American Engineering Testing, Inc.
Wausau
4203 Schofield Ave
Schofield, WI 54476
(715) 359-3534
www.teamAET.com

Material Test Report

Report No: MAT:AET-128685-S1
Issue No: 1

Client: Kafka Granite, LLC **CC:** Tiffany Koss

Project: Kafka Granite 2023 Construction Projects

Wausau WI
Job No: P-0021353

Date of Issue: 9/6/2023
Reviewed By: Paul Michlig, CET
Construction Manager

Sample Details

Sample ID	AET-128685-S1
Field Sample ID	1
Date Sampled	8/23/2023
Source	Kafka Granite
Material	Jet Black Granite
Specification	ASTM:C127
Sampling Method	Sampled by Client
General Location	Mosinee, WI
Location	Kafka Granite Stockpile
Date Submitted	8/23/2023

Test Results

Description	Method	Result	Limits
Specific Gravity (OD)	ASTM C 127	3.043	
Specific Gravity (SSD)		3.056	
Apparent Specific Gravity		3.082	
Absorption (%)		0.420	
Density Determined Without First Drying?		No	
Additional Notes			
Date Tested		8/29/2023	

Comments

N/A

September 12, 2023

Kafka Granite
550 East Hwy 153
Mosinee, WI 54455

Attn: Ms. Tiffany Koss

RE: Kafka Granite 2023 Construction Projects
AET Report No. P-0021353

This report presents the results of our Mohs hardness testing of one sample of crushed aggregate submitted to our petrographic laboratory by Paul Michlig of American Engineering Testing, Inc. on behalf of Tiffany Koss of Kafka Granite on August 29, 2023. The sample was identified as 'Jet Black Granite' and contained four cobble-sized stones. The scope of our work in this report was confined to performing Mohs hardness testing on the sample.

TEST RESULTS

Based on our analysis:

1. The overall hardness of the ' Jet Black Granite' aggregate is approximately 6.5 on the Mohs scale. This number is based upon testing values of the overall hardness of 4 selected rocks using Mohs hardness picks of 2, 3, 4, 5, 6, 7, and 8. The average hardness of the four rocks was then calculated. The hardness values of the individual rocks were as follows:

Mohs Hardness	**3 – 4**	**4 – 5**	**5 – 6**	**6 – 7**	**7 – 8**
Number of Rocks	0	0	0	4	0

2. The aggregate was a crushed product, and the particles were generally angular in shape. A Mohs pick with hardness of 8 was used on the four particles. If the Mohs 8 pick scratched a particle, then the next Mohs pick with a lesser hardness was used until the particle would not scratch. The Mohs hardness picks were drawn directly across a freshly lapped surface of the particles.

3. In general, rocks are not homogeneous with regards to Mohs mineral hardness. The best effort was made to accomplish the hardness analysis at a representative area within each particle selected. Because rocks can consist of several different minerals with different quantities and different hardness, and the Mohs scale represents the hardness of individual minerals, the Mohs scale should only be used as an approximation when determining the overall hardness of a rock.

PROCEDURES

Our work was performed on September 1, 2023, and subsequent dates. The aggregate sample was saw cut and was then lapped on a lapidary wheel. The hardness testing was completed through the use of standard geologic Mohs hardness points and optical microscopy on lapped hand samples. The review was performed in general accordance with Standard Operating Procedure 24-LAB-004, "Petrographic Examination of Aggregates for Concrete, ASTM C295." Observations were made using an Olympus SZX-12 stereo-zoom binocular microscope with magnification up to 90x.

Photographs are included to illustrate our work and conclusions.

REMARKS

The sample will be retained for at least 60 days from the date of our report. If no further instructions are received by that time, the sample may be discarded. The petrographic services for this project have been conducted in a manner consistent with that level of care and skill exercised by members of the profession currently practicing in this area under similar budget and time constraints. The results relate only to the sample analyzed. No warranty, express or implied, is made.

