



## LIDAR AIRBORNE SURVEY COMPLETED AT PORT GREGORY AND RED HILL

- High Resolution Airborne LiDAR Surveys completed at both Port Gregory and Red Hill Projects
- Surveys to aid in the delivery of a higher confidence resource classification and inform technical studies
- Real Time Kinetic (RTK) GPS survey completed for Port Gregory and Red Hill drill collars

Heavy Minerals Limited (ACN 647 831 833) (“**HVY**”, “**Heavy Minerals**” or the “**Company**”) is pleased to announce that it has received and processed data from the recently completed Airborne LiDAR and RTK surveys at Port Gregory and Red Hill.

The data received has been integrated into the Company’s resource models. Future resource model announcements will include RTK survey enhanced imagery. The models will be updated and announced when additional minerology assay data is received.



*Figure 1: Airborne LiDAR system used for the survey.*

Non-Executive Chairman, Mr. Adam Schofield said:

“The Company is pleased to have completed the Airborne LiDAR and RTK surveys at both Port Gregory and Red Hill. As the Company looks to transition from an explorer to a potential miner the high level of surface data these surveys provide is invaluable not only for improving the level of resource confidence but also for mine planning and infrastructure planning.”

### **Summary of Surveys conducted at Port Gregory and Red Hill**

This announcement refers to the recently completed Airborne Lidar and RTK surveys.

The Airborne LiDAR survey details are as follows:

**Survey Area:**

- 2575 hectares at Port Gregory (Figure 2)
- 755 hectares at Red Hill (Figure 3)

**Datum:**

- Horizontal: MGA94 Zone 50; Vertical AHD
- Ground control and grid checking using RTK GPS

**Method:**

- Riegl VZ-2000 aerial survey system, mounted in a Cessna RG182 (Figure 1)
- Survey (+/-75 mm elevation, +/- 50mm horizontal accuracy)

**Data Extracted:**

- Digital Surface Model and Orthomosaic with 7cm pixel resolution
- Contours: 1m Major shown on PDF plan; 0.25m Minor provided in Digital Data File

**Deliverables:**

- Plan with aerial imagery overlaid (.PDF)
- 3D Digital Data (.DWG)
- Orthomosaic aerial Image (.ECW)

**RTK GPS drill collar survey details are as follows:**

- Surveyed Holes:
- 162 at Port Gregory
- 50 at Red Hill

**Datum:**

- Horizontal: MGA94 Zone 50; Vertical AHD

**Method:**

- Leica Base/Rover RTK GPS
- Survey (+/-40 mm elevation, +/- 25mm horizontal accuracy)

**Deliverables:**

- Collar Locations (.CSV)



