

# Aggregate Optimization Chart

## Production Gradation Report

**PLANT #:** P-32

**Sample Date:** 1/16/23

**Dates Test Represents:** 1/17/2023 through 1/23/2023

**Concrete Grade:** DM, 4500HP

**Contractor:**

**MDOT No.:**

Agg. Class	Pit #	Source	Weight (ssd)	ft <sup>3</sup>	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1755	10.73	2.62	60.4
26A	71-47	Presque Isle	0	0.00	2.62	0.0
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6
<b>Total Wt</b>						<b>2905</b>
						<b>100.0</b>

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

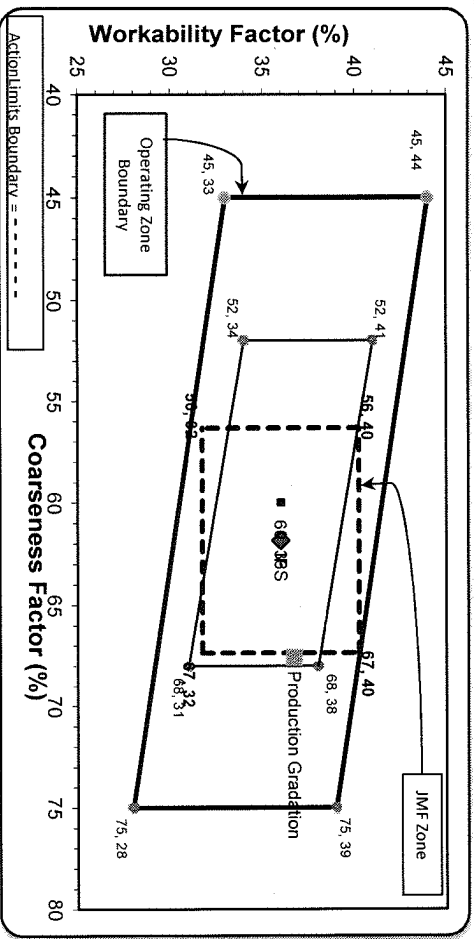
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	98.3	100.0	100.0	99.0	1.0	1.0
3/4"	85.3	100.0	100.0	91.1	8.9	8.9
1/2"	42.2	96.3	100.0	65.1	34.9	34.9
3/8"	26.4	80.1	100.0	55.5	44.5	44.5
#4	4.3	14.9	96.0	40.6	59.4	59.4
#8	2.1	4.3	83.2	34.2	65.8	65.8
#16	1.9	3.2	67.9	28.0	72.0	72.0
#30	1.8	2.6	49.2	20.6	79.4	79.4
#50	1.7	2.4	23.6	10.4	89.6	89.6
#100	1.7	2.2	6.6	3.6	96.4	96.4
LBW	1.6	1.9	1.7	1.6	2.0	98.4

**Production Gradation**  Batch Plant Gradations  Aggregate Supplier Gradations

**Coarseness Factor:** 68 **Workability Factor:** 34 **Adjusted WF:** 36.7

**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



PREPARED BY:  
SM, LLC Technical Service

Approved By:

Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Name/Title Doug Storey / QC Technician

Period: 01/15/2023 - 01/21/2023

Report Date 01/21/2023

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.0	%	95-100
	#8 (2.36mm)	83.2	%	65-95
	#16 (1.18mm)	67.9	%	35-75
	#30 (.6mm)	49.2	%	20-55
	#50 (.3mm)	23.6	%	10-30
	#100 (.15mm)	6.6	%	0-10
	#200 (75µm)	1.9	%	
	FM	2.73		2.6-3
	Wash Loss (#200/75um)	1.7	%	0-3
	Total Moisture	5.9	%	

Plant 958-JMT  
 Product 1067-26A Mod LS  
 Period: 01/15/2023 - 01/21/2023

Name/Title Doug Storey / QC Technician  
 Report Date 01/21/2023

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)	96.3	%	95-100
	3/8" (9.5mm)	80.1	%	60-95
	#4 (4.75mm)	14.9	%	5-30
	#8 (2.36mm)	4.3	%	0-12
	#16 (1.18mm)	3.2	%	
	#30 (.6mm)	2.6	%	
	#50 (.3mm)	2.4	%	
	#100 (.15mm)	2.2	%	
	#200 (75µm)	2.1	%	
	Wash Loss (#200/75µm)	1.9	%	0-3
	Total Moisture	3.4	%	

# Edw. C. Levy Co.

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**Plant** 958-JMT

**Product** 1054-6AA LS PI

**Period:** 01/15/2023 - 01/21/2023

**Name/Title** Doug Storey / QC Technician

**Report Date** 01/21/2023

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	98.3	%	95-100
	3/4" (19mm)	85.3	%	
	1/2" (12.5mm)	42.2	%	30-60
	3/8" (9.5mm)	26.4	%	
	#4 (4.75mm)	4.3	%	0-8
	#8 (2.36mm)	2.1	%	
	#16 (1.18mm)	1.9	%	
	#30 (.6mm)	1.8	%	
	#50 (.3mm)	1.7	%	
	#100 (.15mm)	1.7	%	
	#200 (75µm)	1.7	%	
	Wash Loss (#200/75um)	1.6	%	0-2
	Total Moisture	4.2	%	