GRAIN SIZE ANALYSIS DATA SHEET
ASTM D6913

PROJECT

Sample _____

Project no.:	Project:	
Date sampled:	Date received:	Date tested:

Boring no.:	Sample no.:	Elevation/depth:	Sample length:

Test requested by:	Technician:	Checked by and title:

Location:

Description/visual classification:

☐ Bulk ☐ SPT ☐ Thin wall ☐ Other:

SPECIMEN DATA

Test method: ☐ A ☐ B	☐ Single sieve set, last sieve =	☐ Composite sieve test with 1 subspecimen	☐ Composite sieve test with 2 subspecimens

Specification set:	Hydrometer performed (ASTM D7928): ☐ Yes ☐ No

Whole specimen tested was selected by:
☐ Using the full sample as received   ☐ A2.1.1 splitter or riffle box   ☐ A2.1.2 quartering   ☐ A2.1.3 miniature stockpile
☐ Sample broken up by: ☐ Mortar & pestle ☐ Pulverizer ☐ Hand ☐ Other:

Whole specimen moisture state when sampled: ☐ Moist   ☐ Air-dry   ☐ Oven

SINGLE SIEVE SET SIEVING DATA

Single sieve set total specimen	Washed: ☐ Yes ☐ No ☐ N/A	Soaked for: min.	Dispersant used: ☐ Yes ☐ No Apparatus used:		Coarser sieve over #200?
	Moist, S,M_m	Air-dry, S,M_{ad}	Single Sieve Set Oven-dry weight, S,M_d		Washed, S_w,M_d
Specimen and tare:					
Tare ID/weight:					
Specimen weight:	$S,M_m=$	$S,M_{ad}=$	$S,M_d=$		$S_w,M_d=$

COMPOSITE SIEVING DATA 1st separation

Subspecimen selection: ☐ A2.1.1 splitter or riffle box ☐ A2.1.2 quartering ☐ A2.1.3 miniature stockpile ☐ D7928 sedimentation specimen	Moisture state when sampled: ☐ Moist ☐ Air-dry ☐ Oven

Composite 1st separation	Washed: ☐ Yes ☐ No ☐ N/A	Soaked for: min.	Dispersant used: ☐ Yes ☐ No Apparatus used:	1st Separation sieve:	
	Coarse portion, oven dry, CP,M_d	Coarse portion, washed, $CP_w M_d$	Fine portion, moist, FP,M_m	Fine subspecimen, dry, $SubS,M_d$	Fine subspecimen, washed,dry, $SubS_w,M_d$
Specimen and tare:					
Tare ID/weight:					
Specimen weight:	$CP,M_d=$	$CP_w M_d=$	$FP,M_m=$	$SubS,M_d=$	$SubS_w,M_d=$

Fine portion moisture, w_{fp}	Wet:	Dry:	Tare ID:	Tare:	$w_{fp}=$

Composite sieving total specimen calculated dry weight $S,M_d= CP,M_d + FP,M_m / (1 + w_{fp}/100)$:

SIEVING DATA: ☐ Single sieve ☐ Composite sieve coarse portion

Sample _____

☐ Sample broken up by: ☐ Mortar & pestle ☐ Pulverizer ☐ Hand ☐ Other:

Cumulative material pan: | ID: | Tare weight:

Sieve number	Mass retained with tare	Individual sieve tare	Cumulative mass retained CMR_N or CP,CMR_N	Load on sieve	% Passing, PP_N

Overloading Limits and Standard 14 Sieves see TABLES 1&3

Sieve	8 in. Max, g	12 in. Max, g	14x22 Max, g
75/3	2700	6100	18000
50/2	2000	4500	13000
37.5/1½	1500	3400	10000
25/1	1100	2500	7000
19/¾	900	2000	6000
9.5/3/8	550	1200	3600
#4	325	730	2000
#10	180	410	1000
#20	112	260	800
#40	75	170	500
#60	60	140	400
#100	40	90	300
#140	30	70	200
#200	20	50	100

Pan w/material = | Pan = | CP,MR_{pan} =

Sieve time, min: | Sieve size:

Notes: _____
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_____
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$CP,MR_{pan} = CP,CMR_{pan} - CP,CMR_{last\ sieve}$ =