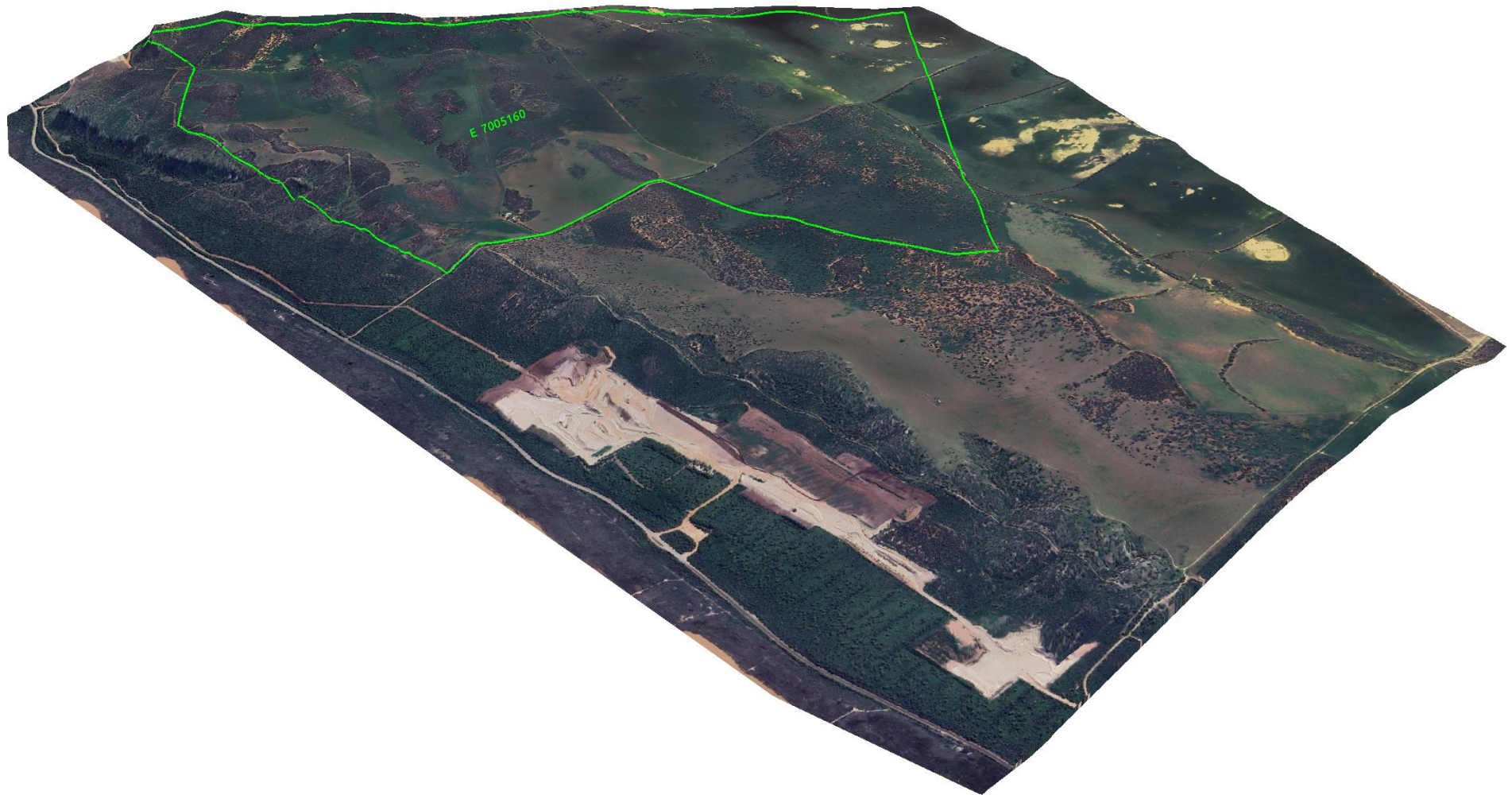


Figure 2: Digital Elevation Model - Port Gregory.



