NMBAQC

NE Atlantic Marine Biological Analytical Quality Control Scheme

Particle Size Report - PS66

Particle Size Component 2017/18

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APEM

CONTENTS

BENCHMARK DATA– OVERVIEW

Table 1. Summary data for the benchmark replicates distributed as PS66.

	Method	% Gravel	% Sand	% Mud	Sediment Description (Post analysis)
BM REPLICATE 1	NMBAQC	8.32	66.93	24.75	Gravelly Muddy Sand
BM REPLICATE 2	NMBAQC	8.26	67.05	24.69	Gravelly Muddy Sand
BM REPLICATE 3	NMBAQC	8.34	67.50	24.15	Gravelly Muddy Sand
BM REPLICATE 4	NMBAQC	8.51	65.58	25.92	Gravelly Muddy Sand
BM REPLICATE 5	NMBAQC	8.51	67.41	24.07	Gravelly Muddy Sand
BM REP AVERAGE	NMBAQC	8.39	66.89	24.72	Gravelly Muddy Sand

BENCHMARK DATA – SIEVE

Table 2. Summary of sieve data for the benchmark replicates distributed as PS66.

	BM REP 1	BM REP 2	BM REP 3	BM REP 4	BM REP 5
Sieves used	☑	☑	☑	☑	☑
Phi interval; mm	**Weight in grams**				
-6.50 to -6.00; 63 mm	0.00	0.00	0.00	0.00	0.00
-6.00 to -5.50; 45 mm	0.00	0.00	0.00	0.00	0.00
-5.50 to -5.00; 31.5 mm	0.00	0.00	0.00	0.00	0.00
-5.00 to -4.50; 22.4 mm	0.00	0.00	0.00	0.00	0.00
-4.50 to -4.00; 16 mm	0.00	0.00	0.00	0.00	4.92
-4.00 to -3.50; 11.2 mm	33.55	35.48	35.66	35.96	29.77
-3.50 to -3.00; 8 mm	7.07	0.13	3.40	4.10	6.44
-3.00 to -2.50; 5.6 mm	17.55	23.84	20.36	19.52	18.11
-2.50 to -2.00; 4 mm	0.74	0.40	0.59	1.24	0.81
-2.00 to -1.50; 2.8 mm	0.40	0.29	0.18	0.50	0.19
-1.50 to -1.00; 2 mm	4.66	4.22	4.82	4.61	4.82
-1.00 to -0.50; 1.4 mm	0.06	0.05	0.06	0.04	0.05
-0.50 to 0.00; 1 mm	0.03	0.03	0.03	0.02	0.02
Weight (g) < 0.00; >1 mm	64.06	64.44	65.10	65.99	65.13
Weight (g) > 0.00; <1 mm	705.06	714.86	714.19	709.12	699.01
Total Weight (g)	769.12	779.30	779.29	775.11	764.14

BENCHMARK DATA – LASER

Table 3. Summary of final laser data for the benchmark replicates distributed as PS66.

	BM REP 1	BM REP 2	BM REP 3	BM REP 4	BM REP 5
Laser used	☑	☑	☑	☑	☑
0.00 to 0.50; (707 µm)	12.34	12.17	12.43	10.67	13.01
0.50 to 1.00; (500 µm)	21.30	21.61	21.74	20.37	21.92
1.00 to 1.50; (353.6 µm)	20.83	21.05	21.40	21.48	20.89
1.50 to 2.00; (250 µm)	9.70	9.59	9.55	10.21	9.44
2.00 to 2.50; (176.8 µm)	2.52	2.46	2.43	2.64	2.44
2.50 to 3.00; (125 µm)	1.66	1.67	1.63	1.70	1.65
3.00 to 3.50; (88.39 µm)	2.17	2.13	2.07	2.14	2.02
3.50 to 4.00; (62.5 µm)	2.47	2.40	2.39	2.46	2.31
4.00 to 4.50; (44.19 µm)	3.04	3.03	2.98	3.13	2.93
4.50 to 5.00; (31.25 µm)	3.65	3.64	3.61	3.74	3.51
5.00 to 5.50; (22.097 µm)	3.65	3.64	3.58	3.78	3.54
5.50 to 6.00; (15.625 µm)	3.59	3.57	3.50	3.73	3.49
6.00 to 6.50; (11.049 µm)	3.33	3.30	3.23	3.46	3.23
6.50 to 7.00; (7.813 µm)	2.75	2.73	2.66	2.89	2.69
7.00 to 7.50; (5.524 µm)	2.10	2.09	2.03	2.24	2.06
7.50 to 8.00; (3.906 µm)	1.47	1.47	1.43	1.59	1.45
8.00 to 8.50; (2.762 µm)	0.94	0.93	0.91	1.02	0.92
8.50 to 9.00; (1.953 µm)	0.58	0.58	0.56	0.64	0.57
9.00 to 9.50; (1.381 µm)	0.40	0.40	0.39	0.44	0.39
9.50 to 10.00; (0.977 µm)	0.31	0.32	0.31	0.34	0.31
10.00 to 10.50; (0.691 µm)	0.27	0.28	0.27	0.30	0.27
10.50 to 11.00; (0.488 µm)	0.24	0.25	0.24	0.27	0.25
11.00 to 11.50; (0.345 µm)	0.21	0.22	0.21	0.24	0.22
11.50 to 12.00; (0.244 µm)	0.18	0.18	0.17	0.20	0.18
12.00 to 12.50; (0.173 µm)	0.13	0.14	0.13	0.15	0.14
12.50 to 13.00; (0.122 µm)	0.10	0.10	0.10	0.11	0.10
13.00 to 13.50; (0.086 µm)	0.06	0.06	0.06	0.07	0.06
Total	100.00	100.00	100.00	100.00	100.00

Figure 1. Graphical presentations of (a) sieve data and (b) laser data produced by the benchmark lab for sediment distributed as PS66.

