

APPENDIX G.4 –Carbonate Content Test Results - No Change for Rev. 4

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

Project No. 6468-13-1072

Project Name: Clinch River SMR

AMEC Lab Location: Charlotte, NC

Assignment Sheet Date:

Circle One: Safety Related / Non Safety Related

Tested by: M. Hamilton Date: 12/27/2013

Reviewed by: T. Landis Date: 1/2/2014

Sample Description:	Rock Core MP-101, L6-11 (90.9' to 91.5')
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[illegible]

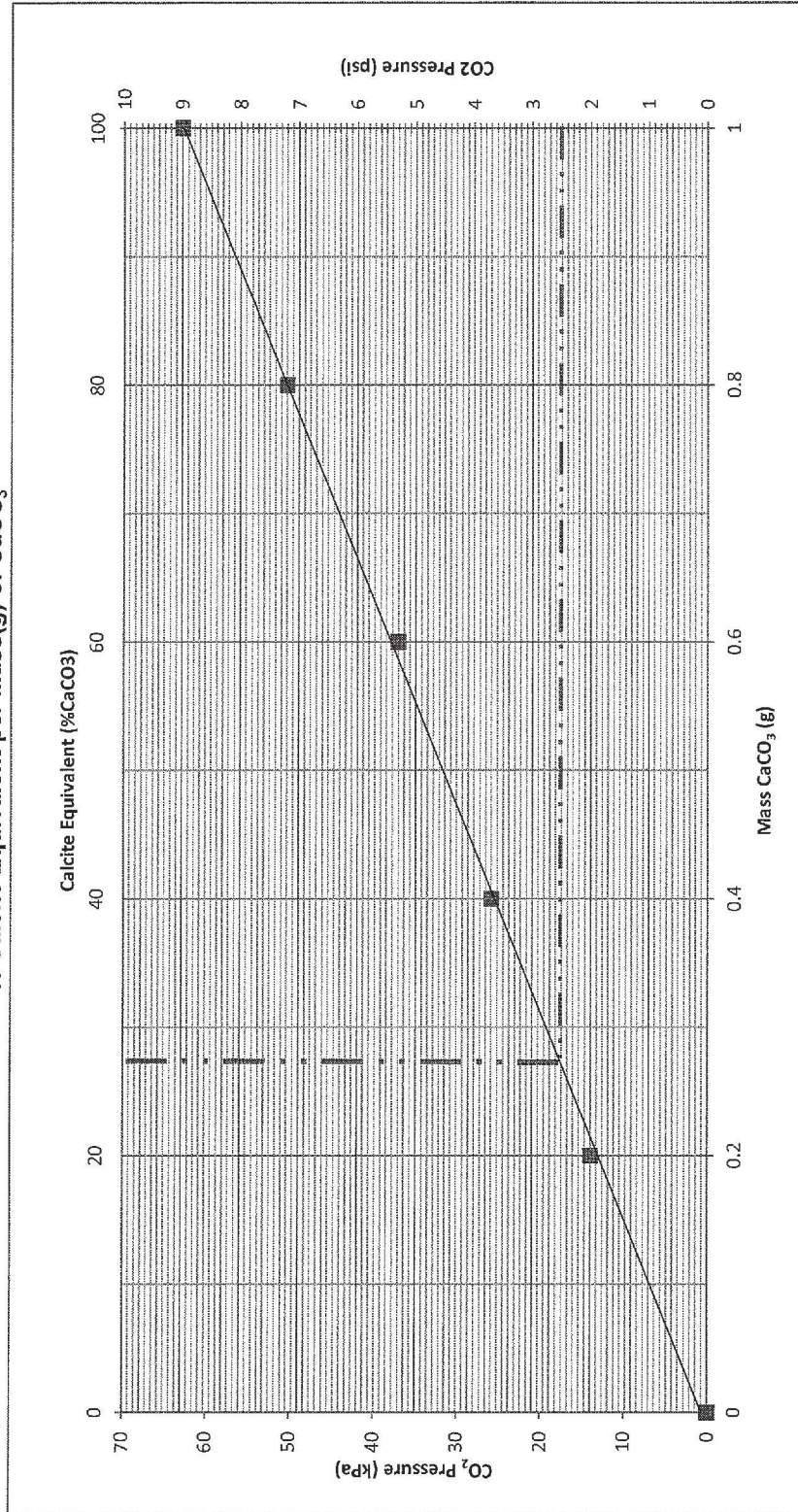
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00867	3/1/2015
No. 40 Sieve	CLT-0381	4/8/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



— 10 min. readings
- - - 20 min. readings



Circle One: Safety Related / Non Safety Related

Tested by: M. Hamilton ^{MEH} Date: 12/30/2013
Reviewed by: T. Landis ^{1/11/14} Date: 1/6/2014

Sample Description: Rock Core MP-101, L6-12 (144.6' to 145.1')

[illegible]

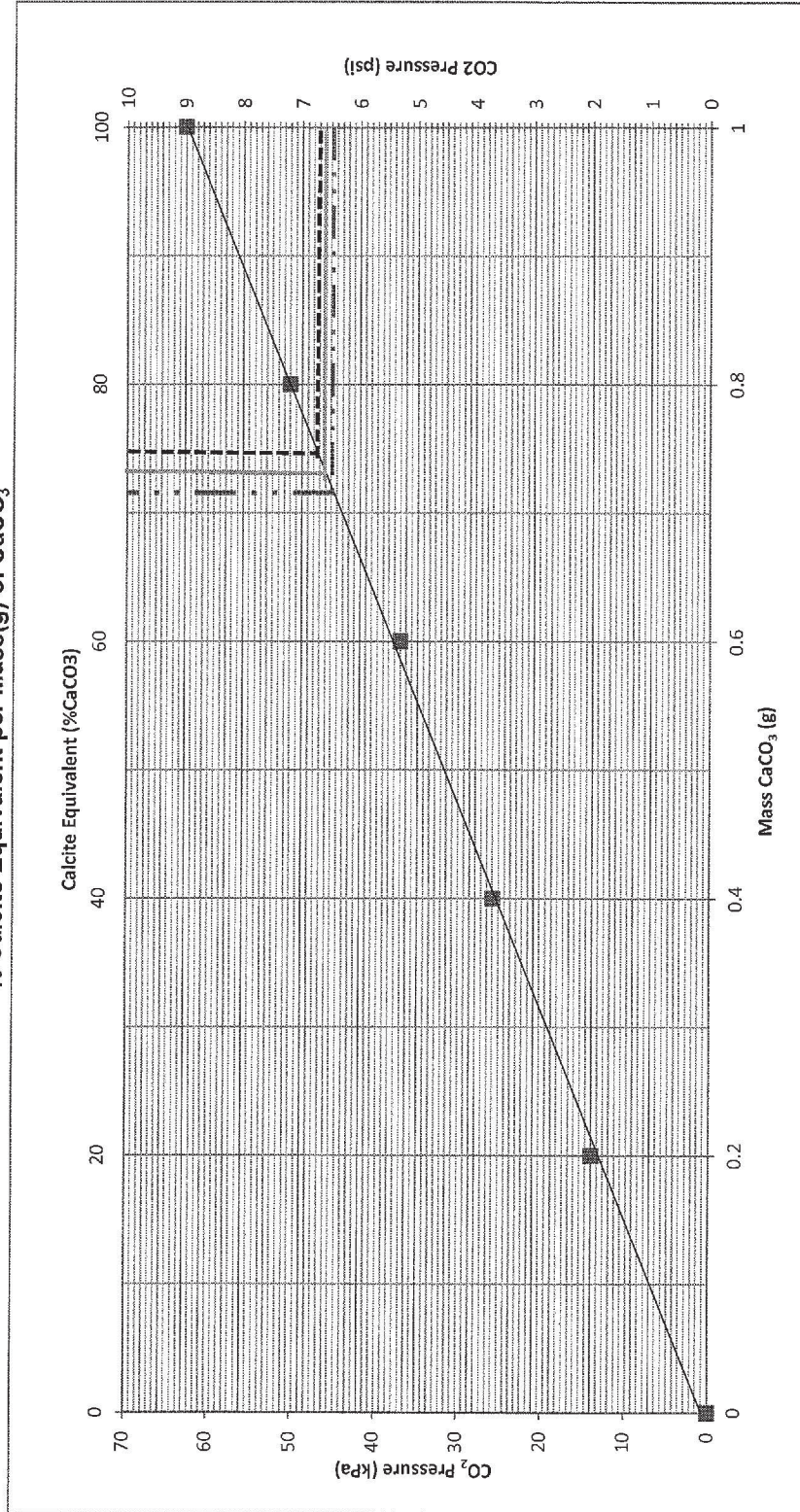
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00667	3/1/2015
No 40 Sieve	CLT-0381	4/8/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



