

ANNUAL REPORT ON EXPLORATION TO 1 FEBRUARY 2023

EXPLORATION LICENCE: 18 / 2015

DIANAS BASIN – ST HELENS

Compiled by

Company: Integrated Land Management & Planning

Address: PO Box 1441
Lindisfarne TAS 7015

Contact: Barry Williams Phone: 0437 394 492

Compiled for North East Excavations (Tas) Pty Ltd

Company: North East Excavations (Tas) Pty Ltd

Address: P O Box 386
St Helens Tas 7216

Contact: Andrew Griffiths Phone: 0419 873 534

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1 ABSTRACT:

This report provides an overview of the work carried out by North East Excavations (Tas) Pty Ltd on Exploration Licence 18 / 2015 for the period between issue of the licence, 2 February 2016 and the forthcoming anniversary, 1 February 2023.

1.1 OBJECTIVE

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

1.2 METHODOLOGY

Work undertaken to date concentrated on proving the feasibility of accessing the source rock and direct representative sampling of accessible rock sampling sites.

22 sampling sites were initially considered based on the inferred underlying geology, access using existing forestry and other tracks and minimal disturbance to existing vegetation.

The rock samples were bagged and stored at the Licence Holder's facility at Dianas Basin Quarry, until a selection was taken for laboratory analysis. The samples were subjected to testing for Los Angeles Value (LAV) to determine if the source rock is likely to meet the requirements for State Roads Authority specifications for use on State Roads construction and maintenance projects.

Future exploration will incorporate;

- Subject samples from the same test pit locations to Polished Stone Value (PSV) testing.
- Expert geological analysis to confirm the rock is classified as metamorphic.
- Compilation of the results of the exploration work in a final report showing suitability or otherwise of the resource for road construction materials.
- Develop a feasibility report to propose a possible extractive operation to estimate quantities of production, taking into consideration land tenure, loss of timber resource, natural values, aboriginal cultural heritage, other land users including mountain bike trails, transport routes and future demand.

1.3 RESULTS

Composite samples were prepared from rock taken from each of 9 test pit sites across a broad range of what was deemed the most prospective area.

Attachment 1 is a compilation of the reports prepared by a laboratory showing the preliminary results of the laboratory analysis for Los Angeles Value.

1.4 RECOMMENDATIONS

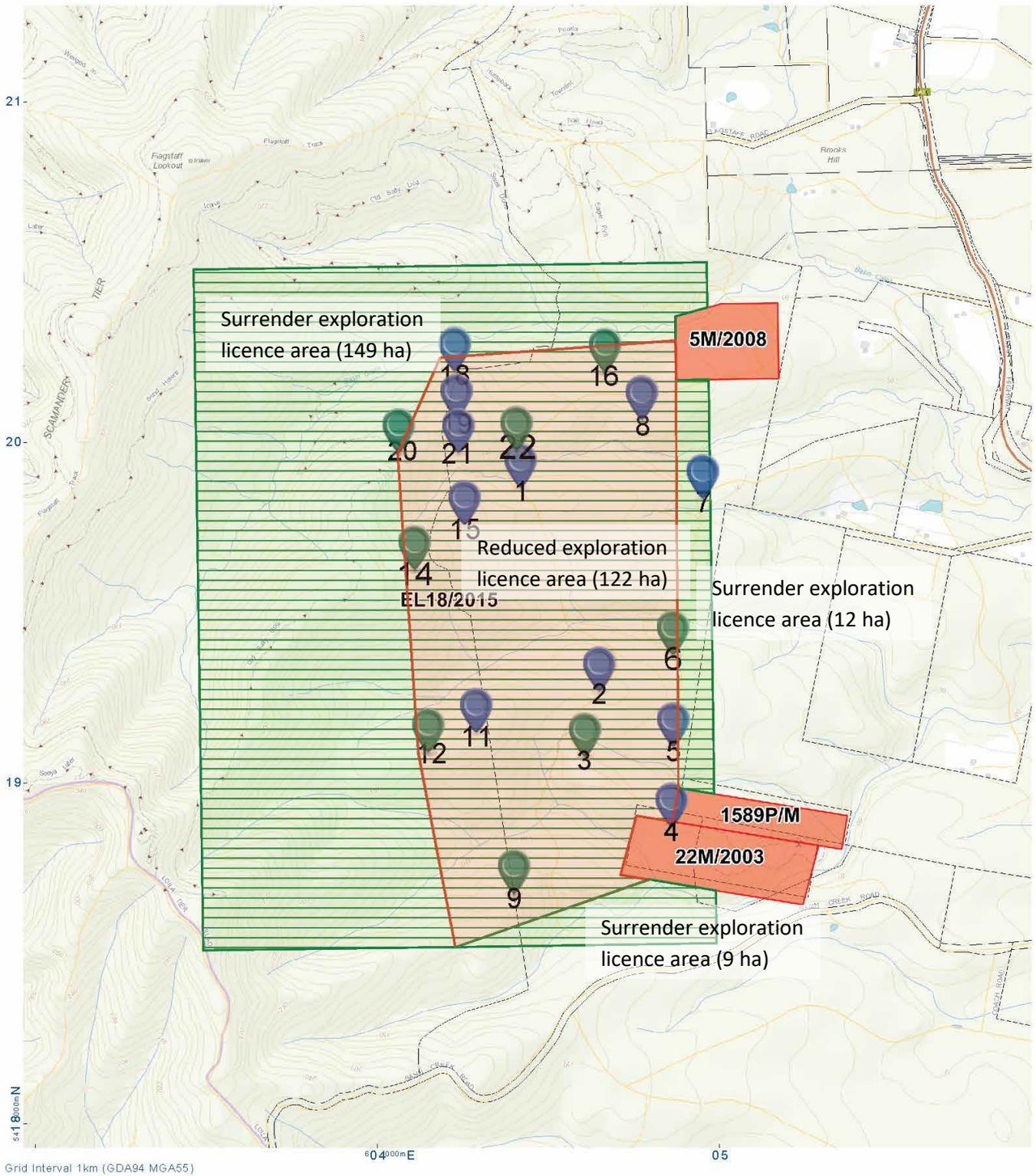
It is recommended that the interpretation of the laboratory analysis is considered along with the results of PSV testing and the estimated volumes provided by a feasibility study report.