Figure 1a. Percentage bar charts resulting from final sieve analysis of 5 replicate samples of sediment distibuted as PS66 (Benchmark Data).

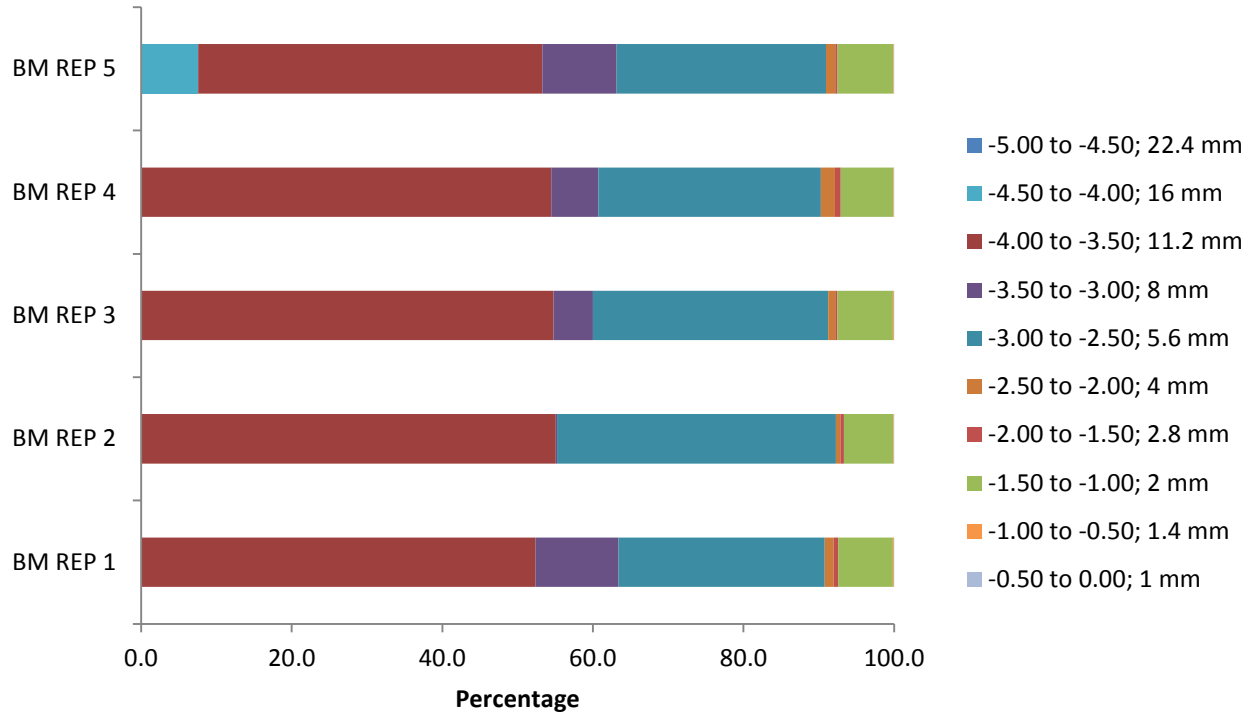


Figure 1b. Particle size distribution curves resulting from final laser analysis of 5 replicate samples of sediment distibuted as PS66 (Benchmark Data).