- - - 10 min. reading
 - - - 20 min. reading
 - - - 30 and 40 min. readings



Circle One: Safety Related / Non Safety Related

Date: 11/6/2013

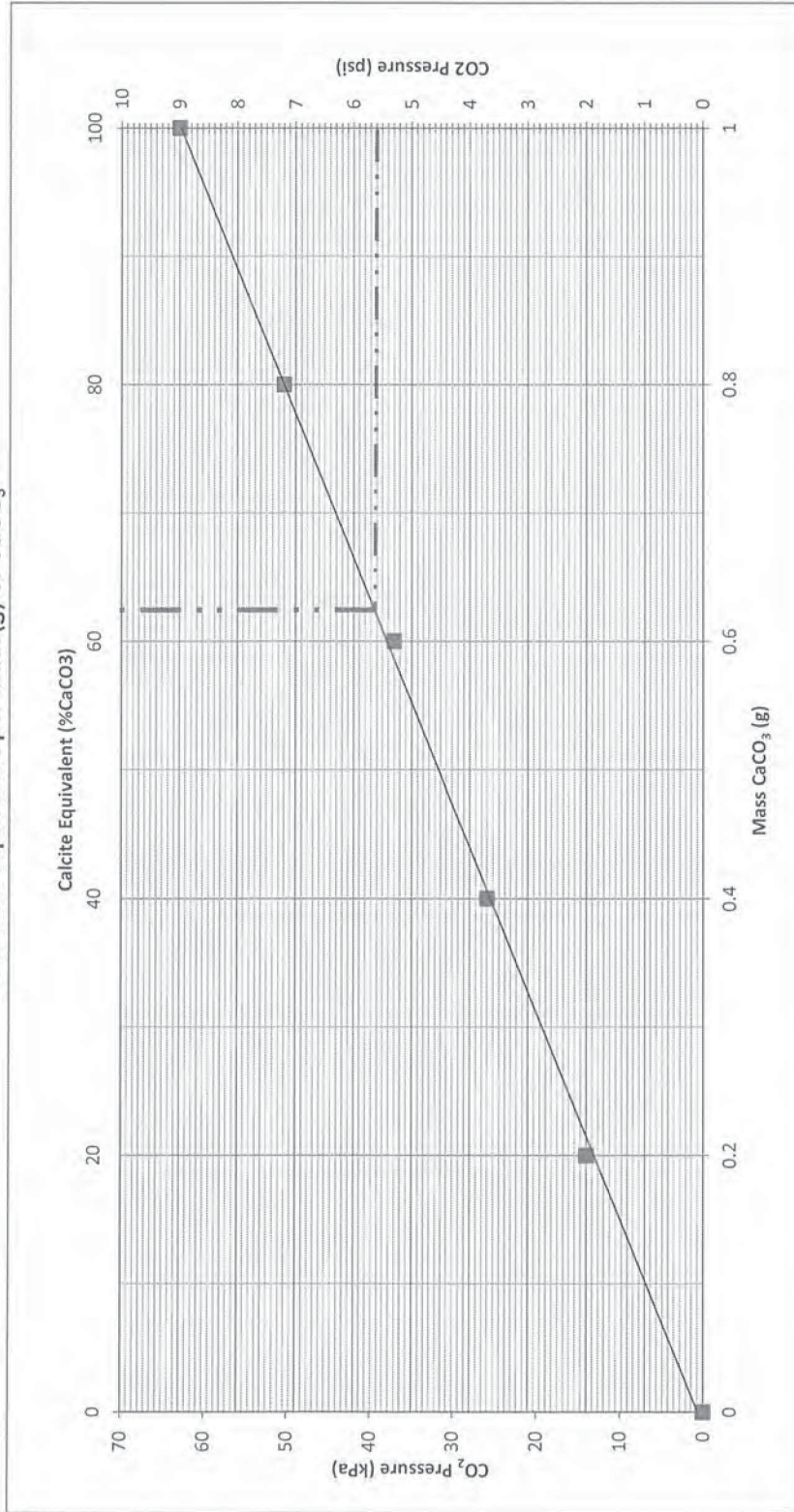
Sample Description: Rock Core MP-101, L1-5 (148.7' to 149.7')

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



— 10 min. readings
- - - 20 and 30 min. readings

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

Project No. 6468-13-1072

Project Name: Clinch River SMR

AMEC Lab Location: Charlotte, NC

Assignment Sheet Date: 9/24/2013

Circle One: Safety Related / Non Safety Related

Tested by: M. Hamilton Date: 1/1/14 No. 1/1/2014
Reviewed by: T. Landis Date: 1/6/2014

Reviewed by: T. Landis

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Milton 1/11/14
Andis 12/13/14

Sample Description: Rock Core MP-101, L6-13 (184.6' to 185.2')

[illegible]

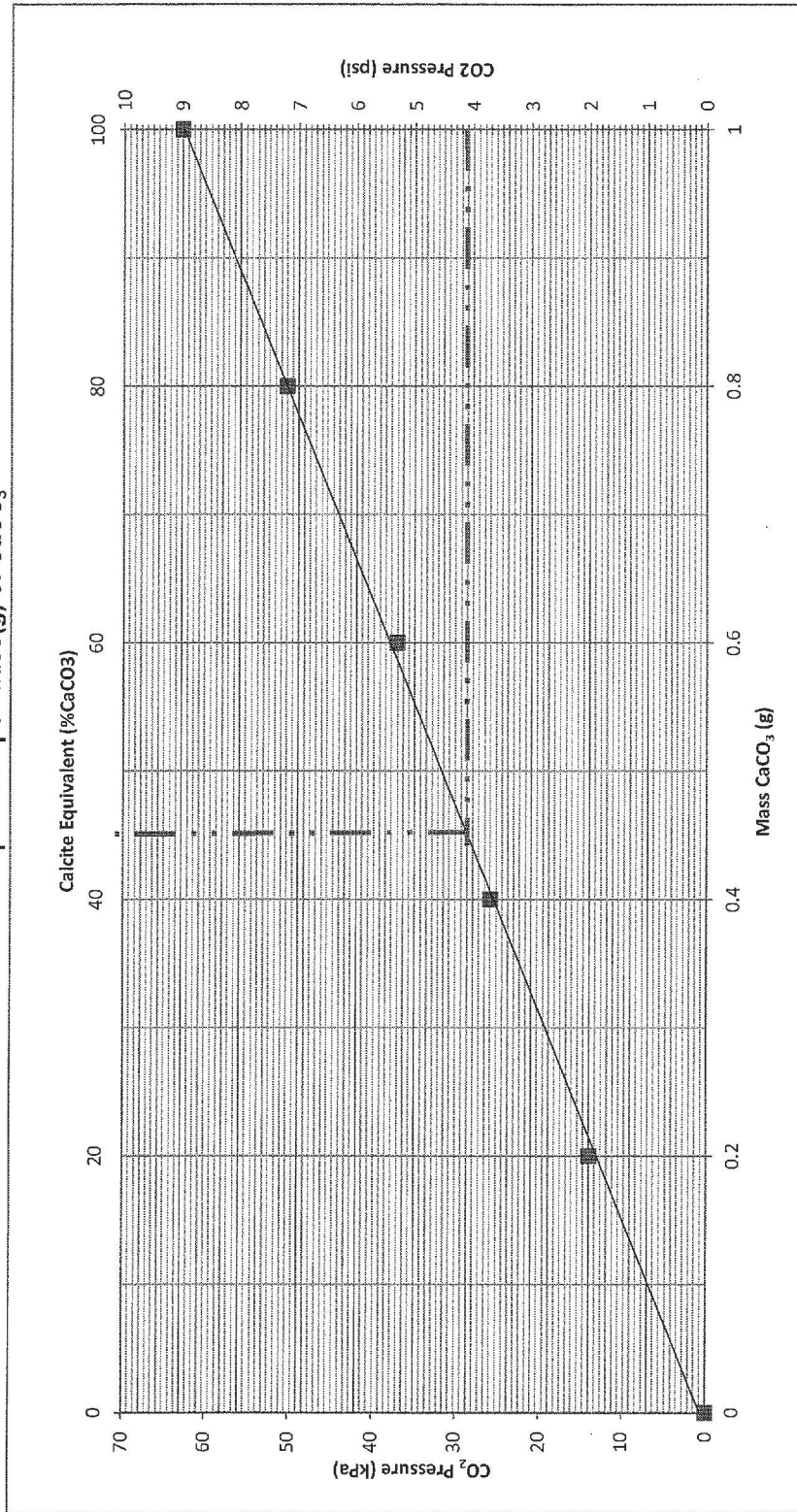
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00667	3/1/2015
No. 40 Sieve	CLT-0381	4/18/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



--- 10 min. readings
- - - 20 min. readings



Circle One: Safety Related / Non Safety Related

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Sample Description: Rock Core MP-101, L6-15 (378.9' to 379.6')

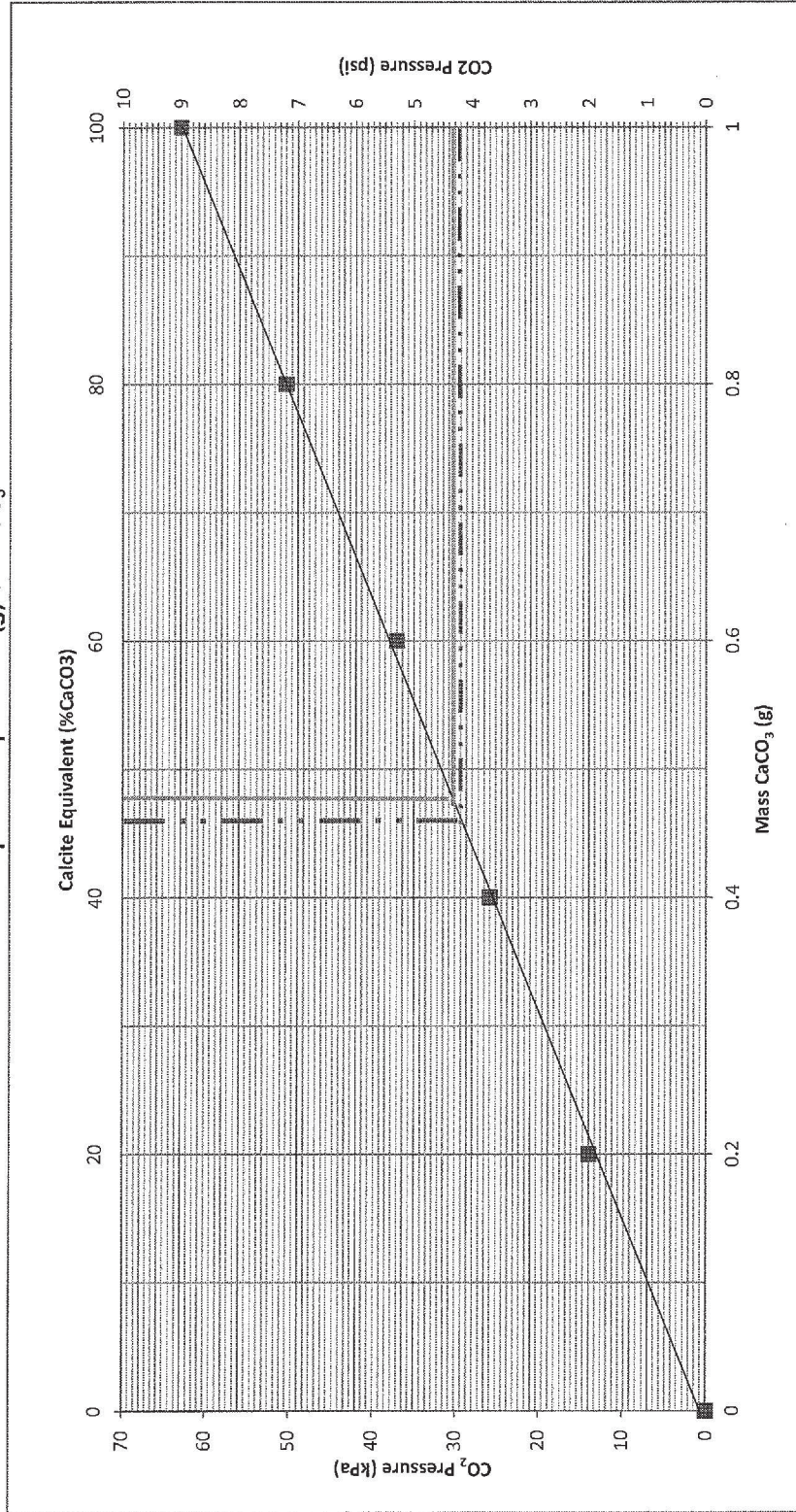
[illegible]

Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00667	3/1/2015
No. 40 Sieve	CLT-0281	1/9/2014

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



10 min. reading
20 and 30 min readings



Circle One: Safety Related / Non Safety Related

Tested by: <u>G. Williams</u>	Date: <u>10/23/2013</u>
Reviewed by: <u>T. Landis</u>	Date: <u>11/5/2013</u>

Sample Description: Rock Core MP-101, L1-13 (451.4' to 452.4')

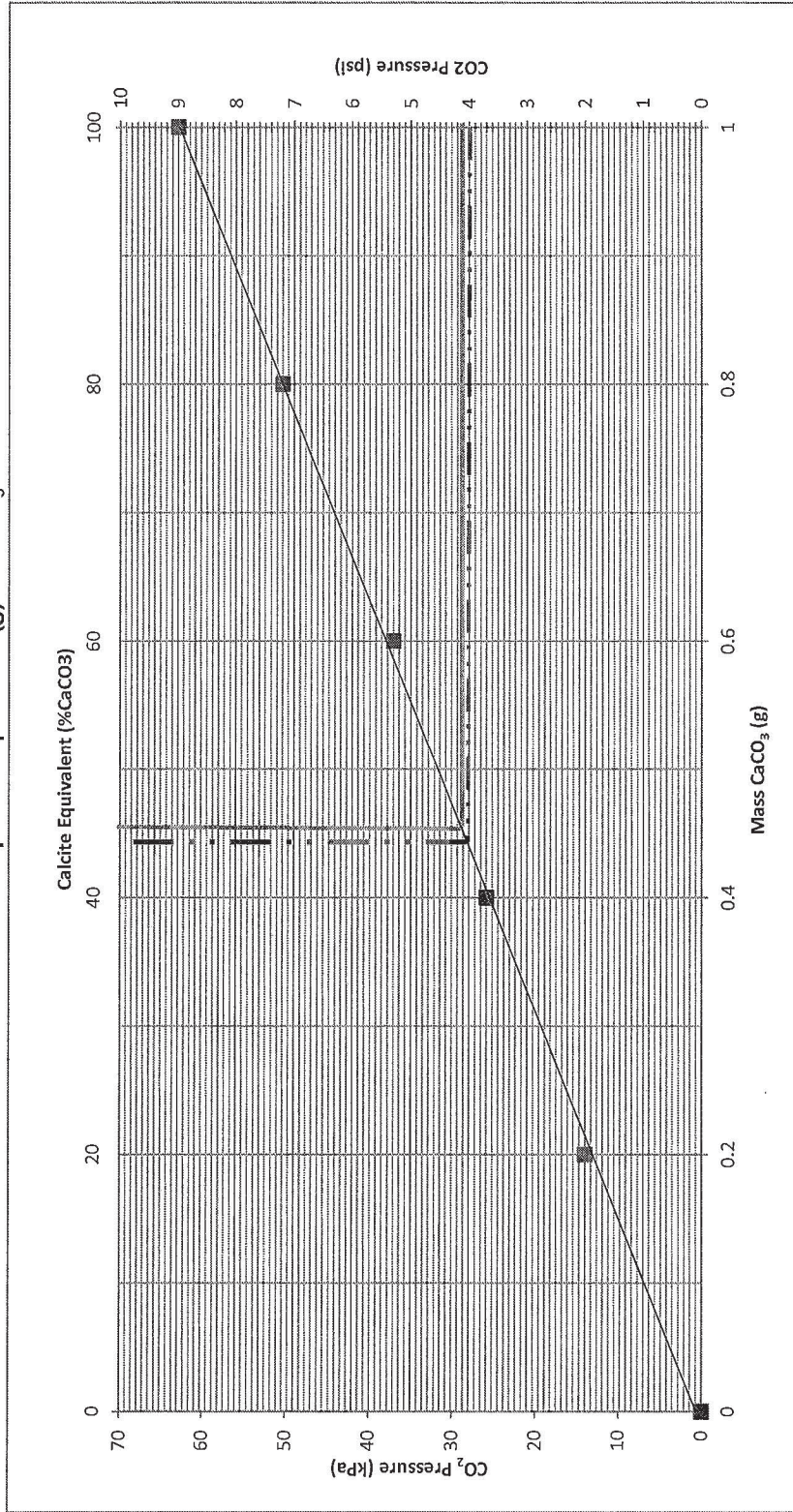
[illegible]

Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00667	3/1/2015
No. 40 Sieve	CLT-0381	4/8/2014

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



— 10 min. reading
- - - 20 and 30 min readings

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

Project No. 6468-13-1072

Project Name: Clinch River SMR

AMEC Lab Location: Charlotte, NC

Assignment Sheet Date: 9/24/2013

Circle One: Safety Related / Non Safety Related

Tested by: M. Hamilton Date: 12/30/2013

Reviewed by: T. Landis Date: 1/6/2014

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dis	1/6/2014

Sample Description: Rock Core MP-202, L6-2 (78.5' to 79.1')

[illegible]

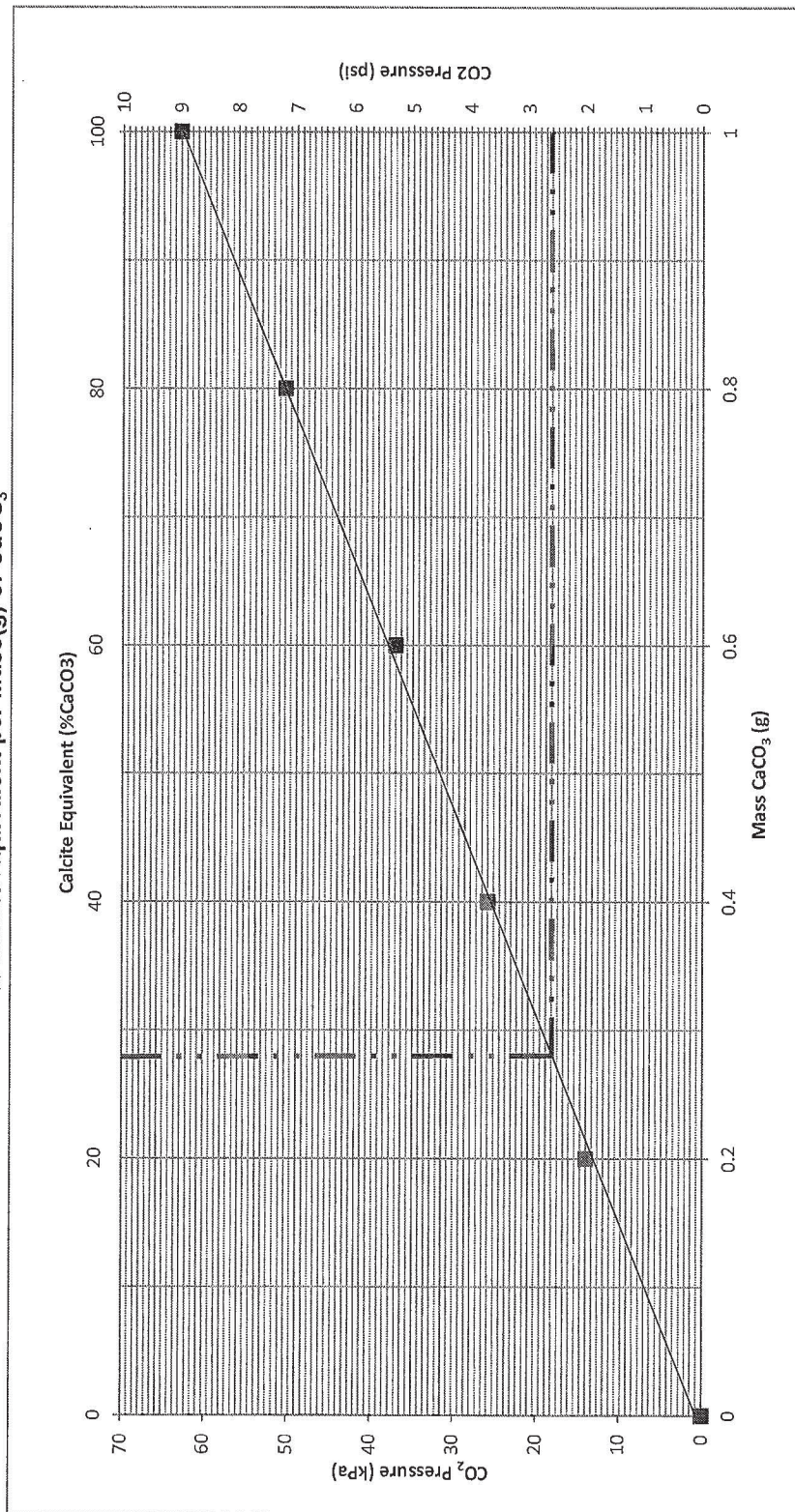
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00867	3/1/2015
No. 40 Sieve	CLT-0381	4/8/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



