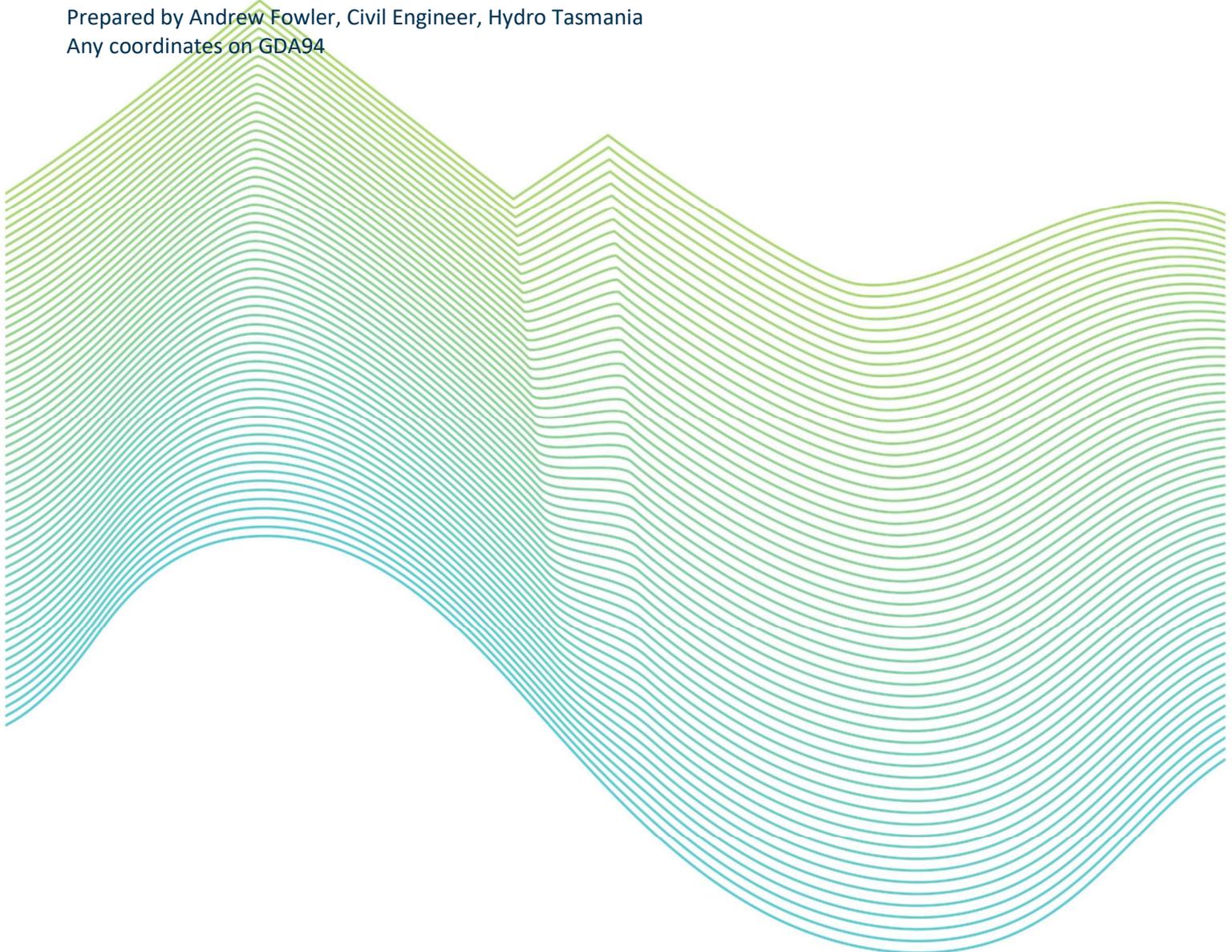


Gordon Quarry Annual Report for 2020

EL 8-2019

March 2021

Prepared by Andrew Fowler, Civil Engineer, Hydro Tasmania
Any coordinates on GDA94