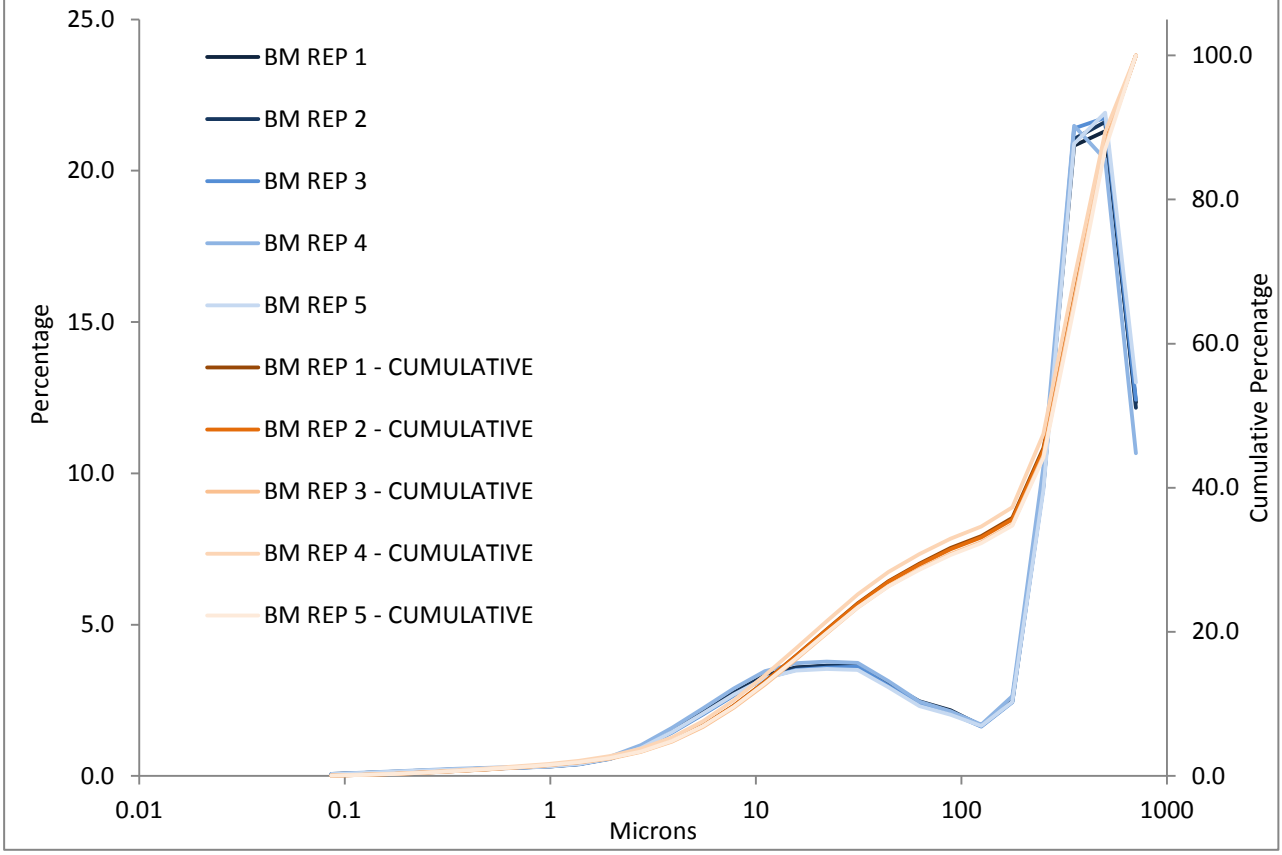
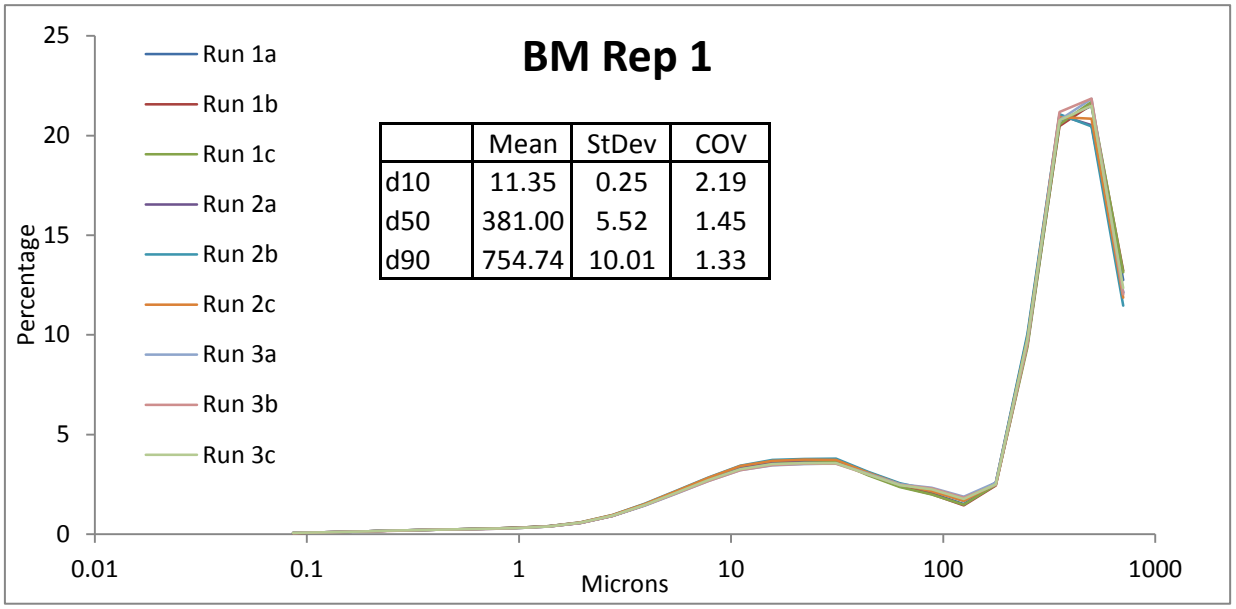
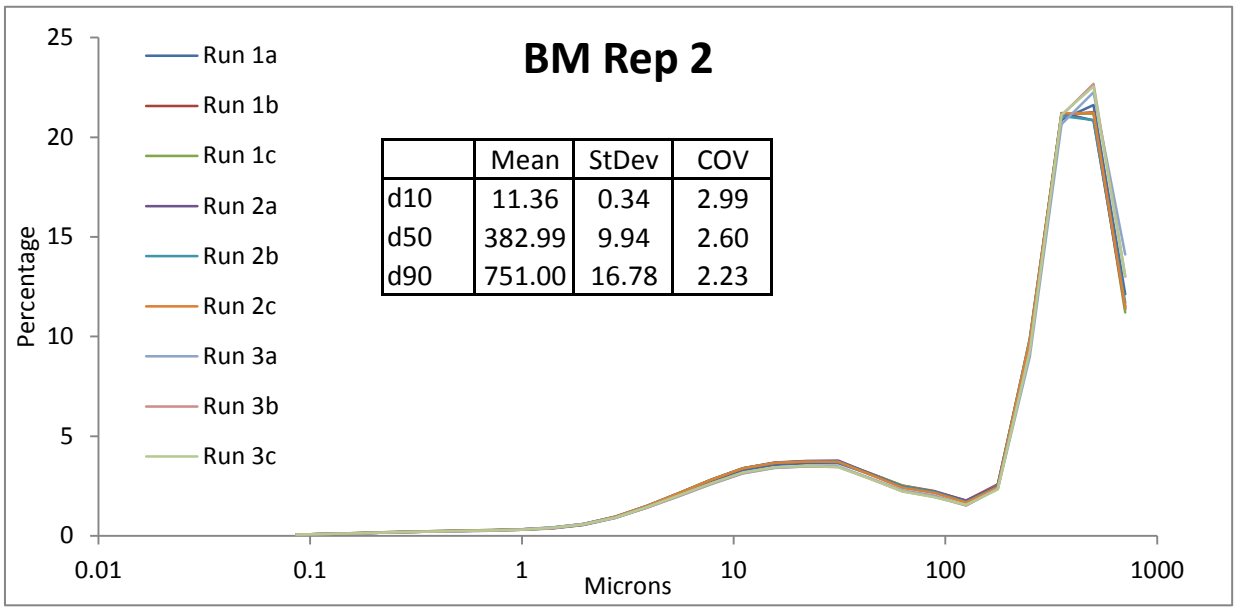


