# SCOURIE D.T.I.

## PRODUCTION.

The original reconnaissance geochemical survey was carried out over e Scourie estate before the mineral incentive sheme became operative but e results have been included here for completeness (Fig 1). This early rk gave rise to some moderately encouraging results that required following but access to the estate was refused for some time. Agreement was reached April 1974 and a programme of geochemical and geophysical work in assoc-tion with a geological investigation was submitted under the Mineral centive Scheme application for Scotland and North of England Cu Ni Mo age II follow up.

## ELIMINARY FOLLOW UP.

Several anomalous zones had been indicated chiefly for zinc with some gh copper and nickel values. The preliminary follow up involved more tailed stream sediment sampling with adjacent base of slope soil sampling. e to spate conditions and to the peaty nature of the streams themselves, ry few satisfactory sediment samples were collected. Soil samples were t considered suitable at this early stage as they do not represent as rge an area as stream sediments. A sample spacing of 400' was intended but is was altered considerably to suit the time available as well as the ture of the ground. The results (Fig 2 - 6) were generally poor but this uld be due as much to the unfavourable sampling environment which gave ttle choice other than peat or fresh rock as to a lack of mineralization. ly the zinc values were plotted because it was hoped that zinc might act a pathfinder being a more easily released and more mobile element than e other base metals. The remaining elements of the spectrographic scan owed very little variation above their detection limit or a normal back-ound but the few high values which did occur are indicated on the companying diagrams.

A limited programme of rock sampling was undertaken along the most omising streams and a long cliff exposure beside Loch Claise na Fearna ovided a good cross section of the fundamental rock types. The sample loc-ions have been plotted on Figs 2 - 6 and the results given in Tables I & II. e majority were of little interest with any high metal values being due silicate metal in the more basic rocks. PSR 21 however ran 9000 ppm lead, 00 ppm zinc and 800 ppm copper. These figures were confirmed by re-analysis d a polished section showed an intimate association of galena and sphalerite gh minor chalcopyrite. As the specimen had been taken from the roadside tcrop there was no suitable drainage that might have revealed such mineral-ation.

The whole geological environment was reviewed in the light of this expected lead occurrence and the possibility of a Broken Hill type meta-rphic lead-zinc deposit considered. A programme of geophysics, mainly uced Polarization (I.P.) and magnetometry was devised to test this theory.

## LOW UP.

An I.P. grid of lines 200' apart and stations at 100' intervals was tablished with the lines 20° east of North. A pseudo section on the first e indicated that n = 2 was the most suitable arrangement for the dipole-ole array with a 100' electrode separation. Complementary magnetometry s done by the back electrode operator and a final total of 5 line miles e read.

The results are shown in Figs 7 to 10. There was no significant response n the PSR 21 locality but a moderately anomalous feature to the south veloped/

developed towards the east. The grid was tailored to follow it and a second stage of I.P. and magnetometry defined the anomaly as between 300' and 600' wide with apparent resistivities of $< 200 \Omega m$ and chargeabilities up to 60 msecs before the existence of a loch made suitable electrode arrangements impossible. The magnetic profile had been very even but a strong narrow zone developed at the southern end of line 03E. At this point it was south of the I.P. anomaly but the two became coincident by line 07E. An attempt to trace a westerly, perhaps fault offset extension of the anomaly across the A894 was not successful.

Some soil samples were collected around lines 04,05,07,08 and 09E in the hope that faulting had provided leakage haloes. Very low results were recorded (Fig 11). From an examination of the air photographs it seems the faulting between lines 04 and 05E is very minor and the poor values are not therefore surprising. The peak of the anomaly under lines 07 to09 is over a boggy trough where the peat was too thick to penetrate even with long augers so it remains untested though as a possible depth of 150' is suggested by the I.P., mineralization would probably not be encountered at the peat interface.

INTERPRETATION.

The outcropping geology in the anomalous area is a dense melanocratic garnet hornblendite grading into garnet hornblende schists. Foliation is visible on all scales, in one location to the extent of providing an anorthosite like band 2' wide. Secondary calcite and quartz are common and sulphides occur as fine disseminations in some zones though not in sufficient quantities to justify the I.P. anomaly. The magnetic feature probably represents a basic or ultrabasic dyke that transgresses the regional foliation.

CONCLUSIONS.

The size and intensity of the I.P. anomaly is sufficient to justify further work. As it is not explained by the amount of sulphides seen in exposures a limited programme of I.P. to define it better and to test similar geological situations in the area is proposed.

Elizabeth Lane

## LIST OF FIGURES

CONSOLIDATED GOLD FIELDS LTD

TABLE I

ROCK SAMPLE RESULTS

| REFERENCE NO. | Bi | Co | Cu | Cr | Pb | Mo | Ni | Ag | Sn | V | W | Zn | Zr | Ti | Mn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PSR 01 | <10 | 20 | 250 | 150 | 100 | 7 | 40 | <1 | <5 | 80 | <50 | 100 | 0.1 | 0.3 | 0.2 |
| 02 | <10 | 60 | 45 | 1000 | 10 | 8 | 100 | <1 | <5 | 250 | <50 | 50 | 0.03 | 0.4 | 0.3 |
| 03 | <10 | 15 | 40 | 80 | 20 | 4 | 30 | <1 | <5 | 60 | <50 | 130 | 0.05 | 0.3 | 0.1 |
| 04 | <10 | 25 | 85 | 200 | 40 | 10 | 80 | <1 | <5 | 100 | <50 | 340 | 0.1 | 0.3 | 0.15 |
| 05 | <10 | 30 | 90 | 180 | 30 | 8 | 70 | <1 | <5 | 100 | <50 | 240 | 0.1 | 0.3 | 0.15 |
| 06 | <10 | 30 | 70 | 100 | 20 | 8 | 60 | <1 | <5 | 80 | <50 | 170 | 0.07 | 0.3 | 0.15 |
| 07 | <10 | 60 | 65 | 500 | 15 | 5 | 100 | <1 | <5 | 250 | <50 | 60 | 0.04 | 0.4 | 0.4 |
| 08 | <10 | 60 | 45 | 800 | 10 | 7 | 130 | 2 | <5 | 200 | <50 | 50 | 0.03 | 0.3 | 0.3 |
| 09 | <10 | 60 | 170 | 1500 | 40 | 7 | 200 | <1 | <2 | 100 | <50 | 100 | 0.05 | 0.2 | 0.2 |
| 10 | <10 | 40 | 90 | 600 | 340 | 10 | 80 | <1 | <5 | 180 | <50 | 120 | 0.05 | 0.3 | 0.3 |
| 11 | <10 | 80 | 85 | 500 | 30 | 8 | 200 | <1 | <5 | 400 | <50 | 100 | 0.07 | 0.5 | 0.4 |
| 12 | <10 | 20 | 110 | 150 | 15 | 10 | 50 | <1 | <5 | 90 | <50 | 110 | 0.07 | 0.4 | 0.3 |
| 13 | <10 | 25 | 75 | 300 | 20 | 8 | 70 | <1 | <5 | 200 | <50 | 80 | 0.07 | 0.5 | 0.3 |
| 14 | <10 | 40 | 100 | 300 | 10 | 10 | 100 | <1 | <5 | 150 | <50 | 70 | 0.15 | 0.4 | 0.2 |
| 15 | <10 | 35 | 85 | 150 | 50 | 5 | 80 | <1 | <5 | 90 | <50 | 190 | 0.1 | 0.4 | 0.2 |
| 16 | <10 | 60 | 240 | 600 | 15 | 8 | 150 | <1 | <5 | 300 | <50 | 30 | 0.07 | m | 0.3 |
| 17 | <10 | 50 | 160 | 400 | 10 | 5 | 70 | <1 | <5 | 150 | <50 | 20 | 0.02 | 0.2 | 0.2 |
| 18 | <10 | 60 | 500 | 150 | 20 | 7 | 80 | <1 | <5 | 180 | <50 | 100 | 0.07 | 0.5 | 0.3 |
| 19 | <10 | 60 | 1100 | 250 | 20 | 10 | 80 | <1 | <5 | 150 | <50 | 80 | 0.04 | 0.4 | 0.2 |
| 20 | <10 | 60 | 130 | 300 | 50 | 15 | 100 | <1 | <5 | 130 | <50 | 190 | 0.04 | 0.3 | 0.2 |
| 21 | <10 | 70 | 800 | 700 | 9000 | 20 | 200 | 15 | <5 | 90 | <50 | 5000 | 0.04 | 0.2 | 0.3 |
| 22 | <10 | 35 | 180 | 500 | 270 | 20 | 70 | 2 | <5 | 100 | <50 | 210 | 0.06 | 0.4 | 0.2 |
| PSR 23 // | <10 | 15 | 45 | 600 | 30 | 3 | 60 | <1 | <5 | 180 | <50 | 90 | 0.03 | 0.3 | 0.25 |

CONSOLIDATED GOLD FIELDS LTD

TABLE II

ROCK SAMPLE RESULTS

| Sample No. | Cu (ppm) | Pb (ppm) | Ni (ppm) | Zn (ppm) |
|---|---|---|---|---|
| PSR 23 | 9 | 120 | 15 | 36 |
| 24 | 48 | 80 | 53 | 40 |
| 25 | 24 | 40 | 90 | 69 |
| 26 | 225 | 80 | 363 | 176 |
| 27 | 125 | 790 | 150 | 748 |
| 28 | 140 | 120 | 59 | 151 |
| 29 | 15 | 40 | 11 | 41 |
| 30 | 31 | 70 | 33 | 73 |
| 31 | 35 | 80 | 715 | 90 |
| 32 | 23 | 70 | 220 | 100 |
| 33 | 9 | 40 | 10 | 14 |
| 34 | 545 | 740 | 90 | 225 |
| 35 | 33 | 40 | 219 | 59 |
| 36 | 89 | 170 | 119 | 255 |
| 37 | 89 | 20 | 134 | 97 |
| 38 | 72 | 40 | 68 | 40 |
| 39 | 21 | 40 | 31 | 39 |
| 40 | 100 | 30 | 33 | 35 |
| 41 | 283 | 30 | 62 | 29 |
| 42 | 374 | 70 | 187 | 44 |
| 43 | 6 | 20 | 37 | 22 |
| 44 | 206 | 20 | 29 | 31 |

24/11/75

# SCOTLAND AND N. ENGLAND COPPER-NICKEL-MOLYBDENITE

## STAGE IV

## Technical Report for period 24th November 1975 to 1st June 1976

### Introduction

Geophysical work undertaken in the Scourie area of North West Scotland defined two Induced Polarisation (I.P.) and Electromagnetic (E.M.) anomalies. As outcrop in the vicinity is poor and it did not explain the anomalies a scout drilling programme was devised. Encouragement for the belief in a metalliferous deposit had been drawn from rock samples bearing up to 0.9% lead, 0.5% zinc and 0.08% copper. The geophysical data that is the basis of the drilling exercise does not constitute part of the claim for assistance but for completeness appropriate maps and profiles were supplied with the initial application forms.

### Diamond Drilling

The drilling was eventually scheduled to take place in January, but due to access and weather delays the work was not completed until the end of February. Messrs. Encore Ltd. were contracted to do approximately 250m of diamond drilling using their Diamec 250 machine. Core size was 35mm and average recovery was 98%.

The five holes were all inclined at $50^{\circ}$ to the horizontal along the geophysical grid lines. At Scourie the azimuth of the grid was $021^{\circ}$, at Foindle $045^{\circ}$. The locations of these holes are shown on figures 1 and 2.

Geological, sulphide and graphic logs for each hole are attached to this report. The dominant sulphide is strongly magnetic pyrrhotite, with some pyrite, minor chalcopyrite and molybdenite. The following descriptions summarise the geology encountered in the cores.

SBH 1 0 - 60.42m

The hole was directed into the peak of the largest E.M. anomaly. The first 10m are composed mainly of garnetiferous amphibolite. With the exception of a similar zone around 35m, the core is predominantly gneissic with varying amounts of garnet and biotite. Very little sulphide mineralization is present.

SBH 2 0 - 62.15m

A smaller E.M. anomaly, both in size and intensity, lying about 200m west of SBH 1, was of interest because of an associated I.P. anomaly adjacent to it. The drilling encountered much amphibolite with approximately 4m of ultrabasic rock at 15m. Hornblende gneiss, common in SBH 1, is very much subordinate in this hole. The richest sulphide zone occurs immediately below the ultrabasic horizon in garnet biotite and hornblende gneisses.

SBH 3 0 - 36.01m

This hole was located approximately 35m north of SBH 2 and was intended to check the offset I.P. anomaly. The sequence intersected seems to correlate in part with SBH 2 with the amphibolite entering below the overburden probably corresponding to that seen at the bottom of the second hole. The greatest quantity of sulphides is in biotite and hornblende gneisses below the amphibolite, but the percentage of mineralization falls off rapidly despite a second ultrabasic and basic sequence around 30m.

SBH 4 0 - 46.27m

The large E.M. anomaly unsuccessfully tested by SBH 1 was penetrated again by this hole. As before few sulphides were recorded and the core geology is again dominated by gneiss with only intermittent basic rocks between 18m and 30m.

SBH 5 0 - 35.34m

This borehole was the only one on the Foindle anomaly which, although smaller in size than that at Scourie, is of greater intensity. Further encouragement was drawn from a gossanous sample collected immediately above the drill site which had yielded 980 ppm copper. The first 23 metres are mainly basic and ultrabasic rocks with related hornblende gneiss. The sulphides, which reach 20% by volume locally, are generally found in the amphibolite close to, or below ultrabasic layers. At 27m, the drilling entered fresh biotite gneiss with minor disseminated sulphides which, from my experience elsewhere in the area, usually represents the end of the igneous complex. The hole was therefore terminated at 35m.

Analyses and Results

After appropriate logging the core was split. As the sulphides in the original rock had been scarcely visible in hand specimen, the full depth of each hole was divided into 1 metre sample lengths. These samples were crushed to 100 mesh and analysed for copper, nickel, lead and zinc in the Consolidated Gold Fields Laboratory. A selection of the sulphide rich samples were also tested for gold and silver. 20g splits of all samples from SBH 1 and 2 were despatched to Robertson Research for multi-element spectrographic scan as a check on our own analyses and for a range of other elements.

The base metal results are listed on the sulphide logs and those for copper and nickel are also depicted on the graphic logs. No values of significance were recorded. All the nickel figures of any size were confined to the ultrabasic sections where they were obviously related to metal in the silicates.

The sulphide zones are, by comparison, deficient in nickel. The pyrrhotite clearly does not carry pentlandite. A copper value of 1360 ppm was recorded from SBH 5 but this can be related to one small vein of chalcopyrite. Lead and zinc values are uniformly low and do not merit a graphical display. The gold and silver results are either at, or below, detection limit and likewise have not been plotted. The multi-element scan data is not of interest except to note the expected close correlation between the ultrabasic layers and the high chromium values. These results are listed in tables 1 and 2.

Samples for thin and polished sections were taken at horizons of particular interest. A full petrographic report is attached.

Interpretation

The drilling revealed more sulphide mineralization than had previously been recorded in the area. As the predominant mineral is quite strongly magnetic pyrrhotite, a re-interpretation of the magnetic anomalies detected in the original survey was required. Previously, the anomalies had been attributed to magnetite-bearing Scourian dykes, but it now seems likely that some at least represent pyrrhotite-rich bands in the older igneous rocks. As the pyrrhotite appears to be sygenetic, this might be further evidence in favour of the layered igneous complex hypothesis. Composite diagrams relating the geophysical profiles, the borehole geology and the sulphide content of the core are included as figures 3-6.

The lack of sulphides in SBH 1 and 4 leaves the geophysical anomaly in that area unexplained. It might be that the mineralization is in a zone very near the surface unrelated to the underlying geology because of the low angle fault. Such thrusts, though rare, are to be seen elsewhere in the Scourie district.

Conclusions

The drilling programme was a technical success as it discovered more mineralization than had previously been recorded. This accounts for the geophysical anomalies, but the most abundant sulphide was pyrrhotite which unfortunately did not carry nickel. The low base metal contents and the narrow widths of sub-massive mineralization have no economic potential.

Recommendations

I recommend that no further work be carried out in the Scourie area.

E. Jones
Geologist in Charge
Scottish Office

## LIST OF ENCLOSURES

| | | | |
|---|---|---|---|
| Figure 1. | Drill Sites | SBH 1 - 4 | Scourie |
| Figure 2. | Drill Site | SBH 5 | Foindle |
| Figure 3. | Geophysical profiles, geological sections and sulphide content of core | | SBH 1 |
| Figure 4. | " | " | SBH 2 & 3 |
| Figure 5. | " | " | SBH 4 |
| Figure 6. | " | " | SBH 5 |

| | |
|---|---|
| Table 1. | Precious metal analyses |
| Table 2. | Multi-element spectrographic scan results |

| | | |
|---|---|---|
| Appendices | 1. | Geological, graphic and sulphide logs SBH 1 - 5 |
| Appendices | 2. | Petrographic Report |

TABLE 1.

SCOURIE DRILLING PRECIOUS METAL ANALYSES

| Borehole | Sample No. | ppm Silver | ppm Gold |
|---|---|---|---|
| BH 1 | GS 1298 | 1 | 0.01 |
| " | 1300 | 1 | 0.01 |
| " | 1706 | 1 | 0.01 |
| " | 1711 | 1 | 0.01 |
| " | 1728 | 1 | 0.01 |
| BH 2 | 1732 | 1 | 0.01 |
| " | 1734 | 1 | 0.01 |
| " | 1736 | 1 | 0.01 |
| " | 1738 | 1 | 0.01 |
| " | 1747 | 1 | 0.01 |
| " | 1749 | 1 | 0.01 |
| " | 1752 | 1 | 0.01 |
| " | 1766 | 1 | 0.01 |
| " | 1777 | 1 | 0.01 |
| " | 1778 | 1 | 0.01 |
| BH 3 | 1791 | 1 | 0.01 |
| " | 1803 | 1 | 0.01 |
| " | 1821 | 1 | 0.01 |
| BH 4 | 1843 | 1 | 0.01 |

SCOURIE: TABLE 2

MULTI-ELEMENT SPECTROGRAPHIC SCAN RESULTS

(Total pages: 6)

| mple No. | Bi ppm | Co ppm | Cu ppm | Cr ppm | Pb ppm | Mo ppm | Ni ppm | Ag ppm | Sn ppm | V ppm | W ppm | Zn ppm | Zr % | Ti % | Mn % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1297 | <10 | 30 | 95 | 300 | <10 | 2 | 100 | <1 | <5 | 100 | <50 | 45 | 0.02 | 0.3 | 0.2 |
| 1297 | <10 | 40 | 160 | 300 | <10 | 4 | 100 | <1 | <5 | 150 | <50 | 100 | 0.04 | m | 0.2 |
| 1299 | <10 | 50 | 80 | 150 | <10 | 3 | 70 | <1 | <5 | 200 | <50 | 80 | 0.03 | m | 0.3 |
| 1300 | <10 | 40 | 60 | 250 | <10 | 2 | 100 | <1 | <5 | 130 | <50 | 75 | 0.03 | 0.3 | 0.2 |
| 1701 | <10 | 25 | 60 | 60 | <10 | 2 | 40 | <1 | <5 | 80 | <50 | 100 | 0.03 | 0.4 | 0.15 |
| 1802 | <10 | 20 | 75 | 40 | <10 | 7 | 30 | <1 | <5 | 80 | <50 | 120 | 0.05 | 0.3 | 0.1 |
| 1703 | <10 | 40 | 60 | 120 | <10 | 3 | 50 | <1 | <5 | 180 | <50 | 85 | 0.04 | m | 0.2 |
| 1704 | <10 | 60 | 120 | 120 | <10 | 5 | 70 | <1 | <5 | 200 | <50 | 50 | 0.03 | m | 0.25 |
| 1705 | <10 | 50 | 100 | 150 | <10 | 2 | 60 | <1 | <5 | 200 | <50 | 50 | 0.02 | m | 0.3 |
| 1706 | <10 | 40 | 100 | 300 | <10 | <2 | 100 | <1 | <5 | 200 | <50 | 100 | 0.02 | 0.4 | 0.2 |
| 1707 | <10 | 15 | 25 | 60 | <10 | <2 | 20 | <1 | 7 | 60 | <50 | 75 | 0.03 | 0.3 | 0.1 |
| 1708 | <10 | 15 | 35 | 50 | <10 | <2 | 20 | <1 | <5 | 40 | <50 | 80 | 0.02 | 0.4 | 0.1 |
| 1709 | <10 | 25 | 20 | 70 | <10 | <2 | 30 | <1 | 5 | 100 | <50 | 80 | 0.03 | 0.3 | 0.08 |
| 1710 | <10 | 20 | 25 | 70 | <10 | <2 | 40 | <1 | <5 | 80 | <50 | 80 | 0.03 | 0.4 | 0.08 |
| 1711 | <10 | 50 | 80 | 600 | <10 | 2 | 130 | <1 | <5 | 160 | <50 | 90 | 0.02 | 0.4 | 0.25 |
| 1712 | <10 | 5 | 20 | 20 | <10 | 3 | 20 | <1 | 5 | 15 | <50 | 30 | <0.01 | 0.02 | 0.1 |
| 1713 | <10 | <5 | 15 | 20 | <10 | <2 | 10 | <1 | 5 | 15 | <50 | 25 | <0.01 | 0.05 | 0.1 |

| Sample No. | Bi ppm | Co ppm | Cu ppm | Cr ppm | Pb ppm | Mo ppm | Ni ppm | Ag ppm | Sn ppm | V ppm | W ppm | Zn ppm | Zr % | Ti % | Mn % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1714 | <10 | 25 | 90 | 100 | <10 | 7 | 80 | <1 | <5 | 80 | <50 | 60 | 0.03 | 0.3 | 0.1 |
| 1715 | <10 | 30 | 110 | 200 | <10 | 3 | 100 | <1 | <5 | 100 | <50 | 160 | 0.04 | 0.5 | 0.1 |
| 1716 | <10 | 60 | 65 | 1000 | <10 | 4 | 120 | <1 | <5 | 150 | <50 | 70 | 0.03 | 0.4 | 0.2 |
| 1717 | <10 | 60 | 35 | 150 | <10 | 3 | 50 | <1 | <5 | 180 | <50 | 45 | 0.03 | m | 0.3 |
| 1718 | <10 | 40 | 75 | 150 | <10 | 2 | 50 | <1 | <5 | 120 | <50 | 35 | 0.03 | 0.4 | 0.25 |
| 1719 | <10 | 20 | 50 | 100 | <10 | 3 | 40 | <1 | <5 | 120 | <50 | 55 | 0.06 | 0.5 | 0.15 |
| 1720 | <10 | 10 | 20 | 70 | <10 | <2 | 15 | <1 | <5 | 80 | <50 | 80 | 0.03 | 0.4 | 0.1 |
| 1721 | <10 | 25 | 35 | 150 | <10 | 2 | 40 | <1 | <5 | 100 | <50 | 80 | 0.04 | 0.5 | 0.1 |
| 1722 | <10 | 25 | 45 | 100 | <10 | 3 | 30 | <1 | <5 | 100 | <50 | 80 | 0.04 | 0.4 | 0.1 |
| 1723 | <10 | 15 | 30 | 130 | <10 | <2 | 30 | <1 | <5 | 100 | <50 | 80 | 0.03 | 0.3 | 0.1 |
| 1724 | <10 | 25 | 60 | 150 | <10 | 2 | 50 | <1 | <5 | 90 | <50 | 100 | 0.04 | 0.3 | 0.1 |
| 1725 | <10 | 25 | 45 | 100 | <10 | <2 | 40 | <1 | <5 | 120 | <50 | 45 | 0.04 | 0.4 | 0.2 |
| 1726 | <10 | 40 | 90 | 200 | <10 | 2 | 50 | <1 | <5 | 100 | <50 | 80 | 0.04 | 0.4 | 0.2 |
| 1727 | <10 | 50 | 40 | 400 | <10 | 3 | 60 | <1 | <5 | 100 | <50 | 50 | 0.03 | 0.2 | 0.2 |
| 1728 | <10 | 50 | 30 | 300 | <10 | 15 | 60 | <1 | <5 | 130 | <50 | 35 | 0.02 | 0.4 | 0.25 |
| 1729 | <10 | 60 | 65 | 1000 | <10 | 2 | 400 | <1 | <5 | 120 | <50 | 35 | 0.02 | 0.4 | 0.15 |
| 1730 | <10 | 60 | 80 | 1500 | <10 | 2 | 400 | <1 | <5 | 90 | <50 | 40 | 0.02 | 0.3 | 0.1 |
| 1731 | <10 | 30 | 90 | 100 | <10 | 3 | 60 | <1 | <5 | 100 | <50 | 40 | 0.06 | 0.3 | 0.15 |
| 1732 | <10 | 40 | 150 | 250 | <10 | 6 | 80 | <1 | <5 | 150 | <50 | 70 | 0.02 | 0.5 | 0.2 |
| 1733 | <10 | 40 | 120 | 180 | <10 | 4 | 70 | <1 | <5 | 120 | <50 | 80 | 0.03 | 0.4 | 0.2 |
| 1734 | <10 | 50 | 160 | 200 | <10 | 2 | 120 | <1 | <5 | 130 | <50 | 90 | 0.02 | 0.4 | 0.15 |
| 1735 | <10 | 30 | 80 | 150 | <10 | 2 | 50 | <1 | <5 | 100 | <50 | 95 | 0.04 | 0.4 | 0.15 |
| 1736 | <10 | 15 | 90 | 130 | <10 | <2 | 30 | <1 | <5 | 40 | <50 | 80 | 0.02 | 0.2 | 0.15 |
| 1737 | <10 | 50 | 95 | 300 | <10 | 3 | 100 | <1 | <5 | 170 | <50 | 55 | 0.03 | m | 0.2 |
| 1738 | <10 | 50 | 130 | 800 | <10 | 2 | 150 | <1 | <5 | 150 | <50 | 35 | 0.02 | 0.4 | 0.25 |
| 1739 | <10 | 60 | 30 | 1000 | <10 | 2 | 150 | <1 | <5 | 150 | <50 | 15 | 0.02 | 0.3 | 0.3 |
| 1740 | <10 | 50 | 25 | 1000 | <10 | 2 | 150 | <1 | <5 | 100 | <50 | 10 | 0.02 | 0.2 | 0.2 |