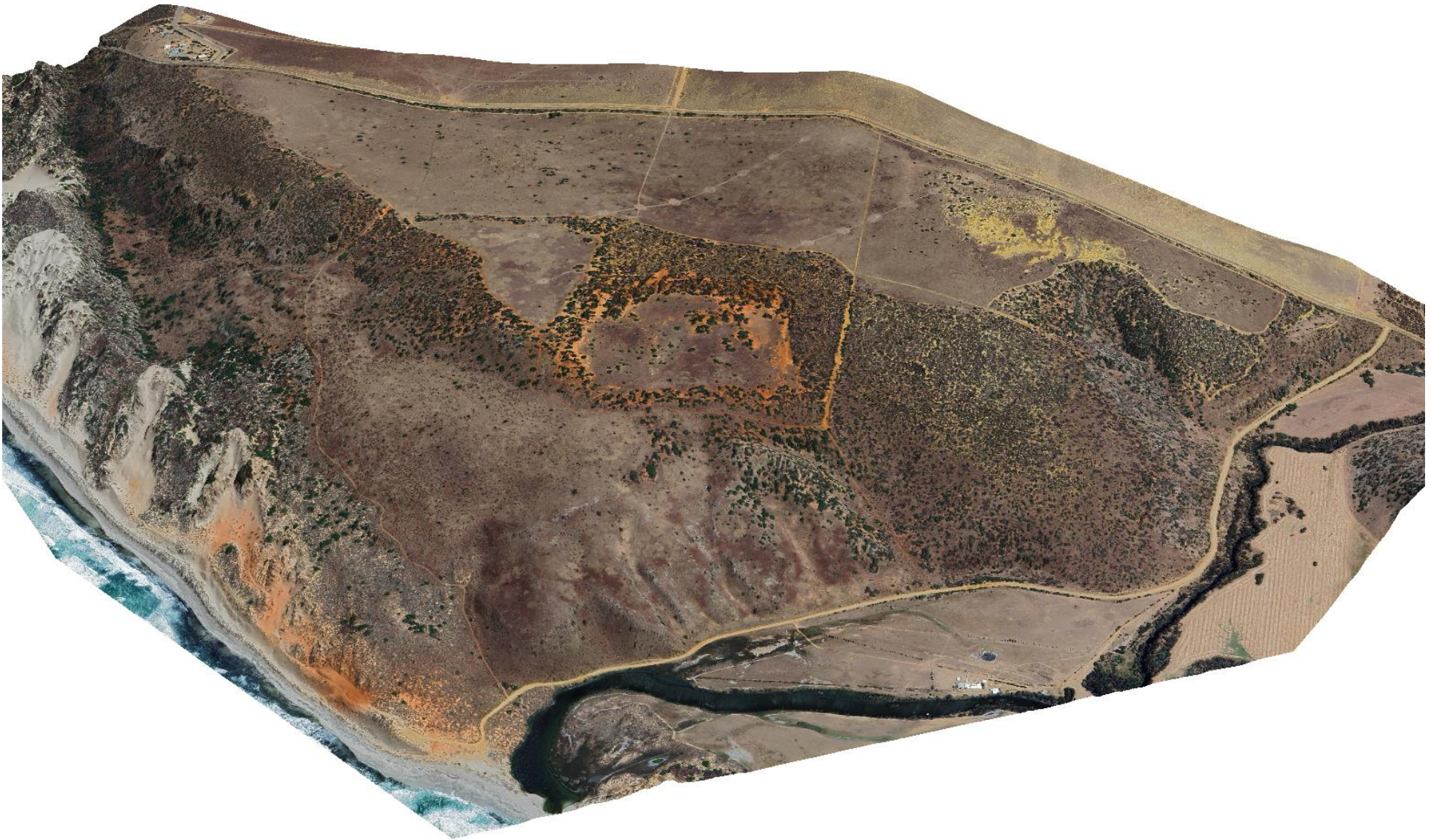


Figure 3: Digital Elevation Model - Red Hill.



