



Pallet Tag Program Laboratory Report

Glen-Gery Sergeant Bluff Plant Sergeant Bluff, IA



Project No. 2201-01 PTP

Prepared For:



Prepared By:

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January 2022



LABORATORY REPORT

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FOR: Steve German, Glen-Gery
cc: Steve Long
Guy Mazza, PROSOCO, Inc.
Jake Boyer, PROSOCO, Inc.
Al Morris, PROSOCO, Inc.

SUBJECT: Glen-Gery
Sergeant Bluff Plant
Sergeant Bluff, IA
Pallet Tag Evaluation

DATE: January 28, 2022
PROJECT: 2201-01 PTP

SAMPLES SUBMITTED: 4 types of clay brick

Sample	Name	Type	Color Per Website	Size
(10) Brick	"Desert Blend Western"	Modular	Tan	7-5/8" x 2-1/4"
(10) Brick	"Ebonite Smooth"	Modular	Black	7-5/8" x 2-1/4"
(10) Brick	"Mountain Shadow Smooth"	Modular	Brown	7-5/8" x 2-1/4"
(10) Brick	"Stonington Gray Velour"	Modular	Grey	7-5/8" x 2-1/4"

SUBMITTED BY: Rick Whitesell
Quality Manager
501 4th Street
Sergeant Bluff, IA 51054

PURPOSE OF TEST:

- To determine the most appropriate PROSOCO, Inc. new construction cleaner(s) for the submitted samples.
- To determine if specific PROSOCO, Inc. specialty cleaners cause any adverse effects to the submitted samples.

NOTE: Each set of submitted samples exhibited a variation in color and sheen upon arrival prior to any testing (as shown in the photograph below).

Variation in Color and Sheen Present as Submitted



PRODUCTS EVALUATED:

New Construction Cleaning	Dilution:
Sure Klean® 600	1:6, 1:8
Sure Klean® Vana Trol®	1:6, 1:8

Adverse Effects	Dilution:
Sure Klean® Ferrous Stain Remover	1:3
Sure Klean® 800 Stain Remover	1:1
Sure Klean® White Scum Remover	1:1
Sure Klean® ReVeal	1:3
Sure Klean® Restoration Cleaner	1:3
Enviro Klean® Klean 'N Release Cleaner	1:10

TEST METHODS: New Construction Cleaning

Sure Klean® 600 and Sure Klean® Vana Trol® were evaluated to determine the optimal concentration of cleaner which leaves the external surface looking most like the uncleaned surface of the submitted clay 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 and periodically agitate:
 - 6005 minutes
 - Vana Trol®.....5 minutes
3. Reapply cleaning solution; do not let cleaner dry into sample.
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** – A garden hose with an adjustable nozzle set for a narrow stream of water was used for rinsing because the manufacturer recommends psi values below 400 for the majority of the submitted brick.

TEST RESULTS AND PHOTOGRAPHS: New Construction Cleaning

Name: "Desert Blend Western" Modular Brick					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
600	1:6	1	0	0	0
600	1:8	1	0	0	0
Vana Trol®	1:6	1	0	0	0
Vana Trol®	1:8	1	0	0	0

