

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-32**

Sample Date: **6/20/22**

Dates Test Represents: **6/21/2022** through **6/27/2022**

Concrete Grade: **S2M, 3500HP**

Contractor: _____

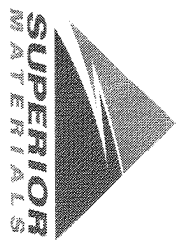
MDOT No.: _____

Aggr. Class	Pit #	Source	Weight (ssd)	ft ³	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1400	8.56	2.62	45.9
26A	71-47	Presque Isle	420	2.57	2.62	13.8
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3
Total Wt			3050	18.57		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"	96.5	100.0	100.0	98.4	1.6	1.6
3/4"	76.8	100.0	100.0	89.4	9.0	10.6
1/2"	34.6	95.4	100.0	69.3	20.0	30.7
3/8"	15.4	86.9	100.0	59.4	10.0	40.6
#4	3.2	30.4	96.7	44.7	14.7	55.3
#8	2.0	10.0	84.5	36.4	8.3	63.6
#16	1.8	4.5	69.5	29.5	6.9	70.5
#30	1.7	3.2	49.8	21.3	8.2	78.7
#50	1.6	2.8	24.3	10.9	10.4	89.1
#100	1.5	2.6	6.7	3.7	7.2	96.3
LBW	1.1	2.1	1.1	1.2	2.5	98.8

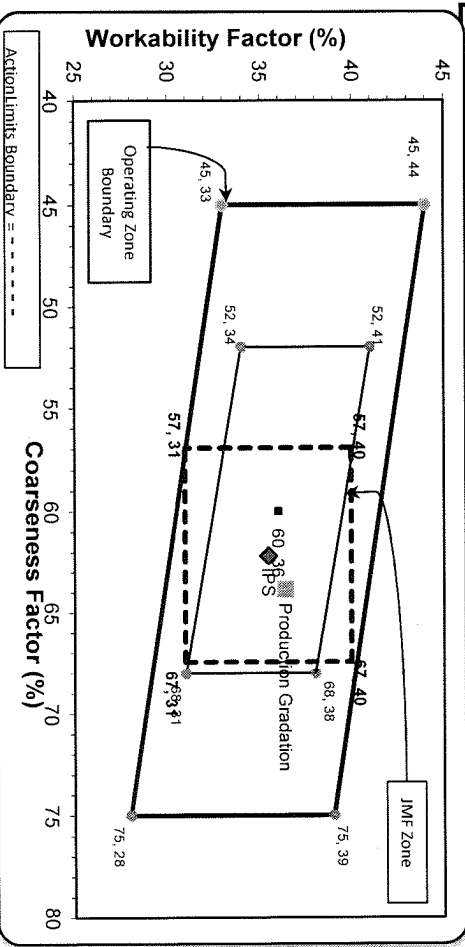
*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max.
 norm. max., #100 and #200 sieves.
 *% Retained must be at least 4% for each sieve except max.
 norm. max., #100 and #200 sieves.
 *% Retained must be at least 8% for the 1" sieve when
 a 2" max. size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



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Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **64** Workability Factor: **36**



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

PREPARED BY:
 SM, LLC Technical Service

Approved By: _____

Plant 958-JMT
 Product 1022-2NS GR - Smelter Bay
 Period: 06/19/2022 - 06/25/2022

Name/Title Doug Storey / QC Technician
 Report Date 06/24/2022

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.7	%	95-100
	#8 (2.36mm)	84.5	%	65-95
	#16 (1.18mm)	69.5	%	35-75
	#30 (.6mm)	49.8	%	20-55
	#50 (.3mm)	24.3	%	10-30
	#100 (.15mm)	6.7	%	0-10
	#200 (75µm)	1.5	%	
	FM	2.69		2.6-3
	Wash Loss (#200/75um)	1.1	%	0-3
	Total Moisture	4.7	%	

Plant 958-JMT
 Product 1067-26A Mod LS
 Period: 06/19/2022 - 06/25/2022

Name/Title Doug Storey / QC Technician
 Report Date 06/24/2022

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)	95.4	%	95-100
	3/8" (9.5mm)	86.9	%	60-95
	#4 (4.75mm)	30.4	%	5-30
	#8 (2.36mm)	10.0	%	0-12
	#16 (1.18mm)	4.5	%	
	#30 (.6mm)	3.2	%	
	#50 (.3mm)	2.8	%	
	#100 (.15mm)	2.6	%	
	#200 (75µm)	2.3	%	
	Wash Loss (#200/75um)	2.1	%	0-3
	Total Moisture	2.5	%	

Plant 958-JMT

Product 1054-6AA LS PI

Name/Title Doug Storey / QC Technician

Period: 06/19/2022 - 06/25/2022

Report Date 06/24/2022

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	96.5	%	95-100
	3/4" (19mm)	76.8	%	
	1/2" (12.5mm)	34.6	%	30-60
	3/8" (9.5mm)	15.4	%	
	#4 (4.75mm)	3.2	%	0-8
	#8 (2.36mm)	2.0	%	
	#16 (1.18mm)	1.8	%	
	#30 (.6mm)	1.7	%	
	#50 (.3mm)	1.6	%	
	#100 (.15mm)	1.5	%	
	#200 (75µm)	1.3	%	
	Wash Loss (#200/75um)	1.1	%	0-2
	Total Moisture	2.6	%	