| ple No. | Bi ppm | Co ppm | Cu ppm | Cr ppm | Pb ppm | Mo ppm | Ni ppm | Ag ppm | Sn ppm | V ppm | W ppm | Zn ppm | Zr % | Ti % | Mn % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1741 | <10 | 60 | 25 | 1000 | <10 | 3 | 100 | <1 | <5 | 100 | <50 | 15 | 0.02 | 0.2 | 0.3 |
| 1742 | <10 | 60 | 70 | 1500 | <10 | 2 | 300 | <1 | <5 | 90 | <50 | 15 | 0.02 | 0.1 | 0.2 |
| 1743 | <10 | 80 | 55 | 2000 | <10 | 2 | 700 | <1 | 5 | 100 | <50 | 40 | 0.03 | 0.1 | 0.15 |
| 1744 | <10 | 60 | 50 | 2000 | <10 | 2 | 300 | <1 | <5 | 100 | <50 | 40 | 0.02 | 0.15 | 0.2 |
| 1745 | <10 | 70 | 40 | 2000 | <10 | <2 | 200 | <1 | <5 | 70 | <50 | 35 | 0.03 | 0.1 | 0.2 |
| 1746 | <10 | 50 | 75 | 1500 | <10 | 3 | 150 | <1 | <5 | 90 | <50 | 50 | 0.02 | 0.2 | 0.25 |
| 1747 | <10 | 50 | 530 | 500 | <10 | 5 | 130 | <1 | <5 | 100 | <50 | 70 | 0.04 | 0.3 | 0.3 |
| 1748 | <10 | 50 | 260 | 250 | <10 | 5 | 100 | <1 | <5 | 130 | <50 | 60 | 0.05 | m | 0.2 |
| 1749 | <10 | 50 | 420 | 200 | <10 | 5 | 130 | <1 | <5 | 100 | <50 | 130 | 0.03 | 0.3 | 0.2 |
| 1750 | <10 | 40 | 65 | 180 | <10 | 4 | 70 | <1 | 5 | 130 | <50 | 85 | 0.03 | 0.3 | 0.2 |
| 1751 | <10 | 30 | 55 | 200 | <10 | 2 | 60 | <1 | 5 | 100 | <50 | 50 | 0.03 | 0.3 | 0.2 |
| 1752 | <10 | 30 | 180 | 120 | <10 | 4 | 80 | <1 | <5 | 100 | <50 | 100 | 0.03 | 0.3 | 0.15 |
| 1753 | <10 | 40 | 50 | 130 | <10 | 2 | 50 | <1 | <5 | 120 | <50 | 40 | 0.06 | 0.4 | 0.2 |
| 1754 | <10 | 30 | 50 | 120 | <10 | 2 | 60 | <1 | 5 | 120 | <50 | 30 | 0.04 | 0.3 | 0.2 |
| 1755 | <10 | 50 | 40 | 130 | <10 | 4 | 80 | <1 | 5 | 120 | <50 | 140 | 0.03 | 0.4 | 0.2 |
| 1756 | <10 | 40 | 50 | 120 | <10 | 3 | 60 | <1 | <5 | 150 | <50 | 80 | 0.03 | m | 0.3 |
| 1757 | 10 | 50 | 55 | 100 | <10 | 4 | 50 | <1 | <5 | 120 | <50 | 40 | 0.06 | 0.5 | 0.2 |
| 1758 | <10 | 20 | 25 | 80 | <10 | 2 | 15 | <1 | <5 | 80 | <50 | 20 | 0.03 | 0.2 | 0.1 |
| 1959 | <10 | 20 | 40 | 80 | <10 | 2 | 20 | <1 | 5 | 100 | <50 | 15 | 0.02 | 0.3 | 0.2 |
| 1760 | <10 | 30 | 50 | 100 | <10 | 3 | 60 | <1 | <5 | 130 | <50 | 25 | 0.02 | 0.5 | 0.2 |
| 1761 | <10 | 30 | 100 | 100 | <10 | 2 | 50 | <1 | <5 | 150 | <50 | 35 | 0.03 | m | 0.3 |
| 1762 | <10 | 40 | 70 | 120 | <10 | 3 | 60 | <1 | <5 | 150 | <50 | 50 | 0.03 | 0.4 | 0.3 |
| 1763 | <10 | 30 | 60 | 100 | <10 | 2 | 50 | <1 | <5 | 130 | <50 | 25 | 0.03 | 0.4 | 0.25 |
| 1764 | <10 | 50 | 110 | 100 | <10 | 2 | 100 | <1 | <5 | 200 | <50 | 35 | 0.04 | 0.4 | 0.3 |
| 1765 | <10 | 50 | 120 | 100 | <10 | 3 | 70 | <1 | <5 | 150 | <50 | 40 | 0.03 | 0.4 | 0.3 |
| 1766 | <10 | 40 | 130 | 100 | <10 | 2 | 80 | <1 | <5 | 180 | <50 | 60 | 0.02 | 0.4 | 0.3 |

| ference | Bi ppm | Co ppm | Cu ppm | Cr ppm | Pb ppm | Mo ppm | Ni ppm | Ag ppm | Sn ppm | V ppm | W ppm | Zn ppm | % Zr | % Ti | % Mn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1833 | <10 | 30 | 70 | 130 | <10 | 3 | 130 | <1 | <5 | 150 | < 50 | 100 | 0.03 | m | 0.2 |
| 1838 | <10 | 25 | 100 | 100 | <10 | 2 | 60 | <1 | <5 | 150 | < 50 | 100 | 0.03 | 0.5 | 0.1 |
| 1843 | <10 | 50 | 75 | 1200 | <10 | 4 | 1500 | <1 | <5 | 120 | < 50 | 60 | 0.02 | 0.4 | 0.15 |
| 1848 | <10 | 60 | 45 | 2000 | <10 | <2 | 1000 | <1 | <5 | 100 | <50 | 60 | 0.02 | 0.3 | 0.1 |
| 1853 | <10 | 25 | 55 | 100 | 10 | 2 | 90 | <1 | <5 | 70 | <50 | 75 | 0.03 | 0.4 | 0.1 |
| 1857 | <10 | 25 | 100 | 90 | <10 | 3 | 70 | <1 | <5 | 100 | <50 | 100 | 0.05 | 0.4 | 0.1 |
| 1858 | <10 | 25 | 70 | 100 | 10 | 4 | 100 | <1 | <5 | 100 | <50 | 110 | 0.03 | 0.5 | 0.1 |
| 1863 | <10 | 20 | 35 | 100 | 10 | 4 | 100 | <1 | <5 | 150 | <50 | 120 | 0.04 | m | 0.1 |
| 1868 | <10 | 30 | 40 | 120 | 10 | 10 | 100 | <1 | 5 | 200 | < 50 | 140 | 0.04 | m | 0.1 |
| 1873 | <10 | 120 | 1150 | 250 | <10 | 10 | 600 | <1 | 5 | 100 | < 50 | 70 | 0.03 | 0.3 | 0.2 |
| 1876 | <10 | 90 | 290 | 3000 | <10 | 7 | 1000 | <1 | 5 | 150 | < 50 | 50 | 0.03 | 0.4 | 0.2 |
| 1881 | <10 | 35 | 95 | 500 | <10 | 12 | 200 | <1 | <5 | 150 | < 50 | 60 | 0.02 | 0.4 | 0.3 |
| 1886 | <10 | 40 | 110 | 200 | 10 | 2 | 120 | <1 | <5 | 200 | < 50 | 80 | 0.02 | m | 0.2 |
| 1891 | <10 | 40 | 100 | 400 | <10 | 3 | 200 | <1 | <5 | 250 | < 50 | 70 | 0.03 | 0.5 | 0.2 |
| 1894 | <10 | 25 | 90 | 120 | 10 | 4 | 60 | <1 | 5 | 100 | < 50 | 130 | 0.04 | m | 0.2 |
| 1899 | <10 | 15 | 30 | 100 | 15 | 4 | 40 | <1 | 5 | 80 | < 50 | 65 | 0.03 | 0.4 | 0.1 |
| 1904 | <10 | 50 | 70 | 200 | 10 | 10 | 150 | <1 | <5 | 150 | < 50 | 80 | 0.04 | 0.5 | 0.2 |
| 1905 | <10 | 60 | 45 | 900 | <10 | 2 | 500 | <1 | <5 | 150 | < 50 | 65 | 0.02 | 0.4 | 0.2 |
| 1906 | <10 | 25 | 85 | 150 | 15 | 3 | 80 | <1 | <5 | 100 | < 50 | 65 | 0.03 | 0.4 | 0.07 |
| 1907 | <10 | 50 | 70 | 600 | 15 | 2 | 200 | <1 | <5 | 120 | < 50 | 60 | 0.02 | 0.4 | 0.1 |
| 1908 | <10 | 60 | 65 | 800 | <10 | 4 | 400 | <1 | <5 | 150 | < 50 | 70 | 0.02 | 0.4 | 0.1 |
| 1909 | <10 | 70 | 40 | 1000 | <10 | 2 | 700 | <1 | <5 | 100 | < 50 | 55 | 0.01 | 0.3 | 0.2 |
| 1910 | <10 | 40 | 100 | 400 | 10 | 2 | 130 | <1 | <5 | 180 | < 50 | 85 | 0.03 | 0.5 | 0.2 |
| 1911 | <10 | 40 | 130 | 200 | 10 | 4 | 120 | <1 | 5 | 200 | < 50 | 120 | 0.04 | 0.5 | 0.15 |
| 1912 | <10 | 30 | 80 | 120 | 15 | 4 | 100 | <1 | 5 | 130 | <50 | 75 | 0.05 | 0.5 | 0.1 |
| 1913 | <10 | 25 | 50 | 100 | 15 | 4 | 90 | <1 | <5 | 100 | < 50 | 75 | 0.04 | 0.5 | 0.1 |
| 1914 | <10 | 30 | 120 | 100 | 15 | 5 | 100 | <1 | <5 | 100 | < 50 | 70 | 0.04 | 0.5 | 0.08 |
| 1915 | <10 | 25 | 40 | 100 | 15 | 2 | 80 | <1 | <5 | 130 | < 50 | 70 | 0.04 | 0.4 | 0.08 |
| 1916 | <10 | 30 | 45 | 120 | <10 | 2 | 100 | <1 | <5 | 100 | < 50 | 70 | 0.03 | 0.5 | 0.1 |
| 1917 | <10 | 25 | 50 | 100 | 15 | 3 | 70 | <1 | <5 | 100 | < 50 | 75 | 0.03 | 0.5 | 0.1 |
| 1918 | <10 | 30 | 70 | 120 | 20 | 4 | 90 | <1 | <5 | 150 | < 50 | 90 | 0.03 | 0.5 | 0.1 |

| ence | Bi ppm | Co ppm | Cu ppm | Cr ppm | Pb ppm | Mo ppm | Ni ppm | Ag ppm | Sn ppm | V ppm | W ppm | Zn ppm | % Zr | % Ti | % Mn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1767 | <10 | 50 | 100 | 100 | <10 | 4 | 130 | <1 | <5 | 300 | <50 | 45 | 0.02 | m | 0.4 |
| 1768 | <10 | 50 | 130 | 100 | <10 | 5 | 130 | <1 | <5 | 300 | <50 | 50 | 0.02 | m | 0.3 |
| 1769 | <10 | 60 | 100 | 100 | <10 | 2 | 130 | <1 | <5 | 400 | <50 | 50 | 0.04 | m | 0.3 |
| 1770 | <10 | 30 | 30 | 100 | 15 | 2 | 80 | <1 | <4 | 150 | <50 | 60 | 0.04 | 0.4 | 0.1 |
| 1771 | <10 | 20 | 25 | 70 | <10 | <2 | 40 | <1 | <5 | 100 | <50 | 80 | 0.02 | 0.4 | 0.1 |
| 1772 | <10 | 30 | 25 | 100 | 10 | 2 | 90 | <1 | <5 | 200 | <50 | 95 | 0.02 | 0.4 | 0.1 |
| 1773 | <10 | 30 | 25 | 100 | 15 | 3 | 50 | <1 | <5 | 120 | <50 | 70 | 0.01 | 0.4 | 0.08 |
| 1774 | <10 | 30 | 75 | 100 | 15 | 4 | 60 | <1 | <5 | 200 | <50 | 120 | 0.04 | 0.4 | 0.08 |
| 1775 | <10 | 40 | 40 | 120 | 10 | <2 | 70 | <1 | <5 | 300 | <50 | 65 | 0.04 | 0.5 | 0.15 |
| 1776 | <10 | 25 | 20 | 70 | <10 | 3 | 30 | <1 | <5 | 200 | <50 | 40 | 0.02 | 0.4 | 0.1 |
| 1777 | <10 | 25 | 30 | 40 | 10 | 4 | 40 | <1 | <5 | 90 | <50 | 35 | 0.02 | 0.3 | 0.1 |
| 1778 | <10 | 40 | 140 | 120 | <10 | 6 | 100 | <1 | <5 | 250 | <50 | 130 | 0.04 | m | 0.2 |
| 1779 | <10 | 5 | 20 | 30 | 15 | <2 | 10 | <1 | <5 | 20 | <50 | 20 | 0.02 | 0.03 | 0.06 |
| 1780 | <10 | 40 | 20 | 100 | 10 | 2 | 60 | <1 | <5 | 200 | <50 | 50 | 0.01 | 0.3 | 0.1 |
| 1781 | <10 | 60 | 30 | 150 | <10 | <2 | 130 | <1 | <5 | 400 | <50 | 35 | 0.01 | 0.5 | 0.2 |
| 1782 | <10 | 60 | 140 | 100 | <10 | 5 | 130 | <1 | <5 | 300 | 150 | 85 | 0.03 | m | 0.2 |
| 1783 | <10 | 30 | 70 | 150 | <10 | 4 | 120 | <1 | <5 | 120 | <50 | 110 | 0.03 | 0.4 | 0.15 |
| 1784 | <10 | 30 | 60 | 120 | <10 | 4 | 60 | <1 | <5 | 120 | <50 | 110 | 0.03 | 0.4 | 0.1 |
| 1785 | <10 | 30 | 140 | 100 | 10 | 2 | 60 | <1 | <5 | 120 | <50 | 100 | 0.02 | 0.3 | 0.08 |
| 1786 | <10 | 60 | 90 | 120 | <10 | 2 | 100 | <1 | <5 | 300 | <50 | 40 | 0.02 | m | 0.2 |
| 1787 | <10 | 60 | 150 | 150 | <10 | 3 | 130 | <1 | <5 | 400 | <50 | 35 | 0.02 | m | 0.2 |
| 1788 | <10 | 50 | 40 | 800 | <10 | 2 | 500 | <1 | <5 | 250 | <50 | 30 | 0.01 | 0.3 | 0.2 |
| 1789 | <10 | 50 | 80 | 600 | <10 | 2 | 300 | <1 | <5 | 250 | <50 | 30 | 0.02 | 0.3 | 0.2 |
| 1790 | <10 | 60 | 80 | 700 | <10 | 3 | 400 | <1 | <5 | 300 | <50 | 30 | 0.02 | 0.3 | 0.2 |
| 1791 | <10 | 50 | 85 | 130 | <10 | 3 | 80 | <1 | <5 | 200 | <50 | 60 | 0.02 | m | 0.2 |
| 1796 | <10 | 50 | 90 | 100 | <10 | 3 | 100 | <1 | <5 | 400 | <50 | 40 | 0.03 | m | 0.25 |
| 1801 | <10 | 70 | 15 | 800 | <10 | 3 | 400 | <1 | <5 | 300 | <50 | 50 | 0.02 | 0.5 | 0.2 |
| 1803 | <10 | 25 | 210 | 120 | <10 | 4 | 70 | <1 | <5 | 150 | <50 | 90 | 0.02 | 0.4 | 0.1 |
| 1811 | <10 | 30 | 140 | 120 | 10 | 7 | 90 | <1 | <5 | 100 | <50 | 45 | 0.03 | 0.3 | 0.1 |
| 1814 | <10 | 20 | 30 | 90 | 15 | 6 | 30 | <1 | <5 | 100 | <50 | 80 | 0.02 | 0.3 | 0.1 |
| 1821 | <10 | 50 | 100 | 1500 | <10 | <2 | 1000 | <1 | <5 | 120 | <50 | 50 | 0.02 | 0.2 | 0.15 |
| 1826 | <10 | 25 | 70 | 120 | 10 | 2 | 150 | <1 | <5 | 120 | <50 | 110 | 0.03 | 0.5 | 0.1 |
| 1832 | <10 | 80 | 170 | 500 | 10 | <2 | 400 | <1 | <5 | 250 | <50 | 110 | 0.03 | m | 0.3 |

| ference | Bi ppm | Co ppm | Cu ppm | Cr ppm | Pb ppm | Mo ppm | Ni ppm | Ag ppm | Sn ppm | V ppm | W ppm | Zn ppm | Zr Zr | Ti Ti | Mn Mn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1919 | <10 | 30 | 50 | 100 | 15 | 4 | 90 | <1 | <5 | 100 | <50 | 80 | 0.02 | 0.4 | 0.1 |
| 1920 | <10 | 25 | 60 | 100 | 15 | 3 | 100 | <1 | <5 | 100 | <50 | 100 | 0.02 | m | 0.1 |
| 1921 | <10 | 20 | 40 | 120 | 15 | <2 | 70 | <1 | 5 | 90 | <50 | 120 | 0.04 | 0.4 | 0.1 |
| 1922 | <10 | 20 | 45 | 100 | 15 | 2 | 60 | <1 | <5 | 80 | <50 | 95 | 0.04 | 0.5 | 0.08 |
| 1923 | <10 | 30 | 50 | 120 | 20 | 8 | 80 | <1 | <5 | 120 | <50 | 100 | 0.04 | 0.5 | 0.1 |
| 1924 | <10 | 30 | 50 | 100 | 20 | 25 | 70 | <1 | <5 | 130 | <50 | 110 | 0.03 | 0.5 | 0.08 |
| 1925 | <10 | 30 | 45 | 100 | 15 | 5 | 70 | <1 | 5 | 150 | <50 | 95 | 0.03 | m | 0.08 |
| 1926 | <10 | 30 | 60 | 100 | 15 | 5 | 90 | <1 | <5 | 130 | <50 | 90 | 0.04 | 0.5 | 0.08 |
| 1927 | <10 | 30 | 65 | 100 | 20 | 7 | 90 | <1 | <5 | 100 | <50 | 95 | 0.03 | m | 0.1 |
| 1928 | <10 | 30 | 100 | 500 | 20 | 15 | 150 | <1 | <5 | 130 | <50 | 110 | 0.05 | m | 0.2 |

| | | | | | |
|---|---|---|---|---|---|
| Drilled By | Encore Ltd; | Collar Co-ordinates | 20834663 | D.D.H. No. | SBE1 |
| Date Started | 24-1-76 | Collar Elevation | | Area | SCOURIE |
| Date Completed | 30-1-76 | Orientation | 020° Grid N. | Length | 60.42 m |
| from | m. | Recovery | 99% | Purpose | Scout Drilling E.M. Anomaly |
| from | m. | Inclination | 50° N | Logged By | G.S.Roberts |
| from | m. | Corrected | | Date | 3-2-76 |

# *Consolidated Gold Fields Limited*

DIAMOND DRILL CORE RECORD

Project: Cu Ni Mo

| METRES | | GEOLOGICAL LOG | | | | ASSAY RECORD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Represents | Rock Type | Graphic Log | Intersec. Angle | Description | Sample No. | From | Length | Rec. | | | |
| 0 | 1.47 | Overburden | | | Peat with pink, medium grained, foliated granitic boulder at base 1.12-1.47m | | | | | | | |
| 1.47 | 2.71 | Amphibolite | | | Dark grey, fine grained amphibolite becoming garnetiferous at 2m with white quartzo feldspathic bands at 1.50, 2.20 & 2.30m. 1% disseminated pyrite & pyrrhotite specks. (Recovery: 98%) | | | | | | | |
| 2.71 | 3.42 | Garnet Gneiss | | | Pink, strongly foliated and coarsely banded gneiss. Fresh and competent but containing numerous white specks of probable primary origin. Patchy dissemination of pyrite specks and threads. (Recovery: 100%) | | | | | | | |
| 3.42 | 3.58 | Garnet Amphibolite | | | Dark green, medium grained amphibolite with pink, porphyroblastic garnet inclusions. Fresh but contains high percentage of white mineral specks. Weakly foliated, with only a few weakly chloritised fractures. | | | | | | | |
| 3.58 | 5.10 | Amphibolite | | | Fresh, dark green, medium grained amphibolite with occasional narrow quartzo feldspathic bands and pink garnet inclusions. Becoming finer grained from 4.37m with further numerous white mineral specks. Dissemination of pyrite and | | | | | | | |

| METRES | | GEOLOGICAL LOG | | | | ASSAY RECORD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Reduced to | Rock Type | Graphic Log | Intersec Angle | Description | Sample No. | From | Length | Rec. | | | |
| 3.58 | 5.10 | Amphibolite | | | pyrrhotite specks increases from 0.5% initially | | | | | | | |
| | | (contd.) | | | to 1% from 4.09-4.37m and from 1-3% at 4.37-5.10m. | | | | | | | |
| | | | | | (Recovery:98%) | | | | | | | |
| 5.10 | 7.79 | Biotite Gneiss | | | Fine-medium grained,grey,strongly foliated gneiss | | | | | | | |
| | | | | | Generally fresh with dark brown biotite mica | | | | | | | |
| | | | | | giving way to bronze coloured micas at 6.72m. | | | | | | | |
| | | | | | Irregular,narrow,quartzo feldspathic bands and | | | | | | | |
| | | | | | lenses throughout with fracture fillings at 6.92m | | | | | | | |
| | | | | | and 7.70-7.79m. | | | | | | | |
| | | | | | Random fractures parallel to main foliation | | | | | | | |
| | | | | | frequent with a narrow zone of fracturing at 5.10-5.20m. | | | | | | | |
| | | | | | (Recovery:100%) | | | | | | | |
| 7.79 | 9.65 | Garnet | | | Dark green,weakly foliated coarse amphibolite | | | | | | | |
| | | Amphibolite | | | with pink porphyroblastic garnets up to 0.75cm | | | | | | | |
| | | | | | in size often associated with minor pyrites | | | | | | | |
| | | | | | specks and infrequent white quartzo feldspathic | | | | | | | |
| | | | | | bands. Marked decrease in garnet content from | | | | | | | |
| | | | | | 8.75m associated with an increase of pyrites | | | | | | | |
| | | | | | from 0.5% to 1% and the appearance of pyrrhotite, | | | | | | | |
| | | | | | seen as a narrow fracture filling at 8.90m. | | | | | | | |
| | | | | | Band of fresh,grey biotite gneiss from 9.29-9.65m | | | | | | | |
| 9.65 | 10.60 | Altered | | | Light green,fine grained,strongly foliated | | | | | | | |
| | | Amphibolite | | | altered amphibolite, with chlorite and pale green | | | | | | | |
| | | | | | amphiboles. Increasing garnet content from 9.85m | | | | | | | |
| | | | | | together with frequent quartzo feldspathic | | | | | | | |
| | | | | | | | | | | | | |

DIAMOND DRILL CORE RECORD | Project: | Sheet No. | D.D.H. No.

| METRES From | METRES Represents | GEOLOGICAL LOG Rock Type | Graphic Log | Intersec Angle | Description | ASSAY RECORD Sample No. | From | Length | Rec. | TS | PS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.55 | 10.60 | Altered Amphibolite (contd) | | | segregation bands and a stronger foliation. Patchy pyrite dissemination varies from 1-3% and may include minor quantities of pyrrhotite with a thin 5% band at 10.55m. (Recovery : 100%) | | | | | | |
| 10.60 | 10.98 | Hornblende Gneiss | | | Altered amphibolite grades sharply to a medium grained hornblende gneiss. Strongly foliated with a conspicuous crosscutting regular light and dark green mineral banding. Thin quartzo feldspathic banding and the garnet content increase lower down with a low sulphides of 0.5% throughout. Generally fresh except for a few chlorite patches after biotite. (Recovery:100%) | | | | | | |
| 10.98 | 16.00 | Biotite Gneiss | | | Initially a fresh,competent,brown biotite gneiss containing a light bronze biotite mica with quartz and feldspar. Some very minor chlorite and sulphides 0.1%. This grades sharply to a dark grey,medium grained biotite gneiss with uneven quartzo feldspathic banding at first but becoming more regular from 12.02m,also noticeably finer grained and lighter in colour with a negligable dissemination of sulphides 0.1%. The section is fresh and generally competent except for occasional fracturing through mica rich bands. (Recovery:92%) | GS1706 | 11.03m | 11.03m | | | ✓ |

DIAMOND DRILL CORE RECORD  Project: [illegible]  Sheet No. [illegible]  D.D.H. No. [illegible]

| METRES | | GEOLOGICAL LOG | | | | ASSAY RECORD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Represents | Rock Type | Graphic Log | Intersect Angle | Description | Sample No. | From | Length | Rec. | | | |
| 16.00 | 15.35 | Hornblende Gneiss | | | Medium grained, green hornblende gneiss with a few irregular white quartz bands and rare small pink garnet inclusions. Variable pyrite and pyrrhotite content of 1-3% with a small, 1cm, brecciated pyrrhotite/amphibolite wedge at 16.25m. (Recovery: 100%) | | | | | | | |
| 16.35 | 13.85 | Quartzo Feldspathic Band | | | Major quartzo feldspathic band with minor inclusions and assimilation of amphiboles and biotite mica. Mafics increase and the appearance of muscovite mica occurs with depth. Weak ghost foliation and occasional pyrrhotite specks of 0.1% together with possibly very small specks of molybdenum. Generally a very hard unfractured rock. At 18.61m runs into an intensely deformed calc-silicate zone, with extensive chlorite alteration and a number of small pale pink garnet inclusions. Pyrite and pyrrhotite disseminated throughout with additional thin, 1-5mm, inter-folii veinlets averaging 5%. (Recovery: 100%) | | | | | | | |
| 18.85 | 20.62 | Muscovite-biotite Gneiss | | | Light grey/green, fine grained muscovite-biotite gneiss often with strongly schistose bands high in micas which are frequently severely chloritised Bronze biotite micas become dark brown at depth with the appearance of subordinate green | | | | | | | |

Diamond Drill Core Record — Cu Ni Mo — Project — Sheet No. 5 — D.D.H. No. SBH1

| GEOLOGICAL LOG | | | | ASSAY RECORD | | | |
|---|---|---|---|---|---|---|---|
| From | Rep'Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. |
| 18.85 | 20.62 | Muscovite- | hornblende at 20.32m. | | | | |
| | | biotite Gneiss | Pyrite threads distributed mainly along schistose | | | | |
| | | (contd) | cleavage 1.0%. | | | | |
| | | | (Recovery:97%) | | | | |
| 20.62 | 23.60 | Garnet | Dark grey/green,fine grained,foliated garnet | | | | |
| | | Amphibolite | amphibolite. Fresh and competent with only very | | | | |
| | | | weak chloritisation of a surbordinate biotite | | | | |
| | | | content. Occasional quartzo feldspathic veins and | | | | |
| | | | a biotite gneiss band between 22.15 and 22.25m, | | | | |
| | | | before grading to a biotite gneiss in the | | | | |
| | | | basal 0.5m. | | | | |
| | | | 1% disseminated sulphide blebs and threads. | | | | |
| | | | (Recovery:100%) | | | | |
| 23.60 | 28.92 | Biotite Gneiss | Hard,dark grey,medium grained biotite gneiss with | | | | |
| | | | frequent biotite and quartzo feldspathic rich | | | | |
| | | | banding, containing 0.1% sulphide disseminations. | | | | |
| | | | Fine grained,dark green,weakly foliated, fresh | | | | |
| | | | amphibolite band at 25.81-26.00m,with accompanying | | | | |
| | | | increase to 0.5% sulphide content. | | | | |
| | | | Biotite gneiss continues with variable dark green | | | | |
| | | | hornblende content,which is proportional to the | | | | |
| | | | darkness of the rock and grades finally into the | | | | |
| | | | next section. | | | | |
| | | | (Recovery:99%) | | | | |

Diamond Drill Core Record ..... Cu Ni Mo ..... Project Sheet No. 6 D.D.H. No. SBH1

| From | Rep/Sec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. |
|---|---|---|---|---|---|---|---|
| 28.32 | 31.75 | Hornblende-Biotite Gneiss | Dark grey/green, medium grained, weakly foliated gneiss, with frequent hard white quartzo feldspathic bands and green amphibolite bands particularly between 31.25 and 31.40m. After 30.43 becomes lighter in colour due to a decrease in amphibole content accompanied by frequent pink garnet rich zones of 1-5cm thickness. Disseminated blebs and threads of pyrrhotite varying from 1-3%. (Recovery:100%) | | | | |
| 31.75 | 34.97 | Amphibolite | Fine grained, dark green/grey, fresh but poorly foliated amphibolite with occasional white quartzo feldspathic banding. From32.15-32.40m altered pale green, fine grained band. Soft fissile rock with numerous porphyroblastic garnet rich zones with white quartzo feldspathic discordant fracture filling and banding. Further light green, poorly foliated biotite rich amphibolite with extensive pale green chlorite alteration between 34.10 and 34.60m before a transitional return to fresh amphibolite again. Minor pyrite dissemination throughout of approximately 0.4%. (Recovery:100%) | | | | |

Diamond Drill Core Record — Cu Ni Mo — Project — Sheet No. 7 — D.D.H. No. SBH1

| FOOTAGE From | FOOTAGE To/Rec | GEOLOGICAL LOG ROCK TYPE | GEOLOGICAL LOG DESCRIPTION | ASSAY RECORD Sample No. | From | Length | Recov. |
|---|---|---|---|---|---|---|---|
| 34.97 | 35.99 | Biotite Gneiss | Equigranular, bronze mica and quartz gneiss at first regularly banded at 5-6cm intervals before continuing as amottled grey, banded gneiss from 35.35m. Sulphide disseminations only 0.1%. (Recovery: 100%) | | | | |
| 35.99 | 37.42 | Amphibolite | Dark green, coarse grained, foliated amphibolite with rare but large, 1-1.5cm, porphyroblastic pink garnets. Some sections have a very high amphibole content and verge on ultrabasic composition. At 36.80m a lighter band reflects the addition of bronze biotite mica, with less common darker biotite bands altering to chlorite from 37.20m and containing large, 1.0cm, dark green, randomly orientated actinolite laths with all signs of foliation destroyed. Sulphides generally 0.1% but a few narrow bands of 1% disseminated pyrites. (Recovery: 99%) | | | | |
| 37.42 | 39.71 | Biotite Gneiss | Dark grey, coarsely banded biotite gneiss which is generally fresh though often well fractured. Contains a very small amphibolite content which regularly form narrow, green, amphibole rich bands with white quartz veining at 38-38.20m. | | | | |

