

**Level One Supervision –  
Statement of Compliance**

**Level One Supervision  
Maple Lane Estate  
Stage 2  
Ballarat-Carngham Road  
WINTER VALLEY**

Report Prepared for:

DEN OUDEN CONTRACTING PTY LTD / ATT: BILLY DEN OUDEN

[billy@denoudencontracting.com.au](mailto:billy@denoudencontracting.com.au)

Report Prepared by Y.Singh - A.S. James Pty Ltd

31<sup>st</sup> January 2022

**Report No: 121207-B001-B012**



**A.S. JAMES Pty Ltd**

Geotechnical & Environmental Engineers

Since 1963

**VIC HEAD OFFICE:**  
15 Libbett Avenue  
Clayton South Vic 3169  
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## **1. INTRODUCTION**

This report summarises inspections, level 1 site testing and compaction results in accordance with the relevant Australian Standards for the earthworks undertaken for general site filling of Maple Lane Estate Stage 2, Ballarat-Carngham Road, Winter Valley. The fill works were carried out across the existing dam backfill area covering the proposed house lots 15, 16 & 17, as well as covering the areas of the proposed house lots 3, 4, 5, 6, 7, 8 & 9 (10 lots in total).

### **Background:**

The proposed Sub-division site was an existing farmland, with Level 1 supervision being provided during site filling works on Stage 2 to bring the site to a Finished Fill level.

### **Testing Methods:**

Inspections, testing and supervision have been carried out by our trained laboratory staff. The testing commenced at a maximum depth of approximately 1000 mm below finished fill level and extended to finished fill level. The levels given in the reports are approximate levels and some small variation in levels may be expected.

The Level 1 Inspections and Testing covers the highlighted area across house lots 3-9 and 15-17 only (Refer to Plan).

In situ density testing carried out using a nuclear density gauge in accordance with AS 1289.5.8.1. Laboratory standard hilt compaction testing carried out in accordance with AS 1289.5.7.1 'Methods of Testing Soils for Engineering Purposes'.

**Based on the inspection and testing carried out by this office between the 19/08/2021 and 27/01/2022, the fill placed on the above mentioned lots satisfies the requirements of AS 3798 SECTION 8.2 and therefore can be categorised as controlled fill.**

## **2. RESULTS**

### **Inspections:**

Initial inspections were carried out on the natural subgrade prior to filling works commencing. These included the removal of vegetation and deleterious material as well proof rolling of the prepared base taking place to ensure the integrity of the sub-grade material before to any filling works commenced.

### **Materials Used:**

The majority of material used during supervised works was the onsite generated material. All material was of a good quality and close to optimum moisture content when excavated on site. Please see individual daily reports for material descriptions.

### **Testing:**

Density testing was carried out on a routine basis, testing each compacted layer that generally did not exceed 300mm in thickness.

A total of 32 tests were carried out during these works including re-tests, with all tested locations achieving a final standard density ratio, at or greater than the specified 95%, and at a moisture content that was between the required 85% to 115% moisture ratio.

Testing frequency has been adopted in accordance with Australian standard as specified in AS 3798 – 2007.

### **Note:**

All excavations and backfilling works for sewer and drainage services have not been covered under Level 1 supervision.

A copy of all testing reports, both field and laboratory, along with inspection and daily field activity reports is attached.

The results of these works indicate acceptable compliance to these compaction requirements.

### **3. STATEMENT OF COMPLIANCE**

A.S. James has undertaken supervision and testing on a level 1 basis in accordance with AS 3798 ‘Guidelines of earthworks for residential developments’.

If the site is left for extended periods and is not free draining and is unprotected/un-maintained, softening of the surface fills may occur between the date of earthworks completion and building construction commencing.

If this is the case it may be necessary at the commencement of construction to assess the site and determine the depth of moisture penetration into the surface fills and based on this information recommendations to either strip/rework may need to be provided.



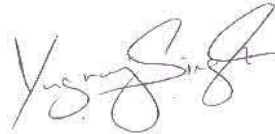
**Approx. location of Level 1 supervised fill works**



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D.C. Gunn AMIEAust CEngA NER  
Director  
A.S. JAMES PTY LTD



Y. Singh (Dip Lab Tech)  
Senior Lab Technician  
A.S. JAMES PTY LTD

|  |   |                          |
|--|---|--------------------------|
| Ballarat Facility<br>P.O. Box 1319 Bakery Hill Vic.<br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b>                             | <b>JOB No:</b>           |
|  | Maple Lane                              | 121207                   |
|  | Ballarat-Carngham Road<br>Winter Valley | <b>REPORT No:</b> B001-1 |
|  |   | <b>DATE:</b> 19/08/2021  |

**DAILY GEOTECHNICAL ACTIVITY REPORT** On Site :- 9:00 Off Site : 9:30

|                                      |                                    |  |
|--------------------------------------|------------------------------------|--|
| Developer :                          | Constructor: Den Ouden Contracting | Superintendent: Billy Den Ouden            |
| Testing Authority: A.S.James Pty Ltd | Level of GTA brief:                | Level one Supervision by Testing Authority |
| Weather Conditions: Fine             |                                    |  |

| Equipment on Site         | In Use | Not in Use |                        | In Use | Not in Use |
|---------------------------|--------|------------|------------------------|--------|------------|
| Excavator                 | √      |            | Water cart             |        |            |
| Pad Foot vibrating roller |        |            | D6 Dozer               |        |            |
| 815 Compactor             |        |            | Dump Truck (On Site)   | √      |            |
| Grader                    |        |            | Trucks (From off site) |        |            |

**Works in progress**

| Location                |
|-------------------------|
| Stripping               |
| Excavating Existing Dam |
| Filling                 |
| Rolling                 |

**Comments, Details & Observations:**

Constructor has begun excavating an existing dam in the proposed future residential development. The dam has been dewatered and the wet material has been excavated to expose the stable natural clays. The excavated area is currently at approx. 2.0m from finished fill level. The constructor is hoping to backfill this area up to approx. 1.0m below finished fill level if the base is suitable for further fill works to be carried out.

**Inspections**

Inspection Type & Location:

Comments & Details:

The constructor is advised that the excavated area appears to be stable and suitable to commence the fill works. Constructor is advised that the testing will be carried out at approx. 1.5m and 1.0m below finished fill level once the area is backfilled using the approved site won material while compacting it in thin layers of approx. 300mm.

**Material Type / Quality / Source / Approval:**

Silty, CLAY - On site material that appears to be close to optimum moisture content.

**Compaction Testing:**

|                   |  |           |  |          |  |
|-------------------|--|-----------|--|----------|--|
| Numbers performed |  | Test No.s |  | Location |  |
| Numbers performed |  | Test No.s |  | Location |  |
| Numbers performed |  | Test No.s |  | Location |  |

|                                   |                                |                    |          |
|-----------------------------------|--------------------------------|--------------------|----------|
| <b>Specification Requirements</b> | Standard / <del>Modified</del> | Density Ratio (%)  | 95       |
|                                   | Standard                       | Moisture Ratio (%) | 85 - 115 |

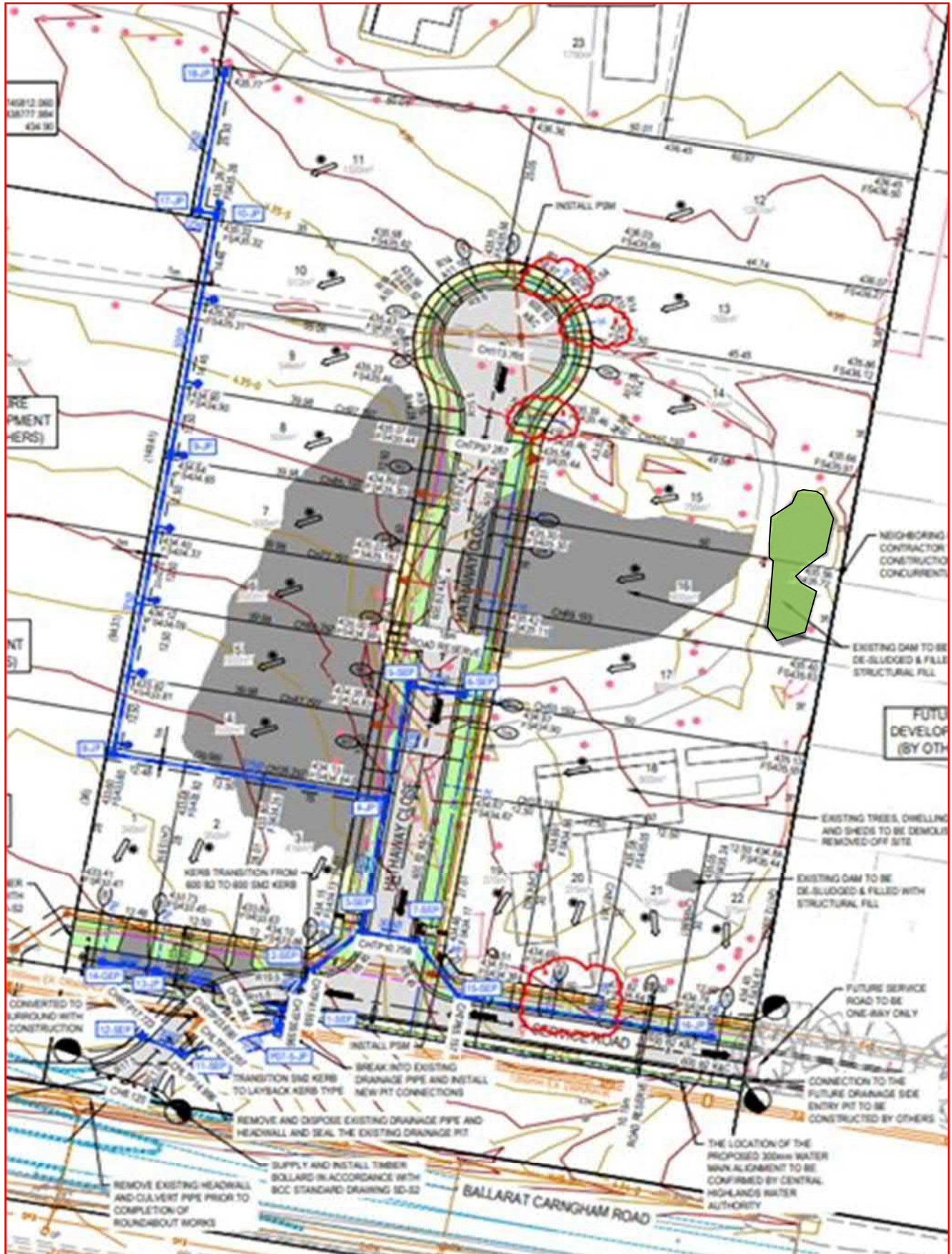
**Compliance to Specification**

|          | Conforming Tests | Non Conforming Tests |
|----------|------------------|----------------------|
| Density  |                  |                      |
| Moisture |                  |                      |

**Site Instructions Given (Tick box)**

Approval to Place Fill  Filling Methods Approved  Rework / Re-roll required   
 Stripped surface Approved  Filled Area Under Review  Moisture Conditioning required   
 Comments & Details

Level 1 supervision daily geotechnical report summary  
 A.S.JAMES LW053 (Fig 2) / REV 2 / 26/7/21



Approx. location of inspected area

N.T.S

|               |                     |        |
|---------------|---------------------|--------|
| LOCATION PLAN | TESTED BY : Y.Singh | FIGURE |
|               | CHECKED BY: Y.Singh | 2 of 3 |





**A.S. JAMES** PTY.LTD

Geotechnical Engineers  
Ballarat Facility  
P.O. Box 1319 Bakery Hill Vic.  
Accreditation No 9855

**JOB:**

Maple Lane  
Ballarat-Carngham Road  
Winter Valley

**Job No.**

121207

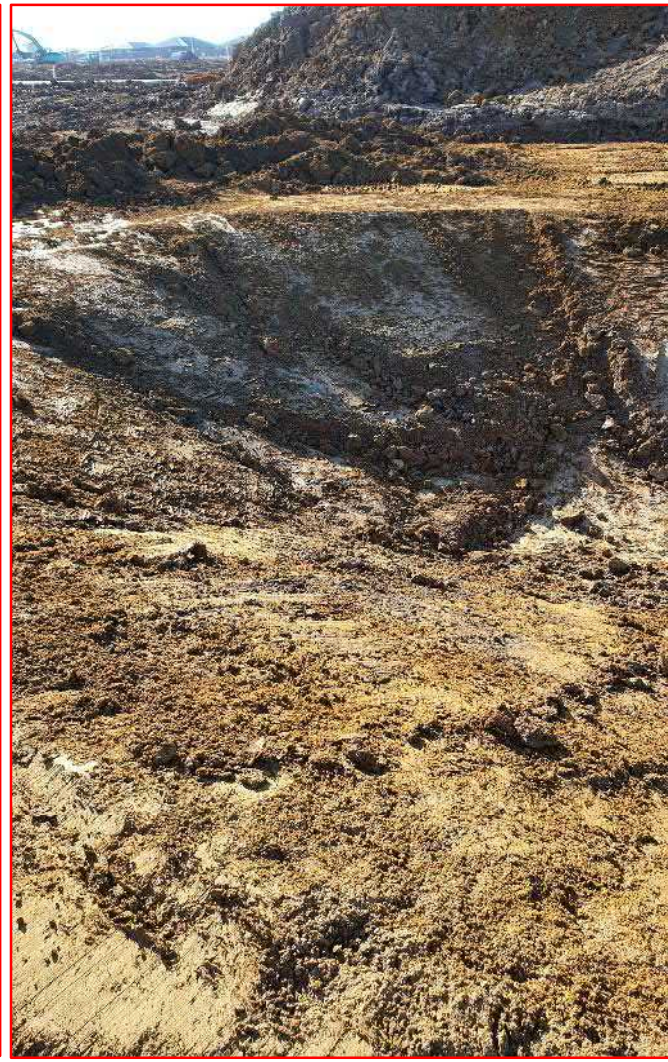
**Report No.**

B001-1

**Date**

19/08/2021

**Excavated Dam area**



N.T.S

|                 |                     |        |
|-----------------|---------------------|--------|
| LOCATION PHOTOS | TESTED BY : Y.Singh | FIGURE |
|                 | CHECKED BY: Y.Singh | 3 of 3 |



|  |  |                        |
|--|--|------------------------|
| <b>Ballarat Facility</b><br><br><b>P.O. Box 1319 Bakery Hill Vic.</b><br><br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b><br><br>Maple Lane<br><br>Ballarat-Carngham Road<br><br>Winter Valley | <b>Job No.</b> 121207  |
|  |  | <b>Report No.</b> B002 |
|  |  | <b>Date</b> 24/08/2021 |

**Section Tested:** Dam Backfill

**For** Den Ouden Contracting  
 PO Box 345  
 SEBASTOPOL VIC 3356

**Att to Email** Billy Den Ouden  
 deb@denoudencontracting.com.au

|                                      |                      |                      |  |  |  |
|--------------------------------------|----------------------|----------------------|--|--|--|
| Test Number                          | 1                    | 2                    |  |  |  |
| Date of Field Test                   | 20/08/21             | 20/08/21             |  |  |  |
| Time of Field Test                   | 9:48                 | 9:55                 |  |  |  |
| Date of Laboratory Test              | 23/08/21             | 23/08/21             |  |  |  |
| Location Chainage:                   | See                  | See                  |  |  |  |
|                                      | Offset: Sketch       | Sketch               |  |  |  |
| Depth of Test                        | 600                  | 1000                 |  |  |  |
| Probe Depth (mm)                     | 300                  | 300                  |  |  |  |
| Material Type                        | Silty CLAY, Gravelly | Silty CLAY, Gravelly |  |  |  |
| Maximum Converted Wet Density (t/m3) | 1.98                 | 1.83                 |  |  |  |
| Optimum Moisture Content (%)         | 27.0                 | 39.0                 |  |  |  |
| Field Wet Density (t/m3)             | 2.08                 | 1.92                 |  |  |  |
| Field Dry Density (t/m3)             | 1.62                 | 1.38                 |  |  |  |
| Field Moisture Content (%)           | 28.0                 | 39.5                 |  |  |  |
| Oversize Material (%)                | 0                    | 0                    |  |  |  |
| Compaction Type                      | Standard             | Standard             |  |  |  |
| Oversize Retained on :               | 19mm                 | 19mm                 |  |  |  |
| Moisture Ratio (%)                   | 104.5                | 102.0                |  |  |  |
| Moisture Variation (%)               | 1.0                  | 1.0                  |  |  |  |
| Wet/Dry of Optimum                   | Wet                  | Wet                  |  |  |  |
| <b>Hilf Density Ratio</b>            | <b>105.0</b>         | <b>105.0</b>         |  |  |  |

