

ANNUAL REPORT ON EXPLORATION TO 31 JANUARY 2020.

EXPLORATION LICENCE: 24 / 2015

SINGLE TREE PLAIN – BRIDPORT

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## 1 ABSTRACT:

This report provides an overview of the work carried out by Kassem Holdings Pty. Limited on Exploration Licence 24 / 2015 for the period between issue of the licence, 31 January 2017 and the forthcoming anniversary, 31 January 2020.

### 1.1 OBJECTIVE

The exploration objective is to confirm the dune system located adjacent to and north of an existing productive mining lease held by the Licensee is similar in origin and physical characteristics.

### 1.2 METHODOLOGY

Work undertaken to date concentrated on proving the feasibility of accessing the dune systems, preliminary ecological work and limited sampling and testing of accessible sand sampling sites.

Future exploration will incorporate;

- direct representative sampling of the dune sand at selected sites;
- particle size distribution analysis of samples;
- further analysis for suitability for use as construction sand.

The area has sensitive natural and cultural values which prohibit access by vehicles other than quad bikes and machinery for the purposes of exploration. A quad bike will utilise existing tracks and clearings to access sample sites and samples will be taken with a hand auger. Composite samples will be collected by helicopter lift for sites that can only be accessed on foot.

### 1.3 RESULTS

Tests undertaken to date show that the sand expression currently accessible has similar characteristics and potentially similar origins to the resource sand extracted on the Saltwood property.

### 1.4 RECOMMENDATIONS

It is recommended that the Licensee proceed with the works described in the current work program for EL 24/2015, which will result in reliable information on the quality and quantity of the construction sand resource located on the Single Tree Plain.

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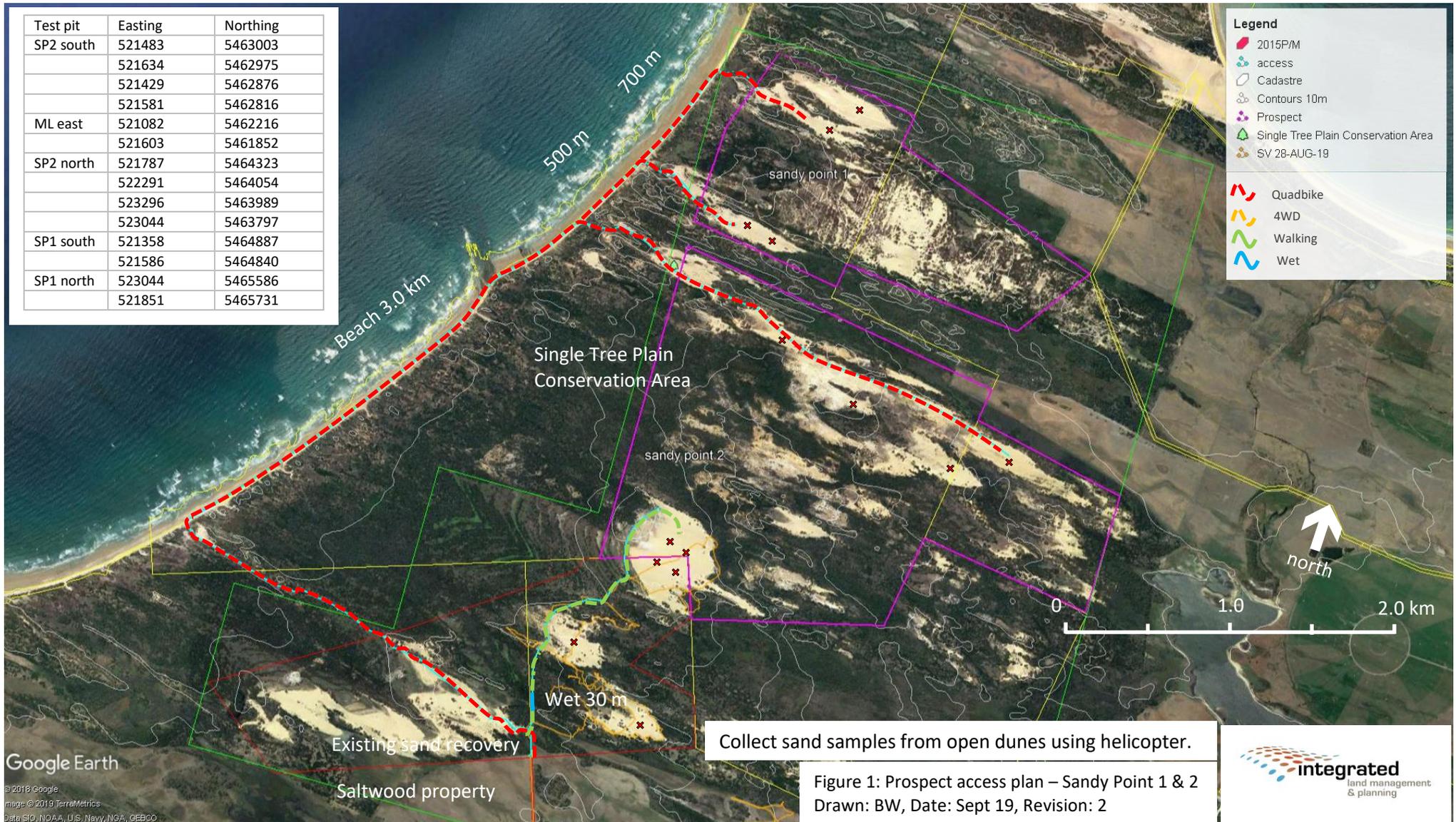
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Mining lease east and Sandy Point 2 south

