

Site Name: Esgairhir Mine

Grid Ref: SN 734913

RIGS Category: Educational & Scientific

Earth Science Category: Mineralogy

1:50,000 Geological: BGS Sheet 163, Aberystwyth

RIGS Statement of Interest:

The regionally important mineralization at Esgairhir Mine occupies a fracture zone (known as the Esgairhir Lode), which occurs in two parallel, ENE-striking branches hosted by the Lower Silurian (Llandovery Series) Devil's Bridge Formation. At the eastern end of the mine sett, close to the boundary with Esgairfraith Mine RIGS, the lode is deflected into an ESE trend. A number of lode exposures are present, revealing brecciated sedimentary rocks cemented by white quartz (the sulphide ore minerals having weathered away at surface).

The spoil tips at Esgairhir Mine are well known to mineralogists for their diverse suite of secondary minerals and they are also a key locality for the study of the early suite of quartz-sulphide veins of the Central Wales Orefield, which are known for their widely variable primary ore mineralogy. Several nationally rare ore minerals are present, including the extremely rare nickel-antimony sulphide tucékite. Reflected-light petrology is required to study such minerals, but the site is an important sampling resource for the study of this early mineralisation.

The tips are also rich in secondary mineralisation which has formed both in situ and also within the tips due to post-mining oxidation of primary metal sulphides. Again, some nationally rare mineral species are present, such as the lead-copper sulphate hydroxide species elyite and chenite. Such minerals tend to occur as small microcrystals and again require the use of a microscope for their study.

Surveyed by: J.S. Mason