Notes: DEPTH OF TESTS GIVEN AT BELOW FINISHED FILL LEVEL



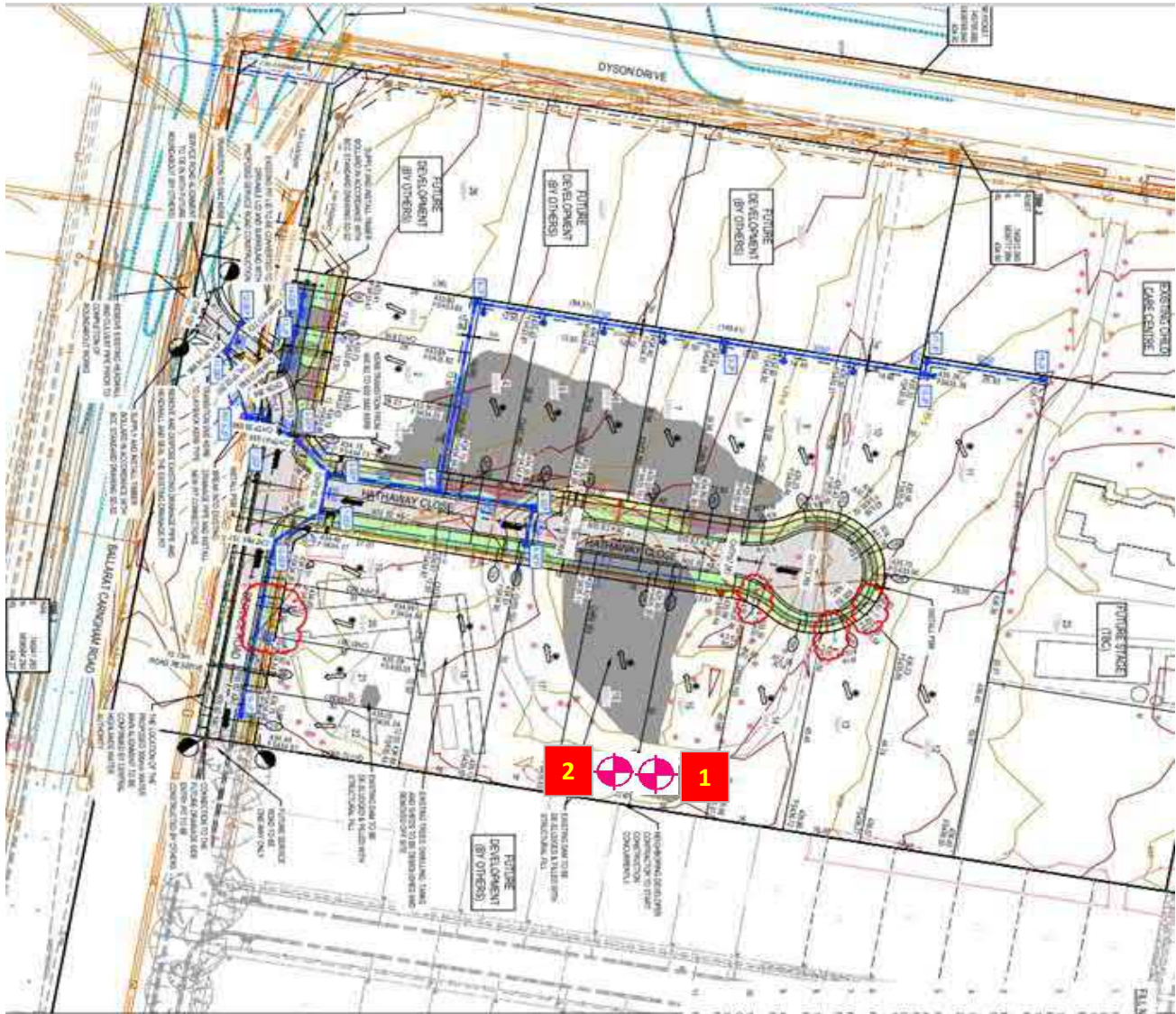
Accredited for compliance with ISO/IEC 17025 - Testing  
 Accreditation No 9855

Approved Signatory  
 Y.Singh (Dip Lab Tech)

24-Aug-21

|  |                      |        |
|--|----------------------|--------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1<br>A.S.JAMES FORM No: LR005 FIG 1 / REV 11 / 21/07/21 | TESTED BY : A.Wallis | FIGURE |
|  | CHECKED BY: A.Wallis | 1 of 2 |





**NOTES**

- ALL UTILITIES SHOWN ARE BASED ON THE LATEST AVAILABLE INFORMATION AND SHOULD BE VERIFIED BY THE CLIENT PRIOR TO CONSTRUCTION.
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**ROAD LAYOUT TABLE**

| Road Name              | Width (m) | Lap to Lap | Side to Side | Median | Shoulder | Other |
|------------------------|-----------|------------|--------------|--------|----------|-------|
| Ballarat Carngham Road | 12.0      | 4.0        | 4.0          | 0.0    | 1.0      | 1.0   |
| Maple Lane             | 6.0       | 3.0        | 3.0          | 0.0    | 0.5      | 0.5   |

**SERVICE OFFSET TABLE**

| Location        | Gas | Water | Electricity | Telecommunications | Storm |
|-----------------|-----|-------|-------------|--------------------|-------|
| Suburban Area   | 1.0 | 1.0   | 1.0         | 1.0                | 1.0   |
| Urban Area      | 1.5 | 1.5   | 1.5         | 1.5                | 1.5   |
| Commercial Area | 2.0 | 2.0   | 2.0         | 2.0                | 2.0   |

**WARNINGS**

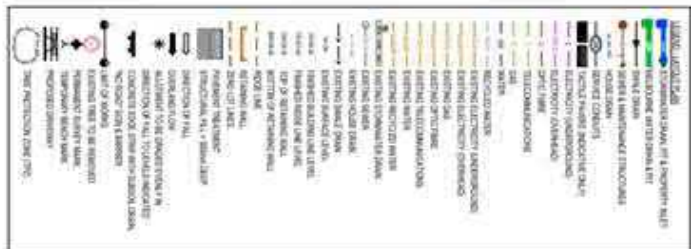
THE PROVISION OF INFORMATION FOR THIS PROJECT IS LIMITED TO THE INFORMATION PROVIDED IN THIS REPORT AND SHOULD NOT BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF A.S. JAMES PTY. LTD.

**DAL 1180 BEFORE YOU DIG**

**FILE NOTES**

THE DRAWING SHOULD BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND THE LATEST AVAILABLE INFORMATION. ANY CHANGES TO THE DRAWING SHOULD BE APPROVED BY THE CLIENT PRIOR TO CONSTRUCTION.

ALL UTILITIES SHOWN ARE BASED ON THE LATEST AVAILABLE INFORMATION AND SHOULD BE VERIFIED BY THE CLIENT PRIOR TO CONSTRUCTION.



TEST LOCATIONS  
DISTANCES GIVEN IN METRES

N.T.S

|  |             |          |        |
|--|-------------|----------|--------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1 | TESTED BY : | A.Wallis | FIGURE |
| A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03  | CHECKED BY: | A.Wallis | 2 of 2 |

|  |   |                          |
|--|---|--------------------------|
| Ballarat Facility<br>P.O. Box 1319 Bakery Hill Vic.<br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b>                             | <b>JOB No:</b>           |
|  | Maple Lane                              | 121207                   |
|  | Ballarat-Carngham Road<br>Winter Valley | <b>REPORT No:</b> B002-1 |
|  |   | <b>DATE:</b> 20/08/2021  |

**DAILY GEOTECHNICAL ACTIVITY REPORT** On Site :- 09:30 Off Site : 10:00

|                                      |                                     |  |
|--------------------------------------|-------------------------------------|--|
| Developer :                          | Constructor: Den Oudens Contracting | Superintendent: Billy                      |
| Testing Authority: A.S.James Pty Ltd | Level of GTA brief:                 | Level one Supervision by Testing Authority |
| Weather Conditions: Overcast, Windy  |                                     |  |

| Equipment on Site         | In Use | Not in Use |                        | In Use | Not in Use |
|---------------------------|--------|------------|------------------------|--------|------------|
| Excavator                 | √      |            | Water cart             |        |            |
| Pad Foot vibrating roller |        |            | D6 Dozer               |        |            |
| 815 Compactor             |        |            | Dump Truck (On Site)   |        |            |
| Grader                    |        |            | Trucks (From off site) |        |            |

**Works in progress**

|            | Location     |
|------------|--------------|
| Stripping  | Dam Backfill |
| Excavating | Dam Backfill |
| Filling    |              |
| Rolling    |              |

**Comments, Details & Observations:**

The constructor had placed the first layers of fill over the small outlying area of dam backfill on the proposed lots 15 and 16 as advised in previous visit to the site, so as to stop the area from filling with water due to the expected rain in the coming days. The constructor had cut a test pit at two depths and a test was carried out on each depth of 1000 mm below finished fill, and 600 mm below finished fill. The onsite material used appeared to be well compacted and close to optimum moisture content. The constructor has been advised to await laboratory testing results before any further filling is to be carried out in this area. The constructor has continued to excavate the fill areas on the western side of estate, and will contact when they require an inspection on this area.

**Inspections**  
 Inspection Type & Location:

Comments & Details:

**Material Type / Quality / Source / Approval:**

Site Won Material, Silty Gravelly CLAY, Close to optimum moisture content, may contain oversize material.

**Compaction Testing:**

|                   |   |           |     |          |              |
|-------------------|---|-----------|-----|----------|--------------|
| Numbers performed | 2 | Test No.s | 1-2 | Location | Dam Backfill |
| Numbers performed |   | Test No.s |     | Location |              |
| Numbers performed |   | Test No.s |     | Location |              |

**Specification Requirements**

|                     |                    |          |
|---------------------|--------------------|----------|
| Standard / Modified | Density Ratio (%)  | 95       |
| Standard            | Moisture Ratio (%) | 85 - 115 |

**Compliance to Specification**

|          | Conforming Tests | Non Conforming Tests |
|----------|------------------|----------------------|
| Density  | 1,2              |                      |
| Moisture | 1,2              |                      |

**Site Instructions Given (Tick box)**

Approval to Place Fill  [ v ]      Filling Methods Approved  [ v ]      Rework / Re-roll required  [ ]  
 Stripped surface Not/ Approved  [ v ]      Filled Area Under Review  [ ]      Moisture Conditioning required  [ ]

Comments & Details





**A.S. JAMES** PTY.LTD

Geotechnical Engineers  
Ballarat Facility  
P.O. Box 1319 Bakery Hill Vic.  
Accreditation No 9855

**JOB:**

Maple Lane  
Ballarat-Carngham Road  
Winter Valley

**Job No.**

121207

**Report No.**

B002-1

**Date**

24/08/2021



**Test 1**



**Test 2**

N.T.S

|                          |             |          |        |
|--------------------------|-------------|----------|--------|
| LOCATION PLAN AND PHOTOS | TESTED BY : | A.Wallis | FIGURE |
|                          | CHECKED BY: | A.Wallis | 2 of 2 |

|  |  |                  |
|--|--|------------------|
| Ballarat Facility<br>P.O. Box 1319 Bakery Hill Vic.<br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b><br>Maple Lane<br>Ballarat-Carngham Road<br>Winter Valley | JOB No: 121207   |
|  |  | REPORT No: B003  |
|  |  | DATE: 26/08/2021 |

**REPORT OF SITE INSPECTION**

**Client** Den Ouden Contracting  
 PO Box 345  
 SEBASTOPOL VIC 3356

**Site Contact** Billy Den Ouden  
**Contact Email** deb@denoudencontracting.com.au

**TYPE OF INSPECTION:** Visual

**LOCATION:** Excavated Dam (Lots 15-17 & Hathaway Close

**MEAN LEVEL:** 2-2.5 m Below Finished Fill Level

**MATERIAL TYPE:** Basalt Rock, Weathered Rock, Silty Clay

**EQUIPMENT USED:** N/A

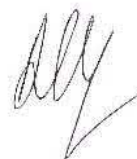
**OBSERVATIONS:** The constructor has continued excavation works within the existing dam, removing moisture affected material & rock as previously advised. The edges of the excavated area have been battered on a 45 degree angle to ensure safety & suitable access for filling & compacting.

**CONCLUSIONS AND REMARKS:** The constructor was advised that the prepared area appears suitable to commence filling works within. The constructor was advised to ensure no pooling water is allowed to stand within this area as it is the lowest point within the proposed area. Should this area be exposed to any significant weather prior to filling works taking place, it is recommended that a follow up inspection be carried out.

**DATE OF INSPECTION:** 26/08/2021

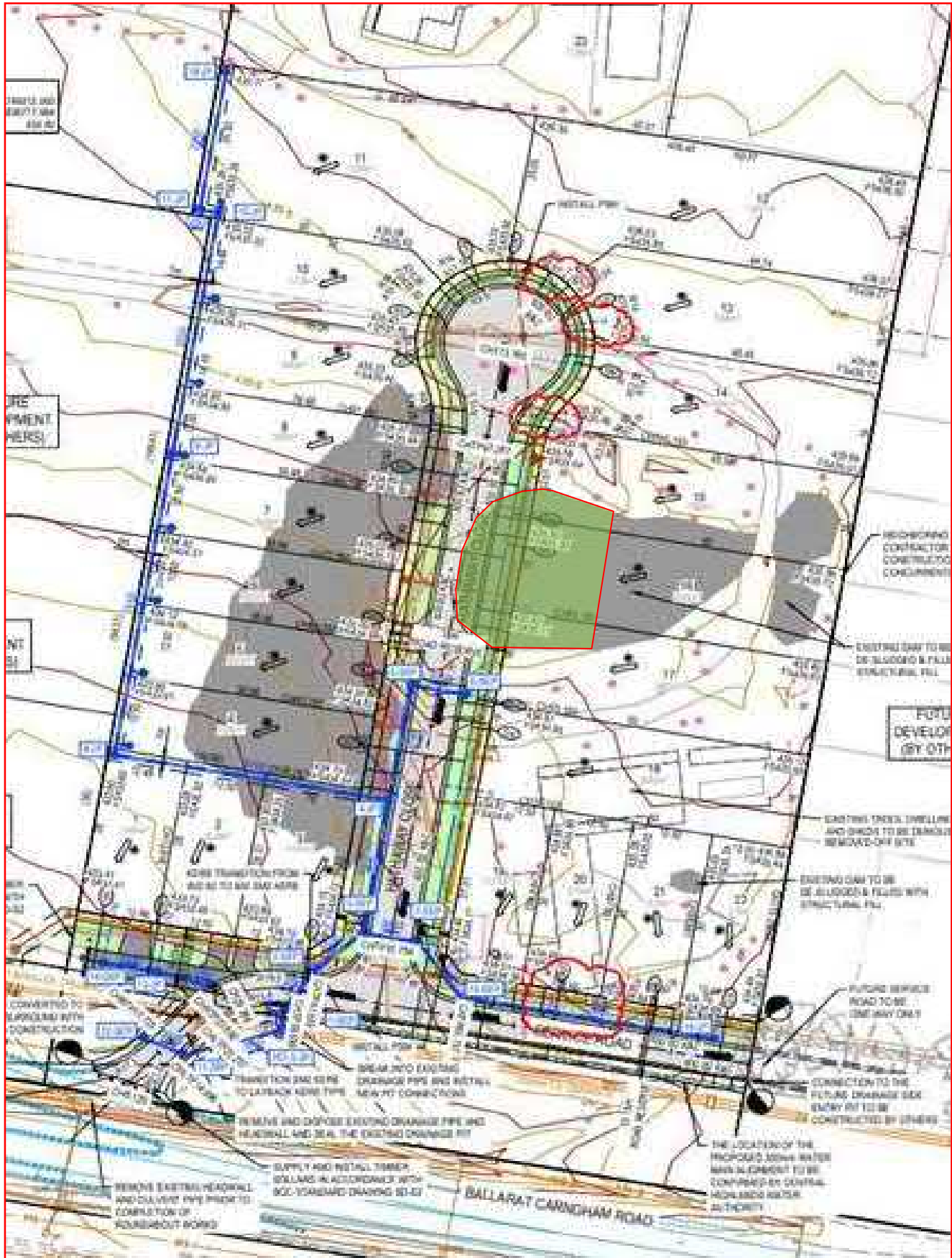
**INSPECTION CARRIED OUT BY:** H.Pyke & A.Wallis

**IN THE PRESENCE OF:** Bill



**CERTIFIED BY:** \_\_\_\_\_

**A.S.JAMES SUPERVISING GEOTECHNICAL ENGINEER D.Gunn**



Approx. location of inspected area

N.T.S

|               |                      |        |
|---------------|----------------------|--------|
| LOCATION PLAN | TESTED BY : H.Pyke   | FIGURE |
|               | CHECKED BY: A.Wallis | 2 of 3 |





**A.S. JAMES** PTY.LTD

Geotechnical Engineers  
Ballarat Facility  
P.O. Box 1319 Bakery Hill Vic.  
Accreditation No 9855

**JOB:**

Maple Lane  
Ballarat-Carngham Road  
Winter Valley

**Job No.**

121207

**Report No.**

B003-1

**Date**

26/08/2021

**Excavated Dam area**



N.T.S

|                 |                      |        |
|-----------------|----------------------|--------|
| LOCATION PHOTOS | TESTED BY : H.Pyke   | FIGURE |
|                 | CHECKED BY: A.Wallis | 3 of 3 |

|  |  |                  |
|--|--|------------------|
| Ballarat Facility<br>P.O. Box 1319 Bakery Hill Vic.<br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b><br>Maple Lane<br>Ballarat-Carngham Road<br>Winter Valley | JOB No: 121207   |
|  |  | REPORT No: B004  |
|  |  | DATE: 26/08/2021 |

**REPORT OF SITE INSPECTION**

**Client** Den Ouden Contracting  
 PO Box 345  
 SEBASTOPOL VIC 3356

**Site Contact** Billy Den Ouden  
**Contact Email** deb@denoudencontracting.com.au

**TYPE OF INSPECTION:** Visual

**LOCATION:** Excavated Dam (Lots 15-17 & Hathaway Close

**MEAN LEVEL:** 1.5 - 2.0 m Below Finished Fill Level

**MATERIAL TYPE:** Basaltic Floaters, Weathered Rock, Silty Clay

**EQUIPMENT USED:** N/A

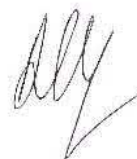
**OBSERVATIONS:** The constructor has continued excavation works within the existing dam, removing the moisture affected material and any loosened basaltic floaters. This has created "moonscape" base which appears suitable to commence filling works upon.

