# APPENDIX C TEST PIT LOCATIONS & SOIL PROFILES



Site 5: Test Pit Positions and Soil Zones



PO Box 87318

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### Houghton Fax: (011) 443 2951 e-mail: admin@inroads-sa.co.za **PROFILE SHEET** TH1 **Environment Impact Assessment - Eskom** X 2618322 **Proposed New General Landfill Facility, Lephalale** Y -061050 Moist, dark brown, very loose, fine SAND with many roots. Topsoil. Moist, orangish brown, loose, fine SAND with scattered roots. Aeolian. Below 0,85 m becomes slightly moist and medium dense.

Dry to slightly moist, dark brown, mottled pale grey, dense, intact, fine SAND with fine roots and scattered calcrete concretions. Aeolian.

Abundant, loosely packed, angular, coarse calcrete GRAVEL with occasional sandstone gravel in a matrix of dry, pale grey, clayey silt. Nodular Calcrete.

#### NOTES:

- 1. Bottom of hole at 2,3 m on dense nodular calcrete. Not to refusal..

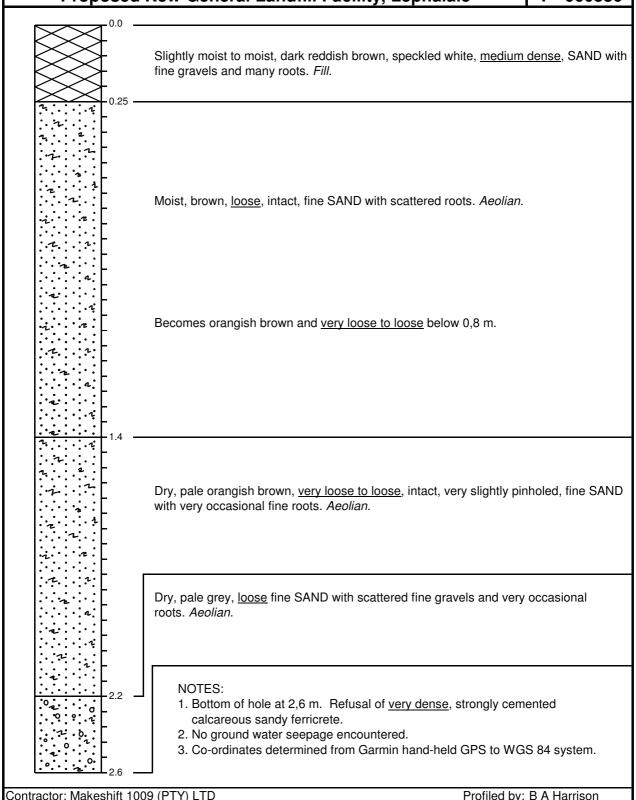
0000 0000 2.3 _	2. No ground water se 3. Bulk sample at 0,1	to 1,0 r	n.		
	4. Co-ordinates deter	minea t	rom Garmin nand	-neid GPS to WG	S 84 system.
Contractor: Makeshift 1009	9 (PTY) LTD			Profiled by:	B A Harrison
Machine: TLB CAT 416 D 4X4			Date profiled: 18/3/2009		
	Undisturbed sample	I	Bulk sample		Ref: 08102/g
Standing water	<ul><li>Disturbed sample</li></ul>	Н	In-situ test		Sheet 1 of 1



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# PROFILE SHEET TH2 Environment Impact Assessment - Eskom Proposed New General Landfill Facility, Lephalale Y -060886



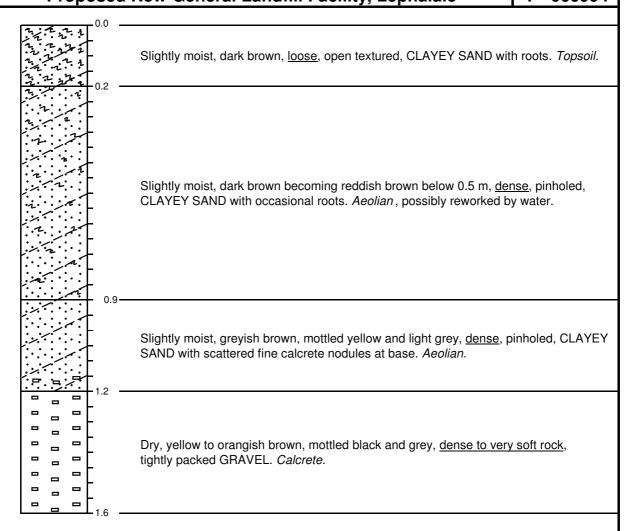
Machine: TLB CAT 416 D 4X4			Date profiled: 19/3/2009		
	Undisturbed sample	I	Bulk sample		Ref: 08102/g
Standing water	<ul><li>Disturbed sample</li></ul>	Н	<i>In-situ</i> test		Sheet 1 of 1



