Appendix C – Drill core logging (BH4508)

Detailed description of Hellerfjellet drill core (BH4508), the colours are the same as in the core log in Figure 5-45.

Meters down the core	Minerals	Description	Rock type
0-1.15	Quartz, plagioclase and biotite. The dark layers are graphite.	Homogeneous, grey to white rock. Thin foliated and weakly banded. The foliation/ layers changes between white and grey and some dark layers.	Grey gneiss
-5.40	Quartz, plagioclase, muscovite, biotite, graphite, pyrrhotite	It is mostly alternating grey and white, black and brown some places. A thin foliated, weakly banded rock. Black bands. Some bands are rich in pyrrhotite.	Graphite bearing muscovite gneiss with pyrrhotite
-102.90	Quartz, plagioclase, garnet, muscovite, biotite, graphite, amphibole, chlorite, chalcopyrite.	A darker rock than further up. It has alternating colours, and generally varies both in colour, particle size and minerals. It is green, white, grey, black, brown. It is mostly banded and foliated, but some places it is more massive. Bands with graphite and carbonates several places. The garnet occurs everywhere, but the grain is bigger where dark minerals appear. The garnet grains grow on the other minerals and over the foliation, so it came after the rest of the minerals. Disseminated chalcopyrite. More and more biotite rich bands towards the ore zone.	Grey gneiss
-116.40	Sericite, qz, muscovite, graphite, garnet	White and beige. Banded.	Muscovite gneiss

-134	Graphite, quartz, sericite, sulphides (sp, cpy, po), carbonate, scapolite	Ore zone -119m: tonalitic rock that is altered and contains ser, grt and some areas rich in cpy and ga. -121m: graphitebearing schist with various amount of qz and ser, disseminated sp - 138m: quartz-sericite with various amount of graphite, disseminated sulphides and most in the parts with less graphite. Several places are sulphides (cpy, sp, po) concentrated in bands. Calcite and scapolite are also present in bands.	Graphite bearing Muscovite gneiss/schist with mineralization
-148	Graphite, sericite, quartz, garnet	Below the ore zone. Some garnets.	Graphite bearing muscovite gneiss
-156	Muscovite, biotite, quartz, feldspar, graphite, pyrrhotite	Banded rock with dominated alternating muscovite and biotite, some quartz and feldspar, graphite and pyrrhotite	Mica schist
-165.5	Muscovite, biotite, graphite quartz, sillimanite	Transition from muscovite to biotite dominated. Fine grained.	Mica schist
~ 190	Biotite, graphite, quartz, muscovite	Paler layers. Biotite dominated and more bands with graphite. Less graphite	Mica schist