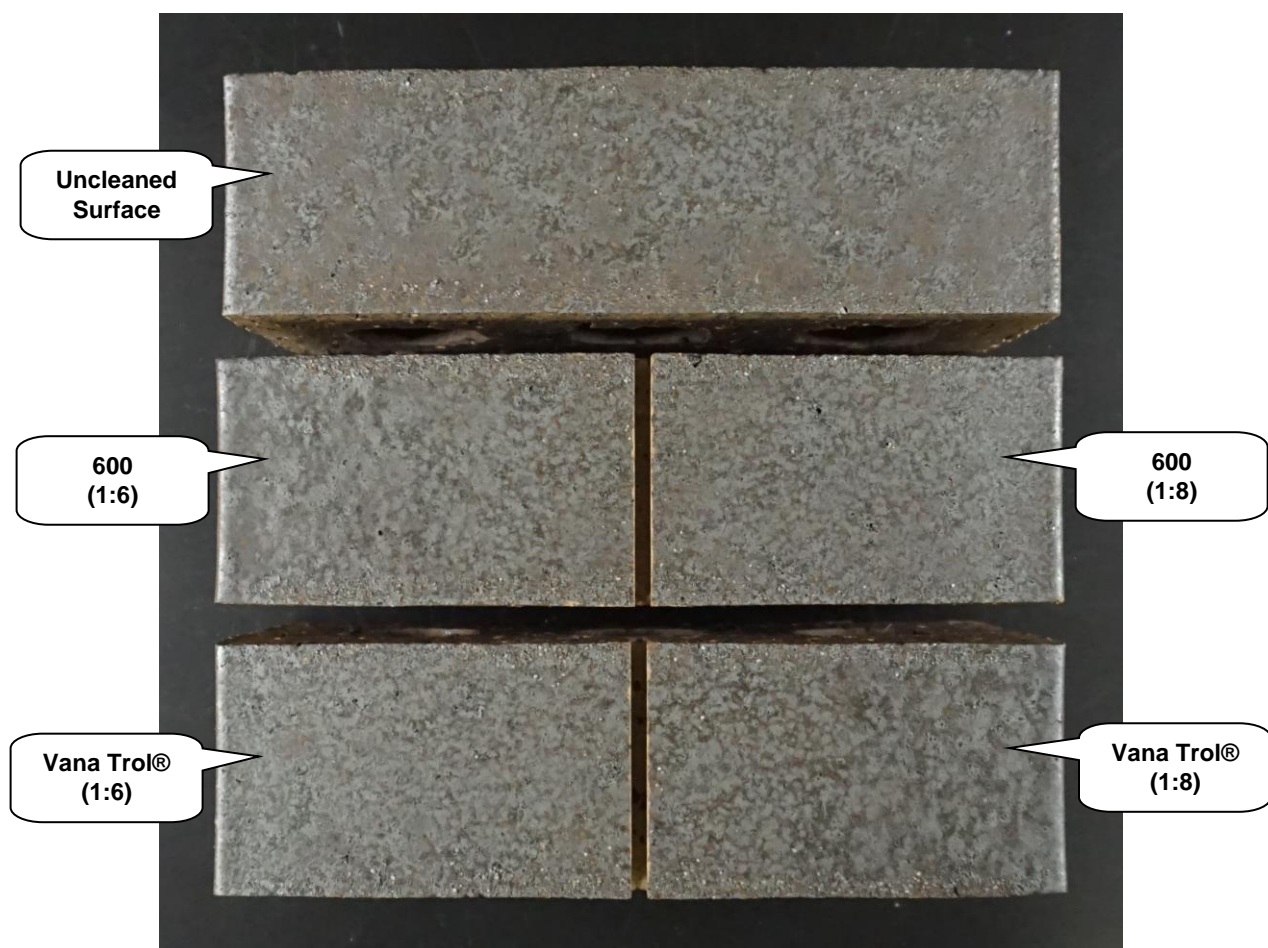
"Desert Blend Western" Modular Brick After Cleaning



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

Name: "Ebonite Smooth" Modular Brick					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
600	1:6	0	0	0	0
600	1:8	0	0	0	0
Vana Trol®	1:6	0	0	0	0
Vana Trol®	1:8	0	0	0	0

"Ebonite Smooth" Modular Brick After Cleaning



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

Name: "Mountain Shadow Smooth" Modular Brick					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
600	1:6	0	0	0	0
600	1:8	0	0	0	0
Vana Trol®	1:6	0	0	0	0
Vana Trol®	1:8	0	0	0	0

