Annual Report
to 3 January 2021

EL15/2017

Tasmanian Advanced Minerals Pty Ltd

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Date: February 2021

ABSTRACT

- This report covers the third year of exploration.
- Due to the Covid-19 pandemic the company restricted activities to core extraction and processing operations, so exploration work was minimised.
- The area explored in 2019 did not find a commercial resource, so other targets were investigated for potential future exploration work.
- Two possible targets require further investigation.

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1. INTRODUCTION

EL 15/2017 is held by Tasmanian Advanced Minerals Pty Ltd (TAM) and is located approximately 10km west-northwest of West Takone (refer to Figure 1, Location Map). The Licence was granted on 4 January 2018. This is the third annual report for the period up to 3 January 2021.

TAM is currently mining high purity silica from three locations in Tasmania, from one near Corinna, and from two areas near the Arthur River in northwest Tasmania, Blackwater (6M/2016) and Hawkes Creek (27M/2009).

Exploration is being undertaken to increase resource quantity, and to provide a wider range of impurity profiles in the resource available for blending with existing resources, for processing at TAM's Wynyard factory.

Datum used in this report is GDA94.

Figure 1: Location Map

Base map from The List by TASMAP, © State of Tasmania

2. REVIEW OF PREVIOUS WORK

From 1988 to 28 March 2017 the ground was held by Mineral Holdings Australia Pty Ltd (MHA) under EL24/1988 and subsequently RL2/1996.

TAM has reviewed that work. The exploration undertaken appears to have consisted of approximately: -

- 9 excavator test pits, 4 of which intercepted >3m of silica flour in the North and South Deposits (Threader, 1990)
- 7 excavator test pits, 3 of which intercepted >3m of silica flour in the North and South Deposits (Threader, 1991)
- 11 excavator test pits 5 of which intercepted >3m of silica flour in the West No. 2 Deposit (Threader, 1994)
- Hand augering to a maximum depth of 1m in West No. 1 and No. 2 deposits (number of holes not recorded)
- 2 bulk samples from the same location in North Deposit for market development purposes.

Based on this combination of 12 test pits and some hand augering MHA reported a resource of 220,000t, (Threader, 1994 and Threader, 1995), as follows:

MHA Deposit Name	**Tonnage Estimate**
North Deposit	70,000 t
South Deposit	90,000 t
West No. 1 Deposit	10,000 t
West No. 2 Deposit	50,000 t
	220,000 t

There does not appear to have been further resource definition work after 1995.

Based on our experience, TAM considers that 12 test pits spread over four separate deposits is not sufficient on-ground investigation to quantify the above silica resource. Further, review of the resource quantity estimation method indicates MHA extrapolated both depth and the extent of the area of resource further than test pits actually indicated.

In addition, the MHA annual reports provide scant chemical analyses with seemingly inappropriate sample preparation to determine suitability for processing.