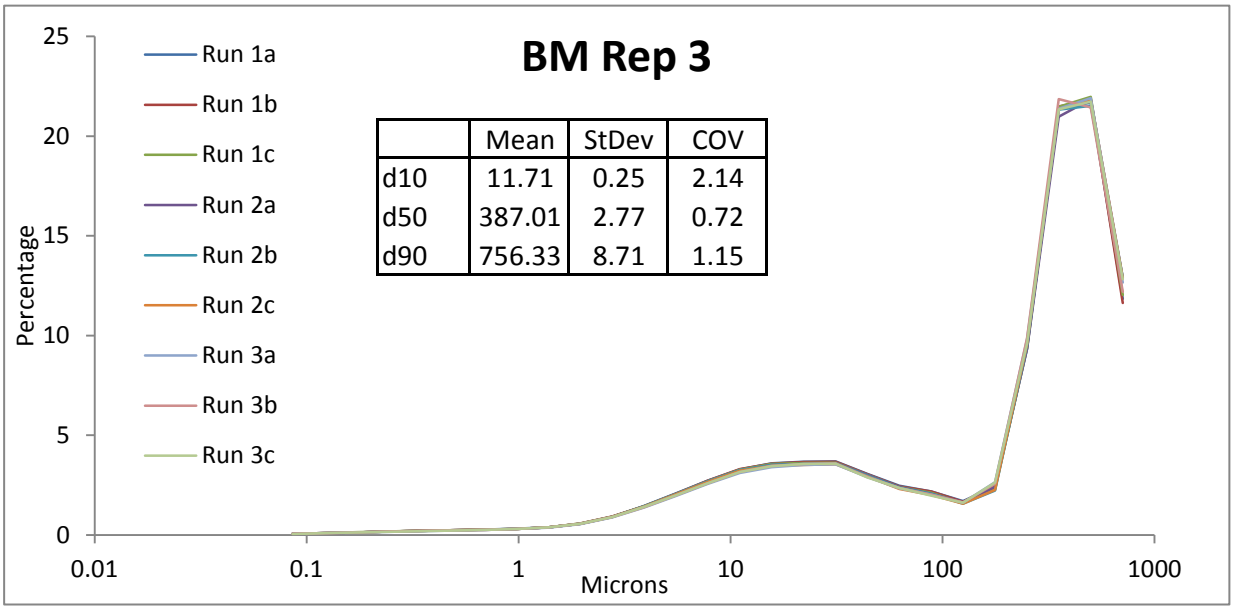
Figure 2. Particle size distribution curves resulting from laser analysis of five replicate samples of sediment distributed as PS66 along with sample statistics and Coefficient of Variance.



