Southern Ocean Science Pty. Ltd.

First Annual Report for:

EL 24/2005, Telopea Road

Prepared by Dr Alistair Reed
areed@southernoceanscience.com

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Street address: 30 Patrick Street, Hobart, Tasmania, Australia 7000
Postal Address: PO Box 426, Rosny Park, Tasmania, Australia 7018

Phone 03-62344177
Facsimile 03-62344755
Mobile 0407-115123

ABN 62 084 385 919

SUMMARY

A small number of hand-specimens of orange to red coloured granite have been collected from an area east of Launceston in northern Tasmania. The minimum total volume of coloured granite is believed to be in the order of 250,000m^3. The samples were assessed for their potential for input into the landscape or bulk aggregate markets. They were crushed and tested for size and density and an estimate of the size of the deposit made.

Ready proximity to ports, as well as being located in an area of existing forestry and adjacent to a main access road also prove favourable. It is recommended that further work be done to map the extent of the deposit, prior to collection of a bulk sample and application for a mining lease.

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INTRODUCTION

Tasmania is ideally placed to supply the local, national and, possibly, the international market with decorative gravel. This is because Tasmania has;

1. A unique geology and, hence, rock diversity not easily duplicated on the mainland, and
2. access to ports whereby material can be cheaply and efficiently shipped to Pacific Ports.

After briefly surveying about 12 rock types around Tasmania, it was decided that the Telopea Road area east of Launceston (attached maps) warranted further investigation on the basis that;

1) Landscape designers and product retailers were impressed by hand-specimens of the rock.
2) The rock was well-located to ports at Bell bay and Devonport, as well as population centers along the north coast and Launceston.
3) The rock is significantly different to anything else available on the Australian mainland.
4) The rocks lay on Crown land and within close proximity to existing roads.
5) The area contains a number of stone quarries, including several now abandoned dimension stone quarries (Blessington Road or Jaydon Quarry and an unnamed gravel quarry located 500m east of the junction of Telopea and Blessington Roads, herein named the Memory Road Quarry).
6) The area has already been exploited for stone and is currently subject to logging.

An exploration licence covering 8 sq km was applied for and granted to Southern Ocean Science Pty. Ltd. on the 16th February 2006.

The objective of the exploration licence is to assess whether the material available in the licence area is suitable for its intended market, and whether it could be processed and transported to market at profit.

Location

The licence is located about 50km east of Launceston, in the vicinity of the Telopea and Blessington Road intersection.

Directions
Proceed east from Launceston via White Hills on highway C401. Proceed through Upper Blessington following sign posts as for heading to Mathinna. Beyond Upper Blessington, the road climbs gently and passes from farmland into forest. Continue until the crossroads of Telopea and Blessington Road.

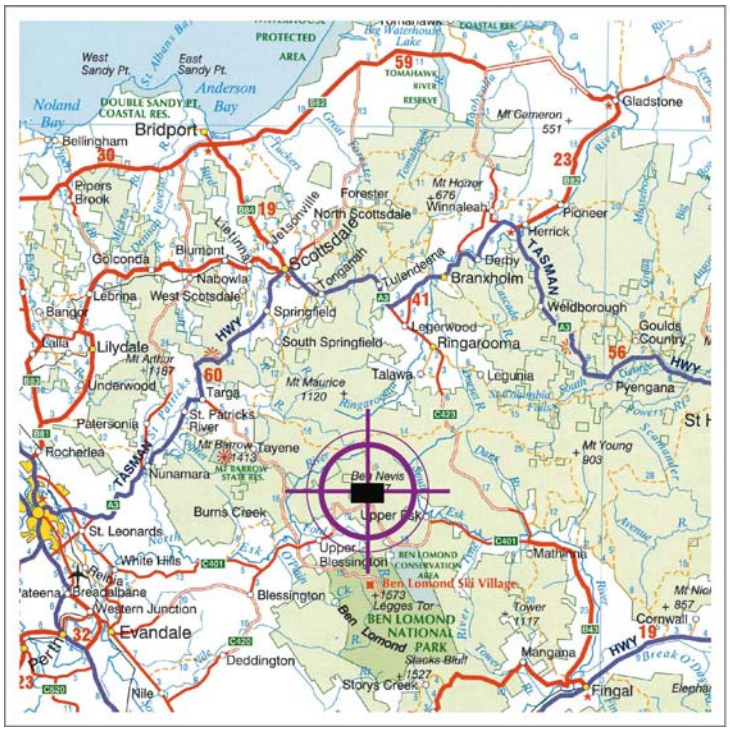
Jaydons Quarry
Head north along Telopea Road for about 1.25km (just before a small stream and a newly logged area to the left). The old quarry is located 50m upstream of the intersection of Telopea Road with the small stream running off Ben Nevis. About 50m south of the stream is an old and partially obscured track that leads of to the left and up the gentle rise to the cleared area above the old quarry. The old dimension stone quarry is small and partially infilled.