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FIGURE 1 - ROCK SAMPLING MAP

2 INTRODUCTION:

TABLE 1: TENEMENT DETAILS

Exploration Licence	18 / 2015
Name	Dianas Basin
Location	5 km south of St Helens
Reporting period	1/02/2022 to 1/02/2023
Licence holder	North East Excavations (Tas) Pty Ltd; An application for an Extension of Term for a reduced exploration licence area will be lodged with Mineral Resources Tasmania.

Exploration licence 18 / 2015 covers a total of 3 square kilometre blocks in state forest west of Dianas Basin and immediately west and north of the existing Dianas Basin Quarry in eastern Tasmania. The exploration licence was applied for on the 27 April 2015 and granted for a period of five years on 2 February 2016. A year’s grace was provided through 2020 – 2021 due to unavailability of exploration resources as a result of restrictions on travel relating to Covid 19.

An extension of term was granted in 2022 to allow for a full range of testing to be undertaken on the representative samples. The testing will provide evidence that the source rock is suitable to supply to government projects once the new source has undertaken the pre-qualification assessment process.

The existing Dianas Basin Quarry (22M/2003) which is located on the south east corner of EL 18/2015 produces a rock that has the potential to provide aggregate with a very high polished stone value (PSV). State Roads specifications call up a high friction resistance sealing surface on roads in particular locations and situations. The majority of quarries producing sealing aggregates in Tasmania are targeting igneous rock, either basalt or dolerite. The best of these source rocks can provide a PSV of 48. The State Roads specification calls up a PSV of 54 for high friction resistance applications.

The next round of testing on the samples taken from selected sites within EL 18/2015 will include PSV testing. These tests were due to be preformed in 2022 but the testing laboratory that performs PSV testing for State Roads application (Vic Roads) has closed and the company which has taken the testing tasks (ARRB) is not accredited for PSV testing.

3 REVIEW OF PREVIOUS WORK

3.1 PREVIOUS LICENCE

The work previously undertaken on EL 18/2015 included mapping and field work to specify 22 test pit sampling sites. These test sites were dug with an excavator and rock samples were taken from all 22 sites. The test pits were then backfilled and rehabilitated.

Nine test pit samples were selected from representative sample sites. The nine samples were further processed as per the test procedure to produce crushed rock screenings and were subjected to preliminary testing for LAV.

3.2 DURING THE LIFE OF THIS LICENCE

During the life of the exploration licence North East Excavations (Tas) Pty Ltd have used geological mapping, topographic mapping and extensive field reconnaissance to reduce the area under consideration. Samples have been taken from nine locations within the smaller target area.