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# PROFILE SHEET TH3 Environment Impact Assessment - Eskom Proposed New General Landfill Facility, Lephalale Y -060994



#### NOTES:

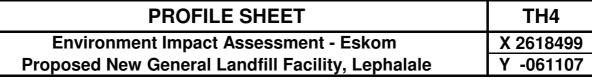
- 1. Bottom of hole at 1,6 m. Refusal on <u>very soft rock</u> calcrete gravel.
- 2. Hole stable.
- 3. No ground water seepage encountered.
- 4. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

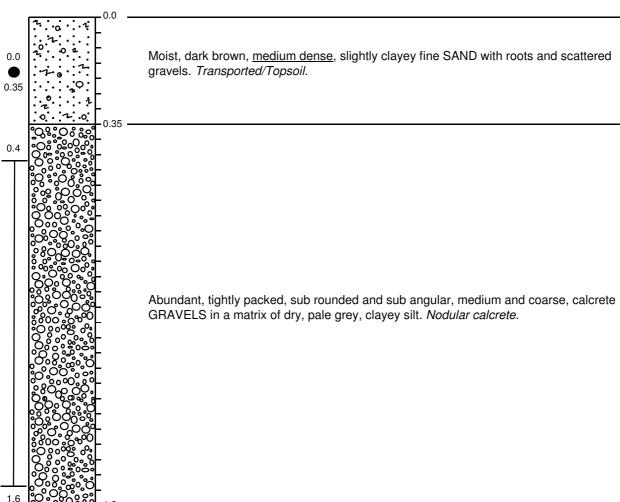
Contractor: Makeshift 1009 (PTY) LTD			Profiled by:	A Schulze-Hulbe	
Machine: TLB CAT 416 D 4X4			Date profiled: 19/3/2009		
Water seepage	Undisturbed sample	I	Bulk sample		Ref: 08102/g
Standing water	<ul><li>Disturbed sample</li></ul>	Н	<i>In-situ</i> test		Sheet 1 of 1



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#### NOTES:

- 1. Bottom of hole at 1,6 m. Partial refusal on sandstone boulders.
- 2. No ground water seepage encountered.
- 3. Bulk sample taken between 0,4 to 1,6 m.
- 4. Disturbed sample taken between 0,0 to 0,35 m.
- 5. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD

