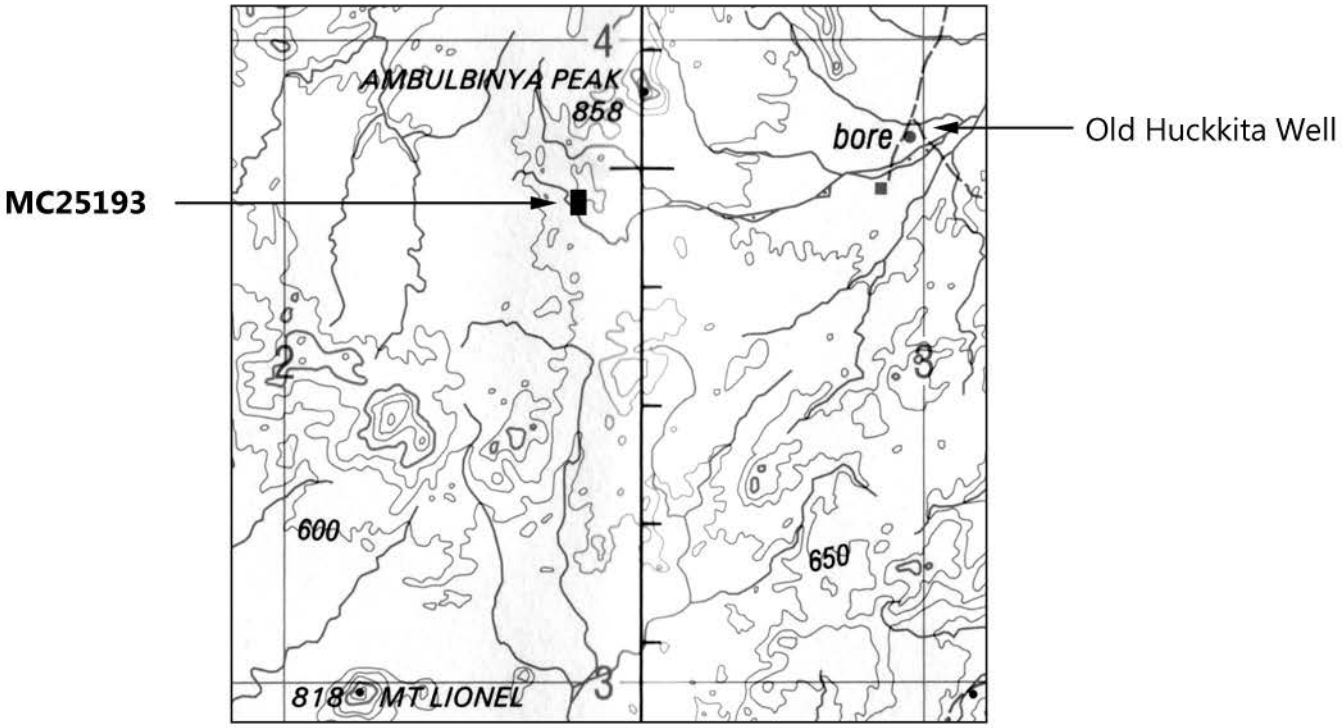
ANNUAL REPORT 2013
MC25193

Map Sheet: 1:100000 Quartz 5951
Commodity sought: Kyanite Gemstones

Patrick Gundersen
PO Box 462
Kenmore QLD
Australia 4069

Overview

MC25193 is located SW of Ambulbinya Peak on Ambalindum Station in the eastern Harts Range region and is accessible via rudimentary tracks heading west from Old Huckkita Well (see map below). Kyanite-bearing schist occurs within the claim area and also extends north for several kilometres. Gem quality Kyanite suitable for use in the jewellery/lapidary industry has been collected from trial costeans developed on the claim and further potential deposits exist beyond the lease boundaries.



