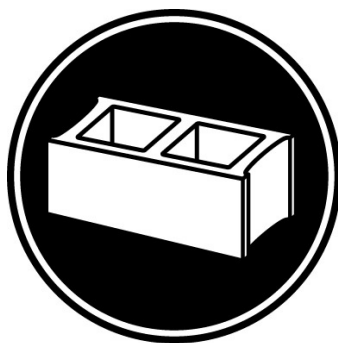




Pallet Tag Program Laboratory Report

Hebron Brick Hebron, ND



Project No. 1812-01 PTP

Prepared For:



Prepared By:

J. Lucas Comadoll

J. Lucas Comadoll
Project Testing Technician
AMT Laboratories

December 2018



LABORATORY REPORT

AMT Laboratories • 3741 Greenway Circle • Lawrence, Kansas 66046 • (888) 376-3600

FOR: Corey Schultz, Hebron Brick
cc: Jake Boyer, PROSOCO, Inc.
Al Morris, PROSOCO, Inc.

SUBJECT: Hebron Brick
Hebron, ND
Pallet Tag Evaluation

DATE: December 17, 2018
PROJECT: 1812-01 PTP

SAMPLES SUBMITTED:

Sample	Name	Color	Size
(10) Bricks	"Overture"	Gray with Gold Specks	8" x 2" x 0.5"

SUBMITTED BY: Corey Shultz
Hebron Brick
1000 Washington Ave East
Hebron, ND 58638



PURPOSE OF TEST:

- To determine the most appropriate PROSOCO, Inc. new construction cleaner(s) for the submitted sample.

PRODUCTS EVALUATED:

New Construction Cleaning	Dilution:
Sure Klean® 600 Detergent	1:6; 1:8
Sure Klean® Vana Trol®	1:6; 1:8
Enviro Klean® Safety Klean	1:2; 1:3

TEST METHODS: New Construction Cleaning

NOTE: It was unclear whether the submitted “Overture” brick had a slight haze or resting sediment on the surface; therefore, a second control that was pressure rinsed using only water was implemented for comparison. It appeared that pressure rinsing alone had a slight effect on the surface finish and exposed some of the small craters on the surface of the brick. The areas cleaned with the PROSOCO cleaners were compared with both the uncleaned samples and the pressure rinsed samples.

Sure Klean® 600 Detergent, Sure Klean® Vana Trol®, and Enviro Klean® Safety Klean were evaluated to determine the optimal concentration of cleaner which leaves the external surface looking most like the uncleaned surface of the “Overture” brick.

Surface Finish Removal is the visual examination of the sample comparing the surface finish of the uncleaned surface to the surface finish cleaned with selected product(s) at given dilutions.

Substrate Deterioration is the visual examination of the sample comparing the uncleaned surface to surfaces cleaned with selected product(s) at given dilutions looking for any potential erosion/digestion of the sample.

Color Change is the visual examination comparing the color of the uncleaned surface to the color of surfaces cleaned with selected products at given dilutions.

Staining is the visual examination for changes that are the result of a chemical reaction that leaves a staining precipitate.

The following is the scale used for reporting results of both categories:

- 0 – **No change** compared to uncleaned surface
- 1 – **Slight change** compared to uncleaned surface
- 2 – **Moderate change** compared to uncleaned surface
- 3 – **Significant change** compared to uncleaned surface

Cleaning Procedure:

1. Pre-wet the surface and apply diluted cleaning solution according to PROSOCO, Inc. Product Data Sheet.
2. Allow for an appropriate dwell time:
 - 600 Detergent5 minutes
 - Vana Trol®5 minutes
 - Safety Klean.....5 minutes
3. Reapply cleaning solution; do not let cleaner dry into brick.
4. Rinse thoroughly with plenty of fresh water.*
5. Allow the sample to dry for at least 18 hours and visually examine.
6. Compare the uncleaned surfaces to the cleaned surfaces for the best match.

***Rinsing Equipment** – Masonry washing equipment generating approximately 700-800 psi with a water flow rate of 8 gallons per minute delivered through a 45 degree fan spray tip was used for rinsing.

TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning

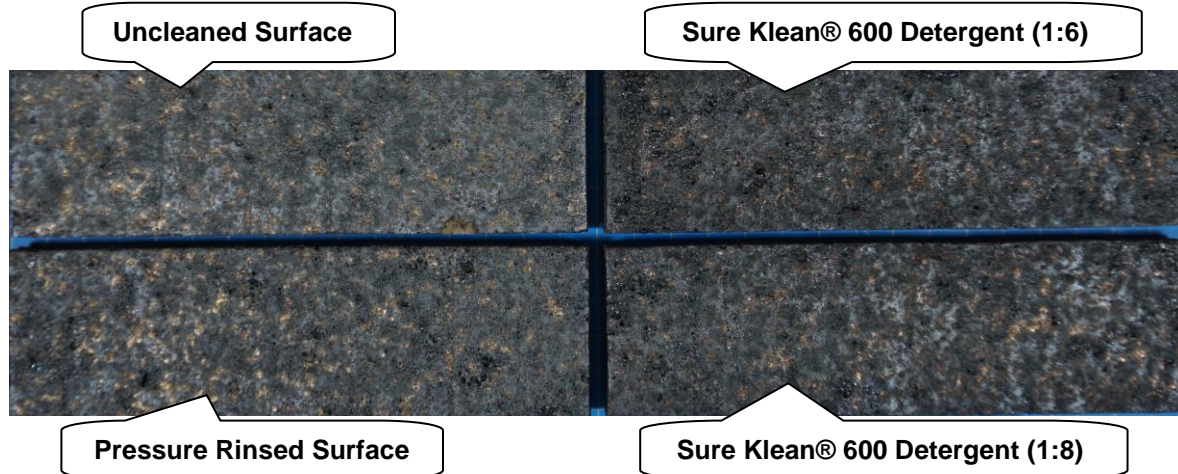
Scale used for reporting results of both categories:
0 – No change compared to uncleaned surface
1 – Slight change compared to uncleaned surface
2 – Moderate change compared to uncleaned surface
3 – Significant change compared to uncleaned surface

Name: "Overture" brick compared to uncleaned surface					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
600 Detergent	1:6	3	1	3	0
600 Detergent	1:8	3	1	3	0
Vana Trol®	1:6	2	1	2	0
Vana Trol®	1:8	2	1	2	0
Safety Klean	1:2	2	1	2	0
Safetly Klean	1:3	2	1	2	0

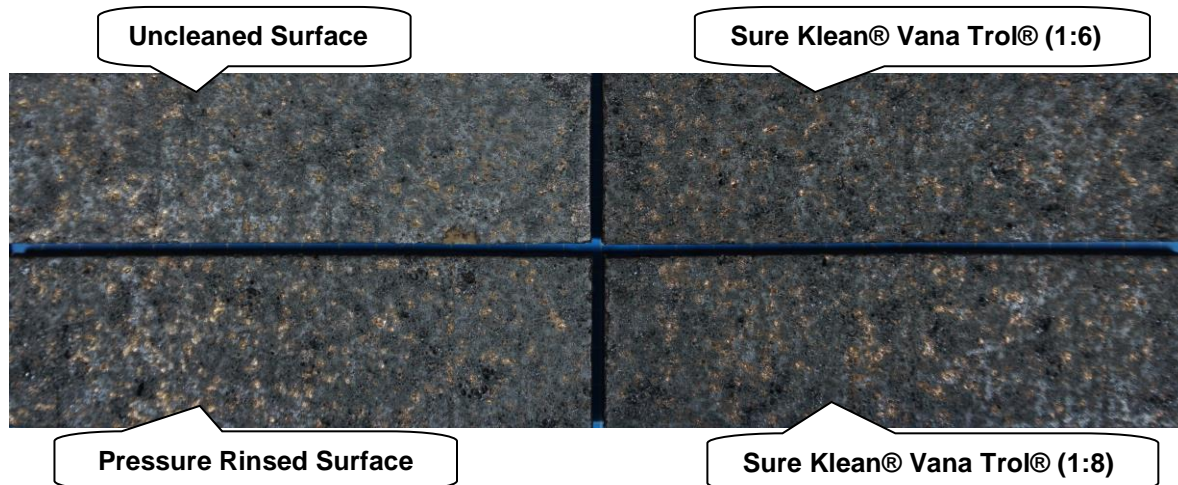
Name: "Overture" brick compared to pressure rinsed surface					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
600 Detergent	1:6	2	0	2	0
600 Detergent	1:8	2	0	2	0
Vana Trol®	1:6	1	0	1	0
Vana Trol®	1:8	1	0	1	0
Safety Klean	1:2	1	0	1	0
Safetly Klean	1:3	1	0	1	0

TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning (cont.)