**CONCLUSIONS AND REMARKS:** The constructor was advised that the prepared area appears suitable to commence filling works within. The constructor was advised to place a travel coat within this area to the highest rock, to create a level base to commence filling works from. This travel coat should be well compacted prior to commencing filling works. Should this area be exposed to any significant weather events prior to filling works taking place, it is recommended that a follow up inspection be carried out.

**DATE OF INSPECTION:** 26/08/2021

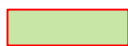
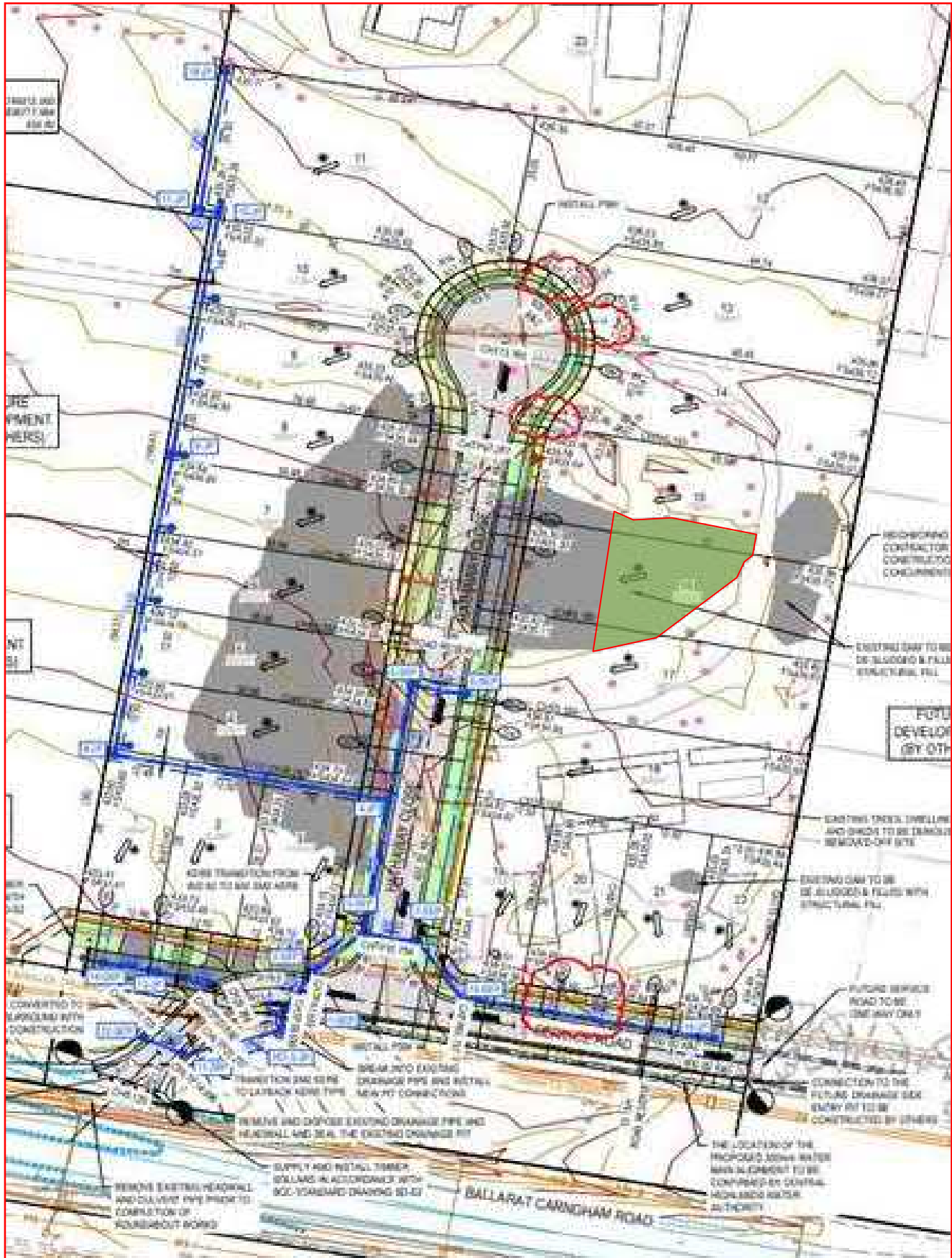
**INSPECTION CARRIED OUT BY:** H.Pyke

**IN THE PRESENCE OF:** Bill



**CERTIFIED BY:** \_\_\_\_\_

**A.S.JAMES SUPERVISING GEOTECHNICAL ENGINEER D.Gunn**



Approx. location of inspected area

N.T.S

|               |                      |        |
|---------------|----------------------|--------|
| LOCATION PLAN | TESTED BY : H.Pyke   | FIGURE |
|               | CHECKED BY: A.Wallis | 2 of 3 |





**A.S. JAMES** PTY.LTD

Geotechnical Engineers  
Ballarat Facility  
P.O. Box 1319 Bakery Hill Vic.  
Accreditation No 9855

**JOB:**

Maple Lane  
Ballarat-Carngham Road  
Winter Valley

**Job No.** 121207

**Report No.** B004-1

**Date** 26/08/2021

**Excavated Dam area**



N.T.S

|                 |                      |        |
|-----------------|----------------------|--------|
| LOCATION PHOTOS | TESTED BY : H.Pyke   | FIGURE |
|                 | CHECKED BY: A.Wallis | 3 of 3 |

|  |  |                        |
|--|--|------------------------|
| <b>Ballarat Facility</b><br><br><b>P.O. Box 1319 Bakery Hill Vic.</b><br><br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b><br><br>Maple Lane<br><br>Ballarat-Carngham Road<br><br>Winter Valley | <b>Job No.</b> 121207  |
|  |  | <b>Report No.</b> B005 |
|  |  | <b>Date</b> 3/09/2021  |

**Section Tested:** Dam Backfill

**For** Den Ouden Contracting  
 PO Box 345  
 SEBASTOPOL VIC 3356

**Att to Email** Billy Den Ouden  
 deb@denoudencontracting.com.au

|                                      |                      |                      |                      |                      |  |  |
|--------------------------------------|----------------------|----------------------|----------------------|----------------------|--|--|
| Test Number                          | 3                    | 4                    | 5                    | 6                    |  |  |
| Date of Field Test                   | 31/08/2021           | 31/08/2021           | 31/08/2021           | 31/08/2021           |  |  |
| Time of Field Test                   | 9:12                 | 9:20                 | 9:29                 | 9:43                 |  |  |
| Date of Laboratory Test              | 01/09/21             | 01/09/21             | 01/09/21             | 01/09/21             |  |  |
| Location Chainage:                   | See                  | See                  | See                  | See                  |  |  |
|                                      | Offset: Sketch       | Sketch               | Sketch               | Sketch               |  |  |
| Depth of Test                        | 300                  | 700                  | 900                  | 300                  |  |  |
| Probe Depth (mm)                     | 300                  | 300                  | 275                  | 300                  |  |  |
| Material Type                        | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly |  |  |
| Maximum Converted Wet Density (t/m3) | 1.97                 | 2.02                 | 2.01                 | 2.01                 |  |  |
| Optimum Moisture Content (%)         | 27.0                 | 27.5                 | 25.5                 | 24.5                 |  |  |
| Field Wet Density (t/m3)             | 1.96                 | 2.05                 | 2.08                 | 2.11                 |  |  |
| Field Dry Density (t/m3)             | 1.50                 | 1.60                 | 1.63                 | 1.70                 |  |  |
| Field Moisture Content (%)           | 30.5                 | 28.5                 | 28.0                 | 24.0                 |  |  |
| Oversize Material (%)                | 4                    | 0                    | 0                    | 0                    |  |  |
| Compaction Type                      | Standard             | Standard             | Standard             | Standard             |  |  |
| Oversize Retained on :               | 19mm                 | 19mm                 | 19mm                 | 19mm                 |  |  |
| Moisture Ratio (%)                   | 113.5                | 103.5                | 109.5                | 97.5                 |  |  |
| Moisture Variation (%)               | 3.0                  | 1.0                  | 2.0                  | 0.5                  |  |  |
| Wet/Dry of Optimum                   | Wet                  | Wet                  | Wet                  | Dry                  |  |  |
| <b>Hilf Density Ratio</b>            | <b>100.0</b>         | <b>101.5</b>         | <b>103.5</b>         | <b>105.5</b>         |  |  |

Notes: DEPTH OF TESTS GIVEN AT BELOW FINISHED FILL LEVEL



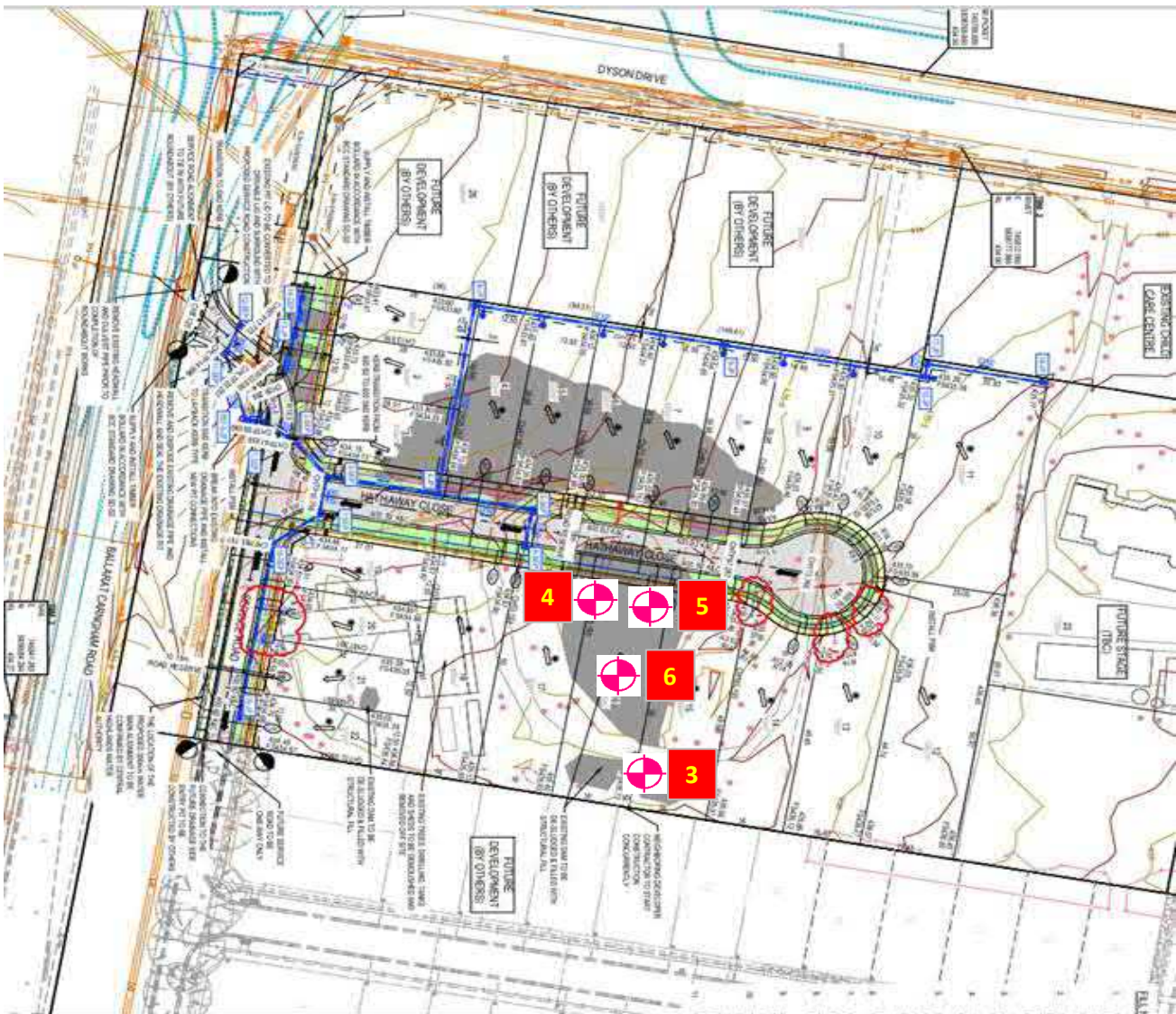
Accredited for compliance with ISO/IEC 17025 - Testing  
 Accreditation No 9855

Approved Signatory  
 Y.Singh (Dip Lab Tech)

03-Sep-21

|  |                      |        |
|--|----------------------|--------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1<br>A.S.JAMES FORM No: LR005 FIG 1 / REV 11 / 21/07/21 | TESTED BY : A.Wallis | FIGURE |
|  | CHECKED BY: A.Wallis | 1 of 2 |





**NOTES**

- 1. ALL SERVICES SHOWN ARE PRELIMINARY AND SUBJECT TO UTILITY LOCATIONS.
- 2. EXISTING SERVICES SHOWN ARE INDICATED BY DASHED LINES AND TO BE ABANDONED IN ACCORDANCE WITH THE ENGINEER'S RECOMMENDATIONS.
- 3. ALL EXISTING SERVICES TO BE ABANDONED IN ACCORDANCE WITH THE ENGINEER'S RECOMMENDATIONS.
- 4. THE ENGINEER'S RECOMMENDATIONS ARE BASED ON THE INFORMATION PROVIDED BY THE CLIENT.

**ROAD LAYOUT TABLE**

| Road Name              | Thursdays | Friday | Saturday | Sunday | Public Holiday |
|------------------------|-----------|--------|----------|--------|----------------|
| Ballarat-Carngham Road | 1.00      | 1.00   | 1.00     | 1.00   | 1.00           |
| Dyson Drive            | 1.00      | 1.00   | 1.00     | 1.00   | 1.00           |

**SERVICE OFFSET TABLE**

| Location    | Gas  | New  | Electricity | Thermocouples | Sewer |
|-------------|------|------|-------------|---------------|-------|
| Overhead    | 1.00 | 1.00 | 1.00        | 1.00          | 1.00  |
| Underground | 1.00 | 1.00 | 1.00        | 1.00          | 1.00  |

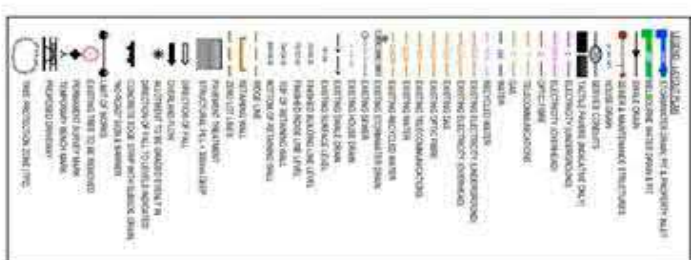
**WARNING**

THIS DOCUMENT IS THE PROPERTY OF A.S. JAMES PTY. LTD. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF A.S. JAMES PTY. LTD.

**DIAL 1180 BEFORE YOU DIG**

**FIELD NOTES**

The site plan shows the proposed development boundaries and the location of the test locations. The test locations are marked with red squares and pink circles. The distances between the test locations are given in metres.



