



**EARTHWORK CONTROL TESTING**

**FOR**

**RESIDENTIAL DEVELOPMENT**

**AT**

**WEST WILCHARD ROAD**

**CASTLEREAGH, NSW**

Ref No. L3884E

**Soil Test Services Pty Ltd**  
EARTHWORKS AND LABORATORY TESTING

## **TABLE OF CONTENTS**

- 1. Letter Report**
- 2. Daily Site Reports**
- 3. Subgrade Approval Reports**
- 4. Lot Approval Reports**

Ref No. L3884E  
Report Date 9/6/2016

9<sup>th</sup> June, 2016  
Ref No: L3884E  
File No.1

Dear Sirs,

**RE: RESIDENTIAL DEVELOPMENT  
WEST WILCHARD ROAD  
CASTLEREAGH NSW**

**Period Covered:** 22<sup>nd</sup> April 2016 to 27<sup>th</sup> May 2016.

During the above period STS has performed earthwork control testing on the compacted fill layers.:

- STS has prepared the following attached Reports.
  - Site Stripping Report.
  - Daily Site Report numbers: 1 to 19.
  - Hilf Density Ratio Reports numbers: L3768E – 1 to 15.
  - Lot Approval Report numbers: L3768E – L1 to L15.

STS confirms that all the earthworks undertaken in the above stated period are documented in the above reports and have been undertaken in accordance with the Specification ( PSM2541 email, dated 29<sup>th</sup> April 2016).

Should you require additional information please contact us.

Yours faithfully,  
For and on behalf of  
Soil Test Services Pty Ltd

  
(David Treweek)

**Panoramic views**



Plate 1: Taken 29/4/2016



Plate 2 Taken 17/5/2016



Plate 3 Taken 27/5/2016

# Site Stripping Report



<b>Project:</b> Penrith Lakes	<b>Job No:</b> L3884E
<b>Location:</b> West Wilchard Road, Castlereagh	<b>Date:</b> 22/04/2016
<b>Time of Arrival / Departure:</b> 8:00 – 9:00am	<b>Test Request No:</b> N/A

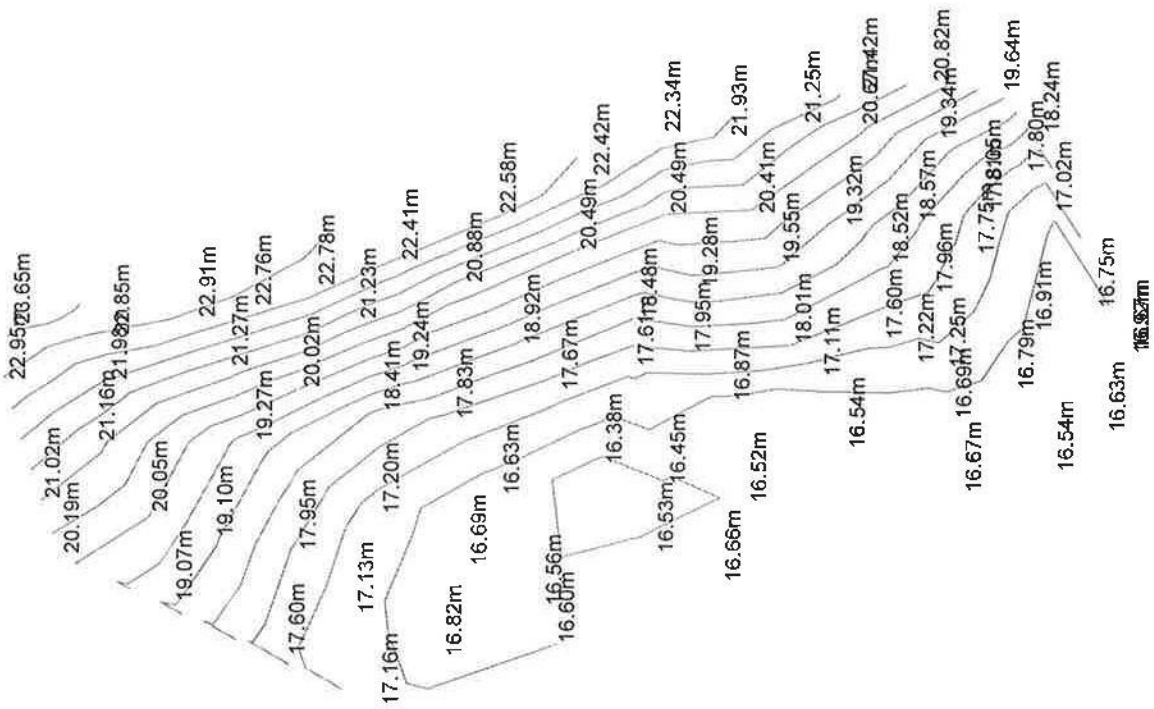
<b>Technician:</b> Leonard Matrix		
<b>Weather:</b> Overcast / Mild		
<b>Location:</b> West Wilchard Road, Castlereagh		
<b>Completion of Plot Plan:</b> Yes (Attached)	<b>Area m<sup>2</sup>:</b> 4,214	<b>RL / Layer:</b> ≤ 22 to 16m
<b>Subgrade Material Type:</b> Exposed natural clays		
Sandy Silty Clays, Brown, Grey mottled orange brown, Moist		
<b>Soft/ Unstable Areas:</b> None found		
<b>Pass/ Fail:</b> Passed		
<p><b>Comments:</b></p> <p>On the 28<sup>th</sup> of April a request was made for a stripping inspection on behalf of PLDC Site engineer Arthur Ashburn to inspect a land allotment on the corner of West Wilchard road and land frontage along Castlereagh Road before the town of Castlereagh.</p> <p>A visual inspection was made within the proposed fill boundaries pegged out upon arriving onsite. Pre-initial clearing work had been completed upon arrival with the removal of vegetation (mostly tall grasses) and small sapling trees. Two erosion control bund mounds were created from the overlying stripped silty sands.</p> <p>The proposed fill area runs in front of a natural escarpment with an approx. 3 to 1 downslope and flattens to broad plain parallel along the bottom at approximately 1.5% fall towards Castlereagh Rd frontage. The stripped survey RL's deviate up to a maximum 6.5 metres. The escarpment is noted to be part of the outlier Nepean river formation with generous residual fine grained silty sands overlying the site; the erosion bunds now created from this material.</p> <p>The site was deemed to be completely stripped of all deleterious material and majority of residual silty sands and topsoil. Small pockets of residual silty sands were present along the escarpment however were generally deemed insignificant, however further trimming was in progress. Natural orange brown and grey fine grained sandy clays were exposed to most of the stripped area. Clays were deemed to be supportive for the proposed fill embankment.</p> <p>Kingsfeld site foreman Wayne () was informed after this inspection the area was suitable for fill operations to commence.</p>		
<b>Verbal Report Given to:</b> A. Ashburn (PLDC Project Engineer)		
<b>Signed / Date:</b> <i>L.Matrix</i>	22/04/2016	

**Stripping Inspection Photos**





18m



Comment : Strip Levels Inspection # 1 22/4/2016

West Wilchard Road, Castlereagh

Project : STS.BCP.170415

06/02/2018 10:52:00 AM

06/02/2018 10:52:00 AM

**DAILY SITE REPORT**



PROJECT: Penrith Lakes Development  
 ADDRESS: West Wilchard Road, Castlereagh

JOB NO: L3884E  
 DATE: 22/04/2016  
 REPORT NO: 01  
 AS3798 – 2007: TESTING LEVEL:

1. **WEATHER:** OVERCAST to FINE / MILD

2. **MACHINERY ON SITE**

COMPACTORS: N/A  
 SCRAPERS: N/A  
 DUMP TRUCK: N/A  
 BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
 BULLDOZERS: KOMATSU (D65EX)  
 WATERCARTS: N/A  
 OTHERS:

3. **EARTHWORKS IN PROGRESS:**

- Imported Crushed Sandstone, Black Clay Pit (Kingsfeld) 286t
- Commencement of first layer of import spec fill into the existing stripped floor of West Wilchard Rd Lot.
- Layer of up to 150mm thickness spread from Wilchard Rd entrance gate spreading downhill into the low floor and continued formation of a truck access track outside of the west fill boundary. Majority of sandstone fill was for purposes of a ground layer to provide one directional access inside & outside of future lot fill area.

4. **SUBGRADE APPROVAL:** Below

Area ID	Subgrade Approval Report No:	Comments
L37	L37 – WCH.001	Stripping Inspection & Report

5. **LOT APPROVAL:** None

Lot ID	Lot Approval Report No:	Comments

6. **SURVEY:** None

Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

- PLDC request to inspect the existing stripped floor area before commencement of fill operations today.
- Kingsfeld request to produce an initial GPS mapping of the stripped area & outlier boundary areas prior to filling with imported material.

8. **INSTRUCTIONS GIVEN ON SITE:**

- Advised Kingsfeld after initial site inspection that the site was suitable for fill operations to commence.

9. **OTHER COMMENTS:**

- Sandstone importing from stockpile at the top of the black clay pit was a 75 minus crushed rock and arriving in with consistent homogenous moisture content.

Signed:  Tech' Name: Leonard Matrix  
 All services provided by STS are subject to our standard terms & conditions.  
 A copy is available on request.

FORM NO: A30a  
 VERSION: 2  
 REVISION: 1  
 DATE: 01/08/2005  
 DATE: 17/6/2013



**DAILY SITE REPORT**



PROJECT: Penrith Lakes Development  
ADDRESS: West Wilchard Road, Castlereagh

JOB NO: L3884E  
DATE: 27/04/2016  
REPORT NO: 02  
AS3798 – 2007: TESTING LEVEL:

- 1. **WEATHER:** FINE / WARM
- 2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: KOMATSU (D65EX)  
WATERCARTS: N/A  
OTHERS:

3. **EARTHWORKS IN PROGRESS:**

- Imported Crushed Sandstone, Black Clay Pit (Kingsfeld) 866t
- Layer of up to 150mm thickness spread from 20m inside Wilchard Rd gate entrance and spreading downhill in 2 thin layers overlying the lower floor as the first compaction layer. Layer was continued outside of the west boundary to extend a truck haul road to exit Castlereagh Rd.
- Half of the Sandstone spec fill was utilised outside of the Lot boundary area for purposes of truck haulage.

4. **SUBGRADE APPROVAL:** Below

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:** None

Lot ID	Lot Approval Report No:	Comments

6. **SURVEY:** None


Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Sandstone importing -75mm ex-tunnel crush from stockpile at the top of the black clay pit.
- Material arriving homogenous and perceived to be approx. on or one percent above optimum moisture content.

Signed:  Tech' Name: Leonard Matrix  
All services provided by STS are subject to our standard terms & conditions.  
A copy is available on request.

FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/8/2013

**DAILY SITE REPORT**



PROJECT: Penrith Lakes Development  
ADDRESS: West Wilchard Road, Castlereagh

JOB NO: L3884E  
DATE: 28/04/2016  
REPORT NO: 03  
AS3798 – 2007: TESTING LEVEL:

1. **WEATHER:** FINE / WARM

2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: KOMATSU (D65EX)  
WATERCARTS: N/A  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Tunnel Shale & Crushed Sandstone, (Kingsfeld Haulage) 403t
- New Spec fill layer started from 20m inside Wilchard Rd gate entrance and spreading imported material in a nominal 150mm thickness across the first layer sandstone; compacting with a single drum vibrating padfoot roller.

4. **SUBGRADE APPROVAL:** Below

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:** None

Lot ID	Lot Approval Report No:	Comments
L1	L3884 – L1	Field Test No's: 1 & 2, First layer

6. **SURVEY:** None


Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Arrival of Shale material from the North Connex project believed to be produced from a machine trial-run. The shale is chipped and generally arrived less 100mm in dimension and of good moisture content for compaction. Four truck loads of the shale product arrived in late afternoon changing significantly in characteristics; Although it seemed chipped had increased maximum dimension exceeding 400mm but was irregularly flat in depth.
- Shale material was spread and a trial compaction with padfoot roller showed the shale rock as currently supplied breaks down fairly easily with clay content in the blend however will require future monitoring.

Signed:  Tech' Name: Leonard Matrix  
All services provided by STS are subject to our standard terms & conditions.  
A copy is available on request.

FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/6/2013

**DAILY SITE REPORT**



PROJECT: Penrith Lakes Development  
ADDRESS: West Wilchard Road, Castlereagh

JOB NO: L3884E  
DATE: 29/04/2016  
REPORT NO: 04  
AS3798 – 2007: TESTING LEVEL:

1. **WEATHER:** FINE / WARM

2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: KOMATSU (D65EX)  
WATERCARTS: N/A  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Crushed Sandstone, (Kingsfeld Haulage) 62t
- Spec fill Crushed Sandstone delivered from stockpile at top of Black Clay Pit arrived in morning and placed over the Shale import from yesterday; placement continued as the second layer overlying the lower floor area of the existing escarpment.

4. **SUBGRADE APPROVAL:** Below

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:** None

Lot ID	Lot Approval Report No:	Comments

6. **SURVEY:** None


Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Importing operations were halted after 9.30am onsite.

Signed:  Tech' Name: **Leonard Matrix**  
*All services provided by STS are subject to our standard terms & conditions.  
 A copy is available on request.*

FORM NO:   A30a    
VERSION:   2    
REVISION:   1  

DATE: 01/09/2005  
DATE: 17/6/2013

# DAILY SITE REPORT

Page 1 of 1



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 05/05/2016  
REPORT NO: 5  
AS3798 – 2007: TESTING LEVEL:

1. **WEATHER:** FINE / COOL to WARM

2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ADCO TANKER  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) from Kemps Creek.
- Spreading of a nominal 300mm compacted layer during the day for Platform Layer No.3.
- Imported ripped shales requiring moisture re-conditioning and pretreatment by compaction prior to spreading.
- Removal of >300mm oversize rock during pretreatment operation to facilitate further material breakdown by either compaction or ripping with dozer tynes.