— 10 min. readings
- - - 20 min. readings



Circle One: ☒ Safety Related ☐ Non Safety Related

1/2/2014

Sample Description: Rock Core MP-202, L6-3 (113.1' to 113.7')

[illegible]

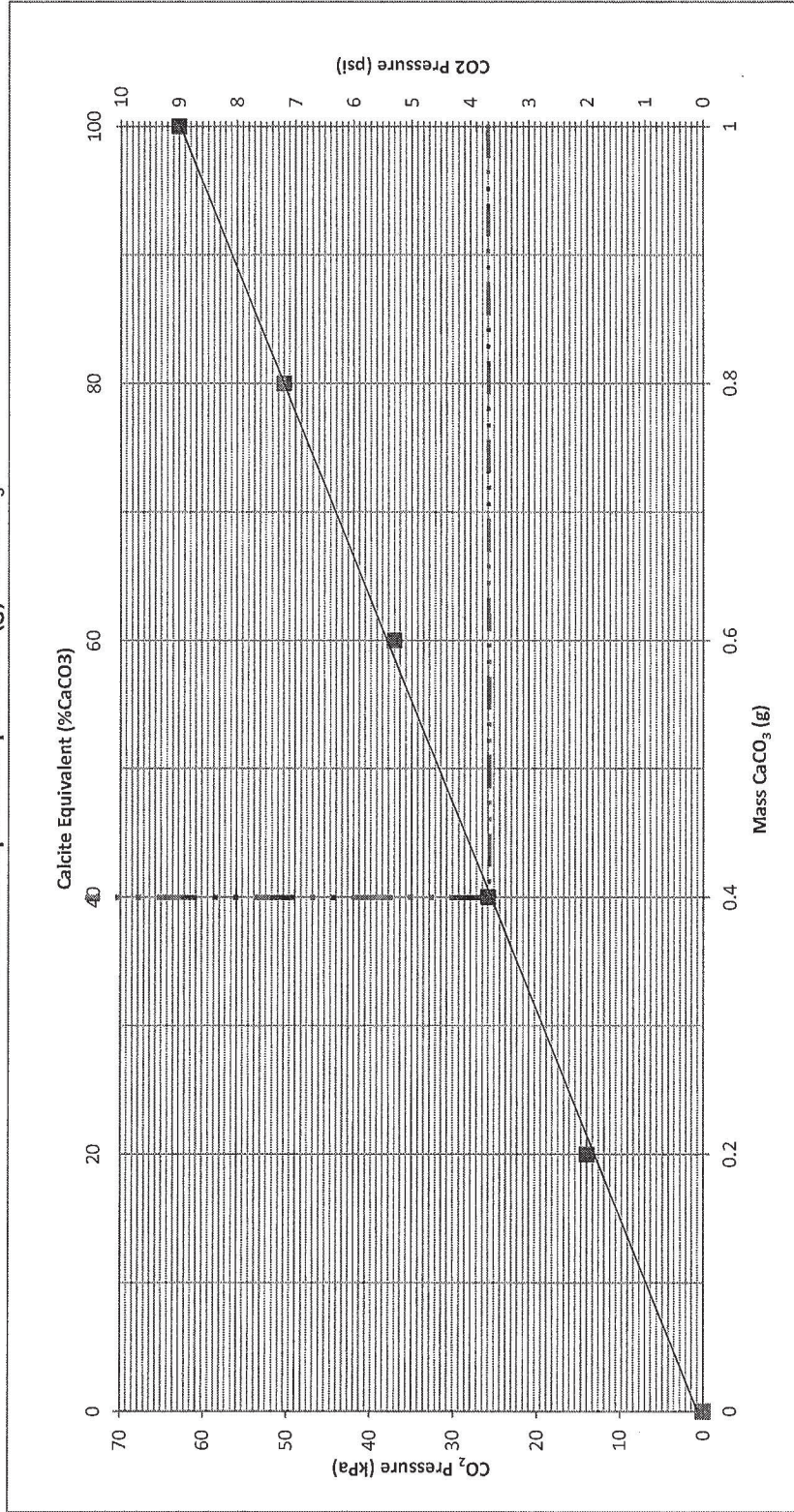
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00667	3/1/2015
No 40 Sieve	CLT-0381	4/8/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



— 10 min. readings
- - - 20 min. readings

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

Project No. 6468-13-1072

Project Name: Clinch River SMR

AMEC Lab Location: Charlotte, NC

Assignment Sheet Date:

Circle One: Safety Related / Non Safety Related

Tested by: G. Williams

Reviewed by: T. Landis

Date: 12/16/2013

Date: 12/18/2013

Sample Description: Rock Core MP-202, L1-22 (148.7' to 149.6')

[illegible]

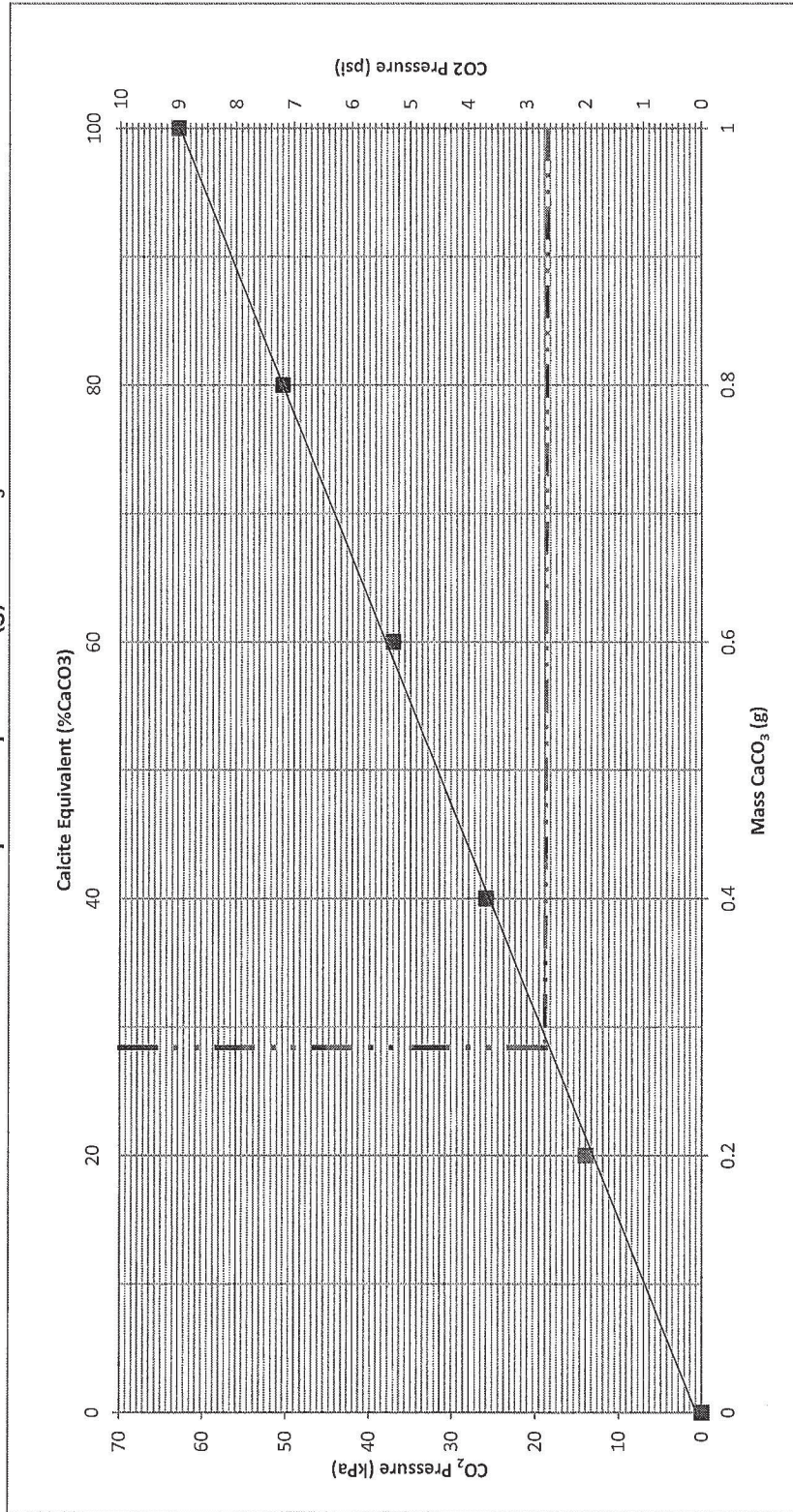
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00867	3/1/2015
No. 40 Sieve	CLT-0381	4/8/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



— * — 10 and 20 min. readings

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

Project No. 6468-13-1072

Project Name: Clinch River SMR

AMEC Lab Location: Charlotte, NC

Assignment Sheet Date: 9/24/2013

Circle One: Safety Related / Non Safety Related

Tested by: M. Hamilton Date: 12/30/2013

Reviewed by: T. Landis Date: 1/6/2014

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Sample Description: Rock Core MP-202, L6-4 (195.8' to 197.9')

[illegible]