**TEST LOCATIONS**  
DISTANCES GIVEN IN METRES

N.T.S

|  |                      |        |
|--|----------------------|--------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1 | TESTED BY : A.Wallis | FIGURE |
| A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03  | CHECKED BY: A.Wallis | 2 of 2 |

|  |   |                          |
|--|---|--------------------------|
| Ballarat Facility<br>P.O. Box 1319 Bakery Hill Vic.<br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b>                             | <b>JOB No:</b>           |
|  | Maple Lane                              | 121207                   |
|  | Ballarat-Carngham Road<br>Winter Valley | <b>REPORT No:</b> B005-1 |
|  |   | <b>DATE:</b> 31/08/2021  |

**DAILY GEOTECHNICAL ACTIVITY REPORT** On Site :- 09:00 Off Site : 10:00

|                                      |                                     |  |
|--------------------------------------|-------------------------------------|--|
| Developer :                          | Constructor: Den Oudens Contracting | Superintendent: Billy                      |
| Testing Authority: A.S.James Pty Ltd | Level of GTA brief:                 | Level one Supervision by Testing Authority |
| Weather Conditions: Overcast, Windy  |                                     |  |

| Equipment on Site         | In Use | Not in Use |                        | In Use | Not in Use |
|---------------------------|--------|------------|------------------------|--------|------------|
| Excavator                 | √      |            | Water cart             |        |            |
| Pad Foot vibrating roller | √      |            | D6 Dozer               |        |            |
| 815 Compactor             |        |            | Dump Truck (On Site)   |        |            |
| Grader                    |        |            | Trucks (From off site) |        |            |

**Works in progress**

|            | Location     |
|------------|--------------|
| Stripping  |              |
| Excavating |              |
| Filling    | Dam Backfill |
| Rolling    | Dam Backfill |

**Comments, Details & Observations:**  
 The constructor had commenced placing fill in the dam backfill areas over the proposed lots of 15, 16 & 17. As advised in previous visits, the constructor had placed a travel coat over the eastern area of fill before placing the first layer. The constructor had also placed two layers of fill across the western section of the dam, as well as another layer of fill over the smaller dam backfill area that had previously been tested. 4 tests in total were carried out, with 2 on the western section of fill at 900 below and 700 below finished fill, and 1 on the eastern section and 1 on the smaller separate section. The material appeared to be well compacted and close to optimum moisture content. The constructor has been advised to await lab results before continuing fill works.

**Inspections**  
 Inspection Type & Location:

Comments & Details:

**Material Type / Quality / Source / Approval:**  
 Site Won Material, Silty Gravelly CLAY, Close to optimum moisture content, may contain oversize material.

**Compaction Testing:**

|                   |   |           |     |          |              |
|-------------------|---|-----------|-----|----------|--------------|
| Numbers performed | 4 | Test No.s | 3-6 | Location | Dam Backfill |
| Numbers performed |   | Test No.s |     | Location |              |
| Numbers performed |   | Test No.s |     | Location |              |

**Specification Requirements**

|                     |                    |          |
|---------------------|--------------------|----------|
| Standard / Modified | Density Ratio (%)  | 95       |
| Standard            | Moisture Ratio (%) | 85 - 115 |

**Compliance to Specification**

|          | Conforming Tests | Non Conforming Tests |
|----------|------------------|----------------------|
| Density  | 3,4,5,6          |                      |
| Moisture | 3,4,5,6          |                      |

**Site Instructions Given (Tick box)**

|                                |       |                          |       |                                |     |
|--------------------------------|-------|--------------------------|-------|--------------------------------|-----|
| Approval to Place Fill         | [ v ] | Filling Methods Approved | [ v ] | Rework / Re-roll required      | [ ] |
| Stripped surface Not/ Approved | [ v ] | Filled Area Under Review | [ ]   | Moisture Conditioning required | [ ] |

Comments & Details





**Test 3**



**Test 4**



**Test 5**



**Test 6**

N.T.S

|                          |             |          |        |
|--------------------------|-------------|----------|--------|
| LOCATION PLAN AND PHOTOS | TESTED BY : | A.Wallis | FIGURE |
|                          | CHECKED BY: | A.Wallis | 2 of 2 |



|  |  |                        |
|--|--|------------------------|
| <b>Ballarat Facility</b><br><br><b>P.O. Box 1319 Bakery Hill Vic.</b><br><br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b><br><br>Maple Lane<br><br>Ballarat-Carngham Road<br><br>Winter Valley | <b>Job No.</b> 121207  |
|  |  | <b>Report No.</b> B006 |
|  |  | <b>Date</b> 6/09/2021  |

**Section Tested:** Dam Backfill

**For** Den Ouden Contracting  
 PO Box 345  
 SEBASTOPOL VIC 3356

**Att to Email** Billy Den Ouden  
 deb@denoudencontracting.com.au

|                                      |                      |                      |  |  |  |
|--------------------------------------|----------------------|----------------------|--|--|--|
| Test Number                          | 7                    | 8                    |  |  |  |
| Date of Field Test                   | 01/09/21             | 01/09/21             |  |  |  |
| Time of Field Test                   | 13:44                | 13:46                |  |  |  |
| Date of Laboratory Test              | 02/09/21             | 02/09/21             |  |  |  |
| Location Chainage:                   | See                  | See                  |  |  |  |
|                                      | Offset: Sketch       | Sketch               |  |  |  |
| Depth of Test                        | 300                  | 300                  |  |  |  |
| Probe Depth (mm)                     | 300                  | 300                  |  |  |  |
| Material Type                        | Silty CLAY, Gravelly | Silty CLAY, Gravelly |  |  |  |
| Maximum Converted Wet Density (t/m3) | 2.01                 | 2.00                 |  |  |  |
| Optimum Moisture Content (%)         | 27.5                 | 29.0                 |  |  |  |
| Field Wet Density (t/m3)             | 2.04                 | 2.10                 |  |  |  |
| Field Dry Density (t/m3)             | 1.55                 | 1.57                 |  |  |  |
| Field Moisture Content (%)           | 32.0                 | 33.5                 |  |  |  |
| Oversize Material (%)                | 4                    | 0                    |  |  |  |
| Compaction Type                      | Standard             | Standard             |  |  |  |
| Oversize Retained on :               | 19mm                 | 19mm                 |  |  |  |
| Moisture Ratio (%)                   | 115.0                | 115.0                |  |  |  |
| Moisture Variation (%)               | 3.5                  | 4.0                  |  |  |  |
| Wet/Dry of Optimum                   | Wet                  | Wet                  |  |  |  |
| <b>Hilf Density Ratio</b>            | <b>101.5</b>         | <b>105.0</b>         |  |  |  |

Notes: DEPTH OF TESTS GIVEN AT BELOW FINISHED FILL LEVEL



Accredited for compliance with ISO/IEC 17025 - Testing  
 Accreditation No 9855

Approved Signatory  
 Y.Singh (Dip Lab Tech)

06-Sep-21

|  |                      |        |
|--|----------------------|--------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1<br>A.S.JAMES FORM No: LR005 FIG 1 / REV 11 / 21/07/21 | TESTED BY : A.Wallis | FIGURE |
|  | CHECKED BY: A.Wallis | 1 of 2 |





|  |   |                          |
|--|---|--------------------------|
| Ballarat Facility<br>P.O. Box 1319 Bakery Hill Vic.<br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b>                             | <b>JOB No:</b>           |
|  | Maple Lane                              | 121207                   |
|  | Ballarat-Carngham Road<br>Winter Valley | <b>REPORT No:</b> B006-1 |
|  |   | <b>DATE:</b> 1/09/2021   |

**DAILY GEOTECHNICAL ACTIVITY REPORT** On Site :- 13:30 Off Site : 14:00

|                                      |                                     |  |
|--------------------------------------|-------------------------------------|--|
| Developer :                          | Constructor: Den Oudens Contracting | Superintendent: Billy                      |
| Testing Authority: A.S.James Pty Ltd | Level of GTA brief:                 | Level one Supervision by Testing Authority |
| Weather Conditions: Sunny, Clear     |                                     |  |

| Equipment on Site         | In Use | Not in Use |                        | In Use | Not in Use |
|---------------------------|--------|------------|------------------------|--------|------------|
| Excavator                 | √      |            | Water cart             |        |            |
| Pad Foot vibrating roller | √      |            | D6 Dozer               |        |            |
| 815 Compactor             |        |            | Dump Truck (On Site)   |        |            |
| Grader                    |        |            | Trucks (From off site) |        |            |

**Works in progress**

|            | Location     |
|------------|--------------|
| Stripping  |              |
| Excavating |              |
| Filling    | Dam Backfill |
| Rolling    | Dam Backfill |

**Comments, Details & Observations:**  
 The constructor had placed the next layer of fill over the western section of the dam backfill area to bring the entire fill area to the same height. The approved on site material was used and was compacted using a pad foot roller. 2 tests were carried out on the material at each end of the fill area which covered the proposed house lots 15, 16 & 17. The material appeared to be well compacted, however it appeared to be slightly wet of optimum moisture content, and therefore may require some re-conditioning. The constructor has been advised to await lab results before any further fill works.

**Inspections**  
 Inspection Type & Location:  
 \_\_\_\_\_  
 Comments & Details:  
 \_\_\_\_\_

**Material Type / Quality / Source / Approval:**  
 Site Won Material, Silty Gravelly CLAY, Slightly wet of optimum moisture content, may contain oversize material.

**Compaction Testing:**

|                   |   |           |     |          |              |
|-------------------|---|-----------|-----|----------|--------------|
| Numbers performed | 2 | Test No.s | 7-8 | Location | Dam Backfill |
| Numbers performed |   | Test No.s |     | Location |              |
| Numbers performed |   | Test No.s |     | Location |              |

**Specification Requirements**

|                     |                    |          |
|---------------------|--------------------|----------|
| Standard / Modified | Density Ratio (%)  | 95       |
| Standard            | Moisture Ratio (%) | 85 - 115 |

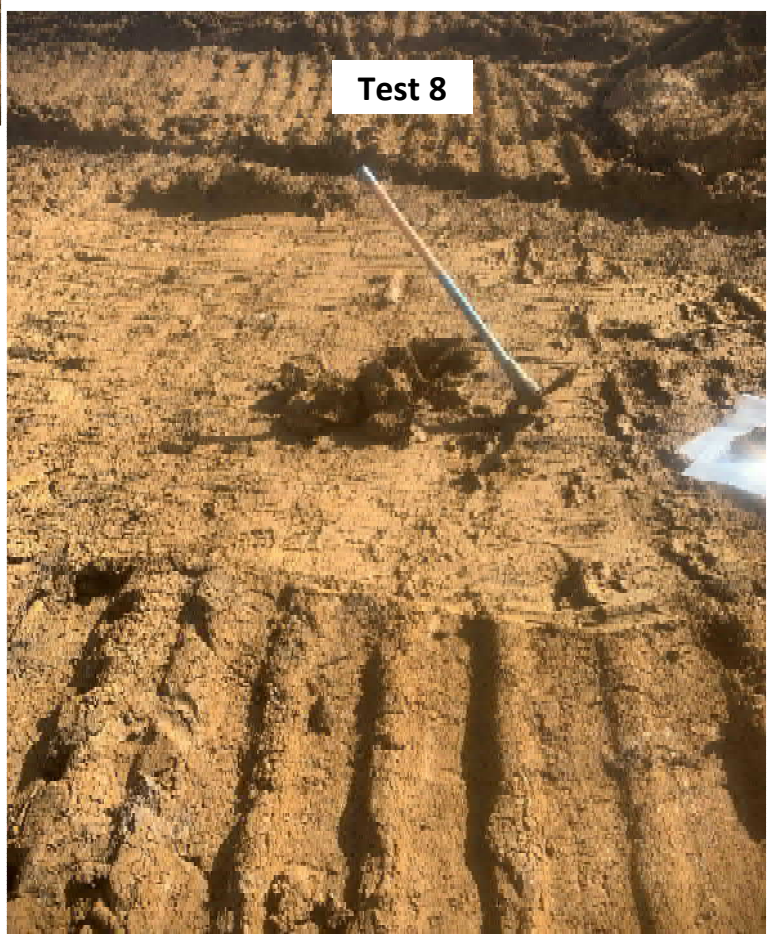
**Compliance to Specification**

|          | Conforming Tests | Non Conforming Tests |
|----------|------------------|----------------------|
| Density  | 7,8              |                      |
| Moisture | 7,8              |                      |

**Site Instructions Given (Tick box)**

|                                |       |                          |       |                                |     |
|--------------------------------|-------|--------------------------|-------|--------------------------------|-----|
| Approval to Place Fill         | [ v ] | Filling Methods Approved | [ v ] | Rework / Re-roll required      | [ ] |
| Stripped surface Not/ Approved | [ v ] | Filled Area Under Review | [ ]   | Moisture Conditioning required | [ ] |

Comments & Details



N.T.S

|                          |             |          |        |
|--------------------------|-------------|----------|--------|
| LOCATION PLAN AND PHOTOS | TESTED BY : | A.Wallis | FIGURE |
|                          | CHECKED BY: | A.Wallis | 2 of 2 |

|  |  |                        |
|--|--|------------------------|
| <b>Ballarat Facility</b><br><br><b>P.O. Box 1319 Bakery Hill Vic.</b><br><br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b><br><br>Maple Lane<br><br>Ballarat-Carngham Road<br><br>Winter Valley | <b>Job No.</b> 121207  |
|  |  | <b>Report No.</b> B007 |
|  |  | <b>Date</b> 10/09/2021 |

**Section Tested:** Dam Backfill

**For** Den Ouden Contracting  
 PO Box 345  
 SEBASTOPOL VIC 3356

**Att to Email** Billy Den Ouden  
 deb@denoudencontracting.com.au

|                                      |                      |                      |                      |  |  |
|--------------------------------------|----------------------|----------------------|----------------------|--|--|
| Test Number                          | 9                    | 10                   | 11                   |  |  |
| Date of Field Test                   | 09/09/21             | 09/09/21             | 09/09/21             |  |  |
| Time of Field Test                   | 11:06                | 11:08                | 11:10                |  |  |
| Date of Laboratory Test              | 09/09/21             | 09/09/21             | 09/09/21             |  |  |
| Location Chainage:                   | See                  | See                  | See                  |  |  |
|                                      | Offset: Sketch       | Sketch               | Sketch               |  |  |
| Depth of Test                        | FFL                  | FFL                  | FFL                  |  |  |
| Probe Depth (mm)                     | 300                  | 300                  | 300                  |  |  |
| Material Type                        | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly |  |  |
| Maximum Converted Wet Density (t/m3) | 2.04                 | 2.00                 | 2.00                 |  |  |
| Optimum Moisture Content (%)         | 22.5                 | 22.0                 | 24.0                 |  |  |
| Field Wet Density (t/m3)             | 2.08                 | 2.02                 | 2.08                 |  |  |
| Field Dry Density (t/m3)             | 1.68                 | 1.63                 | 1.67                 |  |  |
| Field Moisture Content (%)           | 24.0                 | 24.0                 | 24.5                 |  |  |
| Oversize Material (%)                | 0                    | 0                    | 1                    |  |  |
| Compaction Type                      | Standard             | Standard             | Standard             |  |  |
| Oversize Retained on :               | 19mm                 | 19mm                 | 19mm                 |  |  |
| Moisture Ratio (%)                   | 106.5                | 109.5                | 103.0                |  |  |
| Moisture Variation (%)               | 1.5                  | 2.0                  | 0.5                  |  |  |
| Wet/Dry of Optimum                   | Wet                  | Wet                  | Wet                  |  |  |
| <b>Hilf Density Ratio</b>            | <b>102.0</b>         | <b>100.5</b>         | <b>104.0</b>         |  |  |

Notes: DEPTH OF TESTS GIVEN AT FINISHED FILL LEVEL



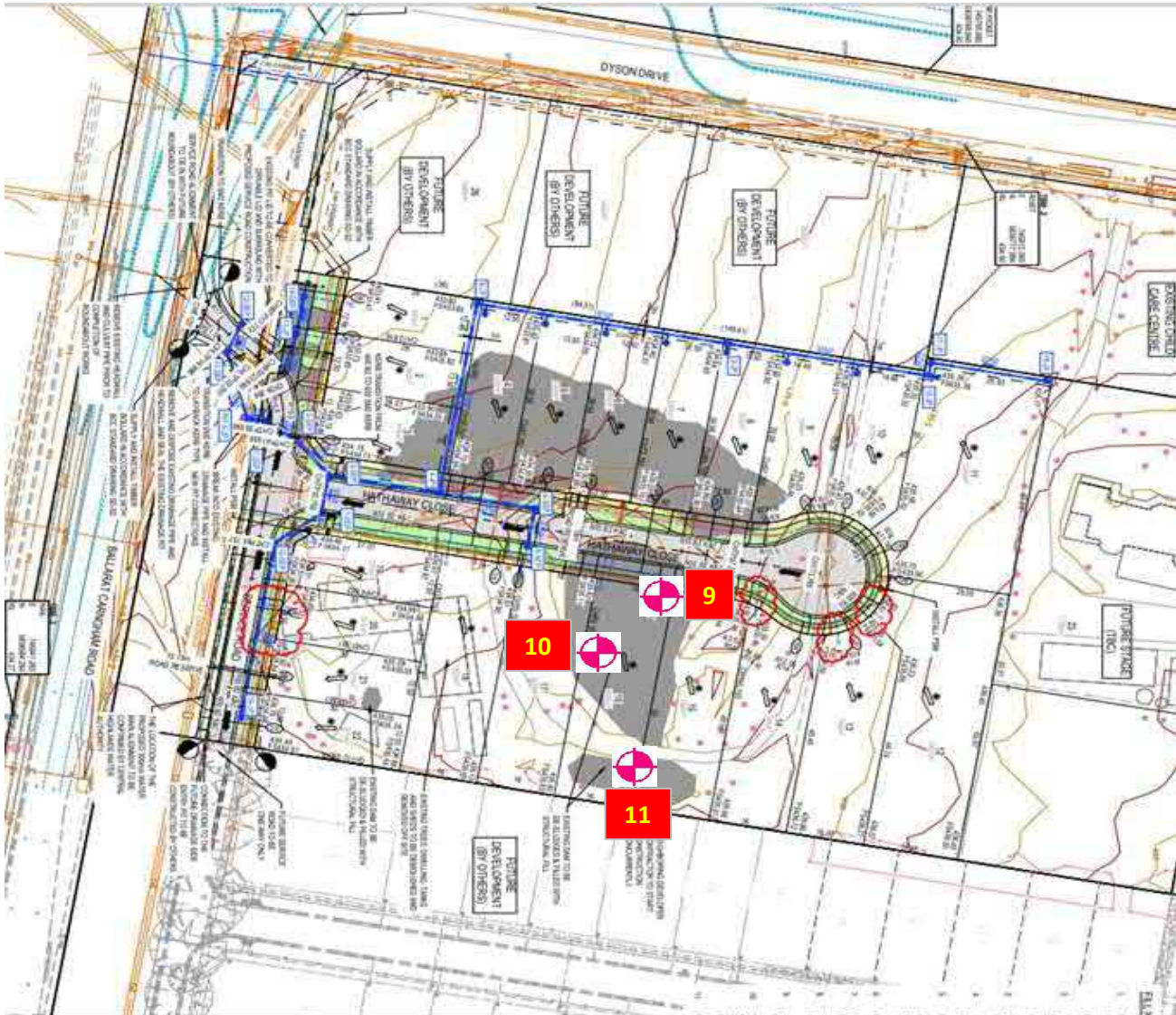
Accredited for compliance with ISO/IEC 17025 - Testing  
 Accreditation No 9855

