

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-32

Sample Date: 7/26/21

Dates Test Represents: 7/27/2021 through 8/2/2021

Concrete Grade: DM

Contractor:

MIDOT No.:

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1450	8.87	2.62	49.9
26A	71-47	Presque Isle	305	1.87	2.62	10.5
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6
Total Wt.						17.69
						100.0

<----- Verify this number is 100%

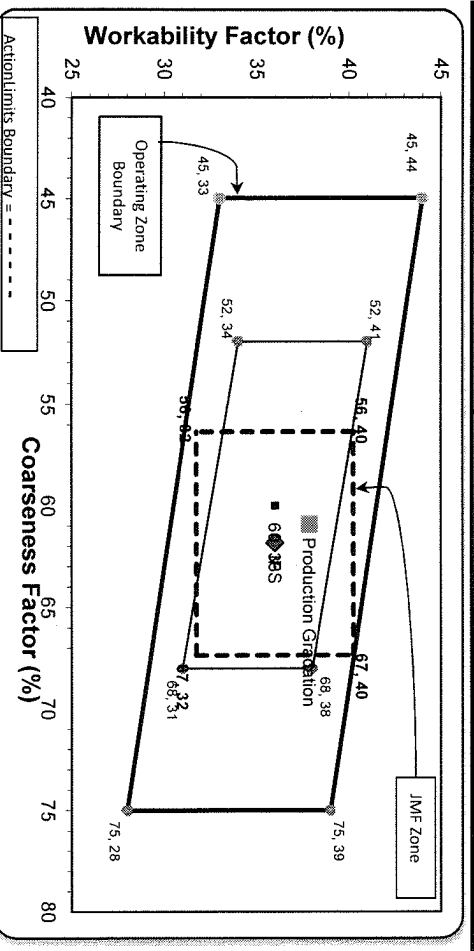
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	95.3	100.0	100.0	97.7	2.3	2.3
3/4"	77.3	100.0	100.0	88.7	9.0	11.3
1/2"	41.9	100.0	100.0	70.7	18.0	29.3
3/8"	23.9	86.7	100.0	60.6	10.1	39.4
#4	4.0	25.5	96.6	42.9	17.7	57.1
#8	2.3	7.2	84.5	35.4	7.6	64.6
#16	2.0	3.4	70.2	29.1	6.2	70.9
#30	2.0	2.5	49.7	20.9	8.2	79.1
#50	1.8	2.2	23.0	10.2	10.7	89.8
#100	1.8	2.0	6.6	3.7	6.5	96.3
LBW	1.2	1.4	0.8	1.1	2.7	98.9

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: 61 **Workability Factor:** 35 **Adjusted WF:** 37.9

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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*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: 07/25/2021 - 07/31/2021

Name/Title Doug Storey / QC Technician
 Report Date 07/31/2021

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)	84.5	%	65-95
	#16 (1.18mm)	70.2	%	35-75
	#30 (.6mm)	49.7	%	20-55
	#50 (.3mm)	23.0	%	10-30
	#100 (.15mm)	6.6	%	0-10
	#200 (75µm)	1.6	%	
	FM	2.70		2.6-3
	Wash Loss (#200/75um)	0.8	%	0-3
	Total Moisture	4.7	%	

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 07/25/2021 - 07/31/2021

Report Date 07/31/2021

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)	97.3	%	95-100
	3/8" (9.5mm)	86.7	%	60-95
	#4 (4.75mm)	25.5	%	5-30
	#8 (2.36mm)	7.2	%	0-12
	#16 (1.18mm)	3.4	%	
	#30 (.6mm)	2.5	%	
	#50 (.3mm)	2.2	%	
	#100 (.15mm)	2.0	%	
	#200 (75µm)	1.7	%	
	Wash Loss (#200/75um)	1.4	%	0-3
	Total Moisture	4.0	%	

Plant 958-JMT

Product 1054-6AA LS PI

Name/Title Doug Storey / QC Technician

Period: 07/25/2021 - 07/31/2021

Report Date 07/31/2021

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	95.3	%	95-100
	3/4" (19mm)	77.3	%	
	1/2" (12.5mm)	41.9	%	30-60
	3/8" (9.5mm)	23.9	%	
	#4 (4.75mm)	4.0	%	0-8
	#8 (2.36mm)	2.3	%	
	#16 (1.18mm)	2.0	%	
	#30 (.6mm)	2.0	%	
	#50 (.3mm)	1.8	%	
	#100 (.15mm)	1.8	%	
	#200 (75µm)	1.4	%	
	Wash Loss (#200/75um)	1.2	%	0-2
	Total Moisture	2.6	%	