Machine: TLB CAT 416 D 4X4

Water seepage

Undisturbed sample

Bulk sample

Profiled by: B A Harrison
Date profiled: 18/3/2009

Ref: 0810

✓ Water seepage
✓ Standing water

Disturbed sample

☐ Bulk sample ☐ In-situ test



Contractor: Makeshift 1009 (PTY) LTD

Undisturbed sample

Disturbed sample

Machine: TLB CAT 416 D 4X4

∀ Water seepage

Standing water

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Profiled by: M C Shuping

Ref: 08102/g

Sheet 1 of 1

Date profiled: 19/3/2009

Bulk sample

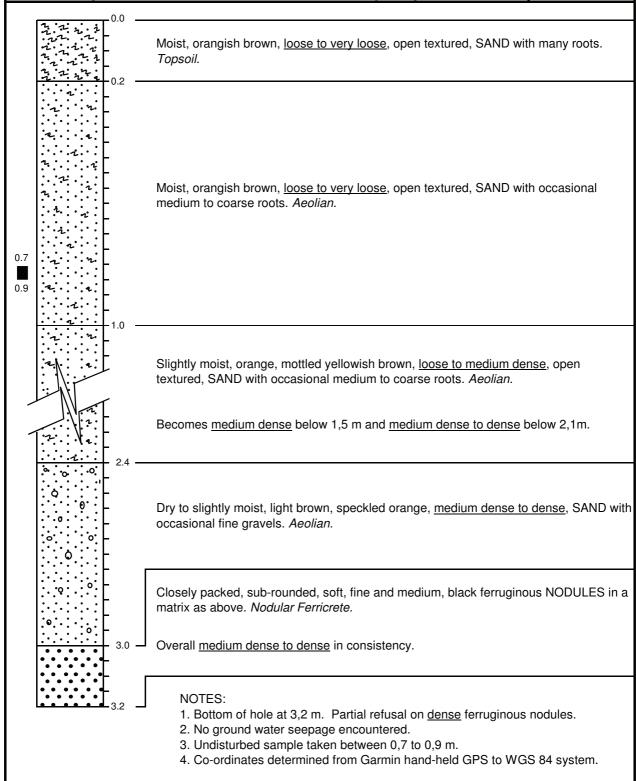
In-situ test

### PROFILE SHEET Environment Impact Assessment - Eskom

TH5 X 2618440

Proposed New General Landfill Facility, Lephalale

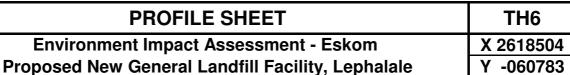
Y -060682

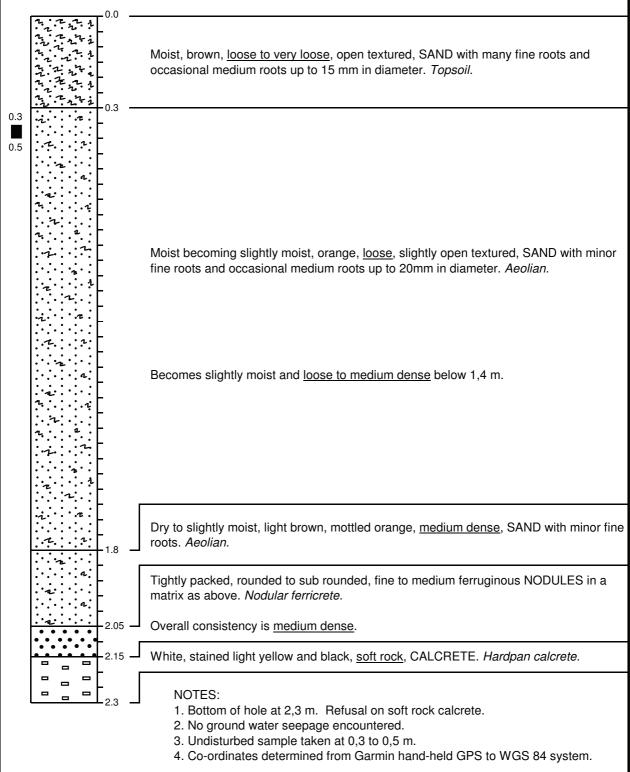




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Contractor: Makeshift 1009 (PTY) LTD Profiled by: M C Shuping

Machine: TLB CAT 416 D 4X4
Date profiled: 19/3/2009

✓ Water seepage
Undisturbed sample
T
Bulk sample
Ref: 08102/g

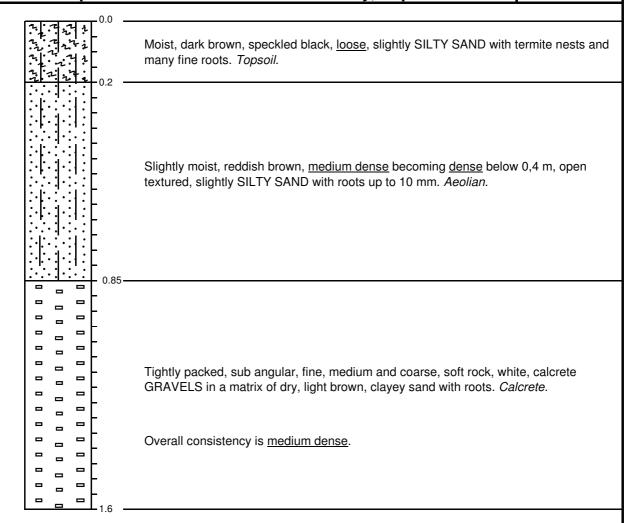
✓ Standing water
Disturbed sample
In-situ test
Sheet 1 of 1



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# PROFILE SHEET TH7 Environment Impact Assessment - Eskom Proposed New General Landfill Facility, Lephalale Y -060957



#### NOTES:

- 1. Bottom of hole at 1,6 m. Partial refusal on calcrete described above.
- 2. No ground water seepage encountered.
- 3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD				Profiled by: M C Shuping		
Machine: TLB CAT 416 D 4X4			Date profiled: 19/3/2009			
	Undisturbed sample	I	Bulk sample		Ref: 08102/g	
Standing water	<ul><li>Disturbed sample</li></ul>	Н	In-situ test		Sheet 1 of 1	