Metres Diamond Drill Core Record Cu Ni Mo Project Sheet No. 8 D.D.H. No. SBH 1

| GEOLOGICAL LOG | | | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 37.42 | 39.71 | Biotite Gneiss | From 38.85 - 39.25 an amphibolite band has altered to a soft pale green bleached rock, probably a result of chlorite and actinolite alteration of the relevant mafic constituents. Disseminated pyrites specks average 0.5% decreasing to 0.4% from 39.25m. (Recovery 99%) | | | | | | | | | |
| 39.71m | 41.00m | Ultrabasic Gneiss | Dark green, fine but regularly foliated ultrabasic gneiss which is mostly fresh with occasional thin bronze biotite bands, particularly associated with pale green amphibolite at the upper contact. Garnetiferous zone from 40.20-40.40m together with grey siliceous banding. Low sulphides content 0.1% (Recovery 99%) | | | | | | | | | |
| 41.00 | 41.35 | Amphibolite | Soft narrow, biotite band at the base of the ultrabasic gneiss marks the upper contact of a dark green amphibolite. Fine grained with occasional grey quartz rich areas and apart from significant plagioclase content now present is almost continuous with the section above, with sharp lower contact. (Recovery: 100%) | | | | | | | | | |

Metres Diamond Drill Core Record ..... Cu Ni Mo ..... Project Sheet No. 9 D.D.H. No. SBH 1

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 41.75 | 42.52 | Garnet-Biotite Gneiss | Medium grained pinky/grey biotite gneiss with a high porphyroblastic pink garnet content. Frequently containing a high amphibole content with a distinctive green amphibolite band at 42.02-42.19m. Average 2% of disseminated pyrrhotite except for the sulphide free amphibolite band. (Recovery: 100%) | | | | | | | | | |
| 42.52 | 47.75 | Biotite Gneiss | Dark grey, well foliated biotite gneiss. Variable banding with frequent light grey leucocratic sections at 43.20-43.30m and 43.55-43.75m and discordant white migmatitic quartz veining from 47.40-47.70m. Occasional small pink garnet inclusions with some dark green amphibolite bands at 42.80-42.93 and from 46.00m onwards. A light bronze coloured biotite mica grades to a dark brown colour at depth with only minor chlorite spots present. Disseminated specks and threads of pyrrhotite between the foliation varies from 2-7% with the highest values associated with quartz rich sections. (Recovery: 100%) | | | | | | | | | |
| 47.75 | 48.00 | Hornblende Gneiss | Medium to coarse grained, weakly foliated hornblende gneiss, Distinctive speckled texture with 0.2% disseminated specks of pyrrhotite. (Recovery: 100%) | | | | | | | | | |

Metres Diamond Drill Core Record Cu Ni Mo Project Sheet No. 10 D.D.H. No. SBH 1

| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. |
|---|---|---|---|---|---|---|---|
| 48.00 | 52.60 | Hornblende-Biotite Gneiss | Grey/green medium grained gneiss with variable amphibole content producing marked colour banding. After 49.05m banding less common with a change from bronze to dark brown biotite with very little chlorite alteration. Occasional small pink garnet inclusions in particular after 51.60m, which are frequently associated with sulphides. Initial pyrrhotite dissemination of about 3% decreases to 0.2% from 49.05m with patchy increases to 0.5%. (Recovery: 99%) | | | | |
| 52.60 | 59.40 | Biotite Gneiss | Gradational change to dark grey, coarsely banded biotite gneiss now with a subordinate amphibole content and occasional rich bands. Fine grained with poor banding from 55.56m and from 56m occasional small pink garnet inclusions which form a high percentage from 58.50-59.40m with an associated increase in amphiboles. Usually fresh with only slight chloritic spotting and frequent fracturing along foliation. Disseminated sulphide content generally low at approximately 0.4%. (Recovery: ) | | | | |
| 59.40 | 60.42 | Garnet-Biotite Gneiss | Coarsely banded, pink, garnet rich biotite | | | | |

[redacted]

Diamond Drill Core Record ..... Cu Ni Mo ..... Project Sheet No. 11 D.D.H. No. SBH 1

| GEOLOGICAL LOG | | | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 59.40 | 60.42 | Garnet-Biotite Gneiss | gneiss. Variable, 0.2-0.5% pyrite specks associated with large pink garnets usually enclosed by bronze biotite mica. (Recovery 99%) | | | | | | | | | |
| | | | END OF BOREHOLE 60.42m | | | | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Date Completed | 5:2:76 | Orientation | 020° Grid N. | Length | 62.15m |
| from | m. | Recovery | 98% | Purpose | Scout Drilling E.M. Anomaly. |
| from | m. | Inclination | 50° | Logged By | G.S. Roberts |
| from | m. | Corrected | | Date | 6:2:76 |

# DIAMOND DRILL CORE RECORD

Project: Cu Ni Mo

| METRES | | GEOLOGICAL LOG | | | | ASSAY RECORD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Represents | Rock Type | Graphic Log | Intersec. Angle | Description | Sample No. | From | Length | Rec. | | | |
| 0 | 3.12m | Overburden | | | Peat cover of 2.40m over weathered hornblende gneiss followed at 3.04m by numerous pink, foliated granite fragments both remnants of a lower drift boulder horizon. (Recovery: 66% - excluding peat) | | | | | | | |
| 3.12m | 5.71m | Amphibolite | | | Dark green, fine grained, weakly foliated amphibolite with porphyroblastic pink garnet zones until 4.68m with higher plagioclase content stronger foliation and regular but thin banding, this becomes a garnet amphibolite gneiss at 3.54-3.64m, 3.75-3.90m, 4.05-4.68m and 5.50 - 5.71m . The latter associated with blebs, veins and wedges of pyrrhotite concordant with the main foliation and averaging 10-15%. From 4.68m weakly foliated amphibolite continues now with few garnets but occasionally white, narrow quartz feldspathic banding. Disseminated specks and threads of pyrite and pyrrhotite varies from 3% in the upper section to 0.4% in all but the final 0.21m sulphide rich zone. The core is fresh but severely fractured from 3.60-4.10m and 4.32-4.68m with extensive limonitic surfaces. (Recovery: 95%) | | | | | | | |

Consolidated Mogul Mines Limited

Diamond Drill Core Record — Cu Ni Mo — Project — Sheet No. 2 — D.D.H. No. SEH 2

| Footage | | GEOLOGICAL LOG | | ASSAY RECORD | | | | |
|---|---|---|---|---|---|---|---|---|
| From | Rep'Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | |
| 5.71 | 8.38 | Biotite gneiss | Short foliated quartz band from 5.71-5.87m with a few small garnet inclusions before main section of grey, biotite gneiss. Irregular banding with biotite rich schistose bands and small garnet inclusions and discordant narrow quartz veins in lower 0.70m. Divided by distinct dark green, fine grained garnet amphibolite section between 7.13-7.64m. Disseminated sulphide specks generally 0.5% except for 2-3% pyrite blebs along quartz filled fractures and bands after 7.13m. (Recovery: 100%) | | | | | |
| 8.38 | 9.03 | Garnet Amphibolite | Fresh dark green, fine grained amphibolite with pink porphyroblastic garnets usually forming regular garnet rich bands and sparse quartz feldspathic veins containing up to 5% pyrites. Otherwise sulphide dissemination 0.5%. (Recovery: 100%) | | | | | |
| 9.03 | 9.56 | Garnet Gneiss | Pink, garnetiferous gneiss with regular, coarse grey quartz banding. Pyrite with minor chalcopyrite association averaging 0.4% mostly within lower 10cm of section. (Recovery: 100%) | | | | | |

Metres Diamond Drill Core Record — Cu Ni Mo — Project — Sheet No. 3 — D.D.H. No. SBH 2

| GEOLOGICAL LOG | | | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | T.S. | P.S. | | | |
| 9.56m | 13.33 | Amphibolite | Fine to medium grained, green amphibolite with only a weak foliation and fresh except for pale green alteration of some hornblende, increasing at depth siginificantly from 9.92m with an associated decrease in grain size. From 12.00-13.33m a distinct pale green altered amphibolite section may be uralite derived from an original pyroxene rich rock. The section is competent with minimalfracturingat 9.60-9.85m, containing 5% of 1-3mm blebs of pyrrhotite. Initially disseminated pyrite and pyrrhotite content of between 3-5% decreases to 0.4% after 10m. (Recovery: 97%) | GS1741 | 12.50 | 12.55 | | ✓ | | | | |
| 13.33 | 17.50 | Ultrabasic Gneiss | Fine to medium grained, fresh, ultrabasic pyroxenite section with dark and light green banding: formed possibly by mineralogical layering of black augite and vitreous, emerald green, chromium diopside. Lighter areas also a result of low plagioclase bearing sections. Foliation weak to absent though regularly fractured with minor epidote and calcite coated surfaces. Sulphides always 0.1%. (Recovery: 100%) | GS1745 | 16.60 | 16.65 | | ✓ | | | | |

Diamond Drill Core Record ..... Project Sheet No. D.D.H. No. ---

Metres

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | T.S. | P.S. | | | |
| 17.50 | 1812 | Altered Amphibolite | Dark green, fine grained amphibolite/hornblende gneiss with pale coloured intergranular quartz, amphibolite zones with a little chlorite alteration. Section highly fractured in numerous directions with extensive calciferous, epidote fillings. Disseminated specks and blebs of pyrrhotite increase from 3 to 5% at depth. (Recovery: 98%) | | | | | | | | | |
| 18.12 | 21.39 | Amphibolite/ Garnet - Biotite Gneiss banding | 1812-18.28m: initial, fresh brown, biotite gneiss with sulphides 0.1%. 18.28-18.40m: fine grained, dark green amphibolite with pink porphyroblastic garnets and pale banding due to higher plagioclase content, with disseminated pyrrhotite blebs 7%. 18.40-18.67m: pink, coarsely banded garnet-biotite gneiss which from 18.45m contains a sub-massive pyrrhotite matrix of up to 40% until 18.55m then decreasing to10% with a frequent chalco-pyrite association of 0.5%. 18.67-19.08: fine grained, green foliated amphibolite containing up to 10% disseminated blebs and threads of pyrrhotite along the foliation. 19.08-19.80: extensive section of pink, coarsely | GS 1747 | 18.53 | 18.58 | | | ✓ | | | |

Diamond Drill Core Record — Cu Ni Mo — Project — Sheet No. 5 — D.D.H. No. SBH 2

| -FOOTAGE- From | To | GEOLOGICAL LOG ROCK TYPE | DESCRIPTION | ASSAY RECORD Sample No. | From | Length | Recov. |
|---|---|---|---|---|---|---|---|
| 18.12 | 21.39 | Amphibolite/ Garnet-Biotite Gneiss banding (cont..) | foliated garnet-biotite gneiss. Fresh with only occasional chlorite patches and slight calciferous fracturing. Disseminated pyrrhotite specks and threads average 2%. 19.80-20.04m: dark green, foliated amphibolite with gneissose banding and narrow bands of 10-20% intergranular pyrrhotite. 20.04-21.39m: above section grades into a dark grey biotite gneiss with a more subordinate garnet content and biotite rich, schistose bands. High 10% disseminated pyrrhotite content in the first 0.40m decreasing at depth. (Recovery: 100%) | | | | |
| 21.39 | 23.04 | Hornblende Gneiss | Fine grained, dark green, fresh hornblende gneiss with more pronounced foliation and gneissose banding towards the base accompanied by the appearance of biotite mica and narrow garnet rich bands. Minor 0.2% disseminated sulphide specks. (Recovery: 88%) | | | | |
| 23.04 | 24.45 | Garnet-Biotite Gneiss | Dark, pinky, grey well banded garnet-biotite gneiss, with schistose bands containing a high biotite percentage. Disseminated pyrrhotite specks of 7%. (Recovery: 100%) | | | | |

Diamond Drill Core Record — Cu Ni Mo — Project — Sheet No. 6 — D.D.H. No. SEH 2

| FOOTAGE From | FOOTAGE To/Rec | GEOLOGICAL LOG ROCK TYPE | GEOLOGICAL LOG DESCRIPTION | ASSAY RECORD Sample No. | From | Length | Recov. | T.S. | P.S. |
|---|---|---|---|---|---|---|---|---|---|
| 24.45 | 24.85 | Garnet Amphibolite | Fine grained, dark green foliated amphibolite with porphyroblastic garnet inclusions throughout and pyrrhotite specks of approximately 0.4%. (Recovery: 100%) | | | | | | |
| 24.85 | 25.62 | Biotite Gneiss | Section above grades through biotite amphibolite gneiss to a biotite gneiss: dark grey, medium grained with poor gneissose banding. The lower 20cm grades again through biotite amphibolite gneiss to the lower section. Sulphide specks very low at 0.1%. (Recovery: 100%) | | | | | | |
| 25.62 | 28.77 | Garnet Amphibolite | Fine grained, dark green amphibolite with a high porphyroblastic garnet content and extensive carbonate specking. Becoming medium grained at 26.47m with pale green banding from 27.90m being proportional to the plagioclase content. Frequent white quartzo feldspathic veining until 26.47m and then only very occasional. A competent section but with a large high angle shear zone between 26.15-26.95m with rock breccia cemented by quartz and/or calcite filling, with local chlorite alteration and extensive haematitic staining. Sulphides almost totally absent but those present oxidizing to limonite usually. (Recovery: 99%) | GS 1756 | 27.60 | 27.65m | | ✓ | |

Diamond Drill Core Record ..... Cu. Ni. Mo. ..... Project Sheet No. 7 D.D.H. No. SBH 2

| GEOLOGICAL LOG | | | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To/Base | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 28.77 | 32.26 | Hornblende gneiss | Sharp contact with a pale grey, leucocratic hornblende gneiss. Mottled at first before becoming strongly foliated with regular, distinct banding together with numerous amphibolite and garnet amphibolite bands on frequent occasions. Quartz bands contain altered mafics and garnet inclusions suggesting a secondary injection origin. A competent rock but with frequent calciferous hairline fractures common with limonitic staining. Sulphide specks 0.1% (Recovery: 94%) | | | | | | | | | |
| 32.26 | 41.10 | Garnet Amphibolite | Dark green, fine grained, weakly foliated amphibolite with a variable content of pink porphyroblastic garnets. Occasional quartzo feldspathic banding of 0.5-5.0cm at regular 10-20cm intervals, becoming rare after 38m. Infrequent pale green banding due to a high, coarse intergranular plagioclase content associated with a slight sulphides increase. Major quartz section from 34.34-34.77m with minor altered mafic, garnet and muscovite inclusions particularly adjacent to the sections sharp contacts - forming grey | | | | | | | | | |

Diamond Drill Core Record — Cu Ni Mo — Project — Sheet No. 8 — D.D.H. No. SBH 2

| Metres From | Metres Rep/Rec | GEOLOGICAL LOG ROCK TYPE | GEOLOGICAL LOG DESCRIPTION | ASSAY RECORD Sample No. | From | Length | Recov. |
|---|---|---|---|---|---|---|---|
| 32.26 | 41.10 | Garnet Amphibolite (Continued..) | colouration of an otherwise pale yellow crystalline quartz with a distinct foliation suggesting this is a pre or syn-metamorphic injection vein. Conspicuous, soft, friable pale green altered garnet amphibolite from 38.90-39.40. Primary ferromag. minerals have altered to fibrous amphibole and chlorite with plagioclase changing to kaolin. The section has a gradational lower contact from 39.20-39.40m to a frash garnet amphibolite. Competent sections generally with a few variable calcite and limonite coated fractures. Lean sulphide disseminations throughout of only 0.4% or less. (Recovery: 98%) | | | | |
| 41.10 | 41.25 | Hornblende Gneiss | Short but distinct, well foliated and banded hornblende gneiss section: forming a transitional unit between two adjacent lithologies. (Recovery: 100%) | | | | |
| 41.26 | 46.70 | Biotite Gneiss | Strongly foliated, grey biotite gneiss with regular gneissose quartz and schistose biotite rich bands, particularly well developed from 42m. Fine grained and poorly banded from 45.35-46.01m then becoming garnetiferous and well banded with | | | | |

Metres Diamond Drill Core Record Cu Ni Mo ..... Project Sheet No. 9 D.D.H. No. SBH 2

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From. | Length | Recov. | | | | | | |
| 41.26 | 46.70 | Biotite Gneiss (cont..) | extensive chlorite alteration of biotite mica. Occasional fractures across foliation from 42.25 -42.55m and a major calcite filled fracture zone between 42.70-43.50m. Sulphides mostly pyrite specks. 0.5% (Recovery: 96%) | | | | | | | | | | |
| 46.70 | 48.36 | Garnet-Hornblende Gneiss. | Section above transitional to green, garnet-hornblende gneiss with a speckled texture and gneissose banding, also zones containing subordinate biotite mica sometimes slightly altered to chlorite. Conspicuous section of leucocratic biotite gneiss divides main unit from 47.42-47.79m - a milky grey foliated quartz with numerous biotite and garnet inclusions and few sulphides. Competent rock other than occasional fractures along foliation Sulphide specks low. (Recovery: 100%) | | | | | | | | | | |
| 48.36 | 51.72 | Biotite Gneiss | Leucocratic mottled grey biotite gneiss with a variable dissemination of pyrrhotite from 2-3% and quartz bands containing 3% disseminated pyrites until 49.26m. Then becomes typical grey biotite gneiss with numerous small garnet inclusions and | | | | | | | | | | |

Diamond Drill Core Record ..... Cu Ni Mo ..... Project Sheet No. 10 D.D.H. No. SBH 2

Metres

| FROM-TO | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To/Esc | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 48.36 | 51.72 | Biotite Gneiss (cont.) | and from 49.50m becomes biotite rich with a frequent schistose development. Disseminated pyrrhotite specks and threads between foliation averages 3% with rare patches and veinlets from 50.55m often associated with chalcopyrite inclusions. Final leucocratic grey biotite gneiss section from 50.10m with bright green altered amphibolite and garnet inclusions, with only a minor pyrrhotite content of 0.4%. (Recovery: 100%) | | | | | | | | | |
| 51.72 | 53.21 | Garnet Amphibolite | Dark green garnet amphibolite, with pale green altered amphibolite zones and coarse orthoclase feldspar alteration bands at 52.03m. Chlorite alteration present, whilst garnets are frequently porphyroblastic with associated sulphide rims. Disseminated sulphide specks throughout with 10% rich section in lower 10cm. (Recovery: 100%) | | | | | | | | | |
| 53.21 | 57.20 | Garnet-Biotite/ Hornblende Gneiss | Mottled, leucocratic garnet-biotite gneiss grades to a fine grained, weakly foliated hornblende-biotite gneiss at 53.54m with numerous often porphyroblastic pink garnet inclusions. | | | | | | | | | |

Metres **Diamond Drill Core Record** .....Cu.Ni.Mo..... Project Sheet No. 11 D.D.H. No. SBH 2

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 53.21 | 57.20 | Garnet-Biotite/ Hornblende Gneiss (cont.) | ~~Distinct gneissose~~ banding at first and frequent schistose biotite rich sections with minor chlorite alteration. Amphibole content decreases from 54.05m to leave a garnet-biotite gneiss with pale green alteration bands and from 54.70m a biotite gneiss with a granoblastic texture and poor to absent banding. Generally a competent section except for a major calcite filled fracture zone from 56.46-57.07m. Sulphides mostly disseminated pyrites from 0.5-1% with rich patches, particularly from 53.95-54.05m at 10%. (Recovery: 100%) | | | | | | | | | |
| 57.20 | 62.15 | Amphibolite | Very fine grained, dark green mesocratic amphibolite with a porphyroblastic garnet section from 57.65-58.87m, with carbonate mineral specks common and slightly higher 0.5% sulphide dissemination. Lower section from 58.87m-62.15m typical medium grained amphibolite with a weak foliation and large garnet inclusions: usually fresh and competent except for some minor calcite filled fractures near the base. Lean sulphide dissemination averages 0.2% (Recovery: 97%) END OF BOREHOLE 62.15m. | | | | | | | | | |

| | | | |
|---|---|---|---|
| Date Started | 7:2:76 | Collar Elevation | |
| Date Completed | 9:2:76 | Orientation | 020° Grid N. |
| from | m. | Recovery | 99% |
| from | m. | Inclination | 50° |
| from | m. | Corrected | |

# Consolidated Gold Fields Limited

DIAMOND DRILL CORE RECORD

Project: Cu Ni Mo

| | |
|---|---|
| Area | SCOTRIE |
| Length | 36.01m |
| Purpose | Scout Drilling ~~E.M. Anomaly~~ |
| Logged By | G.S. Roberts |
| Date | 17:2:76 |

| METRES | | GEOLOGICAL LOG | | | | ASSAY RECORD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Represents | Rock Type | Graphic Log | Intersec. Angle | Description | Sample No. | From | Length | Rec. | | | |
| 0 | 0.66m | Overburden | | | Peat cover with Laxfordian pink, medium grained, foliated granite boulder at base of drift from 0.26-0.66m. (Recovery: 80% excluding peat) | | | | | | | |
| 0.66 | 4.80 | Banded Garnet-Amphibolite | | | Garnet amphibolite with frequent feldspathic quartzo bands. Dark green fine to medium grained, weak, changeable foliated amphibolite with a variable pink porphyroblastic garnet content and extensive carbonate mineral spotting. Grey, foliated quartzo feldspathic bands throughout with major section from 1.69-2.39m containing altered mafics and garnet inclusions with amphibolite bands. Amphibolite fresh and competent, but with major limonite fracture zone ~~terminating section~~ from 4.48-4.80m. Disseminted specks and threads of pyrite low with some very rare chalcopyrite specks and weak sulphide depletion through the quartz bands. (Recovery: 90%) | | | | | | | |
| 4.80 | 6.10 | Quartzo Feldspathic Band | | | Strongly foliated, mottled, grey quartzo feldspathic rich band. Extensive amphibolite muscovite and garnet inclusions suggest this may | | | | | | | |

# Consolidated Gold Fields Limited

Metres **Diamond Drill Core Record** .....Cu.Ni.Mo..... Project Sheet No. 2 D.D.H. No. SBH 3

| ~~FOOTAGE~~ | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | T.S. | P.S | | | |
| 4.80 | 6.10 | Quartzo Feldspathic Band | be a leucocratic hornblende gneiss. Discrete high angle limonitic hairline fractures and very minor sulphide specks only. (Recovery: 100%) | | | | | | | | | |
| 6.10 | 9.68 | Garnet Amphibolite | Medium grained, green, weakly foliated amphibolite with 1-5mm pink garnet porphyroblasts and extensive carbonate spotting. Frequent quartz bands throughout but decreasing in garnet and plagioclase content and becomes fine grained at depth. Section from 9.30m pale green, granular and almost garnet free, indicating alteration of amphibole content. Competent rock with only occasional minor fractures along foliation. Minor sulphide specks and filaments of 0.4%. (Recovery: 97%) | GS1797 | 8.30 | 8.35m | | ✓ | | | | |
| 9.68 | 10.46 | Biotite Gneiss | Dark grey, strongly foliated and banded gneiss with a few small garnet inclusions and intially transitional with the previous unit with a pale green altered amphibole content. Sulphides negligible. (Recovery: 95%) | | | | | | | | | |
| 10.46 | 12.45 | Amphibolite | Initially a medium to coarse grained, green foliated garnet amphibolite. low in sulphide. At 10.61 becomes a typical fine grained, green | GS1801 | 11.41 | 11.46m | | ✓ | | | | |

# Consolidated Gold Fields Limited

Metres **Diamond Drill Core Record** ..... Cu Ni Mo ..... Project . Sheet No. 3 D.D.H. No. SBH 3

| ~~FOOTAGE~~ | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov | T.S. | P.S. |
| 10.46 | 12.45 | Amphibolite (cont..) | amphibolite with a negligible garnet content except for a porphyroblastic zone at 11.56-11.67m. Occasional pale, bleached bands between 10.65-10.97m and 11.30-11.56m, decreasing from 11.90m but with an increase in the plagioclase content and appearance of minor carbonate spotting. Conspicuous high angle, discordant biotite schist bands at 11.25m and 11.67-11.90m, possibly a result of shearing within the amphibolite. Sulphide content low throughout. (Recovery: 99%) | | | | | | |
| 12.45 | 15.30 | Biotite Gneiss with sulphide banding. | Grey, well foliated biotite gneiss with well developed gneissose banding and occasional high mica schistose zones. Dark brown biotite mica gives way in predominance to a distinctive bronze coloured mica at 13.85m, with the occasional appearance of carbonate specks. At 14.52m becomes fine grained with poor gneissose banding and an increase in chlorite development which from 14.90-15.15m forms a distinct section of pale green biotite gneiss, where most biotite has altered to chlorite. Two distinct sulphide bands: at 13.76-13.85m a sub-massive pyrrhotite, plagioclase matrix of 15-20% sulphides containing some 1-2% of chalcopyrite and | GS1804 | 15.20 | 15.25m | | | ✓ |

# Consolidated Gold Fields Limited

Metres Diamond Drill Core Record .....Cu.Ni.Mo..... Project Sheet No. 4 D.D.H. No. SBH 3

| ~~FOOTAGE~~ | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | |
| 12.45 | 15.30 | Biotite Gneiss with sulphide banding(Cont.) | some pale green alteration patches. From 15.15-15.26m a further band of 20-30% sub-massive sulphide, biotite amphibolite matrix, with two distinct sulphide types of pyrrhotite and pyrite and a strong 20° phase contact between the two; neither containing any significant amount of chalcopyrite. Otherwise the sulphide content is low except for an increase to a 1-5% disseminated pyrrhotite zone adjacent to the main sulphide bands. (Recovery: 100%) | | | | | | | | |
| 15.30 | 18.38 | Biotite-Hornblende gneiss | Fine to medium grained foliated biotite-hornblende gneiss with regular quartzo feldspathic gneissose banding; frequently containing biotite gneiss zones with only a subordinate amphibole content. Variable percentage of small, pink garnet inclusions and biotite schist banding from 17.59m facilitating fracturing. Initially 1% disseminated sulphides with an increase at depth and two rich bands at 18.07-18.09m (10%) and 18.25-18.35m (5%). (Recovery: 100%) | | | | | | | | |
| 18.38 | 18.80 | Garnet Amphibolite | Sharp but gradational contact with unit above to a dark green, fine grained, foliated, porphyro-? blastic garnet amphibolite. Only a weak dissemination of sulphide specks. (Recovery: 100%) | | | | | | | | |

# Consolidated Gold Fields Limited

Metres **Diamond Drill Core Record** Cu Ni Mo ..... Project Sheet No. 5 D.D.H. No. SBH 3

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 18.80 | 19.60 | Hornblende Gneiss | Fine-medium grained, foliated hornblende gneiss with regular gneissose quartzo feldspathic banding. Occasional garnet inclusions and patches of pale green amphibole and chloritised biotite. Significant biotite content marks gradational change to lower 10cm of section. Minor sulphide dissemination only. (Recovery: 100%) | | | | | | | | | |
| 19.60 | 24.43 | Garnet-Biotite | Grey, well foliated and coarse [illegible] | | | | | | | | | |
| | | | up to 5% pyrrhotite specks including a minor chalcopyrite and pyrite content. Gneiss continues at 22.70m with some carbonate specks and rare green chloritic bands. Competent with only occasional | | | | | | | | | |

# Consolidated Gold Fields Limited

Metres Diamond Drill Core Record ..... Cu Ni Mo ..... Project · Sheet No. 5 D.D.H. No. SBH 3