4. **SUBGRADE APPROVAL: None**

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:**

Lot ID	Lot Approval Report No:	Comments
L2	L3884E – L2	Field Test No's: 3 & 4

6. **SURVEY: None**


Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Importing of New Spec material source from Kemps Creek started yesterday by Mulgoa Quarries haulage.
- Material visually noted to be in a very dry state with occasional moist truck loads arriving. The ripped shales have variability in hardness and large boulder oversize present.
- The raw ripped material supplied to site requiring near full-time presence of a water cart and greater additional time will be required in pre-treatment of the material to make it conforming for site specification product.

Signed:  Tech' Name: Leonard Matrix  
All services provided by STS are subject to our standard terms & conditions.  
A copy is available on request.

FORM NO: A30a  
VERSION: 2  
REVISION: 1  
DATE: 01/08/2005  
DATE: 17/6/2013

**DAILY SITE REPORT**



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 06/05/2016  
REPORT NO: 6  
AS3798 – 2007: TESTING LEVEL:

1. **WEATHER:** FINE / COOL to MILD

2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ADCO  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemps Creek
- Ripped shale delivered onsite requiring onsite moisture re-conditioning and compaction pre-treatment prior to spreading layer; Removal of greater than 300mm oversize rock while pre-treating material to facilitate further breakdown by compaction or by ripping operation.
- Benching into the side of existing escarpment for controlled fill layer.

4. **SUBGRADE APPROVAL:** None

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:** None

Lot ID	Lot Approval Report No:	Comments

6. **SURVEY:** None

Type of survey:	Survey undertaken by:	Reference:


7. **INSTRUCTIONS RECEIVED ON SITE:**

- An onsite meeting with PLDC representative Mr Chad Jackson & PSM to discuss new apparent problems with the newly sourced ripped shale from Kemps creek. Also Kingsfeld Group are unable to consistently supply an onsite water cart for immediate & future fill operations due to limited or no availability when required.

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Imported material arriving onsite with little or no residual moisture content and oversize rock up to 600mm within the delivered material. Pre-treatment by compaction and wetting with water cart is mandatory.

Signed:  Tech' Name: Leonard Matrix  
All services provided by STS are subject to our standard terms & conditions.  
A copy is available on request.

FORM NO: A30a  
VERSION: 2  
REVISION: 1  
DATE: 01/08/2005  
DATE: 17/6/2013

**DAILY SITE REPORT**



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 10/05/2016  
REPORT NO: 7  
AS3798 – 2007: TESTING LEVEL:

- 1. **WEATHER:** FINE / COOL to WARM
- 2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ONSITE TANKER  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemps Creek.
- Spreading of a nominal 300mm compacted layer during the day for Platform Layer No.4.
- Ripped shale delivered onsite requiring onsite moisture re-conditioning and compaction pre-treatment prior to spreading layer; Removal of oversize rock greater than 300mm during pre-treatment of the Ripped Shales by either compaction or ripping with dozer tynes to facilitate breakdown.
- Benching into the side of existing escarpment for controlled fill layer.

4. **SUBGRADE APPROVAL:** None

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:**

Lot ID	Lot Approval Report No:	Comments
L3	L3884E – L3	Field Test No's: 5 & 6

6. **SURVEY:** None

Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Imported Ripped Shales arriving with variability of moisture content but generally very dry condition.
- Some truckloads arrived with Sandy Clay material from a different source but was deemed to be low reactive and gave the ripped shale material added binding. There were 3 to 4 truckloads during the day.

Signed:  Tech' Name: Leonard Matrix  
All services provided by STS are subject to our standard terms & conditions.  
A copy is available on request.

FORM NO: A30a  
VERSION: 2  
REVISION: 1  
DATE: 01/08/2005  
DATE: 17/6/2013

**DAILY SITE REPORT**



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 12/05/2016  
REPORT NO: 8  
AS3798 – 2007; TESTING LEVEL:

- 1. **WEATHER:** FINE / COOL to WARM
- 2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ONSITE TANKER  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemps Creek
- Spreading of a nominal 300mm compacted layer during the day for Platform Layer No.5
- Ripped shale delivered onsite requiring onsite moisture re-conditioning and further pre-treatment by padfoot roller prior to spreading layer over fill platform.
- Removal of oversize rock greater than 300mm oversize during the pre-treatment of the Ripped Shales by compaction or by ripping operation to facilitate breakdown.

4. **SUBGRADE APPROVAL: None**

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:**

Lot ID	Lot Approval Report No:	Comments
L4	L3884E – L4	Field Test No's: 7 & 8

6. **SURVEY: None**


Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Ripped imported Shales arriving generally consistent in rock source however the raw product requires substantial time in moisture reconditioning and compaction pretreatment to acquire site specification requirements. These operations are noted to limit the overall time and turnover operations filling the platform.

Signed:  Tech' Name: Leonard Matrix  
All services provided by STS are subject to our standard terms & conditions.  
A copy is available on request.

FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/6/2013

# DAILY SITE REPORT

Page 1 of 1



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 13/05/2016  
REPORT NO: 9  
AS3798 – 2007: TESTING LEVEL:

1. **WEATHER:** FINE / COOL to WARM

2. **MACHINERY ON SITE:**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ONSITE TANKER  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemps Creek
- Spreading of a nominal 300mm compacted layer during the day for Platform Layer No.6
- Ripped shale delivered onsite requiring onsite moisture re-conditioning and further pre-treatment by padfoot roller prior to spreading layer over fill platform; Removal of oversize rock greater than 300mm during pre-treatment of the imported Shales by either compaction or ripping with dozer tynes to facilitate breakdown.
- Benching into the side of existing escarpment for binding fill layers.

4. **SUBGRADE APPROVAL:** None

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:**

Lot ID	Lot Approval Report No:	Comments
L5	L3884E – L5	Field Test No's: 9 & 10

6. **SURVEY:** None


Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Imported Ripped Shales arriving onsite with substantially large oversize requiring removal during moisture re-conditioning operations.

Signed:  Tech' Name: Leonard Matrix  
All services provided by STS are subject to our standard terms & conditions.  
A copy is available on request.

FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/6/2013



# DAILY SITE REPORT

Page 1 of 1



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 16/05/2016  
REPORT NO: 10  
AS3798 – 2007: TESTING LEVEL:

- WEATHER:** FINE / COOL to WARM
- MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ONSITE TANKER  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemps Creek.
- Spreading of a nominal 300mm compacted layer during the day for Platform Layer No.7
- Ripped shale delivered onsite requiring onsite moisture re-conditioning with further pre-treatment by padfoot roller prior to spreading imported shale across the fill platform.
- Removal of oversize rock within the ripped shale greater than 300mm during pre-treatment by either compaction or ripping with dozer tynes to facilitate additional breakdown of materials.

4. **SUBGRADE APPROVAL: None**

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:**

Lot ID	Lot Approval Report No:	Comments
L6	L3884E – L6	Field Test No's: 11 & 12

6. **SURVEY: None**


Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Imported Ripped Shale arriving onsite generally consistent with little or no in-situ moisture content requiring turnover of multiple water truck loads to recondition the material during pre-treatment with dozer.
- Field density testing is usually required each morning on layer spread and compacted the day before.
- One 300mm layer a day is being achieved due to the interaction and work required to place the imported ripped shale to meet the site specifications.

Signed:  Tech' Name: Leonard Matrix  
All services provided by STS are subject to our standard terms & conditions.  
A copy is available on request.

FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/8/2013

**DAILY SITE REPORT**



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 17/05/2016  
REPORT NO: 11  
AS3798 – 2007: TESTING LEVEL:

1. **WEATHER:** FINE / COOL to WARM

2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ONSITE TANKER  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemps Creek.
- Spreading of a nominal 300mm compacted layer during the day for Platform Layer No.8
- Ripped shale delivered onsite requiring onsite moisture re-conditioning with further pre-treatment by padfoot roller prior to spreading imported shale across the fill platform.
- Pre-treatment and removal of oversize rock greater than 300mm by either further compaction or ripping with dozer tynes to facilitate additional breakdown.

4. **SUBGRADE APPROVAL:** None

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:**

Lot ID	Lot Approval Report No:	Comments
L7	L3884E – L7	Field Test No's: 13 & 14

6. **SURVEY:** None

Type of survey:	Survey undertaken by:	Reference:


7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

- Requested ripping and removal of oversize shale rock within Layer 7 on the lower south-half of the fill platform in particular to the current batter side. Large oversize rock was discovered within the compacted layer after attempting to cut a test pad. Oversize was discovered up to 300mm in thickness that did not breakdown under compaction due to the high strength of rock.

9. **OTHER COMMENTS:**

- Onsite Instruction to remove a substantial amount of oversize discovered within the testing layer.
- An apparent gain in layer thickness was attributed with the oversize and requested to remove a further 100mm.

Signed:  Tech' Name: Leonard Matrix  
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FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/6/2013

# DAILY SITE REPORT

Page 1 of 1



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 18/05/2016  
REPORT NO: 12  
AS3798 – 2007: TESTING LEVEL:

1. **WEATHER:** FINE / COOL to WARM

2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ONSITE TANKER  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemps Creek
- Spreading of a nominal 300mm compacted layer during the day for Platform Layer No.9
- Ripped shale delivered onsite requiring onsite moisture re-conditioning with further compaction pre-treatment by padfoot roller; spreading the spec fill shale across the level fill platform.
- Pre-treatment and removal of oversize rock greater than 300mm by either further compaction or ripping with dozer tynes to facilitate additional breakdown.

4. **SUBGRADE APPROVAL: None**

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:**

Lot ID	Lot Approval Report No:	Comments
L8	L3884E – L8	Field Test No's: 15 & 16

6. **SURVEY: None**


Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Ripped Shales arriving onsite with variable sourced rock; predominately Shale with some Sandstone inclusion.
- Truckloads tipping material onsite very dry and requiring watering into stockpile and turning over to achieve moisture content prior to spreading 300mm layer and compaction.

Signed:  Tech' Name: Leonard Matrix  
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FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/6/2013

**DAILY SITE REPORT**



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 19/05/2016  
REPORT NO: 13  
AS3798 – 2007: TESTING LEVEL:

- 1. **WEATHER:** FINE / COOL to WARM
- 2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ONSITE TANKER  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemps Creek
- Spreading of a nominal 300mm compacted layer for Platform Layer No.10 today.
- Imported Ripped shale delivering onsite requiring moisture re-conditioning; further pre-treatment of the ripped shales with a padfoot roller prior to spreading imported shale across the fill platform.
- Removal of large oversize rock greater than 300mm or further pre-treatment by compaction or ripping with dozer tynes to facilitate additional breakdown prior to spreading the fill layer.

4. **SUBGRADE APPROVAL:** None

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:**

Lot ID	Lot Approval Report No:	Comments
L9	L3884E – L9	Field Test No's: 17 & 18

6. **SURVEY:** None


Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Ripped Shales continued pre-treatment with additional moisture content to achieve a workable compaction.
- Fill layers since generally Layer 2 have been monitored daily for general layer thickness; field density test locations are locally matched for interpretation of fill heights between layers and the onsite builder is updated.

Signed:  Tech' Name: **Leonard Matrix**  
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FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/6/2013

# DAILY SITE REPORT

Page 1 of 1



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 20/05/2016  
REPORT NO: 14  
AS3798 – 2007: TESTING LEVEL:

1. **WEATHER:** FINE / COOL to WARM

2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ONSITE TANKER  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemps Creek
- Spreading of a nominal 300mm compacted layer during the day for Platform Layer No.11
- Ripped shale delivered onsite & stockpiled into rows for additional watering & moisture re-conditioning.
- Pre-treatment and removal of oversize rock greater than 300mm by further compaction and/or ripping with the dozer tynes to facilitate additional breakdown of material.
- A horizontal bench excavated into the side of the natural escarpment a further 1.0m for future fill layers.

4. **SUBGRADE APPROVAL:** None

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:**

Lot ID	Lot Approval Report No:	Comments
L10	L3884E – L10	Field Test No's: 19 & 20

6. **SURVEY:** None

Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Imported Ripped Shales arriving onsite in a very dry state requiring substantial moisture conditioning.
- Imported Shale has large oversize generally breaks down under compaction. Shale rock above >300mm not breaking down under Padfoot roller are being pushed outside the fill layer.

Signed:  Tech' Name: Leonard Matrix  
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FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/6/2013

**DAILY SITE REPORT**



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 23/05/2016  
REPORT NO: 15  
AS3798 – 2007: TESTING LEVEL:

- 1. **WEATHER:** FINE / COOL to WARM
- 2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ONSITE TANKER  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemps Creek
- Spreading of a nominal 300mm compacted layer for fill Platform Layer No.12 today.
- Imported Ripped shales delivering onsite and stockpiled into rows for additional moisture re-conditioning.
- Pre-treatment and removal of oversize rock greater than 300mm by further compaction and/or ripping with the dozer tynes to facilitate additional breakdown of material.

4. **SUBGRADE APPROVAL:** None

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:**

Lot ID	Lot Approval Report No:	Comments
L11	L3884E – L11	Field Test No's: 21 & 22

6. **SURVEY:** None

Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Imported ripped shales arrived today with more clay content in the source rock and a noted drop in field wet density values when tested. Moisture content has in general been within the required two percent range and layer has consistent compaction where tested.

Signed:  Tech' Name: Leonard Matrix  
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FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/6/2013

# DAILY SITE REPORT

Page 1 of 1



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 24/05/2016  
REPORT NO: 16  
AS3798 – 2007: TESTING LEVEL:

1. **WEATHER:** FINE / COOL

2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ONSITE TANKER  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemps Creek
- Spreading of a nominal 300mm compaction layer for fill Platform Layer No.13 today.
- Imported Ripped shales delivering onsite and stockpiled into rows for additional moisture re-conditioning.
- Removal of oversize rock greater than 300mm and pre-treatment by further padfoot compaction and/or ripping and turnover with dozer tynes to facilitate additional breakdown of material.
- Additional benching of the natural escarpment by 1.0m width for next layers of fill operation.