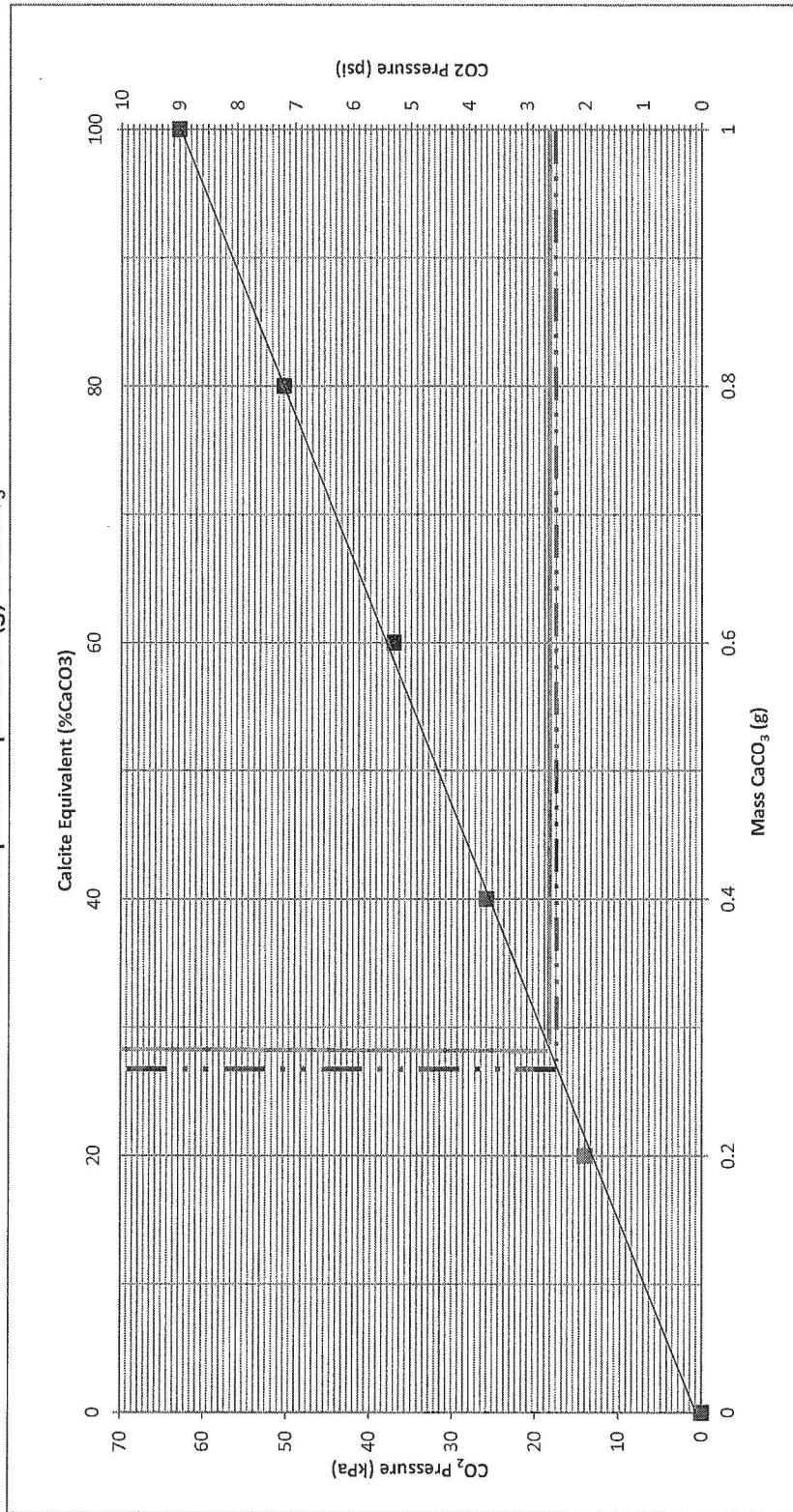
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00667	3/1/2015
No. 40 Sieve	CLT-0381	4/8/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



--- 10 min. reading
 — 20 and 30 min readings



Circle One: Safety Related / Non Safety Related

Tested by: M. Hamilton ^{meH} Date: 12/30/2013
Reviewed by: T. Landis Date: 1/6/2014

Sample Description: Rock Core MP-202, L6-5 (241.0' to 242.4')

[illegible]

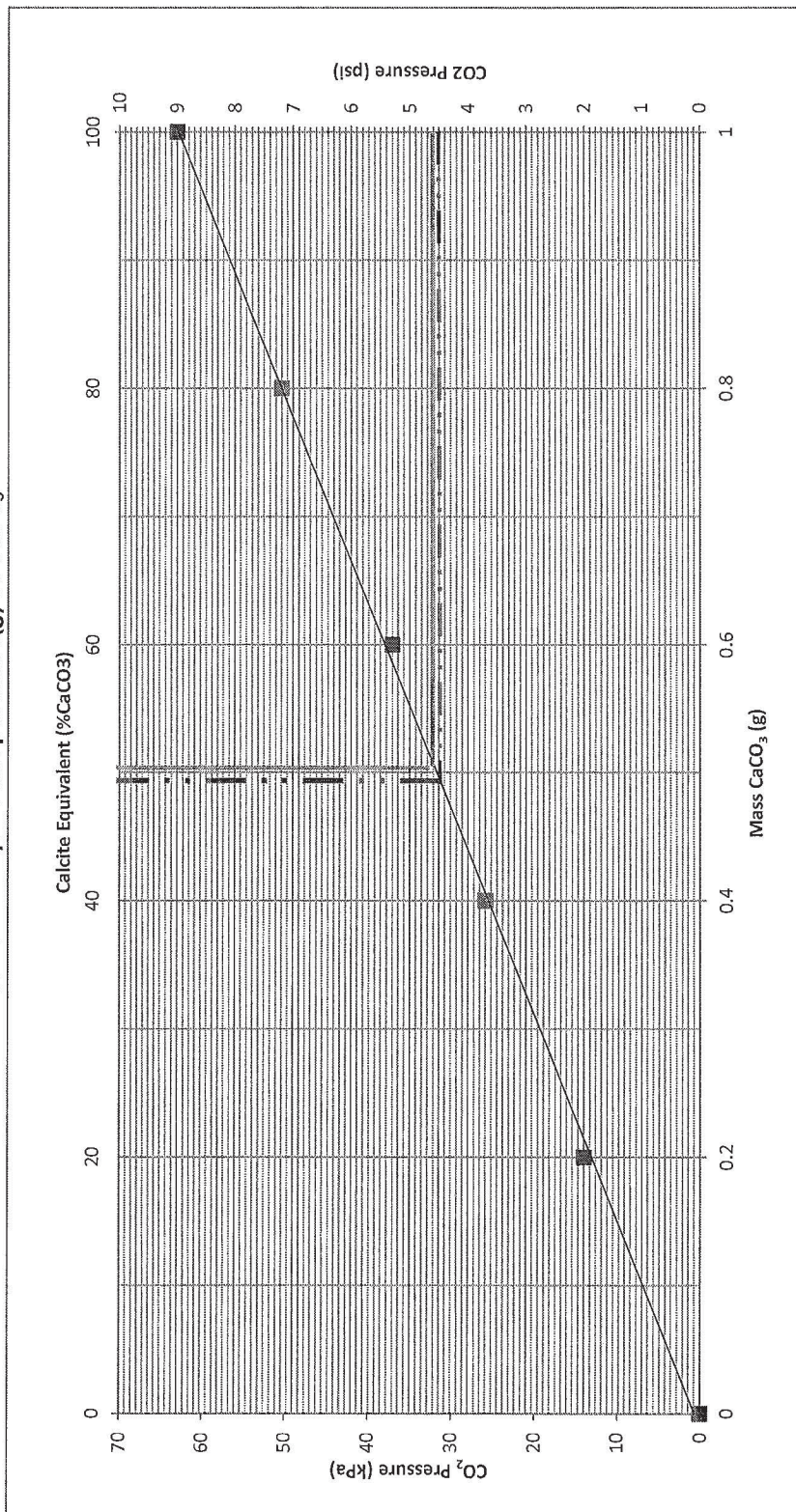
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00667	3/1/2015
No. 40 Sieve	CLT-0381	4/8/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



--- 10 min. reading
 — 20 and 30 min readings



Circle One: Safety Related / Non Safety Related

Reviewed by: T. Landis Date: 1/2/2014

Sample Description: Rock Core MP-202, L6-6 (247.8' to 249.0')

[illegible]