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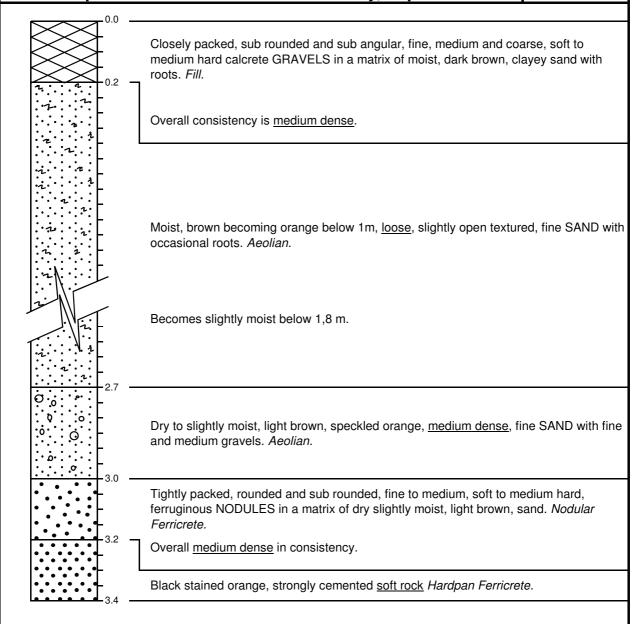
e-mail: admin@inroads-sa.co.za

#### **PROFILE SHEET**

TH8

**Environment Impact Assessment - Eskom Proposed New General Landfill Facility, Lephalale** 

X 2618579 Y -060669



#### NOTES:

- 1. Bottom of hole at 3,4 m. Refusal on soft rock hardpan ferricrete.
- 2. No ground water seepage encountered.
- 3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD

Machine: TLB CAT 416 D 4X4

Water seepage

Undisturbed sample

Standing water

Disturbed sample

In-situ test

Profiled by: M C Shuping
Date profiled: 19/3/2009

Ref: 08102/g

Sheet 1 of 1

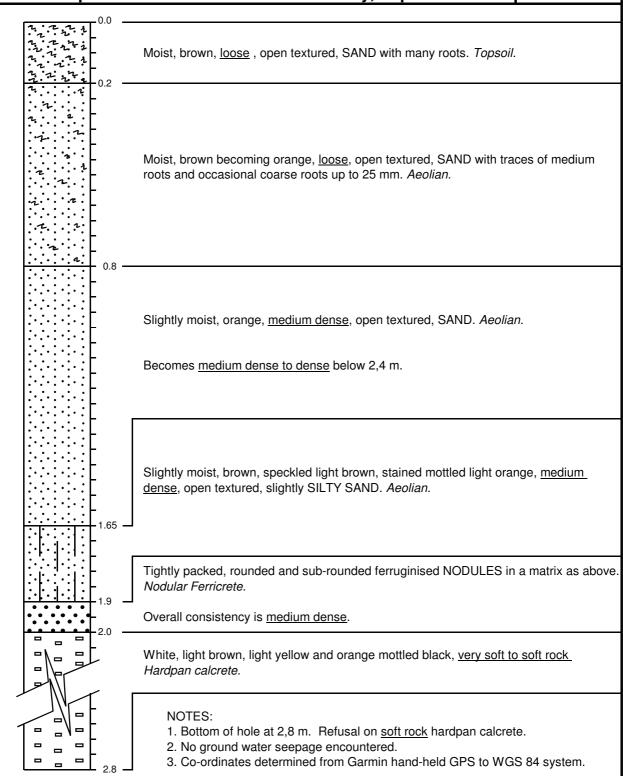


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Profiled by: M C Shuping

### PROFILE SHEET TH9 Environment Impact Assessment - Eskom Proposed New General Landfill Facility, Lephalale Y -060824



Machine: TLB CAT 416 D 4X4Date profiled: 19/3/2009✓ Water seepageUndisturbed sampleImage: Disturbed sample✓ Standing waterDisturbed sampleIn-situ test
Sheet 1 of 1

Contractor: Makeshift 1009 (PTY) LTD



Machine: TLB CAT 416 D 4X4

Undisturbed sample

Disturbed sample

Standing water

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e-mail: admin@inroads-sa.co.za