	Mean	StDev	COV
d10	11.35	0.25	2.19
d50	381.00	5.52	1.45
d90	754.74	10.01	1.33

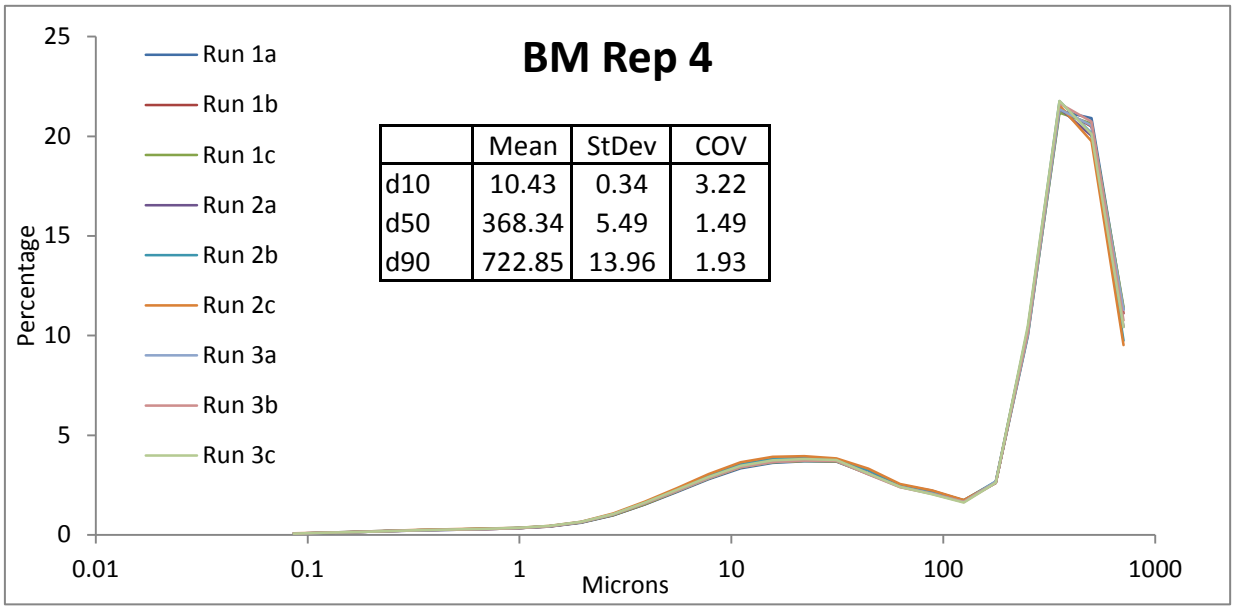


	Mean	StDev	COV
d10	11.36	0.34	2.99
d50	382.99	9.94	2.60
d90	751.00	16.78	2.23

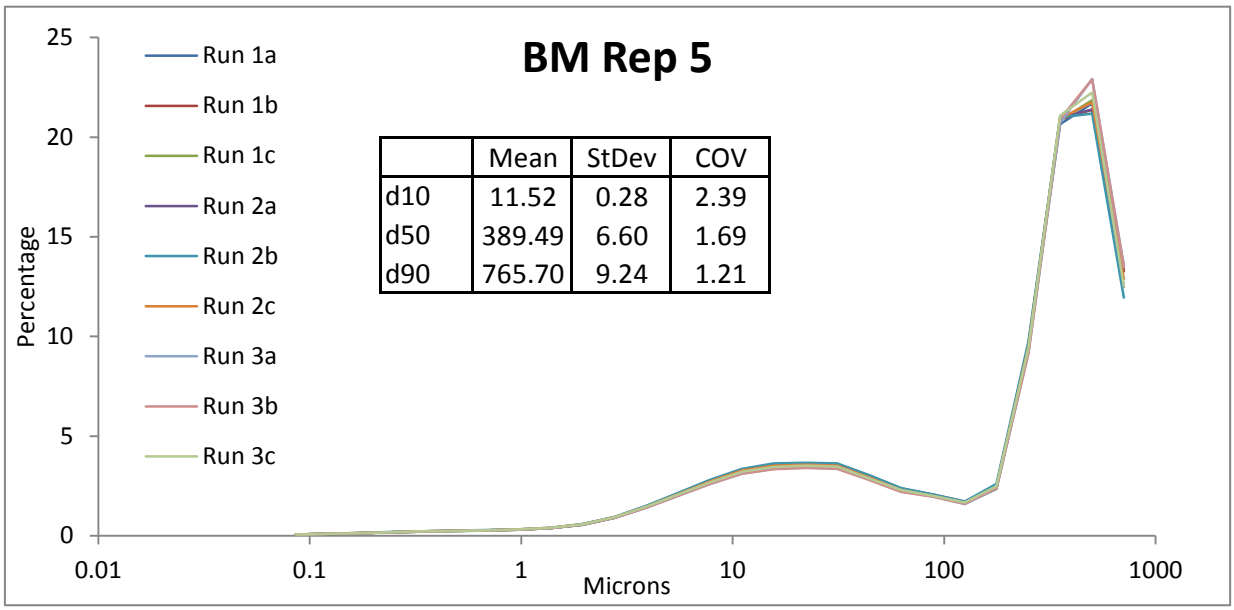


	Mean	StDev	COV
d10	11.71	0.25	2.14
d50	387.01	2.77	0.72
d90	756.33	8.71	1.15

Figure 2. Particle size distribution curves resulting from laser analysis of five replicate samples of sediment distributed as PS66 along with sample statistics and Coefficient of Variance.