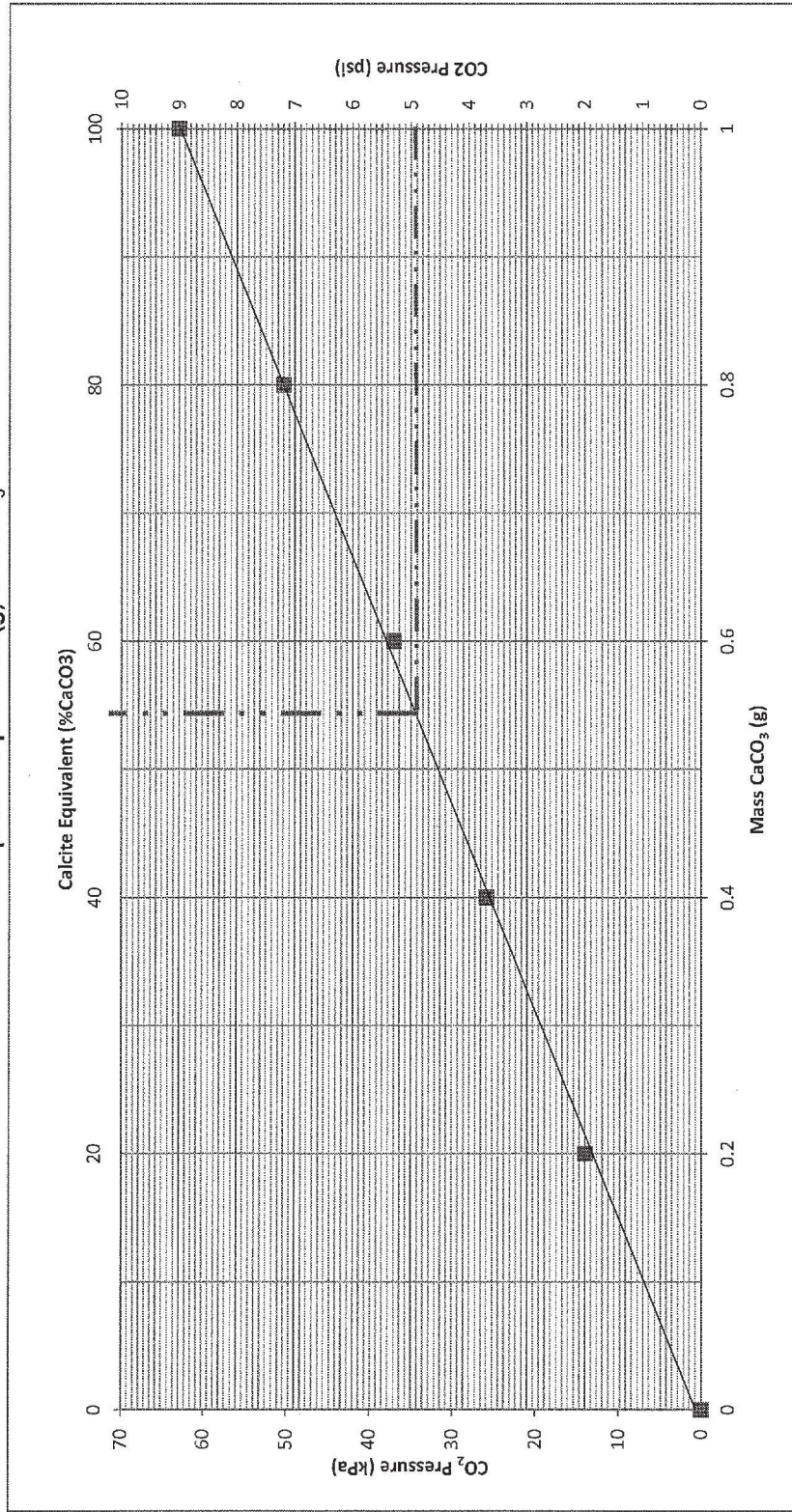
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00667	3/1/2015
No. 40 Sieve	CLT-0381	4/8/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

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% Calcite Equivalent per Mass(g) of CaCO_3



— 10 min. readings
- - - 20 min. readings

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

Project No. 6468-13-1072

Project Name: Clinch River SMR

AMEC Lab Location: Charlotte, NC

Assignment Sheet Date: 9/24/2013

Circle One: ☒ Safety Related ☐ Non Safety Related

Tested by: M. Hamilton Date: 1/2/2014

Reviewed by: T. Landis Date: 1/6/2014

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 12/13/14

Sample Description: Rock Core MP-202, L6-9 (385.2' to 385.9')

[illegible]

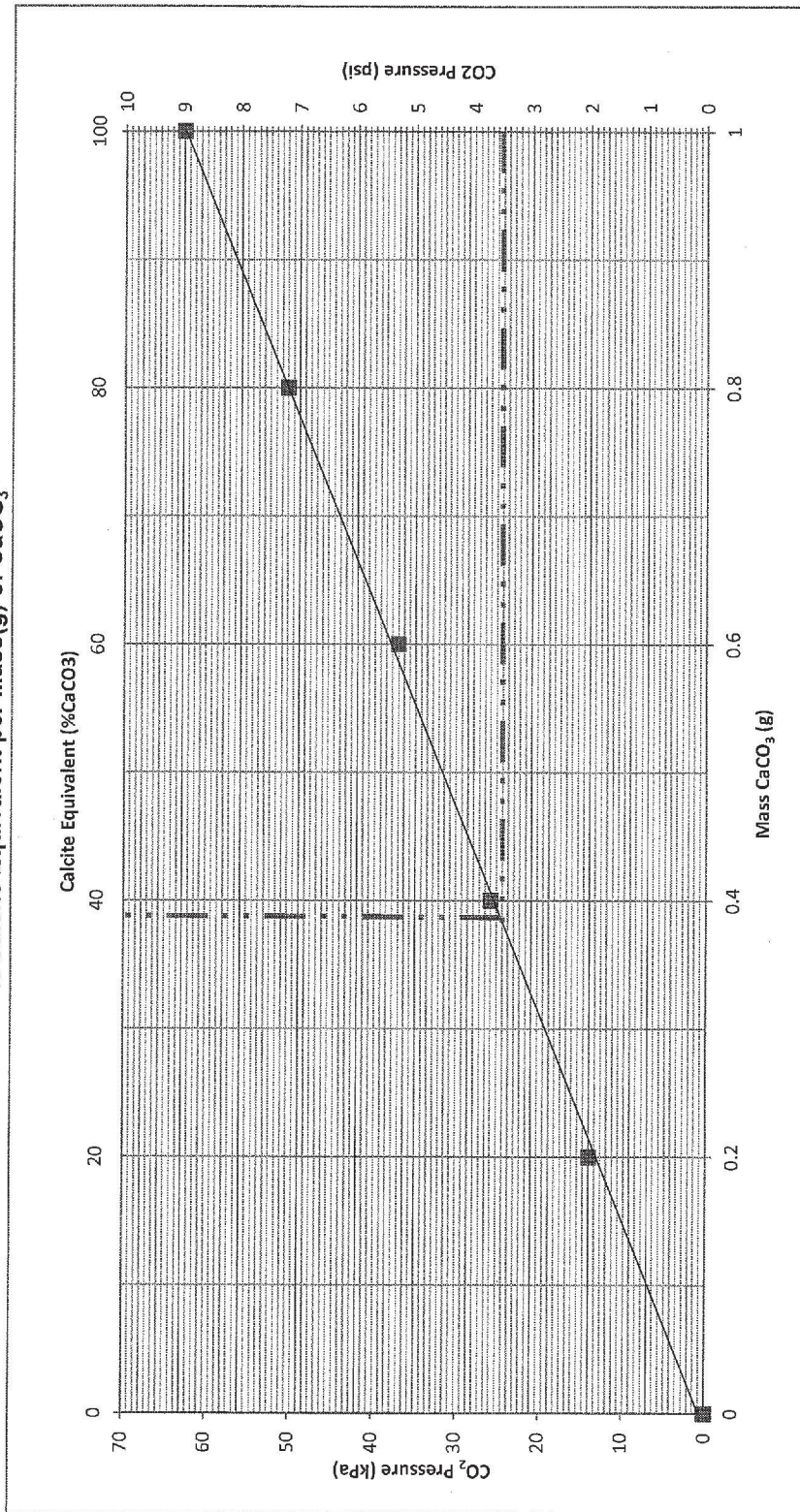
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00667	3/1/2015
No. 40 Sieve	CLT-0381	4/18/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



10 and 20 min. readings



Circle One: Safety Related / Non Safety Related

Tested by: M. Hamilton Date: 1/1/14 ^{MEH}
Reviewed by: T. Landis Date: 1/6/2014

Sample Description: Rock Core MP-401, L6-19 (79.0' to 79.6')

[illegible]

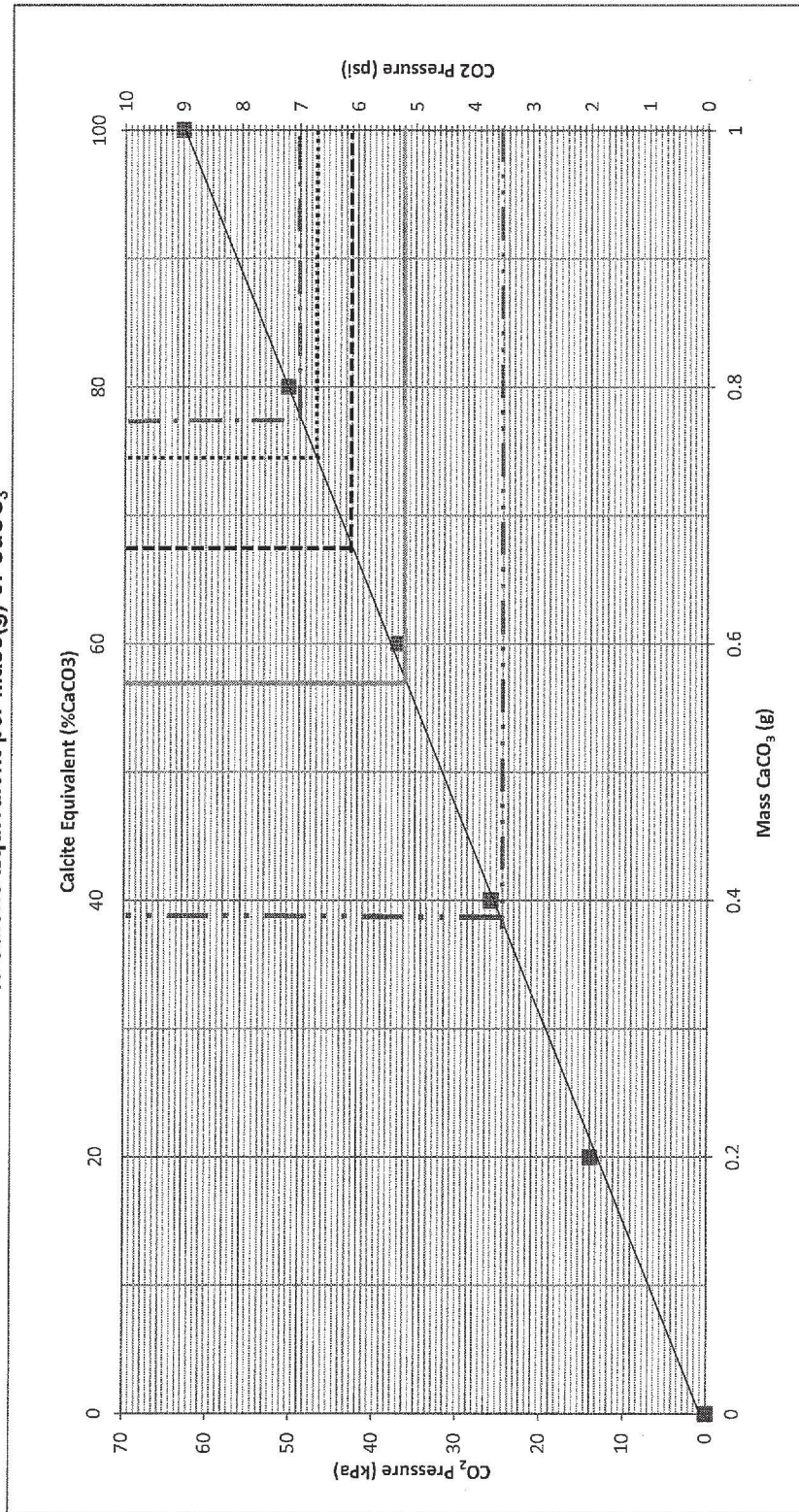
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00667	3/1/2015
No. 40 Sieve	CLT-0381	4/8/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