3.3 EXPLORATION WORK THE PREVIOUS PERIOD

The following exploration work has been undertaken during the 2022 – 23 period:

In the most recent period, the first round of testing has taken place to prove that the target rock is suitable for general use on Government funded road projects.

4 EXPLORATION WORK 2023 – 2024 PERIOD

Exploration work during the 2023 – 2024 period will entail:

- Find a suitable accredited laboratory to undertake PSV testing on the previously collected rock samples to evaluate the potential for the aggregates taken from the stone to be utilised on State Roads projects requiring high friction resistance.
- Develop a feasibility plan to exploit the reserves and derive an annual production capacity and life of quarry estimation.

5 DISCUSSION OF RESULTS

Figure 1 shows the location of all the test pits and those that had rock samples taken are highlighted in green. The reduced area of exploration is highlighted and now occupies 122 hectares. The areas to be surrendered are also described, which is the balance consisting of 170 hectares. The proposed EL boundary excludes existing mining lease areas.

Below is a table showing the results of the laboratory analysis of the nine rock samples. To be acceptable for accreditation for most applications under the State Roads specifications, the source rock must have a Los Angeles Value under 25 for rock classified as metamorphic.

The rock classification will need expert analysis. Geological mapping described the underlying formations as Scamander Formation of the Mathinna Supergroup. Further

description states “Turbidite succession dominated by quartz-rich sandstones with minor siltstone and mudstone. Current related sedimentary structures abundant” (DNRE, 2023).

TABLE 2: SUMMARY RESULTS LAV TESTING

Sample number	LAV as tested	Maximum LAV (specifications)
Sample 3	20	25
Sample 6	19	25
Sample 8	21	25
Sample 9	20	25
Sample 12	21	25
Sample 14	22	25
Sample 16	20	25
Sample 20	18	25
Sample 22	22	25

6 FUTURE EXPLORATION WORK

The following work will take place commencing March – October 2023:

- Samples will be prepared and forwarded to an accredited laboratory to be subjected to PSV testing.
- A feasibility quarry extraction program will be developed to estimate potential annual production and quarry active life.
- The rock will be subjected to geological analysis to confirm the classification of metamorphic.

7 ENVIRONMENTAL MANAGEMENT

No on-ground works were undertaken during this period apart from site access to confirm and GPS position of sampling sites and check on rehabilitation progress. The previous disturbance associated with digging the test pits has rehabilitated successfully.

8 EXPENDITURE

TABLE 3: EXPENDITURE 2022 PERIOD

Item	Activity	Amount
1. Geoscience		
Geology		0
Geochemistry		0
Preparing samples	Running crusher and screens to prepare samples	2,500
Laboratory testing	LAV tests to nine prepared samples (freight inc)	2,800
Geophysics		0

	Remote sensing		0
2.	Drilling & gridding		
	Gridding	Finding and providing GPS point data on the test sites	1,000
	Drilling		0
3.	Land access		
	Land access	Negotiations with Forestry Tas. and PWS re access	1,000
4.	Rehabilitation		
	Works	Visiting rehab sites to check on progress	1,000
5.	Feasibility studies		
	Site access	Negotiations with MRT, PWS	500
6.	Other		
	Equipment	Phytoclean, cleaning equipment consumables vehicle hire	500
7.	Administration		
		Consultant	2,500
8.	Total exploration costs (period 2022)		11,800

TABLE 4: EXPENDITURE 2023 PERIOD

	Item	Activity	Amount
1.	Geoscience		
	Geology	Expert geological analysis to determine classification of rock	3,000
	Geochemistry		0
	Preparing samples	Running crusher and screens to prepare samples	2,500
	Laboratory testing	PSV tests to nine prepared samples (freight inc)	4,800
	Geophysics		0
	Remote sensing		0
2.	Drilling & gridding		
	Gridding		0
	Drilling		0
3.	Land access		
	Land access	Negotiations with Forestry Tas. and PWS re access	1,000
4.	Rehabilitation		
	Works	Visiting rehab sites to check on progress	1,000

5.	Feasibility studies		
	Site access	Negotiations with MRT, PWS	1,500
	Feasibility study	Consultant	5,500
6.	Other		
	Equipment	Phytoclean, cleaning equipment consumables vehicle hire	500
7.	Administration		
		Consultant	2,500
8.	Total exploration costs (period 2022)		22,300