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 18.80 | 19.60 | Hornblende Gneiss | Fine-medium grained, foliated hornblende gneiss with regular gneissose quartzo feldspathic banding. Occasional garnet inclusions and patches of pale green amphibole and chloritised biotite. Significant biotite content marks gradational change to lower 10cm of section. Minor sulphide dissemination only. (Recovery: 100%) | | | | | | | | | |
| 19.60 | 24.43 | Garnet-Biotite Gneiss | Grey, well foliated and coarsely banded biotite gneiss with a high percentage of pink porphyroblastic garnets. Mixed dark and bronze biotite mica with only rare alteration to chlorite. Numerous amphibolite rich sections and grey foliated quartzo feldspathic bands of up to 3% often associated with the garnet content. Also a narrow pyrite wedge at 21.18m. Main unit divided by a section of altered garnet amphibolite from 22.12-22.70m. Well foliated and extensively bleached from 22.45-22.55m with discordant migmatitic quartz lenses containing up to 5% pyrrhotite specks including a minor chalcopyrite and pyrite content. Gneiss continues at 22.70m with some carbonate specks and rare green chloritic bands. Competent with only occasional | | | | | | | | | |

# Consolidated Gold Fields Limited

Metres **Diamond Drill Core Record** ..... Cu Ni Mo ..... Project Sheet No. 6 D.D.H. No. SBH 3

| ~~FOOTAGE~~ | | GEOLOGICAL LOG | | ASSAY RECORD | | | | |
|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | |
| 19.60 | 24.43 | Garnet-Biotite Gneiss (cont..) | fracturing along the foliation. (Recovery: 100%) | | | | | |
| 24.43 | 25.44 | Quartzo feldspathic band. | Grey and white, foliated quartzo feldspathic section and very few inclusions of garnet, biotite and sulphides with yellow probably altered ferromag. alteration patches. Divided sharply from 24.78-25.16m by grey biotite gneiss with highly micaceous bands producing a strong schistosity and an increase in pyrrhotite and chalcopyrite threads from 0.5% to 1%. Sharpness of quartz rich bands and the biotite gneiss contacts suggests the former is not a leucocratic equivalent of the latter. (Recovery:100%) | | | | | |
| 25.44 | 27.68 | Garnet-Biotite Gneiss | Strongly foliated, well banded garnet-biotite gneiss with schistose zones high in mica often altering to sericite across fractures. Occasional narrow amphibolite rich bands until 25.83m when a change to a more leucocratic section occurs: containing yellow ferromag. alteration spots and only a few garnets after 26.10m. Pyrrhotite specks vary up to 1% with occasional chalcopyrite of 0.1% (Recovery: 100%) | | | | | |
| 27.68 | 27.92 | Garnet-Hornblende Gneiss | Short tramitional section of green, foliated | | | | | |

# Consolidated Gold Fields Limited

Metres **Diamond Drill Core Record** Cu Ni Mo ..... Project Sheet No. 7 D.D.H. No. SBH 3

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 27.68 | 27.92 | Garnet-Hornblende Gneiss (cont..) | garnet amphibolite with gneissose banding and thin bronze biotite rich sections. Sulphides lean. (Recovery: 100%) | | | | | | | | | |
| 27.92 | 30.80 | Amphibolite | Fine-medium grained, light green, foliated amphibolite, with occasional narrow biotite gneiss bands; becoming fine grained and schistose at 28.33-28.50m with weak alteration and sulphide enrichement within the adjacent amphibolite contact. Following a 12cm quartzo feldspathic band at 28.88m the amphibolite obtains a more speckled texture with extensive carbonate specks and porphyroblastic garnet inclusions. Average pyrrhotite content of 0.4% with patches of up to 1%. From 29.30 returns to a typical green, foliated amphibolite which from 30.29-30.35m becomes bleached from chlorite and Kaolin alteration. Some fractures along foliation throughout section with conspicuous zone of calcite filled hairline fractures from 29.00-29.30m. (Recovery: 100%) | | | | | | | | | |
| 30.80 | 33.14 | Ultrabasic | Fine-medium grained, weakly foliated, very dark ultrabasic section as seen elsewhere with return to amphibolite in basal 30cm of the section. Bleached alteration zones from 31.10-31.43m and 31.75-32.06m - the | | | | | | | | | |

| GEOLOGICAL LOG | | | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 30.80 | 33.14 | Ultrabasic (cont.) | latter being a thoroughly soft, friable decomposed section of chlorite, kaolin and asbestiform alteration with numerous calcite filled shears from 31.20-32.05m. | | | | | | | | | |
| | | | (Recovery: 98%) | | | | | | | | | |
| 33.14 | 36.01 | Biotite Gneiss | Typical grey, well banded biotite gneiss with frequent leucocratic sections becoming coarse grained at 35-35.60m. Rare garnet inclusions, carbonate and muscovite flakes. Sulphides lean with thin haematite filaments along foliation at 34m. Competent with only occasional fractures. | | | | | | | | | |
| | | | (Recovery: 100%) | | | | | | | | | |
| | | | END OF BOREHOLE: 36.01m | | | | | | | | | |

| Date Completed | 12:2:76 | Orientation | 020° Grid N. |
|---|---|---|---|
| from | m. | Recovery | 98% |
| from | m. | Inclination | 50° |
| from | m. | Corrected | |

# DIAMOND DRILL CORE RECORD

Project: Cu Ni Mo

| Length | 46.27m |
|---|---|
| Purpose | Scout Drilling E.M. Anomaly |
| Logged By | ~~G.S. Roberts~~ |
| Date | 21:3:76 |

| METRES | | GEOLOGICAL LOG | | | | ASSAY RECORD | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Represents | Rock Type | Graphic Log | Intersec. Angle | Description | Sample No. | From | Length | Rec. | | | |
| 0 | 0.94m | Overburden | | | Peat cover lies directly on a weathered bedrock surface, with no apparent base of drift boulder cover as found at most other SBH sites. No core recovery. | | | | | | | |
| 0.94 | 1.83 | Biotite Gneiss | | | Grey, fine-coarse grained, strongly foliated biotite gneiss, with small pink garnet inclusions from 1.40m together with minor chlorite specks and a slight increase in sulphide content from 0.1% to 0.5%. (Recovery: 91%) | | | | | | | |
| 1.83 | 3.73 | Hornblende Gneiss | | | Light green, medium grained granular hornblende gneiss/amphibolite, with initial 5cm zone of bleaching. Contains bronze biotite rich bands from 3.13m and from 3.40-3.70m a conspicuous discordant white quartz vein terminates this section. The vein contains numerous patches of pale yellow micaceous alteration products and very few small garnet inclusions. Short biotite gneiss section divides the main unit from 2.97-3.13m. Lean sulphide dissemination throughout. (Recovery: 95%) | | | | | | | |

Metres Diamond Drill Core Record ..... Project Sheet No. 2 D.D.H. No. DDH 4

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 3.73 | 6.76 | Biotite Gneiss | Grey, fine-medium grained biotite gneiss with only occasional well developed gneissose banding and a strongly leucocratic section from 6.30m containing a few small garnet inclusions and carbonate specks. Divided by two distinct sections: from 4.20-4.64m a green foliated amphibolite with porphyroblastic garnet inclusions and minor sulphides and from 4.64-5.30m a pink coarse banded garnet-biotite gneiss with occasional chlorite alteration specks and a strong association of pyrites and chalcopyrite with the garnet inclusions. Otherwise a low dissemination of pyrite and little fracturing. (Recovery: 98%) | | | | | | | | |
| 6.76 | 9.14 | Biotite-Hornblende Gneiss | Initially a medium grained, green hornblende gneiss, with a high percentage of garnet porphyroblasts, and extensive carbonate specks. Essentially a garnet amphibolite but with a better foliation and strong gneissose banding. From 7.50m decreases in garnet content but obtains significant addition of biotite mica to form a biotite - hornblende gneiss; well banded with 7-10% disseminated pyrrhotite threads and subordinate chalcopyrite content. Continuing from 8m with a strong but changeable foliation | | | | | | | | |

Metres **Diamond Drill Core Record** Cu Ni Mo ..... Project Sheet No. 3 D.D.H. No. SBH 4

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | |
| 6.76 | 9.14 | Biotite-Hornblende Gneiss | and discordant migmatitic quartz bands plus micaceous and amphibolitic rich bands with some slight chloritic spotting and high 5% dissemination of pyrrhotite threads and patches. Final section from 8.42m grades into a garnet-biotite-hornblende gneiss with a significant reappearance of garnet inclusions and continued migmatitic bands at 8.60-8.70m. Eventually from 8.85m a decrease in grain size, biotite content and banding grades into next unit. (Recovery: 99%) | | | | | | | | |
| 9.14 | 10.15 | Garnet Amphibolite | Fine grained, dark green, well foliated garnet amphibolite containing large porphyroblastic garnet inclusions of 0.2-0.8cm diameter. Sections often very dark and may approach more ultrabasic quality until at 9.60m section becomes a lighter green colour with the gradual appearance of carbonate and chlorite spots and from 9.95m the disappearance of the garnet content. Lean pyrrhotite dissemination up to 0.5% only. (Recovery: 100%) | | | | | | | | |

Metres Diamond Drill Core Record ..... Cu Ni Mo ..... Project Sheet No. 4 D.D.H. No. SEH 4

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 10.15 | 11.80 | Amphibolite | Fine grained, dark green, well foliated amphibolite with intially a variable but often high subordinate biotite content and few if any garnet inclusions. At 11.10-11.28m biotite-hornblende gneiss with some minor chlorite alteration before returning to a light green, possibly altered amphibolite. Sulphide dissemination generally low throughout. (Recovery: 96%) | | | | | | | | | |
| 11.80 | 13.60 | Biotite-Hornblende Gneiss | Medium grained biotite-hornblende gneiss with gneissose banding and a variable porphyroblastic garnet content. From 12.50m section of foliated micaceous amphibolite soon returning to a biotite-hornblende gneiss with frequent chlorite alteration of the biotite content and garnet rich banding decreasing after 13.15m. Base grades into next section with gradual decrease of the hornblende content. Sulphide dissemination averages 0.3-0.5% with narrow pyrrhotite, chalcopyrite fracture filling at top and 5% rich dissemination associated with quartz bands at 13.33m. (Recovery: 99%) | | | | | | | | | |

Metres Diamond Drill Core Record ..... Cu Ni Mo ..... Project Sheet No. 5 D.D.H. No. SBH 4

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 13.60 | 14.12 | Biotite Gneiss | Grey, medium grained biotite gneiss with strong gneissose banding. Very minor chlorite alteration spots and carbonate specks, with weak hornblende content. Sulphide dissemination 0.5% increasing to 3% from 14.10m. Amphibole content gradually increases near base to a biotite-hornblende gneiss. (Recovery: 99%) | | | | | | | | | |
| 14.12 | 16.29 | Biotite-Hornblende Gneiss | Increase in amphibole content forms a well banded green biotite-hornblende gneiss with some carbonate spotting, few if any garnets and a lean sulphide dissemination of 0.5%. (Recovery: 100%) | | | | | | | | | |
| 16.29 | 17.44 | Biotite Gneiss | Another gradual decrease in hornblende content and return to biotite gneiss, with no chlorite alteration and pyrrhotite, chalcopyrite specks of 0.5% until 17m when both increase together with a minor amphibole reappearance. (Recovery: 100%) | | | | | | | | | |
| 17.44 | 19.33 | Amphibolite | Fine-medium grained, green, weakly foliated micaceous amphibolite, weakly garnetiferous with bleached alteration zones at 17.70-17.80m and 18.27-18.37m before short sections of fresh, grey, biotite gneiss at 17.80-18.05m and 18.37-18.48m. | | | | | | | | | |

Metric Diamond Drill Core Record — Cu Ni Mo — Project — Sheet No. 6 — D.D.H. No. SBH 4

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 17.44 | 19.33 | Amphibolite (cont..) | Strong quartz banding, frequent garnet inclusions and pyrrhotite bands of up to 3%. From 18.48 conspicuous pale green section of altered micaceous amphibolite: a soft, friable rock with extensive chlorite alteration, schistose muscovite bands shearing and a sharp lower contact with dark green amphibolite. (Recovery: 100%) | | | | | | | | | |
| 19.33 | 20.76 | Biotite-Hornblende Gneiss | Gneissose amphibolite with initially garnetiferous and garnet-biotite rich bands and slight bleaching of a lower amphibolite section at 19.60-19.80m. Thin section of leucocratic biotite-hornblende gneiss containing frequent garnet inclusions with some chloritic alteration and associated disseminated pyrites up to 1%. (Recovery: 100%) | | | | | | | | | |
| 20.76 | 21.90 | Garnet Amphibolite. | Green, medium grained amphibolite at first with weak plagioclase and biotite rich bands. From 21.25 contains porphyroblastic garnets with extensive chlorite and carbonate development but only minor disseminations of sulphide. (Recovery: 100%) | | | | | | | | | |
| 21.90 | 23.00 | Amphibolite | Fine grained, green gneissose amphibolite with | | | | | | | | | |

Metres Diamond Drill Core Record — Cu Ni Mo ..... Project — Sheet No. 7 — D.D.H. No. SBH 4

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 21.90 | 23.00 | Amphibolite (cont..) | some thin micaceous bands forming weak sections and a few garnet inclusions. (Recovery: 94%) | | | | | | | | | |
| 23.00 | 24.59 | Ultrabasic Gneiss | Similar to unit above but with less plagioclase and biotite content and a very high percentage of ferromags. Light and dark green mineral banding and a pale green alteration sections at 23.83-24.10m and 24.40-24.59m. Very low sulphide content. (Recovery: 100%) | | | | | | | | | |
| 24.59 | 25.60 | Amphibolite | Ultrabasic section grades sharply to a green foliated, medium grained amphibolite: frequent pale green bleached zones, with very few garnet inclusions, and quartzo feldspathic veins between 25.11-25.30m. High 3% disseminated sulphides in first 20 cm then reduced to 1%. mostly pyrite. (Recovery: 100%) | | | | | | | | | |
| 25.60 | 26.32 | Biotite Gneiss | Section of grey, strongly foliated biotite gneiss divides main amphibolite unit. Frequent but not high percentage of porphyroblastic garnets with micaceous amphibolite band at 26.17-26.21m and a low sulphide content throughout. (Recovery: 100%) | | | | | | | | | |
| 26.32 | 28.40 | Amphibolite | Dark green, weakly foliated amphibolite continues | | | | | | | | | |

Metres Diamond Drill Core Record ..... Cu Ni Mo ..... Project Sheet No. 8 D.D.H. No. SEH 4

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 26.32 | 28.40 | Amphibolite (cont..) | with a subordinate bronze biotite content, changing at 27.22m to a darker rock with occasional quartz bands and garnet inclusions, low sulphide content throughout. Bleached alteration zone from 26.80-27.22m | | | | | | | | | |
| | | | (Recovery: 97%) | | | | | | | | | |
| 28.40 | 29.32 | Biotite Gneiss | Grey, well banded biotite gneiss with regular chlorite altered bands and darkening towards the base with occurence of hornblende. Extensive fracturing of variable attitude across lower contact from 29.15-29.40m with minor calcite infilling. Low sulphide content of 0.5% throughout. | | | | | | | | | |
| | | | (Recovery: 100%) | | | | | | | | | |
| 29.32 | 30.08 | Altered Amphibolite | Sharp change to very soft, friable pale buff/grey altered amphibolite. Well developed between 29.39-29.55m and 29.75-30.08m with formation of fibrous, probably asbestiform altered amphibolite and middle section of only partially altered patches. | | | | | | | | | |
| | | | (Recovery: 98%) | | | | | | | | | |
| 30.08 | 36.61 | Garnet-Biotite Gneiss | Pinky grey garnet-biotite gneiss with strong gneissose banding and garnet biotite bands with chlorite spot alteration often developed. | | | | | | | | | |

Isolated Gold Fields Limited

Metres Diamond Drill Core Record .....Cu.Ni.Mo..... Project Sheet No. 9 D.D.H. No. SBH 4

| RECOVERIES | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 30.08 | 36.61 | Garnet-Biotite Gneiss (cont..) | Occasional low amphibole content or amphibolite bands causing a darkening of colour and weakening of the gneissose banding. From 32m garnet content decreases with an associated increase in biotite content and frequent chlorite spot alteration particularly at 34.00-34.10m. Conspicuous dark green, fine grained, foliated biotite amphibolite section divides the main gneiss unit from 34.55-35.06m with chlorite alteration common and only a low sulphide content of 0.4% Returns at 35.06m to a dark grey well foliated but weakly banded biotite gneiss with pink porphyroblastic garnet inclusions throughout and-some chloritic alteration. Fracturing along the foliation weakness is common throughout but extensive fracture zones also exist at 30.05-30.45m 30.60-31.00m and31.30-31.50m. Disseminated pyrrhotite specks and threads occur throughout up to 1% sometimes with a minor chalcopyrite association. From 33.00-33.70m frequent narrow but rich bands of disseminated pyrrhotite are common, averaging 3%, again with a low chalcopyrite content. (Recovery: 98%) | | | | | | | | |

Consolidated Gold Fields Australia Ltd

Mount Isa Diamond Drill Core Record ..... Cu Ni Mo ..... Project Sheet No. 10 D.D.H. No. SBH 4

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 36.61 | 46.27 | Biotite Gneiss | Grey, medium grained, strongly foliated biotite gneiss with only a weak gneissose banding and a bronze biotite content occasionally altering to chlorite. From 37.65m hornblende content increases to form short sections of hornblende - biotite gneiss with a decrease in the sulphide content. Conspicuous discordant fracture divides main biotite gneiss at 38.85-39.05m with a banded quartz/pyroxene gneiss filling and pyrrhotite specks along a fractured contact. Section is competent throughout except for a few high angle hairline fractures with a pale green carbonate filling across mostly leucocratic sections. Lean sulphide dissemination throughout of 0.4-1%. (Recovery: 97%) | | | | | | | | | |
| | | | END OF BOREHOLE : 46.27m | | | | | | | | | |

# Consolidated Gold Fields Limited

DIAMOND DRILL CORE RECORD

Project: Cu Ni Mo

| | | | |
|---|---|---|---|
| Co- | 1 | 330 | |
| Date Started | 17:2:76 | Collar Elevation | |
| Date Completed | 20:2:76 | Orientation | 045° Grid N. |
| | from m. | Recovery | 96% |
| | from m. | Inclination | 50° |
| | from m. | Corrected | |

| | |
|---|---|
| Area | Securi[illegible] |
| Length | 35.34m |
| Purpose | Scout Drilling E.M. Anomaly |
| Logged By | G.S. Roberts |
| Date | 26:3:76 |

| METRES From | Represents | Rock Type | Graphic Log | Intersec. Angle | GEOLOGICAL LOG Description | ASSAY RECORD Sample No. | From | Length | Rec. |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 1.25 | Overburden | | | Peat overburden appears to lie directly on a bedrock surface again with no base of drift boulder contact as seen elsewhere. No core recovery. | | | | |
| 1.25 | 2.66 | Ultrabasic Gneiss | | | Dark green, strongly foliated ultrabasic rock, competent and fresh except possibly for some pale altered patches. Equal constituents of black and vitreous, green minerals possibly corresponding to augite and chrome diopside thus constituting a pyroxenite rock. Sulphide content very low at 0.1%. (Recovery: 5%) | | | | |
| 2.66 | 3.13 | Garnet-Biotite Gneiss | | | Pale grey, medium grained biotite gneiss with irregular gneissose banding and numerous porphyroblastic garnet inclusions. Small fracture zone at 3.00-3.12m with heavy limonitic surface coatings and low sulphide content. (Recovery: 100%) | | | | |
| 3.13 | 3.43 | Garnet Amphibolite | | | Sharp transition to a green, foliated garnet amphibolite with extensive conjugate fracturing from 3.30-3.60 with heavy limonite staining. Sulphide content low. (Recovery: 100%) | | | | |

# Consolidated Gold Fields Limited

Diamond Drill Core Record ..... Cu Ni Mo ..... Project Sheet No. 2 D.D.H. No. SEH 5

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | T.S. | P.S. | | | |
| 3.43 | 4.01 | Biotite Gneiss | Grey banded, biotite gneiss frequently with a high amphibole content tending towards a hornblende-biotite gneiss. Competent and fresh with a low sulphide content. (Recovery: 100%) | | | | | | | | | |
| 4.01 | 5.04 | Pyrrhotitic Amphibolite | Hornblende-biotite gneiss grades to a light green, foliated amphibolite with some occasional pink porphyroblastic garnets. From 4.04m disseminated pyrrhotite threads and blebs constitute 8% of the core with up to 2% associated chalcopyrite. At 4.11m this becomes a sub-massive matrix of 30% pyrrhotite, minor pyrite and chalcopyrite with the amphibolite rock. Main sulphide zone is between 4.04-4.51m with up to 10% mixed sulphides continuing until 4.74m and at 4.89-5.04m. Narrow sulphide and quartz sulphide filled fractures common from 4.60-4.90m. (Recovery: 100%) | GS1873 | 4.20m | 4.25m | | | ✓ | | | |
| 5.04 | 5.51 | Garnet-Hornblende Gneiss | Green, strongly foliated hornblende gneiss with occasional porphyroblastic garnet. Low sulphide content. (Recovery: 100%) | | | | | | | | | |

# Consolidated Gold Fields Limited

Diamond Drill Core Record — Cu Ni Mo ..... Project — Sheet No. 3 — D.D.H. No. SBH 5

| FOOTAGE From | FOOTAGE To | GEOLOGICAL LOG ROCK TYPE | GEOLOGICAL LOG DESCRIPTION | ASSAY RECORD Sample No. | From | Length | Recov. |
|---|---|---|---|---|---|---|---|
| 5.51 | 7.43 | Ultrabasic Gneiss | Dark green, fine grained ultrabasic rock with a strong foliation and regular, narrow green and black colour banding. Becomes coarse grained from 6.72m with a poor foliation and no banding, appears to be almost completely hornblende which is probably after pyroxene. Low sulphide content initially increases at 7.30m and 7.42m the latter in association with a quartz band, and at 7.35m a thin 1.5cm chalcopyrite lense. Section divided sharply between 6.40-6.72m by a fine grained, light green, poorly foliated mesocratic amphibolite with up to 0.5% disseminated sulphides. (Recovery: 100%) | | | | |
| 7.43 | 8.30 | Garnet Amphibolite | Green, medium grained, foliated amphibolite with pink porphyroblastic garnet inclusions and occasional gneissose banding. Lean sulphide dissemination of 0.5% only. (Recovery: 100%) | | | | |
| 8.30 | 11.22 | Amphibolite | Typical, green, foliated amphibolite with very occasional garnet porphyroblastic and a subordinate pale brown biotite content. Becomes fine grained and mesocratic at depth, with no alteration throughout | | | | |

# Consolidated Gold Fields Limited

Meterage Diamond Drill Core Record ..... Cu Ni Mo ..... Project Sheet No. 4 D.D.H. No. SBH 5

| ~~FOOTAGE~~ From | To | GEOLOGICAL LOG ROCK TYPE | DESCRIPTION | ASSAY RECORD Sample No. | From | Length | Recov. | T.S. | P.S. |
|---|---|---|---|---|---|---|---|---|---|
| 8.30 | 11.22 | Amphibolite (cont.) | and only regular fracturing along the foliation weakness. Low sulphide content of 0.2% (Recovery: 100%) | | | | | | |
| 11.22 | 12.07 | Garnet Amphibolite | Usual green, foliated garnet amphibolite with a coarse grained, quartzose section between 11.70-12.05m associated with a high 5% content of specks and patches of pyrites, frequently associated with the garnet content. (Recovery: 100%) | | | | | | |
| 12.07 | 13.83 | Amphibolite | Initial section from 12.07-12.30m is a pale green, filrous, altered amphibolite with sheared, pale green micaceous alteration bands at the contacts. From 12.30m becomes a fine grained, green, weakly foliated amphibolite with rare banding and no alteration. Contains a small percentage of light brown biotite mica which at 13.58m increases to produce essentially a biotite amphibolite section. Low sulphide content. (Recovery: 97%) | | | | | | |
| 13.83 | 16.30 | Ultrabasic Gneiss | Typical dark green, strongly foliated and finely banded ultrabasic gneiss, possibly of pyroxenite composition. Pale green alteration patches common from 14.60 with weaker foliation. | GS1884<br>GS1885 | 15.25m<br>15.80m | 15.30m<br>15.85m | | | ✓<br>✓ |

Noversage Diamond Drill Core Record ..... Cu Ni Mo ..... Project Sheet No. 5 D.D.H. No. SBH 5

| Footage | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 13.83 | 16.30 | Ultrabasic Gneiss (cont.) | and less banding present. Bleached asbestiform alteration becomes extensive from 15.90-16.00m forming a soft friable section susceptable to frequent random fracturing. Low disseminated sulphide content. (Recovery: 97%) | | | | | | | | | |
| 16.30 | 17.80 | Hornblende Gneiss | Green, fine to medium grained hornblende gneiss with narrow but regular gneissose banding and often small pink garnet inclusions. Fresh competent core until at the base coarse garnetiferous and biotite bands cause fracturing to terminate this section. Low sulphides content. (Recovery: 100%) | | | | | | | | | |
| 17.80 | 18.65 | Ultrabasic Gneiss | Light green, very fine grained foliated ultra-basic gneiss becomes darker and banded from 18.15m. Competent rock with a very low sulphide content. (Recovery: 92%) | | | | | | | | | |
| 18.65 | 19.60 | Hornblende Gneiss | As 16.30-17.80m section but initially for 0.25m with a high garnet content. Also a conspicuously coarse grained and leucocratic from 18.92-19.02m and some white, possibly apatite spotting. Sulphide content averages 0.5% but with richer disseminated bands. (Recovery: 96%) | | | | | | | | | |

Meterage Diamond Drill Core Record — Cu Ni Mo — Project — Sheet No. 6 — D.D.H. No. SBH 5

| Meterage | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | Rep/Rec | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 19.60 | 21.62 | Ultrabasic Gneiss | Another section of dark green and black banded ultrabasic gneiss, probably of pyroxenite composition. Fresh with pale sections due to lack of banding and mixing of the basic mineral constituents, Negligible sulphide content. (Recovery: 96%) | | | | | | | | | |
| 21.62 | 22.43 | Hornblende Gneiss | Fine grained dark green hornblende gneiss with well developed gneissose banding, carbonate spotting and until 21.80m is garnetiferous. Minor sulphide dissemination of specks and blebs throughout of 0.5% with above average central section up to 1% (Recovery: 100%) | | | | | | | | | |
| 22.43 | 23.95 | Garnet-Biotite Gneiss | Pinky/grey, fine grained, strongly foliated garnet-biotite gneiss, with narrow gneissose banding. Subordinate green amphibole content with only very little chlorite altered biotite present. Low sulphide content. (Recovery: 100%) | | | | | | | | | |
| 23.95 | 25.00 | Hornblende-Biotite Gneiss | Short section of hornblende gneiss containing only very little biotite mica soon grades into a hornblende-biotite gneiss with a marked increase in the mica content. Well foliated with thin.... | | | | | | | | | |

Consolidated Gold Fields Limited

Metres Diamond Drill Core Record Cu Ni Mo Project Sheet No. 7 D.D.H. No. SBH 5

| FOOTAGE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 23.95 | 25.00 | Hornblende-Biotite Gneiss (cont.) | grey banding and a few small garnet inclusions particularly at the top. Very little sulphide content. | | | | | | | | | |
| | | | (Recovery: 100%) | | | | | | | | | |
| 25.00 | 25.42 | Acid Gneiss | Pale medium grained, quartz rich band with a high plagioclase and orthoclase feldspar content, with hornblende-biotite gneiss banding. Zone tightly folded with 3% pyrrhotite concentration within the fold core. Further similar but less extreme bands in underlying section at 25.90-26.10m and 26.65-26.90m suggests that this borehole may pass only down dip of these tightly folded gneisses. | | | | | | | | | |
| | | | (Recovery: 93%) | | | | | | | | | |
| 25.42 | 34.88 | Biotite Gneiss | Fine to medium grained, grey biotite gneiss well foliated with a variable development of gneissose banding. Frequent leucocratic and garnetiferous sections, also acid gneiss zones as described above with pyrrhotite inclusions and additional zones at 34.59-34.67m and 34.80-34.87m without sulphides but containing altered ferromagnesium inclusions. At 27.45 one grey, quartz band contains soft grey metallic specks which are probably molybdenite together with some minor pyrites specks. Biotite | | | | | | | | | |

