Excel Geotechnical Testing, Inc.
"Excellence in Testing"

953 Forrest Street, Roswell, Georgia 30075
Tel: (770) 910 7537 Fax: (770) 910 7538

RIGID WALL PERMEABILITY TEST [1]

ASTM D 2434 *

Project Name:	JED Cell 10 Construction
Project Number:	636
Client Name:	Brantley Engineering
Site Sample ID:	PSL-01
Lab Sample Number:	14B057
Material Type:	NA
Specified Value (cm/sec):	NA
Date Tested:	3/12/2014

Specimen Number	Specimen Initial Conditions					Permeant Liquid [4]	Gradient Range	Hydraulic Conductivity
	Spec. Prep. [2] (-)	Spec. Length (cm)	Spec. Diameter (cm)	Dry Unit Weight (pcf)	Moisture Content[3] (%)	(-)	(-)	(cm/s)
1	R	14.0	7.6	92.7	0.0	DTW	0.20 - 0.63	9.6E-3

Notes:

1. Constant head test procedures were followed during the testing.
2. Remolded specimen was formed by tamping the soil in 7 layers, each approximately 2.0 cm, utilizing moderate energy.
3. A moisture content of 0.0% indicates that the sample was air/oven dried before being tested.
4. Type of permeant liquid: TW = Tap Water, DTW = Deaired Tap Water, DDI = Deaired Deionized Water

* Deviations:

Laboratory temperature at 22±3 °C.
Test specimen final conditions are not presented.

4-18-14
NSR

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RIGID WALL PERMEABILITY TEST [1]

ASTM D 2434 *

Project Name:	JED Cell 10 Construction
Project Number:	636
Client Name:	Brantley Engineering
Site Sample ID:	PSL-02
Lab Sample Number:	14B058
Material Type:	NA
Specified Value (cm/sec):	NA
Date Tested:	3/14/2014

Specimen Number	Specimen Initial Conditions					Permeant Liquid [4]	Gradient Range	Hydraulic Conductivity
	Spec. Prep. [2] (-)	Spec. Length (cm)	Spec. Diameter (cm)	Dry Unit Weight (pcf)	Moisture Content[3] (%)	(-)	(-)	(cm/s)
1	R	14.2	7.6	91.6	0.0	DTW	0.17 - 0.38	1.0E-2

Notes:

1. Constant head test procedures were followed during the testing.
2. Remolded specimen was formed by tamping the soil in 7 layers, each approximately 2.0 cm, utilizing moderate energy.
3. A moisture content of 0.0% indicates that the sample was air/oven dried before being tested.
4. Type of permeant liquid: TW = Tap Water, DTW = Deaired Tap Water, DDI = Deaired Deionized Water

* Deviations:

Laboratory temperature at 22±3 °C.
Test specimen final conditions are not presented.

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RIGID WALL PERMEABILITY TEST [1]

ASTM D 2434 *

Project Name:	JED Cell 10 Construction
Project Number:	636
Client Name:	Brantley Engineering
Site Sample ID:	PSL-03
Lab Sample Number:	14B059
Material Type:	NA
Specified Value (cm/sec):	NA
Date Tested:	3/18/2014

Specimen Number	Specimen Initial Conditions					Permeant Liquid [4]	Gradient Range	Hydraulic Conductivity
	Spec. Prep. [2] (-)	Spec. Length (cm)	Spec. Diameter (cm)	Dry Unit Weight (pcf)	Moisture Content[3] (%)	(-)	(-)	(cm/s)
1	R	14.0	7.6	92.1	0.0	DTW	0.13 - 0.51	9.8E-3

Notes:

1. Constant head test procedures were followed during the testing.
2. Remolded specimen was formed by tamping the soil in 7 layers, each approximately 2.0 cm, utilizing moderate energy.
3. A moisture content of 0.0% indicates that the sample was air/oven dried before being tested.
4. Type of permeant liquid: TW = Tap Water, DTW = Deaired Tap Water, DDI = Deaired Deionized Water

* Deviations:

Laboratory temperature at 22±3 °C.
Test specimen final conditions are not presented.

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RIGID WALL PERMEABILITY TEST [1]

ASTM D 2434 *

Project Name:	JED Cell 10 Construction
Project Number:	636
Client Name:	Brantley Engineering
Site Sample ID:	PSL-04
Lab Sample Number:	14B060
Material Type:	NA
Specified Value (cm/sec):	NA
Date Tested:	3/21/2014

Specimen Number	Specimen Initial Conditions					Permeant Liquid [4]	Gradient Range	Hydraulic Conductivity
	Spec. Prep. [2] (-)	Spec. Length (cm)	Spec. Diameter (cm)	Dry Unit Weight (pcf)	Moisture Content[3] (%)	(-)	(-)	(cm/s)
1	R	14.1	7.6	91.2	0.0	DTW	0.16 - 0.41	1.3E-2

Notes:

1. Constant head test procedures were followed during the testing.
2. Remolded specimen was formed by tamping the soil in 7 layers, each approximately 2.0 cm, utilizing moderate energy.
3. A moisture content of 0.0% indicates that the sample was air/oven dried before being tested.
4. Type of permeant liquid: TW = Tap Water, DTW = Deaired Tap Water, DDI = Deaired Deionized Water

* Deviations:

Laboratory temperature at 22±3 °C.
Test specimen final conditions are not presented.