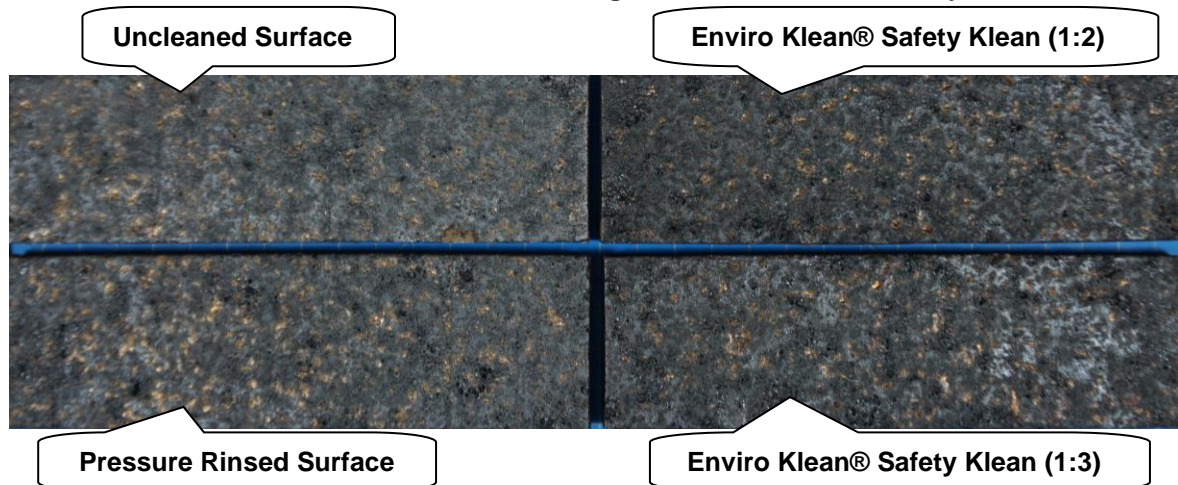
“Overture” Brick After Cleaning with Sure Klean® 600 Detergent



“Overture” Brick After Cleaning with Sure Klean® Vana Trol®



“Overture” Brick After Cleaning with Enviro Klean® Safety Klean



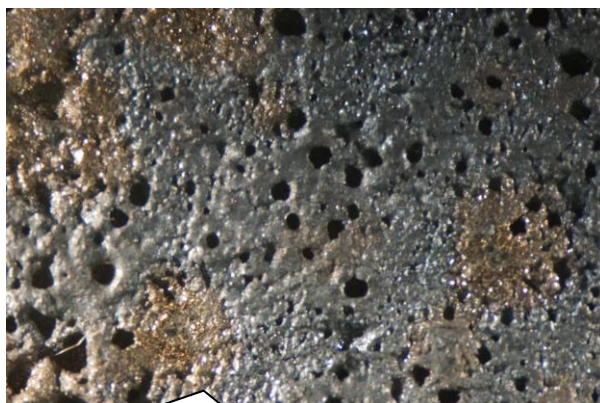
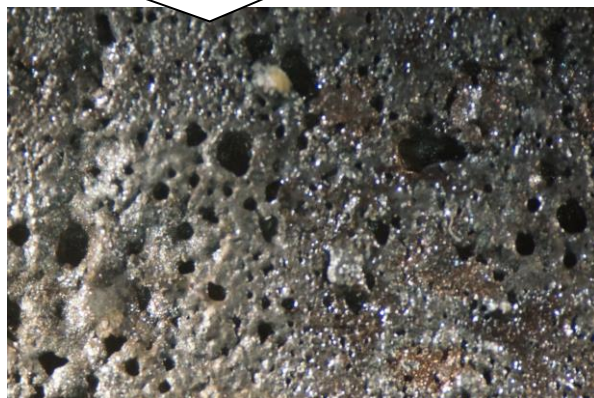
PHOTOMICROGRAPHS: New Construction Cleaning