Approved Signatory  
 Y.Singh (Dip Lab Tech)

10-Sep-21

|  |                      |        |
|--|----------------------|--------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1<br>A.S.JAMES FORM No: LR005 FIG 1 / REV 11 / 21/07/21 | TESTED BY : A.Wallis | FIGURE |
|  | CHECKED BY: A.Wallis | 1 of 2 |





**FL NOTES**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES PRIOR TO COMMENCING WORK.

**ROAD LAYOUT TABLE**

| Road Name              | Right Way (m) | Left Way (m) | Right Way (m) | Left Way (m) |
|------------------------|---------------|--------------|---------------|--------------|
| Ballarat-Carngham Road | 10.0          | 10.0         | 10.0          | 10.0         |
| Hyatt Road             | 5.0           | 5.0          | 5.0           | 5.0          |
| Dyson Drive            | 10.0          | 10.0         | 10.0          | 10.0         |

**SERVICE OFFSET TABLE**

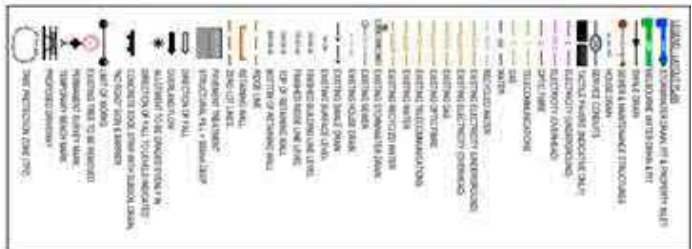
| Location | Gas | Water | Electricity | Telecommunications | Storm |
|----------|-----|-------|-------------|--------------------|-------|
| Outside  | 1.0 | 1.0   | 1.0         | 1.0                | 1.0   |
| Inside   | 1.0 | 1.0   | 1.0         | 1.0                | 1.0   |

**NOTES**

- All services shown on this plan are subject to location and depth. The contractor shall verify the location and depth of all services prior to construction.
- All services shown on this plan are subject to location and depth. The contractor shall verify the location and depth of all services prior to construction.
- All services shown on this plan are subject to location and depth. The contractor shall verify the location and depth of all services prior to construction.

**WARNING**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES PRIOR TO COMMENCING WORK.



TEST LOCATIONS  
DISTANCES GIVEN IN METRES

N.T.S

|  |             |          |        |
|--|-------------|----------|--------|
| AS PER AS1289 - 1.1, 1.2.1(6.4), 2.1.1, 5.7.1, 5.8.1 | TESTED BY : | A.Wallis | FIGURE |
| A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03    | CHECKED BY: | A.Wallis | 2 of 2 |

|  |   |                          |
|--|---|--------------------------|
| Ballarat Facility<br>P.O. Box 1319 Bakery Hill Vic.<br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b>                             | <b>JOB No:</b>           |
|  | Maple Lane                              | 121207                   |
|  | Ballarat-Carngham Road<br>Winter Valley | <b>REPORT No:</b> B007-1 |
|  |   | <b>DATE:</b> 9/09/2021   |

**DAILY GEOTECHNICAL ACTIVITY REPORT** On Site :- 11:00 Off Site : 11:30

|   |                                     |  |
|---|-------------------------------------|--|
| Developer :                             | Constructor: Den Oudens Contracting | Superintendent: Billy                      |
| Testing Authority: A.S.James Pty Ltd    | Level of GTA brief:                 | Level one Supervision by Testing Authority |
| Weather Conditions: Sunny, Clear, Windy |                                     |  |

| Equipment on Site         | In Use | Not in Use |                        | In Use | Not in Use |
|---------------------------|--------|------------|------------------------|--------|------------|
| Excavator                 | √      |            | Water cart             |        |            |
| Pad Foot vibrating roller | √      |            | D6 Dozer               |        |            |
| 815 Compactor             |        |            | Dump Truck (On Site)   |        |            |
| Grader                    |        |            | Trucks (From off site) |        |            |

**Works in progress**

|            | Location     |
|------------|--------------|
| Stripping  |              |
| Excavating |              |
| Filling    | Dam Backfill |
| Rolling    | Dam Backfill |

**Comments, Details & Observations:**

The constructor had placed the final layer of material across the entire section of fill that covers the proposed house lots 15, 16 & 17 as the area was now at a level depth after the previous visit. A 300 mm layer was placed using the approved on site material, and was compacted using a pad foot roller. 3 tests were carried out across the fill area, with the material appearing to be well compacted, however possibly slightly wet of optimum moisture content.

The constructor has been advised to await laboratory results before any further works on this area of fill.

**Inspections**  
 Inspection Type & Location:

Comments & Details:

**Material Type / Quality / Source / Approval:**

Site Won Material, Silty Gravelly CLAY, Slightly wet of optimum moisture content, may contain oversize material.

**Compaction Testing:**

|                   |   |           |      |          |              |
|-------------------|---|-----------|------|----------|--------------|
| Numbers performed | 3 | Test No.s | 9-11 | Location | Dam Backfill |
| Numbers performed |   | Test No.s |      | Location |              |
| Numbers performed |   | Test No.s |      | Location |              |

**Specification Requirements**

|                                |                    |          |
|--------------------------------|--------------------|----------|
| Standard / <del>Modified</del> | Density Ratio (%)  | 95       |
| Standard                       | Moisture Ratio (%) | 85 - 115 |

**Compliance to Specification**

|          | Conforming Tests | Non Conforming Tests |
|----------|------------------|----------------------|
| Density  | 9,10,11          |                      |
| Moisture | 9,10,11          |                      |

**Site Instructions Given (Tick box)**

Approval to Place Fill [  ] Filling Methods Approved [  ] Rework / Re-roll required [  ]  
 Stripped surface Not/ Approved [  ] Filled Area Under Review [  ] Moisture Conditioning required [  ]

Comments & Details





**A.S. JAMES** PTY.LTD

Geotechnical Engineers  
Ballarat Facility  
P.O. Box 1319 Bakery Hill Vic.  
Accreditation No 9855

**JOB:**

Maple Lane  
Ballarat-Carngham Road  
Winter Valley

**Job No.**

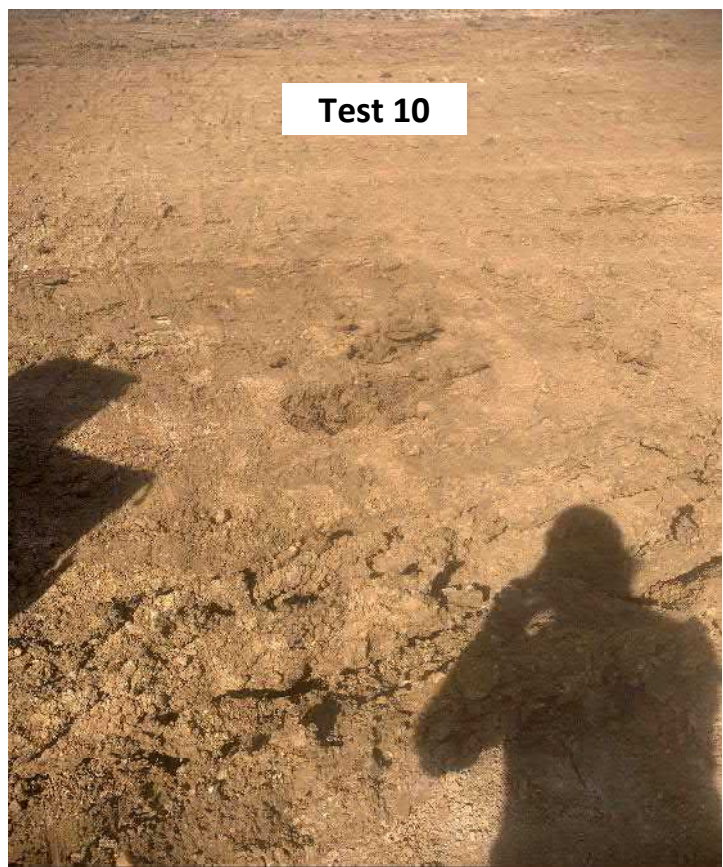
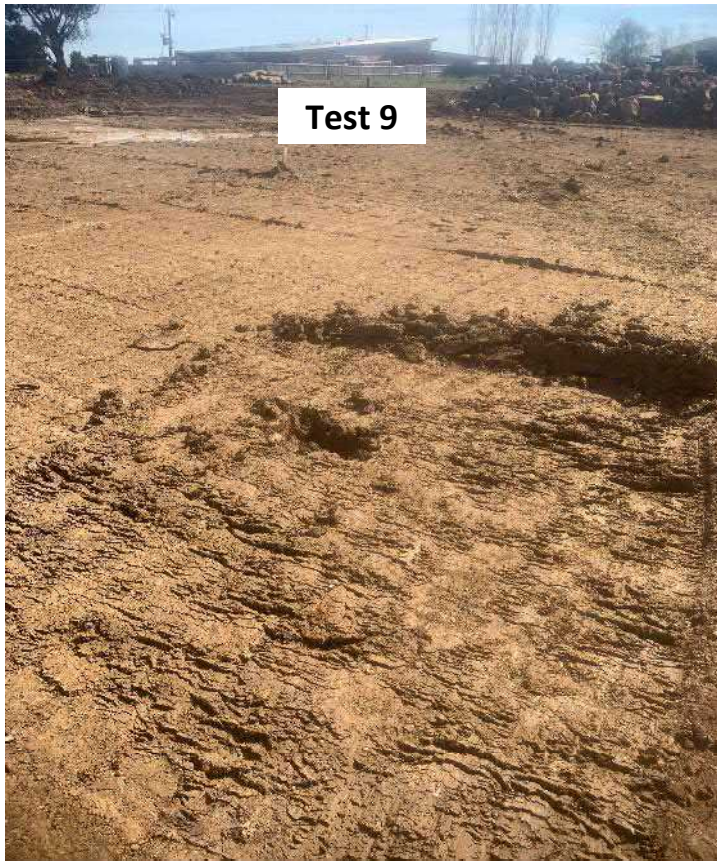
121207

**Report No.**

B007-1

**Date**

9/09/2021



N.T.S

LOCATION PLAN AND PHOTOS

TESTED BY :

A.Wallis

FIGURE

CHECKED BY:

A.Wallis

2 of 2



|  |   |                         |
|--|---|-------------------------|
| Ballarat Facility<br>P.O. Box 1319 Bakery Hill Vic.<br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b><br>Maple Lane Estate<br>Ballarat-Carngham Road<br>Winter Valley | <b>JOB No:</b> 121207   |
|  |   | <b>REPORT No:</b> B008  |
|  |   | <b>DATE:</b> 29/09/2021 |

**REPORT OF SITE INSPECTION**

**Client** Den Ouden Contracting  
 PO Box 345  
 SEBASTOPOL VIC 3356

**Site Contact** Billy Den Ouden  
**Contact Email** deb@denoudencontracting.com.au

**TYPE OF INSPECTION:** Visual

**LOCATION:** Proposed House Lots 3 - 9

**MEAN LEVEL:** Finished Subgrade Level

**MATERIAL TYPE:** Silty CLAY, Basalt/Weathered Rock

**EQUIPMENT USED:** N / A

**OBSERVATIONS:**

The constructor had commenced excavation works on the next area of fill, covering the proposed house lots of 3 - 9. The constructor has removed the uncontrolled fill throughout the area and exposed the stiff, underlying, natural clay and weathered rock.

**CONCLUSIONS AND REMARKS:**

The constructor was advised that the prepared area appears to be suitably excavated to a stable base and is ready to commence filling works. The constructor was advised that the area be rolled with a pad foot roller prior however to ensure that the area is suitably compacted and to create scarification so the fill will bind once filling commences. The constructor was further advised that if the area was exposed to any weather conditions that may effect the exposed material between today's inspection and the commencement of filling works, remedial works are to take place on the area before filling can commence.

**DATE OF INSPECTION:** 29/09/2021

**INSPECTION CARRIED OUT BY:** A.Wallis & W.Cousens

**IN THE PRESENCE OF:** Paul



**CERTIFIED BY:**

**A.S.JAMES SUPERVISING GEOTECHNICAL ENGINEER D.Gunn**



**- Inspected Area**

N.T.S

|               |             |          |        |
|---------------|-------------|----------|--------|
| LOCATION PLAN | TESTED BY : | A.Wallis | FIGURE |
|               | CHECKED BY: | A.Wallis | 2 of 3 |





**A.S. JAMES** PTY.LTD

Geotechnical Engineers  
Ballarat Facility  
P.O. Box 1319 Bakery Hill Vic.  
Accreditation No 9855

**JOB:**

Maple Lane Estate  
Ballarat-Carngham Road  
Winter Valley

**Job No.** 121207

**Report No.** B008

**Date** 29/09/2021



N.T.S

|                 |             |          |        |
|-----------------|-------------|----------|--------|
| LOCATION PHOTOS | TESTED BY : | A.Wallis | FIGURE |
|                 | CHECKED BY: | A.Wallis | 3 of 3 |



|  |   |                        |
|--|---|------------------------|
| <b>Ballarat Facility</b><br><br><b>P.O. Box 1319 Bakery Hill Vic.</b><br><br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b><br><br>Maple Lane Estate<br><br>Ballarat-Carngham Road<br><br>Winter Valley | <b>Job No.</b> 121207  |
|  |   | <b>Report No.</b> B009 |
|  |   | <b>Date</b> 29/10/2021 |

**Section Tested:** House Lots

**For** Den Ouden Contracting  
 PO Box 345  
 SEBASTOPOL VIC 3356

**Att to Email** Billy Den Ouden  
 deb@denoudencontracting.com.au

| Test Number                          | 12                   | 13                   | 14                   | 15                   | 16                   | 17                   |
|--------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Date of Field Test                   | 27/10/21             | 27/10/21             | 27/10/21             | 27/10/21             | 27/10/21             | 27/10/21             |
| Time of Field Test                   | 10:42                | 10:45                | 10:49                | 11:00                | 11:06                | 11:13                |
| Date of Laboratory Test              | 27/10/21             | 27/10/21             | 27/10/21             | 27/10/21             | 27/10/21             | 27/10/21             |
| Location Chainage:                   | See                  | See                  | See                  | See                  | See                  | See                  |
|                                      | Offset: Sketch       | Sketch               | Sketch               | Sketch               | Sketch               | Sketch               |
| Depth of Test                        | 600                  | 600                  | 600                  | 600                  | 600                  | 600                  |
| Probe Depth (mm)                     | 275                  | 275                  | 275                  | 275                  | 275                  | 275                  |
| Material Type                        | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly |
| Maximum Converted Wet Density (t/m3) | 2.01                 | 2.03                 | 2.05                 | 2.03                 | 2.02                 | 2.05                 |
| Optimum Moisture Content (%)         | 22.0                 | 23.0                 | 24.0                 | 25.0                 | 25.5                 | 23.5                 |
| Field Wet Density (t/m3)             | 2.00                 | 2.13                 | 2.07                 | 2.03                 | 2.08                 | 2.12                 |
| Field Dry Density (t/m3)             | 1.66                 | 1.73                 | 1.67                 | 1.62                 | 1.66                 | 1.73                 |
| Field Moisture Content (%)           | 20.5                 | 23.5                 | 24.0                 | 25.5                 | 25.5                 | 23.0                 |
| Oversize Material (%)                | 0                    | 0                    | 0                    | 0                    | 0                    | 0                    |
| Compaction Type                      | Standard             | Standard             | Standard             | Standard             | Standard             | Standard             |
| Oversize Retained on :               | 19mm                 | 19mm                 | 19mm                 | 19mm                 | 19mm                 | 19mm                 |
| Moisture Ratio (%)                   | 93.5                 | 101.5                | 101.0                | 101.5                | 101.0                | 98.0                 |
| Moisture Variation (%)               | 1.5                  | 0.5                  | 0.5                  | 0.5                  | 0.0                  | 0.5                  |
| Wet/Dry of Optimum                   | Dry                  | Wet                  | Wet                  | Wet                  | Wet                  | Dry                  |
| <b>Hilf Density Ratio</b>            | <b>99.5</b>          | <b>105.0</b>         | <b>101.5</b>         | <b>100.0</b>         | <b>103.0</b>         | <b>103.5</b>         |

