N.U.Q.Q.
NEW ULM QUARTZITE QUARRIES

FA-2 1/2
(5/16 x #8)

NUMBER OF TESTS PERFORMED: 1
DATE OF LAST TEST: 09/26/2005
*NOTE: Values indicate the percent by weight passing square opening sieves.

Gradation						
SIEVES (mm)	Spec Limits	Spec Median	NUQQ Running Avg.	Standard Deviation about Running Avg.	NUQQ Gradation Target Band	% of tests inside of Target Band
0.375" (9.5)	N/A	N/A	100.0%	0.0%	100%	100.0%
#4 (4.76)	N/A	N/A	100.0%	0.0%	100%	100.0%
#8 (2.38)	N/A	N/A	50.7%	0.0%	51%-51%	100.0%
#16 (1.19)	N/A	N/A	2.4%	0.0%	2%-2%	100.0%
#30 (0.59)	N/A	N/A	1.3%	0.0%	1%-1%	100.0%
#50 (0.297)	N/A	N/A	1.0%	0.0%	1%-1%	100.0%

General Quality			
Quality Parameters	NUQQ Running Avg.	MNDot Spec Limits	Note
L.A.R. Abrasion Loss (A.S.T.M. C131-89):	<35.0%	40% Max.	Toughness
Magnesium Sulfate Loss (A.S.T.M. C88-90 - 5 Cycles):	4.8%	N/A	Soundness
Specific Gravity, (A.S.T.M. C127-88):	2.627	N/A	Bulk SSD
Absorption in Bulk Sample (A.S.T.M. C 126)	<0.35%	N/A	Porosity
Loose Weight:	86.70	N/A	Lbs./Cu. Ft.
Voids in Loose Aggregate:	53.2%	N/A	-
200 Mesh, (75 Micron), Material (A.S.T.M. C117-90):	0.70%	2.0% Max.	Surface Dust
Median Size:	0.140	N/A	Inches
Average Least Dim:	0.102	N/A	Inches
Flakiness Index:	15.0%	30.0% Max.	Particle Shape
Suggested Aggregate Application Rate for Seal Coat:	11.0	N/A	Lbs./Sq. Yd.

Quartzite Aggregates contain no shale, iron oxide, slate, unsound chert or clay balls.