“Overture” Brick After Cleaning with Sure Klean® 600 Detergent

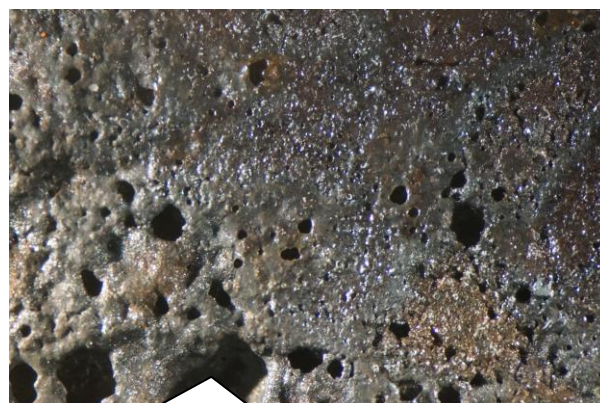
Uncleaned Surface



Sure Klean® 600 Detergent (1:6)



Pressure Rinsed Surface



Sure Klean® 600 Detergent (1:8)

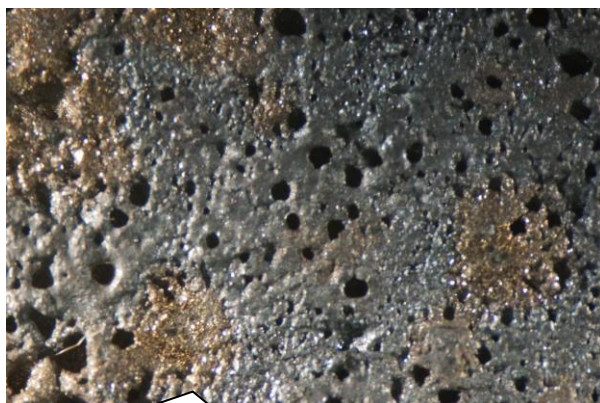
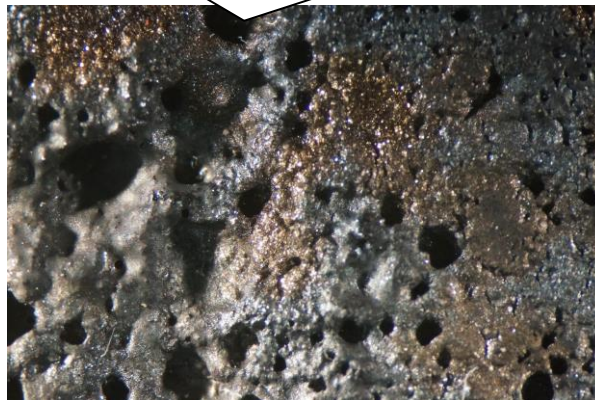
PHOTOMICROGRAPHS: New Construction Cleaning

“Overture” Brick After Cleaning with Sure Klean® Vana Trol®

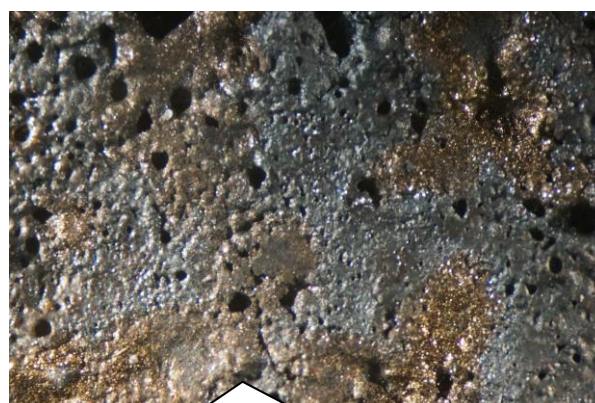
Uncleaned Surface



Sure Klean® Vana Trol® (1:6)



Pressure Rinsed Surface



Sure Klean® Vana Trol® (1:8)