Notes: DEPTH OF TEST GIVEN AT BELOW FINISHED FILL LEVEL

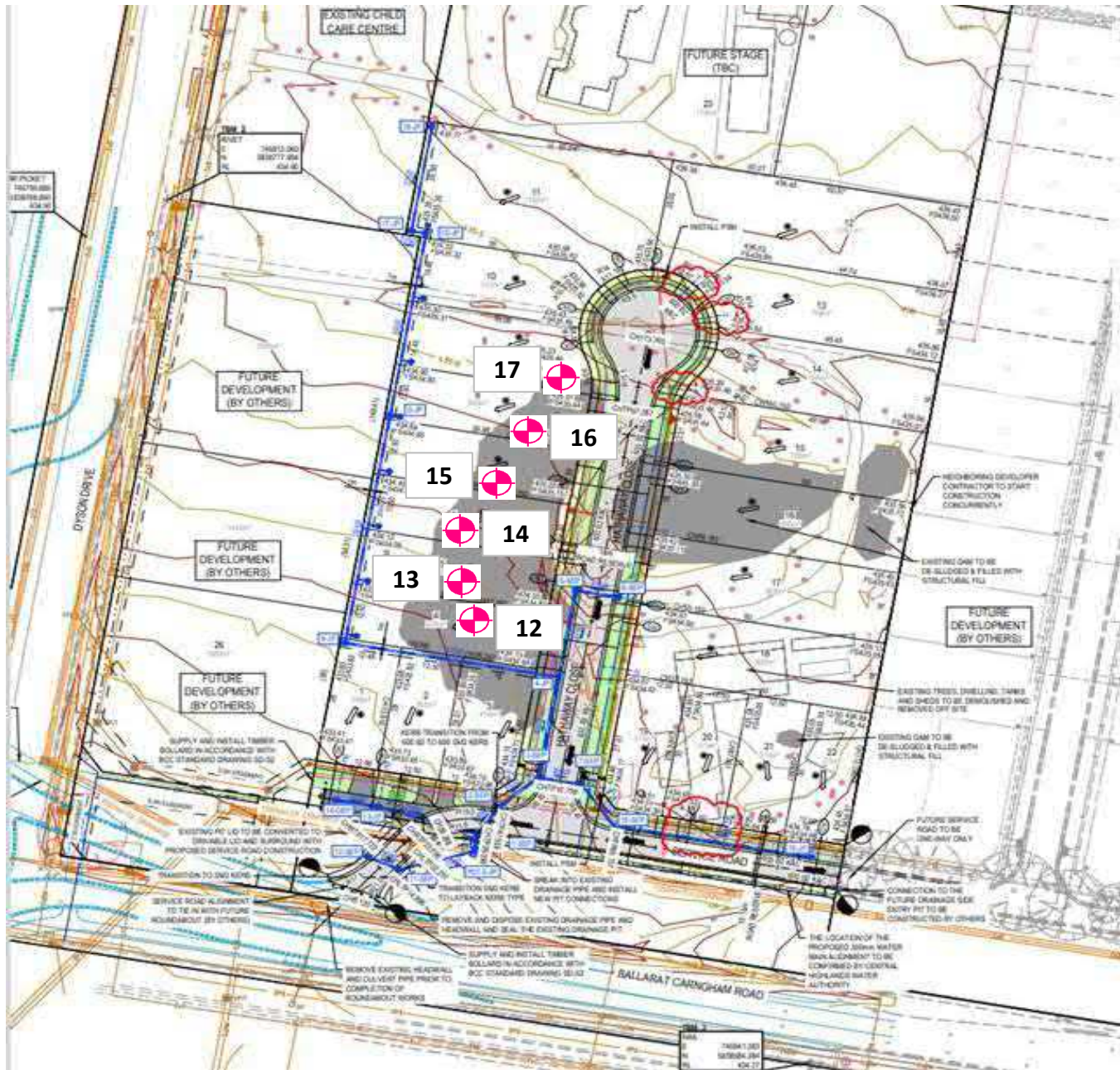


Accredited for compliance with ISO/IEC 17025 - Testing  
 Accreditation No 9855

Approved Signatory  
 Y.Singh (Dip Lab Tech)

29-Oct-21

|  |                      |        |
|--|----------------------|--------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1<br>A.S.JAMES FORM No: LR005 FIG 1 / REV 11 / 21/07/21 | TESTED BY : A.Wallis | FIGURE |
|  | CHECKED BY: A.Wallis | 1 of 2 |



TEST LOCATIONS  
DISTANCES GIVEN IN METRES

N.T.S

|   |                            |                      |                  |
|---|----------------------------|----------------------|------------------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1<br>A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03 | TESTED BY :<br>CHECKED BY: | A.Wallis<br>A.Wallis | FIGURE<br>2 of 2 |
|---|----------------------------|----------------------|------------------|



|  |   |                          |
|--|---|--------------------------|
| Ballarat Facility<br>P.O. Box 1319 Bakery Hill Vic.<br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b>                             | <b>JOB No:</b>           |
|  | Maple Lane Estate                       | 121207                   |
|  | Ballarat-Carngham Road<br>Winter Valley | <b>REPORT No:</b> B009-1 |
|  |   | <b>DATE:</b> 27/10/2021  |

**DAILY GEOTECHNICAL ACTIVITY REPORT** On Site :- 10:30 Off Site : 11:30

|   |                                    |  |
|---|------------------------------------|--|
| Developer :                             | Constructor: Den Ouden Contracting | Superintendent: Billy                      |
| Testing Authority: A.S.James Pty Ltd    | Level of GTA brief:                | Level one Supervision by Testing Authority |
| Weather Conditions: Sunny, Clear, Windy |                                    |  |

| Equipment on Site         | In Use | Not in Use |                        | In Use | Not in Use |
|---------------------------|--------|------------|------------------------|--------|------------|
| Excavator                 | √      |            | Water cart             |        |            |
| Pad Foot vibrating roller | √      |            | D6 Dozer               |        |            |
| 815 Compactor             |        |            | Dump Truck (On Site)   |        |            |
| Grader                    |        |            | Trucks (From off site) |        |            |

**Works in progress**

|            | Location   |
|------------|------------|
| Stripping  |            |
| Excavating |            |
| Filling    | House Lots |
| Rolling    | House Lots |

**Comments, Details & Observations:**  
 The constructor had commenced filling works on the proposed house lot 4-9 using the approved on site material. The layer placed was 300 mm in thickness and was the first layer compacted over these house lots. One test was carried out on each lot, with six tests carried out in total. The material was compacted using a pad foot roller and appeared to be well compacted. The material also appeared to be well moisture conditioned, but did vary from lot to lot. Lots 2 & 3 were not tested as they still required some re-working and possibly a change to the material used. These lots will be tested at another visit. The constructor was advised to await laboratory results before any further filling works.

**Inspections**  
 Inspection Type & Location:  
 \_\_\_\_\_  
 Comments & Details:  
 \_\_\_\_\_

**Material Type / Quality / Source / Approval:**  
 Site Won Material - Silty, Gravelly, CLAY - Close to Optimum Moisture Content - may contain oversize material.

**Compaction Testing:**

|                   |   |           |         |          |            |
|-------------------|---|-----------|---------|----------|------------|
| Numbers performed | 6 | Test No.s | 12 - 17 | Location | House Lots |
| Numbers performed |   | Test No.s |         | Location |            |
| Numbers performed |   | Test No.s |         | Location |            |

**Specification Requirements**

|                                |                    |          |
|--------------------------------|--------------------|----------|
| Standard / <del>Modified</del> | Density Ratio (%)  | 95       |
| Standard                       | Moisture Ratio (%) | 85 - 115 |

**Compliance to Specification**

|          | Conforming Tests  | Non Conforming Tests |
|----------|-------------------|----------------------|
| Density  | 12,13,14,15,16,17 |                      |
| Moisture | 12,13,14,15,16,17 |                      |

**Site Instructions Given (Tick box)**

|                                |       |                          |       |                                |     |
|--------------------------------|-------|--------------------------|-------|--------------------------------|-----|
| Approval to Place Fill         | [ v ] | Filling Methods Approved | [ v ] | Rework / Re-roll required      | [ ] |
| Stripped surface Not/ Approved | [ v ] | Filled Area Under Review | [ ]   | Moisture Conditioning required | [ ] |

Comments & Details  
 \_\_\_\_\_

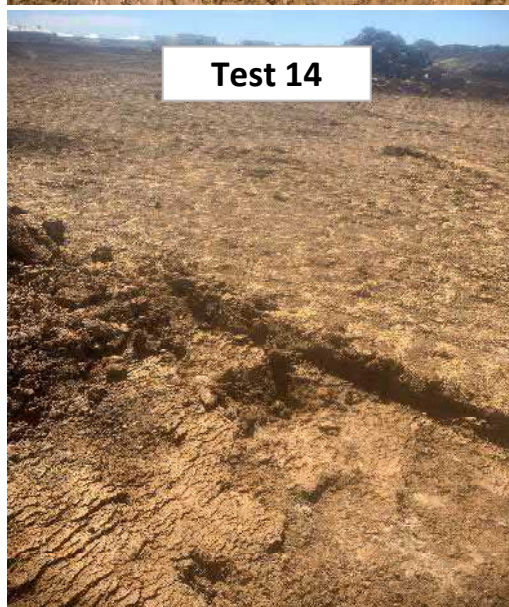




**Test 12**



**Test 13**



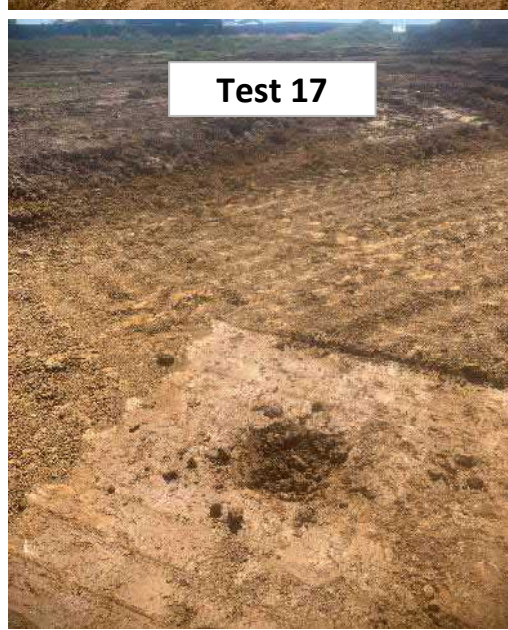
**Test 14**



**Test 15**



**Test 16**



**Test 17**

N.T.S

|                 |             |          |        |
|-----------------|-------------|----------|--------|
| LOCATION PHOTOS | TESTED BY : | A.Wallis | FIGURE |
|                 | CHECKED BY: | A.Wallis | 2 of 2 |



|  |   |                        |
|--|---|------------------------|
| <b>Ballarat Facility</b><br><br><b>P.O. Box 1319 Bakery Hill Vic.</b><br><br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b><br><br>Maple Lane Estate<br><br>Ballarat-Carngham Road<br><br>Winter Valley | <b>Job No.</b> 121207  |
|  |   | <b>Report No.</b> B010 |
|  |   | <b>Date</b> 21/01/2022 |

**Section Tested:** House Lots

**For** Den Ouden Contracting  
 PO Box 345  
 SEBASTOPOL VIC 3356  
  
**Att to Email** Billy Den Ouden  
 deb@denoudencontracting.com.au

| Test Number                          | 18                   | 19                   | 20                   | 21                   | 22                   | 23                   |
|--------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Date of Field Test                   | 18/01/22             | 18/01/22             | 18/01/22             | 18/01/22             | 18/01/22             | 18/01/22             |
| Time of Field Test                   | 15:40                | 15:45                | 15:50                | 15:58                | 16:00                | 16:04                |
| Date of Laboratory Test              | 20/01/22             | 20/01/22             | 20/01/22             | 20/01/22             | 20/01/22             | 20/01/22             |
| Location Chainage:                   | See                  | See                  | See                  | See                  | See                  | See                  |
|                                      | Offset: Sketch       | Sketch               | Sketch               | Sketch               | Sketch               | Sketch               |
| Depth of Test                        | 300                  | 300                  | 300                  | 300                  | 300                  | 300                  |
| Probe Depth (mm)                     | 300                  | 300                  | 300                  | 300                  | 300                  | 300                  |
| Material Type                        | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly |
| Maximum Converted Wet Density (t/m3) | 2.12                 | 2.12                 | 2.02                 | 2.05                 | 2.06                 | 2.00                 |
| Optimum Moisture Content (%)         | 15.0                 | 16.5                 | 19.0                 | 24.5                 | 17.5                 | 18.0                 |
| Field Wet Density (t/m3)             | 2.12                 | 2.04                 | 2.03                 | 2.17                 | 2.05                 | 1.96                 |
| Field Dry Density (t/m3)             | 1.86                 | 1.75                 | 1.72                 | 1.77                 | 1.79                 | 1.71                 |
| Field Moisture Content (%)           | 14.0                 | 16.5                 | 18.0                 | 22.0                 | 15.0                 | 14.5                 |
| Oversize Material (%)                | 8                    | 5                    | 2                    | 3                    | 7                    | 3                    |
| Compaction Type                      | Standard             | Standard             | Standard             | Standard             | Standard             | Standard             |
| Oversize Retained on :               | 19mm                 | 19mm                 | 19mm                 | 19mm                 | 19mm                 | 19mm                 |
| Moisture Ratio (%)                   | 94.5                 | 99.0                 | 95.5                 | 89.5                 | 86.5                 | 80.5                 |
| Moisture Variation (%)               | 0.5                  | 0.0                  | 1.0                  | 2.5                  | 2.0                  | 3.5                  |
| Wet/Dry of Optimum                   | Dry                  | Dry                  | Dry                  | Dry                  | Dry                  | Dry                  |
| <b>Hilf Density Ratio</b>            | <b>99.5</b>          | <b>96.0</b>          | <b>100.5</b>         | <b>105.5</b>         | <b>99.5</b>          | <b>98.0</b>          |

Notes: DEPTH OF TEST GIVEN AT BELOW FINISHED FILL LEVEL

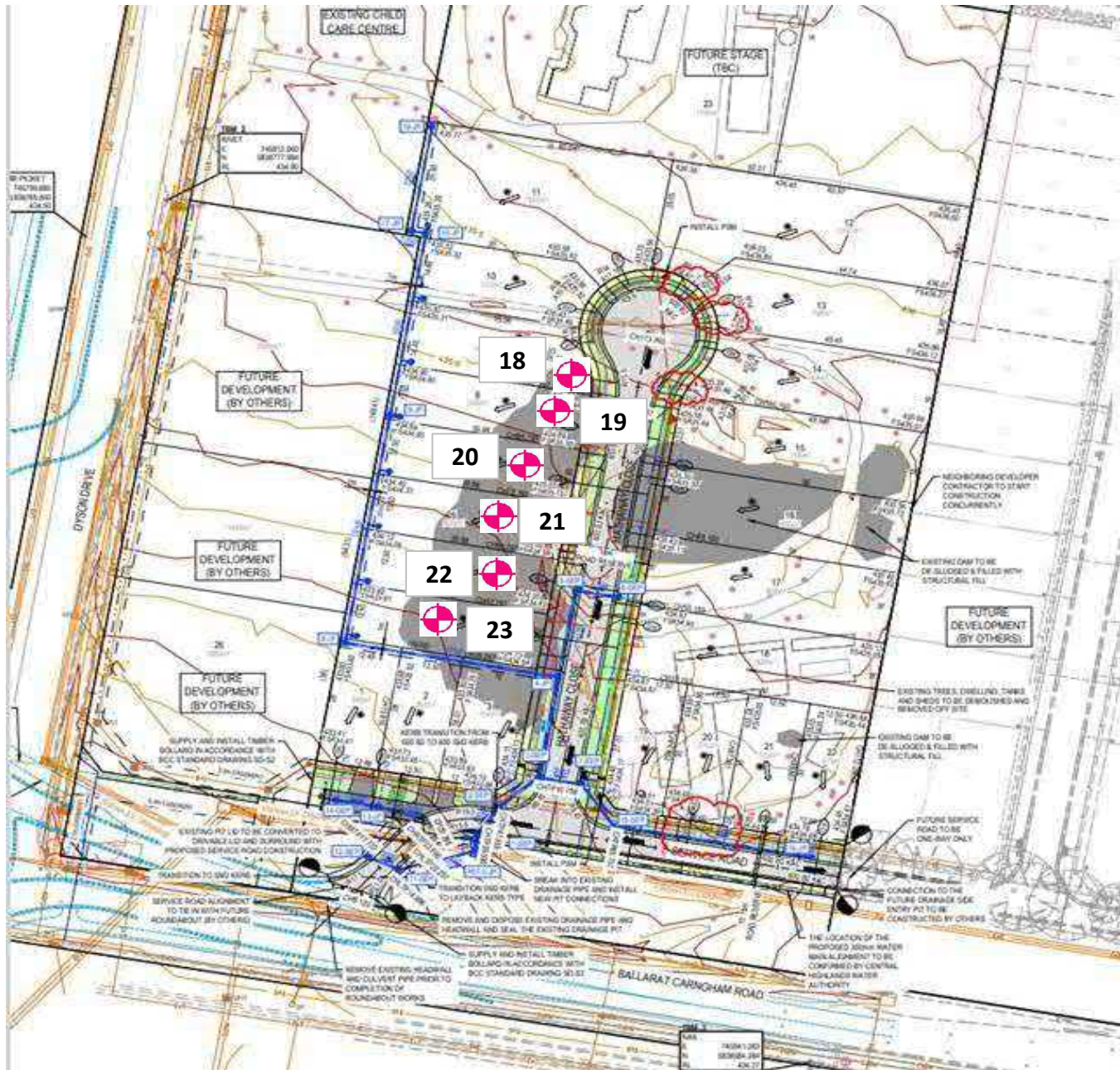


Accredited for compliance with ISO/IEC 17025 - Testing  
 Accreditation No 9855

Approved Signatory  
 Y.Singh (Dip Lab Tech)