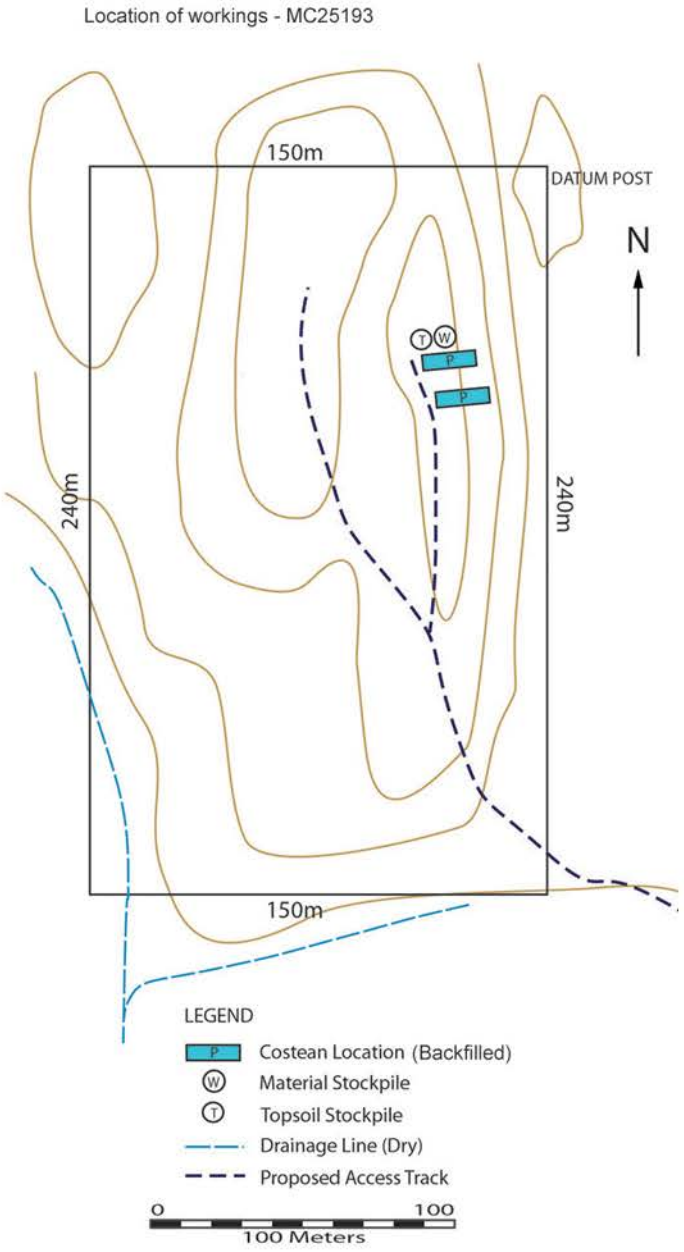
Geology and Occurrence

The Harts Ranges are located in the eastern part of the Arunta inlier, a group of Archaen age rocks subjected to intense regional metamorphism at least to granulite grade. More recently during the Alice Springs Orogeny, further retrogressive changes resulted in pegamatitic intrusions and hydrothermal, metasomatic veins.

The host rocks for the Kyanite-bearing schist are originally thought to have been comprised of volcanic ash and tuff, interlaminated with quartz-rich sediments. Regional metamorphism involving prolonged high temperatures and pressure have caused the aluminium-rich layers to produce large, well formed Kyanite crystals up 30cm in length. Zones of Kyanite-bearing biotite schist occurs as layers and lenses within the Entia Gniess and can range from several meters to over 200 meters in length. Abundant Kyanite within these zones can range in colour from pale green through to dark teal blue, also varying in quality from opaque to gem quality.

Tenement history and workings

MC25193 was granted on Nov 13th 2006 to Heart of the Earth Pty Ltd and in July 2007, trial costeans were dug under Mining Management Plan Authorisation # 0349-01 (see map below). Specimen grade Kyanite suitable for faceting was discovered in the northern-most costean in a thin layer of Biotite Mica. The Kyanite bearing Mica is runs beneath large areas of hard feldspathic gneiss, which was unable to be moved by the excavator. Future work on this particular area of the claim would require other methods to remove the gneiss. Both costeans were subsequently backfilled. Please refer to Final Report "Kyanite Project" for more details.



On Nov 3rd 2008, MC25193 and all stock/plant were sold to the current lease-holder Patrick Gundersen. 100% interest in the tenement was transferred from Heart of the Earth Pty Ltd to Patrick Gundersen.

From 2008 to 2012, work has been focussed on processing/marketing the initial samples of Kyanite recovered. Annual visits to the site involving hand-sampling have indentified better-yielding zones of Kyanite-bearing schist, both within the existing claim area and further afield.

Potential Resources

The Kyanite-bearing zone within MC25193 and further afield holds considerable potential for gem quality stones and also for museum grade matrix specimens. On a worldwide scale, this deposit ranks as one of the finest Kyanite occurrences in terms of quality, abundance of material and sheer size. Of particular interest is the rare teal-coloured gem quality Kyanite, a unique neon-blue hue that has not been seen elsewhere around the world. The potential of this striking colour as a cut gemstone in the jewellery industry is very encouraging (see images below).

(left) High quality museum-grade specimens of teal Kyanite in matrix of black biotite mica.

(Above) Specimen of gem teal Kyanite with faceted stone

(above) A selection of beads and cabochons utilizing the various colours of Kyanite from MC25193

(Right)
Sterling silver and 18ct gold jewellery featuring various colours of Kyanite from MC25193

Future Development

Exploration within the vicinity of MC25193 has revealed extensive Kyanite mineralization, predominantly to the north for several kilometres. As it is a requirement that all mineral claims be subjected to a review and subsequent conversion or cancellation, this would seem a possible opportunity to apply for an EL with the purpose of formally testing the kyanite-bearing area. This would enable thorough exploration and identification of the most productive zones, over which a Mineral Lease could then be applied for.

Expenditure For 2013

Site visit (June 19 to July 15)

Geological sampling and mapping 120 hours @ $60p/h	$7200
Office Studies: literature research 25 hours @ 60 p/h	$1500
Overheads (fuel and supplies)	$1200
Total:	**$9900**

PO Box 462
Kenmore QLD
Australia 4069