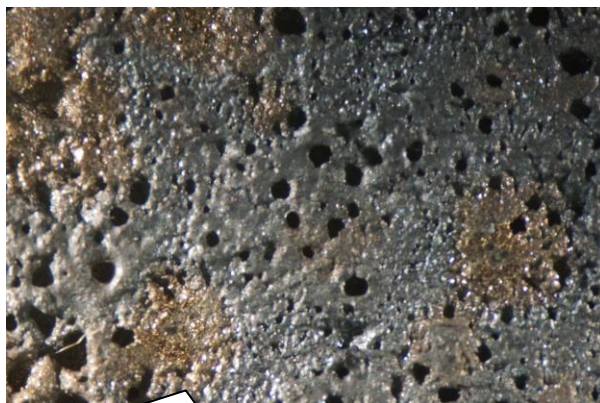
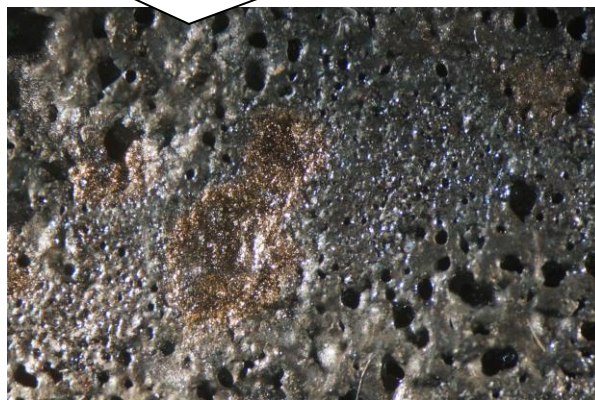
PHOTOMICROGRAPHS: New Construction Cleaning

“Overture” Brick After Cleaning with Enviro Klean® Safety Klean

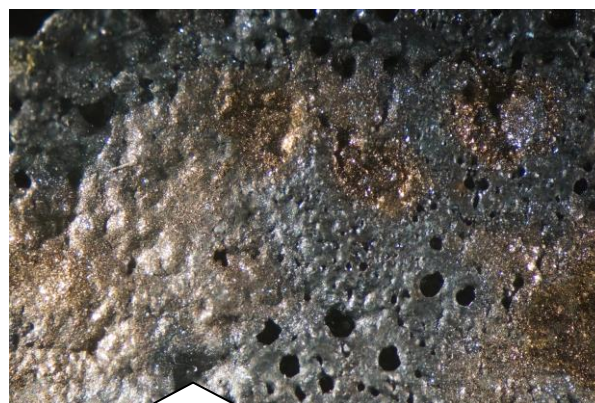
Uncleaned Surface



Enviro Klean® Safety Klean (1:2)



Pressure Rinsed Surface



Enviro Klean® Safety Klean (1:3)

CONCLUSIONS – New Construction Cleaning

Compared to the Uncleaned Surface

Both dilutions of Sure Klean® 600 Detergent removed a significant amount of the black aggregate and some of the gold specks, resulting in a significantly darker appearance compared to the uncleaned surface. Both dilutions of Sure Klean® Vana Trol® and Enviro Klean® Safety Klean removed a moderate amount of the black aggregate and resulted in a moderate change to the appearance compared to the uncleaned surface.

Compared to the Pressure Rinsed Surface

Both dilutions of Sure Klean® 600 Detergent removed a moderate amount of the black aggregate and some of the gold specks, resulting in a moderately darker appearance compared to the pressure rinsed surface. Both dilutions of Sure Klean® Vana Trol® and Enviro Klean® Safety Klean removed a slight amount of the black aggregate and resulted in a slight change to the appearance compared to the uncleaned surface.

None of the cleaners caused any staining, however Sure Klean® 600 Detergent did appear to remove a moderate amount of the gold specks from the surface of the brick.

NOTE: Because none of the new construction cleaners left the surface of the “Overture” brick unaltered in appearance, an additional evaluation was conducted using Enviro Klean® 2010 All Surface Cleaner diluted with ten parts water. Enviro Klean® 2010 All Surface Cleaner did not alter the appearance of the “Overture” brick. Those test results, photographs, and conclusions can be seen on the following pages.

