

Aggregate Optimization Chart

PLANT #: **P-32**

Sample Date: **3/15/21**

Dates Test Represents: **3/16/2021** through **3/22/2021**

Concrete Grade: **S2M**

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (ssd)	ft ³	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1420	8.69	2.62	46.6
26A	71-47	Presque Isle	400	2.45	2.62	13.1
2NS	95-013	Smeller Bay	1230	7.44	2.65	40.3
Total Wt			3050	18.57		100.0

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"	98.4	100.0	100.0	99.3	0.7	0.7
3/4"	78.5	100.0	100.0	90.0	9.3	10.0
1/2"	34.5	96.5	100.0	69.0	20.9	31.0
3/8"	16.3	80.0	100.0	58.4	10.6	41.6
#4	3.3	16.3	96.1	42.4	16.0	57.6
#8	2.1	4.8	83.0	35.1	7.3	64.9
#16	2.1	3.1	66.9	28.4	6.7	71.6
#30	2.0	2.7	43.9	19.0	9.4	81.0
#50	1.9	2.6	18.8	8.8	10.2	91.2
#100	1.7	2.5	4.4	2.9	5.9	97.1
LBW	1.2	2.2	1.0	1.3	1.6	98.7

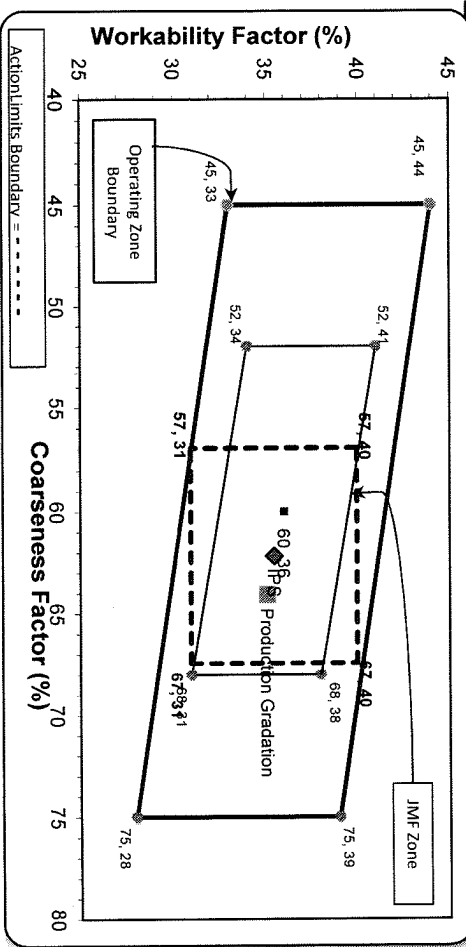
Verify this number is 100%



*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. 1.5") aggregate is used.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **64** Workability Factor: **35**



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:

Edw. C. Levy Co.

Basic Quality Statistical Summary Report

Plant 958-JMT
Product 1022-2NS GR - Smelter Bay
Specification 2NS GR Spec
Period 03/14/2021 - 03/20/2021

Sieve/Test	Tests	Average	St Dev	Target	Specification
3/8" (9.5mm)	1	100.0			100-100
#4 (4.75mm)	1	96.1			95-100
#8 (2.36mm)	1	83.0			65-95
#16 (1.18mm)	1	66.9			35-75
#30 (.6mm)	1	43.9			20-55
#50 (.3mm)	1	18.8		18-28	10-30
#100 (.15mm)	1	4.4			0-10
#200 (75µm)	1	1.0			
Pan	1	0.0			
Wash Loss (#200/75um)	1	1.0			0-3

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Basic Quality Statistical Summary Report

Plant 958-JMT
Product 1054-6AA LS PI
Specification 6AA LS PI Spec
Period 03/14/2021 - 03/20/2021

Sieve/Test	Tests	Average	St Dev	Target	Specification
2" (50mm)	1	100.0			
1 1/2" (37.5mm)	1	100.0			100-100
1" (25mm)	1	98.4			95-100
3/4" (19mm)	1	78.5			
1/2" (12.5mm)	1	34.5			30-60
3/8" (9.5mm)	1	16.3			
#4 (4.75mm)	1	3.3			0-8
#8 (2.36mm)	1	2.1			
#16 (1.18mm)	1	2.1			
#30 (.6mm)	1	2.0			
#50 (.3mm)	1	1.9			
#100 (.15mm)	1	1.7			
#200 (75µm)	1	1.2			
Pan	1	0.0			
Wash Loss (#200/75um)	1	1.2			0-2

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Basic Quality Statistical Summary Report

Plant 958-JMT
Product 1067-26A Mod LS
Specification 26A Mod LS Spec
Period 03/14/2021 - 03/20/2021

Sieve/Test	Tests	Average	St Dev	Target	Specification
2" (50mm)	1	100.0			
1 1/2" (37.5mm)	1	100.0			
1" (25mm)	1	100.0			
3/4" (19mm)	1	100.0			100-100
1/2" (12.5mm)	1	96.5			95-100
3/8" (9.5mm)	1	80.0			60-95
#4 (4.75mm)	1	16.3			5-30
#8 (2.36mm)	1	4.8			0-12
#16 (1.18mm)	1	3.1			
#30 (.6mm)	1	2.7			
#50 (.3mm)	1	2.6			
#100 (.15mm)	1	2.5			
#200 (75µm)	1	2.3			
Pan	1	0.0			
Wash Loss (#200/75um)	1	2.2			0-3