"Mountain Shadow Smooth" Modular Brick After Cleaning



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

Name: "Stonington Gray Velour" Modular Brick					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
600	1:6	0	0	0	0
600	1:8	0	0	0	0
Vana Trol®	1:6	0	0	0	0
Vana Trol®	1:8	0	0	0	0

"Stonington Gray Velour" Modular Brick After Cleaning



CONCLUSIONS: New Construction Cleaning

In most of the cleaning tests conducted, Sure Klean® 600 and Sure Klean® Vana Trol® caused no change to the appearance of the submitted brick. However, the Product Data Sheet for Sure Klean® 600 states, “may not be suitable for cleaning buff-colored brick and brick, stone, or tile with manganese or other metallic additives.”

For the reasons mentioned above and because the “Ebonite Smooth” and “Mountain Shadow Smooth” brick appear to be ironspot brick, Sure Klean® Vana Trol® is the first recommended choice for use on these two modular brick types.

A slight amount of surface finish removal was observed when cleaning the “Desert Blend Western” Modular Brick with both dilutions of Sure Klean® 600 and Sure Klean® Vana Trol®.

When choosing the most appropriate product for the desired result:

- For a general purpose, concentrated acidic cleaner – test Sure Klean® 600
- For new masonry surfaces that are subject to vanadium, manganese, and other metallic stains – test Sure Klean® Vana Trol®

It is recommended that the selected cleaners always be used in the lowest possible concentration. Apply all products in accordance with the manufacturer’s recommendations 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.

RECOMMENDATIONS: New Construction Cleaning

Recommendations for cleaning the brick submitted by Glen-Gery, Sergeant Bluff, IA are provided in the chart below. Recommendations are based on the cleaner and dilution that provided the best match to the uncleaned surface as well as brick type.

Sample	New Construction Cleaning
"Desert Blend Western" Modular Brick	¹ Sure Klean® Vana Trol® (1:6) or (1:8) OR ² Sure Klean® 600 (1:6) or (1:8)
"Ebonite Smooth" Modular Brick	
"Mountain Shadow Smooth" Modular Brick	
"Stonington Gray Velour" Modular Brick	¹ Sure Klean® 600 (1:6) or (1:8) OR ² Sure Klean® Vana Trol® (1:6) or (1:8)

NOTE: "1" indicates the recommended first choice and "2" indicates the recommended second choice. These recommendations are based on the Product Data Sheet limitations for certain brick types.

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.

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.

TEST METHODS: Adverse Effects

Various PROSOCO, Inc. cleaners were evaluated to determine if the any of the cleaners cause any adverse effects when used on the submitted brick. The samples were visually examined following the procedure below based on the following:

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).

Substrate Deterioration is the visual examination of the sample comparing the uncleaned surface to surfaces cleaned with selected product(s) 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 product(s).

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 and periodically agitate:

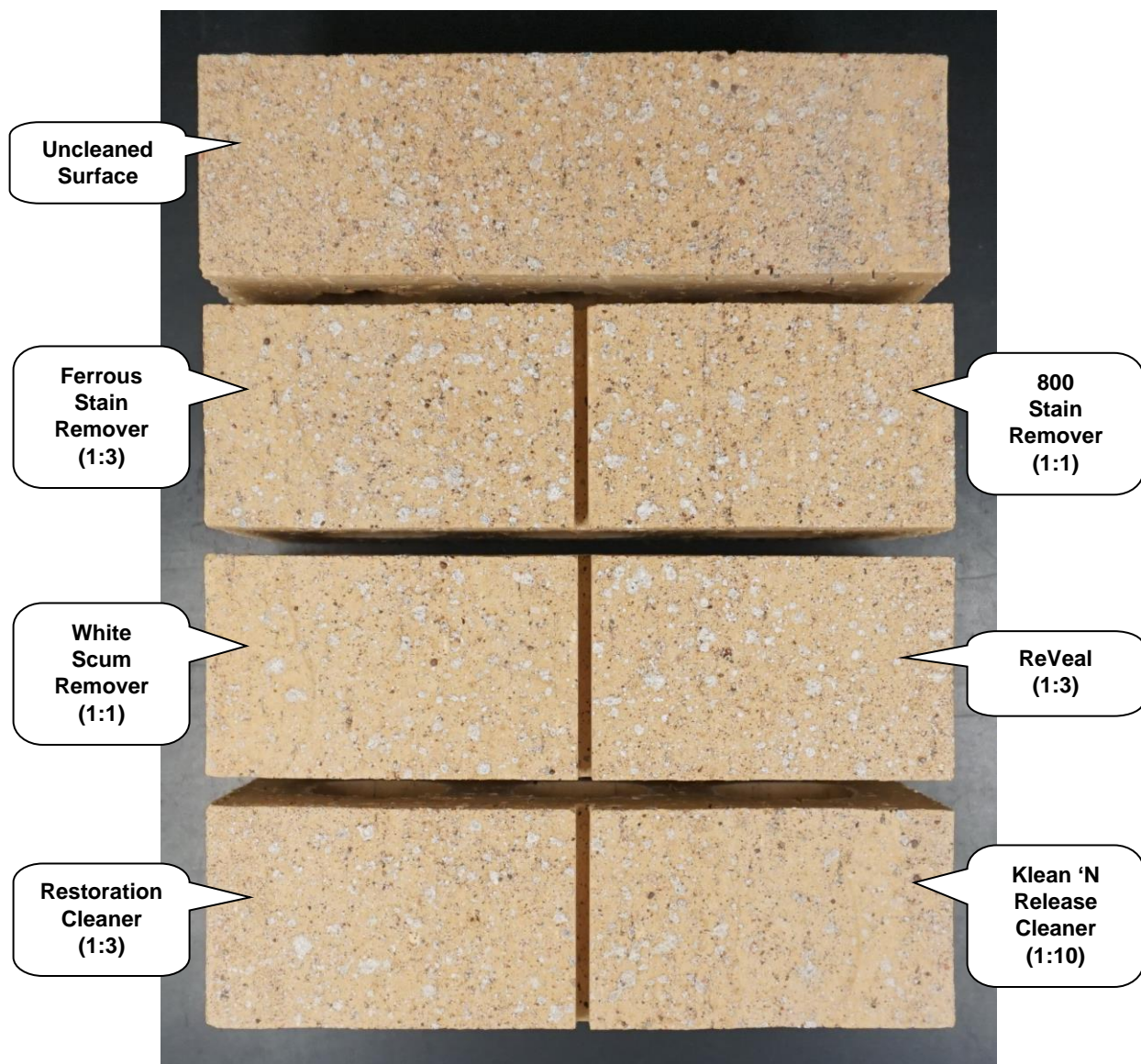
Ferrous Stain Remover	5 minutes
800 Stain Remover	5 minutes
White Scum Remover	3 minutes
ReVeal.....	5 minutes
Restoration Cleaner	5 minutes
Klean 'N Release Cleaner.....	10 minutes
3. Reapply cleaning solution; do not let cleaner dry into the brick.
4. Rinse thoroughly with plenty of fresh water.*
5. 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** – A garden hose with an adjustable nozzle set for a narrow stream of water was used for rinsing because the manufacturer recommends psi values below 400 for the majority of the submitted brick.

TEST RESULTS AND PHOTOGRAPHS: Adverse Effects

Name: "Desert Blend Western" Modular Brick					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Ferrous Stain Remover	1:3	1	0	0	0
800 Stain Remover	1:1	1	0	0	0
White Scum Remover	1:1	1	0	0	0
ReVeal	1:3	1	0	0	0
Restoration Cleaner	1:3	1	0	0	0
Klean 'N Release Cleaner	1:10	1	0	0	0