Date profiled: 19/3/2009

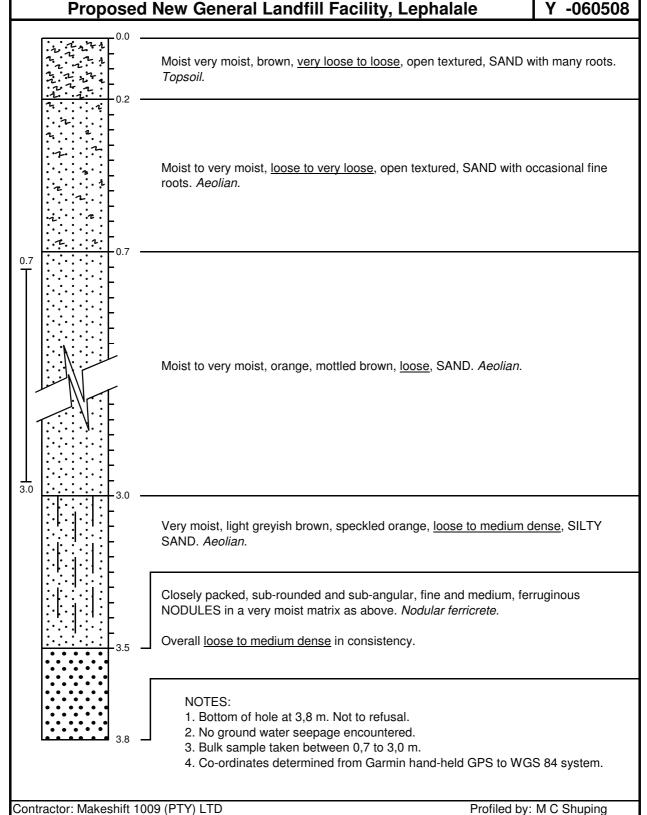
Ref: 08102/g

Sheet 1 of 1

Bulk sample

In-situ test

### PROFILE SHEET TH10 Environment Impact Assessment - Eskom X 2618644





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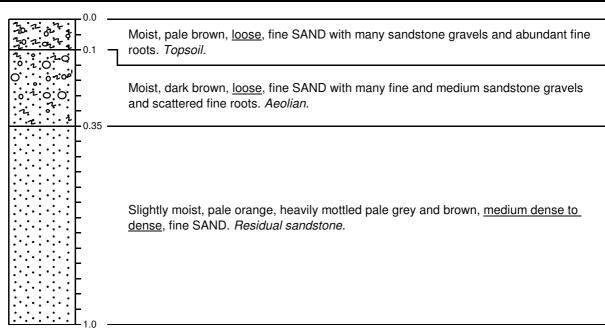
e-mail: admin@inroads-sa.co.za

### PROFILE SHEET Environment Impact Assessment - Eskom

Proposed New General Landfill Facility, Lephalale

X 2618667 Y -061039

**TH11** 



#### NOTES

- 1. Bottom of hole at 1,0 m. Partial refusal on dense sandstone.
- 2. No ground water seepage encountered.
- 3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD

Machine: TLB CAT 416 D 4X4

Profiled by: B A Harrison
Date profiled: 18/3/2009

Poft 0910

Water seepageStanding water

Undisturbed sampleDisturbed sample

✓ Bulk sample✓ In-situ test



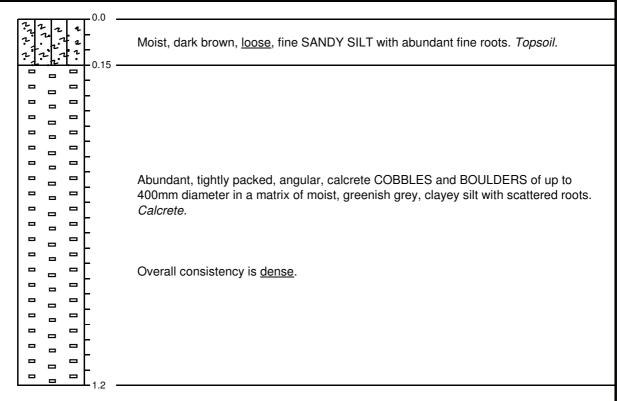
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### PROFILE SHEET TH12 Environment Impact Assessment - Eskom X 2618707