# Consolidated Gold Fields Limited

Metcrane Diamond Drill Core Record ..... Cu Ni Mo ..... Project Sheet No. 8 D.D.H. No. SBH 5

| COURSE | | GEOLOGICAL LOG | | ASSAY RECORD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | ROCK TYPE | DESCRIPTION | Sample No. | From | Length | Recov. | | | | | |
| 25.42 | 34.88 | Biotite Gneiss (cont..) | mica varies in percentage and in colour from bronze to dark brown but is usually fresh with only minor local chloritic alteration spots. Numerous fractures throughout usually along the foliation and with a variable calcite filling. Mixed pyrite and pyrrhotite dissemination decreases at depth from 3% to 0.5% with local concentrations around garnets and within the upper acid gneiss zones. | | | | | | | | | |
| | | | (Recovery: 99%) | | | | | | | | | |
| 34.88 | 35.34 | Garnet Gneiss | Pink, well foliated and coarse banded garnet gneiss; essentially a grey quartz plagioclase gneiss with a high, usually porphyroblastic garnet content and minor associated biotite mica which is often altered to chlorite. Only a low disseminated sulphide content. | | | | | | | | | |
| | | | (Recovery: 100%) | | | | | | | | | |
| | | | END OF BOREHOLE : 35.34m | | | | | | | | | |

# Consolidated Gold Fields Limited

## SULPHIDE LOG / SAMPLE SHEET

Sheet No: 1

D.D.H. No: SBH: 1

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu | Ni | Vol. % Sulphides | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1297 | 1.47m | 2.47m | Amphibolite | 1m | 100% | 20 | 31 | 104 | 93 | 1% | | Disseminated pyrite and pyrite specks. |
| 1298 | 2.47m | 3.48m | Garnet Gneiss | 1m | 99% | 12 | 76 | 171 | 181 | 2% | | Patchy dissemination of pyrite specks and threads bet zo |
| 1299 | 3.48m | 4.41 | Amphibolite | 1m | 100% | 8 | 43 | 85 | 60 | 0.2% | | Disseminated pyrite specks only. Additional Garnet Amphibolite content. |
| 1300 | 4.41 | 5.43 | Amphibolite | 1m | 98% | 10 | 45 | 63 | 78 | 2% | | Dissemination of pyrite and pyrrhotite specks increas from 1 to 3% at the base. |
| 1701 | 5.43 | 6.42 | Biotite Gneiss | 1m | 100% | 10 | 99 | 61 | 64 | 0.5% | | Disseminated specks of pyrite evenly distributed. |
| 1702 | 6.42 | 7.42 | Biotite Gneiss | 1m | 100% | 14 | 116 | 70 | 57 | 0.5% | | As above |
| 1703 | 7.42 | 8.42 | Biotite Gneiss | 1m | 100% | 12 | 54 | 66 | 63 | 0.5% | | As above.(Additional Garnet Amphibolite content) |
| 1704 | 8.42 | 9.37 | Garnet Amphibolite | 1m | 100% | 8 | 26 | 131 | 69 | 1% | | Disseminated pyrite and pyrrhotite specks throughout, fracture filling at 8.90m. |
| 1705 | 9.37 | 10.37 | Altered Amphibolite | 1m | 100% | 10 | 33 | 115 | 60 | 2% | | Patchy dissemination of pyrite specks varies from 1- |
| 1706 | 10.37 | 11.39 | Amphibolite | 1m | 98% | 16 | 83 | 110 | 137 | 0.2% | | Disseminated pyrite and pyrrhotite specks. (Additional Biotite Gneiss content) |
| 1707 | 11.39 | 12.47 | Biotite Gneiss | 1m | 93% | 14 | 57 | 28 | 34 | 0.5% | | Disseminated pyrite and pyrrhotite specks. |
| 1708 | 12.47 | 13.47 | Biotite Gneiss | 1m | 100% | 16 | 64 | 37 | 45 | <0.1% | | As above |
| 1709 | 13.47 | 14.47 | Biotite Gneiss | 1m | 100% | 12 | 69 | 23 | 58 | <0.1% | | As above |
| 1710 | 14.47 | 15.84 | Biotite Gneiss | 1m | 73% | 14 | 79 | 27 | 60 | <0.1% | | As above |
| 1711 | 15.84 | 16.63 | Biotite Gneiss | 1m | 100% | 12 | 56 | 86 | 165 | 2% | | Small blebs of pyrite and pyrrhotite of 1-3% mainly associated with amphibolite/gneiss. Narrow pyrrhotite/ amphibolite wedge at 16.25m. (Additional hornblende Gn content. |
| 1712 | 16.63 | 17.63 | Quartz Feldspathic band | 1m | 100% | 12 | 23 | 21 | 34 | <0.1% | | Rare specks of pyrite and pyrrhotite, possibly also some very small molybdenum specks. |
| 1713 | 17.63 | 18.63 | Biotite Gneiss | 1m | 100% | 14 | 22 | 12 | 12 | <0.1% | | Rare disseminated sulphide speck. |

*Consolidated Gold Fields Limited*

**SULPHIDE LOG / SAMPLE SHEET**

Sheet No. 2

D.D.H. No. SBH 1

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu | Ni | Vol. % Sulphide | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1714 | 18.63m | 19.32m | Biotite Gneiss | 1m | 100% | 14 | 64 | 111 | 137 | <0.1% | | As above |
| 1715 | 19.32 | 20.40 | Biotite Gneiss | 1m | 93% | 12 | 165 | 130 | 126 | <0.1% | | As above |
| 1716 | 20.40 | 21.40 | Garnet Amphibolite | 1m | 100% | 20 | 56 | 77 | 118 | 1% | | Disseminated blebs and threads of pyrites and pyrrhotite |
| 1717 | 21.40 | 22.40 | Garnet Amphibolite | 1m | 100% | 22 | 47 | 34 | 43 | 1% | | As above |
| 1718 | 22.40 | 23.41 | Garnet Amphibolite | 1m | 100% | 20 | 39 | 89 | 55 | 1% | | As above |
| 1719 | 23.41 | 24.41 | Biotite Gneiss | 1m | 100% | 14 | 63 | 57 | 47 | <0.1% | | Minor specks of pyrites only. |
| 1720 | 24.41 | 25.41 | Biotite Gneiss | 1m | 100% | 18 | 78 | 15 | 22 | <0.1% | | As above |
| 1721 | 25.41 | 26.31 | Biotite Gneiss | 1m | 100% | 18 | 73 | 36 | 49 | 0.2 | | Disseminated pyrites specks usually 0.1% but increase to 0.5% in amphibolite rich band. |
| 1722 | 26.31 | 27.31 | Biotite Gneiss | 1m | 100% | 20 | 81 | 55 | 38 | <0.1% | | Minor specks of pyrites only. |
| 1723 | 27.31 | 28.32 | Biotite Gneiss | 1m | 100% | 18 | 81 | 38 | 43 | <0.1% | | As above |
| 1724 | 28.32 | 29.50 | Biotite-Hornblende Gneiss | 1m | 85% | 18 | 107 | 63 | 64 | 2% | | Disseminated specks of pyrrhotite varying from 1-3% Additional hornblende biotite content. |
| 1725 | 29.50 | 30.50 | Hornblende Biotite Gneiss | 1m | 100% | 14 | 47 | 44 | 33 | 2% | | As above |
| 1726 | 30.50 | 31.50 | Hornblende Gneiss | 1m | 100% | 24 | 75 | 106 | 130 | 2% | | As above |
| 1727 | 31.50 | 32.50 | Amphibolite | 1m | 99% | 18 | 35 | 55 | 83 | 0.4% | | Disseminated pyrite specks. |
| 1728 | 32.50 | 33.50 | Amphibolite | 1m | 99% | 12 | 31 | 35 | 50 | 0.4% | | As above |
| 1729 | 33.50 | 34.34 | Amphibolite | 1m | 100% | 12 | 26 | 80 | 348 | 0.4% | | As above |

# Consolidated Gold Fields Limited

## SULPHIDE LOG / SAMPLE SHEET

Sheet No 3 | D.D.H. No. SBH 1

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu. | Ni. | Vol. % Sulphide | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1731 | 35.34m | 36.32m | Biotite Gneiss | 1m | 100% | 16 | 45 | 109 | 58 | <0.1% | | Disseminated pyrite specks. Additional Amphibolite content. |
| 1905 | 36.32 | 37.32 | Amphibolite | 1m | 99% | 12 | 43 | 38 | 200 | 0.5% | | Generally 0.1% disseminated sulphides, but with occasional 1% rich bands. |
| 1906 | 37.32 | 38.32 | Biotite Gneiss | 1m | 99% | 10 | 59 | 83 | 59 | 0.5% | | Disseminated pyrite specks |
| 1907 | 38.32 | 39.32 | Biotite Gneiss | 1m | 99% | 12 | 50 | 66 | 278 | 0.4% | | As above |
| 1908 | 39.32 | 40.32 | Biotite Gneiss | 1m | 99% | 14 | 53 | 62 | 396 | <0.1% | | As above (Additional Ultrabasic Gneiss content) |
| 1909 | 40.32 | 41.33 | Ultrabasic Gneiss | 1m | 100% | 14 | 33 | 32 | 520 | 0.1% | | As above |
| 1910 | 41.33 | 42.33 | Garnet-Biotite Gneiss | 1m | 100% | 16 | 67 | 90 | 176 | 2% | | Disseminated pyrite specks (Additional Biotite Gneiss) |
| 1911 | 42.33 | 43.33 | Biotite Gneiss | 1m | 100% | 22 | 112 | 127 | 112 | 3% | | As above ÷ with 5-7% in quartz rich sections |
| 1912 | 43.33 | 44.33 | Biotite Gneiss | 1m | 100% | 14 | 69 | 73 | 86 | 3% | | As above |
| 1913 | 44.33 | 45.31 | Biotite Gneiss | 1m | 100% | 10 | 70 | 42 | 72 | 1% | | As above |
| 1914 | 45.31 | 46.31 | Biotite Gneiss | 1m | 100% | 20 | 63 | 122 | 115 | 5% | | Disseminated pyrrhotite specks and threads |
| 1915 | 46.31 | 47.31 | Biotite Gneiss | 1m | 100% | 12 | 64 | 31 | 62 | 1% | | As above |
| 1916 | 47.31 | 48,31 | Amphibolite | 1m | 99% | 18 | 59 | 38 | 77 | 0.5% | | As Above (Additional Biotite Gneiss content) |
| 1917 | 48.31 | 49.31 | Hornblende Gneiss | 1m | 99% | 16 | 65 | 37 | 50 | 2% | | As above(Additional Biotite Gneiss content) |
| 1918 | 49.31 | 50.41 | Hornblende Gneiss | 1m | 99% | 18 | 75 | 46 | 82 | 0.4% | | As above(Additional Biotite Gneiss content) |
| 1919 | 50.41 | 51,41 | Hornblende Gneiss | 1m | 100% | 16 | 68 | 43 | 81 | 0.4% | | As above(Additional Biotite Gneiss content) |
| 1920 | 51.41 | 52.41 | Hornblende | 1m | 100% | 16 | 88 | 44 | 87 | 0.4% | | As above (Additional Biotite Gneiss content) |

# Consolidated Gold Fields Limited

## SULPHIDE LOG / SAMPLE SHEET

Sheet No 4

DDH. No. SBH 1

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu | Ni | Vol. % Sulphide | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1921 | 52.41m. | 53.37m | Biotite Gneiss | 1m | 100% | 20 | 117 | 33 | 72 | 0.4% | | Disseminated pyrrhotite specks |
| 1922 | 53.37 | 54.37 | Biotite Gneiss | 1m | 100% | 18 | 90 | 38 | 58 | 0.4% | | As above |
| 1923 | 54.37 | 55.37 | Biotite Gneiss | 1m | 100% | 18 | 109 | 41 | 79 | 0.4% | | As above |
| 1924 | 55.37 | 56.37 | Biotite Gneiss | 1m | 100% | 20 | 108 | 40 | 83 | 0.5% | | As above |
| 1925 | 56.37 | 57.37 | Biotite Gneiss | 1m | 100% | 18 | 100 | 38 | 72 | 0.5% | | As above |
| 1926 | 57.37 | 58.37 | Biotite Gneiss | 1m | 100% | 16 | 85 | 52 | 98 | 0.5% | | As above |
| 1927 | 58.37 | 59.37 | Biotite Gneiss | 1m | 100% | 18 | 97 | 53 | 101 | 0.5% | | As above |
| 1928 | 59.37 | 60.42 | Garnet-Biotite Gneiss | 1m | 99% | 16 | 118 | 96 | 214 | 0.5% | | Disseminated pyrite specks in close association with th garnets. |

*Consolidated Gold Fields Limited*

**SULPHIDE LOG / SAMPLE SHEET**

Sheet No: 1

D.D.H. No.: SBH 2

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu. | Ni. | Vol. % Sulphide | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1732 | 3.17m | 4.10m | Amphibolite | 1m | 95% | 12 | 49 | 177 | 101 | 2% | | Disseminated specks and blebs of pyriteand pyrrhotite along main rock foliation. |
| 1733 | 4.10 | 5.20 | Amphibolite | 1m | 95% | 16 | 65 | 139 | 129 | 2% | | As above |
| 1734 | 5.20 | 6.20 | Amphibolite | 1m | 99% | 26 | 76 | 204 | 202 | 1% | | Minor sulphide dissemination with pyrrhotite veins and wedges from 5.50-5.20m averaging 10-15% Additional Biotite Gneiss content) |
| [illegible] | [illegible] | [illegible] | Biotite [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | 1m | 89% | 10 | 20 | 91 | 118 | 0.4% | | As above. |
| 1742 | 13.28 | 14.28 | Ultrabasic | 1m | 100% | 16 | 86 | 95 | 625 | 0.2% | | As above. |
| 1743 | 14.28 | 15.28 | Ultrabasic | 1m | 100% | 22 | 21 | 58 | 1040 | 0.1% | | Absent to very low disseminated sulphide specks only. |
| 1744 | 15.28 | 16.25 | Ultrabasic | 1m | 100% | 20 | 14 | 53 | 940 | <0.1% | | As above. |
| 1745 | 16.25 | 17.25 | Ultrabasic | 1m | 100% | 16 | 23 | 45 | 960 | <0.1% | | As above. |
| 1746 | 17.25 | 18.18 | Altered Amphibolite | 1m | 100% | 18 | 41 | 78 | 580 | 4% | | Disseminated specks and blebs of pyrrhotite. |
| 1747 | 18.18 | 19.16 | Amphibolite | 1m | 100% | 16 | 60 | 560 | 340 | 15% | | Sub-massive 40% pyrrhotite matrix from 18.45-18.55m decreasing then to 10% with 0.5% chalcopyrite associat (Additional Garnet-Biotite Gneiss) |
| 1748 | 19.16 | 20.16 | Amphibolite | 1m | 100% | 16 | 73 | 310 | 198 | 2% | | Disseminated blebs and threads of pyrrhotite (Additional Garnet - Biotite Gneiss content) |

# Consolidated Gold Fields Limited

## SULPHIDE LOG / SAMPLE SHEET

Sheet No: 1 | D.D.H. No: SEH 2

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu. | Ni. | Vol. % Sulphides | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1732 | 3.17m | 4.10m | Amphibolite | 1m | 95% | 12 | 49 | 177 | 101 | 2% | | Disseminated specks and blebs of pyriteand pyrrhotite along main rock foliation. |
| 1733 | 4.10 | 5.20 | Amphibolite | 1m | 95% | 16 | 65 | 139 | 129 | 2% | | As above |
| 1734 | 5.20 | 6.20 | Amphibolite | 1m | 99% | 26 | 76 | 204 | 202 | 1% | | Minor sulphide dissemination with pyrrhotite veins and wedges from 5.50-5.70m averaging 10-15% |
| 1735 | 6.20 | 7.21 | Biotite Gneiss | 1m | 99% | 10 | 69 | 87 | 103 | 0.4% | | (Additional Biotite Gneiss content) Disseminated pyrite specks only. |
| 1736 | 7.21 | 8.21 | Biotite Gneiss | 1m | 100% | 20 | 76 | 110 | 108 | 2% | | Minor sulphide dissemination with 3% sulphide rich quartz veins. |
| 1737 | 8.21 | 9.21 | Garnet Amphibolite | 1m | 100% | 12 | 53 | 126 | 128 | 0.4% | | Sulphide rich quartz veins, otherwise little sulphide. (Additional Biotite Gneiss content) |
| 1738 | 9.21 | 10.15 | Garnet Gneiss | 1m | 100% | 24 | 36 | 160 | 267 | 4% | | Occasional disseminated pyrite specks. (Additional Amphibolite content) |
| 1739 | 10.15 | 11.15 | Amphibolite | 1m | 100% | 12 | 18 | 36 | 104 | 0.4% | | As above. |
| 1740 | 11.15 | 12.16 | Amphibolite | 1m | 99% | 14 | 18 | 28 | 69 | 0.4% | | As above. |
| 1741 | 12.16 | 13.28 | Altered Amphibolite | 1m | 89% | 10 | 20 | 31 | 118 | 0.4% | | As above. |
| 1742 | 13.28 | 14.28 | Ultrabasic | 1m | 100% | 16 | 86 | 95 | 625 | 0.2% | | As above. |
| 1743 | 14.28 | 15.28 | Ultrabasic | 1m | 100% | 22 | 21 | 58 | 1040 | 0.1% | | Absent to very low disseminated sulphide specks only. |
| 1744 | 15.28 | 16.25 | Ultrabasic | 1m | 100% | 20 | 14 | 53 | 940 | <0.1% | | As above. |
| 1745 | 16.25 | 17.25 | Ultrabasic | 1m | 100% | 16 | 23 | 45 | 960 | <0.1% | | As above. |
| 1746 | 17.25 | 18.18 | Altered Amphibolite | 1m | 100% | 18 | 41 | 78 | 580 | 4% | | Disseminated specks and blebs of pyrrhotite. |
| 1747 | 18.18 | 19.16 | Amphibolite | 1m | 100% | 16 | 60 | 560 | 340 | 15% | | Sub-massive 40% pyrrhotite matrix from 18.45-18.55m decreasing then to 10% with 0.5% chalcopyrite associat (Additional Garnet-Biotite Gneiss) |
| 1748 | 19.16 | 20.16 | Amphibolite | 1m | 100% | 16 | 73 | 310 | 198 | 2% | | Disseminated blebs and threads of pyrrhotite (Additional Garnet - Biotite Gneiss content) |

*Consolidated Gold Fields Limited*

**SULPHIDE LOG / SAMPLE SHEET**

Sheet No 2

D.D.H. No. SBH 2

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu | Ni | Vol. % Sulphide | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1749 | 20.16 | 21.16m | Biotite Gneiss | 1m | 100% | 14 | 131 | 405 | 230 | 7% | | 10% disseminated pyrrhotite decreasing after 0.40m of section. |
| 1750 | 21.16 | 22.37 | Hornblende Gneiss | 1m | 83% | 22 | 75 | 64 | 71 | 0.2% | | Disseminated sulphide specks. |
| 1751 | 22.37 | 23.37 | Hornblende Gneiss | 1m | 100% | 24 | 53 | 61 | 530 | .5% | | As above |
| 1752 | 23.37 | 24.37 | Garnet-Biotite Gneiss | 1m | 100% | 16 | 111 | 195 | 160 | 7% | | Disseminated specks and threads of pyrrhotite |
| 1753 | 24.37 | 25.13 | Garnet Amphibolite | 1m | 100% | 20 | 49 | 49 | 57 | 0.3% | | Disseminated specks of pyrrhotite confined to almost entirely upper garnet amphibolite unit |
| 1754 | 25.13 | 26.13 | Biotite Gneiss | 1m | 100% | 14 | 44 | 62 | 52 | 0.1% | | (Additional Biotite Gneiss Content) Disseminated sulphide specks. |
| 1755 | 26.13 | 27.12 | Garnet Amphibolite | 1m | 100% | 32 | 161 | 38 | 78 | 0.1% | | As above |
| 1756 | 27.12 | 28.15 | Garnet Amphibolite | 1m | 100% | 24 | 76 | 49 | 46 | 0.1% | | As above |
| 1757 | 28.15 | 29.15 | Garnet Amphibolite | 1m | 100% | 18 | 43 | 53 | 35 | 0.1% | | As above (Additional Amphibolite Gneiss content) |
| 1758 | 29.15 | 30.15 | Hornblende Gneiss | 1m | 100% | 14 | 25 | 28 | 18 | 0.1% | | As above |
| 1759 | 30.15 | 31.46 | Hornblende Gneiss | 1m | 76% | 16 | 25 | 36 | 21 | 0.1% | | As above |
| 1760 | 31.46 | 32.46 | Hornblende Gneiss | 1m | 100% | 16 | 41 | 58 | 39 | 0.1% | | As above |
| 1761 | 32.46 | 33.31 | Garnet Amphibolite | 1m, | 100% | 18 | 34 | 102 | 50 | 0.4% | | As above |
| 1762 | 33.31 | 34.31 | Garnet Amphibolite | 1m | 100% | 22 | 39 | 67 | 44 | 0.4% | | As above |
| 1763 | 34.31 | 35.31 | Garnet Amphibolite | 1m | 100% | 12 | 21 | 68 | 26 | 0.1% | | As above |
| 1764 | 35.31 | 36.21 | Garnet Amphibolite | 1m | 100% | 12 | 35 | 107 | 41 | 0.4% | | As above |
| 1765 | 36.21 | 37.21 | Garnet Amphibolite | 1m | 100% | 14 | 42 | 124 | 52 | 0.4% | | As above |

# Consolidated Gold Fields Limited

## SULPHIDE LOG / SAMPLE SHEET

Sheet No 3 | DDH. No. SBH 2

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu | Ni | Vol. % Sulphide | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1766 | 37.21m | 38.21 | Garnet Amphibolite | 1m | 100% | 16 | 43 | 127 | 49 | 0.4% | | Disseminated sulphide specks with possible small chalcopyrite content. |
| 1767 | 38.21 | 39.13 | Garnet Amphibolite | 1m | 100% | 18 | 37 | 112 | 52 | 0.1% | | Disseminated sulphide specks confined to fresh garnet amphibolite (with alteration) |
| 1768 | 39.13 | 40.13 | Garnet Amphibolite | 1m | 100% | 10 | 34 | 132 | 48 | <0.1% | | As above (with alteration) |
| 1769 | 40.13 | 41.21 | Garnet Amphibolite | 1m | 93% | 12 | 39 | 103 | 45 | 0.1% | | Disseminated sulphide specks |
| 1770 | 41.21 | 42.21 | Biotite Gneiss | 1m | 100% | 16 | 52 | 27 | 44 | <0.1% | | As above |
| 1771 | 42.21 | 43.11 | Biotite Gneiss | 1m | 100% | 12 | 53 | 20 | 39 | <0.1% | | As above |
| 1772 | 43.11 | 44.27 | Biotite Gneiss | 1m | 86% | 18 | 70 | 19 | 51 | <0.1% | | As above |
| 1773 | 44.27 | 45.27 | Biotite Gneiss | 1m | 100% | 16 | 46 | 25 | 32 | <0.1% | | As above |
| 1774 | 45.27 | 46.25 | Biotite Gneiss | 1m | 100% | 16 | 101 | 79 | 45 | 0.5% | | Occasional sulphide bleb thread |
| 1775 | 46.25 | 47.25 | Garnet Biotite Gneiss | 1m | 100% | 12 | 47 | 36 | 36 | <0.1% | | Disseminated specks of sulphide rare. |
| 1776 | 47.25 | 48.26 | Garnet Hornblende Gneiss | 1m | 99% | 10 | 39 | 17 | 23 | 0.1% | | As above |
| 1777 | 48.26 | 49.26 | Leucocratic Biotite Gneiss | 1m | 100% | 10 | 25 | 27 | 34 | 3% | | Disseminated pyrrhotite specks up to 5% in main gneiss with up to 3% associated with quartz bands |
| 1778 | 49.26 | 50.25 | Biotite Gneiss | 1m | 100% | 20 | 145 | 153 | 95 | 10% | | Threads & blebs of pyrrhotite disseminated along foliated planes with 10% pyrrhotite up till 50m includi 1% chalcopyrite. |
| 1779 | 50.25 | 51.25 | Leucocratic Biotite Gneiss | 1m | 100% | 8 | 10 | 18 | 12 | 0.4% | | Disseminated pyrrhotite specks. |
| 1780 | 51.25 | 52.10 | Garnet Amphibolite | 1m | 100% | 14 | 38 | 17 | 43 | 0.4% | | As above |
| 1781 | 52.10 | 53.10 | Garnet Amphibolite | 1m | 100% | 10 | 24 | 24 | 59 | 5% | | Disseminated sulphide specks with rich band at base |
| 1782 | 53.10 | 54.10 | Garnet Biotite Gneiss | 1m | 100% | 10 | 70 | 145 | 97 | 1% | | (Additional Hornblende Gneiss content) 53.95-54.05m Disseminated pyrites specks with rich bands from |

*Consolidated Gold Fields Limited*

**SULPHIDE LOG / SAMPLE SHEET**

Sheet No 4

D.D.H. No SBH 2

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu | Ni | Vol. % Sulphides | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1783 | 54.10m | 55.08m | Garnet-Biotite Gneiss | 1m | 100% | 16 | 81 | 59 | 79 | 0.5% | | Disseminated pyrite specks. |
| 1784 | 55.08 | 56.08 | Biotite Gneiss | 1m | 100% | 12 | 82 | 57 | 49 | 0.5% | | As above |
| 1785 | 56.08 | 57.13 | Biotite Gneiss | 1m | 95% | 16 | 71 | 145 | 59 | 0.5% | | As above |
| 1786 | 57.13 | 58.13 | Amphibolite | 1m | 100% | 10 | 25 | 90 | 40 | 0.2% | | As above |
| 1787 | 58.13 | 59.10 | Garnet Amphibolite | 1m | 100% | 8 | 19 | 160 | 57 | 0.5% | | As above |
| 1788 | 59.10 | 60.10 | Amphibolite | 1m | 100% | 14 | 16 | 36 | 126 | 0.2% | | As above |
| 1789 | 60.10 | 61.06 | Amphibolite | 1m | 99% | 10 | 17 | 77 | 68 | 0.2% | | As above |
| 1790 | 61.06 | 62.15 | Amphibolite | 0.95m | 87% | 12 | 16 | 76 | 60 | 0.2% | | As above |

# Consolidated Gold Fields Limited

## SULPHIDE LOG / SAMPLE SHEET

Sheet No 1 | DDH. No. SBH 3

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu | Ni | Vol. % Sulphide | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1791 | 0.66m | 1.66m | Banded Garnet Amphibolite | 1m | 100% | 14 | 45 | 87 | 34 | 1% | | Disseminated specks and threads of pyrite with possibly very minor chalcopyrite associated. |
| 1792 | 1.66 | 2.64 | Banded Garnet Amphibolite | 1m | 100% | 10 | 36 | 53 | 30 | 0.4% | | As above |
| 1793 | 2.64 | 4.33 | Banded Garnet Amphibolite | 1.35m | 80% | 12 | 44 | 93 | 51 | 0.4% | | As above |
| 1794 | 4.33 | 5.38 | Quartzo Feldspathic Band | 1m | 95% | 10 | 29 | 20 | 24 | 0.2% | | Very minor sulphide disseminations only. |
| 1795 | 5.38 | 6.38 | Quartzo Feldspathic Band | 1m | 100% | 10 | 30 | 43 | 23 | 0.2% | | As above |
| 1796 | 6.38 | 7.35 | Garnet Amphibolite | 1m | 100% | 12 | 31 | 103 | 38 | 0.4% | | As above |
| 1797 | 7.35 | 8.35 | Garnet Amphibolite | 1m | 96% | 14 | 42 | 121 | 44 | 0.4% | | As above |
| 1798 | 8.35 | 9.35 | Garnet Amphibolite | 1m | 96% | 10 | 39 | 93 | 40 | 0.4% | | As above |
| 1799 | 9.35 | 10.42 | Biotite Gneiss | 1m | 94% | 14 | 40 | 25 | 35 | 0.2% | | As above |
| 1800 | 10.42 | 11.42 | Amphibolite | 1m | 100% | 12 | 32 | 51 | 65 | <0.1% | | As above |
| 1801 | 11.42 | 12.44 | Amphibolite | 1m | 98% | 18 | 47 | 12 | 125 | <0.1% | | As above |
| 1802 | 12.44 | 13.44 | Biotite Gneiss | 1m | 100% | 12 | 61 | 6 | 47 | <0.1% | | As above |
| 1803 | 13.44 | 14.44 | Biotite Gneiss | 1m | 100% | 10 | 64 | 210 | 73 | 10% | | Main pyrrhotite band of 15-20% from 13.76-13.85m with minor chalcopyrite association and from 15.15-15.26m of 20-30% pyrite. |
| 1804 | 14.44 | 15.40 | Biotite Gneiss | 1m | 100% | 25 | 115 | 315 | 89 | 15% | | and pyrrhotite with little chalcopyrite. Otherwise pyrrhotite disseminations very from 1-5% adjacent to the sulphide bands. |
| 1805 | 15.40 | 16.39 | Biotite Gneiss | 1m | 100% | 12 | 56 | 13 | 40 | 0.8% | | Disseminated pyrrhotite specks. |
| 1806 | 16.39 | 17.39 | Biotite-Hornblende Gneiss | 1m | 100% | 14 | 83 | 19 | 30 | 1% | | As above |
| 1807 | 17.39 | 18.39 | Biotite-Hornblende Gneiss | 1m | 100% | 12 | 70 | 61 | 42 | 2% | | As above |