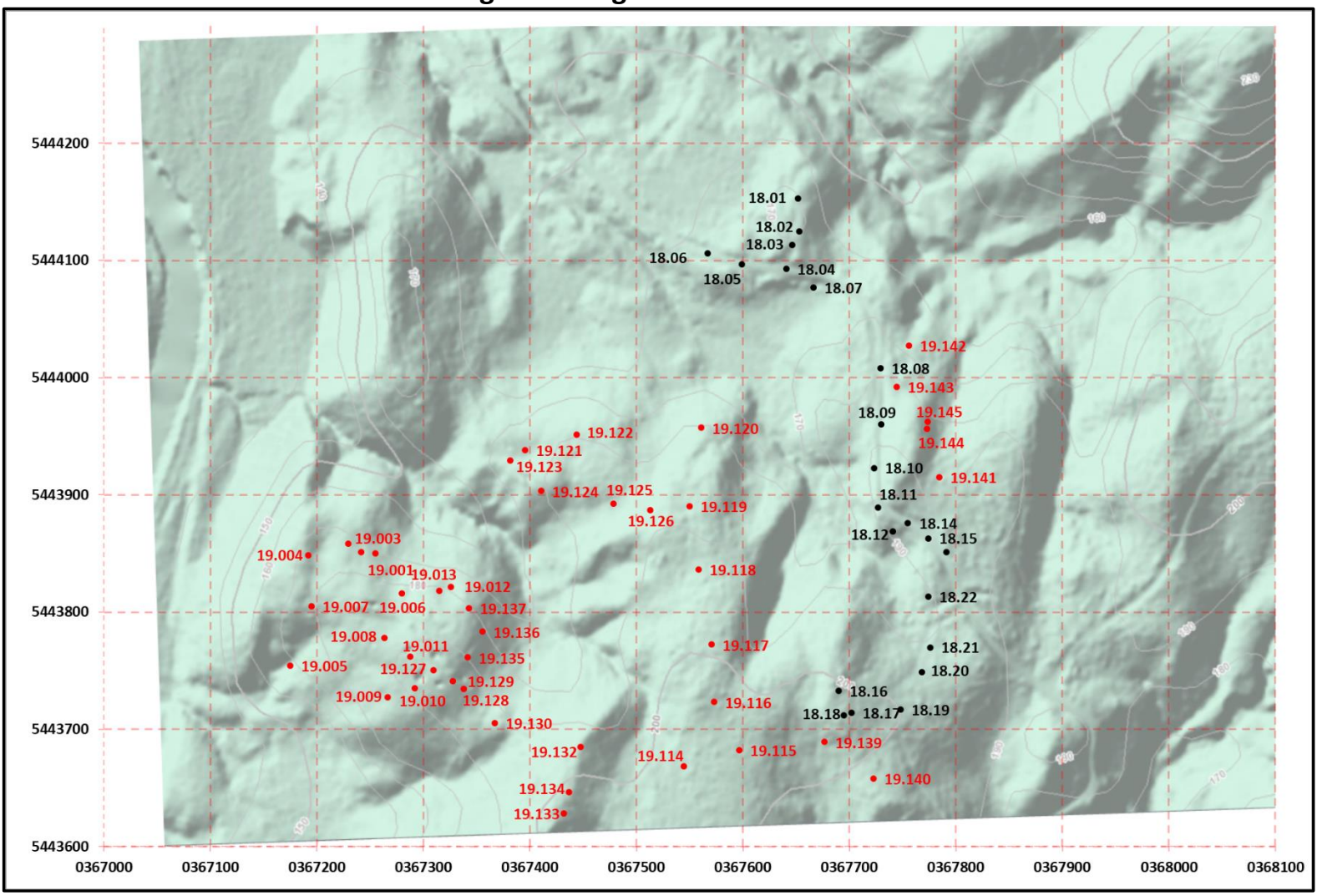
Therefore, TAM considers that these resource estimates cannot be relied on to determine the commercial viability of deposits (quantity or quality). The previous work is only a guide for the location of the presence of silica.

In 2018 TAM undertook are limited drilling campaign along Champion Road and existing tracks. Eleven of the holes intercepted a relatively shallow silica deposit which was relatively low in impurities. The size of the deposit was not estimated.

In 2019 TAM undertook a second auger drilling exploration program. Silica was intercepted at 17 of the 45 holes. Of these 17 holes, 4 had a silica depth of 1m and another hole had just 3m. Generally, at least 4m depth is necessary for commercially viable extraction. Holes 19.003, 19.004 had 4m depth but were of very poor quality and not suitable for extraction.

The hole locations for the 2018 and 2019 programs are shown in Figure 2.

Figure 2: Auger Hole Locations



Base map from The List by TASMAP, © State of Tasmania

- **Indicates 2018 auger holes**
- **Indicates 2019 auger holes**

In addition to the types and amounts of chemical impurities present in the silica being an important consideration of whether a resource is viable, the particle size distribution is also important. Preferably the particle size distribution should be between 250µm and 45µm. The amount of silica finer than 45µm is preferably less than 40%, or more preferably less than 20%. Hole 19.011 had reasonable chemical quality and a depth of 7m, but averaged 62% finer than 45µm. Similarly, hole 19.013,

the deepest hole at 15m, had good chemical quality but averaged 70% less than 45µm. The fine particle size means that silica is not suitable for use in current applications.