4. **SUBGRADE APPROVAL:** None

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:**

Lot ID	Lot Approval Report No:	Comments
L12	L3884E – L12	Field Test No's: 23 & 24

6. **SURVEY:** None


Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- Imported truckloads of the Ripped Shale arriving generally in a very dry state requiring pre-treatment with watering and turning over material multiple times prior to placement. Oversize arriving has been less than previous days with sandy fines increasing in some loads.

Signed:  Tech' Name: Leonard Matrix  
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FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/6/2013

# DAILY SITE REPORT

Page 1 of 1



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 25/05/2016  
REPORT NO: 17  
AS3798 – 2007: TESTING LEVEL:

1. **WEATHER:** FINE / COOL to WARM

2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ONSITE TANKER  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemp's Creek
- Spreading of a nominal 300mm compaction layer for fill Platform Layer No.14 today.
- Imported Ripped shales delivering onsite and stockpiled into rows for additional moisture re-conditioning.
- Pre-treatment of oversize rock greater than 300mm by further ripping and turning over with dozer tyres and additional padfoot compaction to facilitate breakdown of oversize material.

4. **SUBGRADE APPROVAL:** None

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:**

Lot ID	Lot Approval Report No:	Comments
L13	L3884E – L13	Field Test No's: 25 & 26

6. **SURVEY:** None

Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**


- An instruction by PLDC requiring extended fill be placed to the northern corner of the existing platform due to design changes along the outside perimeter and to incorporate a non-structural garden residing close to the future driveway entrance at West Wilchard Rd. An additional approximate 3.0m additional width is required from bottom of newly formed embankment.

8. **INSTRUCTIONS GIVEN ON SITE:**

- A plan implemented with the builder onsite to pre-work the imported ripped shale arriving onsite typically like fill layers previous to re-conditioning and compaction; cut to fill this material into the extended embankment.

9. **OTHER COMMENTS:**

- Bench formation within the newly formed embankment is required to extent the toe-line further than current.
- It is believed this new extension has no structural bearing other than a Garden bed at finished fill levels.

Signed:  Tech' Name: Leonard Matrix  
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FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/6/2013



**DAILY SITE REPORT**



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 26/05/2016  
REPORT NO: 18  
AS3798 – 2007: TESTING LEVEL:

1. **WEATHER:** FINE / COOL to WARM

2. **MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ONSITE TANKER  
OTHERS: PADFOOT ROLLER

3. **EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemps Creek
- Spreading of a nominal 300mm compaction layer for fill Platform Layer No.14 today.
- Spreading and compaction into extension of embankment fill on the northwest corner to West Wilchard Rd.
- Pre-treatment of imported ripped shales placed into rows with additional watering and removal of oversize rock greater than 300mm; additional ripping and/or padfoot compaction to facilitate breakdown of oversize.

4. **SUBGRADE APPROVAL:** None

Area ID	Subgrade Approval Report No:	Comments

5. **LOT APPROVAL:** None

Lot ID	Lot Approval Report No:	Comments

6. **SURVEY:** None


Type of survey:	Survey undertaken by:	Reference:

7. **INSTRUCTIONS RECEIVED ON SITE:**

8. **INSTRUCTIONS GIVEN ON SITE:**

9. **OTHER COMMENTS:**

- The final embankment Layer No.14 is being placed to the nominated finished level of RL: 22.0m.
- Material placement into the extended embankment as advised yesterday was visually checked several times during the day to ensure benching was satisfactory to incorporate fill layers and sufficient width for padfoot roller. Material placement of newly imported ripped shale after prior pre-treatment with additional watering.

Signed:  Tech' Name: Leonard Matrix  
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FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/6/2013

# DAILY SITE REPORT

Page 1 of 1



PROJECT: Penrith Lakes Development Corp  
ADDRESS: Corner of West Wilchard Road & Castlereagh Roads  
Castlereagh NSW 2749

JOB NO: L3884E  
DATE: 27/05/2016  
REPORT NO: 19  
AS3798 – 2007: TESTING LEVEL:

- WEATHER:** FINE / COOL to WARM
- MACHINERY ON SITE**

COMPACTORS: N/A  
SCRAPERS: N/A  
DUMP TRUCK: N/A  
BOGIE TRUCKS: N/A

EXCAVATORS: N/A  
BULLDOZERS: D65EZ  
WATERCARTS: ONSITE TANKER  
OTHERS: PADFOOT ROLLER

**EARTHWORKS IN PROGRESS:**

- Imported Ripped Shales (Mulgoa Quarries) Kemps Creek
- Completion of compaction layer for the filled embankment platform today.
- Completion of the extended embankment batter towards the leading northwest corner parallel to the driveway entrance of West Wilchard Road.
- Additional pre-treatment of imported ripped shale with onsite watering and additional ripping and/or padfoot compaction to facilitate breakdown of any oversize greater than 300mm.

**SUBGRADE APPROVAL: None**

Area ID	Subgrade Approval Report No:	Comments

**LOT APPROVAL:**

Lot ID	Lot Approval Report No:	Comments
L14	L3884E – L14	Field Test No's: 27 & 28
L15	L3884E – L15	Field Test No's: 29 & 30

**SURVEY: None**


Type of survey:	Survey undertaken by:	Reference:

**INSTRUCTIONS RECEIVED ON SITE:**

**INSTRUCTIONS GIVEN ON SITE:**

**OTHER COMMENTS:**


- The final embankment fill Layer No.14 tested at nominated finished level RL: 22.0m.
- Material placement into the extended embankment batter on the northwest leading edge was filled rapidly with nominal 300mm layers and compacted. Two Field density test were placed subsequently at different layer levels with the last on finished level to ensure a level of uniform compaction was achieved.

Signed:  Tech' Name: Leonard Matrix  
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FORM NO: A30a  
VERSION: 2  
REVISION: 1

DATE: 01/08/2005  
DATE: 17/6/2013

## LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust Job number: L3884E Project: Residential Development Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	Report number: L3884E – L1 Report date: 9/6/2016 Technician: Tom Finnegan
LOT ID: L1	Hilf Density Ratio Report Number: L3768E – 1
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L1</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>28/4/2016</u>
Approximate volume (m <sup>3</sup> ): <u>400</u>	Number of tests required: <u>2</u>
LOT APPROVAL: <u>PASS</u> Signed: 	Date: <u>9/06/2016</u>

# Hilf Density Ratio Report

Client : <b>Allyn Holdings Pty Ltd atf Keller Family Trust</b>	Report Number: <b>L3884E - 1</b>
Job Number : <b>L3884E</b>	Report Date: <b>31/05/2016</b>
Project : <b>Penrith Lakes Development</b>	Order Number: <b>Verbal</b>
Location : <b>West Wilchard Road, Castlereagh</b>	Test Method: <b>AS1289.5.7.1</b>



Page 1 of 1

Lab No :	<b>645</b>	<b>646</b>	
ID No :	<b>1</b>	<b>2</b>	
Lot No :	<b>L1</b>	<b>L1</b>	
Item No :	<b>-</b>	<b>-</b>	
Date/Time Tested :	<b>28/04/2016</b>	<b>28/04/2016</b>	
Material Source :	<b>Imported</b>	<b>Imported</b>	
For Use As :	<b>SPEC Fill</b>	<b>SPEC Fill</b>	
Sample Location :	Lot Platform E 284635 N 6271561 RL: 16.87m	Lot Platform E 284649 N 6271545 RL: 16.98m	
Test Depth (mm) :	<b>300</b>	<b>300</b>	
Max Size (mm) :	<b>37.5</b>	<b>37.5</b>	
Oversize Wet (%) :	<b>11</b>	<b>16</b>	
Fld. Wet Density (t/m <sup>3</sup> ):	<b>2.22</b>	<b>2.20</b>	
Fld. Moisture Cont (%):	<b>5.6</b>	<b>10.1</b>	
PCWD (t/m <sup>3</sup> ) :	<b>2.27*</b>	<b>2.24*</b>	
Moisture Variation (%):	<b>2.0% (wet of omc)</b>	<b>2.0% (wet of omc)</b>	
Compactive Effort :	<b>Standard</b>	<b>Standard</b>	
Hilf Density Ratio (%) :	<b>98.0</b>	<b>98.5</b>	
Min Hilf Dens Ratio (%)	<b>98</b>	<b>98</b>	

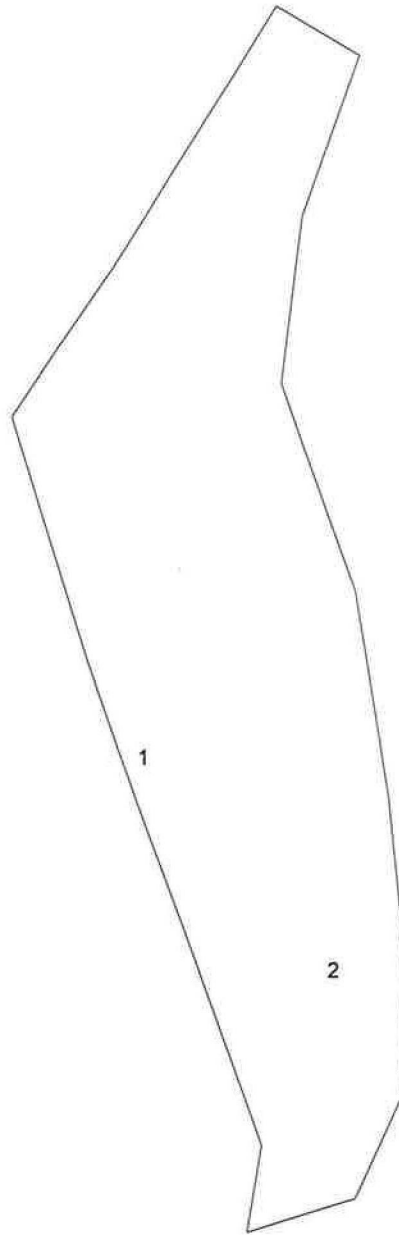
Remarks: **Test Methods: AS1289.5.8.1 & 2.1.1.**

\* Denotes "Adjusted for Oversize Material"

Lab Number:	Soil Description
<b>645</b>	<b>SPEC FILL Gravelly Silty Sand, fine to medium grained, brown.</b>
<b>646</b>	<b>SPEC FILL Gravelly Silty Sand, fine to medium grained, brown.</b>

 NATA Accredited Laboratory Number:1327	Accredited for compliance with ISO/IEC 17025. This document shall not be reproduced except in full.	APPROVED SIGNATORY  31/5/16 Authorised Signature / Date (P. Finnegan)	Form Number:  <b>REP HNUC-1</b>
		All services provided by STS are subject to our standard terms and conditions. A copy is available on request.	

14m



Comment :L3884E - West Wilchard Road (Fill Platform) Layer Lot No. {.


Project : STS.WWR.160527

Downloads\STS.WWR.160527.TP3

Version: 1, Version Date: 06/02/2018

06/09/2016

## LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust	Report number: L3884E – L2
Job number: L3884E	Report date: 9/6/2016
Project: Residential Development	Technician: Tom Finnegan
Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	
<b>LOT ID:</b> L2	Hilf Density Ratio Report Number: L3768E – 2
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L2</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>5/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>400</u>	Number of tests required: <u>2</u>
<b>LOT APPROVAL:</b> <u>PASS</u> Signed:  Date: <u>9/06/2016</u>	

# Hilf Density Ratio Report

Client : <b>Allyn Holdings Pty Ltd atf Keller Family Trust</b>	Report Number: <b>L3884E - 2</b>
Job Number : <b>L3884E</b>	Report Date: <b>31/05/2016</b>
Project : <b>Penrith Lakes Development</b>	Order Number: <b>Verbal</b>
Location : <b>West Wilchard Road, Castlereagh</b>	Test Method: <b>AS1289.5.7.1</b>

Page 1 of 1



Lab No :	<b>651</b>	<b>652</b>	
ID No :	<b>3 **</b>	<b>4</b>	
Lot No :	<b>L2</b>	<b>L2</b>	
Item No :	<b>-</b>	<b>-</b>	
Date/Time Tested :	<b>05/05/2016</b>	<b>05/05/2016</b>	
Material Source :	<b>Imported</b>	<b>Imported</b>	
For Use As :	<b>SPEC Fill</b>	<b>SPEC Fill</b>	
Sample Location :	Lot Platform E 284644 N 6271552 RL: 17.39m	Lot Platform E 284641 N 6271585 RL: 17.73m	
Test Depth (mm) :	<b>300</b>	<b>300</b>	
Max Size (mm) :	<b>37.5</b>	<b>37.5</b>	
Oversize Wet (%) :	<b>23</b>	<b>10</b>	
Fld. Wet Density (t/m <sup>3</sup> ):	<b>2.28</b>	<b>2.20</b>	
Fld. Moisture Cont (%) :	<b>11.7</b>	<b>11.2</b>	
PCWD (t/m <sup>3</sup> ) :	<b>2.33*</b>	<b>2.25*</b>	
Moisture Variation (%) :	<b>2.0% (wet of omc)</b>	<b>2.0% (dry of omc)</b>	
Compactive Effort :	<b>Standard</b>	<b>Standard</b>	
Hilf Density Ratio (%) :	<b>98.0</b>	<b>98.0</b>	
Min Hilf Dens Ratio (%) :	<b>98</b>	<b>98</b>	

Remarks: **Test Methods: AS1289.5.8.1 & 2.1.1.**

\* Denotes "Adjusted for Oversize Material"