Executive Summary

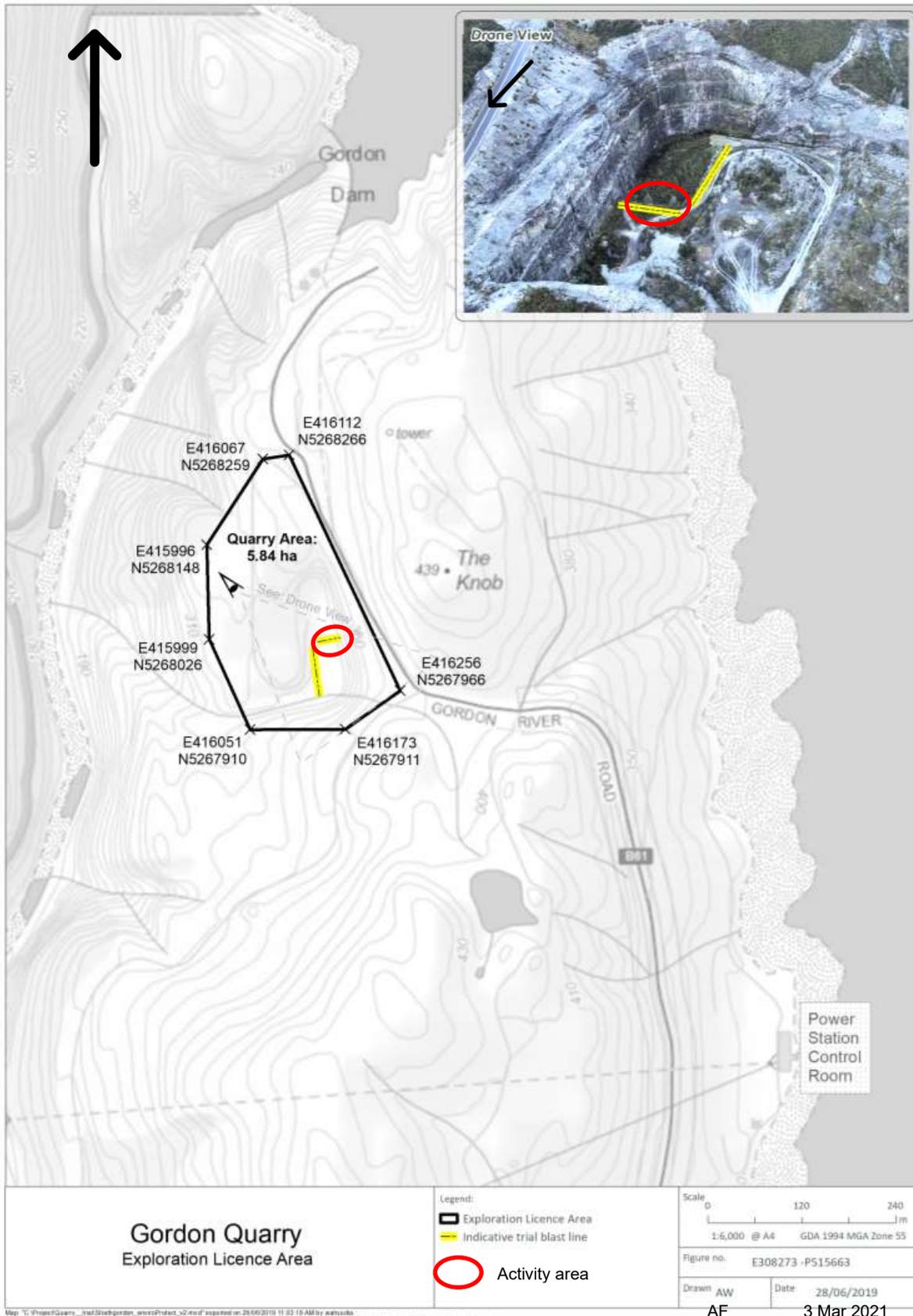
The Gordon Quarry was the primary material source for the construction of the Gordon Dam in the 1970s. It is being considered for use for future dam maintenance and other projects in the area. Historical technical information was intended to be supplemented with new information required for the different intended use of the material. A small drill and blast operation was completed to win material for evaluation and that evaluation is ongoing. Despite indications the material would be suitable for a range of uses, for operational reasons, there is no current intention to use the Gordon Quarry.

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1.0 Summary Activity Map



2.0 Introduction

2.1 Objective

The objective of the exploration activities at Gordon Quarry is to establish whether its material is suitable for a range of uses, including the production of dam filters and rockfill.

2.2 Licence information

Parameter	Detail
Licence number	EL8-2019
Name	Gordon Quarry
Reporting period	2020
Tenement holder and Land Owner	Hydro Electric Corporation ABN 48 072 377 158

3.0 Previous Work

3.1 Prior to current licence

Prior to the issue of the licence in 2019, there had been no quarrying activity since construction of the Gordon Dam in the 1970s.

3.2 Activities under the current licence

2020 was the first year under the current licence, so all work is included in the following section.

4.0 Exploration in current period

No exploratory activities were undertaken. The limited activities in the first year of the licence included:

1. Investigation for limited drilling
2. Phytophthora cinnamomi investigation and testing
3. Establishment of local edge protection
4. Drilling in the location advised in the licence application
5. Charging and stemming of holes and controlled blasting
6. Preparation of level working floor in an adjacent area of the quarry
7. Carting of material to internal stockpile
8. Measurement and weighing of large particles
9. Particle size distribution and other testing of fine particles
10. Construction of trial embankment
11. Seismic and Infiltration/permeability testing of embankment
12. Fumigation of material windrows to remove Phytophthora cinnamomi
13. Export of fumigated material for processing evaluation after disinfection of trucks

5.0 Discussion

The exploration and evaluation proposed under this licence were impacted by COVID-19 and the presence of *Phytophthora cinnamomi* (PC) at the site, so extended beyond the suggested 3 months.

The evaluation completed to date has confirmed the material in the quarry is suitable for production of a range of strong, well-graded, durable materials. The site is also suitable for the establishment and operation of crushing and processing plant, with minimal community impact.

It is, however, not intended to re-establish the quarry at this stage, due to the presence of PC and the need to construct a truck wash and disinfection facility, but more critically, the need to disinfect material prior to export and the inefficiency in doing that. It could potentially be used in areas already infected with PC.

6.0 Conclusions

There is no current intention to establish an extractive operation in the Gordon Quarry. Hydro Tasmania may continue to renew and hold the exploration licence to allow further, future evaluation.

7.0 Future exploration

No future activities in the Gordon Quarry are currently planned.

8.0 Environmental management

The quarry does contain *Phytophthora cinnamomic* (PC), so the entire site is considered infected. This fungus is difficult to treat, so no treatment is proposed. There are some weeds present, including Spanish heath, so its removal is being considered. There are no apparent drainage or other issues at the site. No rehabilitation is proposed.

9.0 Expenditure

Item	Expenditure
Geoscience	\$0
Drilling	\$17,000
Site preparation (hardstand)	\$15,000
Material fumigation	\$70,000
Material processing and evaluation	\$90,000
Administration	\$15,000
Total	\$207,000

10.0 References

None

11.0 Appendices



Figure 1: Blasted material.



Figure 2: Windrowed material for fumigation and compaction testing.