Proposed New General Landfill Facility, Lephalale

Y -061150



#### NOTES:

- 1. Bottom of hole at 1,2 m. Refusal on very tightly packed calcrete boulders.
- 2. No ground water seepage encountered.
- 3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD

Machine: TLB CAT 416 D 4X4

Water seepage

Undisturbed sample

Profiled by: B A Harrison
Date profiled: 18/3/2009

Ref: 0810

Standing water

Disturbed sample

☐ Bulk sample ☐ In-situ test



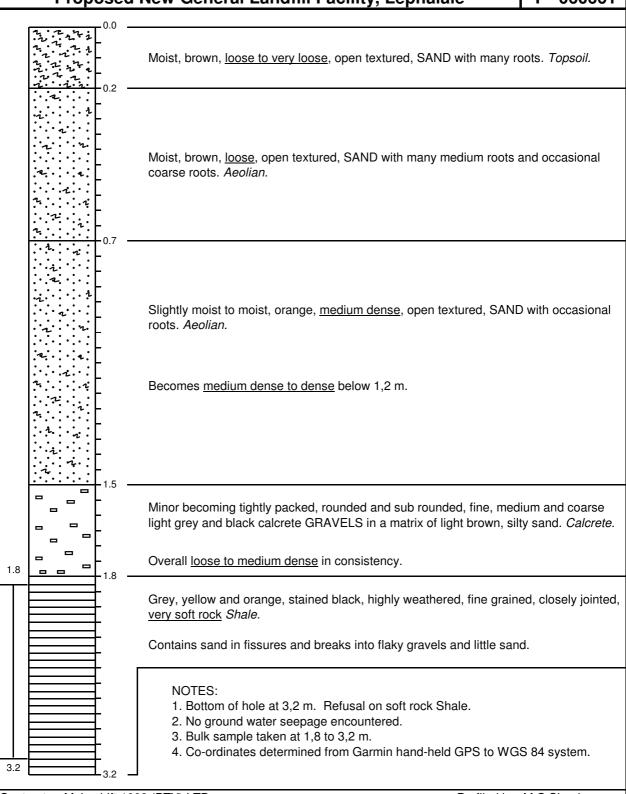
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e-mail: admin@inroads-sa.co.za

**TH13** 

#### PROFILE SHEET **Environment Impact Assessment - Eskom**

X 2618734 **Proposed New General Landfill Facility, Lephalale** Y -060661



Contractor: Makeshift 1009 (PTY) LTD

Profiled by: M C Shuping Machine: TLB CAT 416 D 4X4 Date profiled: 19/3/2009 Undisturbed sample

 ∀ Water seepage Standing water

Disturbed sample

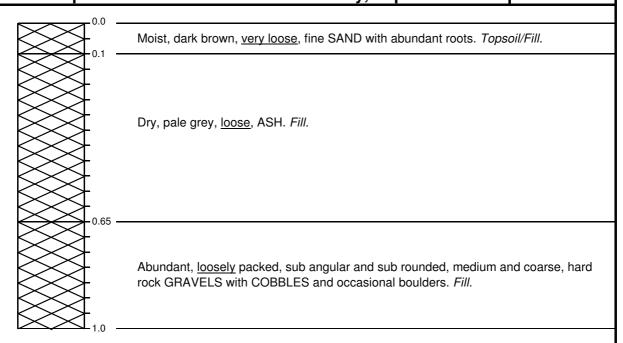
Bulk sample In-situ test



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# PROFILE SHEET TH14 Environment Impact Assessment - Eskom Proposed New General Landfill Facility, Lephalale Y -060904



#### NOTES:

- 1. Bottom of hole at 1,0 m. Partial refusal on boulders.
- 2. No ground water seepage encountered.
- 3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD

Machine: TLB CAT 416 D 4X4

Profiled by: B A Harrison
Date profiled: 18/3/2009

Water seepage

Undisturbed sample

Bulk sample

Ref: 08102/g

Standing water

Disturbed sample

☐ In-situ test

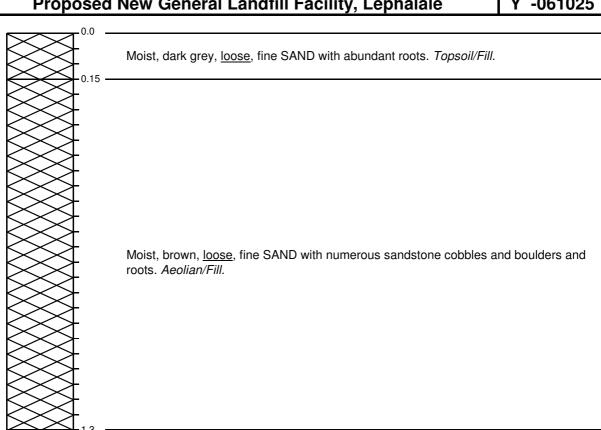
Sheet 1 of 1



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# PROFILE SHEET TH15 Environment Impact Assessment - Eskom Proposed New General Landfill Facility, Lephalale Y -061025