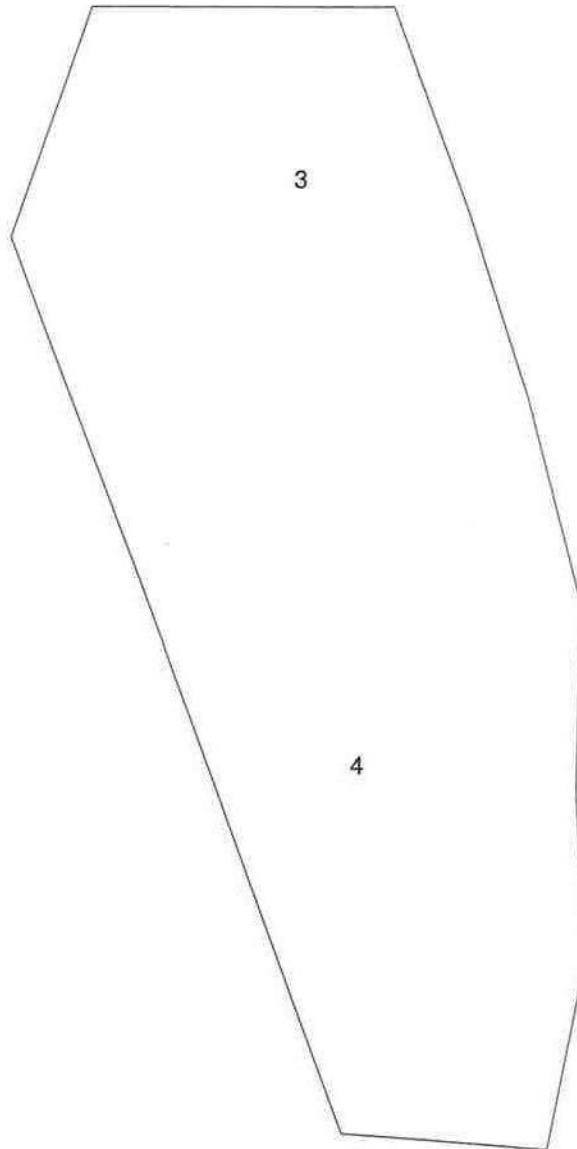
Lab Number:	Soil Description
<b>651</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, grey.</b>
<b>652</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, grey.</b>

\*\* This test is not NATA endorsed due to the rock oversize.

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		 31/5/16 Authorised Signature / Date (T. Finnegan)	REP HNUC-1

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Soil Testing Services Pty Ltd

Comment :L3884E - West Wilchard Road (Fill Platform) - Layer Lot No.2


Project : STS.WWR.160527

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05/30/2016



## LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust	Report number: L3884E – L3
Job number: L3884E	Report date: 9/6/2016
Project: Residential Development	Technician: Tom Finnegan
Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	
<b>LOT ID:</b> L3	Hilf Density Ratio Report Number: L3768E – 3
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L3</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>10/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>440</u>	Number of tests required: <u>2</u>
<b>LOT APPROVAL:</b> <u>PASS</u> Signed: 	Date: <u>9/06/2016</u>

FORM NO: A46  
VERSION: 1  
REVISION: 2

DATE: 01/08/2005  
DATE: 3/7/2015

# Hilf Density Ratio Report

Client : Allyn Holdings Pty Ltd atf Keller Family Trust	Report Number: L3884E - 3
Job Number : L3884E	Report Date: 31/05/2016
Project : Penrith Lakes Development	Order Number: Verbal
Location : West Wilchard Road, Castlereagh	Test Method: AS1289.5.7.1

Page 1 of 1


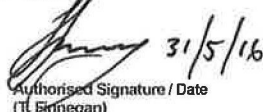
Lab No :	695	696		
ID No :	5 **	6		
Lot No :	L3	L3		
Item No :	-	-		
Date/Time Tested :	10/05/2016	10/05/2016		
Material Source :	Imported	Imported		
For Use As :	SPEC Fill	SPEC Fill		
Sample Location :	Fill Platform E 284653 N 6271573 RL: 17.91m	Fill Platform E 284649 N 6271539 RL: 17.63m		
Test Depth (mm) :	300	300		
Max Size (mm) :	37.5	37.5		
Oversize Wet (%) :	22	10		
Fld. Wet Density (t/m <sup>3</sup> ):	2.29	2.33		
Fld. Moisture Cont (%) :	7.9	9.0		
PCWD (t/m <sup>3</sup> ) :	2.30*	2.25*		
Moisture Variation (%) :	0.4% (dry of omc)	0.2% (dry of omc)		
Compactive Effort :	Standard	Standard		
Hilf Density Ratio (%) :	99.5	103.5		
Min Hilf Dens Ratio (%) :	98	98		

Remarks: Test Methods: AS1289.5.8.1 & 2.1.1.

\* Denotes "Adjusted for Oversize Material"

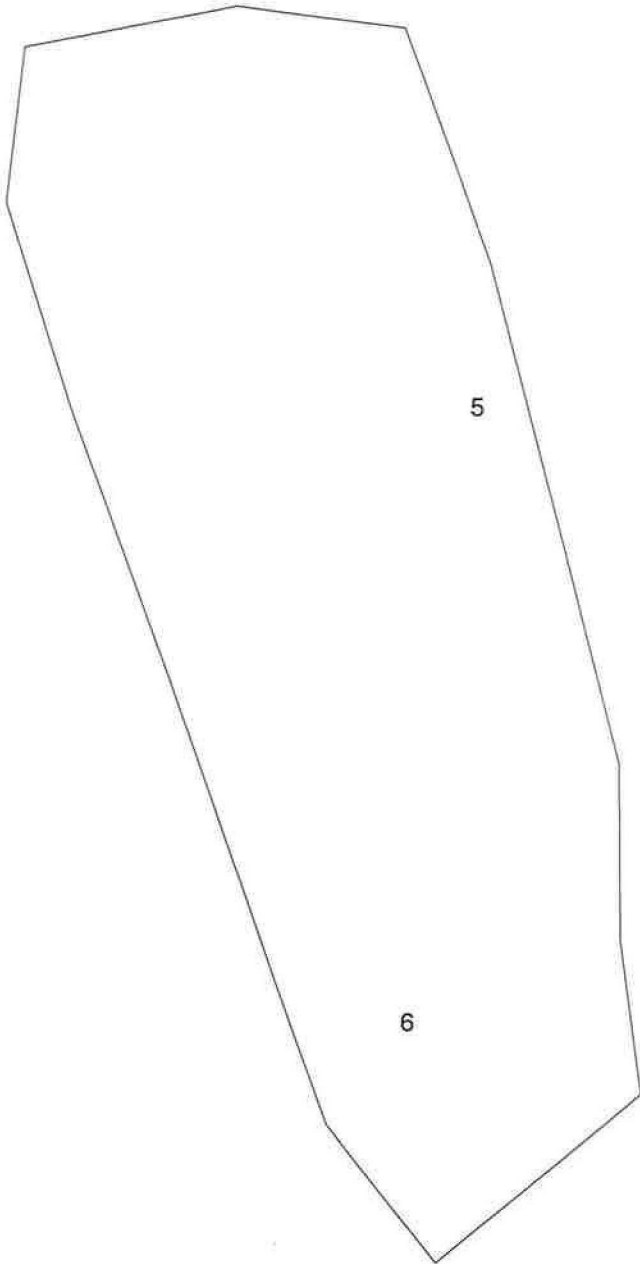
Lab Number:	Soil Description
695	SPEC FILL Gravelly Silty Clay, medium plasticity, grey.
696	SPEC FILL Gravelly Silty Clay, medium plasticity, grey.

\*\* This test is not NATA endorsed due to the rock oversize.

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Soil Testing Services Pty Ltd

Comment :L3884E - West Wilchard Road (Fill Platform) - Layer Lot No.3

Project : STS.WWR.160527

### LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust Job number: L3884E Project: Residential Development Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	Report number: L3884E – L4 Report date: 9/6/2016 Technician: Tom Finnegan
LOT ID: L4	Hilf Density Ratio Report Number: L3768E – 4
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L4</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>12/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>460</u>	Number of tests required: <u>2</u>
LOT APPROVAL: <u>PASS</u> Signed: 	Date: <u>9/06/2016</u>

# Hilf Density Ratio Report



Client : <b>Allyn Holdings Pty Ltd atf Keller Family Trust</b>	Report Number: <b>L3884E - 4</b>
Job Number : <b>L3884E</b>	Report Date: <b>31/05/2016</b>
Project : <b>Penrith Lakes Development</b>	Order Number: <b>Verbal</b>
Location : <b>West Wilchard Road, Castlereagh</b>	Test Method: <b>AS1289.5.7.1</b>

Lab No :	<b>684</b>	<b>685</b>	
ID No :	<b>7</b>	<b>8</b>	
Lot No :	<b>L4</b>	<b>L4</b>	
Item No :	<b>-</b>	<b>-</b>	
Date/Time Tested :	<b>12/05/2016</b>	<b>12/05/2016</b>	
Material Source :	<b>Imported</b>	<b>Imported</b>	
For Use As :	<b>SPEC FILL</b>	<b>SPEC FILL</b>	
Sample Location :	<b>West Wilchard Road (Platform Fill) E 284634  N 6271581  RL: 18.16m</b>	<b>West Wilchard Road (Platform Fill) E 284648  N 6271559  RL: 18.37m</b>	
Test Depth (mm) :	<b>300</b>	<b>300</b>	
Max Size (mm) :	<b>37.5</b>	<b>37.5</b>	
Oversize Wet (%) :	<b>20</b>	<b>18</b>	
Fld. Wet Density (t/m <sup>3</sup> ):	<b>2.26</b>	<b>2.31</b>	
Fld. Moisture Cont (%) :	<b>10.7</b>	<b>6.6</b>	
PCWD (t/m <sup>3</sup> ) :	<b>2.27*</b>	<b>2.26*</b>	
Moisture Variation (%) :	<b>0.2% (wet of omc)</b>	<b>1.7% (dry of omc)</b>	
Compactive Effort :	<b>Standard</b>	<b>Standard</b>	
Hilf Density Ratio (%) :	<b>99.5</b>	<b>102.0</b>	
Min Hilf Dens Ratio (%) :	<b>98</b>	<b>98</b>	

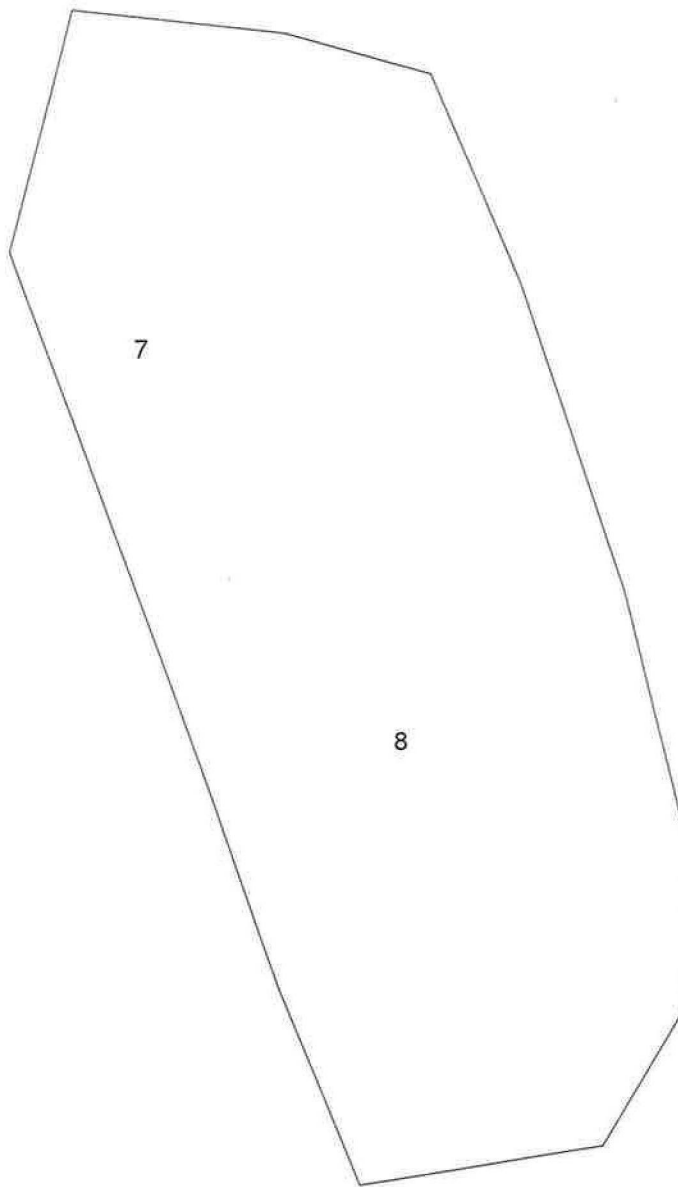
Remarks: **Test Methods: AS1289.5.8.1 & 2.1.1.**

\* Denotes "Adjusted for Oversize Material"

Lab Number:	Soil Description
<b>684</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark brown.</b>
<b>685</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.</b>

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Soil Testing Services Pty Ltd

Comment :L3884E - West Wilchard Road (Fill Platform) - Layer Lot No.4

Project : STS.WWR.160527

## LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust Job number: L3884E Project: Residential Development Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	Report number: L3884E – L5 Report date: 9/6/2016 Technician: Tom Finnegan
LOT ID: L5	Hilf Density Ratio Report Number: L3768E – 5
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L5</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>13/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>470</u>	Number of tests required: <u>2</u>
LOT APPROVAL: <u>PASS</u> Signed: 	Date: <u>9/06/2016</u>