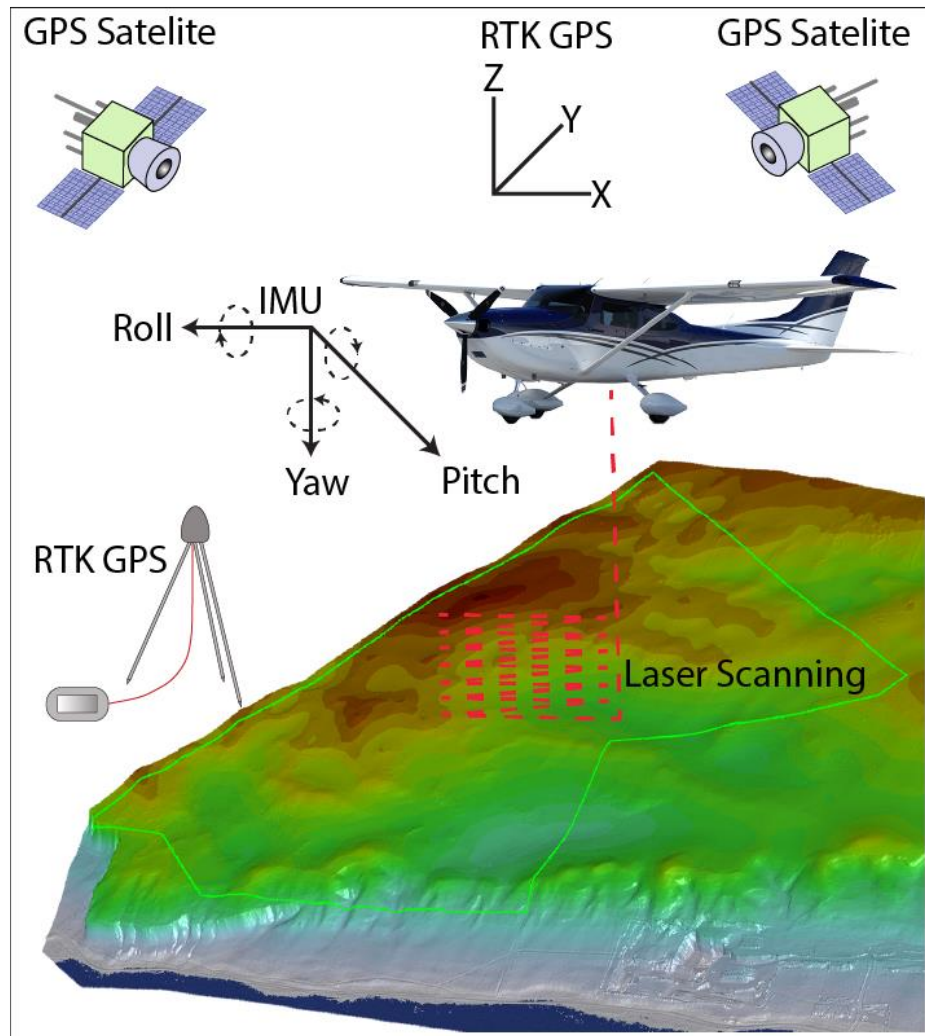


Figure 4: Image showing equipment used with for LiDAR survey to produce the digital models.

### What is a LiDAR survey

LiDAR stands for Light Detection and Ranging which is similar to the principle of radar but uses a laser. LiDAR utilises pulsed laser light to map terrain in detail (Figure 4). The survey used a small aircraft with a LiDAR scanner attached. This information was then used to create detailed digital terrain models (DTM), down to centimetre level accuracy with RTK GPS. High resolution aerial photography was also taken to produce detailed orthomosaic images.

### Why conduct a LiDAR survey

LiDAR surveys are used to create very detailed digital terrain models of the land. The data can be used to assess sand volumes within the resource area, detail the potential mine area, show the location of calcrete outcrops, show exact slope information and locations of fence lines and building. LiDAR surveys have no impact at ground level which makes them perfect for mapping applications.

### What was involved with the LiDAR Survey

- The survey was undertaken by a small plane flying over the Project areas at an altitude of 1000 ft.
- The plane flew even spaced lines across the project areas at approximately 270km/hr.
- The light pulses were not visible from this distance, and there was no ground impact.

This announcement has been authorised by the Board of Directors of the Company.

**Ends**

**For further information, please contact:**

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### About Heavy Minerals Limited

Heavy Minerals Limited (ASX: HVY) is an Australian listed industrial mineral exploration company.

The Company's projects are prospective for industrial minerals including but not limited to Garnet, Zircon, Rutile and Ilmenite. The Company's initial focus is the Port Gregory and Red Hill Garnet Projects with Port Gregory having a JORC (2012) Inferred and Indicated Mineral Resource of 135 million tonnes @ 4.0% Total Heavy Minerals. This includes 4.9 million tonnes of contained Garnet and 220 thousand tonnes of ilmenite<sup>1</sup>. The Red Hill Project has an Exploration Target of between 90 to 150 Mt of material @ 5.4% to 4.1% THM. The Exploration Target also contains between 5 to 6 Mt of THM and 3.8 and 4.5 Mt of garnet<sup>2</sup>.

The potential quality and grade of the Exploration Target is conceptual in nature and there has been insufficient exploration activity to determine a Mineral Resource estimate and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

The Company's other project is the Inhambane Heavy Mineral Project in Mozambique which contains a JORC (2012) Inferred Mineral Resource of 90 million tonnes @ 3.0% Total Heavy Mineral<sup>3</sup>.