It has been a pleasure to serve you on this project. Should you have any questions on this report, please do not hesitate to call.

Report Prepared By
American Engineering Testing, Inc.

Doug Hafften, GIT
Petrographic Technician
dhafften@teamAET.com

Report Reviewed By

Blake M. Lemcke, PG
Senior Petrographer/Geologist
MN License #50337
blemcke@teamAET.com
Work: 651-659-1362

Photo: 1

Sample ID: Jet Black Granite **Description:** Overall view of the sample as received.

Photo: 2

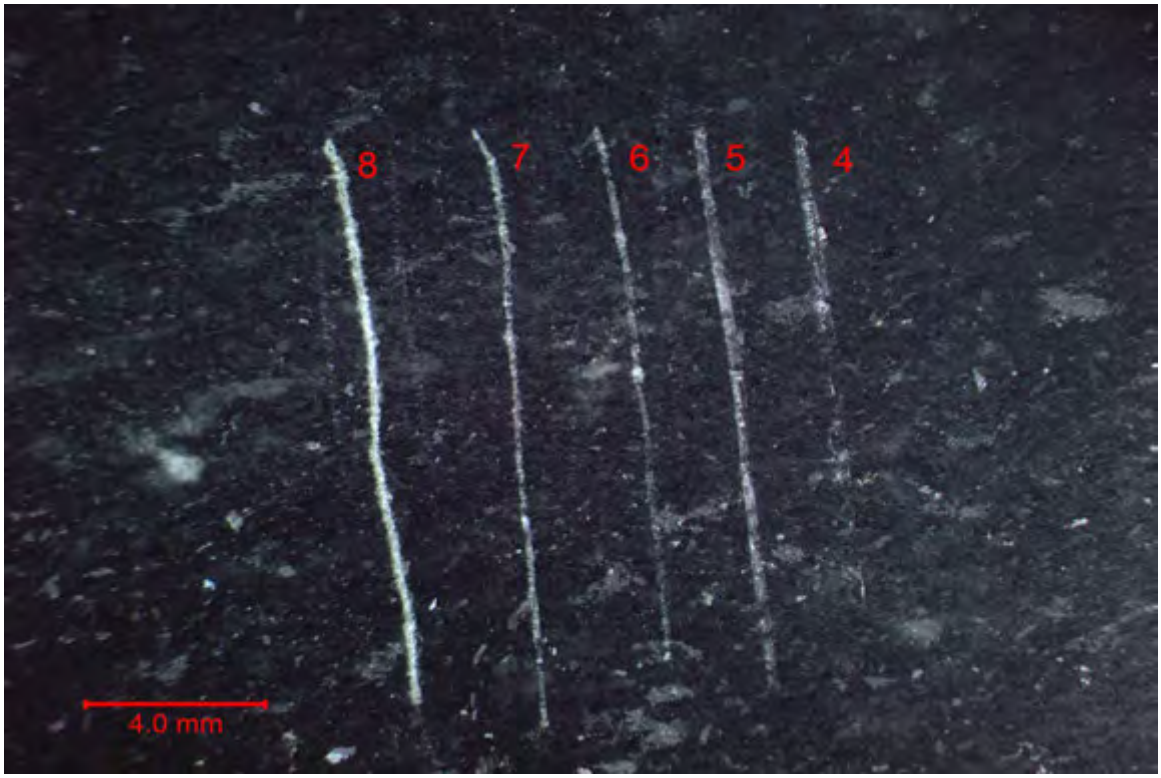
Sample ID: Jet Black Granite **Description:** View of the particles before being saw cut and polished.

Photo: 3

Sample ID: Jet Black Granite

Description: View of the lapped cross section of the rock.

Photo: 4



Sample ID: Jet Black Granite

Description: View of the lapped cross section of the stone after Mohs hardness testing. Note hardness picks 5, 6, and 7 scratched a few minerals, and hardness pick 8 scratched all minerals. The general Mohs hardness would be approximately 6.5.