# Hilf Density Ratio Report

Client :	<b>Allyn Holdings Pty Ltd atf Keller Family Trust</b>	Report Number:	<b>L3884E - 5</b>
Job Number :	<b>L3884E</b>	Report Date:	<b>31/05/2016</b>
Project :	<b>Penrith Lakes Development</b>	Order Number:	<b>Verbal</b>
Location :	<b>West Wilchard Road, Castlereagh</b>	Test Method:	<b>AS1289.5.7.1</b>

Page 1 of 1

Lab No :	<b>697</b>	<b>698</b>		
ID No :	<b>9 **</b>	<b>10 **</b>		
Lot No :	<b>L5</b>	<b>L5</b>		
Item No :	<b>-</b>	<b>-</b>		
Date/Time Tested :	<b>13/05/2016</b>	<b>13/05/2016</b>		
Material Source :	<b>Imported</b>	<b>Imported</b>		
For Use As :	<b>SPEC Fill</b>	<b>SPEC Fill</b>		
Sample Location :	Fill Platform E 285463 N 6271592 RL: 18.72m	Fill Platform E 285649 N 6271546 RL: 18.97m		
Test Depth (mm) :	<b>300</b>	<b>300</b>		
Max Size (mm) :	<b>37.5</b>	<b>37.5</b>		
Oversize Wet (%) :	<b>28</b>	<b>23</b>		
Fld. Wet Density (t/m <sup>3</sup> ):	<b>2.33</b>	<b>2.31</b>		
Fld. Moisture Cont (%) :	<b>8.7</b>	<b>9.0</b>		
PCWD (t/m <sup>3</sup> ) :	<b>2.36*</b>	<b>2.25*</b>		
Moisture Variation (%) :	<b>0.1% (dry of omc)</b>	<b>0.7% (dry of omc)</b>		
Compactive Effort :	<b>Standard</b>	<b>Standard</b>		
Hilf Density Ratio (%) :	<b>99.0</b>	<b>103.0</b>		
Min Hilf Dens Ratio (%) :	<b>98</b>	<b>98</b>		

Remarks: **Test Methods: AS1289.5.8.1 & 2.1.1.**

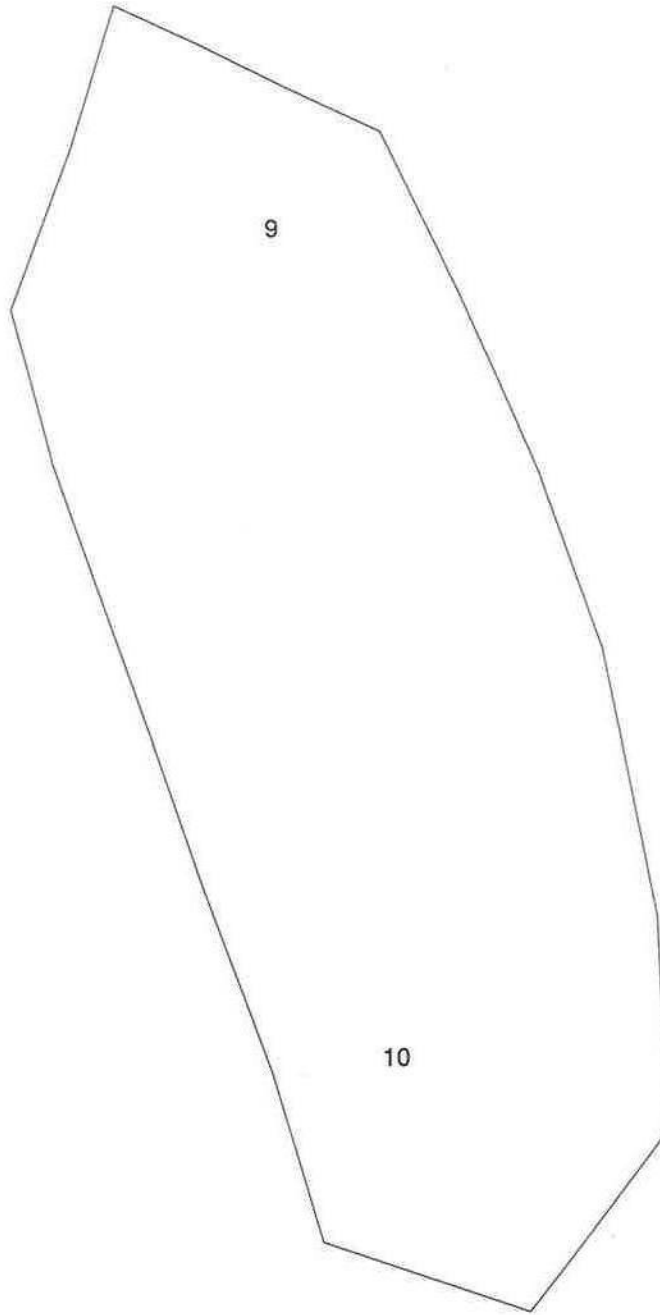
\* Denotes "Adjusted for Oversize Material"

Lab Number:	Soil Description
<b>697</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.</b>
<b>698</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark brown.</b>

**\*\* This test is not NATA endorsed due to the rock oversize.**



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Soil Testing Services Pty Ltd


Comment :L3884E - West Wilchard Road (Fill Platform) - Layer Lot No.5

Project : STS.WWR.160527

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05/30/2016

### LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust	Report number: L3884E – L6
Job number: L3884E	Report date: 9/6/2016
Project: Residential Development	Technician: Tom Finnegan
Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	
<b>LOT ID:</b> L6	Hilf Density Ratio Report Number: L3768E – 6
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L6</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>16/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>480</u>	Number of tests required: <u>2</u>
<b>LOT APPROVAL:</b> <u>PASS</u> Signed: 	Date: <u>9/06/2016</u>

# Hilf Density Ratio Report

Client :	Allyn Holdings Pty Ltd atf Keller Family Trust	Report Number:	L3884E - 6
Job Number :	L3884E	Report Date:	31/05/2016
Project :	Penrith Lakes Development	Order Number:	Verbal
Location :	West Wilchard Road, Castlereagh	Test Method:	AS1289.5.7.1



Page 1 of 1

Lab No :	699	700		
ID No :	11	12		
Lot No :	L6	L6		
Item No :	-	-		
Date/Time Tested :	16/05/2016	16/05/2016		
Material Source :	Imported	Imported		
For Use As :	SPEC Fill	SPEC Fill		
Sample Location :	Fill Platform E 285641 N 6271567 RL: 19.20m	Fill Platform E 284654 N 6271583 RL: 19.37m		
Test Depth (mm) :	300	300		
Max Size (mm) :	37.5	37.5		
Oversize Wet (%) :	15	15		
Fld. Wet Density (t/m³):	2.17	2.20		
Fld. Moisture Cont (%) :	13.0	6.9		
PCWD (t/m³) :	2.21*	2.25*		
Moisture Variation (%) :	0.8% (wet of omc)	1.1% (dry of omc)		
Compactive Effort :	Standard	Standard		
Hilf Density Ratio (%) :	98.0	98.0		
Min Hilf Dens Ratio (%) :	98	98		

Remarks: **Test Methods: AS1289.5.8.1 & 2.1.1.**

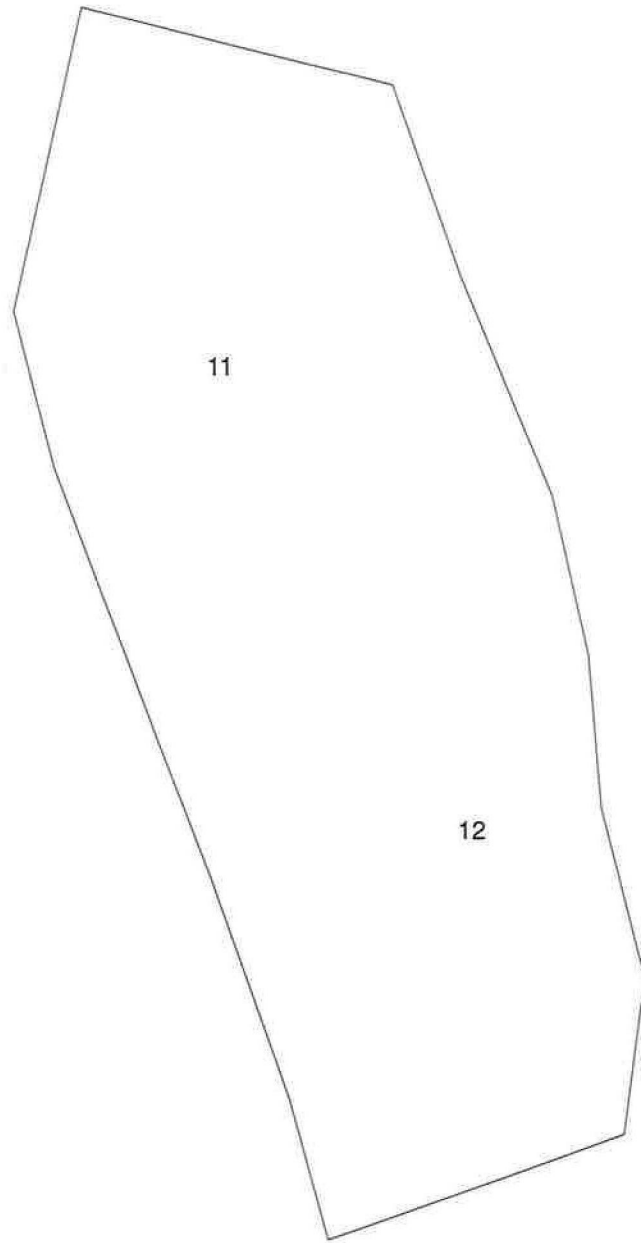
\* Denotes "Adjusted for Oversize Material"

Lab Number:	Soil Description
699	SPEC FILL Gravelly Silty Clay, medium plasticity, brown.
700	SPEC FILL Gravelly Silty Clay, medium plasticity, brown.

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		 31/5/16 Authorised Signature / Date (T. Finnegan)	REP HNUC-1

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Soil Testing Services Pty Ltd

Comment :L3884E - West Wilchard Road (Fill Platform) - Layer Lot No.6

Project : STS.WWR.160527

### LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust	Report number: L3884E – L7
Job number: L3884E	Report date: 9/6/2016
Project: Residential Development	Technician: Tom Finnegan
Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	
<b>LOT ID:</b> L7	Hilf Density Ratio Report Number: L3768E – 7
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L7</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>17/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>440</u>	Number of tests required: <u>2</u>
<b>LOT APPROVAL:</b> <u>PASS</u> Signed: 	Date: <u>9/06/2016</u>

# Hilf Density Ratio Report

Client : <b>Allyn Holdings Pty Ltd atf Keller Family Trust</b>	Report Number: <b>L3884E - 7</b>
Job Number : <b>L3884E</b>	Report Date: <b>03/06/2016</b>
Project : <b>Penrith Lakes Development</b>	Order Number: <b>Verbal</b>
Location : <b>West Wilchard Road, Castlereagh</b>	Test Method: <b>AS1289.5.7.1</b>

Page 1 of 1

Lab No :	<b>752</b>	<b>753</b>		
ID No :	<b>13 **</b>	<b>14 **</b>		
Lot No :	<b>L7</b>	<b>L7</b>		
Item No :	<b>-</b>	<b>-</b>		
Date/Time Tested :	<b>17/05/2016</b>	<b>17/05/2016</b>		
Material Source :	<b>Imported</b>	<b>Imported</b>		
For Use As :	<b>SPEC Fill</b>	<b>SPEC Fill</b>		
Sample Location :	Fill Platform E 284638 N 6271582 RL: 19.61m	Fill Platform E 284663 N 6271548 RL: 19.80m		
Test Depth (mm) :	<b>300</b>	<b>300</b>		
Max Size (mm) :	<b>37.5</b>	<b>37.5</b>		
Oversize Wet (%) :	<b>30</b>	<b>26</b>		
Fld. Wet Density (t/m <sup>3</sup> ):	<b>2.25</b>	<b>2.32</b>		
Fld. Moisture Cont (%) :	<b>7.3</b>	<b>10.3</b>		
PCWD (t/m <sup>3</sup> ) :	<b>2.29*</b>	<b>2.32*</b>		
Moisture Variation (%) :	<b>1.2% (dry of omc)</b>	<b>0.1% (dry of omc)</b>		
Compactive Effort :	<b>Standard</b>	<b>Standard</b>		
Hilf Density Ratio (%) :	<b>98.5</b>	<b>100.0</b>		
Min Hilf Dens Ratio (%) :	<b>98</b>	<b>98</b>		

Remarks: **Test Methods: AS1289.5.8.1 & 2.1.1.**


\* Denotes "Adjusted for Oversize Material"

Lab Number:	Soil Description
<b>752</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.</b>
<b>753</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.</b>

**\*\* This test is not NATA endorsed due to the rock oversize.**



## LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust	Report number: L3884E – L8
Job number: L3884E	Report date: 9/6/2016
Project: Residential Development	Technician: Tom Finnegan
Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	
LOT ID: L8	Hilf Density Ratio Report Number: L3768E – 8
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L8</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>18/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>480</u>	Number of tests required: <u>2</u>
LOT APPROVAL: <u>PASS</u> Signed: 	Date: <u>9/06/2016</u>

FORM NO: A46  
VERSION: 1  
REVISION: 2

DATE: 01/08/2005  
DATE: 3/7/2015



# Hilf Density Ratio Report

Client : <b>Allyn Holdings Pty Ltd atf Keller Family Trust</b>	Report Number: <b>L3884E - 8</b>
Job Number : <b>L3884E</b>	Report Date: <b>03/06/2016</b>
Project : <b>Penrith Lakes Development</b>	Order Number: <b>Verbal</b>
Location : <b>West Wilchard Road, Castlereagh</b>	Test Method: <b>AS1289.5.7.1</b>