	Mean	StDev	COV
d10	10.43	0.34	3.22
d50	368.34	5.49	1.49
d90	722.85	13.96	1.93



	Mean	StDev	COV
d10	11.52	0.28	2.39
d50	389.49	6.60	1.69
d90	765.70	9.24	1.21

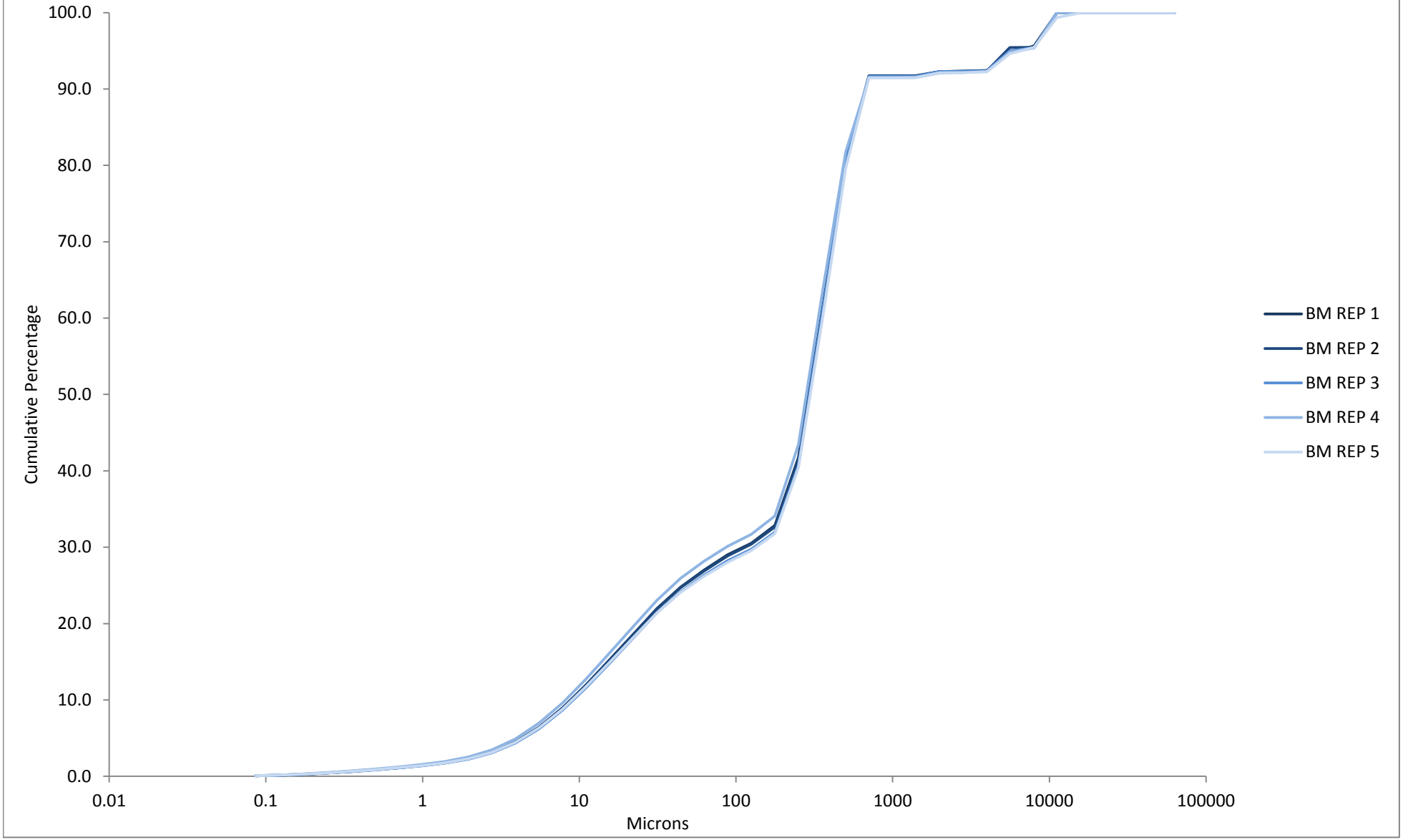
$$COV = \left(\frac{StDev}{Mean}\right) * 100$$

Good reproducibility when: COV is <3% for D50
COV is <5% for D10 and D90

All limits double when the D50 is <10microns.

All Benchmark laser replicates distributed as PS66 show a COV <3% for the D50 and <5% for the D10 and D90.
The laser replicates show good reproducibility.

Figure 3. Particle size distribution curves resulting from analysis of 5 replicate samples of sediment distibuted as PS66 (Benchmark Data).



PARTICIPANT DATA

Table 4. Summary of equipment and methods used by participants and sample summary data for sediment distributed as PS66.

Lab	Equipment Used		Method Used	Chemical Dispersant Used	Peroxide pre-treatment Used	Summary Data			Sediment Description (Post Analysis)
	Sieves	Laser				% Gravel	% Sand	% Mud	
Benchmark Average	YES	YES	NMBAQC	NO	NO	8.39	66.89	24.72	Gravelly Muddy Sand
PSA_2401	YES	YES	NMBAQC	NO	NO	4.54	75.95	19.51	Slightly Gravelly Muddy Sand
PSA_2402	NO	YES	NMBAQC	NO	NO	9.1	56.8	34.1	Gravelly Muddy Sand
PSA_2403	YES	YES	NMBAQC	NO	NO	6.97	62.73	30.30	Gravelly Muddy Sand
PSA_2404	YES	YES	NMBAQC	NO	NO	8.5	70.9	20.6	Gravelly Muddy Sand
PSA_2405	YES	YES	NMBAQC	NO	NO	8	74	18	Gravelly Muddy Sand
PSA_2406	YES	YES	NMBAQC	NO	NO	10.08	59.61	30.31	Gravelly Muddy Sand
PSA_2407	YES	YES	NMBAQC	NO	NO	8.48	67.70	23.83	Gravelly Muddy Sand
PSA_2408	YES	NO	OTHER	YES	NO	8.6	81.8	9.5	Gravelly Muddy Sand
PSA_2409	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p
PSA_2410	YES	YES	NMBAQC	NO	NO	8.84	71.39	19.77	Medium Gravelly Very Coarse Silty Coarse Sand
PSA_2411	YES	YES	NMBAQC	NO	NO	8.45	66.41	25.14	Gravelly Muddy Sand
PSA_2412	YES	YES	NMBAQC	YES	NO	8.48	75.26	16.27	Gravelly Muddy Sand
PSA_2413	YES	YES	NMBAQC	NO	NO	8.3	37.0	54.7	Gravelly Mud
PSA_2414	YES	YES	NMBAQC	NO	NO	7.8	41.7	50.5	Gravelly Mud
PSA_2415	YES	YES	NMBAQC	NO	NO	n/a	61.50	38.20	Muddy Sand
PSA_2416	YES	YES	NMBAQC	NO	NO	8.22	60.00	31.77	Gravelly Muddy Sand

NB: Decimal places as supplied by participant.

n/p - provided confirmation of non participation.
n/a - not analysing sediment greater than 1mm.