Memory Road Quarry
Continue straight ahead from Blessington Road, across Telopea Road and about 400m along Memory Road. Granite outcrop to the right (south) is clearly visible. An old track leads into what is left of the small quarry.

Tenure
Crown land.
State forest.

Physiography
Well drained gradually undulating land (generally north sloping at <5 degrees).

Extent of outcrop
Extensive. Orange and red granite crops out at Jaydons Quarry and trends south-southeast to intersect Telopea Road. Progressing east, the granite gradually becomes greyer in colour but with bands or areas of light orange.



Maps showing the location of EL24/2005 and its proximity to Launceston city (top) and the geology of the licence area (modified from the the Alberton 1:50,000 Geological Map (Tasmania Dept of Mines, 1993) .

REVIEW OF PREVIOUS WORK

The area is disturbed with ongoing forestry. There is no known history of exploration for gravels derived from hard rock sources. No reference has been located describing production from the two small stone quarries (Jaydon and Memory Road). Both quarries are known only from their inclusion on the Alberton 1:50,000 Geological Map (Tasmania Dept of Mines, 1993).

EXPLORATION COMPLETED

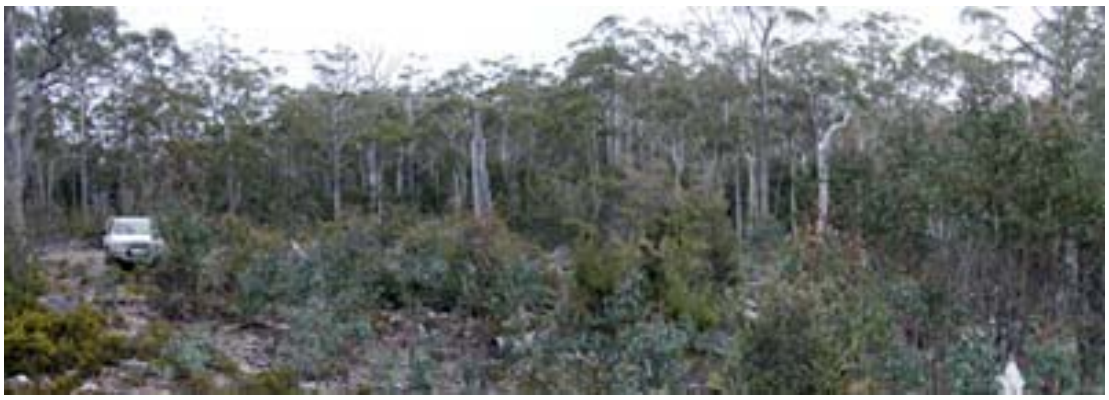
Site visits have been made to assess the extent of the rock of interest and hand samples have been collected.

Hand samples were crushed and screened to assess bulk density (for transport purposes and to estimate tonnage per cubic meter for bulk sales). Subjective assessments were also made as to the shape and hardness of the aggregate, and the effect this might have on machinery wear and marketability.

Crush samples have been shown to various retail outlets for comment.

Discussions have also been held with contractors and site visits made to assess ground conditions.

The coloured rock of interest has not yet been mapped in detail. This is planned for the coming year. Reconnaissance visits have focused on providing a minimum estimate of volume and colour variation.



Site of the old Jaydon dimension stone quarry, located adjacent to Telopea Road.

Results

The main rock of interest is an orange to pale orange/grey and red/grey fresh to partially decomposed medium- to coarse-grained equigranular granite and/or adamellite. This rock forms part of the western marginal sequence of the larger Scottsdale Batholith and is of Devonian age.