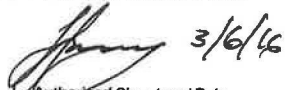
Page 1 of 1

Lab No :	<b>754</b>	<b>755</b>		
ID No :	<b>15</b>	<b>16</b>		
Lot No :	<b>L8</b>	<b>L8</b>		
Item No :	<b>-</b>	<b>-</b>		
Date/Time Tested :	<b>18/05/2016</b>	<b>18/05/2016</b>		
Material Source :	<b>Imported</b>	<b>Imported</b>		
For Use As :	<b>SPEC FILL</b>	<b>SPEC FILL</b>		
Sample Location :	Fill Platform E 284646 N 6271591 RL: 19.98m	Fill Platform E 284658 N 6271553 RL: 19.98m		
Test Depth (mm) :	<b>300</b>	<b>300</b>		
Max Size (mm) :	<b>37.5</b>	<b>37.5</b>		
Oversize Wet (%) :	<b>18</b>	<b>18</b>		
Fld. Wet Density (t/m <sup>3</sup> ):	<b>2.29</b>	<b>2.34</b>		
Fld. Moisture Cont (%) :	<b>8.5</b>	<b>8.6</b>		
PCWD (t/m <sup>3</sup> ) :	<b>2.25*</b>	<b>2.26*</b>		
Moisture Variation (%) :	<b>1.0% (dry of omc)</b>	<b>0.7% (dry of omc)</b>		
Compactive Effort :	<b>Standard</b>	<b>Standard</b>		
Hilf Density Ratio (%) :	<b>101.5</b>	<b>103.5</b>		
Min Hilf Dens Ratio (%) :	<b>98</b>	<b>98</b>		

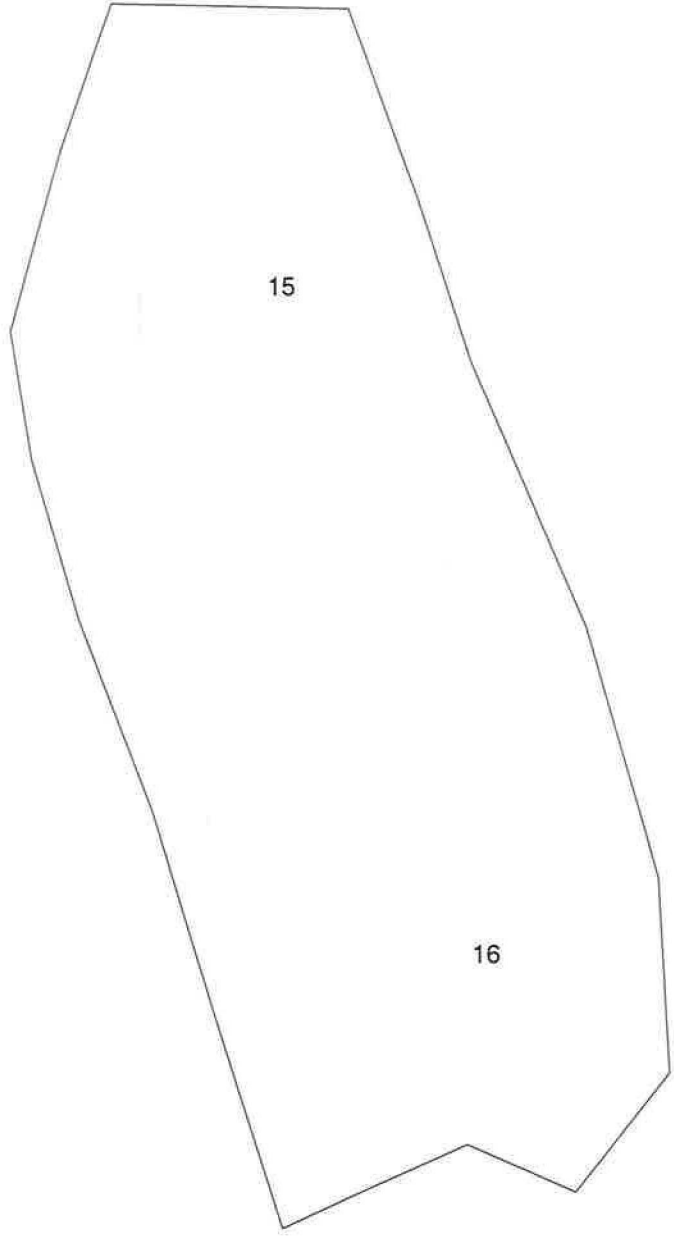
Remarks: **Test Methods: AS1289.5.8.1 & 2.1.1.**

\* Denotes "Adjusted for Oversize Material"

Lab Number:	Soil Description
<b>754</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.</b>
<b>755</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.</b>

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Soil Testing Services Pty Ltd


Comment :L3884E - West Wilchard Road (Fill Platform) - Layer Lot No.8

Project : STS.WWR.160527

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05/30/2016

## LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust Job number: L3884E Project: Residential Development Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	Report number: L3884E – L9 Report date: 9/6/2016 Technician: Tom Finnegan
LOT ID: L9	Hilf Density Ratio Report Number: L3768E – 9
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L9</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESSED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>19/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>510</u>	Number of tests required: <u>2</u>
LOT APPROVAL: <u>PASS</u> Signed: 	Date: <u>9/06/2016</u>

# Hilf Density Ratio Report

Client : <b>Allyn Holdings Pty Ltd atf Keller Family Trust</b>	Report Number: <b>L3884E - 9</b>
Job Number : <b>L3884E</b>	Report Date: <b>03/06/2016</b>
Project : <b>Penrith Lakes Development</b>	Order Number: <b>Verbal</b>
Location : <b>West Wilchard Road, Castlereagh</b>	Test Method: <b>AS1289.5.7.1</b>


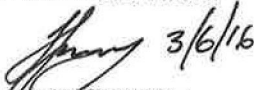
Page 1 of 1

Lab No :	<b>756</b>	<b>757</b>	
ID No :	<b>17</b>	<b>18</b>	
Lot No :	<b>L9</b>	<b>L9</b>	
Item No :	<b>-</b>	<b>-</b>	
Date/Time Tested :	<b>19/05/2016</b>	<b>19/05/2016</b>	
Material Source :	<b>Imported</b>	<b>Imported</b>	
For Use As :	<b>SPEC Fill</b>	<b>SPEC Fill</b>	
Sample Location :	Fill Platform E 284637 N 6271581 RL: 20.32m	Fill Platform E 284662 N 6271560 RL: 20.41m	
Test Depth (mm) :	<b>300</b>	<b>300</b>	
Max Size (mm) :	<b>37.5</b>	<b>37.5</b>	
Oversize Wet (%) :	<b>15</b>	<b>19</b>	
Fld. Wet Density (t/m <sup>3</sup> ):	<b>2.22</b>	<b>2.26</b>	
Fld. Moisture Cont (%) :	<b>8.1</b>	<b>8.2</b>	
PCWD (t/m <sup>3</sup> ) :	<b>2.26*</b>	<b>2.22*</b>	
Moisture Variation (%) :	<b>1.2% (dry of omc)</b>	<b>1.5% (dry of omc)</b>	
Compactive Effort :	<b>Standard</b>	<b>Standard</b>	
Hilf Density Ratio (%) :	<b>98.5</b>	<b>102.0</b>	
Min Hilf Dens Ratio (%) :	<b>98</b>	<b>98</b>	

Remarks: **Test Methods: AS1289.5.8.1 & 2.1.1.**


\* Denotes "Adjusted for Oversize Material"

Lab Number:	Soil Description
<b>756</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.</b>
<b>757</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, brown.</b>

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## LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust	Report number: L3884E – L10
Job number: L3884E	Report date: 9/6/2016
Project: Residential Development	Technician: Tom Finnegan
Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	
LOT ID: L10	Hilf Density Ratio Report Number: L3768E – 10
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L10</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>20/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>470</u>	Number of tests required: <u>2</u>
LOT APPROVAL: <u>PASS</u> Signed: 	Date: <u>9/06/2016</u>

FORM NO: A46  
VERSION: 1  
REVISION: 2

DATE: 01/08/2005  
DATE: 3/7/2015

# Hilf Density Ratio Report

Client : Allyn Holdings Pty Ltd atf Keller Family Trust	Report Number: L3884E - 10
Job Number : L3884E	Report Date: 03/06/2016
Project : Penrith Lakes Development	Order Number: Verbal
Location : West Wilchard Road, Castlereagh	Test Method: AS1289.5.7.1

Page 1 of 1



Lab No :	758	759	
ID No :	19 **	20	
Lot No :	L10	L10	
Item No :	-	-	
Date/Time Tested :	20/05/2016	20/05/2016	
Material Source :	Imported	Imported	
For Use As :	SPEC Fill	SPEC Fill	
Sample Location :	Fill Platform E 284644 N 6271591 RL: 20.68m	Fill Platform E 284663 N 6271556 RL: 20.70m	
Test Depth (mm) :	300	300	
Max Size (mm) :	37.5	37.5	
Oversize Wet (%) :	25	17	
Fld. Wet Density (t/m <sup>3</sup> ):	2.27	2.31	
Fld. Moisture Cont (%) :	7.9	8.2	
PCWD (t/m <sup>3</sup> ) :	2.23*	2.26*	
Moisture Variation (%) :	1.5% (dry of omc)	1.4% (dry of omc)	
Compactive Effort :	Standard	Standard	
Hilf Density Ratio (%) :	101.5	102.0	
Min Hilf Dens Ratio (%) :	98	98	

Remarks: Test Methods: AS1289.5.8.1 & 2.1.1.

\* Denotes "Adjusted for Oversize Material"

Lab Number:	Soil Description
758	SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.
759	SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.

\*\* This test is not NATA endorsed due to the rock oversize.


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		 Authorized Signature / Date (F. Finnegan)	3/6/16 REP HNUC-1

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## LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust	Report number: L3884E – L11
Job number: L3884E	Report date: 9/6/2016
Project: Residential Development	Technician: Tom Finnegan
Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	
<b>LOT ID:</b> L11	Hilf Density Ratio Report Number: L3768E – 11
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L11</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>23/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>420</u>	Number of tests required: <u>2</u>
<b>LOT APPROVAL:</b> <u>PASS</u> Signed:  Date: <u>9/06/2016</u>	

FORM NO: A46  
VERSION: 1  
REVISION: 2

DATE: 01/08/2005  
DATE: 3/7/2015

# Hilf Density Ratio Report

Client : <b>Allyn Holdings Pty Ltd atf Keller Family Trust</b>	Report Number: <b>L3884E - 11</b>
Job Number : <b>L3884E</b>	Report Date: <b>03/06/2016</b>
Project : <b>Penrith Lakes Development</b>	Order Number: <b>Verbal</b>
Location : <b>West Wilchard Road, Castlereagh</b>	Test Method: <b>AS1289.5.7.1</b>

Page 1 of 1


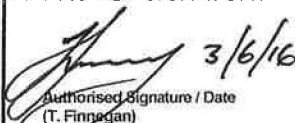
Lab No :	<b>760</b>	<b>761</b>	
ID No :	<b>21 **</b>	<b>22</b>	
Lot No :	<b>L11</b>	<b>L11</b>	
Item No :	<b>-</b>	<b>-</b>	
Date/Time Tested :	<b>23/05/2016</b>	<b>23/05/2016</b>	
Material Source :	<b>Imported</b>	<b>Imported</b>	
For Use As :	<b>SPEC Fill</b>	<b>SPEC Fill</b>	
Sample Location :	Fill Platform E 284642 N 6271587 RL: 21.01m	Fill Platform E 284658 N 6271563 RL: 21.07m	
Test Depth (mm) :	<b>300</b>	<b>300</b>	
Max Size (mm) :	<b>37.5</b>	<b>37.5</b>	
Oversize Wet (%) :	<b>25</b>	<b>15</b>	
Fld. Wet Density (t/m <sup>3</sup> ):	<b>2.28</b>	<b>2.26</b>	
Fld. Moisture Cont (%) :	<b>7.7</b>	<b>6.9</b>	
PCWD (t/m <sup>3</sup> ) :	<b>2.29*</b>	<b>2.26*</b>	
Moisture Variation (%) :	<b>1.7% (dry of omc)</b>	<b>1.9% (dry of omc)</b>	
Compactive Effort :	<b>Standard</b>	<b>Standard</b>	
Hilf Density Ratio (%) :	<b>99.5</b>	<b>100.0</b>	
Min Hilf Dens Ratio (%) :	<b>98</b>	<b>98</b>	

Remarks: **Test Methods: AS1289.5.8.1 & 2.1.1.**

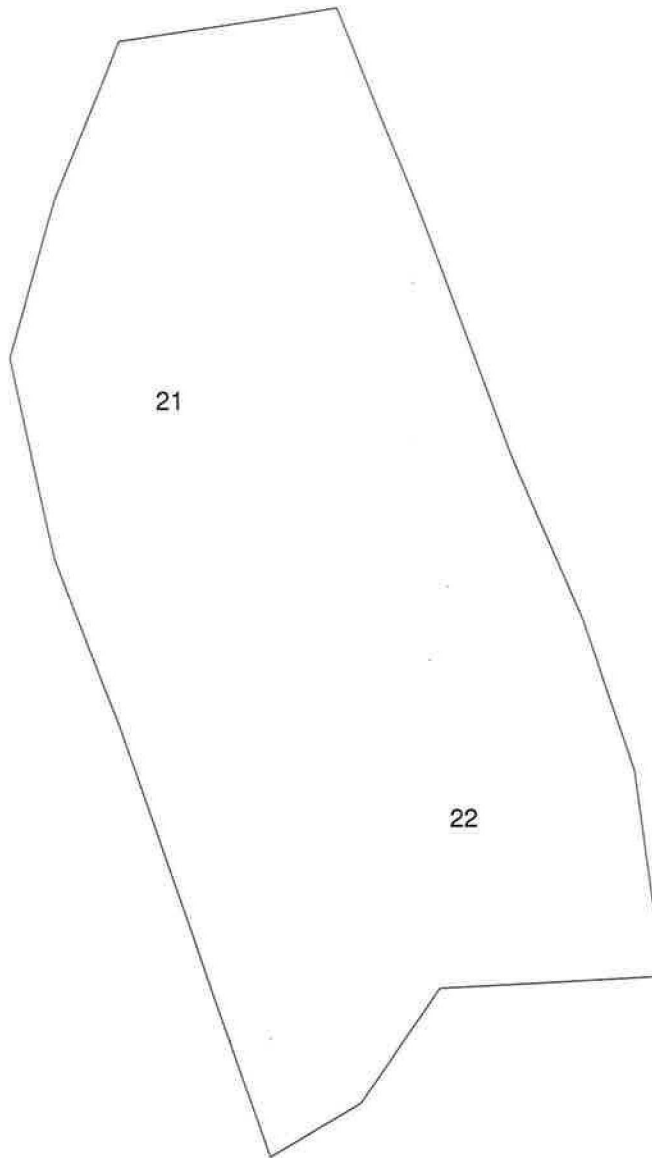
\* Denotes "Adjusted for Oversize Material"

Lab Number:	Soil Description
<b>760</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.</b>
<b>761</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, brown.</b>

\*\* This test is not NATA endorsed due to the rock oversize.

