

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-32**

Sample Date: **9/26/22**

Dates Test Represents: **9/27/2022** through **10/3/2022**

Concrete Grade: **DM, 4500HP**

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1355	8.29	2.62	46.6
26A	71-47	Presque Isle	400	2.45	2.62	13.8
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6
Total Wt			2905	17.69		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"	99.2	100.0	100.0	99.6	0.4	0.4
3/4"	83.4	100.0	100.0	92.3	7.7	7.7
1/2"	41.9	96.2	100.0	72.4	19.9	27.6
3/8"	20.5	80.5	100.0	60.2	12.1	39.8
#4	3.7	19.6	96.1	42.5	17.8	57.5
#8	2.1	6.1	84.4	35.2	7.2	64.8
#16	1.9	3.0	69.8	28.9	6.3	71.1
#30	1.8	2.5	50.8	21.3	7.6	78.7
#50	1.7	2.3	24.9	11.0	10.3	89.0
#100	1.6	2.1	7.3	3.9	7.0	96.1
LBW	1.3	1.8	1.4	1.4	2.5	98.6

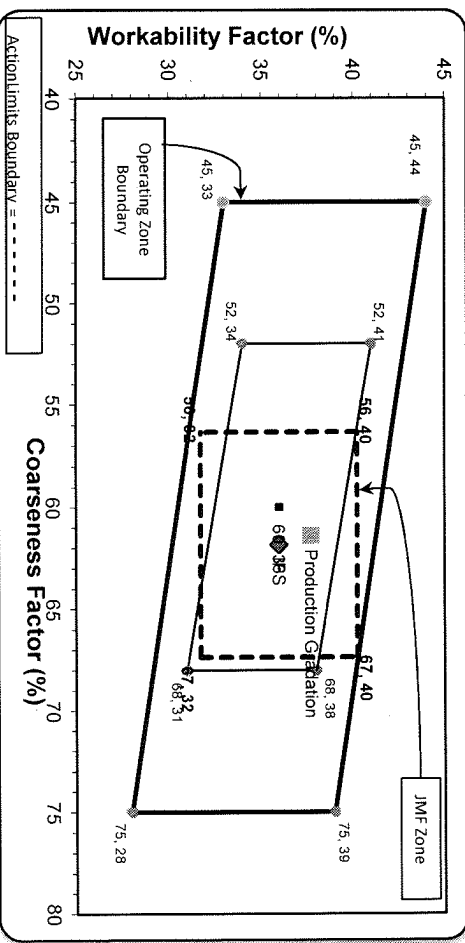
*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max.
 nom. max., #100 and #200 sieves.
 *% Retained must be at least 4% for each sieve except max.
 nom. max., #100 and #200 sieves.
 *% Retained must be at least 8% for the 1" sieve when
 a 2" max. size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

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

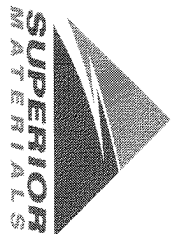
Coarseness Factor: **61** Workability Factor: **35** Adjusted WF: **37.7**

Initial Production Sample (IPS)

Coarseness Factor: **62** Workability Factor: **36**



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"	95.0	5.0	5.0
1/2"	72.3	22.8	27.7
3/8"	60.4	11.8	39.6
#4	42.6	17.8	57.4
#8	36.0	6.6	64.0
#16	29.5	6.5	70.5
#30	20.3	9.2	79.7
#50	9.5	10.8	90.5
#100	3.4	6.1	96.6
LBW	1.3	2.1	98.7



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PREPARED BY:
 SM, LLC Technical Service

Approved By: _____

Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Name/Title Doug Storey / QC Technician

Period: 09/25/2022 - 10/01/2022

Report Date 09/30/2022

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.1	%	95-100
	#8 (2.36mm)	84.4	%	65-95
	#16 (1.18mm)	69.8	%	35-75
	#30 (.6mm)	50.8	%	20-55
	#50 (.3mm)	24.9	%	10-30
	#100 (.15mm)	7.3	%	0-10
	#200 (75µm)	1.8	%	
	FM	2.67		2.6-3
	Wash Loss (#200/75um)	1.4	%	0-3
	Total Moisture	4.3	%	

Plant 958-JMT
 Product 1067-26A Mod LS
 Period: 09/25/2022 - 10/01/2022

Name/Title Doug Storey / QC Technician
 Report Date 09/30/2022

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)	96.2	%	95-100
	3/8" (9.5mm)	80.5	%	60-95
	#4 (4.75mm)	19.6	%	5-30
	#8 (2.36mm)	6.1	%	0-12
	#16 (1.18mm)	3.0	%	
	#30 (.6mm)	2.5	%	
	#50 (.3mm)	2.3	%	
	#100 (.15mm)	2.1	%	
	#200 (75µm)	1.9	%	
	Wash Loss (#200/75um)	1.8	%	0-3
	Total Moisture	3.0	%	

Plant 958-JMT
 Product 1054-6AA LS PI
 Period: 09/25/2022 - 10/01/2022

Name/Title Doug Storey / QC Technician
 Report Date 09/30/2022

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	99.2	%	95-100
	3/4" (19mm)	83.4	%	
	1/2" (12.5mm)	41.9	%	30-60
	3/8" (9.5mm)	20.5	%	
	#4 (4.75mm)	3.7	%	0-8
	#8 (2.36mm)	2.1	%	
	#16 (1.18mm)	1.9	%	
	#30 (.6mm)	1.8	%	
	#50 (.3mm)	1.7	%	
	#100 (.15mm)	1.6	%	
	#200 (75µm)	1.4	%	
	Wash Loss (#200/75µm)	1.3	%	0-2
	Total Moisture	3.0	%	