

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-32

Sample Date: 10/25/21

Dates Test Represents: 10/26/2021 through 11/11/2021

Concrete Grade: S2M

Contractor:

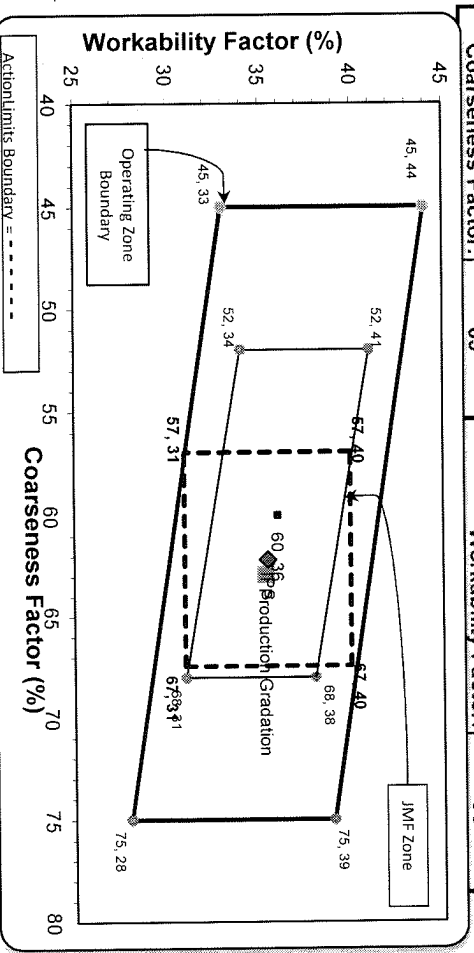
MDOT No.:

Agg. Class	Pit #	Source	Weight (ssd)	ft ³	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1500	9.17	2.62	49.2
26A	71-47	Presque Isle	320	1.96	2.62	10.5
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3
Total Wt			3050	18.57		100.0

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	98.7	100.0	100.0	99.4	0.6	0.6
3/4"	74.1	100.0	100.0	87.3	12.1	12.7
1/2"	35.1	95.3	100.0	67.6	19.7	32.4
3/8"	20.7	83.9	100.0	59.3	8.3	40.7
#4	3.4	18.2	96.3	42.4	16.9	57.6
#8	1.8	4.7	84.2	35.3	7.1	64.7
#16	1.5	2.4	68.2	28.5	6.8	71.5
#30	1.4	1.9	49.2	20.7	7.8	79.3
#50	1.4	1.7	23.8	10.5	10.3	89.5
#100	1.3	1.6	7.4	3.8	6.7	96.2
LBW	1.0	1.4	1.6	1.3	2.5	98.7

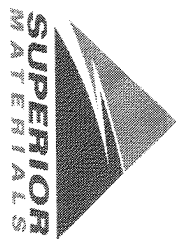
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: 63 Workability Factor: 35



Initial Production Sample (IPS)

Coarseness Factor:	62		
Workability Factor:	35		
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	100.0	0.0	0.0
3/4"	94.0	6.0	6.0
1/2"	70.2	23.7	29.8
3/8"	59.9	10.4	40.1
#4	42.7	17.2	57.3
#8	35.5	7.2	64.5
#16	28.4	7.0	71.6
#30	19.2	9.2	80.8
#50	8.9	10.3	91.1
#100	3.1	5.9	96.9
LBW	1.4	1.7	98.6



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*Maximum % Retained must be above the 3/8" sieve.
*Any two adjacent sieves must equal 10% except max.
nom. max. #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max.
nom. max. #100 and #200 sieves.
*% Retained must be at least 8% for the 1" sieve when
a 2" max. size (nom. Max. 1.5") aggregate is used.

PREPARED BY:
SM, LLC Technical Service

Approved By:

Plant 958-JMT
 Product 1022-2NS GR - Smelter Bay
 Period: 10/24/2021 - 10/30/2021

Name/Title Doug Storey / QC Technician
 Report Date 10/30/2021

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.3	%	95-100
	#8 (2.36mm)	84.2	%	65-95
	#16 (1.18mm)	68.2	%	35-75
	#30 (.6mm)	49.2	%	20-55
	#50 (.3mm)	23.8	%	10-30
	#100 (.15mm)	7.4	%	0-10
	#200 (75µm)	2.2	%	
	FM	2.71		2.6-3
	Wash Loss (#200/75µm)	1.6	%	0-3
	Total Moisture	4.4	%	

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 10/24/2021 - 10/30/2021

Report Date 10/30/2021

Procedure	Sieve/Test	Result	Unit	26A Mod LS Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	
	1" (25mm)	100.0	%	
	3/4" (19mm)	100.0	%	100-100
	1/2" (12.5mm)	95.3	%	95-100
	3/8" (9.5mm)	83.9	%	60-95
	#4 (4.75mm)	18.2	%	5-30
	#8 (2.36mm)	4.7	%	0-12
	#16 (1.18mm)	2.4	%	
	#30 (.6mm)	1.9	%	
	#50 (.3mm)	1.7	%	
	#100 (.15mm)	1.6	%	
	#200 (75µm)	1.5	%	
	Wash Loss (#200/75µm)	1.4	%	0-3
	Total Moisture	3.8	%	

Plant 958-JMT

Product 1054-6AA LS PI

Name/Title Doug Storey / QC Technician

Period: 10/24/2021 - 10/30/2021

Report Date 10/30/2021

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	98.7	%	95-100
	3/4" (19mm)	74.1	%	
	1/2" (12.5mm)	35.1	%	30-60
	3/8" (9.5mm)	20.7	%	
	#4 (4.75mm)	3.4	%	0-8
	#8 (2.36mm)	1.8	%	
	#16 (1.18mm)	1.5	%	
	#30 (.6mm)	1.4	%	
	#50 (.3mm)	1.4	%	
	#100 (.15mm)	1.3	%	
	#200 (75µm)	1.1	%	
	Wash Loss (#200/75um)	1.0	%	0-2
	Total Moisture	3.0	%	