Extent of rock

A north or north-northwest trending body of coloured rock trends approximately parallel to the mapped margin of the Scottsdale batolith. The width of the coloured zone is unknown at present but appears greater than 50m. Strike extent has been traced for greater than 100m.

The depth extent is unknown. However, given the uniformity of the trend of the rock relative to the larger batholith, it is likely that the deposit is extensive. A reasonable estimate of volume is in the

order of 250,000m^3. This translates to a minimum gross wholesale value (bulk product only) of between $2.5 and $10m. The retail bulk or bagged value of the product is much higher.

Site tenure
Crown land. State forest.

Physiography
Variable. Sloping land at generally <5 degrees in areas of interest. Outcropping rock as boulders and cuttings.

Image showing variety in colour of crushed granite from EL24/2005.

Distance to market and/or main port

Transport cost is one of the main constraints to the viability of any operation.

Distances shown are in km, by road, and are approximate. The distances show the shortest (but not necessarily the same) route.

Hobart	Launceston	Burnie	Devonport	Bell Bay
240	70	220	170	122

The rock is well located near to markets in Launceston and for shipment to the mainland from either Bell Bay or Devonport.

Processing Information

Approximately 20kg of sample was collected for crush testing (under prospecting licence). The way a rock crushes affects the volume of a sized or screened product available for sale.

The following figures should be regarded as estimates only and will vary depending on equipment used. The rocks tested here were crushed using a laboratory jaw-breaker, and then hand screened.

Testing was conducted to indicate;

- the viability of transporting uncrushed product vs using a transportable crushing plant.
- the size distribution of crushed rock product for a machine set to produce a ~20mm coarse aggregate.

Any further testing should be based on an aggregate of 10mm, preferred for market.

Sample sizes processed (kg)

Crush weights	**Description**	**Fines**	**3.35 to 5.5mm**	**>5.5mm**	**Total**
	Terracotta Orange Granite	1.45	0.936	3.75	6.136

This translates in to the following proportions:

Ratios	**Description**	**Fines**	**3.35 to 5.5mm**	**>5.5mm**
	Terracotta Orange Granite	24%	15%	61%

Bulk densities

Bulk densities are used to estimate transport costs.

Weights shown in grams are for a conical volume of rock equivalent to 0.5lt, with minimal settling. Figures shown are estimates only (but are consistent with one another when compared to documented solid-rock densities).

weight/volume		**Fines**	**3.35 to 5.5mm**	**>5.5mm**
	Terracotta Orange Granite	718	644	666

This equates to bulk densities of (t/m^3):

Density		**Fines**	**3.35 to 5.5mm**	**>5.5mm**	**Particle form**
	Terracotta Orange Granite	1.436	1.288	1.332	Cubic

NOTE:
Bulk density variations between rocks and between crush size is strongly influenced by particle proportions. For example, a 10mm aggregate will, in most cases, yield the **most** volume from the **least** amount of rock and will, thus, be the **cheapest** to transport.

Hand samples only were collected during the course of site inspections. There has been no land disturbance.

Expenditure

Geological support, industry and government consultation, sample collection and preparation.	$2,640

Land disturbance

Several hand samples only were collected during the course of site inspections. These were taken from disturbed areas (roadside and old quarry sites) and were collected within the limits of the issued prospecting licence. There has been no land disturbance to date.

DISCUSSION

The rock is of a high quality. The aggregate was well received by landscape suppliers and could probably attract a premium price relative to other materials on offer. The rock does not appear so hard as to cause undue crusher plate wear, but is hard enough for use in a diverse range of environments including inclusion in concrete (polished or raw), driveways, and bed mulch. The granite crushes well to a spherical particle. There is also scope to sell a bulk blended product or to selectively mine and crush to produce a variety of colours from the one deposit (in either a bulk or bagged form).

CONCLUSIONS

It is recommended that application be made to MRT to conduct a program of mapping and sampling to better determine the extent and variety of the granite available. If suitable, then a bulk sample should be extracted, most likely from the site of the old Jaydon quarry.

Pending the favorable outcome of these investigations, an application for a mining lease is recommended.