

Benedict Slurry Seal  
320 Northview Road  
Dayton, Ohio 45419

Attn: Mr. Ben Benedict

Slurry Seal Design

January 5, 1982

Laboratory Report No. 812868

# BOWSER-MORNER Testing Laboratories, Inc.

CORPORATE ADDRESS • 420 Davis Ave. • P.O. Box 51 • Dayton, Ohio 45401-0051 • 513/253-8805

TOLEDO DISTRICT • 122 S. St. Clair St. • P.O. Box 838 • Toledo, Ohio 43696-0838 • 419/255-8200

KENTUCKY DISTRICT • Route 8 West • P.O. Box 636 • Maysville, Kentucky 41056-0636 • 606/564-6711

## LABORATORY REPORT

Report to:

Benedict Slurry Seal  
320 Northview Road  
Dayton, OH 45419, Attn: Mr. Ben Benedict

Date: January 5, 1982

Laboratory No.: 812868

Authorization:

Report on:

Slurry Seal Design

This is our report of the slurry seal mix design performed on materials submitted by the client on December 23 and 28, 1981.

Tests were in accordance with International Slurry Seal Association tests bulletins as listed in this report. The AE% content satisfying both WTAT and LWT specification is 15.5%.

This emulsion content should be suitable for heavy to light traffic.

If there are any questions, or if we may be of further service, please contact us.

Respectfully submitted,

BOWSER-MORNER Testing Laboratories, Inc.

*Judith A. Castello*

Judith A. Castello, P.E.  
Professional Certified Geologist  
Manager, Construction Materials Lab.

JAC/cc  
1-Client  
1-File



As a Mutual Protection to Clients, the Public and Ourselves, All Reports Are Submitted as the Confidential Property of Clients, and Authorization for Publication of Statements, Conclusions or Extracts from or Regarding Our Reports is Reserved Pending Our Written Approval.

Materials

- A. Moisture Content: 2.6%
- B. Sand Equivalency: 77 (Specification 45 min.)
- C. Gradation and Decantation: American Aggregate Corporation, Xenia, Ohio

<u>Sieve Size</u>	<u>Dry, No Decantation % Passing</u>	<u>Type II Specification</u>
3/8"	100	100
No. 4	99	90-100
No. 8	69	65-90
No. 16	47	45-70
No. 30	32	30-50
No. 50	23	18-30
No. 100	17	10-21
No. 200	12	5-15

- D. Los Angeles Abrasion: 30% (Specification 35% max.)

E. Emulsion

Type: As supplied by client, CSS-1H

AC Residue: 64.8%

F. System Compatibility

A small percentage of cement is required to prevent tackiness.

G. Procedure:

A number of 100 gm trial mixes were prepared to determine workability with various levels of filler, water and emulsion. Test specimens were then tested per ISSA bulletins T100 to T106.

Laboratory Design

For

Field Control of Slurry Application

	Control		
	<u>Specs.</u>	<u>Quantities</u>	<u>Tolerance</u>
A. Aggregatge	100	----	----
B. Filler ( Type PC-I)	1.0%	200 lbs/10 ton	+ 1.2 bag/10 ton
C. Mix Water*	4%	9.6 gal/ton	----
D. Cone Flow Consistency	3.0 cm	----	+ 0.5 cm
E. A.C. Target Extraction	10.0%	----	----
F. Emulsion @ 64.8% Res. A.C.	15.5%	37 gal/ton	+ 3.7 gal/ton
G. Spread Rate	16 lbs/SY	----	+ 2.0 lbs/SY

\* This value is approximate and is based on an aggregate internal moisture of 2.6% during testing. Actual water demand should be controlled by cone flow consistence in the field.