21-Jan-22

|  |                      |        |
|--|----------------------|--------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1<br>A.S.JAMES FORM No: LR005 FIG 1 / REV 11 / 21/07/21 | TESTED BY : A.Wallis | FIGURE |
|  | CHECKED BY: A.Wallis | 1 of 2 |



TEST LOCATIONS  
DISTANCES GIVEN IN METRES

N.T.S

|  |             |          |        |
|--|-------------|----------|--------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1 | TESTED BY : | A.Wallis | FIGURE |
| A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03  | CHECKED BY: | A.Wallis | 2 of 2 |



|  |   |                          |
|--|---|--------------------------|
| Ballarat Facility<br>P.O. Box 1319 Bakery Hill Vic.<br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b>                             | <b>JOB No:</b>           |
|  | Maple Lane Estate                       | 121207                   |
|  | Ballarat-Carngham Road<br>Winter Valley | <b>REPORT No:</b> B010-1 |
|  |   | <b>DATE:</b> 18/01/2022  |

**DAILY GEOTECHNICAL ACTIVITY REPORT** On Site :- 15:15 Off Site : 16:15

|                                      |                                    |  |
|--------------------------------------|------------------------------------|--|
| Developer :                          | Constructor: Den Ouden Contracting | Superintendent: Billy                      |
| Testing Authority: A.S.James Pty Ltd | Level of GTA brief:                | Level one Supervision by Testing Authority |
| Weather Conditions: Sunny, Clear     |                                    |  |

| Equipment on Site         | In Use | Not in Use |                        | In Use | Not in Use |
|---------------------------|--------|------------|------------------------|--------|------------|
| Excavator                 | √      |            | Water cart             | √      |            |
| Pad Foot vibrating roller | √      |            | D6 Dozer               |        |            |
| 815 Compactor             |        |            | Dump Truck (On Site)   | √      |            |
| Grader                    |        |            | Trucks (From off site) |        |            |

**Works in progress**

| Location   |            |
|------------|------------|
| Stripping  |            |
| Excavating |            |
| Filling    | House Lots |
| Rolling    | House Lots |

**Comments, Details & Observations:**  
 The constructor has placed and compacted the next 300 mm layer of fill over the proposed house lots 4 - 9 using the approved on site material. The material was placed and compacted using a pad foot roller. The material appeared to be well compacted, however it also appeared to be slightly dry of optimum moisture content in some areas of the fill zone. One test was carried out on each house lot, with six tests being carried out in total. The current fill height is approx. 300 below the proposed finished fill height. The constructor has been advised to await laboratory results before further fill works.

**Inspections**  
 Inspection Type & Location:  
 \_\_\_\_\_  
 Comments & Details:  
 \_\_\_\_\_

**Material Type / Quality / Source / Approval:**  
 Site Won Material - Silty, Gravelly, CLAY - Slightly dry of Optimum Moisture Content - may contain oversize material.

**Compaction Testing:**

|                   |   |           |         |          |            |
|-------------------|---|-----------|---------|----------|------------|
| Numbers performed | 6 | Test No.s | 18 - 23 | Location | House Lots |
| Numbers performed |   | Test No.s |         | Location |            |
| Numbers performed |   | Test No.s |         | Location |            |

**Specification Requirements**

|                                |                    |          |
|--------------------------------|--------------------|----------|
| Standard / <del>Modified</del> | Density Ratio (%)  | 95       |
| Standard                       | Moisture Ratio (%) | 85 - 115 |

**Compliance to Specification**

|          | Conforming Tests  | Non Conforming Tests |
|----------|-------------------|----------------------|
| Density  | 18,19,20,21,22,23 |                      |
| Moisture | 18,19,20,21,22    | 23                   |

**Site Instructions Given (Tick box)**

|                                |                                     |                          |                                     |                                |                                     |
|--------------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------------|-------------------------------------|
| Approval to Place Fill         | <input checked="" type="checkbox"/> | Filling Methods Approved | <input checked="" type="checkbox"/> | Rework / Re-roll required      | <input type="checkbox"/>            |
| Stripped surface Not/ Approved | <input type="checkbox"/>            | Filled Area Under Review | <input type="checkbox"/>            | Moisture Conditioning required | <input checked="" type="checkbox"/> |

Comments & Details  
 \_\_\_\_\_



**A.S. JAMES** PTY.LTD

Geotechnical Engineers  
Ballarat Facility  
P.O. Box 1319 Bakery Hill Vic.  
Accreditation No 9855

**JOB:**

Maple Lane Estate  
Ballarat-Carngham Road  
Winter Valley

**Job No.**

121207

**Report No.**

B010

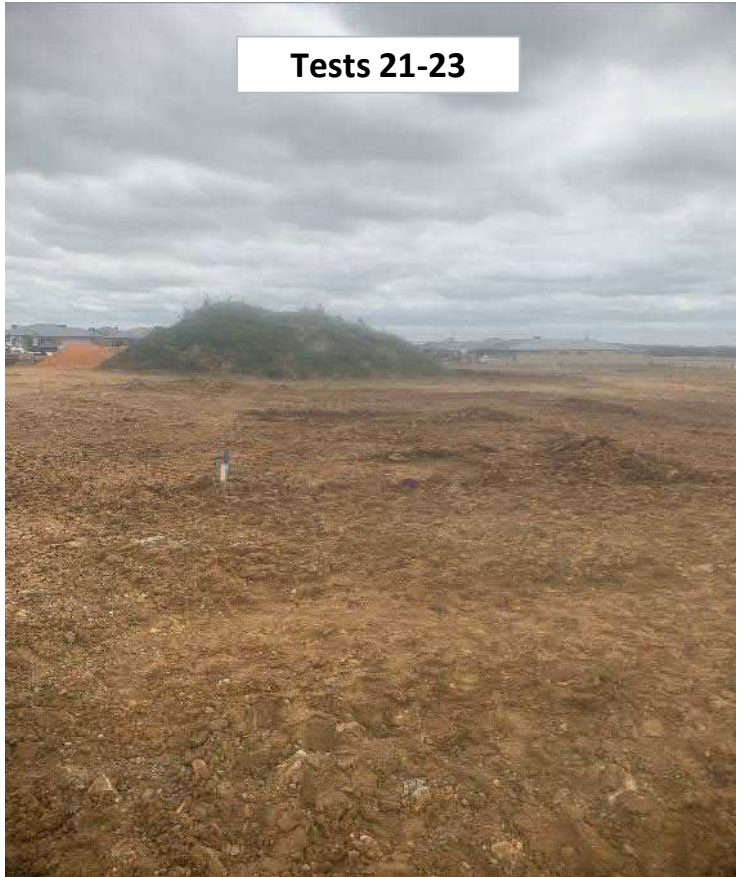
**Date**

18/01/2022

**Tests 18-20**



**Tests 21-23**



N.T.S

|                 |                      |        |
|-----------------|----------------------|--------|
| LOCATION PHOTOS | TESTED BY : A.Wallis | FIGURE |
|                 | CHECKED BY: A.Wallis | 2 of 2 |



|  |   |                        |
|--|---|------------------------|
| <b>Ballarat Facility</b><br><br><b>P.O. Box 1319 Bakery Hill Vic.</b><br><br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b><br><br>Maple Lane Estate<br><br>Ballarat-Carngham Road<br><br>Winter Valley | <b>Job No.</b> 121207  |
|  |   | <b>Report No.</b> B011 |
|  |   | <b>Date</b> 27/01/2022 |

**Section Tested:** House Lots      **For** Den Ouden Contracting  
 PO Box 345  
 SEBASTOPOL VIC 3356  
**Att to** Billy Den Ouden  
**Email** deb@denoudencontracting.com.au

| Test Number                          | 24                   | 25                   | 26                   | 27                   | 28                   | 29                   |
|--------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Date of Field Test                   | 24/01/22             | 24/01/22             | 24/01/22             | 24/01/22             | 24/01/22             | 24/01/22             |
| Time of Field Test                   | 10:05                | 10:12                | 10:19                | 10:26                | 10:34                | 10:42                |
| Date of Laboratory Test              | 25/01/22             | 25/01/22             | 25/01/22             | 25/01/22             | 25/01/22             | 25/01/22             |
| Location Chainage:                   | See                  | See                  | See                  | See                  | See                  | See                  |
|                                      | Offset: Sketch       | Sketch               | Sketch               | Sketch               | Sketch               | Sketch               |
| Depth of Test                        | 300                  | FFL                  | FFL                  | FFL                  | FFL                  | FFL                  |
| Probe Depth (mm)                     | 300                  | 300                  | 300                  | 300                  | 300                  | 300                  |
| Material Type                        | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly | Silty CLAY, Gravelly |
| Maximum Converted Wet Density (t/m3) | 2.13                 | 2.06                 | 2.10                 | 1.99                 | 2.02                 | 2.07                 |
| Optimum Moisture Content (%)         | 19.5                 | 21.5                 | 19.5                 | 27.0                 | 22.5                 | 22.5                 |
| Field Wet Density (t/m3)             | 2.15                 | 2.09                 | 2.13                 | 2.07                 | 2.05                 | 2.09                 |
| Field Dry Density (t/m3)             | 1.80                 | 1.71                 | 1.77                 | 1.62                 | 1.59                 | 1.70                 |
| Field Moisture Content (%)           | 19.5                 | 22.0                 | 20.5                 | 28.0                 | 29.0                 | 23.0                 |
| Oversize Material (%)                | 0                    | 0                    | 0                    | 0                    | 2                    | 6                    |
| Compaction Type                      | Standard             | Standard             | Standard             | Standard             | Standard             | Standard             |
| Oversize Retained on :               | 19mm                 | 19mm                 | 19mm                 | 19mm                 | 19mm                 | 19mm                 |
| Moisture Ratio (%)                   | 100.5                | 102.5                | 103.5                | 104.5                | 128.0                | 104.0                |
| Moisture Variation (%)               | 0.0                  | 0.5                  | 0.5                  | 1.0                  | 6.0                  | 1.0                  |
| Wet/Dry of Optimum                   | Wet                  | Wet                  | Wet                  | Wet                  | Wet                  | Wet                  |
| <b>Hilf Density Ratio</b>            | <b>101.0</b>         | <b>101.5</b>         | <b>102.0</b>         | <b>104.0</b>         | <b>102.0</b>         | <b>101.0</b>         |

Notes: DEPTH OF TEST GIVEN AS AT OR BELOW FINISHED FILL LEVEL  
 Test no 24 is a retest of test no 23



Accredited for compliance with ISO/IEC 17025 - Testing  
 Accreditation No 9855

Approved Signatory  
 Y.Singh (Dip Lab Tech)

27-Jan-22

|  |  |                      |
|--|--|----------------------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1<br>A.S.JAMES FORM No: LR005 FIG 1 / REV 11 / 21/07/21 | TESTED BY : J.Murphy<br><br>CHECKED BY: J.Murphy | FIGURE<br><br>1 of 3 |
|--|--|----------------------|

|  |   |                        |
|--|---|------------------------|
| <b>Ballarat Facility</b><br><br><b>P.O. Box 1319 Bakery Hill Vic.</b><br><br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b><br><br>Maple Lane Estate<br><br>Ballarat-Carngham Road<br><br>Winter Valley | <b>Job No.</b> 121207  |
|  |   | <b>Report No.</b> B011 |
|  |   | <b>Date</b> 27/01/2022 |

**Section Tested:** House Lots

**For** Den Ouden Contracting  
 PO Box 345  
 SEBASTOPOL VIC 3356

**Att to Email** Billy Den Ouden  
 deb@denoudencontracting.com.au

|                                      |                      |                      |        |  |  |
|--------------------------------------|----------------------|----------------------|--------|--|--|
| Test Number                          | 30                   | 31                   |        |  |  |
| Date of Field Test                   | 24/01/22             | 24/01/22             |        |  |  |
| Time of Field Test                   | 10:50                | 10:55                |        |  |  |
| Date of Laboratory Test              | 25/01/22             | 25/01/22             |        |  |  |
| Location Chainage:                   | See                  | See                  |        |  |  |
|                                      | Offset:              | Sketch               | Sketch |  |  |
| Depth of Test                        | FFL                  | FFL                  |        |  |  |
| Probe Depth (mm)                     | 300                  | 300                  |        |  |  |
| Material Type                        | Silty CLAY, Gravelly | Silty CLAY, Gravelly |        |  |  |
| Maximum Converted Wet Density (t/m3) | 2.00                 | 2.11                 |        |  |  |
| Optimum Moisture Content (%)         | 20.5                 | 19.5                 |        |  |  |
| Field Wet Density (t/m3)             | 2.10                 | 2.20                 |        |  |  |
| Field Dry Density (t/m3)             | 1.79                 | 1.89                 |        |  |  |
| Field Moisture Content (%)           | 17.5                 | 16.5                 |        |  |  |
| Oversize Material (%)                | 0                    | 2                    |        |  |  |
| Compaction Type                      | Standard             | Standard             |        |  |  |
| Oversize Retained on :               | 37.5mm               | 19mm                 |        |  |  |
| Moisture Ratio (%)                   | 85.5                 | 85.5                 |        |  |  |
| Moisture Variation (%)               | 3.0                  | 2.5                  |        |  |  |
| Wet/Dry of Optimum                   | Dry                  | Dry                  |        |  |  |
| <b>Hilf Density Ratio</b>            | <b>105.0</b>         | <b>104.0</b>         |        |  |  |

Notes: DEPTH OF TEST GIVEN AS AT FINISHED FILL LEVEL



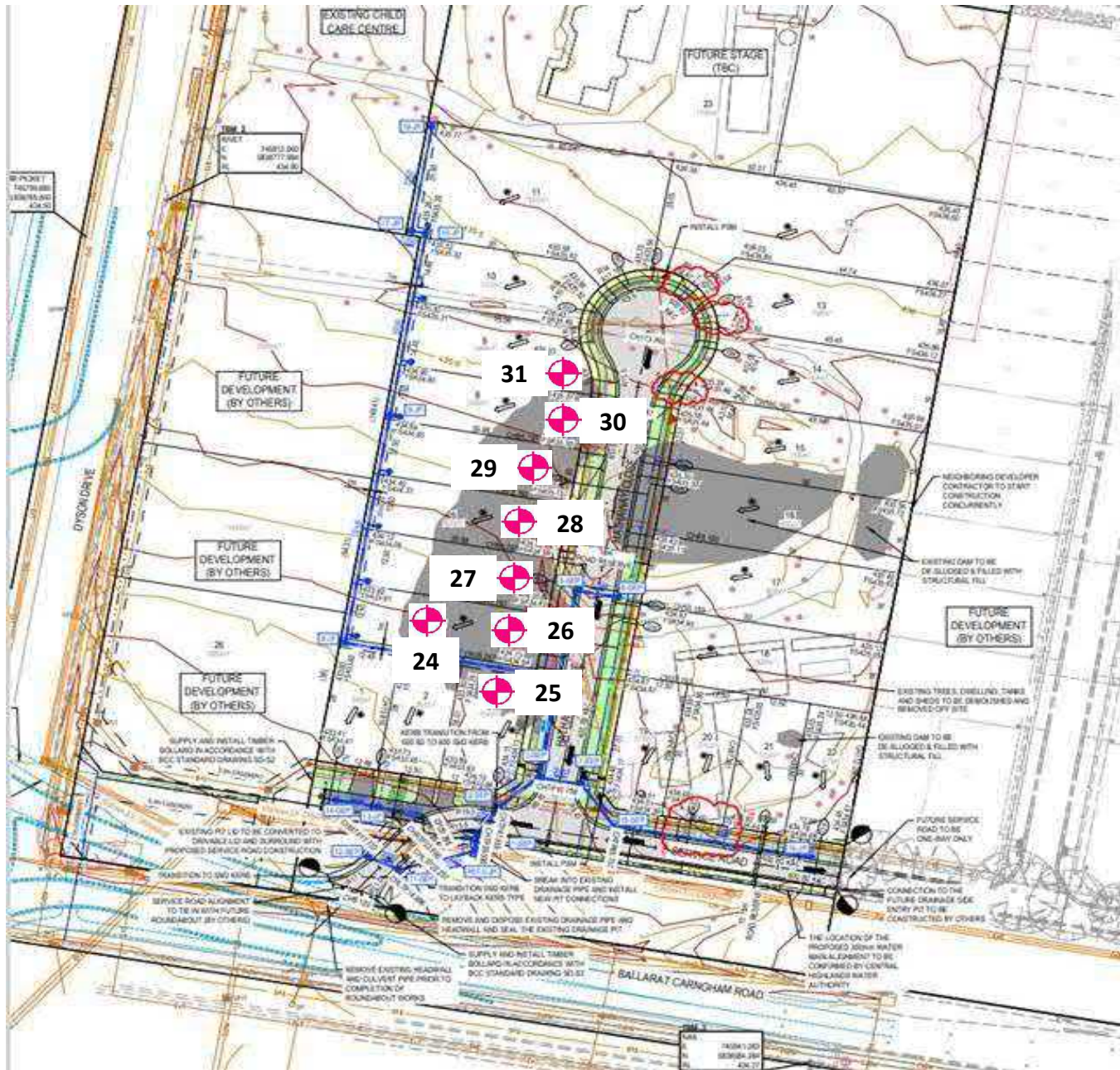
Accredited for compliance with ISO/IEC 17025 - Testing  
 Accreditation No 9855