Composite sieve loss check: sec 11.5.1.2 and 12.5.1.3 | $CP_L = 100*((CP,M_d - CP_wM_d) + CP,MR_{pan})/S,M_d$ = | 0.5% max

COMPOSITE SIEVING DATA, 2nd separation, if needed

Moisture state when sampled: ☐ Moist ☐ Air-dry ☐ Oven

Subspecimen selection: ☐ A2.1.1 splitter or riffle box ☐ A2.1.2 quartering ☐ A2.1.3 miniature stockpile

2nd Separation	Washed: ☐ Yes ☐ No ☐ N/A Coarser sieve over#200?		Soaked for: min.	Dispersant used: ☐ Yes ☐ No Apparatus used:	Separation Sieve:
	Coarse dry, $2^{nd}CP,M_d$	Coarse washed, $2^{nd}CP_wM_d$	Fine moist, $2^{nd}FP,M_m$	Fine dry, $2^{nd}SubS,M_d$	Washed dry, $2^{nd}SubS_w,M_{d\ -\ 11.6.4.1}$
Specimen and Tare:					
Tare ID/Weight:					
Specimen Weight:	$2^{nd}CP,M_d$=	$2^{nd}CP_wM_d$=	$2^{nd}FP,M_m$=	$2^{nd}SubS,M_d$=	$2^{nd}SubS_w,M_d$=

Notes: _____
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20.10.13

SIEVING DATA: Composite sieve, double separation, 2nd coarse portion

Sample _____

☐ Sample broken up by: ☐ Mortar & pestle ☐ Pulverizer   ☐ Hand ☐ Other:

Cumulative material pan: ID: Tare weight:

Sieve number	Mass retained with tare	Individual sieve tare	Cumulative mass retained 2ndCP,CMR$_N$	Load on Sieve	Overall % Passing, PP$_N$
			2ndCP,CMR$_{first}$		

2ndCP,FPR$_{first}$ / SubS,M$_d$ (sec 12.6.2.4) =	2% max

Sieve number	Mass retained with tare	Individual sieve tare	Cumulative mass retained	Load on Sieve	Overall % Passing

Sieve time, min: Sieve size:

2ndCP,MR$_{pan}$ = 2ndCP,CMR$_{pan}$ - CP,CMR$_{last\ sieve}$ =

2nd coarse composite sieve loss check: sec 11.6.2.2 and 12.6.2.3	2nd CP$_L$=100*((2ndCP,M$_d$ - 2ndCP$_w$,M$_d$) + 2ndCP,MR$_{pan}$) / SubS, M$_d$=	0.5% max

Maximum sample size for 1% or more retained on given sieve, see TABLE 2

Sieve	Method A grams	Method B grams
0.425 mm #40	50	75
2.0 mm #10	50	100
4.75 mm #4	75	200
9.5 mm 3/8"	165	n/a
19 mm 3/4"	1300	n/a
25.4 mm 1"	3000	n/a
38.1 mm 1-½"	10000	n/a
50.8 mm 2"	25000	n/a
76.2 mm 3"	70000	n/a

Notes: _____
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SIEVING DATA: Composite sieve fine portion, ☐ subspecimen ☐ 2nd subspecimen

☐ Sample broken up by: ☐ Mortar & pestle ☐ Pulverizer   ☐ Hand ☐ Other:

Cumulative material pan: ID: Tare weight:

Sieve number	Mass retained with tare	Individual sieve tare	Cumulative mass retained SubS,FCMR$_N$ or 2ndSubS,FCMR$_N$	Load on Sieve	Overall % Passing, PP$_N$
			SubS,FCMR$_{first}$ or 2ndSubS,FCMR$_{first}$		

☐ SubS,FCMR$_{first}$ / SubS,M$_d$ (sec 11.6.3.2) = ☐ 2ndSubS,FCMR$_{first}$ / 2ndSubS,M$_d$ (sec 12.6.2.4) =	2% max

Sieve number	Mass retained with tare	Individual sieve tare	Cumulative mass retained	Load on Sieve	Overall % Passing

Sieve time, min: Sieve size:

Technicians/reviewers

	Setup	Dry mass	Wash
Test specimen			
Coarse portion			
Fine portion			
Data entry — Date			
Data entry — By			
Checked			
Spot checked			
Reviewed			

Notes: _____
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