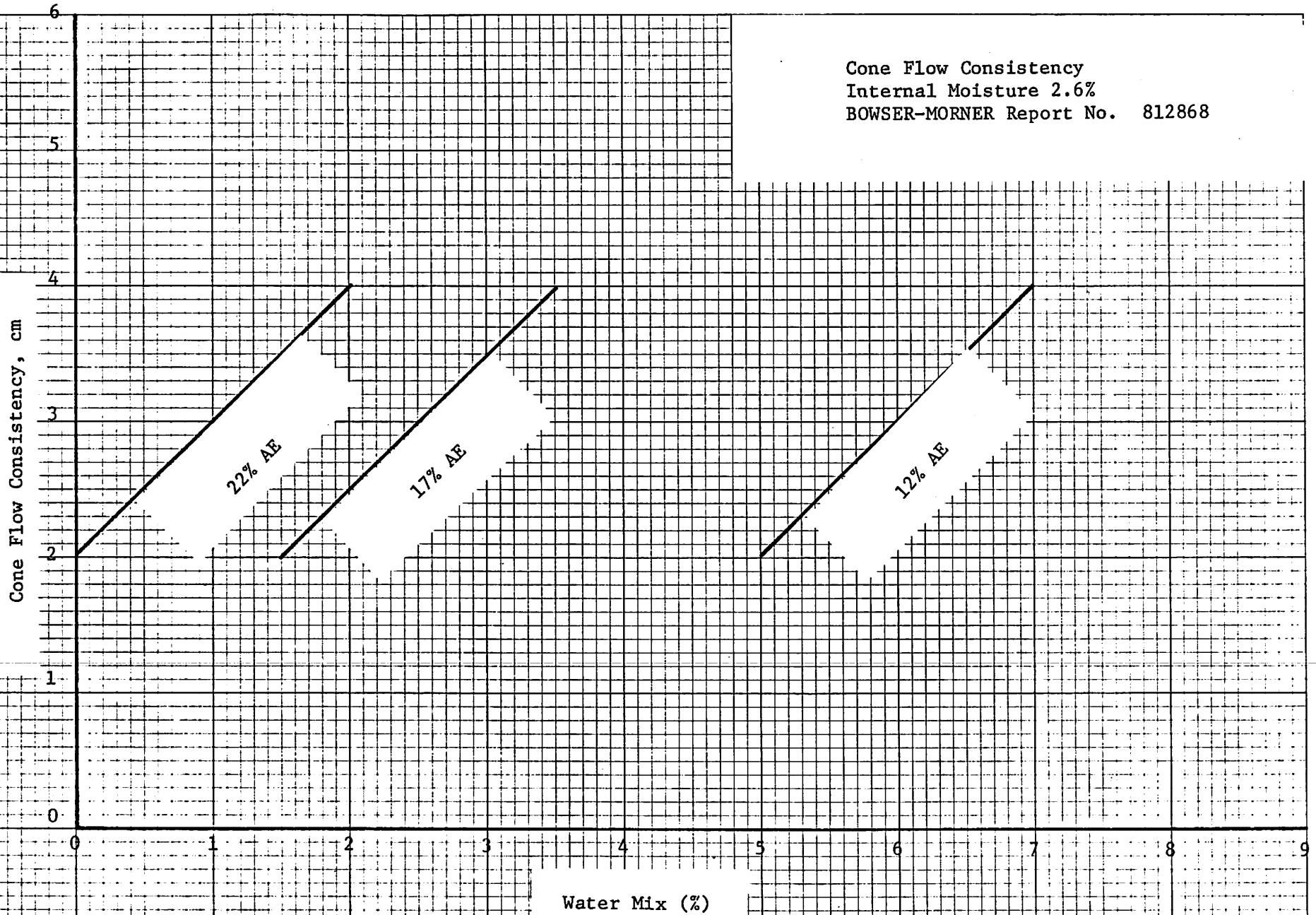
The rate of spread is calculated in accordance with ISSA TB #112 at 16 lbs/SY for coarse Type II. This value assumes average surface texture and moderate cross sectional irregularity.

Slurry Seal Report  
 January 5, 1981  
 Lab Report No. 812868  
 Page 4

Formulation and Test Results  
 Percentages Based on Dry Weight of Aggregate  
 Internal Moisture: 2.6%

<u>Sample No.</u>	<u>Filler %</u>	<u>Mix Water %</u>	<u>A.E. %</u>	<u>WTAT Loss gms/sq. ft.</u>	<u>LWT Adhesion gms/sq. ft.</u>
12A	1	6.0	12		
B					
C					
Ave.				<u>83</u>	<u>27</u>
17A	1	2.5	17		
B					
C					
Ave.				<u>68</u>	<u>41</u>
22A	1	1.0	22		
B					
C					
Ave.				<u>61</u>	<u>63</u>

Cone Flow Consistency  
Internal Moisture 2.6%  
BOWSER-MORNER Report No. 812868



PLOT OF LABORATORY DATA  
BOWSER-MORNER REPORT NO. 812868