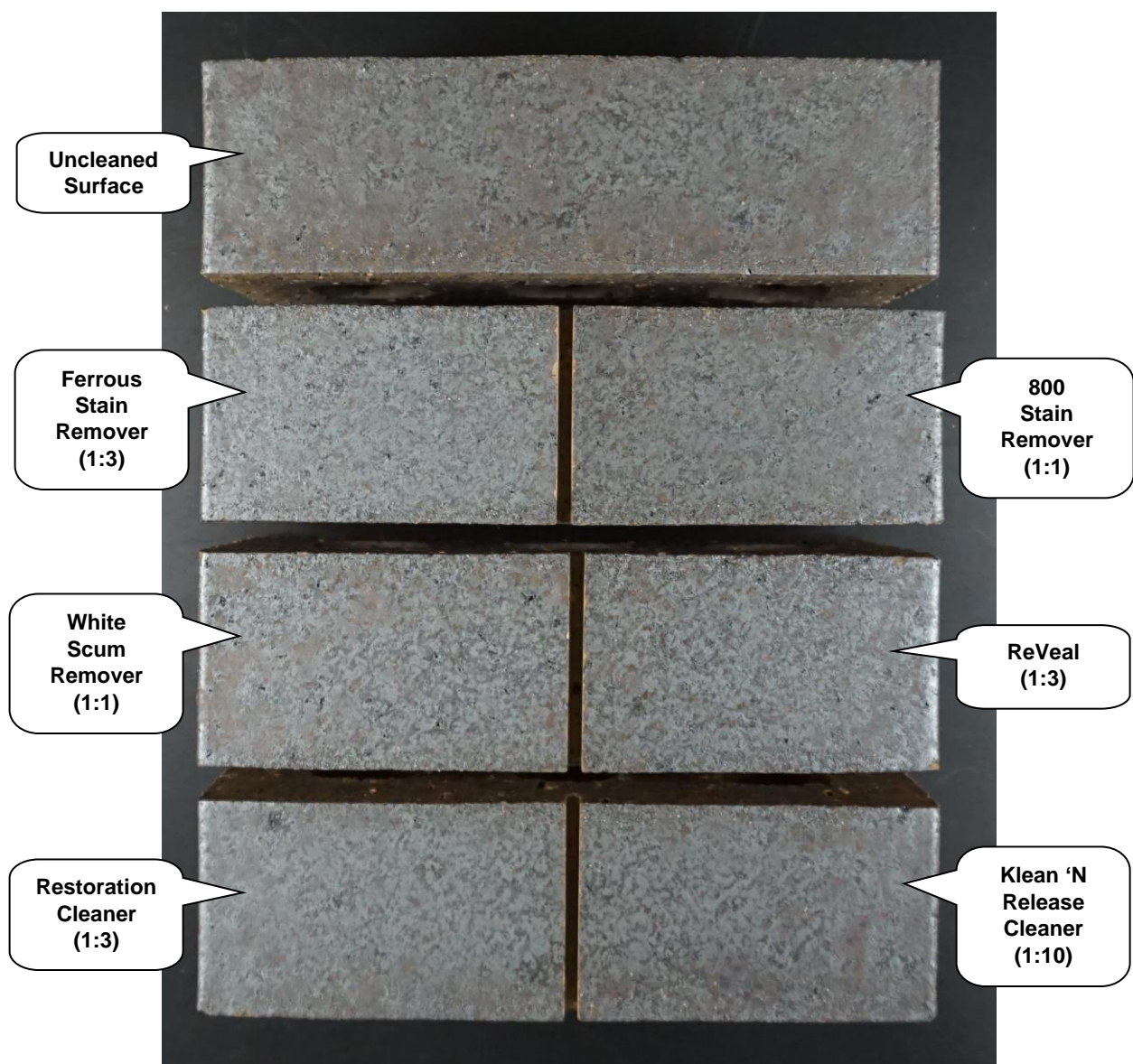
"Desert Blend Western" Modular Brick After Cleaning



TEST RESULTS AND PHOTOGRAPHS: Adverse Effects (cont.)

