

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-32

Sample Date: 7/25/22

Dates Test Represents: 7/26/2022 through 8/1/2022

Concrete Grade: S2M, 3500HP

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1820	11.13	2.62	59.7
26A	71-47	Presque Isle	0	0.00	2.62	0.0
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3
Total Wt:						3050
						100.0

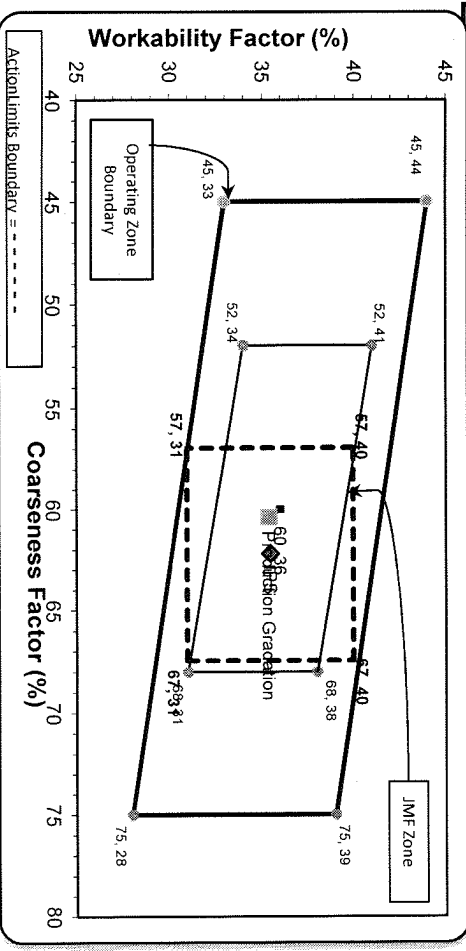
Verify this number is 100%

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"	99.5	100.0	100.0	99.7	0.3	0.3
3/4"	90.4	100.0	100.0	94.3	5.4	5.7
1/2"	58.4	95.8	100.0	75.2	19.1	24.8
3/8"	34.6	84.1	100.0	61.0	14.2	39.0
#4	7.4	30.4	96.6	43.4	17.6	56.6
#8	2.8	10.4	83.6	35.4	8.0	64.6
#16	2.2	4.8	68.5	28.9	6.4	71.1
#30	2.0	3.6	48.8	20.9	8.1	79.1
#50	1.9	3.2	23.3	10.5	10.3	89.5
#100	1.8	2.9	6.6	3.7	6.8	96.3
LBW	1.4	2.5	1.1	1.3	2.5	98.7

*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.

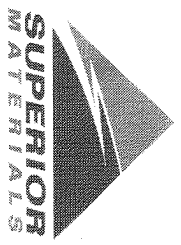
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: 60 **Workability Factor:** 35



Initial Production Sample (IPS)

Sieve	Coarseness Factor:	Workability Factor:	Cumulative % Passing	% Retained	Cumulative % Retained
2"	62	35	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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PREPARED BY:
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Approved By: _____

Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Name/Title Doug Storey / QC Technician

Period: 07/24/2022 - 07/30/2022

Report Date 07/29/2022

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.6	%	95-100
	#8 (2.36mm)	83.6	%	65-95
	#16 (1.18mm)	68.5	%	35-75
	#30 (.6mm)	48.8	%	20-55
	#50 (.3mm)	23.3	%	10-30
	#100 (.15mm)	6.6	%	0-10
	#200 (75µm)	1.4	%	
	FM	2.73		2.6-3
	Wash Loss (#200/75um)	1.1	%	0-3
	Total Moisture	3.7	%	

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 07/24/2022 - 07/30/2022

Report Date 07/29/2022

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)	95.8	%	95-100
	3/8" (9.5mm)	84.1	%	60-95
	#4 (4.75mm)	30.4	%	5-30
	#8 (2.36mm)	10.4	%	0-12
	#16 (1.18mm)	4.8	%	
	#30 (.6mm)	3.6	%	
	#50 (.3mm)	3.2	%	
	#100 (.15mm)	2.9	%	
	#200 (75µm)	2.6	%	
	Wash Loss (#200/75um)	2.5	%	0-3
	Total Moisture	2.7	%	

Plant 958-JMT

Product 1054-6AA LS PI

Name/Title Doug Storey / QC Technician

Period: 07/24/2022 - 07/30/2022

Report Date 07/29/2022

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	99.5	%	95-100
	3/4" (19mm)	90.4	%	
	1/2" (12.5mm)	58.4	%	30-60
	3/8" (9.5mm)	34.6	%	
	#4 (4.75mm)	7.4	%	0-8
	#8 (2.36mm)	2.8	%	
	#16 (1.18mm)	2.2	%	
	#30 (.6mm)	2.0	%	
	#50 (.3mm)	1.9	%	
	#100 (.15mm)	1.8	%	
	#200 (75µm)	1.5	%	
	Wash Loss (#200/75um)	1.4	%	0-2
	Total Moisture	2.5	%	