Contacts:

Conservation Area: Parks & Wildlife Service, mobile: 0427 560 451

Saltwood property: Andrew McCarthy, mobile: 0418 317 060

Access:

*Phytophthora cinnimomi* management area - Adopt hygiene protocol

East prospect of ML and south prospect SP 2; north from sand recovery area, along fence, wet 30 m, push through low *Acacia longifolia* scrub, track through coastal grass and herb-field.

Sandy Point 2 north and Sandy Point 1 south and north

Contacts:

Conservation Area: Parks & Wildlife Service, mobile: 0427 560 451

Saltwood property: Andrew McCarthy, mobile: 0418 317 060

Access:

*Phytophthora cinnimomi* management area - Adopt hygiene protocol

North prospect SP 2 and SP1 south and north; follow track from sand recovery area to beach. Work will occur within shorebird breeding season, keep quadbikes on tideline at low tide.

2 INTRODUCTION:

**TABLE 1: TENEMENT DETAILS**

Exploration Licence	24 / 2015
Name	Single Tree Plain
Location	10 km west of Bridport
Reporting period	31/01/2019 to 31/01/2020
Licence holder	Kassem Holding Pty Limited

Exploration licence 24 / 2015 covers a total of 11 square kilometre blocks covering obvious surface expressions of aeolian dune sand directly inland from Noland Bay in north eastern Tasmania. The exploration licence was applied for on the 21 November 2015 and granted for a period of five years on 31 January 2017.

The exploration licence area covers land on the perimeter of mining lease number 2015 P/M which is held by Kassem Holdings Pty. Limited. The original licence application area covered private freehold land owned by Clovelly Pty Ltd which was subsequently excised as a result of a request by the landowner.

The mining lease 2015 P/M provides access to aeolian dunes which have migrated onto agricultural land owned and worked by Saltwood Pty. Ltd. The extractive operation conducted on the mining lease extracts and screens the sand threatening to overwhelm productive farmland and sells it into the marketplace as construction sand for concrete and asphalt.

The objective of the exploration work for EL 24 / 2015 is to investigate a similar expression of dune sand adjacent to the Saltwood extractive operation and confirm similar processes were responsible for the dunes and that the sand has similar properties. The sand deposit could then be a source of construction sand for the Tasmanian market and if quantities were proven a potential resource for an export market.

3 REVIEW OF PREVIOUS WORK

3.1 PREVIOUS LICENCE

Work previously undertaken on EL 16/2011 excluded much of the area considered here, concentrating instead on the private freehold portions of the dune field. This investigation assessed the northern portion of the prospective area as unproductive due to the sterilisation of the crown land portion by request from Mineral Resources Tasmania (MRT) and hence necessitating the construction of substantial road infrastructure to cart the sand to market. This work concentrated on the southern portion of the prospective area which was eventually developed as Mining Lease 2015 P/M.

### 3.2 DURING THE LIFE OF THIS LICENCE

The following is a brief timeline of the submission of work programs for EL 24/2015.

After researching existing literature, the Licensee submitted a work program for approval late in September 2017:

- 13 October 2017, MRT advised that the work program was not approved and an alternative method to access the sampling sites was required before approval would be granted. MRT also advised that a 'Grant of Approval' was required from Parks and Wildlife Service before any vehicles were allowed to access the conservation areas.
- December 2017, MRT advised approval for sampling activities at a nearby exploration licence EL 7/2016 was contingent on a successful program on EL 24/2015. MRT again requested more information on access techniques to allow sampling without damage to any vegetation.
- 16 February 2018, MRT advised approval for sampling already exists conditional on no damage to any vegetation for the purpose of gaining access to the sampling sites. Information on access was acknowledged but rejected and more detail was requested.
- 14 August 2019, MRT advised that revised work programs had been received and were under consideration.
- 5 September 2019, MRT advised the revised works programs to include limited track work were being considered.
- 30 September 2019, work programs revised to exclude any clearing of vegetation and the collection of the samples by helicopter were submitted.
- 18 October 2019, MRT advised the revised work program for EL 24/2015 would not be approved as the exploration licence annual reports for the for the previous year's work were outstanding.
- 28 January 2020, MRT approved revised work program for EL 24/2015.

During the licence period the following background work was undertaken:

- Limited sampling on sites on the existing mining lease on the boundary of the exploration licence area Sandy Point 2.
- Particle size distribution (PSD) analysis on samples taken on boundary of licence.
- Evaluation of PSD tests to determine suitability for sand for concrete.