Name: "Ebonite Smooth" Modular Brick					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Ferrous Stain Remover	1:3	1	0	0	0
800 Stain Remover	1:1	0	0	0	0
White Scum Remover	1:1	0	0	0	0
ReVeal	1:3	0	0	0	0
Restoration Cleaner	1:3	0	0	0	0
Klean 'N Release Cleaner	1:10	0	0	0	0

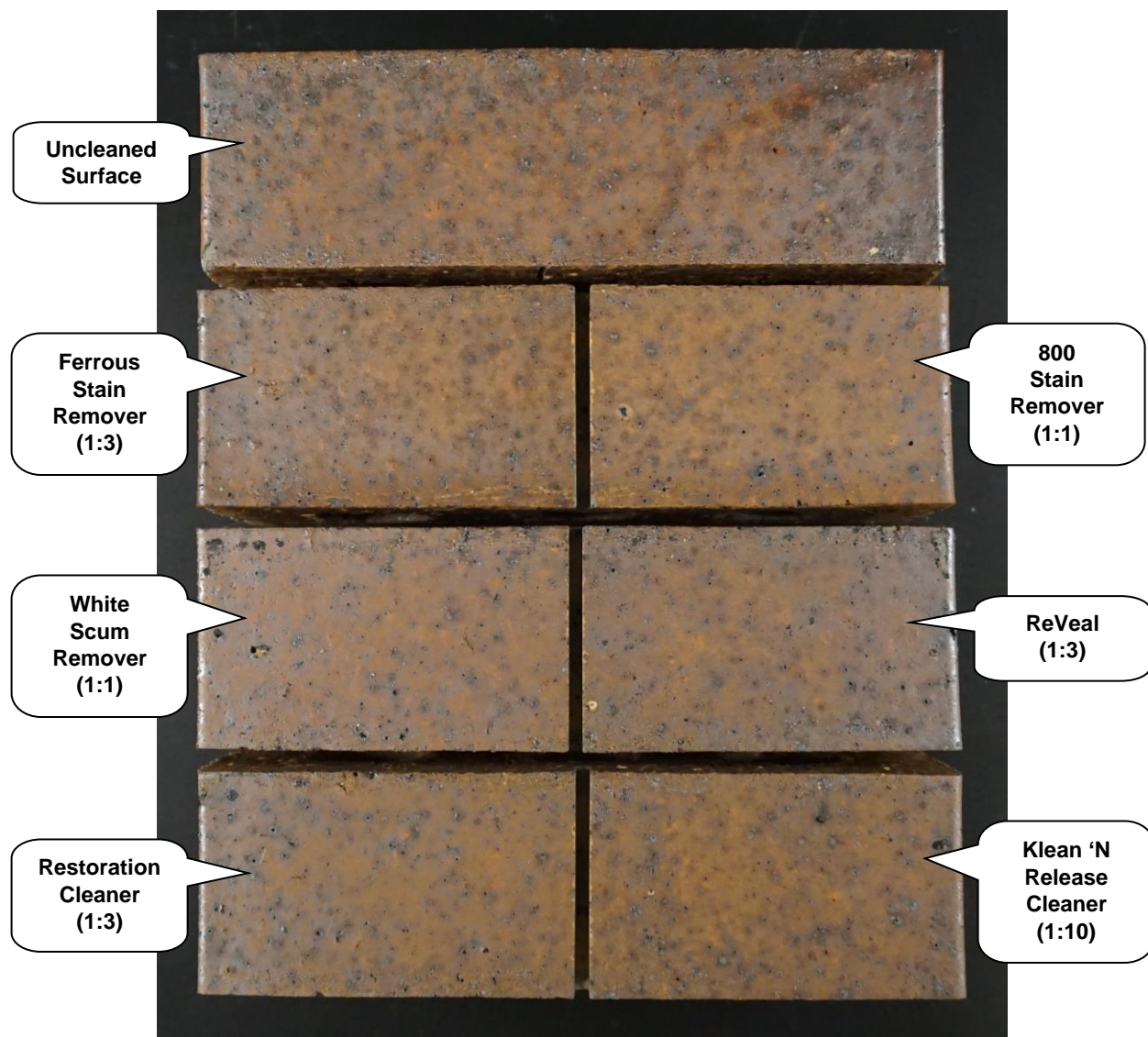
"Ebonite Smooth" Modular Brick After Cleaning