Excluding lack of depth, poor chemical and particle size quality, only 3 holes 19.024, 19.144 and 19.145, returned silica. However, no holes close to 19.024 returned silica. So, it seems there is only a small remnant pod of silica at 19.024.

There appears to be a small, narrow deposit in the vicinity of 19.144, 19.145 and the two 2018 exploration holes 18.10 and 18.11. A speculative estimate of commercial size of this resource is 15,000t. (Note: this is the MHA South Deposit Area estimated by MHA at 90,000t).

A second small, narrow resource appears to be present in the vicinity of 18.01, 18.02, 18.03 and 18.04. This resource is estimated at 8,000t. (Note: this is the MHA North Deposit Area estimated by MHA at 70,000t).

Without finding additional resources in the licence area the size of these two resources is not big enough to justify development costs.

3. EXPLORATION COMPLETED DURING THE REPORTING PERIOD

In 2020 exploration activities were impacted by Covid-19 restrictions on TAM's corporate activities. Having completed resource identification in the central area of the licence, reconnaissance outside the central area was undertaken. Five hills were investigated by traversing on-foot as shown in Figure 3.

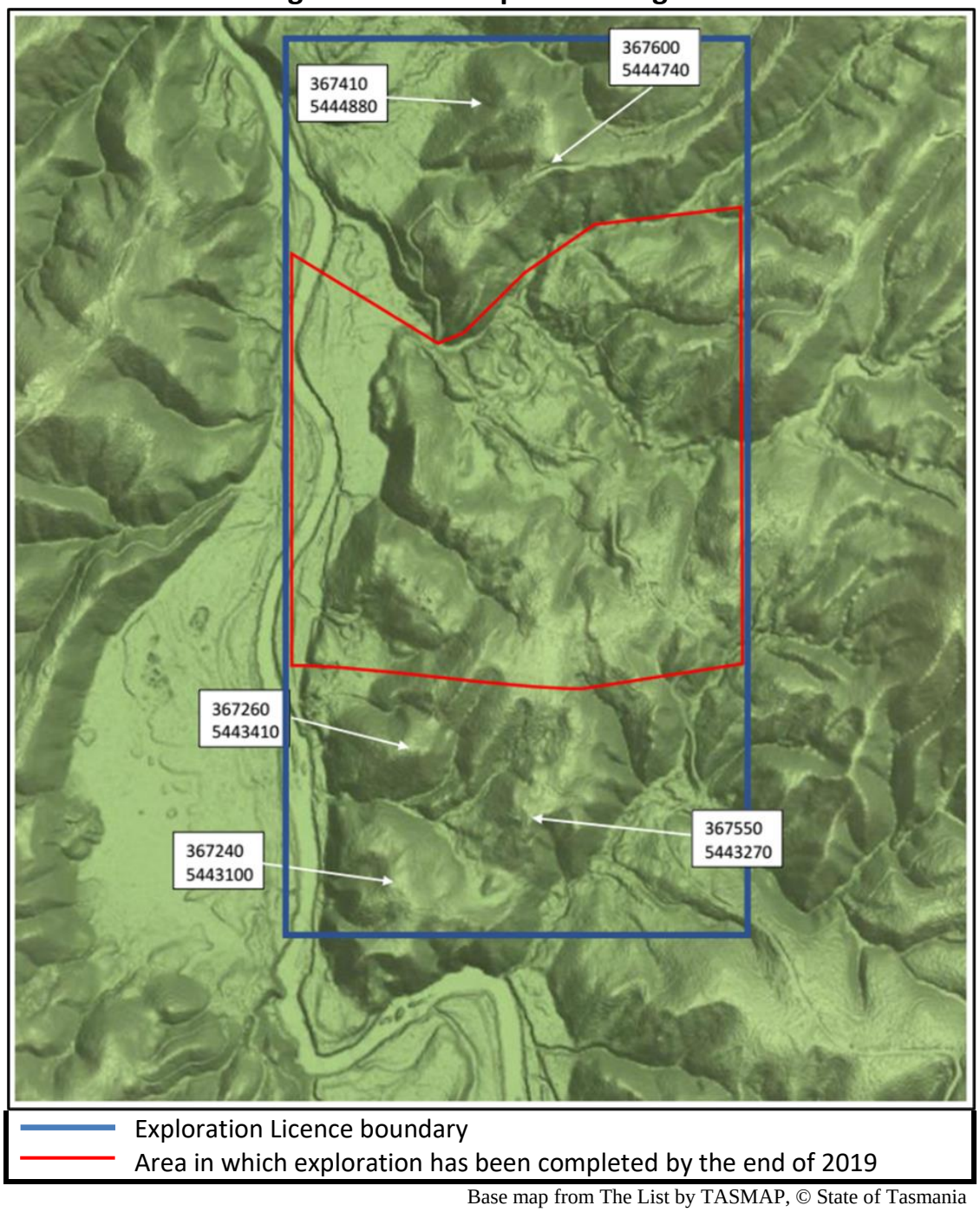
At 367416E, 5444885N there is a designated silica deposit (The List Map: DEPOSIT_ID 9316) on the MRT database. On-site inspection revealed the ground is loam/clay with minor quartz rock. The geology of the hill around the other northern location 367600E 5444740N was found to be loam/clay, as was the south-east hill around 367550E 5443270N. The geology of these hills is not consistent with the presence of a silica deposit.