### 4 EXPLORATION WORK COMPLETED DURING THIS PERIOD

The following works have been undertaken to inform the development of the current work program application:

- Desk top ecological critical constraints assessment for the EL area: - Ecological Consulting Options Tasmania.
- Desk top mapping study to predict the most prospective site for potential future mining lease applications: - Integrated Land Management & Planning.

- Consideration of access routes through private and public land and research of individuals, companies and agencies to contact to negotiate access: - Integrated Land Management & Planning.
- Consideration of prospective sites, proposed bulk sampling locations and access routes for Aboriginal cultural heritage: - Aboriginal Heritage Tasmania.
- Evaluation of desk top mapping for prospectively, ecological assessment, landowner consent to traverse land and preliminary contact with interested parties: - Kassem Holdings Pty. Limited.
- Reconnaissance field survey and ground truthing of proposed access routes and prospective sites: - Integrated Land Management & Planning.

## 5 DISCUSSION OF RESULTS

The desktop ecological critical constraints assessment report is included in this document as Appendix 1.

This assessment found the following were critical constraints and needed consideration in all future site works:

- Prospective areas were contained within *Phytophthora cinnamomic* (Pc) management areas, future onsite works would be informed by a weed and disease management plan (WDMP) and particular measures were required to mitigate the threat of spreading Pc. WDMP will be applied in accordance with guidelines (DPIPWE, 2015).
- Likewise, the threat of spreading weeds should be controlled with a WDMP.
- Any access or ground disturbing work should be evaluated by Aboriginal Heritage Tasmania.

The results of the PSD tests undertaken on limited samples are included in this document as Appendix 2.

Analysis and evaluation of the PSD test results determined the sand was suitable for construction sand for concrete. The results of this evaluation are presented in an excel spreadsheet included as Appendix 3.

The following work is continuing while planning for the now approved on-ground exploration work program:

- Full field ecological survey of access routes and prospective sites for ecological values timed to coincide with the ideal flowering time for most significant plants that are expected to be found in the region.

## 6 FUTURE EXPLORATION WORK

The following work will take place commencing February – April 2020:

- Full LIDAR survey of the prospective areas and surrounding land to produce accurate terrain models of the dunes systems and calculate the expected volume of the resource at each site.
- On ground work program to recover between 10 and 40, 5 kg samples at each prospective area. At prospective sites that can be reached on existing quad bike tracks the samples will be taken using a hand auger, and transported out on the quad bike. All samples will be taken out by helicopter for sites not accessible on existing tracks.
- All the samples will be subjected to a full range of laboratory analysis to prove the source material has consistent properties suitable for a variety of construction applications.

## 7 ENVIRONMENTAL MANAGEMENT

Preliminary assessment of critical constraints informed all work completed within this period:

- Onsite access evaluation proceeded under a thorough cleaning protocol using ‘Phytoclean’ and complying with washdown guidelines (NRM South, March 2010) before and after access to all sites.
- No vegetation was disturbed and all sites were access on foot, no track or grid cutting.
- A desktop Aboriginal assessment produced maps showing critical sites to avoid but no site-specific surveys were requested at this time.

## 8 EXPENDITURE

**TABLE 2: EXPENDITURE 2019 PERIOD**

	Item	Activity	Amount
1.	Geoscience		
	Geology		0
	Geochemistry	Particle size distribution analysis (2018 period)	2 800
	Geophysics		0
	Remote sensing	Evaluating sites and preparing proposals	2 200
2.	Drilling & gridding		
	Gridding		0
	Drilling	Proving access to sites and preparation of work program application	2 500
3.	Land access		
	Land access	Negotiations with McCarthy and Clovelly	2 800

4.	Rehabilitation		
	Works	No disturbance	0
5.	Feasibility studies		
	Site access	Field reconnaissance analysis	5 300
	Critical constraints	Ecological critical constraints analysis	1 500
6.	Other		
	Equipment	Phytoclean, cleaning equipment consumables vehicle hire	600
7.	Administration		
			2 000
8.	Total exploration costs (period 2019)		19 700

**TABLE 3: EXPENDITURE 2020 PERIOD**

	Item	Activity	Amount
1.	Geoscience		
	Geology		0
	Geochemistry	Particle size distribution analysis (40 tests)	5 600
	Geophysics		0
	Remote sensing	Remote survey including photogrammetry and classified LiDAR processing	12 100
2.	Drilling & gridding		
	Gridding		0
	Drilling	On-ground exploration work program to prepare composite samples (10 sites)	7 000
3.	Land access		
	Land access	Liaison with McCarthy & PWS	1 500
	Ecological assessment	Ecological field survey and values assessment report	6 000
	Helicopter assist	To recover composite samples from sites with no quadbike access	6 000
4.	Rehabilitation		
	Works	No disturbance	0
5.	Feasibility studies		
			0

6.	Other		
	Equipment		0
7.	Administration		
			2 000
8.	Total exploration costs (period 2020)		40 200

9 REFERENCES

10 REFERENCES

DPIPWE. (2015). *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and disease in Tasmania*. Hobart: DPIPWE.

NRM South. (March 2010). *Keeping it Clean: A Tasmanian Field Manual to Prevent the Spread of Freshwater Peasts and Pathogens*. Hobart: NRM South.