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RIGID WALL PERMEABILITY TEST (1)

ASTM D 2434 *

Project Name:	JED Cell 10 Construction
Project Number:	636
Client Name:	Brantley Engineering
Site Sample ID:	PSL-05
Lab Sample Number:	14B061
Material Type:	NA
Specified Value (cm/sec):	NA
Date Tested:	3/21/2014

Specimen Number	Specimen Initial Conditions					Permeant Liquid (4)	Gradient Range	Hydraulic Conductivity
	Spec. Prep. (2) (-)	Spec. Length (cm)	Spec. Diameter (cm)	Dry Unit Weight (pcf)	Moisture Content(3) (%)	(-)	(-)	(cm/s)
1	R	13.9	7.6	98.8	0.0	DTW	0.13 - 0.45	1.2E-2

Notes:

1. Constant head test procedures were followed during the testing.
2. Remolded specimen was formed by tamping the soil in 7 layers, each approximately 2.0 cm, utilizing moderate energy.
3. A moisture content of 0.0% indicates that the sample was air/oven dried before being tested.
4. Type of permeant liquid: TW = Tap Water, DTW = Deaired Tap Water, DDI = Deaired Deionized Water

* Deviations:

Laboratory temperature at 22±3 °C.
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RIGID WALL PERMEABILITY TEST [1]

ASTM D 2434 *

Project Name:	JED Cell 10 Construction
Project Number:	636
Client Name:	Brantley Engineering
Site Sample ID:	PSL-06
Lab Sample Number:	14B062
Material Type:	NA
Specified Value (cm/sec):	NA
Date Tested:	4/1/2014

Specimen Number	Specimen Initial Conditions					Permeant Liquid [4]	Gradient Range	Hydraulic Conductivity
	Spec. Prep. [2] (-)	Spec. Length (cm)	Spec. Diameter (cm)	Dry Unit Weight (pcf)	Moisture Content[3] (%)	(-)	(-)	(cm/s)
1	R	14.1	7.6	97.8	0.0	DTW	0.13 - 0.56	1.2E-2

Notes:

1. Constant head test procedures were followed during the testing.
2. Remolded specimen was formed by tamping the soil in 7 layers, each approximately 2.0 cm, utilizing moderate energy.
3. A moisture content of 0.0% indicates that the sample was air/oven dried before being tested.
4. Type of permeant liquid: TW = Tap Water, DTW = Deaired Tap Water, DDI = Deaired Deionized Water

* Deviations:

Laboratory temperature at 22±3 °C.
Test specimen final conditions are not presented.

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RIGID WALL PERMEABILITY TEST [1]

ASTM D 2434 *

Project Name:	JED Cell 10 Construction
Project Number:	636
Client Name:	Brantley Engineering
Site Sample ID:	PSL-07
Lab Sample Number:	14B063
Material Type:	NA
Specified Value (cm/sec):	NA
Date Tested:	4/7/2014

Specimen Number	Specimen Initial Conditions					Permeant Liquid [4]	Gradient Range	Hydraulic Conductivity
	Spec. Prep. [2] (-)	Spec. Length (cm)	Spec. Diameter (cm)	Dry Unit Weight (pcf)	Moisture Content[3] (%)	(-)	(-)	(cm/s)
1	R	14.1	7.6	94.7	0.0	DTW	0.20 - 0.54	1.1E-2

Notes:

1. Constant head test procedures were followed during the testing.
2. Remolded specimen was formed by tamping the soil in 7 layers, each approximately 2.0 cm, utilizing moderate energy.
3. A moisture content of 0.0% indicates that the sample was air/oven dried before being tested.
4. Type of permeant liquid: TW = Tap Water, DTW = Deaired Tap Water, DDI = Deaired Deionized Water

* Deviations:

Laboratory temperature at 22±3 °C.
Test specimen final conditions are not presented.

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RIGID WALL PERMEABILITY TEST [1]

ASTM D 2434 *

Project Name:	JED Cell 10 Construction
Project Number:	636
Client Name:	Brantley Engineering
Site Sample ID:	PSL-08
Lab Sample Number:	14B064
Material Type:	NA
Specified Value (cm/sec):	NA
Date Tested:	4/7/2014

Specimen Number	Specimen Initial Conditions					Permeant Liquid [4]	Gradient Range	Hydraulic Conductivity
	Spec. Prep. [2] (-)	Spec. Length (cm)	Spec. Diameter (cm)	Dry Unit Weight (pcf)	Moisture Content[3] (%)	(-)	(-)	(cm/s)
1	R	13.9	7.6	91.0	0.0	DTW	0.17 - 0.38	1.2E-2

Notes:

1. Constant head test procedures were followed during the testing.
2. Remolded specimen was formed by tamping the soil in 7 layers, each approximately 2.0 cm, utilizing moderate energy.
3. A moisture content of 0.0% indicates that the sample was air/oven dried before being tested.
4. Type of permeant liquid: TW = Tap Water, DTW = Deaired Tap Water, DDI = Deaired Deionized Water

* Deviations:

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LAST PAGE

Test Applicability and Limitations:

- The results are applicable only for the materials received at the laboratory and tested which may or may not be representative of the materials at the site.

Storage Policy:

- Uncontaminated Material: All samples (or what is left) will be archived for a period of 3 months from the date received. Thereafter the samples will be discarded unless a written request for extended storage is received. A rate of $1.00 per sample per day will be applied after the initial 3 month storage period.

- Contaminated Material: All samples (or what is left) will be archived for a period of 3 months from the date received. Thereafter, the samples will be returned o the project manager or his/her designated receiver unless a written request for extended storage is received. A rate of $1.30 per sample per day will be applied after the initial 3 months storage.