TEST RESULTS AND PHOTOGRAPHS: Adverse Effects (cont.)

Name: "Mountain Shadow Smooth" Modular Brick					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Ferrous Stain Remover	1:3	0	0	0	0
800 Stain Remover	1:1	0	0	2	0
White Scum Remover	1:1	0	0	3	0
ReVeal	1:3	0	0	0	0
Restoration Cleaner	1:3	0	0	0	0
Klean 'N Release Cleaner	1:10	0	0	0	0

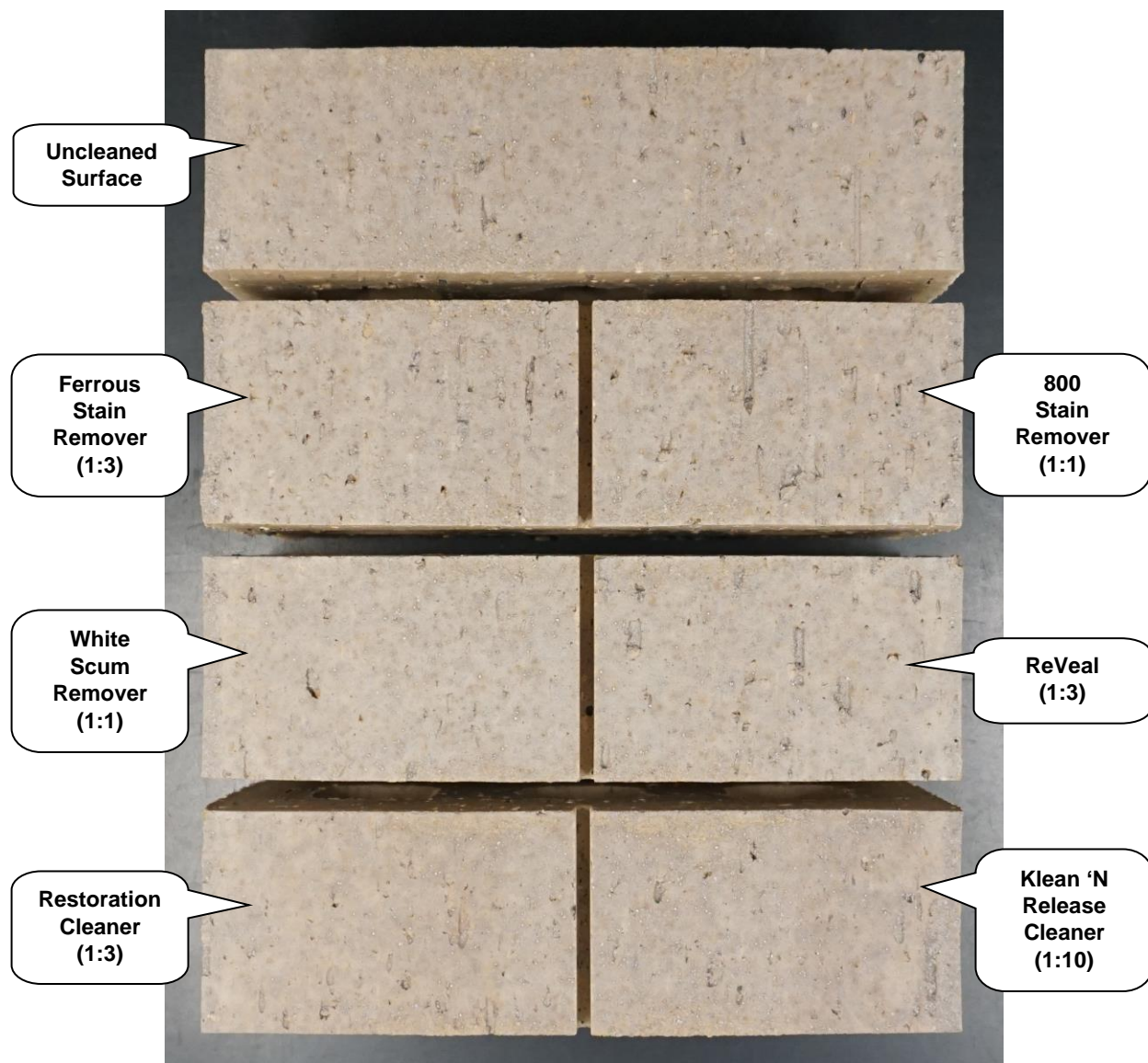
"Mountain Shadow Smooth" Modular Brick After Cleaning