At both the two south-western hills around 367260E 5443410N (N.Hill) and 367240E and 5443100N (S.Hill) the surface was covered with a thick layer of vegetation and humus, and a sample of the ground could not be taken but appeared to be siliceous. Surface rock samples were taken for analysis. Chemical analysis of some of the rock samples are shown below.

No evidence of silica flour was found in the creek between these two hills, but quartz rock was present.

Sample ID	Al_2O_3	Fe_2O_3	TiO_2	CaO	MgO	Cu	Cr	Mn	Ni
N.Hill Rock H_2O_2 wash	4980	679	626	69	487	0.6	2.0	0.6	0.6
S.Hill Rock H_2O_2 wash	2333	82	170	168	45	0.2	0.8	1.5	0.2
S.Hill Rock NaOH wash	3121	73	166	204	46	0.3	0.8	0.8	0.4

Figure 3: 2020 Inspection Targets



Base map from The List by TASMAP, © State of Tasmania

4. DISCUSSION OF RESULTS

Surface rock samples are not a definitive indication of the ground under the humus layer, but they are a pointer to what might be present. The surface of the rocks appears to have been contaminated with other minerals, so the they were treated with NaOH or H_2O_2 before analysis.

The Ca and Mg levels indicate that the origin of the rocks might be similar to that of silica flour which TAM currently processes.

5. CONCLUSIONS

Although the extent of work in 2020 was limited, it indicated that a commercial resource being present on the licence is increasingly not promising. To date only a small resource has been identified, and all but two hills (N.Hill and S.Hill) in the south west of the licence have been excluded as possible additional resource locations. Moreover, because of the proximity of the S.Hill to the Arthur River it is likely that a large portion of that hill would not be available due to environmental restrictions.

Additional exploration at the two south-western hills, however, is required to determine definitively if a commercial resource is present or not. The first step will be further on-foot investigation. If indications are positive a drilling campaign will be required.

6. ENVIRONMENT

No rehabilitation work was done in the reporting year. The tracks require rehabilitation by pulling back vegetation. For all tracks that are no longer required, this is planned in 2021.

EXPENDITURE

Expenditure for the period January to December 2020 is listed below.

Geochemistry/physics	$	845
Drilling	$	0
Feasibility Studies	$	0
Other	$	1615
Administration	$	0
Total Costs	$	2460

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