Approved Signatory  
 Y.Singh (Dip Lab Tech)

27-Jan-22

|  |                      |        |
|--|----------------------|--------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1<br>A.S.JAMES FORM No: LR005 FIG 1 / REV 11 / 21/07/21 | TESTED BY : J.Murphy | FIGURE |
|  | CHECKED BY: J.Murphy | 2 of 3 |





TEST LOCATIONS  
DISTANCES GIVEN IN METRES

N.T.S

|   |  |                  |
|---|--|------------------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1<br>A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03 | TESTED BY : J.Murphy<br>CHECKED BY: J.Murphy | FIGURE<br>3 of 3 |
|---|--|------------------|

|  |   |                          |
|--|---|--------------------------|
| Ballarat Facility<br>P.O. Box 1319 Bakery Hill Vic.<br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b>                             | <b>JOB No:</b>           |
|  | Maple Lane Estate                       | 121207                   |
|  | Ballarat-Carngham Road<br>Winter Valley | <b>REPORT No:</b> B011-1 |
|  |   | <b>DATE:</b> 27/01/2022  |

**DAILY GEOTECHNICAL ACTIVITY REPORT** On Site :- 10:00 Off Site : 11:00

|   |                                    |  |
|---|------------------------------------|--|
| Developer :                             | Constructor: Den Ouden Contracting | Superintendent: Billy                      |
| Testing Authority: A.S.James Pty Ltd    | Level of GTA brief:                | Level one Supervision by Testing Authority |
| Weather Conditions: Sunny, Clear, Windy |                                    |  |

| Equipment on Site         | In Use | Not in Use |                        | In Use | Not in Use |
|---------------------------|--------|------------|------------------------|--------|------------|
| Excavator                 | √      |            | Water cart             |        |            |
| Pad Foot vibrating roller | √      |            | D6 Dozer               |        |            |
| 815 Compactor             |        |            | Dump Truck (On Site)   |        |            |
| Grader                    |        |            | Trucks (From off site) |        |            |

**Works in progress**

| Location   |
|------------|
| Stripping  |
| Excavating |
| Filling    |
| Rolling    |
| House Lots |

**Comments, Details & Observations:**  
 The constructor has brought up the house lot fill area to finished fill level in preparation for testing. The constructor has also excavated down 300mm on lot 4 so that a retest could be carried out at this depth. The material from the retest appears well compacted and well moisture conditioned. 1 test was then carried out on house lots 3 - 9 at finished fill level. Material appears well compacted and varying for moisture with test 28 appearing too wet of optimum moisture content. The constructor was advised to await laboratory results.

**Inspections**  
 Inspection Type & Location:

Comments & Details:

**Material Type / Quality / Source / Approval:**  
 Site Won Material - Silty, Gravelly, CLAY - Close to Optimum Moisture Content - may contain oversize material.

**Compaction Testing:**

|                   |   |           |       |          |            |
|-------------------|---|-----------|-------|----------|------------|
| Numbers performed | 8 | Test No.s | 24-31 | Location | House Lots |
| Numbers performed |   | Test No.s |       | Location |            |
| Numbers performed |   | Test No.s |       | Location |            |

**Specification Requirements**

|                                |                    |          |
|--------------------------------|--------------------|----------|
| Standard / <del>Modified</del> | Density Ratio (%)  | 95       |
| Standard                       | Moisture Ratio (%) | 85 - 115 |

**Compliance to Specification**

|          | Conforming Tests        | Non Conforming Tests |
|----------|-------------------------|----------------------|
| Density  | 24,25,26,27,28,29,30,31 |                      |
| Moisture | 24,25,26,27,29,30,31    | 28                   |

**Site Instructions Given (Tick box)**

|                                |       |                          |       |                                |     |
|--------------------------------|-------|--------------------------|-------|--------------------------------|-----|
| Approval to Place Fill         | [ v ] | Filling Methods Approved | [ v ] | Rework / Re-roll required      | [ ] |
| Stripped surface Not/ Approved | [ v ] | Filled Area Under Review | [ ]   | Moisture Conditioning required | [ ] |

Comments & Details





**A.S. JAMES** PTY.LTD

Geotechnical Engineers  
Ballarat Facility  
P.O. Box 1319 Bakery Hill Vic.  
Accreditation No 9855

**JOB:**

Maple Lane Estate  
Ballarat-Carngham Road  
Winter Valley

**Job No.**

121207

**Report No.**

B011-1

**Date**

27/01/2022



N.T.S

|               |                      |        |
|---------------|----------------------|--------|
| LOCATION PLAN | TESTED BY : J.Murphy | FIGURE |
|               | CHECKED BY: J.Murphy | 2 of 2 |

|  |   |                        |
|--|---|------------------------|
| <b>Ballarat Facility</b><br><br><b>P.O. Box 1319 Bakery Hill Vic.</b><br><br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b><br><br>Maple Lane Estate<br><br>Ballarat-Carngham Road<br><br>Winter Valley | <b>Job No.</b> 121207  |
|  |   | <b>Report No.</b> B012 |
|  |   | <b>Date</b> 31/01/2022 |

**Section Tested:** House Lots

**For** Den Ouden Contracting  
 PO Box 345  
 SEBASTOPOL VIC 3356  
**Att to** Billy Den Ouden  
**Email** deb@denoudencontracting.com.au

|                                      |                         |  |  |  |  |
|--------------------------------------|-------------------------|--|--|--|--|
| Test Number                          | 32                      |  |  |  |  |
| Date of Field Test                   | 27/01/22                |  |  |  |  |
| Time of Field Test                   | 15:19                   |  |  |  |  |
| Date of Laboratory Test              | 28/01/22                |  |  |  |  |
| Location                             | Chainage: See           |  |  |  |  |
|                                      | Offset: Sketch          |  |  |  |  |
| Depth of Test                        | FFL                     |  |  |  |  |
| Test Layer Thickness (mm)            | 325                     |  |  |  |  |
| Probe Depth (mm)                     | 300                     |  |  |  |  |
| Material Type                        | Silty CLAY,<br>Gravelly |  |  |  |  |
| Maximum Converted Wet Density (t/m3) | 2.06                    |  |  |  |  |
| Optimum Moisture Content (%)         | 19.5                    |  |  |  |  |
| Field Wet Density (t/m3)             | 2.12                    |  |  |  |  |
| Field Dry Density (t/m3)             | 1.78                    |  |  |  |  |
| Field Moisture Content (%)           | 19.0                    |  |  |  |  |
| Oversize Material (%)                | 2                       |  |  |  |  |
| Compaction Type                      | Standard                |  |  |  |  |
| Oversize Retained on :               | 19mm                    |  |  |  |  |
| Moisture Ratio (%)                   | 96.5                    |  |  |  |  |
| Moisture Variation (%)               | 0.5                     |  |  |  |  |
| Wet/Dry of Optimum                   | Dry                     |  |  |  |  |
| <b>Hilf Density Ratio</b>            | <b>103.0</b>            |  |  |  |  |

Notes: DEPTH OF TEST GIVEN AT FINISHED FILL LEVEL  
 Test 32 is a retest of test 28



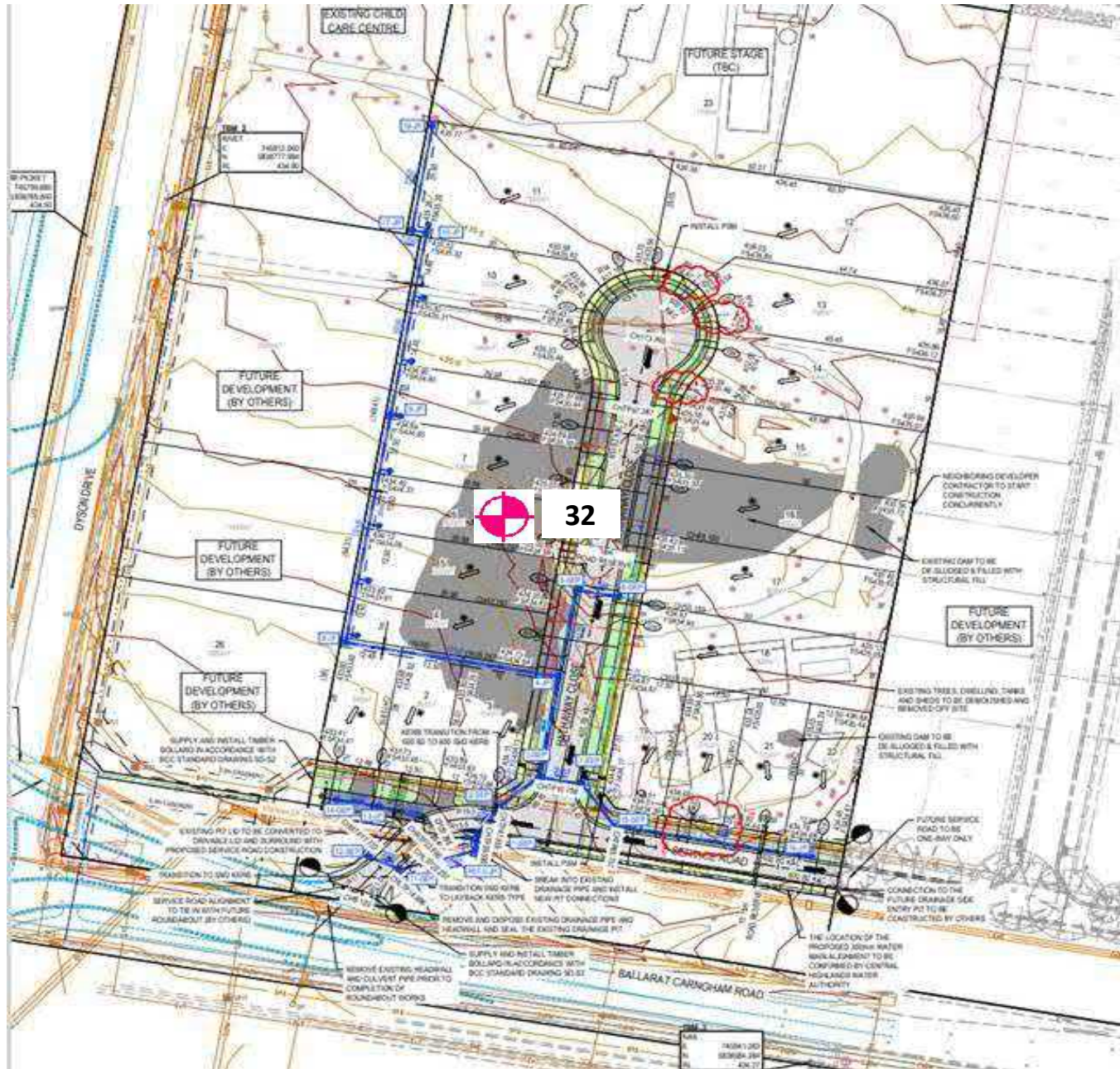
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 Accreditation No 9855

Approved Signatory  
 Y.Singh (Dip Lab Tech)

31-Jan-22

|  |                      |        |
|--|----------------------|--------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1<br>A.S.JAMES FORM No: LR005 FIG 1 / REV 12 / 12/11/21 | TESTED BY : A.Wallis | FIGURE |
|  | CHECKED BY: A.Wallis | 1 of 2 |





TEST LOCATIONS  
DISTANCES GIVEN IN METRES

N.T.S

|  |             |          |        |
|--|-------------|----------|--------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1 | TESTED BY : | A.Wallis | FIGURE |
| A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03  | CHECKED BY: | A.Wallis | 2 of 2 |

|  |   |                          |
|--|---|--------------------------|
| Ballarat Facility<br>P.O. Box 1319 Bakery Hill Vic.<br>A.S.James Contact Y.Singh<br>0410 483 959 rajs@asjames.com.au | <b>JOB:</b>                             | <b>JOB No:</b>           |
|  | Maple Lane Estate                       | 121207                   |
|  | Ballarat-Carngham Road<br>Winter Valley | <b>REPORT No:</b> B012-1 |
|  |   | <b>DATE:</b> 27-Jan-22   |

**DAILY GEOTECHNICAL ACTIVITY REPORT** On Site: 15:00 Off Site: 15:30

|                                      |  |                       |
|--------------------------------------|--|-----------------------|
| Developer :                          | Constructor: Den Ouden Contracting                             | Superintendent: Billy |
| Testing Authority: A.S.James Pty Ltd | Level of GTA brief: Level one Supervision by Testing Authority |                       |
| Weather Conditions: Sunny, Clear     |  |                       |

| Equipment on Site         | In Use | Not in Use |                        | In Use | Not in Use |
|---------------------------|--------|------------|------------------------|--------|------------|
| Excavator                 | √      |            | Water cart             |        |            |
| Pad Foot vibrating roller | √      |            | D6 Dozer               |        |            |
| 815 Compactor             |        |            | Dump Truck (On Site)   | √      |            |
| Grader                    |        |            | Trucks (From off site) |        |            |

**Works in progress**

| Location   |            |
|------------|------------|
| Stripping  |            |
| Excavating |            |
| Filling    |            |
| Rolling    | House Lots |

**Comments, Details & Observations:**  
 The constructor had been advised that the area of the proposed house lot number 6 had failed on moisture ratio and required a retest. The constructor had reworked the area of lot 6 and prepared the lot for a retest using the approved on site material. One test was carried out on the area on the proposed finished fill level. The material appeared to be well compacted and well conditioned appearing close to the optimum moisture content. The constructor has been advised to await the laboratory results before any further works on the area.

**Inspections**  
 Inspection Type & Location:  
 \_\_\_\_\_  
 Comments & Details:  
 \_\_\_\_\_

**Material Type / Quality / Source / Approval:**  
 Site Won Material - Silty, Gravelly CLAY - Close to optimum moisture content - May contain oversize material

**Compaction Testing:**

|                   |   |           |    |          |            |
|-------------------|---|-----------|----|----------|------------|
| Numbers performed | 1 | Test No.s | 32 | Location | House Lots |
| Numbers performed |   | Test No.s |    | Location |            |
| Numbers performed |   | Test No.s |    | Location |            |

|                                   |                                |                    |          |
|-----------------------------------|--------------------------------|--------------------|----------|
| <b>Specification Requirements</b> | Standard / <del>Modified</del> | Density Ratio (%)  | 95       |
|                                   | Standard                       | Moisture Ratio (%) | 85 - 115 |

**Compliance to Specification**

|          | Conforming Tests | Non Conforming Tests |
|----------|------------------|----------------------|
| Density  | 32               |                      |
| Moisture | 32               |                      |

**Site Instructions Given (Tick box)**

|                                |       |                          |       |                                |     |
|--------------------------------|-------|--------------------------|-------|--------------------------------|-----|
| Approval to Place Fill         | [ v ] | Filling Methods Approved | [ v ] | Rework / Re-roll required      | [ ] |
| Stripped surface Not/ Approved | [ v ] | Filled Area Under Review | [ ]   | Moisture Conditioning required | [ ] |

Comments & Details





**A.S. JAMES** PTY.LTD

Geotechnical Engineers  
Ballarat Facility  
P.O. Box 1319 Bakery Hill Vic.  
Accreditation No 9855

**JOB:**

Maple Lane Estate  
Ballarat-Carngham Road  
Winter Valley

**Job No.**

121207

**Report No.**

B012-1

**Date**

31/01/2022

**Test 32**



TEST LOCATIONS  
DISTANCES GIVEN IN METRES

N.T.S

|  |                      |        |
|--|----------------------|--------|
| HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD<br>AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1 | TESTED BY : A.Wallis | FIGURE |
| A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03  | CHECKED BY: A.Wallis | 2 of 2 |