*Consolidated Gold Fields Limited*

**SULPHIDE LOG / SAMPLE SHEET**

Sheet No 2 | DDH. No. SBH 3

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu | Ni | Vol. % Sulphide | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1808 | 18.39m | 19.39 | Garnet-Amphibolite | 1m | 100% | 10 | 56 | 20 | 19 | 0.1% | | Minor sulphide specks only. |
| 1809 | 19.39 | 20.39 | Garnet-Biotite Gneiss | 1m | 100% | 14 | 60 | 28 | 34 | 0.4% | | Disseminated pyrrhotite specks. |
| 1810 | 20.39 | 21.39 | Garnet-Biotite Gneiss | 1m | 100% | 14 | 61 | 130 | 65 | 0.5% | | As above with small pyrrhotite wedge at 22.18m |
| 1811 | 21.39 | 22.40 | Garnet-Biotite Gneiss | 1m | 100% | 16 | 29 | 146 | 79 | 1% | | Disseminated sulphide specks often associated with the garnet content and a small wedge at 22.50m |
| 1812 | 22.40 | 23.39 | Garnet-Biotite Gneiss | 1m | 100% | 16 | 65 | 32 | 149 | 0.5% | | Disseminated sulphide specks. |
| 1813 | 23.39 | 24.38 | Garnet-Biotite Gneiss | 1m | 100% | 18 | 139 | 89 | 78 | 0.4% | | As above |
| 1814 | 24.38 | 25.38 | Quartzo-Feldspathic Band | 1m | 100% | 20 | 56 | 28 | 48 | 0.8% | | Disseminated specks with increase from 0.5% to 1% sulphides at the gneiss contact. |
| 1815 | 25.38 | 26.38 | Garnet-Biotite Gneiss | 1m | 100% | 16 | 65 | 39 | 25 | 0.5% | | Pyrrhotite specks with minor chalcopyrite content. |
| 1816 | 26.38 | 27.37 | Garnet-Biotite Gneiss | 1m | 100% | 12 | 42 | 13 | 12 | 0.5% | | As above, with sulphides increasing within amphibolite rich bands. |
| 1817 | 27.37 | 28.35 | Garnet-Amphibolite Gneiss | 1m | 100% | 14 | 49 | 58 | 29 | 0.4% | | Minor sulphide disseminations only. |
| 1818 | 28.35 | 29.34 | Garnet-Hornblende Gneiss | 1m | 100% | 14 | 29 | 76 | 40 | 0.2% | | As above |
| 1819 | 29.34 | 30.34 | Amphibolite | 1m | 100% | 14 | 22 | 25 | 57 | 0.2% | | As above |
| 1820 | 30.34 | 31.37 | Amphibolite & Ultrabasic | 1m | 97% | 14 | 24 | 65 | 330 | 0.1% | | As above |
| 1821 | 31.37 | 32.37 | Ultrabasic | 1m | 99% | 16 | 35 | 98 | 605 | 0.1% | | As above - section contains alteration zone. |
| 1822 | 32.37 | 33.33 | Amphibolite & Ultrabasic | 1m | 100% | 16 | 51 | 56 | 75 | 0.1% | | Minor sulphide dissemination only. |
| 1823 | 33.33 | 34.33 | Biotite Gneiss | 1m | 100% | 18 | 49 | 38 | 12 | 0.1% | | As above |
| 1824 | 34.33 | 35.33 | Biotite Gneiss | 1m | 100% | 16 | 55 | 52 | 16 | 0.1% | | As above |

*Consolidated Gold Fields Limited*

**SULPHIDE LOG / SAMPLE SHEET**

| Sheet No | D.D.H. No. |
|---|---|
| 3 | SBH 3 |

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage | | | | Vol. % | | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Pb | Zn | Cu | Ni | Sulphide | Graphite | |
| GS 1825 | 35.33m | 36.01m | Biotite Gneiss | 0.68m | 100% | 16 | 66 | 32 | 12 | 0.1% | | Minor sulphide dissemination only. |

# Consolidated Gold Fields Limited

## SULPHIDE LOG / SAMPLE SHEET

Sheet No 1 | DDH. No. SBH 4

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu | Ni | Vol. % Sulphide | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1826 | 0.94m | 2.04m | Biotite Gneiss | 1m | 91% | 16 | 91 | 78 | 78 | 0.4% | | Disseminated pyrrhotite specks generally 0.1% increasing to 0.5% at 1.40m possibly with some slight chalcopyrite |
| 1827 | 2.04 | 3.14 | Hornblende Gneiss | 1m | 91% | 12 | 58 | 55 | 139 | 0.4% | | Minor sulphide dissemination |
| 1828 | 3.14 | 4.14 | Hornblende Gneiss | 1m | 100% | 20 | 76 | 39 | 57 | 0.1% | | As above |
| 1829 | 4.14 | 5.14 | Garnet-Biotite Gneiss | 1m | 100% | 12 | 74 | 89 | 106 | 0.2% | | As above |
| 1830 | 5.14 | 6.17 | Biotite Gneiss | 1m | 97% | 14 | 74 | 43 | 48 | 0.1% | | As above |
| 1831 | 6.17 | 7.17 | Biotite Gneiss | 1m | 100% | 14 | 49 | 42 | 64 | 0.5% | | Sulphide specks with occasional thin pyrrhotite, chalcopyrite veinlets. |
| 1832 | 7.17 | 8.17 | Biotite-Hornblende Gneiss | 1m | 100% | 20 | 50 | 187 | 231 | 7% | | Disseminated pyrrhotite specks with 10% pyrrhotite threads and minor chalcopyrite association from7.50-8.0 |
| 1833 | 8.17 | 9.18 | Biotite-Hornblende Gneiss | 1m | 99% | 16 | 70 | 66 | 78 | 5% | | Disseminated pyrrhotite specks,threads and patches. |
| 1834 | 9.18 | 10.18 | Garnet Amphibolite | 1m | 100% | 14 | 42 | 31 | 45 | 0.5% | | Minor sulphide dissemination of specks, threads & blebs |
| 1835 | 10.18 | 11.18 | Amphibolite | 1m | 100% | 14 | 47 | 62 | 53 | 0.5% | | As above |
| 1836 | 11.18 | 12.27 | Amphibolite | 1m | 92% | 12 | 39 | 28 | 26 | 0.5% | | As above |
| 1837 | 12.27 | 13.27 | Biotite-Hornblende Gneiss | 1m | 100% | 12 | 51 | 27 | 23 | 0.4% | | As above |
| 1838 | 13.27 | 14.28 | Biotite Gneiss | 1m | 99% | 14 | 72 | 101 | 43 | 0.5% | | As above |
| 1839 | 14.28 | 15.28 | Biotite-Hornblende Gneiss | 1m | 100% | 12 | 54 | 28 | 36 | 0.5% | | As above |
| 1840 | 15.28 | 16.28 | Biotite-Hornblende Gneiss | 1m | 100% | 16 | 51 | 15 | 37 | 0.5% | | As above |
| 1841 | 16.28 | 17.23 | Biotite Gneiss | 1m | 100% | 16 | 57 | 29 | 40 | 0.5% | | As above |
| 1842 | 17.23 | 18.23 | Amphibolite | 1m | 100% | 16 | 84 | 90 | 42 | 0.4% | | As above |

*Consolidated Gold Fields Limited*

**SULPHIDE LOG / SAMPLE SHEET**

Sheet No 2

DDH No. SBH 4

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu | Ni | Vol. % Sulphide | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1843 | 18.23m | 19.23m | Amphibolite | 1m | 100% | 18 | 29 | 70 | 537 | 0.1% | | Weak sulphide dissemination with occasional rich ban |
| 1844 | 19.23 | 20.23 | Biotite-Hornblende Gneiss | 1m | 100% | 12 | 54 | 103 | 79 | 0.4% | | As above |
| 1845 | 20.23 | 21.23 | Garnet Amphibolite | 1m | 100% | 12 | 52 | 128 | 28 | 0.4% | | As above |
| 1846 | 21.23 | 22.19 | Amphibolite | 1m | 100% | 10 | 46 | 102 | 49 | 0.4% | | As above |
| 1847 | 22.19 | 23.25 | Amphibolite | 1m | 94% | 12 | 39 | 57 | 187 | <0.1% | | As above |
| 1848 | 23.25 | 24.25 | Ultrabasic Gneiss | 1m | 100% | 14 | 30 | 39 | 670 | 0.1% | | As above |
| 1849 | 24.25 | 25.25 | Amphibolite | 1m | 100% | 12 | 29 | 139 | 427 | 0.5% | | As above |
| 1850 | 25.25 | 26.23 | Biotite Gneiss | 1m | 100% | 12 | 59 | 85 | 53 | 0.4% | | As above |
| 1851 | 26.23 | 27.23 | Amphibolite | 1m | 100% | 14 | 39 | 33 | 148 | 0.4% | | As above |
| 1852 | 27.23 | 28.30 | Amphibolite | 1m | 94% | 12 | 44 | 35 | 168 | 0.4% | | As above |
| 1853 | 28.30 | 29.30 | Biotite Gneiss | 1m | 100% | 16 | 58 | 58 | 64 | 0.4% | | As above |
| 1854 | 29.30 | 30.32 | Altered Amphibolite | 1m | 98% | 12 | 34 | 21 | 760 | 0.4% | | As above |
| 1855 | 30.32 | 31.37 | Garnet-Biotite Gneiss | 1m | 95% | 16 | 81 | 111 | 129 | 0.5% | | As above |
| 1856 | 31.37 | 32.37 | Garnet-Biotite Gneiss | 1m | 100% | 14 | 77 | 118 | 59 | 0.7% | | Disseminated sulphide specks and threads with a mino chalcopyrite association. |
| 1857 | 32.37 | 33.37 | Garnet-Biotite Gneiss | 1m | 100% | 14 | 92 | 132 | 61 | 1% | | As above with narrow 2-3% rich disseminated sulphide bands from 33.15-33.20m. |
| 1858 | 33.37 | 34.42 | Garnet-Biotite Gneiss | 1m | 95% | 20 | 96 | 76 | 63 | 2% | | Disseminated sulphide specks and threads with a minor chalcopyrite content and small rich patches up to 5% |
| 1859 | 34.42 | 35.42 | Garnet-Biotite Gneiss | 1m | 100% | 12 | 77 | 36 | 50 | 0.5% | | Disseminated sulphide specks & threads with decrease across biotite amphibolite band at 34.55-35.00m |

*Consolidated Gold Fields Limited*

**SULPHIDE LOG / SAMPLE SHEET**

Sheet No 3

Dom. No. SBH 4

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu | Ni | Vol. % Sulphide | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1850 | 35.42m | 36.42m | Garnet Biotite Gneiss | 1m | 100% | 12 | 91 | 84 | 36 | 1% | | Disseminated sulphide specks. |
| 1851 | 36.42 | 37.40 | Biotite Gneiss | 1m | 100% | 14 | 73 | 46 | 52 | 1% | | As above |
| 1852 | 37.40 | 38.40 | Biotite Gneiss | 1m | 100% | 12 | 58 | 44 | 93 | 0.5% | | As above |
| 1853 | 38.40 | 39.46 | Biotite Gneiss | 1m | 94% | 16 | 101 | 32 | 69 | 0.5% | | As above |
| 1854 | 38.46 | 40.46 | Biotite Gneiss | 1m | 100% | 18 | 104 | 43 | 96 | 0.5% | | As above |
| 1855 | 40.46 | 41.46 | Biotite Gneiss | 1m | 100% | 16 | 106 | 30 | 91 | 0.5% | | As above |
| 1856 | 41.46 | 42.38 | Biotite Gneiss | 1m | 100% | 12 | 93 | 49 | 67 | 0.5% | | As above |
| 1857 | 42.38 | 43.38 | Biotite Gneiss | 1m | 100% | 16 | 92 | 43 | 71 | 0.5% | | As above |
| 1858 | 43.38 | 44.46 | Biotite Gneiss | 1m | 93% | 18 | 110 | 41 | 83 | 0.5% | | As above |
| 1859 | 44.46 | 45.44 | Biotite Gneiss | 1m | 100% | 16 | 113 | 25 | 85 | 1% | | As above |
| 1870 | 45.44 | 46.27 | Biotite Gneiss | 0.71m | 85% | 14 | 135 | 79 | 61 | 1% | | As above |

# Consolidated Gold Fields Limited

## SULPHIDE LOG / SAMPLE SHEET

Sheet No: 1

DDH No: SBH 5

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu. | Ni. | Vol. % Sulphide | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1871 | 1.25m | 2.85 | Ultrabasic Gneiss | 1m | 62% | 10 | 52 | 29 | 801 | <0.1% | | Very occasional sulphide speck only. |
| 1872 | 2.85 | 3.80 | Garnet-Biotite Gneiss | 1m | 100% | 8 | 47 | 38 | 62 | 0.5% | | Disseminated sulphide specks(Additional Amphibolite cont |
| 1873 | 3.80 | 4.80 | Pyrrhotite Amphibolite | 1m | 100% | 12 | 49 | 1360 | 640 | 20% | | Disseminated sulphide threads averaging 10% throughout with 30% sub-massive sulphide matrix band from 4.11-4.2 |
| 1874 | 4.80 | 5.78 | Garnet-Hornblende Gneiss | 1m | 100% | 10 | 46 | 159 | 620 | 0.5% | | Predominately pyrrhotite with small pyrite & chalcopyri association Large section of barren ultrabasic rock decreases weak 0.2% content of main lithology. |
| 1875 | 5.78 | 6.77 | Ultrabasic Gneiss | 1m | 99% | 12 | 33 | 34 | 600 | 0.3% | | Section of garnet amphibolite containing sulphides Increas average value of an otherwise barren section. |
| 1876 | 6.77 | 7.77 | Ultrabasic Gneiss | 1m | 99% | 10 | 40 | 317 | 650 | 5% | | 1% disseminated pyrrhotite with 1cm pyrite band at 7.30 7.42m with small chalcopyrite lense at 7.35m. |
| 1877 | 7.77 | 8.77 | Garnet Amphibolite | 1m | 100% | 10 | 46 | 54 | 44 | 0.5% | | Disseminated sulphide specks. |
| 1878 | 8.77 | 9.76 | Amphibolite | 1m | 100% | 12 | 53 | 11 | 43 | 0.1 | | As above |
| 1879 | 9.76 | 10.76 | Amphibolite | 1m | 100% | 10 | 44 | 27 | 38 | 0.1 | | As above |
| 1880 | 10.76 | 11.70 | Garnet Amphibolite | 1m | 100% | 12 | 53 | 48 | 45 | 0.1 | | As above |
| 1881 | 11.70 | 12.70 | Garnet Amphibolite | 1m | 100% | 12 | 51 | 128 | 182 | 2% | | As above, with from 11.70-12.05m rich 5% zone of disseminated specks and patches of pyrite often associa with the garnet content. |
| 1882 | 12.70 | 13.70 | Amphibolite | 1m | 100% | 48 | 59 | 42 | 61 | 0.1% | | Very occasional sulphide specks only. |
| 1883 | 13.70 | 14.77 | Ultrabasic Gneiss | 1m | 93% | 22 | 65 | 45 | 890 | 0.1% | | As above |
| 1884 | 14.77 | 15.77 | Ultrabasic Gneiss | 1m | 100% | 18 | 56 | 51 | 9500 | .1% | | As above |
| 1885 | 15.77 | 16.81 | Ultrabasic Gneiss | 1m | 96% | 12 | 65 | 66 | 218 | 0.3% | | As above |
| 1886 | 16.81 | 17.81 | Hornblende Gneiss | 1m | 100% | 12 | 66 | 136 | 133 | 0.5% | | As above with occasional patches up to 1% sulphides. |
| 1887 | 17.81 | 18.90 | Ultrabasic Gneiss | 1m | 92% | 10 | 49 | 67 | 730 | 0.1% | | Minor disseminated sulphide specks. |

Consolidated Gold Fields Limited

SULPHIDE LOG / SAMPLE SHEET

Sheet No 2

D.D.H. No. SBH 5

| Sample No. | From | To | Rock Type | Length | Recovery | Assay Results Percentage Pb | Zn | Cu | Ni | Vol. % Sulphide | Graphite | Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GS 1888 | 18.90m | 19.90m | Hornblende Gneiss | 1m | 100% | 20 | 59 | 103 | 500 | 0.5% | | Minor disseminated sulphide rich bands. |
| 1889 | 19.90 | 20.94 | Ultrabasic Gneiss | 1m | 96% | 12 | 52 | 37 | 1210 | 0.1% | | Very occasional sulphide speck. |
| 1890 | 20.94 | 21.94 | Ultrabasic Gneiss | 1m | 100% | 14 | 68 | 48 | 1030 | 0.2% | | As above |
| 1891 | 21.94 | 22.94 | Hornblende Gneiss | 1m | 100% | 12 | 52 | 124 | 191 | 0.4% | | As above |
| 1892 | 22.94 | 23.80 | Garnet-Biotite Gneiss | 1m | 100% | 14 | 63 | 122 | 243 | 0.4% | | As above |
| 1893 | 23.80 | 24.80 | Hornblende-Biotite Gneiss | 1m | 100% | 12 | 95 | 31 | 41 | 0.2% | | As above |
| 1894 | 24.80 | 25.88 | Acid Gneiss | 1m | 93% | 16 | 122 | 92 | 74 | 3% | | Pyrrhotite (1%) and pyrite (2%) specks disseminated through gneiss but with concentration at fold core. |
| 1895 | 25.88 | 26.88 | Biotite Gneiss | 1m | 100% | 44 | 156 | 39 | 61 | 1% | | Disseminated pyrite specks mostly associated with quartz banding. |
| 1896 | 26.88 | 27.82 | Biotite Gneiss | 1m | 100% | 28 | 84 | 39 | 49 | 1% | | As above |
| 1897 | 27.82 | 28.82 | Biotite Gneiss | 1m | 100% | 28 | 114 | 27 | 46 | 1% | | As above |
| 1898 | 28.82 | 29.83 | Biotite Gneiss | 1m | 99% | 12 | 83 | 38 | 70 | 0.5% | | As above |
| 1899 | 29.83 | 30.92 | Biotite Gneiss | 1m | 91% | 32 | 64 | 25 | 43 | 0.5% | | As above |
| 1900 | 30.92 | 31.92 | Biotite Gneiss | 1m | 100% | 14 | 72 | 25 | 52 | 0.4% | | As above |
| 1901 | 31.92 | 32.93 | Biotite Gneiss | 1m | 99% | 10 | 81 | 22 | 49 | 0.4% | | As above |
| 1902 | 32.93 | 33.93 | Biotite Gneiss | 1m | 100% | 16 | 101 | 142 | 93 | 1% | | As above, with zone of high disseminated sulphide content from 33.40-33.70m. |
| 1903 | 33.93 | 34.93 | Biotite Gneiss | 1m | 100% | 16 | 78 | 98 | 110 | 0.4% | | As above |
| 1904 | 34.93 | 35.34 | Garnet Gneiss | 0.47m | 100% | 10 | 80 | 70 | 136 | 0.5% | | As above |

## Abbreviations

| | |
|---|---|
| Beer House | BH |
| Boundary Post or Stone | BP, BS |
| Church | Ch |
| Footbridge | FB |
| Fountain | Fn |
| Guide Post | GP |
| Milepost | MP |
| Milestone | MS |
| Police Station | Pol Sta |
| Post Office | PO |
| Public House | PH |
| Signal Box | SB |
| Spring | Spr |
| Telephone Call Box | TCB |
| Well | W |

## Boundaries

Geographical County

" " (Coincident with Parish)

County of City

Burgh or District Council

Civil Parish (showing change of mereing) FF CF

Burgh or County Constituency

*Where County of City, Burgh and District Council boundaries coincide with those of a civil parish, the symbols for both are shown alternately*

## Heights

Height, fixed by levelling ·165

Not fixed by levelling ..... 913
standard error not exceeding ± 1ft

Not fixed by levelling ..... 156
standard error not exceeding ± 6ft

Triangulation Station .....△

Contours are at 25 feet vertical interval.

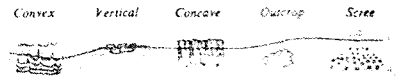
Heights are in feet above Mean Sea Level at Newlyn.

Bench Marks and their values are shown thus :— BM 165.32

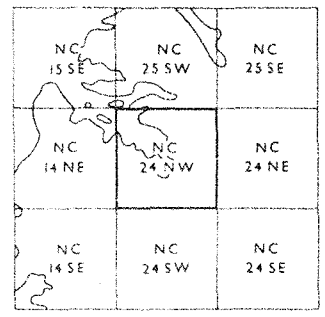
Bench Mark lists containing fuller and possibly later levelling information are obtainable from the Director General, Ordnance Survey.

## Rock Features

Convex Vertical Concave Outcrop Scree



INDEX TO ADJOINING SHEETS




# THE NATIONAL GR

TO GIVE A GRID REFERENCE CORRECT TO

EXAMPLE *n In Badnabay*

*The Grid Letters on this sheet are* NC

| EAST | | |
|---|---|---|
| *Take west edge of kilometre square in which point lies and read the large figures printed opposite this line on north or south margins. Estimate tenths Eastwards* | 22<br>1<br>221 | *Take south edg in which point figures printed east or west m Esti* |

Full 100 Metre Reference NC 221466

*The above Full Reference is unique. For many purposes the firs giving a reference, C 221466 which recurs at intervals of 50 letters are omitted, the resulting reference 221466 recurs at When the area concerned is sufficiently restricted, as will usu on scales of one inch to the mile and larger, both the grid*

*At the Eastern edge of this sheet True North is 2° 33*
*and at the Western edge 2° 37' East of Gr*

*Magnetic North was about 9° West of Grid North in 1963 decrea*

*1 square inch on this map represents 17·778 acres or*

*The representation on this Map of a Road, Track, or Footpath, is no evidenc*

PRICE :- £- net.



MAP N° 2

# SHEET NC 24 NW

**Scale 1:10560**

+ ① SCOURIE AREA

② FOINDLE AREA

HANDA ISLAND

EDDRACHILLIS BAY

Loch Laxford

Coiteamh Garbh

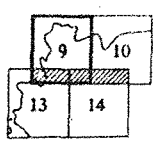
SIGNED on behalf of

CONSOLIDATED GOLD FIELDS LIMITED

..... Director



Index to adjoining sheets
Hatching denotes overlaps




REVISION INFORMATION

*Fully revised 1956*
*Major roads revised 1967*

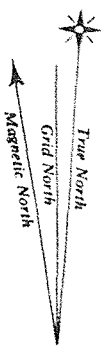
Reproduced from the Ordnance Survey map with the sanction of the Controller of H.M. Stationery Office, Crown Copyright reserved. Consolidated Gold Fields Limited, 49 Moorgate, London, E.C.2.

*Contours in lochs are given in feet and are taken from the Bathymetrical Survey of Fresh Water Lochs of Scotland*
*The submarine contours are given in fathoms and are taken from the soundings of Admiralty surveys*

Difference from Grid North

| (1) True North | |
|---|---|
| 2°48'E | N W Corner |
| 2°13'E | N E ,, |
| 2°45'E | S W ,, |
| 2°11'E | S E ,, |

(2) Mag North
*about 9° W in 1967*
*decreasing by about ½° in six years*




1 ½ ½
1,000
1

*The in and n*

# SHEET 9

SCALE 1:63360

MAP Nº 1

AE
3/4

470

465

200

210

**Consolidated Gold Fields Ltd.**

EXPLORATION

Project: Cu Ni Mo

Area: SCOURIE

Title: E.M. Imaginary Component High Frequency

Drawing No: 5

O S Map No: enlarged from 6" Sheet NC24NW

Scale: 1:2500 Prepared by: ES

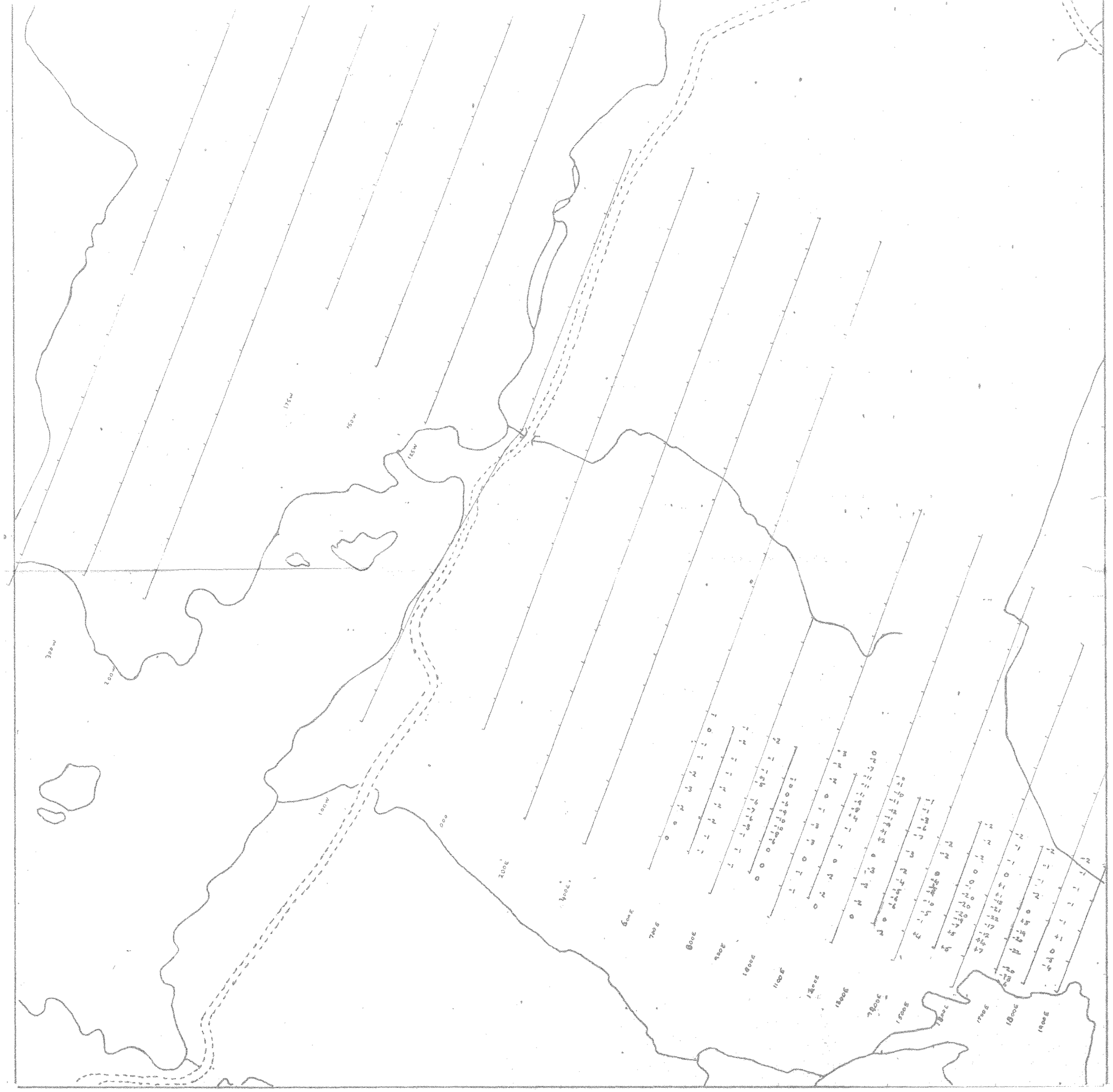
Date: Drawn by:

Revisions:

SIGNED on behalf of
CONSOLIDATED GOLD FIELDS LIMITED

..... Director

MAP N° 5




| Consolidated Gold Fields Ltd. | | |
|---|---|---|
| EXPLORATION | | |
| Project: Cu Ni Mo | | |
| Area: Scourie | | |
| Title: EM Imaginary Component High Frequency | | |
| Drawing No: 6 | O.S. Map No: enlarged from 6" sheet NC24NW | |
| | Scale: 1:2500 | Prepared by: ES |
| | Date: | Drawn by: |
| | Revisions: | |

SIGNED on behalf of
CONSOLIDATED GOLD FIELDS LIMITED

...L.C. Shaw.....Director


**Consolidated Gold Fields Ltd.**

EXPLORATION

Project: Cu Ni Mo

Area: Scourie

Title: I.P. Profiles

Drawing No: 7

O.S. Map No: enlarged from 6" sheet NC24NW

Scale: 1:2500 Prepared by: ES

Date: Drawn by:

Revisions:

SIGNED on behalf of
CONSOLIDATED GOLD FIELDS LIMITED

S.H. Isaac Director

MAP Nº 7


Consolidated Gold Fields Ltd.
EXPLORATION

Ca Ni Mo
Secteur de Fonseca

I.P. PROFILES fa = Apparent Resistivity
m = Chargeability

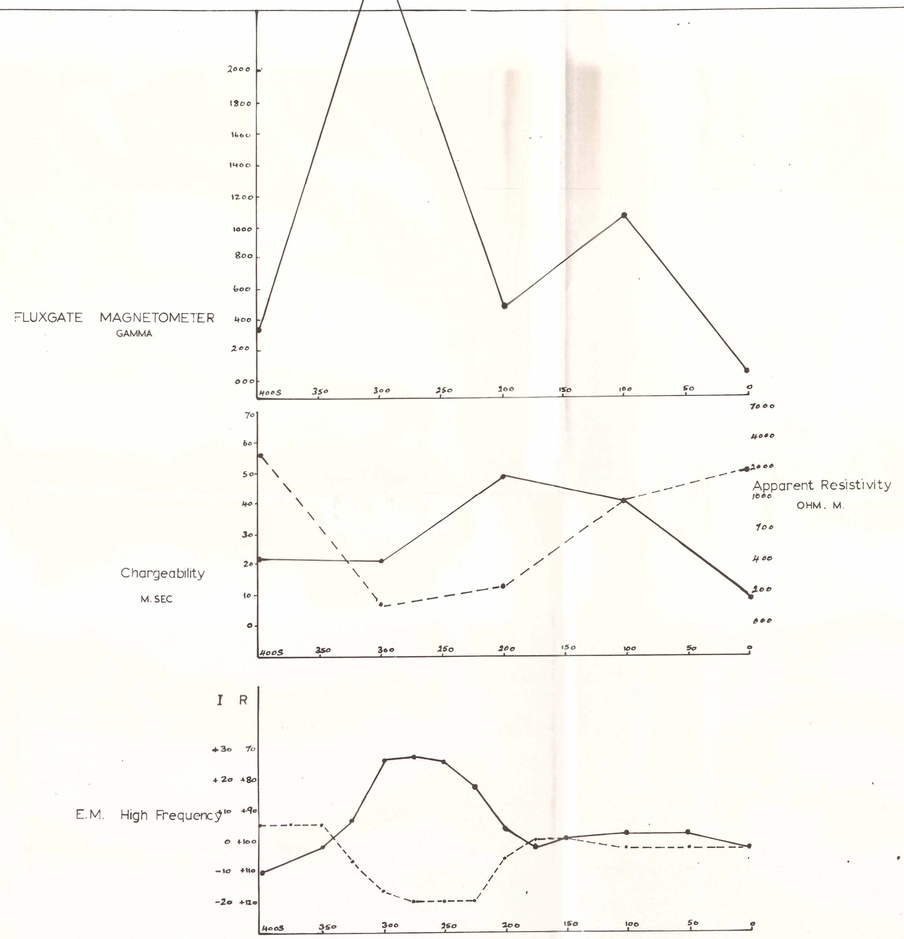
| | |
|---|---|
| 8 | Dwg. Map No. |
| | Scale 1:2500 |
| | Date 9/4/75 |

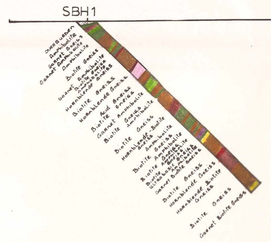
Prepared by
Drawn by

SIGNED on behalf of
CONSOLIDATED GOLD FIELDS LIMITED

..... Director

MAP N° 8





## LEGEND

- Overburden
- Acid Gneiss / Quartz Feldspar Band
- Garnet Gneiss
- Garnet–Biotite Gneiss
- Biotite Gneiss
- Hornblende–Biotite Gneiss
- Hornblende Gneiss
- Garnet Amphibolite
- Amphibolite
- Ultrabasic Gneiss

**DIAMOND DRILL HOLE DATA**

| D.D.H. | Collar Co-ordinates m E | Collar Co-ordinates m N | Elevation | Bearing Grid N | Incl° | Depth | Deepened to: |
|---|---|---|---|---|---|---|---|
| SBH 1 | | | | | 50°N | 192·2' | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**Consolidated Gold Fields Ltd.**
EXPLORATION

Project: Cu. Ni. Mo

Area: SCOURIE

Title: CROSS SECTION THROUGH SBH1 AND GEOPHYSICAL PROFILES.

Drawing No. 3

O.S. Map No.

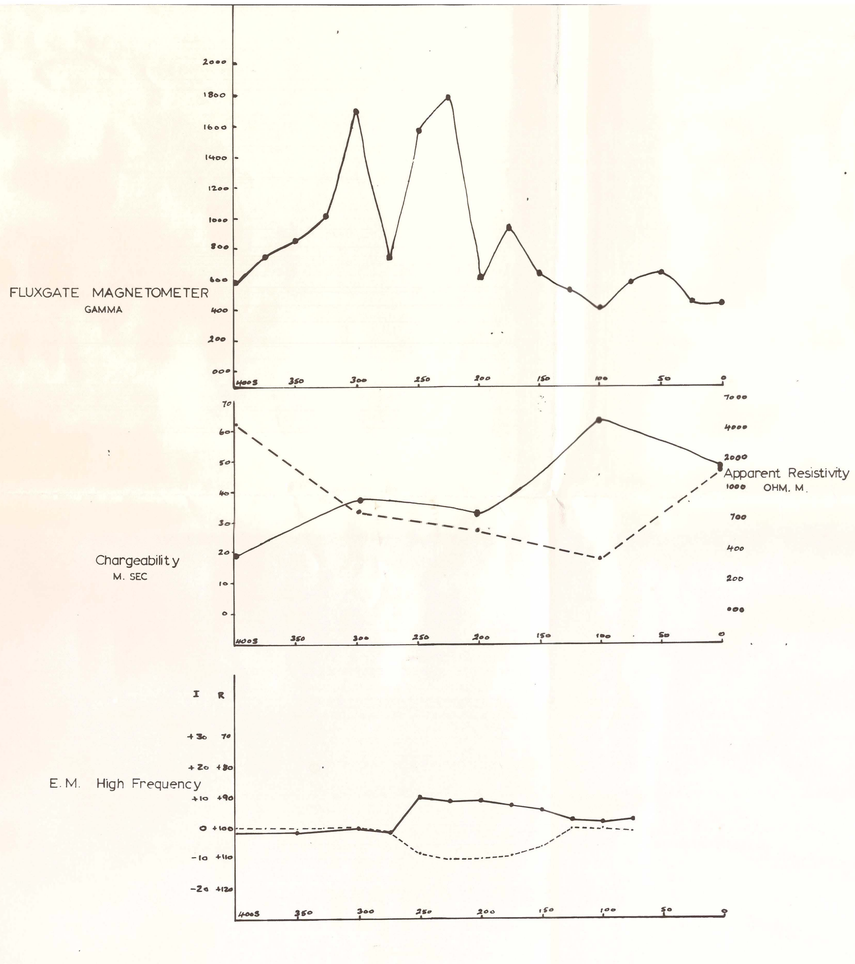
Scale: 1 cm = 25'

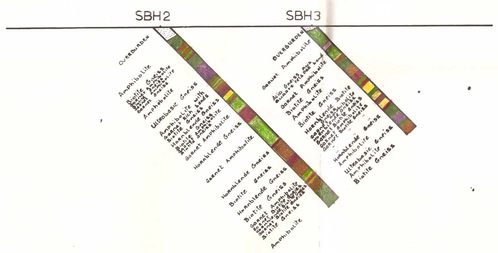
Prepared by:

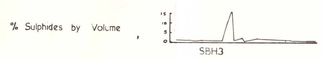
Date: 7. 3. 76

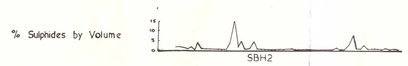
Drawn by: S. A. M

Revisions:




## LEGEND

- Overburden
- Acid Gneiss / Quartz Feldspar Band
- Garnet Gneiss
- Garnet – Biotite Gneiss
- Biotite Gneiss
- Hornblende-Biotite Gneiss
- Hornblende Gneiss
- Garnet Amphibolite
- Amphibolite
- Ultrabasic Gneiss

## DIAMOND DRILL HOLE DATA

| D.D.H. | Collar Co-ordinates m E | Collar Co-ordinates m N | Elevation | Bearing Grid N | Incl° | Depth | Deepened to: |
|---|---|---|---|---|---|---|---|
| SBH 2/3 | | | | | 50°N | 203·9′ 118·1′ | |

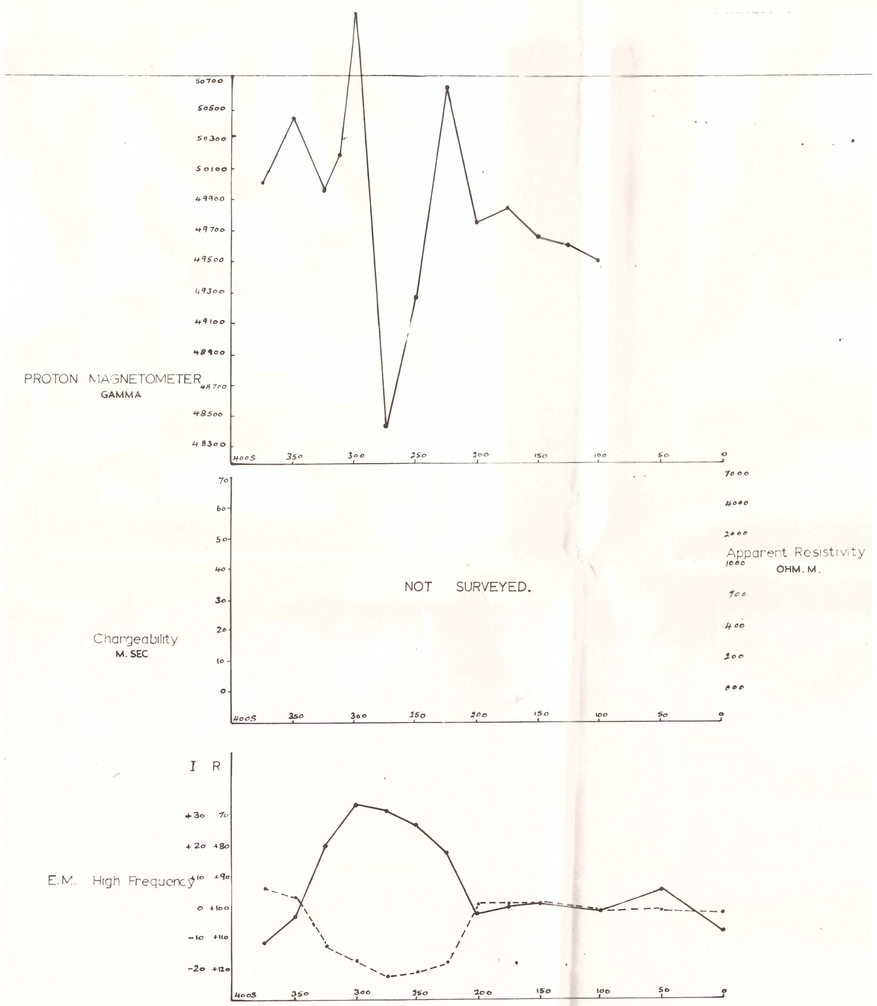
**Consolidated Gold Fields Ltd.**
EXPLORATION

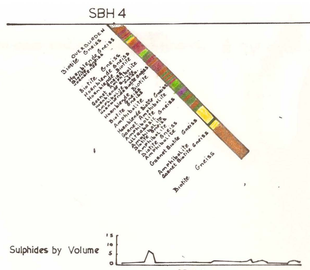
**Project:** Cu. Ni. Mo

**Area:** SCOURIE

**Title:** CROSS SECTION THROUGH SBH2 & 3 AND GEOPHYSICAL PROFILES.

| Drawing No. | O.S. Map No. | |
|---|---|---|
| 4 | Scale: 1 cm = 25′ | Prepared by: |
| | Date: 7. 3. 76 | Drawn by: S.A.M |
| | Revisions: | |







**Consolidated Gold Fields Ltd.**
EXPLORATION

Project: Cu. Ni. Mo

Area: SCOURIE

Title: CROSS SECTION THROUGH SBH 4 AND GEOPHYSICAL PROFILES.

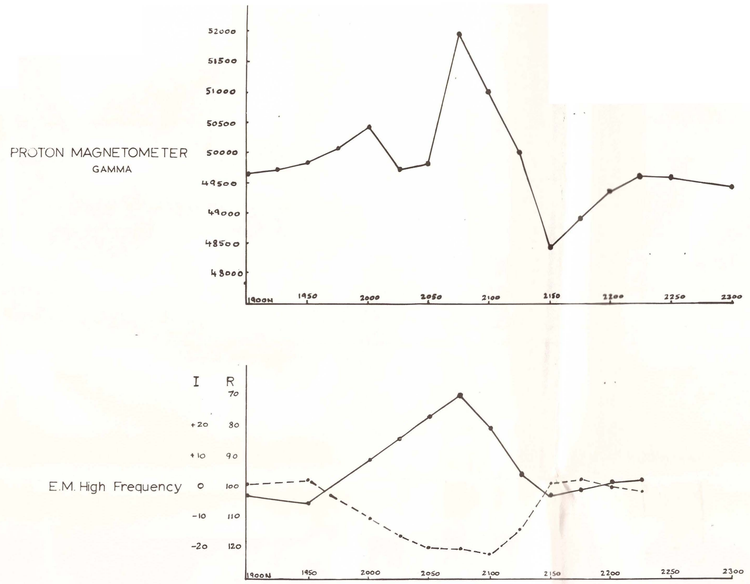
| Drawing No. | O.S. Map No. | |
|---|---|---|
| 5 | Scale: 1 cm = 25′ | Prepared by: |
| | Date: 7. 3. 76 | Drawn by: S.A.M. |
| | Revisions: | |

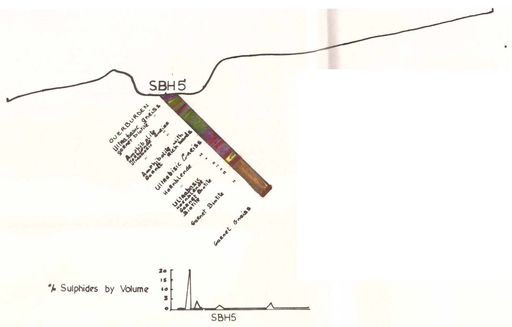
LEGEND

- Overburden
- Acid Gneiss / Quartz Feldspar Band
- Garnet Gneiss
- Garnet – Biotite Gneiss
- Biotite Gneiss
- Hornblende-Biotite Gneiss
- Hornblende Gneiss
- Garnet Amphibolite
- Amphibolite
- Ultrabasic Gneiss

**DIAMOND DRILL HOLE DATA**

| D.D.H. | Collar Co-ordinates | | Elevation | Bearing Grid N | Incl° | Depth | Deepened to: |
|---|---|---|---|---|---|---|---|
| | m E | m N | | | | | |
| SBH 4 | | | | | 50° | 151·8′ | |




# Consolidated Gold Fields Ltd.

**EXPLORATION**

**Project:** Cu Ni Mo

**Area:** SCOURIE

**Title:** CROSS SECTION THROUGH SBH 5
AND GEOPHYSICAL PROFILES

| Drawing No. | O.S. Map No. | |
|---|---|---|
| 6 | Scale: 1cm.=25' | Prepared by: |
| | Date: 9. 3. 76 | Drawn by: S.A.M |
| | Revisions: | |

## LEGEND

- Overburden
- Acid Gneiss / Quartz Feldspar Band
- Garnet Gneiss
- Garnet-Biotite Gneiss
- Biotite Gneiss
- Hornblende-Biotite Gneiss
- Hornblende Gneiss
- Garnet Amphibolite
- Amphibolite
- Ultrabasic Gneiss

## DIAMOND DRILL HOLE DATA

| D.D.H. | Collar Co-ordinates | | Elevation | Bearing Grid N | Incl° | Depth | Deepened to: |
|---|---|---|---|---|---|---|---|
| | m E | m N | | | | | |
| SBH 5 | | | | | 50°N | 115·9 | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

475

470

465

200

475

470

466

210

# Consolidated Gold Fields Ltd.

EXPLORATION

| | |
|---|---|
| Project | Cu Ni Mo |
| Area | SCOURIE |
| Title | I.P CHARGEABILITY<br>m secs |

| | | |
|---|---|---|
| Drawing No. 3 | O.S Map No enlarged from 6" sheet NC24NW | |
| | Scale 1:2500 | Prepared by EJ |
| | Date | Drawn by |
| | Revisions | |

0 - 10<
10 - 20<
20 - 30<
30 - 40<
40 - 50<
50 - 60<
60 - 70<
70 - 80<
80 - 90<
90 - 100<
>100

SIGNED on behalf of
CONSOLIDATED GOLD FIELDS LIMITED

.....Director

MAP Nº 3

**Consolidated Gold Fields Ltd.**
EXPLORATION

| | |
|---|---|
| Project: | Cm N. Mo |
| Area: | Scourie |
| Title: | I P Apparent Resistivity ρm |

| | | |
|---|---|---|
| Drawing No: 4 | O.S. Map No: Enlarged from 1" sheet, NC24NW | |
| | Scale: 1:2500 | Prepared by: CJ |
| | Date: | Drawn by: |
| | Revisions: | |

- < 200 ρm
- 200 - 400
- 400 - 700
- 700 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 7000
- 7000 and above

SIGNED on behalf of
CONSOLIDATED GOLD FIELDS LIMITED

..... Director

MAP Nº 4

**Consolidated Gold Fields Ltd.**

**GRAPHIC DRILL LOG**

| | | | | |
|---|---|---|---|---|
| Area | SCOURIE | Collar Co-ordinates | 19394830 | DDH No. SBH 5 |
| Location | Foindle | Collar Elevation | 275 ft | |
| Drilled by | ENCORE LTD. | Orientation | 045° Grid N. | Scale 1:125 |
| Date Started | 17–2–76 | Inclination | 50° | |
| Date Completed | 20–2–76 | Logged by | G. S. ROBERTS | |

DESCRIPTION | LOG | ASSAY GRAPHIC | ASSAY RECORD

Cu p.p.m. 1000 800 400 0 — Ni p.p.m. 0 400 800 1000

| m | ft | GS | Cu p.p.m. | Ni p.p.m. |
|---|---|---|---|---|
| 0 | 0 | | | |
| | | 1871 | 1·25 | 2·85 | 62 | 29 | 801 |
| | | 1872 | 2·85 | 3·80 | 100 | 38 | 62 |
| | | 1873 | 3·80 | 4·80 | 100 | 1360 | 640 |
| 5 | | 1874 | 4·80 | 5·78 | 100 | 159 | 620 |
| | | 1875 | 5·78 | 6·77 | 99 | 34 | 600 |
| | | 1876 | 6·77 | 7·77 | 99 | 317 | 650 |
| | | 1877 | 7·77 | 8·77 | 100 | 54 | 44 |
| | | 1878 | 8·77 | 9·76 | 100 | 11 | 43 |
| 10 | | 1879 | 9·76 | 10·76 | 100 | 27 | 38 |
| | | 1880 | 10·76 | 11·70 | 100 | 48 | 45 |
| | | 1881 | 11·70 | 12·70 | 100 | 128 | 182 |
| | | 1882 | 12·70 | 13·70 | 100 | 42 | 61 |
| | | 1883 | 13·70 | 14·77 | 93 | 45 | 890 |
| 15 | 50 | 1884 | 14·77 | 15·77 | 100 | 51 | 950 |
| | | 1885 | 15·77 | 16·81 | 96 | 66 | 218 |
| | | 1886 | 16·81 | 17·81 | 100 | 136 | 133 |
| | | 1887 | 17·81 | 18·90 | 92 | 67 | 730 |
| | | 1888 | 18·90 | 19·90 | 100 | 103 | 500 |
| 20 | | 1889 | 19·90 | 20·94 | 96 | 37 | 1210 |
| | | 1890 | 20·94 | 21·94 | 100 | 48 | 1030 |
| | | 1891 | 21·94 | 22·94 | 100 | 124 | 191 |
| | | 1892 | 22·94 | 23·80 | 100 | 122 | 243 |
| | | 1893 | 23·80 | 24·80 | 100 | 31 | 41 |
| 25 | | 1894 | 24·80 | 25·88 | 93 | 92 | 74 |
| | | 1895 | 25·88 | 26·88 | 100 | 39 | 61 |
| | | 1896 | 26·88 | 27·82 | 100 | 39 | 49 |
| | | 1897 | 27·82 | 28·82 | 100 | 27 | 46 |
| | | 1898 | 28·82 | 29·83 | 99 | 38 | 70 |
| 30 | | 1899 | 29·83 | 30·92 | 91 | 25 | 43 |
| | | 1900 | 30·92 | 31·92 | 100 | 25 | 52 |
| | | 1901 | 31·92 | 32·93 | 99 | 22 | 49 |
| | | 1902 | 32·93 | 33·93 | 100 | 142 | 93 |
| | | 1903 | 33·93 | 34·93 | 100 | 98 | 110 |
| 35 | | 1904 | 34·93 | 35·34 | 100 | 90 | 136 |
| 40 | | | | | | | |
| 45 | 150 | | | | | | |
| 50 | | | | | | | |
| 55 | | | | | | | |
| 60 | 200 | | | | | | |

Peat cover lies directly on weathered bedrock surface

Possible pyroxenite with pale altered patches.

Heavy limonitic staining on fracture surfaces.

Zones of hornblende-biotite gneiss.

Locally garnetiferous, pyrrhotite zone contains minor pyrite & chalcopyrite.

Occasional porphyroblastic garnet inclusion.

Gneissose banding variable. Pyrite bands at base with chalcopyrite lense at 7.35m. Mesocratic amphibolite divides main unit

Subordinate biotite content, becoming mesocratic at depth.

Quartzose section at 11.70–12.05m

Initial pale green fibrous alteration. Minor biotite content increases at 13.58m to form a biotite-amphibolite

Pyroxenite rock with pale green alteration patches from 14.60m & friable bleached alteration band near base which is susceptible to fracturing.

Locally garnetiferous, forming bands with biotite mica at base.

Initially garnetiferous becoming leucocratic from 18.92–19.02

Garnet inclusions until 21.80m

Subordinate green amphibole content.

Initial hornblende gneiss section, later containing small garnet inclusions.

Tight isoclinal fold with pyrrhotite rich core

Frequent leucocratic & garnetiferous sections & further acid gneiss bands. Narrow grey quartz band at 27.45m contains minor specks of molybdenite. Biotite content variable but with only rare chloritic alteration. Fractures usually calcite filled.

Minor biotite content frequently chloritised

**END OF BOREHOLE: 35.34m**

## LEGEND

- Overburden
- Acid Gneiss / Quartz Feldspar Band
- Garnet Gneiss
- Garnet–Biotite Gneiss
- Biotite Gneiss
- Hornblende-Biotite Gneiss
- Hornblende Gneiss
- Garnet Amphibolite
- Amphibolite
- Ultrabasic Gneiss
- Alteration
- Sub-massive Sulphide Mineralisation
- Fracture Zone

F ---45° Fracture
S ——40° Shear
——▷ 70° Foliation
} with inclination in degrees marked but not shown to scale

—— Lithological Unit Division
--- Lithological Sub-unit Division
} As described in geological log

**Consolidated Gold Fields Ltd.**

**GRAPHIC DRILL LOG**

SCOURIE
Loch na Claise Feàrne
ENCORE LTD.
24–1–76
30–1–76

20834663
325 ft
020°
50°
G. S. ROBERTS

DDH No. SBH 1

1:125

DESCRIPTION

m
0
Peat with lower granitic boulder horizon

Garnetiferous at 2m with quartz bands at 1·5, 2·2 & 2·3m

Occasional qtz banding

5
Fractures frequently quartz filled

Marked increase in garnets from 8·75m, 30° fracture pyrite filled

10
Garnet content, foliation and quartz banding increase from 9·85m

Variable biotite content often causing weak schistose zones. Fractures frequently have epidote surfaces.

15
Small pyrrhotite wedge at 15·25m

Muscovite-biotite gneiss with frequent chlorite spots

20
Occasional quart bands & short biotite gneiss section from 22·15–22·25m

Subordinate hornblende content with amphibolite band at 25·81–24·00m

25
Decrease in amphibole content from 30·43m with appearance of garnet rich bands

30
Poorly foliated, with numerous garnet inclusions and soft asbestiform alteration band.

35
Frequent garnet inclusions and high mesocratic zones – almost ultrabasic composition. Actinolitic alteration

Subordinate amphibole content often forms narrow amphibolite bands; major altered amphibolite band in central zone

40
Garnetiferous from 40·20–40·40 with grey siliceous banding.

Occasional hornblende content with amphibolite band at 42·02–42·19m

Leucocratic sections and few garnet inclusions; narrow amphibolite bands at 42·80–42·95m

45
Variable hornblende content causes colour banding until 44·05m. Occasional garnet inclusions increasing from 51·60m & associated with sulphide content

50
Occasional garnet inclusion, particularly 58·50–59·40m & minor hornblende content.

55
60
END OF BOREHOLE 60·42m

LOG

ASSAY GRAPHIC — Cu / Ni ppm.