PARTICIPANT DATA

Table 5. Raw sieve data (weight in grams) provided by participants for sediment distributed as PS66.

		Participant															
Phi interval (explicit) + sieve mesh		Benchmark Average	PSA_2401	PSA_2402	PSA_2403	PSA_2404	PSA_2405	PSA_2406	PSA_2407	PSA_2408	PSA_2409	PSA_2410	PSA_2411	PSA_2412	PSA_2413	PSA_2414	PSA_2415	PSA_2416
-6.50 to -6.00; 63 mm		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00	0.00	n/a	0.00
-6.00 to -5.50; 45 mm		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00	0.00	n/a	0.00
-5.50 to -5.00; 31.5 mm		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00	0.00	n/a	0.00
-5.00 to -4.50; 22.4 mm		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	0.00	0.00	0.00	0.00	n/a	0.00
-4.50 to -4.00; 16 mm		0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/p	0.00	4.62	34.44	0.00	7.37	n/a	0.00
-4.00 to -3.50; 11.2 mm		34.08	11.40	35.426	24.96	34.31	35.48	35.90	34.08	35.71	n/p	35.76	29.47	1.03	31.92	22.88	n/a	35.09
-3.50 to -3.00; 8 mm		4.23	4.66	2.185	0.73	0.32	1.61	0.96	3.74	3.37	n/p	4.76	2.32	0.00	1.42	1.35	n/a	5.36
-3.00 to -2.50; 5.6 mm		19.88	11.90	18.429	21.04	22.46	22.95	21.92	20.96	21.27	n/p	19.37	21.52	24.27	19.54	19.21	n/a	19.17
-2.50 to -2.00; 4 mm		0.76	0.05	2.983	0.26	1.03	0.04	0.49	1.43	0.37	n/p	0.85	0.85	0.36	0.00	1.36	n/a	0.21
-2.00 to -1.50; 2.8 mm		0.31	0.16	0.112	0.78	0.27	0.00	0.04	0.27	0.07	n/p	0.76	0.62	0.00	0.00	0.00	n/a	0.60
-1.50 to -1.00; 2 mm		4.63	4.33	3.807	4.05	4.48	5.26	5.05	4.14	4.81	n/p	4.79	4.98	5.16	4.02	4.41	n/a	4.36
-1.00 to -0.50; 1.4 mm		0.05	0.02	0.503	0.06	0.03	0.04	0.10	0.03	0.04	n/p	0.16	0.04	0.03	0.12	0.13	n/a	0.01
-0.50 to 0.00; 1 mm		0.03	0.11	0.007	0.19	0.03	0.01	0.10	0.14	0.08	n/p	0.17	0.02	0.05	0.01	0.04	n/a	0.07
Total		64.94	32.63	63.45	52.07	62.93	65.39	64.56	64.79	65.73	n/p	66.62	64.44	65.34	57.03	56.75	n/a	64.87
Summary Data																		
< 0.00; >1 mm		64.94	32.63	63.45	52.07	63.61	65.39	64.56	64.79	65.73	n/p	66.62	64.44	65.34	57.03	56.75	n/a	64.87
> 0.00; <1 mm	Base pan	0.48	0.39	0.27	0.69	0.68	1.33	0.56	0.23	0.00	n/p	3.58	0.21	0.49	2.45	0.68	n/a	4.24
	Oven dried	707.97	683.50	627.51	690.79	672.91	725.13	573.10	697.39	694.48	n/p	679.56	697.13	703.93	-	666.45	n/a	719.24
Total Sample Weight		773.39	716.52	691.24	743.55	736.52	791.85	638.22	762.41	760.20	n/p	749.76	761.78	769.77	59.48	723.88	n/a	788.35

n/p - provided confirmation of non participation.

n/a - not participating in analysis of sediment greater than 1mm.

- data not supplied

PARTICIPANT DATA

Table 6. Summary of final laser data for the participants for sediment distributed as PS66.