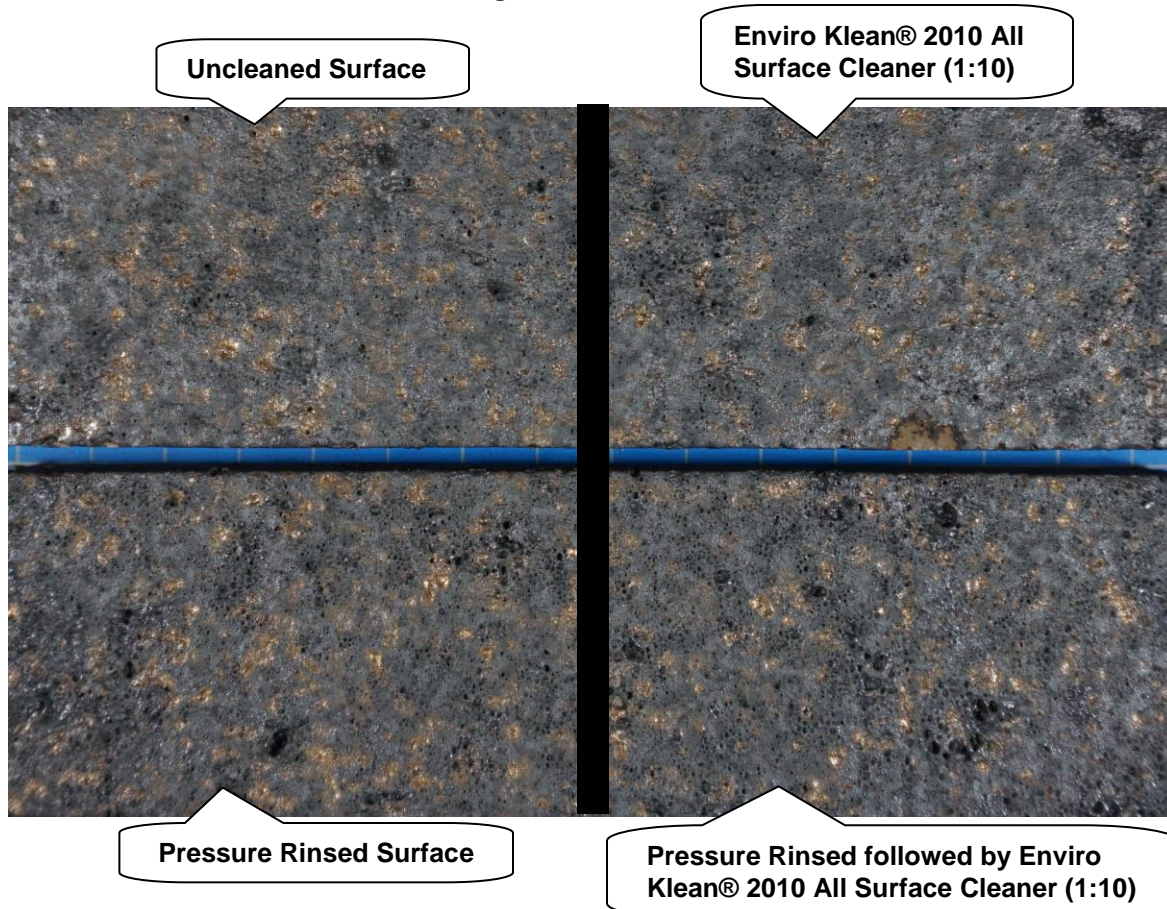
TEST RESULTS AND PHOTOGRAPHS: Enviro Klean® 2010 All Surface Cleaner

Scale used for reporting results of both categories:
0 – No change compared to uncleaned surface
1 – Slight change compared to uncleaned surface
2 – Moderate change compared to uncleaned surface
3 – Significant change compared to uncleaned surface

Name: “Overture” brick compared to uncleaned surface					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
2010 All Surface Cleaner	1:10	0	0	0	0

Name: “Overture” brick compared to pressure rinsed surface					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
2010 All Surface Cleaner	1:10	0	0	0	0

“Overture” Brick After Cleaning with Enviro Klean® 2010 All Surface Cleaner



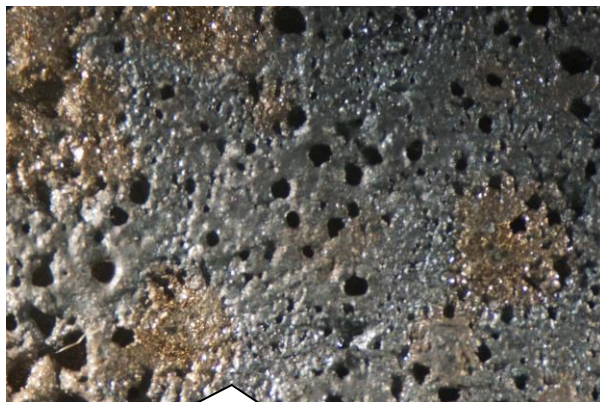
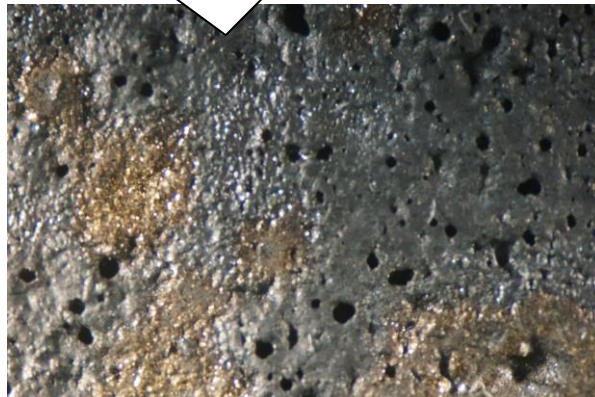
TEST RESULTS AND PHOTOMICROGRAPHS: Enviro Klean® 2010 All Surface Cleaner (cont.)