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Soil Testing Services Pty Ltd


Comment :L3884E - West Wilchard Road (Fill Platform) - Layer Lot No.11

Project : STS.WWR.160527

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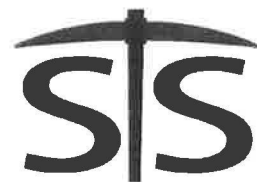
05/30/2016

## LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust	Report number: L3884E – L12
Job number: L3884E	Report date: 9/6/2016
Project: Residential Development	Technician: Tom Finnegan
Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	
LOT ID: L12	Hilf Density Ratio Report Number: L3768E – 12
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L12</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>24/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>440</u>	Number of tests required: <u>2</u>
LOT APPROVAL: <u>PASS</u> Signed: 	Date: <u>9/06/2016</u>

FORM NO: A46  
VERSION: 1  
REVISION: 2

DATE: 01/08/2005  
DATE: 3/7/2015



# Hilf Density Ratio Report

Client : <b>Allyn Holdings Pty Ltd atf Keller Family Trust</b>	Report Number: <b>L3884E - 12</b>
Job Number : <b>L3884E</b>	Report Date: <b>03/06/2016</b>
Project : <b>Penrith Lakes Development</b>	Order Number: <b>Verbal</b>
Location : <b>West Wilchard Road, Castlereagh</b>	Test Method: <b>AS1289.5.7.1</b>

Page 1 of 1

Lab No :	<b>762</b>	<b>763</b>	
ID No :	<b>23</b>	<b>24</b>	
Lot No :	<b>L12</b>	<b>L12</b>	
Item No :	<b>-</b>	<b>-</b>	
Date/Time Tested :	<b>24/05/2016</b>	<b>24/05/2016</b>	
Material Source :	<b>Imported</b>	<b>Imported</b>	
For Use As :	<b>SPEC Fill</b>	<b>SPEC Fill</b>	
Sample Location :	Fill Platform E 284658 N 6271591 RL: 21.33m	Fill Platform E 284646 N 6271565 RL: 21.59m	
Test Depth (mm) :	<b>300</b>	<b>300</b>	
Max Size (mm) :	<b>37.5</b>	<b>37.5</b>	
Oversize Wet (%) :	<b>20</b>	<b>17</b>	
Fld. Wet Density (t/m <sup>3</sup> ):	<b>2.29</b>	<b>2.22</b>	
Fld. Moisture Cont (%) :	<b>6.2</b>	<b>7.6</b>	
PCWD (t/m <sup>3</sup> ) :	<b>2.29*</b>	<b>2.19*</b>	
Moisture Variation (%) :	<b>2.2% (dry of omc)</b>	<b>2.8% (dry of omc)</b>	
Compactive Effort :	<b>Standard</b>	<b>Standard</b>	
Hilf Density Ratio (%) :	<b>100.0</b>	<b>101.5</b>	
Min Hilf Dens Ratio (%) :	<b>98</b>	<b>98</b>	

Remarks: **Test Methods: AS1289.5.8.1 & 2.1.1.**

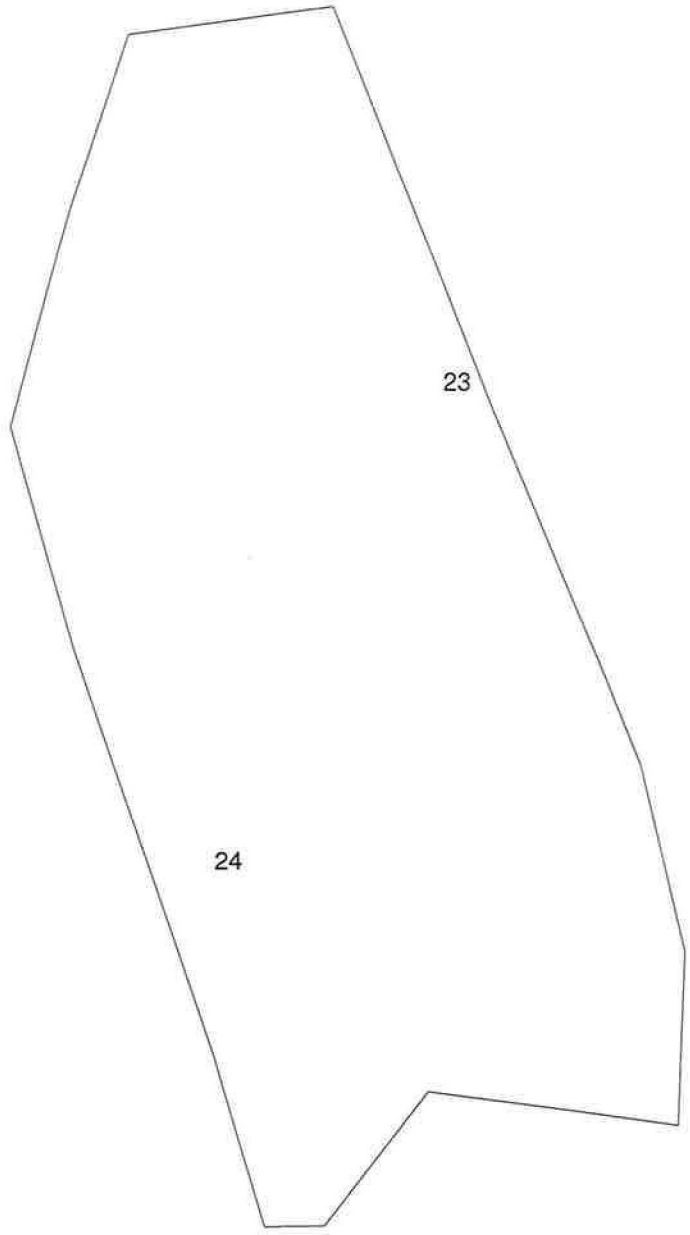
\* Denotes "Adjusted for Oversize Material"

Lab Number:	Soil Description
<b>762</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.</b>
<b>763</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, grey.</b>

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Comment :L3884E - West Wilchard Road (Fill Platform) - Layer Lot No.12

Project : STS.WWR.160527

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05/30/2016

## LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust	Report number: L3884E – L13
Job number: L3884E	Report date: 9/6/2016
Project: Residential Development	Technician: Tom Finnegan
Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	
LOT ID: L13	Hilf Density Ratio Report Number: L3768E – 13
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L13</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>25/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>420</u>	Number of tests required: <u>2</u>
LOT APPROVAL: <u>FAIL</u> Signed:  Date: <u>9/06/2016</u>	

Note: This Minor Failure was not retested as further layers had been placed prior to lab results being available

# Hilf Density Ratio Report

Client : <b>Allyn Holdings Pty Ltd atf Keller Family Trust</b>	Report Number: <b>L3884E - 13</b>
Job Number : <b>L3884E</b>	Report Date: <b>09/06/2016</b>
Project : <b>Penrith Lakes Development</b>	Order Number: <b>Verbal</b>
Location : <b>West Wilchard Road, Castlereagh</b>	Test Method: <b>AS1289.5.7.1</b>

Page 1 of 1



Lab No :	<b>766</b>	<b>767</b>		
ID No :	<b>25 **</b>	<b>26</b>		
Lot No :	<b>L13</b>	<b>L13</b>		
Item No :	<b>-</b>	<b>-</b>		
Date/Time Tested :	<b>25/05/2016</b>	<b>25/05/2016</b>		
Material Source :	<b>Imported</b>	<b>Imported</b>		
For Use As :	<b>SPEC FILL</b>	<b>SPEC FILL</b>		
Sample Location :	Fill Platform E 284641 N 6271591 RL: 21.69m	Fill Platform E 284666 N 6271569 RL: 21.66m		
Test Depth (mm) :	<b>300</b>	<b>300</b>		
Max Size (mm) :	<b>37.5</b>	<b>37.5</b>		
Oversize Wet (%) :	<b>22</b>	<b>18</b>		
Fld. Wet Density (t/m <sup>3</sup> ):	<b>2.23</b>	<b>2.28</b>		
Fld. Moisture Cont (%) :	<b>7.3</b>	<b>9.6</b>		
PCWD (t/m <sup>3</sup> ) :	<b>2.27*</b>	<b>2.31*</b>		
Moisture Variation (%) :	<b>0.6% (dry of omc)</b>	<b>0.1% (dry of omc)</b>		
Compactive Effort :	<b>Standard</b>	<b>Standard</b>		
Hilf Density Ratio (%) :	<b>98.0</b>	<b>99.0</b>		
Min Hilf Dens Ratio (%) :	<b>98</b>	<b>98</b>		

Remarks: **Test Methods: AS1289.5.8.1 & 2.1.1.**

\* Denotes "Adjusted for Oversize Material"

Lab Number:	Soil Description
<b>766</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.</b>
<b>767</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.</b>

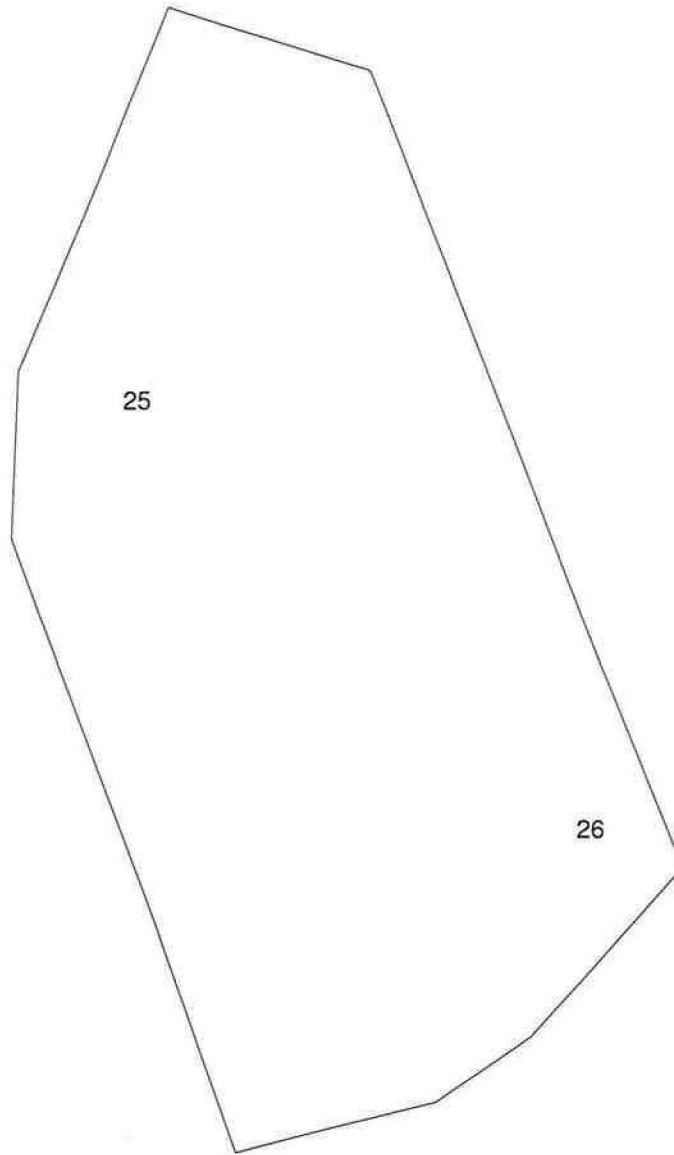
\*\* This test is not NATA endorsed due to the rock oversize.