10 min. reading
 20 min. reading
 30 min. reading
 40 min. reading
 50 and 60 min. readings

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

Project No. 6468-13-1072

Project Name: Clinch River SMR

AMEC Lab Location: Charlotte, NC

Assignment Sheet Date: 9/24/2013

Circle One: Safety Related / Non Safety Related

Tested by: M. Hamilton ^{MEH} _{11/1/14}

Date: _____

12/27/2013

Reviewed by: T. Landis

Date:

1/2/2014

Sample Description: Rock Core MP-401, L6-20 (216.4' to 216.9')

[illegible]

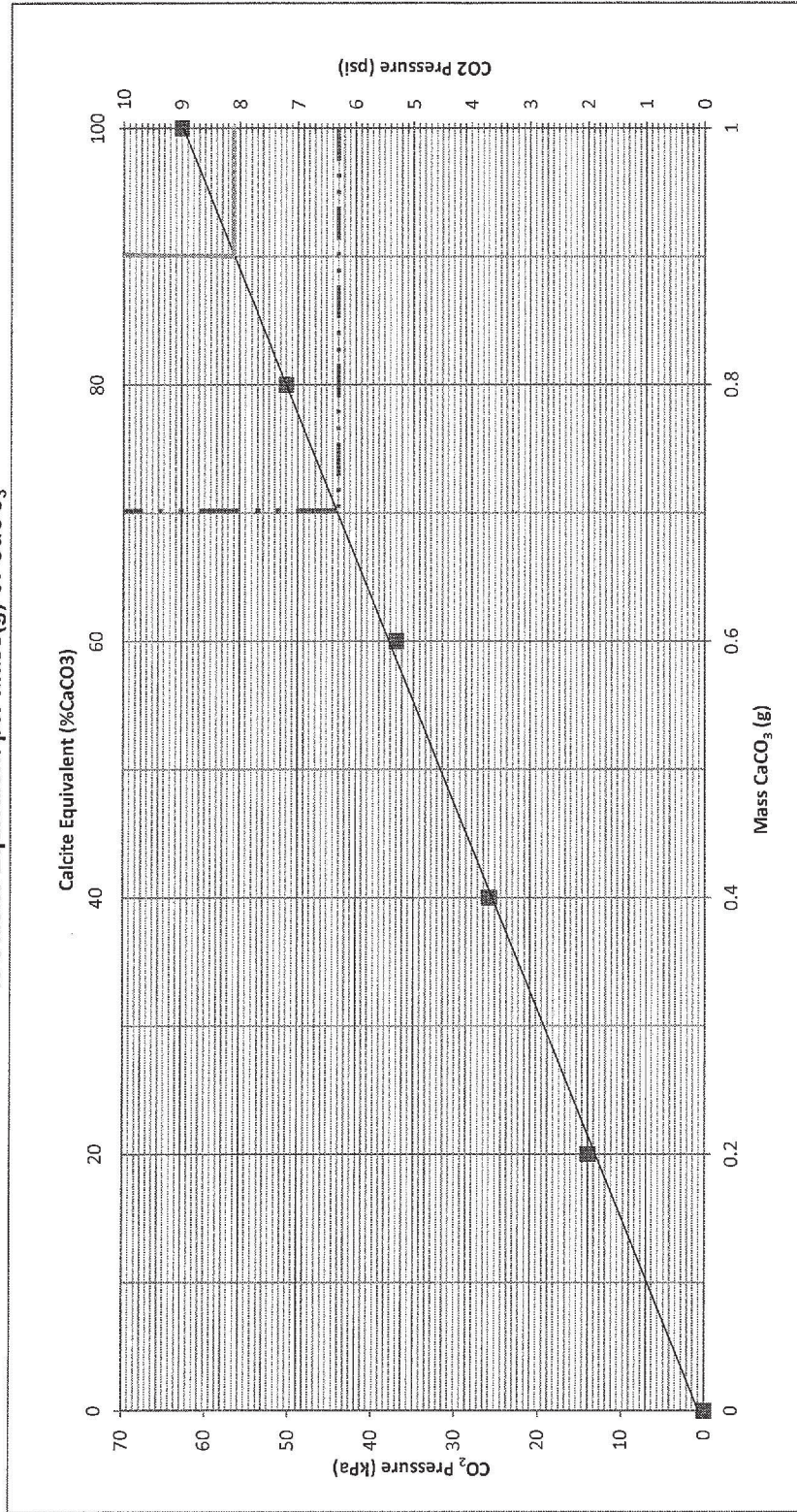
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00867	3/1/2015
No. 40 Sieve	CLT-0381	4/8/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



10 min. reading
20 and 30 min readings

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

Project No. 6468-13-1072

Project Name: Clinch River SMR

AMEC Lab Location: Charlotte, NC

Assignment Sheet Date: 9/24/2013

Circle One: Safety Related / Non Safety Related

Tested by: M. Hamilton Date: 12/31/2013

Reviewed by: T. Landis Date: 1/6/2014

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Sample Description: Rock Core MP-415, L6-17 (25.1' to 25.7')

[illegible]

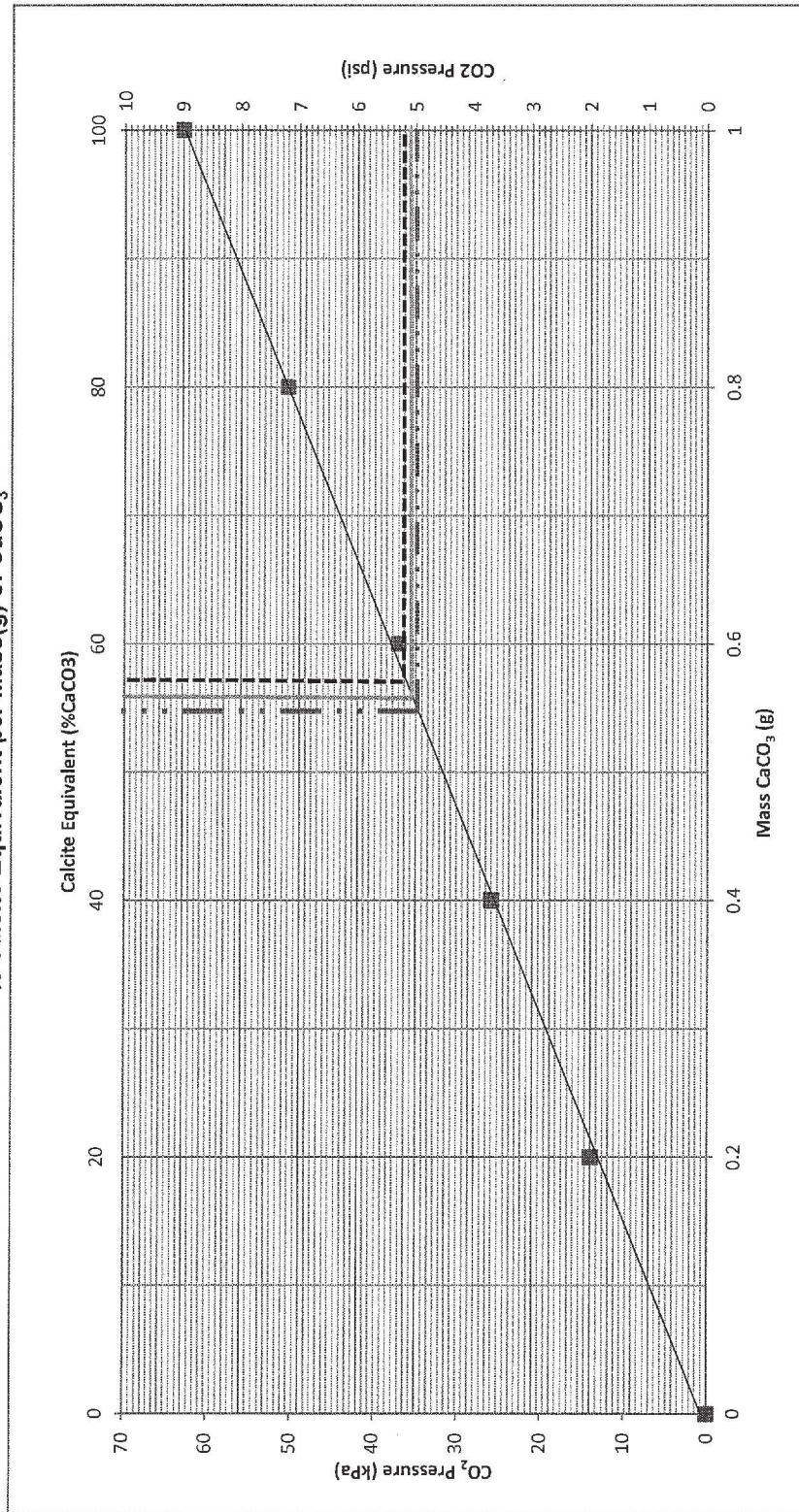
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00867	3/1/2015
No 40 Sieve	CLT-0381	4/8/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



