GOLDFIELDS INC.

FENN-GIB PROPERTY  
SECTION 40+50 EAST  
DDH G-216 ( Looking West)

Compiled by: Paul Brown	Date compiled: May, 2002
Drawn by: Lisette Mazoué	Date drawn: May, 2002
File: G-216.dwg	Scale: 1: 500







**LEGEND**

**KIDD-MUNRO ASSEMBLAGE**

- 1 Mafic Volcanic Flows
- 2 Ultramafic Intrusions
- 3 Mafic Intrusions

**DEFORMATION ZONE**

- 4 Cataclasis

**HOYLE (GARRISON) ASSEMBLAGE**

- 5 Sediments

**OTHER INTRUSIONS**

- 8 Syenite (Monzonite, Monzodiorite)
- 9 Ferro-Diorite/Mafic Dyke
- 10 Feldspar Porphyry
- 11 Lamprophyre
- 12 Intermediate / Felsic Dyke
- 13 Diabase

CLAIM NUMBER 477259

**PANGEA**  
GOLDFIELDS INC.

FENN-GIB PROPERTY  
SECTION 36+50 EAST  
DDH G-217 ( Looking West)

Compiled by: Paul Brown	Date compiled: May, 2002
Drawn by: Lisette Mazoué	Date drawn: May, 2002
File: G-217.dwg	Scale: 1: 500