#### NOTES:

- 1. Bottom of hole at 1,3 m. Refusal on large sandstone boulders.
- 2. No ground water seepage encountered.
- 3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD

Machine: TLB CAT 416 D 4X4

Water seepage

☐ Undisturbed sample

☐ Bulk sample

☐ Ref: 08102/g



Standing water

Disturbed sample

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#### 2041 e-mail: admin@inroads-sa.co.za PROFILE SHEET **TH16 Environment Impact Assessment - Eskom** X 2618950 **Proposed New General Landfill Facility, Lephalale** -060933 Moist, dark brown, very loose, fine SAND with many roots. Fill. Moist, brown, loose, fine SAND with scattered roots. Fill. Becomes slightly moist below 0,4 m. Slightly moist to moist, dark orange, brown, speckled white, medium dense, slightly shattered, fine SAND with scattered fine calcrete nodules and roots. Fill. Contains very occasional sandstone boulders about 1,0 m diameter. Abundant tightly packed, angular, medium and coarse calcrete GRAVELS in a matrix of dry, grey, fine sand. Nodular calcrete. Overall consistency is dense. NOTES: 1. Bottom of hole at 1,7 m. Refusal on sandstone boulders. 2. No ground water seepage encountered. 3. Disturbed sample taken between 1,1 to 1,4 m. 4. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system. Contractor: Makeshift 1009 (PTY) LTD Profiled by: B A Harrison Date profiled: 18/3/2009 Machine: TLB CAT 416 D 4X4 Ref: 08102/g ∀ Water seepage Undisturbed sample I Bulk sample

In-situ test

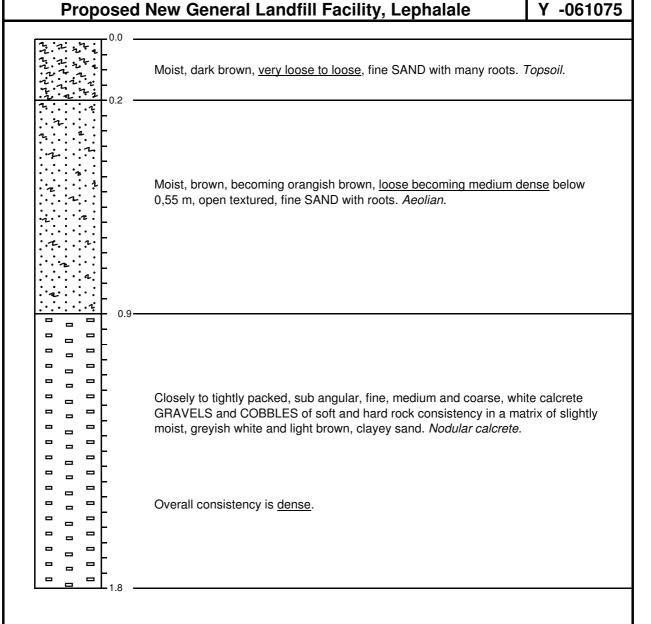
Sheet 1 of 1



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### PROFILE SHEET TH17 Environment Impact Assessment - Eskom posed New General Landfill Facility, Lephalale Y -061075



#### NOTES:

- 1. Bottom of hole at 1,8 m. Refusal on very dense calcrete.
- 2. No ground water seepage encountered.
- 3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Profiled by: M C Shuping Date profiled: 19/3/2009	
Ref: 08102/g	
Sheet 1 of 1	
F	



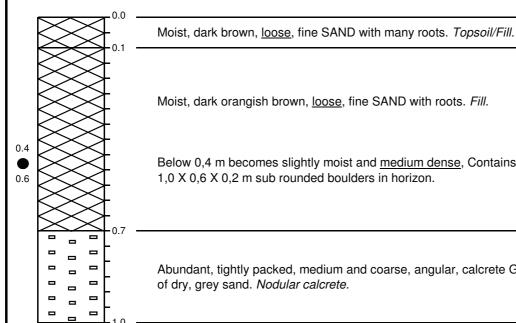
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#### **PROFILE SHEET**

**TH18** 

**Environment Impact Assessment - Eskom Proposed New General Landfill Facility, Lephalale**  X 2619027 Y -061046



Moist, dark orangish brown, loose, fine SAND with roots. Fill.