ASSAY RECORD

| GS | | | | Cu ppm. | Ni ppm. |
|---|---|---|---|---|---|
| 1297 | 1·47 | 2·47 | 100 | 104 | 93 |
| 1298 | 2·47 | 3·48 | 99 | 171 | 181 |
| 1299 | 3·48 | 4·41 | 100 | 85 | 60 |
| 1300 | 4·41 | 5·43 | 98 | 63 | 78 |
| 1701 | 5·43 | 6·42 | 100 | 61 | 64 |
| 1702 | 6·42 | 7·42 | 100 | 70 | 57 |
| 1703 | 7·42 | 8·42 | 100 | 66 | 63 |
| 1704 | 8·42 | 9·37 | 100 | 131 | 69 |
| 1705 | 9·37 | 10·37 | 100 | 115 | 60 |
| 1706 | 10·37 | 11·39 | 98 | 110 | 137 |
| 1707 | 11·39 | 12·47 | 93 | 28 | 34 |
| 1708 | 12·47 | 13·47 | 100 | 37 | 45 |
| 1709 | 13·47 | 14·47 | 100 | 23 | 58 |
| 1710 | 14·47 | 15·84 | 73 | 27 | 60 |
| 1711 | 15·84 | 16·63 | 100 | 86 | 165 |
| 1712 | 16·63 | 17·63 | 100 | 21 | 34 |
| 1713 | 17·63 | 18·63 | 100 | 12 | 12 |
| 1714 | 18·63 | 19·32 | 100 | 111 | 137 |
| 1715 | 19·32 | 20·40 | 93 | 130 | 126 |
| 1716 | 20·40 | 21·40 | 100 | 77 | 118 |
| 1717 | 21·40 | 22·40 | 100 | 39 | 43 |
| 1718 | 22·40 | 23·41 | 100 | 89 | 55 |
| 1719 | 23·41 | 24·41 | 100 | 57 | 47 |
| 1720 | 24·41 | 25·41 | 100 | 15 | 22 |
| 1721 | 25·41 | 26·31 | 100 | 36 | 49 |
| 1722 | 26·31 | 27·31 | 100 | 55 | 38 |
| 1723 | 27·31 | 28·32 | 100 | 38 | 43 |
| 1724 | 28·32 | 29·50 | 85 | 63 | 64 |
| 1725 | 29·50 | 30·50 | 100 | 44 | 33 |
| 1726 | 30·50 | 31·50 | 100 | 106 | 130 |
| 1727 | 31·50 | 32·50 | 99 | 55 | 83 |
| 1728 | 32·50 | 33·50 | 99 | 35 | 50 |
| 1729 | 33·50 | 34·34 | 100 | 80 | 348 |
| 1730 | 34·34 | 35·34 | 99 | 108 | 525 |
| 1731 | 35·34 | 36·32 | 100 | 109 | 58 |
| 1905 | 36·32 | 37·32 | 99 | 38 | 200 |
| 1906 | 37·32 | 38·32 | 99 | 83 | 59 |
| 1907 | 38·32 | 39·32 | 99 | 66 | 278 |
| 1908 | 39·32 | 40·32 | 99 | 62 | 396 |
| 1909 | 40·32 | 41·33 | 100 | 32 | 520 |
| 1910 | 41·33 | 42·33 | 100 | 90 | 176 |
| 1911 | 42·33 | 43·33 | 100 | 127 | 112 |
| 1912 | 43·33 | 44·33 | 100 | 73 | 86 |
| 1913 | 44·33 | 45·31 | 100 | 42 | 72 |
| 1914 | 45·31 | 46·31 | 100 | 122 | 115 |
| 1915 | 46·31 | 47·31 | 100 | 31 | 62 |
| 1916 | 47·31 | 48·31 | 99 | 38 | 77 |
| 1917 | 48·31 | 49·31 | 99 | 37 | 50 |
| 1918 | 49·31 | 50·41 | 99 | 46 | 82 |
| 1919 | 50·41 | 51·41 | 100 | 43 | 81 |
| 1920 | 51·41 | 52·41 | 100 | 44 | 67 |
| 1921 | 52·41 | 53·37 | 100 | 33 | 72 |
| 1922 | 53·37 | 54·37 | 100 | 38 | 58 |
| 1923 | 54·37 | 55·37 | 100 | 41 | 77 |
| 1924 | 55·37 | 56·37 | 100 | 40 | 83 |
| 1925 | 56·37 | 57·37 | 100 | 38 | 72 |
| 1926 | 57·37 | 58·37 | 100 | 52 | 98 |
| 1927 | 58·37 | 59·37 | 100 | 53 | 101 |
| 1928 | 59·37 | 60·42 | 99 | 96 | 214 |

## LEGEND

- Overburden
- Acid Gneiss / Quartz Feldspar Band
- Garnet Gneiss
- Garnet–Biotite Gneiss
- Biotite Gneiss
- Hornblende–Biotite Gneiss
- Hornblende Gneiss
- Garnet Amphibolite
- Amphibolite
- Ultrabasic Gneiss
- Alteration
- Sub-massive Sulphide Mineralisation
- Fracture Zone

F – – – 45° Fracture
S —— 40° Shear
——▷ 70° Foliation
} with inclination in degrees marked but not shown to scale

— Lithological Unit Division
--- Lithological Sub-unit Division
} As described in geological log

**Consolidated Gold Fields Ltd.**

# GRAPHIC DRILL LOG

| | | | |
|---|---|---|---|
| Area | SCOURIE | Collar Co-ordinates | 20694677 |
| Property | Loch na Claise Feàrna | Collar Elevation | 325 ft |
| Drilled By | ENCORE LTD. | Orientation | 020° Grid N |
| Date Started | 7-2-76 | Inclination | 50° |
| Date Completed | 8-2-76 | Logged By | G. S. ROBERTS |

DDH No. SBH 3

Scale 1:125

## DESCRIPTION

Peat cover with pink, foliated granite boulder at base

Variable garnet content & extensive white mineral speckling. Numerous grey, foliated quartzo-feldspathic bands with marked sulphide depletion. Extensive limonitic coated fractures.

Numerous amphibolite, garnet and muscovite inclusions. Limonitic fractures still present.

Frequent quartz banding & white mineral spotting. Becomes fine grained at depth with decrease in plagioclase and garnet content. Pale green alteration of amphibole content at 9.30m.

Minor garnet inclusions & subordinate pale green altered amphibole content.

Weakly garnetiferous bands, becoming high from 11.56-11.67m. Pale bleached bands at 10.65-10.87m & 11.30-11.56m. Discordant biotite schist bands at 11.25m & 11.67-11.90m.

Gneissose banding decreases from 14.52m with occasional chlorite alteration of biotite content increasing from 14.90-15.15m. Upper 10-20% pyrrhotite, plagioclase matrix and lower 20-30% pyrrhotite, pyrite, biotite amphibolite matrix. Low chalcopyrite association.

Biotite gneiss bands & variable garnet content. Biotite schist bands from 17.59 facilitates fracturing. Sulphide rich bands at 18.07-18.09m & 18.25-18.35m.

Locally garnetiferous & weak chloritic alteration patches.

Numerous amphibolite & quartzo-feldspathic bands, divided by altered garnet amphibolite with extensive bleaching at 22.45-22.55m & up to 5% pyrrhotite associated with quartz lenses: minor chalcopyrite. Pyrite wedge at 21.18. Rare chloritic bands from 22.70m.

Divided by schistose biotite gneiss with increase in sulphides content.

Narrow amphibolitic bands until 25.83m when change to leucocratic section occurs. Marked decrease in garnet content from 26.10m.

Transitional section, garnetiferous

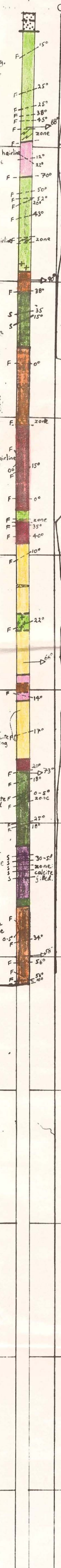
Local biotite gneiss bands, with schistose development. Garnetiferous from 28.96-29.30 with speckled texture & white mineral spots. Bleached altered section from 30.29-30.35m. Conspicuous calcite filled fractures at 29.00-29.30m.

Bleached alteration zones, lower being soft chlorite & fibrous amphibole alteration. Shears calcite filled. Section more an amphibolite at base

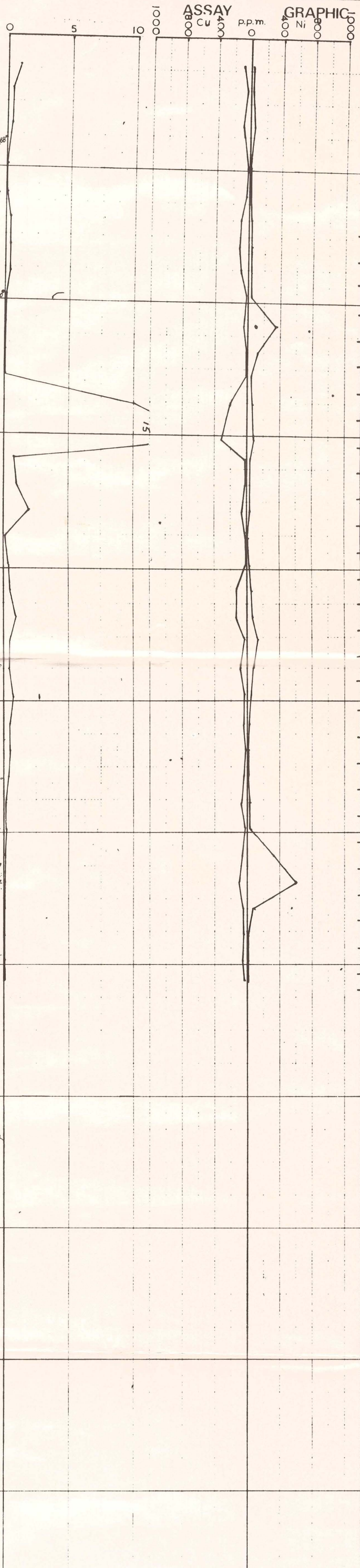
Frequently leucocratic with rare garnet inclusions.

END OF BOREHOLE: 36.01m

## LOG




## ASSAY GRAPHIC




## ASSAY RECORD

| GS | From (ft) | To (ft) | % | Cu p.p.m. | Ni p.p.m. |
|---|---|---|---|---|---|
| 1791 | 0·66 | 1·66 | 100 | 87 | 34 |
| 1792 | 1·66 | 2·64 | 100 | 53 | 30 |
| 1793 | 2·64 | 4·33 | 80 | 93 | 51 |
| 1794 | 4·33 | 5·38 | 95 | 20 | 24 |
| 1795 | 5·38 | 6·38 | 100 | 43 | 23 |
| 1796 | 6·38 | 7·35 | 100 | 103 | 38 |
| 1797 | 7·35 | 8·35 | 96 | 121 | 44 |
| 1798 | 8·35 | 9·35 | 96 | 93 | 40 |
| 1799 | 9·35 | 10·42 | 94 | 25 | 35 |
| 1800 | 10·42 | 11·42 | 100 | 57 | 365 |
| 1801 | 11·42 | 12·44 | 98 | 12 | 125 |
| 1802 | 12·44 | 13·44 | 100 | 6 | 47 |
| 1803 | 13·44 | 14·44 | 100 | 210 | 73 |
| 1804 | 14·44 | 15·40 | 100 | 315 | 89 |
| 1805 | 15·40 | 16·39 | 100 | 13 | 40 |
| 1806 | 16·39 | 17·39 | 100 | 19 | 30 |
| 1807 | 17·39 | 18·39 | 100 | 61 | 42 |
| 1808 | 18·39 | 19·39 | 100 | 20 | 19 |
| 1809 | 19·39 | 20·39 | 100 | 28 | 34 |
| 1810 | 20·39 | 21·39 | 100 | 130 | 65 |
| 1811 | 21·39 | 22·40 | 100 | 146 | 79 |
| 1812 | 22·40 | 23·39 | 100 | 32 | 149 |
| 1813 | 23·39 | 24·38 | 100 | 89 | 78 |
| 1814 | 24·38 | 25·38 | 100 | 28 | 48 |
| 1815 | 25·38 | 26·38 | 100 | 39 | 25 |
| 1816 | 26·38 | 27·37 | 100 | 13 | 12 |
| 1817 | 27·37 | 28·35 | 100 | 58 | 29 |
| 1818 | 28·35 | 29·34 | 100 | 76 | 40 |
| 1819 | 29·34 | 30·34 | 100 | 25 | 57 |
| 1820 | 30·34 | 31·37 | 97 | 65 | 330 |
| 1821 | 31·37 | 32·37 | 99 | 98 | 605 |
| 1822 | 32·37 | 33·33 | 100 | 56 | 75 |
| 1823 | 33·33 | 34·33 | 100 | 38 | 12 |
| 1824 | 34·33 | 35·33 | 100 | 52 | 16 |
| 1825 | 35·33 | 36·01 | 100 | 32 | 12 |

## LEGEND

- Overburden
- Acid Gneiss / Quartz Feldspar Band
- Garnet Gneiss
- Garnet-Biotite Gneiss
- Biotite Gneiss
- Hornblende-Biotite Gneiss
- Hornblende Gneiss
- Garnet Amphibolite
- Amphibolite
- Ultrabasic Gneiss
- Alteration
- Sub-massive Sulphide Mineralisation
- Fracture Zone

F ····· 45° Fracture
S ——— 40° Shear
——▷ 70° Foliation
} with inclination in degrees marked but not shown to scale

— Lithological Unit Division
--- Lithological Sub-unit Division
} As described in geological log

**Consolidated Gold Fields Ltd.**

**GRAPHIC DRILL LOG**

| | | | |
|---|---|---|---|
| Area | SCOURIE | Claim or Grid Reference | 20864664 |
| Location | Loch na Claise Feàrne | Elevation | 325 ft |
| Drilled by | ENCORE LTD. | Orientation | 020° |
| Date Started | 9–2–76 | | 50° |
| Date Completed | 12–2–76 | Logged by | G. S. ROBERTS |

DDH No. SBH 4

Scale 1:125

## DESCRIPTION

m

0 Peat cover only

Garnet inclusions from 1·40m with marginal increase in sulphide content.

Occasional biotite rich band from 3·13m. Garnet inclusions limited to quartz vein. Short bleached section at top of unit.

Strongly leucocratic from 6·30m with few garnet inclusions.

5 & white mineral specks

Pyrites & chalcopyrite associated with garnet content of biotit gneiss, and weak chlorite alteration.

Frequent garnet inclusions & white specks decreasing from 7·50m into biotite-hornblende gneiss: containing 7-10% pyrrhotite & minor chalcopyrite. From 8·42m garnet-biotite hornblende gneiss.

Initially mesocratic with white specks and chlorite spots from 9·45m plus loss of garnet content.

10 Initial subordinate biotite content with v-few garnets.

Weak chloritic alteration in biotite-hornblende gneiss. Final section also pale green, possibly altered.

Porphyroblastic garnet content decreases from 13·15 with occasional sulphide chlorite alteration of biotite.

Subordinate hornblende content increases at depth.

Minor white spotting & low garnet content.

15

Slightly micaceous & garnetiferous with bleached alteration bands preceding biotite-gneiss sections. Pale green altered micaceous amphibolite from 18·48m.

Garnet-biotite rich bands at top with bleached amphibolite band at 19·60–19·80m, before lower leucocratic section with frequent garnet inclusions.

20 Occasional chloritic spotting.

Thin micaceous bands facilitate fracturing. Few local garnet inclusions.

Pale green alteration bands at 23·83–24·10m & 24·40–24·59m.

Frequent pale alteration zones with a few garnet inclusions & quartz veins. High 3% sulphide content in upper 20m.

25 Locally garnetiferous with micaceous amphibolite band at 26·17–26·21m.

Quartz banding & local garnet inclusions from 27·22m. Bleached alteration zone at 26·80–27·22m.

Regular chloritic banding & darkening at depth with subordinate hornblende content. Fractures calcite filled. Soft pale green asbestiform

30 altered amphibolite, best developed at top & base of unit.

Occasional chloritic spot alteration, hornblende content & amphibolite bands. At 32m garnet content decreases with increase in biotite. Divided by micaceous amphibolite at 34·55–35·06m with chlorite alteration common. Extensive fracture zones as shown.

35

From 37·65m occasional hornblende-biotite gneiss sections: Conspicuous quartz filled fracture at 38·85–39·05m. with minor pyrrhotite association. Fracturing mostly within leucocratic sections with green carbonate fillings.

40

45 END OF BOREHOLE : 46·27m

50

55

60

## LOG

0 5 10

F 58° 74° 34° F 53° 67° F 47° 72° F 35° 70° 45° 65° F 60° zone F 25° 12° F 67° F 12° 45° S 40° F 23° F 22° 16° 38° F 30° F 82° 72° F 26° 20° pyritisation F 80° F 31° 19° 54° zone F zone F zone F zone F 22° 18° hairlines F 25° 29° 64° 70° F 12° 68° Pyrite 18° 52° 5° 10° F 9° F 54° 5° 26° F 85° pyrite F 15°

## ASSAY GRAPHIC

1000 0 1000 ppm. Cu 0 1000 Ni 0 1000

## ASSAY RECORD

| | | | | ppm. Cu | ppm. Ni | |
|---|---|---|---|---|---|---|
| 1826 | 0·94 | 2·04 | 91 | 78 | 78 | |
| 1827 | 2·04 | 3·14 | 91 | 55 | 139 | |
| 1828 | 3·14 | 4·14 | 100 | 39 | 57 | |
| 1829 | 4·14 | 5·14 | 100 | 89 | 106 | |
| 1830 | 5·14 | 6·17 | 97 | 43 | 48 | |
| 1831 | 6·17 | 7·17 | 100 | 42 | 64 | |
| 1832 | 7·17 | 8·17 | 100 | 187 | 231 | |
| 1833 | 8·17 | 9·18 | 99 | 66 | 78 | |
| 1834 | 9·18 | 10·18 | 100 | 31 | 45 | |
| 1835 | 10·18 | 11·18 | 100 | 62 | 53 | |
| 1836 | 11·18 | 12·27 | 92 | 28 | 26 | |
| 1837 | 12·27 | 13·27 | 100 | 27 | 23 | |
| 1838 | 13·27 | 14·28 | 99 | 101 | 43 | |
| 1839 | 14·28 | 15·28 | 100 | 28 | 36 | |
| 1840 | 15·28 | 16·28 | 100 | 15 | 37 | |
| 1841 | 16·28 | 17·23 | 100 | 29 | 40 | |
| 1842 | 17·23 | 18·23 | 100 | 90 | 42 | |
| 1843 | 18·23 | 19·23 | 100 | 70 | 537 | |
| 1844 | 19·23 | 20·23 | 100 | 103 | 79 | |
| 1845 | 20·23 | 21·23 | 100 | 128 | 28 | |
| 1846 | 21·23 | 22·19 | 100 | 102 | 49 | |
| 1847 | 22·19 | 23·25 | 94 | 57 | 187 | |
| 1848 | 23·25 | 24·25 | 100 | 39 | 670 | |
| 1849 | 24·25 | 25·25 | 100 | 139 | 477 | |
| 1850 | 25·25 | 26·23 | 100 | 85 | 53 | |
| 1851 | 26·23 | 27·23 | 100 | 33 | 148 | |
| 1852 | 27·23 | 28·30 | 94 | 35 | 168 | |
| 1853 | 28·30 | 29·30 | 100 | 58 | 64 | |
| 1854 | 29·30 | 30·32 | 98 | 21 | 760 | |
| 1855 | 30·32 | 31·37 | 95 | 111 | 129 | |
| 1856 | 31·37 | 32·37 | 100 | 118 | 59 | |
| 1857 | 32·37 | 33·37 | 100 | 132 | 61 | |
| 1858 | 33·37 | 34·32 | 95 | 76 | 63 | |
| 1859 | 34·42 | 35·42 | 100 | 36 | 50 | |
| 1860 | 35·42 | 36·42 | 100 | 84 | 36 | |
| 1861 | 36·42 | 37·40 | 100 | 46 | 52 | |
| 1862 | 37·40 | 38·40 | 100 | 44 | 93 | |
| 1863 | 38·40 | 39·46 | 94 | 32 | 69 | |
| 1864 | 39·46 | 40·46 | 100 | 43 | 96 | |
| 1865 | 40·46 | 41·46 | 100 | 30 | 91 | |
| 1866 | 41·46 | 42·38 | 100 | 49 | 67 | |
| 1867 | 42·38 | 43·38 | 100 | 43 | 71 | |
| 1868 | 43·38 | 44·46 | 93 | 41 | 83 | |
| 1869 | 44·46 | 45·44 | 100 | 25 | 85 | |
| 1870 | 45·44 | 46·27 | 85 | 79 | 61 | |

ft 0 50 100 150 200

## LEGEND

- Overburden
- Acid Gneiss / Quartz Feldspar Band
- Garnet Gneiss
- Garnet–Biotite Gneiss
- Biotite Gneiss
- Hornblende-Biotite Gneiss
- Hornblende Gneiss
- Garnet Amphibolite
- Amphibolite
- Ultrabasic Gneiss
- Alteration
- Sub-massive Sulphide Mineralisation
- Fracture Zone

F ---45° Fracture
S ——40° Shear
——▷ 70° Foliation
} with inclination in degrees marked but not shown to scale

—— Lithological Unit Division
--- Lithological Sub-unit Division
} As described in geological log

**Consolidated Gold Fields Ltd.**

# GRAPHIC DRILL LOG

SCOURIE
Loch na Claise Feàrne
ENCORE LTD.
1–2–76
5–2–76

20674674
325 ft
020°
50°
G. S. ROBERTS

SBH 2

1:125

DESCRIPTION

Peat cover followed by weathered hornblende gneiss boulder at 2·04 m and numerous pink foliated granite fragments from 3·04 m.

Contains frequent garnetiferous bands often with a high pyrrhotite association

Highly micaceous sections producing a strong schistosity. Quartz band initially from 5·71–5·87 m. Section divided by garnet amphibolite from 7·13 – 7·64 m

Garnets usually form rich bands, sulphide content high with quartz bands. Pyrite associated with minor chalcopyrite content.

Alteration increases at depth until major pale green, possibly uralitized, altered rock from 12 m. Conspicuous quartz filled fractures at 9·66 – 9·85 with 5% sulphide association.

Pyroxenite composition, with pale zones containing minor plagioclase.

Pale coloured with chlorite alteration and 3–5% pyrrhotite increasing at depth.

Changeable section of main lithologies with 10–20% pyrrhotite in lower amphibolite band and biotite gneiss

Gneissose banding increases at depth together with appearance of biotite mica & narrow garnet rich bands

High disseminated pyrrhotite content.

Extensive white mineral specking. Major shear zone cemented by quartz & or calcite with extensive haematite staining.

Leucocratic section with amphibolite and garnet amphibolite bands. Fractures calcite filled with limonite staining common, particularly in highly siliceous areas.

Garnet content and distribution variable. Quartz / feldspar bands with major section from 34·34 – 34·[illegible] m. Conspicuous soft, pale green, fibrous amphibole alteration near base. Fractures calcite filled with limonite staining.

Schistose biotite rich zones, becoming garnetiferous from 45·35 – 46·01 m with extensive chlorite alteration. Fractures filled with calcite & mostly only hairlines.

Occasional subordinate biotite content with distinct division at 47·42 m – 47·79 m by leucocratic biotite–gneiss with garnet inclusions.

Leucocratic with high pyrite content until 49·26 m & from 50·55 m. Garnet inclusions & schistose bands common from 49·26 m.

Pale altered bands with orthoclase feldspar at 52·03 m. Basal 10 cm rich in sulphides

Leucocratic biotite gneiss. Frequent garnet inclusions & variable gneissose banding. Schistose biotite rich sections with minor chlorite alteration, particularly as bands within the garnet-biotite gneiss. Fractures calcite filled.

Mesocratic with garnetiferous section from 57·65 – 58·87 m with white mineral specks common. Calcite filled fractures.

END OF BOREHOLE : 62·15 m

LOG

ASSAY GRAPHIC — Cu ppm (0 – 1000) — Ni ppm (0 – 1000)

ASSAY RECORD

| GS | From | To | Width | Cu ppm | Ni ppm |
|---|---|---|---|---|---|
| 1732 | 3·17 | 4·10 | 95 | 177 | 101 |
| 1733 | 4·10 | 5·20 | 95 | 139 | 129 |
| 1734 | 5·20 | 6·20 | 99 | 204 | 202 |
| 1735 | 6·20 | 7·21 | 99 | 87 | 103 |
| 1736 | 7·21 | 8·21 | 100 | 110 | 108 |
| 1737 | 8·21 | 9·21 | 100 | 126 | 128 |
| 1738 | 9·21 | 10·15 | 100 | 160 | 267 |
| 1739 | 10·15 | 11·15 | 100 | 36 | 104 |
| 1740 | 11·15 | 12·16 | 99 | 28 | 69 |
| 1741 | 12·16 | 13·28 | 89 | 31 | 118 |
| 1742 | 13·28 | 14·28 | 100 | 95 | 625 |
| 1743 | 14·28 | 15·28 | 100 | 58 | 1040 |
| 1744 | 15·28 | 16·25 | 100 | 53 | 940 |
| 1745 | 16·25 | 17·25 | 100 | 45 | 960 |
| 1746 | 17·25 | 18·18 | 100 | 78 | 580 |
| 1747 | 18·18 | 19·16 | 100 | 560 | 340 |
| 1748 | 19·16 | 20·16 | 100 | 310 | 198 |
| 1749 | 20·16 | 21·16 | 100 | 405 | 230 |
| 1750 | 21·16 | 22·37 | 83 | 64 | 71 |
| 1751 | 22·37 | 23·37 | 100 | 61 | 53 |
| 1752 | 23·37 | 24·37 | 100 | 195 | 160 |
| 1753 | 24·37 | 25·13 | 100 | 49 | 57 |
| 1754 | 25·13 | 26·13 | 100 | 62 | 52 |
| 1755 | 26·13 | 27·12 | 100 | 38 | 78 |
| 1756 | 27·12 | 28·15 | 100 | 49 | 46 |
| 1757 | 28·15 | 29·15 | 100 | 53 | 35 |
| 1758 | 29·15 | 30·15 | 100 | 28 | 18 |
| 1759 | 30·15 | 31·46 | 76 | 36 | 21 |
| 1760 | 31·46 | 32·46 | 100 | 58 | 39 |
| 1761 | 32·46 | 33·31 | 100 | 102 | 50 |
| 1762 | 33·31 | 34·31 | 100 | 67 | 44 |
| 1763 | 34·31 | 35·31 | 100 | 68 | 26 |
| 1764 | 35·31 | 36·21 | 100 | 107 | 41 |
| 1765 | 36·21 | 37·21 | 100 | 124 | 52 |
| 1766 | 37·21 | 38·21 | 100 | 127 | 49 |
| 1767 | 38·21 | 39·13 | 100 | 112 | 52 |
| 1768 | 39·13 | 40·13 | 100 | 132 | 48 |
| 1769 | 40·13 | 41·21 | 93 | 103 | 45 |
| 1770 | 41·21 | 42·21 | 100 | 27 | 44 |
| 1771 | 42·21 | 43·11 | 100 | 20 | 39 |
| 1772 | 43·11 | 44·27 | 86 | 19 | 51 |
| 1773 | 44·27 | 45·27 | 100 | 25 | 32 |
| 1774 | 45·27 | 46·25 | 100 | 79 | 45 |
| 1775 | 46·25 | 47·25 | 100 | 36 | 36 |
| 1776 | 47·25 | 48·26 | 99 | 17 | 23 |
| 1777 | 48·26 | 49·26 | 100 | 27 | 34 |
| 1778 | 49·26 | 50·25 | 100 | 153 | 95 |
| 1779 | 50·25 | 51·25 | 100 | 18 | 12 |
| 1780 | 51·25 | 52·10 | 100 | 17 | 43 |
| 1781 | 52·10 | 53·10 | 100 | 24 | 59 |
| 1782 | 53·10 | 54·10 | 100 | 145 | 97 |
| 1783 | 54·10 | 55·08 | 100 | 59 | 79 |
| 1784 | 55·08 | 56·08 | 100 | 57 | 49 |
| 1785 | 56·08 | 57·13 | 95 | 145 | 59 |
| 1786 | 57·13 | 58·13 | 100 | 90 | 40 |
| 1787 | 58·13 | 59·10 | 100 | 160 | 57 |
| 1788 | 59·10 | 60·10 | 100 | 36 | 126 |
| 1789 | 60·10 | 61·06 | 99 | 77 | 68 |
| 1790 | 61·06 | 62·15 | 87 | 76 | 60 |

## LEGEND

- Overburden
- Acid Gneiss / Quartz Feldspar Band
- Garnet Gneiss
- Garnet–Biotite Gneiss
- Biotite Gneiss
- Hornblende–Biotite Gneiss
- Hornblende Gneiss
- Garnet Amphibolite
- Amphibolite
- Ultrabasic Gneiss
- Alteration
- Sub-massive Sulphide Mineralisation
- Fracture Zone

F – – – 45° Fracture
S —— 40° Shear
——▷ 70° Foliation
} with inclination in degrees marked but not shown to scale

— Lithological Unit Division
--- Lithological Sub-unit Division
} As described in geological log

49

19

20

48

Spreads

Spreads

H&LWMOST

Fionndalach

Creag

Cnoc nan

Lochan Cuilce

SBH5

250

200

150

50

100

275

300

375

350

440

Fionndail Bheag

Loch Airigh Gloisg

FP


**Consolidated Gold Fields Ltd.**

SCOTTISH EXPLORATION


THUS SCOURIE DIAMOND DRILL HOLE LOCATION ●

| PLAN No. | O.S. MAP No. NC 14 NE | |
|---|---|---|
| 2 | SCALE 1:2500 | |
| | 17 - 3 - 76 | |

20 21

47 47

LOCH NA CLAISE FEARNA

BM 166·32

BM 155·01

BM 140·79

BM 153·70

A894

Cnoc an Fhuarain

SBH1 SBH2 SBH3 SBH4

46 46

20 21

# Consolidated Gold Fields Ltd.

SCOTTISH EXPLORATION

Title SCOURIE DIAMOND DRILL HOLE LOCATION.

| PLAN Nº | O.S MAP Nos NC 14 NE | |
|---|---|---|
| 1 | Scale 1 : 2500 | Drawn by |
| | Date 17 - 3 - 76 | Checked by |