To learn more please visit: [www.heavyminerals.com](http://www.heavyminerals.com)

<sup>1</sup>[https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02516855-6A1089842?access\\_token=83ff96335c2d45a094df02a206a39ff4](https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02516855-6A1089842?access_token=83ff96335c2d45a094df02a206a39ff4)

<sup>2</sup>[https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02462745-6A1067130?access\\_token=83ff96335c2d45a094df02a206a39ff4](https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02462745-6A1067130?access_token=83ff96335c2d45a094df02a206a39ff4)

<sup>3</sup>[https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02661758-6A1148442?access\\_token=83ff96335c2d45a094df02a206a39ff4](https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02661758-6A1148442?access_token=83ff96335c2d45a094df02a206a39ff4)

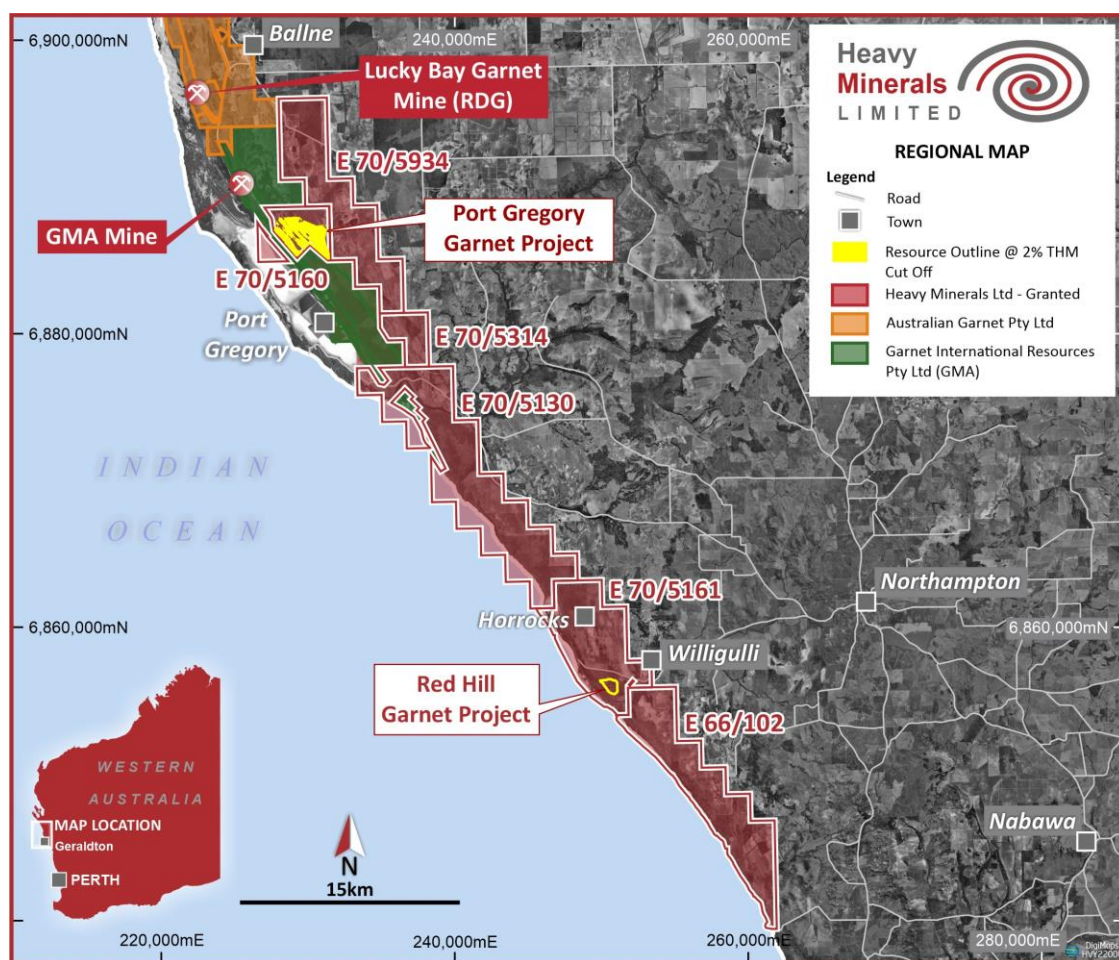


Figure 5: Project Locations - Port Gregory and Red Hill