Below 0,4 m becomes slightly moist and medium dense, Contains large 1,0 X 0,6 X 0,2 m sub rounded boulders in horizon.

Abundant, tightly packed, medium and coarse, angular, calcrete GRAVELS in a matrix of dry, grey sand. Nodular calcrete.

#### NOTES:

- 1. Bottom of hole at 1,0 m. Refusal on sandstone boulders.
- 2. No ground water seepage encountered.
- 3. Disturbed sample taken at 0,4 to 0,6 m.
- 4. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD Profiled by: B A Harrison Machine: TLB CAT 416 D 4X4 Date profiled: 18/3/2009

 ∀ Water seepage Standing water

Undisturbed sample Disturbed sample

I Bulk sample In-situ test



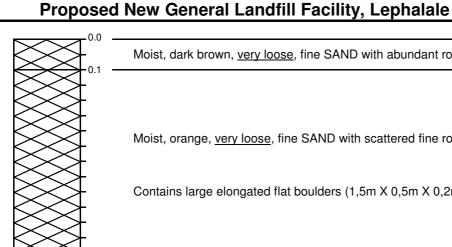
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#### **PROFILE SHEET Environment Impact Assessment - Eskom**

X 2618966 Y -061177

**TH19** 



Moist, dark brown, very loose, fine SAND with abundant roots. Topsoil/Fill.

Moist, orange, very loose, fine SAND with scattered fine roots. Fill.

Contains large elongated flat boulders (1,5m X 0,5m X 0,2m) in aeolian sand matrix.

#### NOTES:

- 1. Bottom of hole at 0,7 m. Refusal on pale yellow, medium weathered, coarse grained, widely jointed, soft to medium hard rock, sandstone. Contains large elongated flat boulders (1,5m X 0,5m X 0,2m) in aeolian sand matrix.
- 2. No ground water seepage encountered.
- 3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD Profiled by: B A Harrison Date profiled: 18/3/2009 Machine: TLB CAT 416 D 4X4 Undisturbed sample Ref: 08102/g

Standing water

Disturbed sample

Bulk sample In-situ test

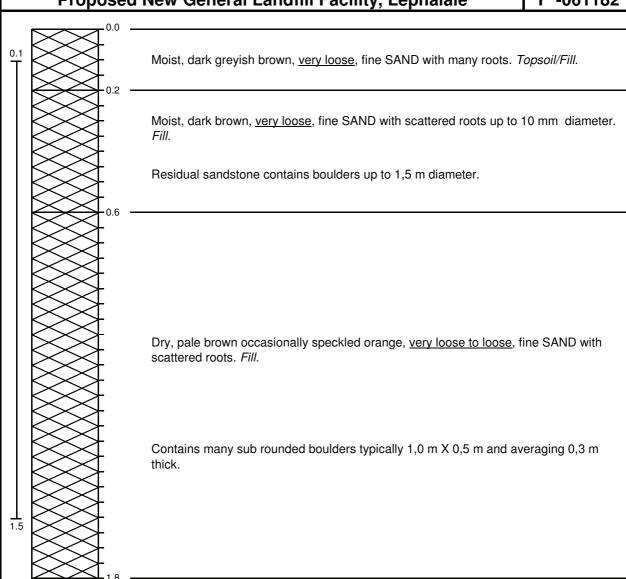
Sheet 1 of 1



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# PROFILE SHEET TH20 Environment Impact Assessment - Eskom Proposed New General Landfill Facility, Lephalale Y -061182



#### NOTES:

- 1. Bottom of hole at 1,8 m. Refusal on sandstone boulders.
- 2. No ground water seepage encountered.
- 3. Bulk sample taken at 0,1 to 1,5 m.
- 4. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD

Machine: TLB CAT 416 D 4X4

Water seepage

Undisturbed sample

Standing water

Disturbed sample

In-situ test

Profiled by: B A Harrison
Date profiled: 18/3/2009

Ref: 08102/g

Sheet 1 of 1

# APPENDIX D BOREHOLE LOCATIONS & BOREHOLE PROFILES