

# Terminology

**ADIT:** an opening that is driven horizontally (into the side of a mountain or hill) to access a mineral deposit.

**AIRBORNE SURVEY:** a geophysical survey done from the air by systematically crossing an area or mineral property using aircraft outfitted with a variety of sensitive instruments designed to measure variations in the earth's magnetic, gravitational, electro-magnetic fields, and/or the radiation (Radiometric Surveys) emitted by rocks at or near the surface. These surveys detect anomalies.

**ALLOY:** a metal made by combining two or more metals. An alloy is always harder than its component metals: some examples... Bronze is an alloy of copper and tin. Pewter is made from tin, lead and copper. Brass is made from zinc and copper. Amalgam is an alloy made from mercury and another metal,

e.g., silver in the case of teeth amalgam. Mercury is also used in silver and gold mining (particularly the artisanal type) because these metals combine readily with mercury. Electrum is a naturally-occurring alloy of gold and silver mostly. Steel is an alloy made mostly from iron and some carbon and then other metals are added for different end uses.

**ARKOSE:** a sedimentary rock formed by the cementation of sand-sized grains of feldspar and quartz: arkoses occur commonly in the Avalon Zone of Newfoundland.

**BASALT:** a dark-colored, typically fine-grained (see aphanitic) volcanic rock composed chiefly of olivine. The equivalent intrusive rock is a gabbro. It is the major rock of plagioclase, pyroxene type in modern and ancient ocean basins and is the most abundant volcanic rock in the earth's crust. Some basalts are porphyritic or amygdaloidal.

**BED/BEDDING:** the presence of layers (strata, beds or laminations) in sedimentary or volcanic rocks. The layers are distinguished from each other by features such as composition, color and grain size.

**CEMENT:** a fine-grained portion of a rock that is introduced during lithification of the rock and acts to bind for all the other fragments and crystals together.

**CHLORITE:** a dark green mineral that falls between the mica and clay families of silicate minerals; chlorite contains iron, aluminum and magnesium. It is common as an alteration or metamorphic mineral formed from ferromagnesian minerals.

**DELTA:** a large body of sediment deposited at the mouth of a river.

**DIAMOND DRILLING:** a common rock drilling method used in mineral exploration. The diamond-tipped bits allow recovery of a cylindrical core of rock.

**EPICENTRE:** the point on the Earth's surface directly above the focus of an earthquake,

**EPIDOTE:** a bright green mineral consisting of calcium, aluminum, iron and silica; it is common in metamorphic rocks and in rocks that have been affected by hydrothermal fluids (alteration).

**ERUPTION:** the process through which solid, liquid, and gaseous materials are thrown into the earth's atmosphere and onto the earth's surface by volcanic activity

**FOSSILS:** remains, traces or imprints of animals or plants that have been preserved in rocks; includes bones, shells, casts and tracks.

**GEOCHRONOLOGY:** the field of geoscience that measures the age of rocks and provides a temporal framework in which evidence from other aspects of geology can be interpreted in order to unravel the history of Earth.

**GPS:** acronym for Global Positioning System. GPS units are small hand-held devices used to accurately display your position in the bush.

**TOPOGRAPHIC MAPS:** Once the UTM zones (the orange segments – described above) are flattened, they can be divided into convenient map sheets or topographic maps produced by Natural Resources Canada, conforming to the National Topographic System (NTS) of Canada. These maps are available in two standard scales: 1/50 000 (most commonly used by prospectors) and 1/250 000. The area covered by a given map sheet is determined by its latitude and longitude.

**GEOPHYSICS:** the study of the physical properties of the earth and the composition and movement of rocks. Geophysics is used extensively, either in ground or airborne surveys, in mineral exploration to detect mineralized rocks characterized by any one or more of their physical properties, e.g., magnetism, electrical conductivity (EM-16, I.P.) or gravity.

**LAVA:** molten rock that flows out at the Earth's surface.

**MAGMA:** molten rock, formed within the inner parts of the Earth, which crystallizes to form an igneous rock

**MARBLE:** metamorphosed limestone or dolomite.

**PLATE TECTONICS:** a theory concerning the global movement of crustal plates that makes up the Lithosphere. The whole lithosphere is in constant motion, not only those segments composed of continental or oceanic material. An earlier version of this theory was called continental drift.

**TUFF:** a consolidated volcanic rock composed of a variable mixture of pyroclastic rocks fragments, crystals, pumice and fine ash.