— 10 min. reading
 - - - 20 min. reading
 . . . 30 and 40 min. readings



Circle One: Safety Related / Non Safety Related

Tested by: M. Hamilton Date: 12/27/2013
Reviewed by: T. Landis Date: 1/2/2014

Reviewed by: T. Landis Date:

Sample Description: Rock Core MP-415, L6-16 (28.5' to 28.9')

[illegible]

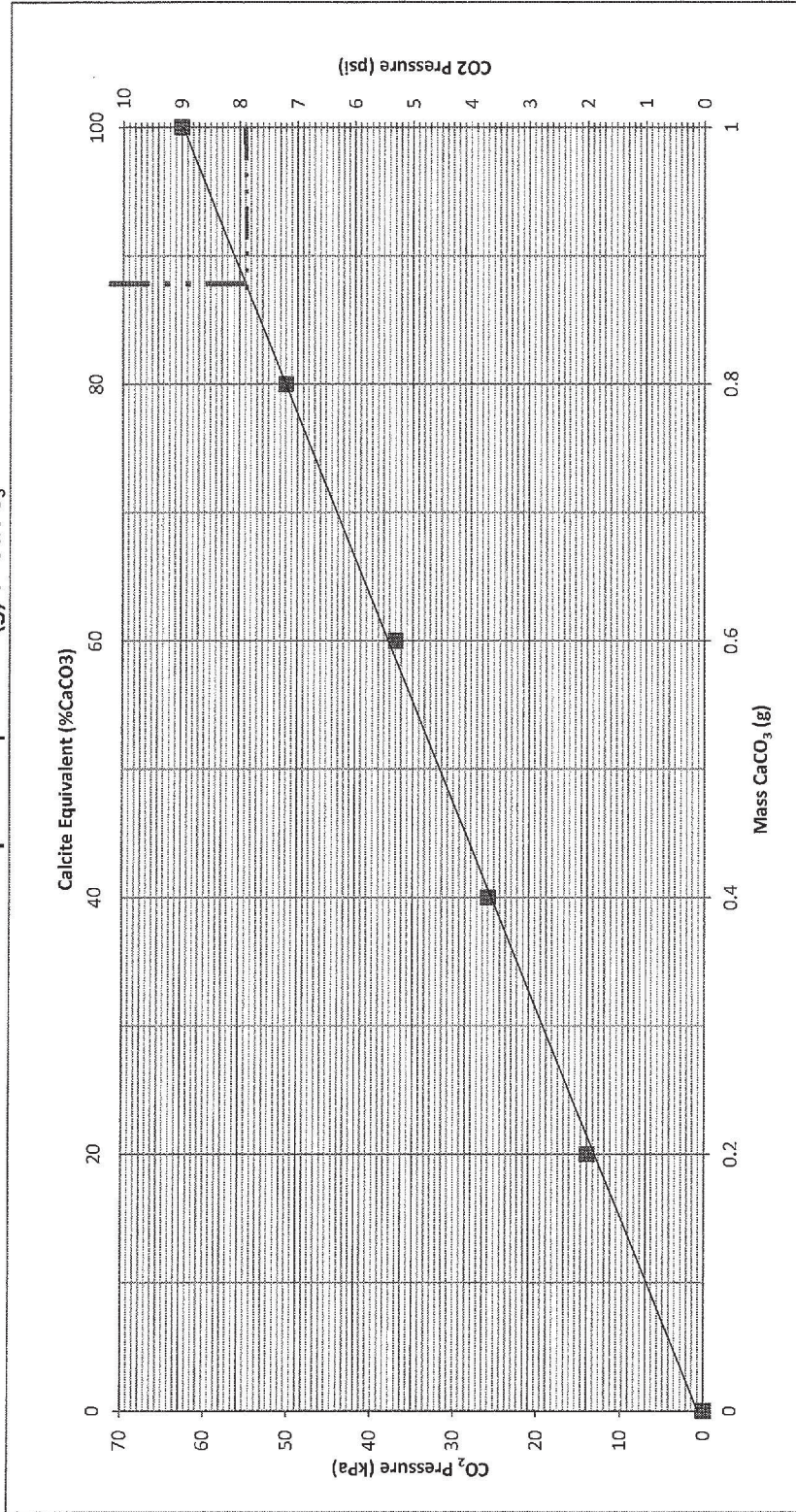
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00667	3/1/2015
No. 40 Sieve	CLT-0381	4/8/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



— 10 min. readings
- - - 20 min. readings

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

Project No. 6468-13-1072

Project Name: Clinch River SMR

AMEC Lab Location: Charlotte, NC

Assignment Sheet Date: 9/24/2013

Circle One: Safety Related / Non Safety Related

Tested by: M. Hamilton Date: 12/31/2013

Date: 12/31/2013

Reviewed by: T. Landis Date: 1/6/2014

Date:

Sample Description: Rock Core MP-415, L6-18 (38.6' to 39.1')

[illegible]

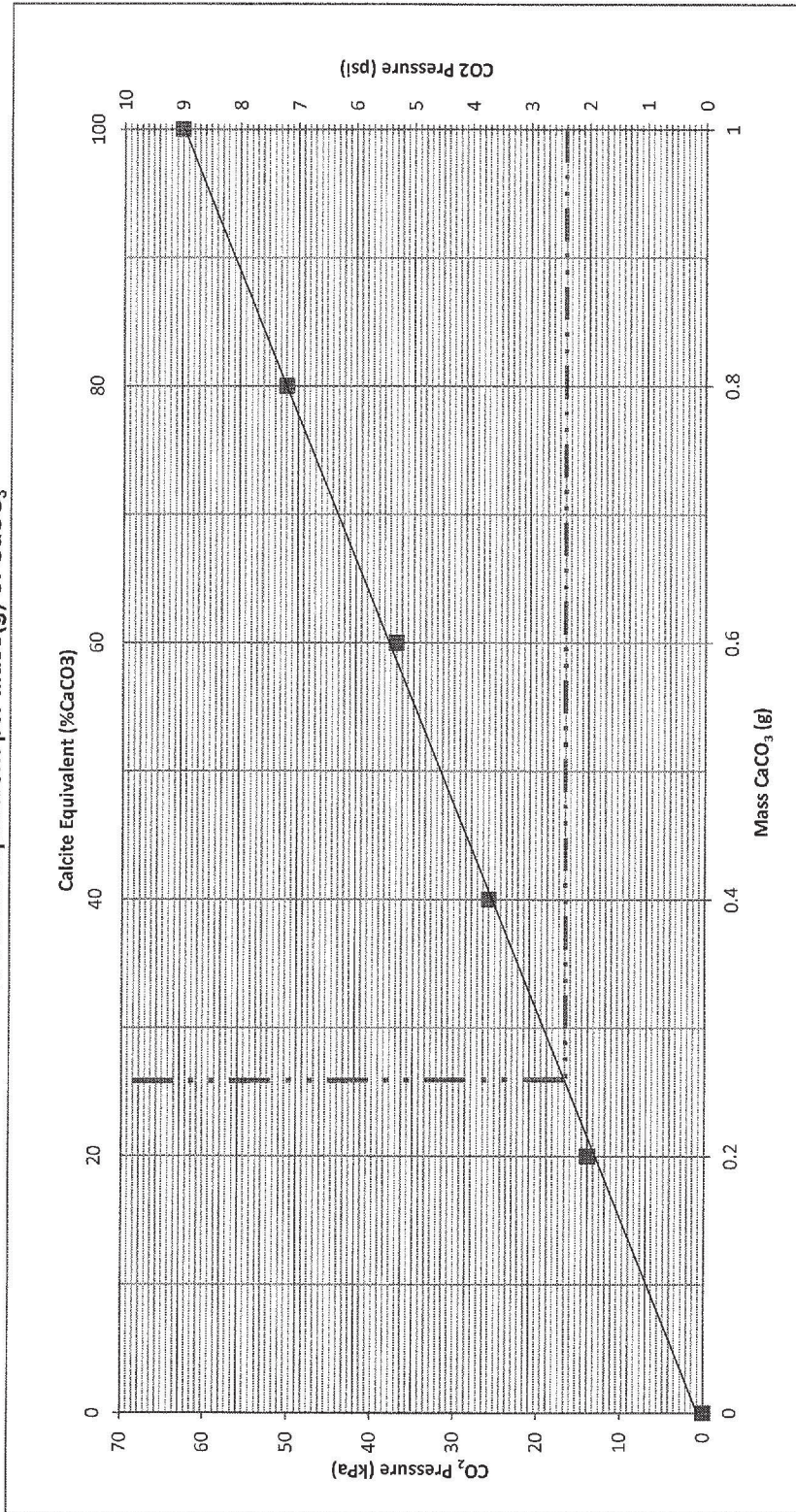
Equipment Used:	Equipment ID	Cal. Due Date
Scale	CLT-0370	9/18/2014
Reaction Chamber	CLT-0734	9/13/2014
HCL	CHLT-00667	3/1/2015
No. 40 Sieve	CLT-0381	4/8/2014

Note: If no reaction occurs increase amount of sample to next weight increment and rerun test.

* Please see attached Calibration Chart

ASTM D-4373 Rapid Determination of Carbonate Content of Soils

% Calcite Equivalent per Mass(g) of CaCO_3



--- 10 and 20 min. readings