## **Material Test Report**

GSSW576-21 **Report Number:** 

Issue Number:

Date Issued: 14/09/2020

Client: AEROLITE QUARRIES PTY LTD

325 Old Boundary Road, ANAKIE VIC 3115

Contact: HAYDEN EDGAR

**Project Number:** GSSW576

**Project Name:** PRODUCT SUITABILITY TESTING

**Project Location: ANAKIE** 7671 Work Request: Sample Number: 576-S34 07/09/2020 Date Sampled:

**Dates Tested:** 08/09/2020 - 11/09/2020

Sampling Method: Sampled by Client - Tested as Received

The results apply to the sample as received

20mm Class 3 Crushed Rock as per RC 500.02 Specification:

Sample Location: Stockpile Material: 'B' Grade Basalt **Material Source:** Aerolite Quarries Anakie

| Particle Size Distribution (AS1141.11.1) |                   |                   |     |            |                    |  |
|--|-------------------|-------------------|-----|------------|--------------------|--|
| Sample<br>Washing                        | Sample was Washed |                   |     |            |                    |  |
| Sieve                                    | Passed %          | Passing<br>Limits |     | Retained % | Retained<br>Limits |  |
| 26.5 mm                                  | 100               | 100               | 100 | 0          |                    |  |
| 19 mm                                    | 95                | 95                | 100 | 5          |                    |  |
| 13.2 mm                                  | 87                | 75                | 95  | 8          |                    |  |
| 9.5 mm                                   | 80                | 60                | 90  | 7          |                    |  |
| 6.7 mm                                   | 70                |                   |     | 10         |                    |  |
| 4.75 mm                                  | 61                | 42                | 76  | 9          |                    |  |
| 2.36 mm                                  | 45                | 28                | 60  | 15         |                    |  |
| 1.18 mm                                  | 31                |                   |     | 14         |                    |  |
| 0.6 mm                                   | 23                |                   |     | 9          |                    |  |
| 0.425 mm                                 | 19                | 14                | 28  | 4          |                    |  |
| 0.3 mm                                   | 16                |                   |     | 3          |                    |  |
| 0.15 mm                                  | 13                |                   |     | 3          |                    |  |
| 0.075 mm                                 | 11                | 6                 | 13  | 3          |                    |  |

| Moisture Content (AS1289.2.1.6) |     |
|---------------------------------|-----|
| Moisture Content (%)            | 9.7 |
|                                 |     |

| Atterberg Limit (AS1289 3.1.1 & 3.2.1 & 3.3.1) |            |   | Max |
|--|------------|---|-----|
| Sample History                                 | Oven Dried |   |     |
| Preparation Method                             | Dry Sieve  |   |     |
| Liquid Limit (%)                               | 30         | 0 | 35  |
| Plastic Limit (%)                              | 22         |   |     |
| Plasticity Index (%)                           | 8          | 0 | 10  |

| Linear Shrinkage (AS1289 3.4.1)  |               | Min | Max |
|----------------------------------|---------------|-----|-----|
| Moisture Condition Determined By | AS 1289.3.1.1 |     |     |
| Linear Shrinkage (%)             | 3.0           |     |     |
| Cracking Crumbling Curling       | Cracking      |     |     |



Ground Science South West Pty Ltd 10 Dowsett Street South Geelong Vic 3220

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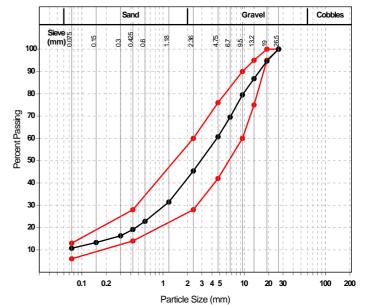
Email: chrism@groundscience.com.au

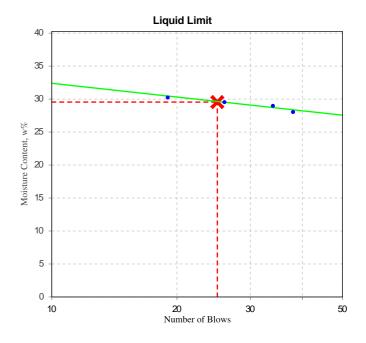


Approved Signatory: Chris Mamalis

Laboratory Manager NATA Accredited Laboratory Number: 20109

## Particle Size Distribution





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**Project Location: ANAKIE** 7671 Work Request: Sample Number: 576-S34 07/09/2020 Date Sampled:

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Sampling Method: Sampled by Client - Tested as Received

The results apply to the sample as received

Specification: 20mm Class 3 Crushed Rock as per RC 500.02

Stockpile Sample Location: Material: 'B' Grade Basalt **Material Source:** Aerolite Quarries Anakie

| Dry Density - Moisture Relationship (AS 1289 5.2.1 & 2.1.1) |                 |  |
|---|-----------------|--|
| Mould Type  | 1 LITRE MOULD A |  |
| Compaction  | Modified        |  |
| Maximum Dry Density (t/m <sup>3</sup> )                     | 2.05            |  |
| Optimum Moisture Content (%)                                | 12.5            |  |
| Oversize Sieve (mm)   | 19              |  |
| Oversize Material Wet (%)                                   | 5               |  |
| Method used to Determine Plasticity                         | Known Source    |  |
| Curing Hours  | 24.9            |  |

| Moisture Content (AS 1289 2.1.1) |     |
|----------------------------------|-----|
| Moisture Content (%)             | 8.8 |



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Moisture Density Relationship 2.07 2.06 2.05 2.04 Dry Density (t/m3 203 2.02 2.01 2 1.99 1.98 10 12 14 15 Moisture Content(%) MDD OMC — Zero Air Void