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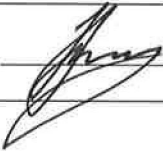
Comment :L3884E - West Wilchard Road (Fill Platform) - Layer Lot No.13

Project : STS.WWR.160527

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05/30/2016

### LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust Job number: L3884E Project: Residential Development Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	Report number: L3884E – L14 Report date: 9/6/2016 Technician: Tom Finnegan
LOT ID: L14	Hilf Density Ratio Report Number: L3768E – 14
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L14</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>27/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>420</u>	Number of tests required: <u>2</u>
LOT APPROVAL: <u>FAIL</u> Signed:  Date: <u>9/06/2016</u>	

Note: This Minor Failure was not retested as further layers had been placed prior to lab results being available

# Hilf Density Ratio Report

Client : Allyn Holdings Pty Ltd atf Keller Family Trust	Report Number: L3884E - 14
Job Number : L3884E	Report Date: 09/06/2016
Project : Penrith Lakes Development	Order Number: Verbal
Location : West Wilchard Road, Castlereagh	Test Method: AS1289.5.7.1

Page 1 of 1


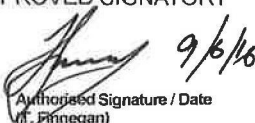
Lab No :	768	769	
ID No :	27	28 **	
Lot No :	L14	L14	
Item No :	-	-	
Date/Time Tested :	27/05/2016	27/05/2016	
Material Source :	Imported	Imported	
For Use As :	SPEC Fill	SPEC Fill	
Sample Location :	Fill Platform E 284638 N 6271588 RL: 22.00m	Fill Platform E 284663 N 6271573 RL: 22.02m	
Test Depth (mm) :	300	300	
Max Size (mm) :	37.5	37.5	
Oversize Wet (%) :	20	25	
Fld. Wet Density (t/m <sup>3</sup> ):	2.24	2.33	
Fld. Moisture Cont (%):	6.5	6.9	
PCWD (t/m <sup>3</sup> ) :	2.27*	2.30*	
Moisture Variation (%):	1.3% (dry of omc)	0.5% (dry of omc)	
Compactive Effort :	Standard	Standard	
Hilf Density Ratio (%) :	98.5	101.5	
Min Hilf Dens Ratio (%)	98	98	

Remarks: Test Methods: AS1289.5.8.1 & 2.1.1.

\* Denotes "Adjusted for Oversize Material"

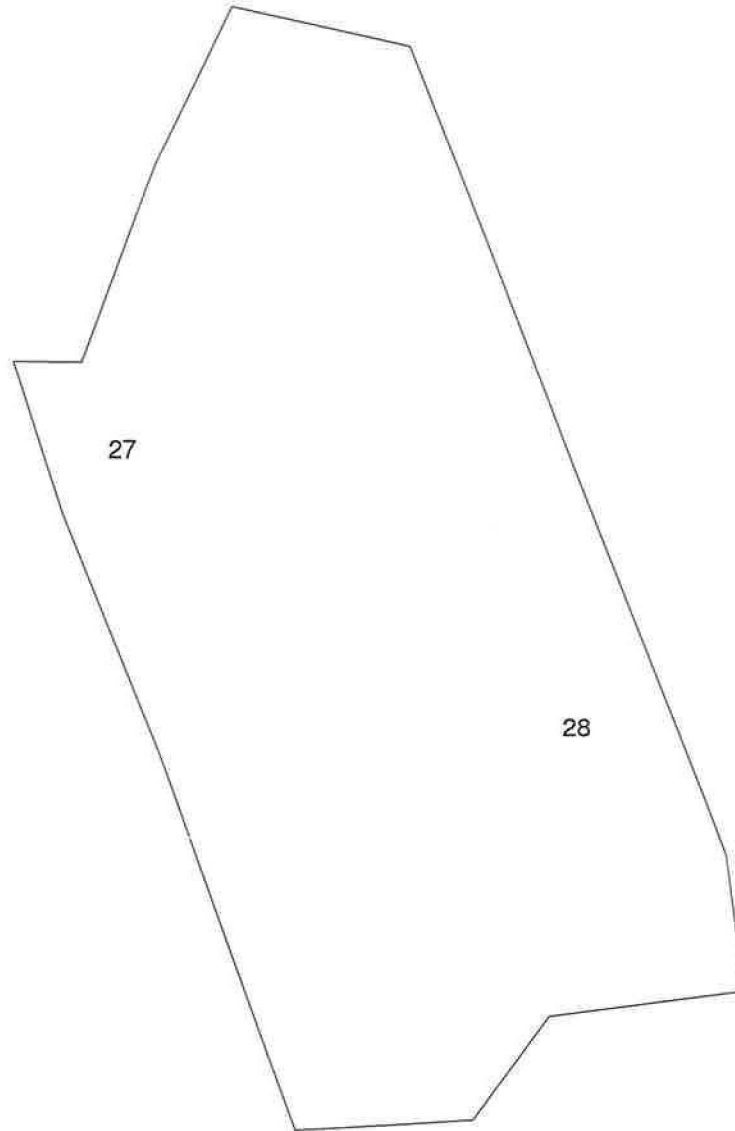
Lab Number:	Soil Description
768	SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.
769	SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.

\*\* This test is not NATA endorsed due to the rock oversize.

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		 Authorized Signature / Date (P. Finnegan)	REP HNUC-1

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Soil Testing Services Pty Ltd


Comment :L3884E - West Wilchard Road (Fill Platform) - Layer Lot No.14

Project : STS.WWR.160527

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05/30/2016

## LOT APPROVAL REPORT

Client: Allyn Holdings Pty Ltd atf Keller Family Trust Job number: L3884E Project: Residential Development Location: Corner West Wilchard and Castlereagh Roads, Castlereagh	Report number: L3884E – L15 Report date: 9/6/2016 Technician: Tom Finnegan
LOT ID: L15	Hilf Density Ratio Report Number: L3768E – 15
Retest: <u>No</u>	Original report number:
Specification reference: <u>PSM2541- Email dated 29 APRIL 2016</u>	
Lot boundary survey reference: <u>L15</u>	
Material identification: <u>SPEC FILL IMPORTED</u>	
Deleterious material assessment: <u>VISUALY ASSESED AS LESS THAN 0.5%</u>	
Layer thickness: <u>300mm</u>	
Accepted as a lot: Yes	Date: <u>27/5/2016</u>
Approximate volume (m <sup>3</sup> ): <u>60</u>	Number of tests required: <u>2</u>
LOT APPROVAL: <u>PASS</u> Signed: 	Date: <u>9/06/2016</u>

FORM NO: A46  
VERSION: 1  
REVISION: 2

DATE: 01/08/2005  
DATE: 3/7/2015

# Hilf Density Ratio Report

Client : <b>Allyn Holdings Pty Ltd atf Keller Family Trust</b>	Report Number: <b>L3884E - 15</b>
Job Number : <b>L3884E</b>	Report Date: <b>09/06/2016</b>
Project : <b>Penrith Lakes Development</b>	Order Number: <b>Verbal</b>
Location : <b>West Wilchard Road, Castlereagh</b>	Test Method: <b>AS1289.5.7.1</b>

Lab No :	<b>770</b>	<b>771</b>		
ID No :	<b>29</b>	<b>30 **</b>		
Lot No :	<b>L15</b>	<b>L15</b>		
Item No :	-	-		
Date/Time Tested :	<b>27/05/2016</b>	<b>27/05/2016</b>		
Material Source :	<b>Imported</b>	<b>Imported</b>		
For Use As :	<b>SPEC Fill</b>	<b>SPEC Fill</b>		
Sample Location :	Fill Platform Extension E 284639 N 6271607 RL: 20.95m	Fill Platform Extension E 284637 N 6271597 RL: 22.02m		
Test Depth (mm) :	<b>300</b>	<b>300</b>		
Max Size (mm) :	<b>37.5</b>	<b>37.5</b>		
Oversize Wet (%) :	<b>18</b>	<b>24</b>		
Fld. Wet Density (t/m³):	<b>2.25</b>	<b>2.35</b>		
Fld. Moisture Cont (%) :	<b>6.3</b>	<b>6.0</b>		
PCWD (t/m³) :	<b>2.28*</b>	<b>2.35*</b>		
Moisture Variation (%) :	<b>1.4% (dry of omc)</b>	<b>1.1% (dry of omc)</b>		
Compactive Effort :	<b>Standard</b>	<b>Standard</b>		
Hilf Density Ratio (%) :	<b>98.5</b>	<b>100.0</b>		
Min Hilf Dens Ratio (%) :	<b>98</b>	<b>98</b>		

Remarks: **Test Methods: AS1289.5.8.1 & 2.1.1.**

\* Denotes "Adjusted for Oversize Material"

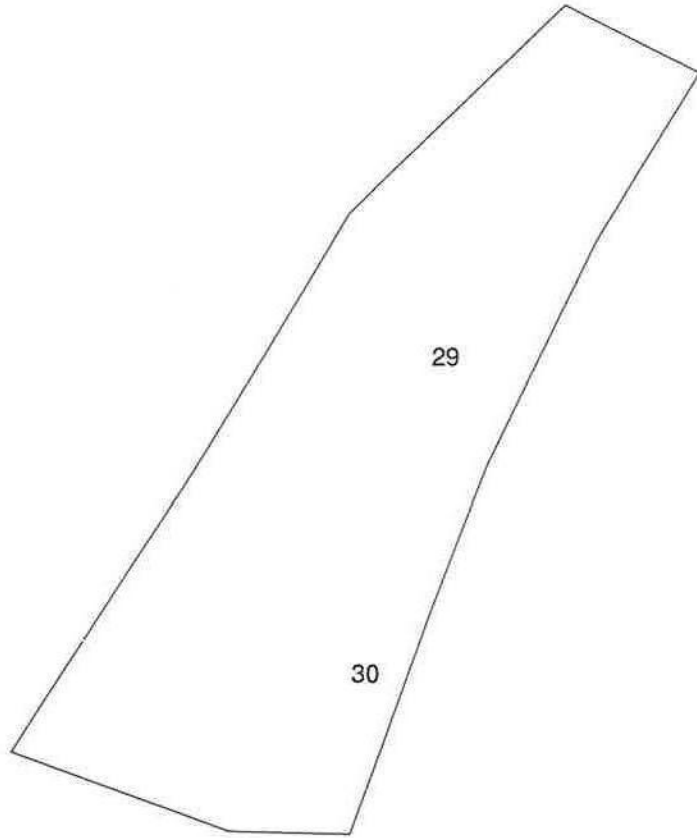
Lab Number:	Soil Description
<b>770</b>	<b>SPEC Gravelly FILL Silty Clay, medium plasticity, dark grey.</b>
<b>771</b>	<b>SPEC FILL Gravelly Silty Clay, medium plasticity, dark grey.</b>

\*\* This test is not NATA endorsed due to the rock oversize.

 NATA Accredited Laboratory Number:1327	Accredited for compliance with ISO/IEC 17025. This document shall not be reproduced except in full.	APPROVED SIGNATORY  9/6/16 Authorised Signature / Date (T. Finnegan)	Form Number:  <b>REP HNUC-1</b>
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All services provided by STS are subject to our standard terms and conditions. A copy is available on request.

5.7m



Soil Testing Services Pty Ltd

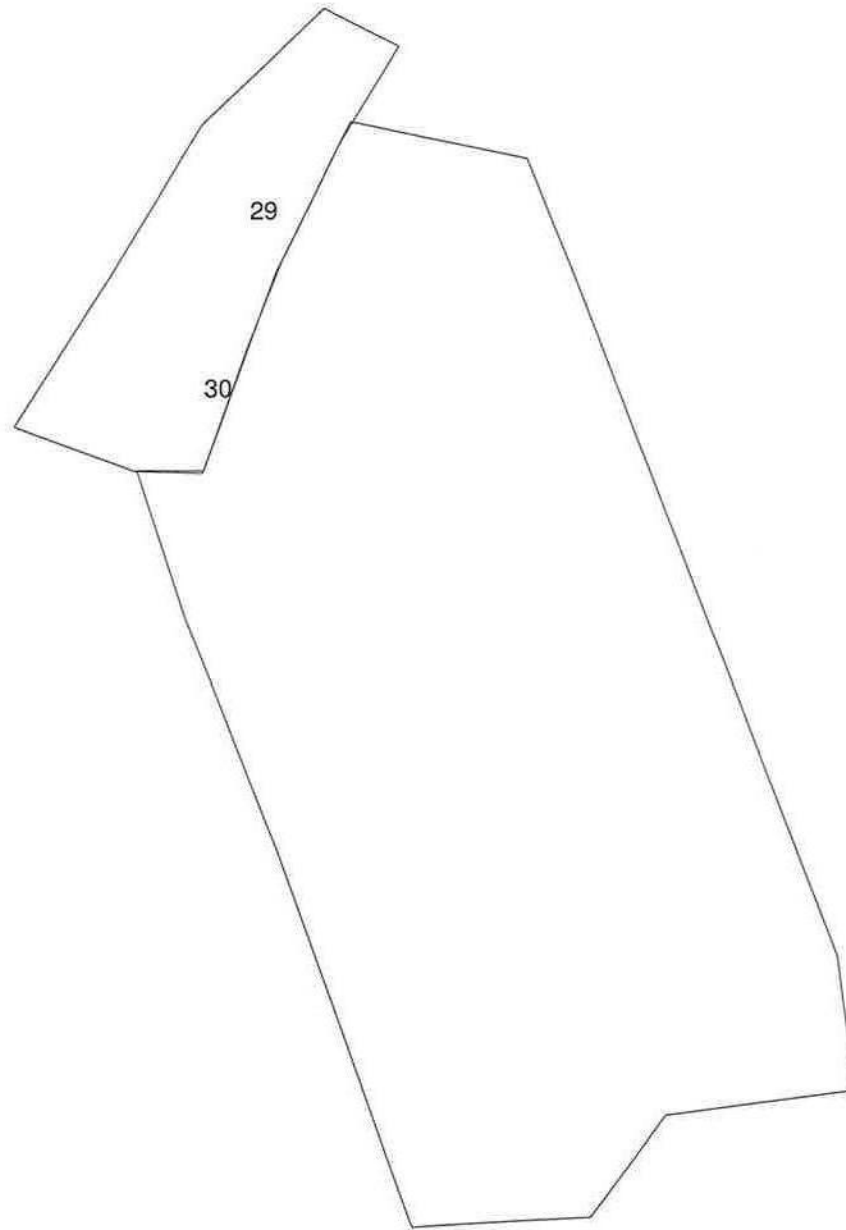
Comment :L3884E - West Wilchard Road (Fill Platform) - Layer Lot No.15

Project : STS.WWR.160527

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05/30/2016

10m



Soil Testing Services Pty Ltd

Comment :L3884E - West Wilchard Road (Fill Platform) - Layer Lot No.15\_Vers,2

Project : STS.WWR.160527