“Overture” Brick After Cleaning with Enviro Klean® 2010 All Surface Cleaner

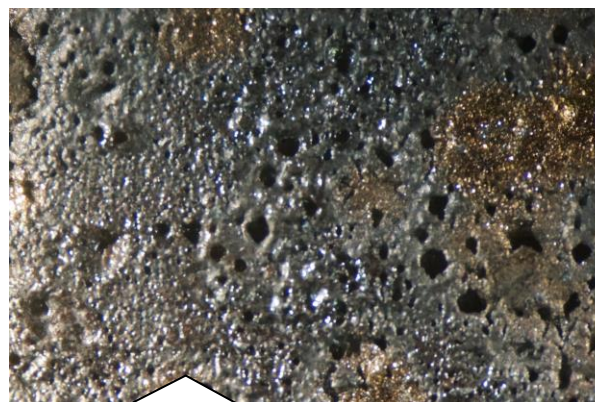
Uncleaned Surface



**Enviro Klean® 2010 All
Surface Cleaner (1:10)**



Pressure Rinsed Surface



**Pressure Rinsed followed by Enviro
Klean® 2010 All Surface Cleaner (1:10)**

RECOMMENDATIONS: New Construction Cleaning

Recommendations for cleaning for the “Overture” brick submitted by Hebron Brick, Hebron, ND are provided in the chart below. Recommendations are based on the cleaner and dilution that provided the best match to the uncleaned surface.

Sample	New Construction Cleaning
“Overture” Brick	Enviro Klean® 2010 All Surface Cleaner (1:10) (Recommended for general soiling) OR Sure Klean® Vana Trol® (1:6) or (1:8) (Recommended for mortar smear removal) OR Use Enviro Klean® Safety Klean (1:2) or (1:3) (Recommended for mortar smear removal)

The most appropriate cleaner and dilution should be determined on the specific job-site, and will be dependent primarily on the nature and severity of soiling present at that location.

When choosing the most appropriate product for the desired result, use Sure Klean® 600 Detergent as a general purpose, concentrated acidic cleaner for brick, tile and concrete surfaces. Use Sure Klean® Vana Trol® for new masonry surfaces that are subject to vanadium, manganese, and other metallic stains. Use Enviro Klean® Safety Klean as an effective, safe alternative to acidic cleaning compounds. Enviro Klean® 2010 All Surface Cleaner contains no harsh acids, caustics, or solvents making it ideal for delicate stone, tile, or masonry.

It is recommended that the selected cleaners always be used in the lowest possible concentration.

Apply all products in accordance with the manufacturer's recommendation provided on container labels and product data sheets. On-site testing should be conducted to determine the most appropriate cleaning product and procedures for a particular project. See product literature for additional application and product information.

A handwritten signature in black ink, reading 'J. Lucas Comadoll'.

J. Lucas Comadoll
Project Testing Technician

ALL SAMPLES SUPPLIED FOR THE ABOVE EVALUATION WILL BE DISPOSED OF THIRTY (30) DAYS AFTER THE ISSUE DATE OF THIS REPORT. IF SAMPLES ARE TO BE RETAINED FOR ADDITIONAL TESTING OR RETURNED TO THE SENDER, PROVIDE WRITTEN INSTRUCTIONS TO THE LABORATORY WITHIN THIRTY (30) DAYS OF THE ISSUE DATE OF THIS REPORT.

Recommendations made within this report are based on laboratory test applications and observations. Final determination of the suitability of a product and/or procedure should be made only after thorough job testing on actual surfaces.