TEST RESULTS AND PHOTOGRAPHS: Adverse Effects (cont.)

Name: "Stonington Gray Velour" Modular Brick					
Product	Dilution	Surface Finish Removal	Substrate Deterioration	Color Change	Staining
Ferrous Stain Remover	1:3	0	0	0	0
800 Stain Remover	1:1	0	0	0	0
White Scum Remover	1:1	0	0	0	0
ReVeal	1:3	0	0	0	0
Restoration Cleaner	1:3	0	0	0	0
Klean 'N Release Cleaner	1:10	0	0	0	0

"Stonington Gray Velour" Modular Brick After Cleaning



CONCLUSIONS: Adverse Effects

In most of the adverse effects tests conducted, the majority of the cleaners did not cause any change to the appearance of the submitted brick.

A slight amount of surface finish removal was observed when cleaning the “Desert Blend Western” Modular Brick with all of the cleaning products and the “Ebonite Smooth” Modular Brick with Sure Klean® Ferrous Stain Remover.

When choosing the most appropriate product for the desired result:

- For removal of iron, manganese, vanadium, straw stains, acid burns, and other metallic discolorations from brick, stone, and masonry surfaces – test Sure Klean® Ferrous Stain Remover
- For removal of green vanadium stains, straw stains, acid burns, and other metallic discolorations from most masonry surfaces – test Sure Klean® 800 Stain Remover
- For removal of salt scums (carbonates and sulfates) from clay brick and tile surfaces without discoloring or alter the surface – test Sure Klean® White Scum Remover
- For removal of stubborn atmospheric and carbon staining on masonry and stone – test Sure Klean® ReVeal
- For a concentrated compound able to loosen and dissolve dirt, paint oxidation, carbon buildup, and other atmospheric pollutants – test Sure Klean® Restoration Cleaner
- For delicate substrates and all-purpose cleaning – test Enviro Klean® Klean ‘N Release Cleaner

It is recommended that the selected cleaners always be used in the lowest possible concentration. Apply all products in accordance with the manufacturer’s recommendations 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.

RECOMMENDATIONS: Adverse Effects

Recommendations for cleaning each type of brick submitted by Glen-Gery, Sergeant Bluff, IA are provided in the chart below.

Sample	Specialty Cleaning
"Desert Blend Western" Modular Brick	Sure Klean® Ferrous Stain Remover (1:3) OR Sure Klean® 800 Stain Remover (1:1) OR Sure Klean® White Scum Remover (1:1) OR Sure Klean® ReVeal (1:3) OR Sure Klean® Restoration Cleaner (1:3) OR Enviro Klean® Klean 'N Release Cleaner (1:10)
"Ebonite Smooth" Modular Brick	
"Mountain Shadow Smooth" Modular Brick	
"Stonington Gray Velour" Modular Brick	

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.

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.



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.