Phi interval (explicit) + sieve mesh	BM Average	PSA_2401	PSA_2402	PSA_2403	PSA_2404	PSA_2405	PSA_2406	PSA_2407	PSA_2408*	PSA_2409	PSA_2410	PSA_2411	PSA_2412	PSA_2413	PSA_2414	PSA_2415	PSA_2416
0.00 to 0.50; (707 µm)	12.12	7.52	10.01	10.00	9.38	6.60	6.93	12.88	4.20	n/p	20.48	10.13	14.26	0.00	2.92	6.32	6.44
0.50 to 1.00; (500 µm)	21.39	21.43	16.57	18.56	20.98	20.20	15.69	23.82	15.19	n/p	23.50	21.05	24.53	3.77	8.64	14.66	13.66
1.00 to 1.50; (353.6 µm)	21.13	26.02	16.74	19.43	24.40	24.22	20.23	22.93	32.71	n/p	15.03	22.58	24.41	11.25	10.69	17.24	16.33
1.50 to 2.00; (250 µm)	9.70	17.58	10.47	11.43	15.51	16.50	11.35	9.49	28.43	n/p	4.93	10.48	13.48	10.83	7.51	11.19	11.54
2.00 to 2.50; (176.8 µm)	2.50	5.13	3.54	3.16	4.72	6.02	4.08	1.32	7.24	n/p	0.76	2.54	3.16	4.62	3.22	4.07	4.84
2.50 to 3.00; (125 µm)	1.66	0.31	0.65	0.44	0.40	1.20	2.54	0.53	1.27	n/p	1.47	1.57	0.04	1.42	2.45	1.36	1.58
3.00 to 3.50; (88.39 µm)	2.11	0.11	1.43	1.30	0.86	2.02	2.52	1.21	0.25	n/p	2.95	1.95	0.42	2.91	3.72	2.48	2.07
3.50 to 4.00; (62.5 µm)	2.40	1.46	3.09	3.01	2.11	3.99	2.94	1.80	0.28	n/p	3.54	2.24	1.92	5.50	6.03	4.18	3.53
4.00 to 4.50; (44.19 µm)	3.02	2.12	4.10	3.82	2.54	4.44	3.64	2.48	0.65	n/p	3.58	2.92	2.58	6.90	6.55	5.02	4.32
4.50 to 5.00; (31.25 µm)	3.63	2.11	4.48	4.00	2.56	3.64	4.14	3.23	0.20	n/p	3.50	3.59	2.58	7.60	7.95	5.33	4.53
5.00 to 5.50; (22.097 µm)	3.64	2.26	4.64	4.19	2.70	2.71	4.25	3.25	0.40	n/p	3.30	3.64	2.47	8.02	7.91	5.43	4.59
5.50 to 6.00; (15.625 µm)	3.58	2.24	4.67	4.37	2.78	2.09	4.13	3.24	0.35	n/p	2.89	3.58	2.34	8.29	7.77	5.29	4.52
6.00 to 6.50; (11.049 µm)	3.31	2.26	4.47	4.27	2.56	1.67	3.98	3.05	0.44	n/p	2.32	3.34	2.08	7.99	7.10	4.89	4.15
6.50 to 7.00; (7.813 µm)	2.75	2.19	4.04	3.74	2.30	1.29	3.43	2.63	0.23	n/p	1.69	2.82	1.69	6.95	6.18	4.23	3.46
7.00 to 7.50; (5.524 µm)	2.11	1.93	3.46	2.93	1.88	0.96	2.73	2.16	0.20	n/p	1.12	2.20	1.29	5.65	5.17	3.36	2.60
7.50 to 8.00; (3.906 µm)	1.48	1.72	2.76	2.07	1.46	0.71	2.03	1.65	0.09	n/p	0.69	1.57	0.96	4.05	3.85	2.34	1.77
8.00 to 8.50; (2.762 µm)	0.94	1.27	1.99	1.34	1.05	0.55	1.41	1.14	0.16	n/p	0.42	1.02	0.69	2.67	1.99	1.48	0.94
8.50 to 9.00; (1.953 µm)	0.59	0.94	1.25	0.79	0.62	0.41	0.96	0.76	0.14	n/p	0.29	0.64	0.46	1.32	0.37	0.75	0.22
9.00 to 9.50; (1.381 µm)	0.40	0.58	0.69	0.44	0.29	0.27	0.66	0.53	7.58	n/p	0.23	0.44	0.29	0.26	0.00	0.13	0.00
9.50 to 10.00; (0.977 µm)	0.32	0.37	0.41	0.30	0.19	0.20	0.47	0.41	No laser - sieve weights converted to percentages for comparison.	n/p	0.15	0.35	0.20	0.00	0.00	0.00	0.01
10.00 to 10.50; (0.691 µm)	0.28	0.28	0.32	0.26	0.14	0.19	0.38	0.35		n/p	0.01	0.30	0.13	0.00	0.00	0.00	0.30
10.50 to 11.00; (0.488 µm)	0.25	0.17	0.23	0.15	0.00	0.10	0.34	0.31		n/p	0.00	0.27	0.01	0.00	0.00	0.00	0.32
11.00 to 11.50; (0.345 µm)	0.22	0.00	0.00	0.00	0.00	0.00	0.32	0.27		n/p	0.00	0.24	0.00	0.00	0.00	0.00	0.06
11.50 to 12.00; (0.244 µm)	0.18	0.00	0.00	0.00	0.00	0.00	0.29	0.22		n/p	0.00	0.20	0.00	0.00	0.00	0.00	0.00
12.00 to 12.50; (0.173 µm)	0.14	0.00	0.00	0.00	0.00	0.00	0.23	0.17		n/p	0.00	0.15	0.00	0.00	0.00	0.00	0.00
12.50 to 13.00; (0.122 µm)	0.10	0.00	0.00	0.00	0.00	0.00	0.17	0.12		n/p	0.00	0.11	0.00	0.00	0.00	0.00	0.00
13.00 to 13.50; (0.086 µm)	0.06	0.00	0.00	0.00	0.00	0.00	0.16	0.07		n/p	0.00	0.07	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	99.45	99.99	100.00	100.00	100.00	n/p	92.85	100.00	100.00	100.00	100.00	99.74	91.76

Figure 4. Final sieve data (in percentages) provided by each participant and the Benchmark Average for sediment distributed as PS66.

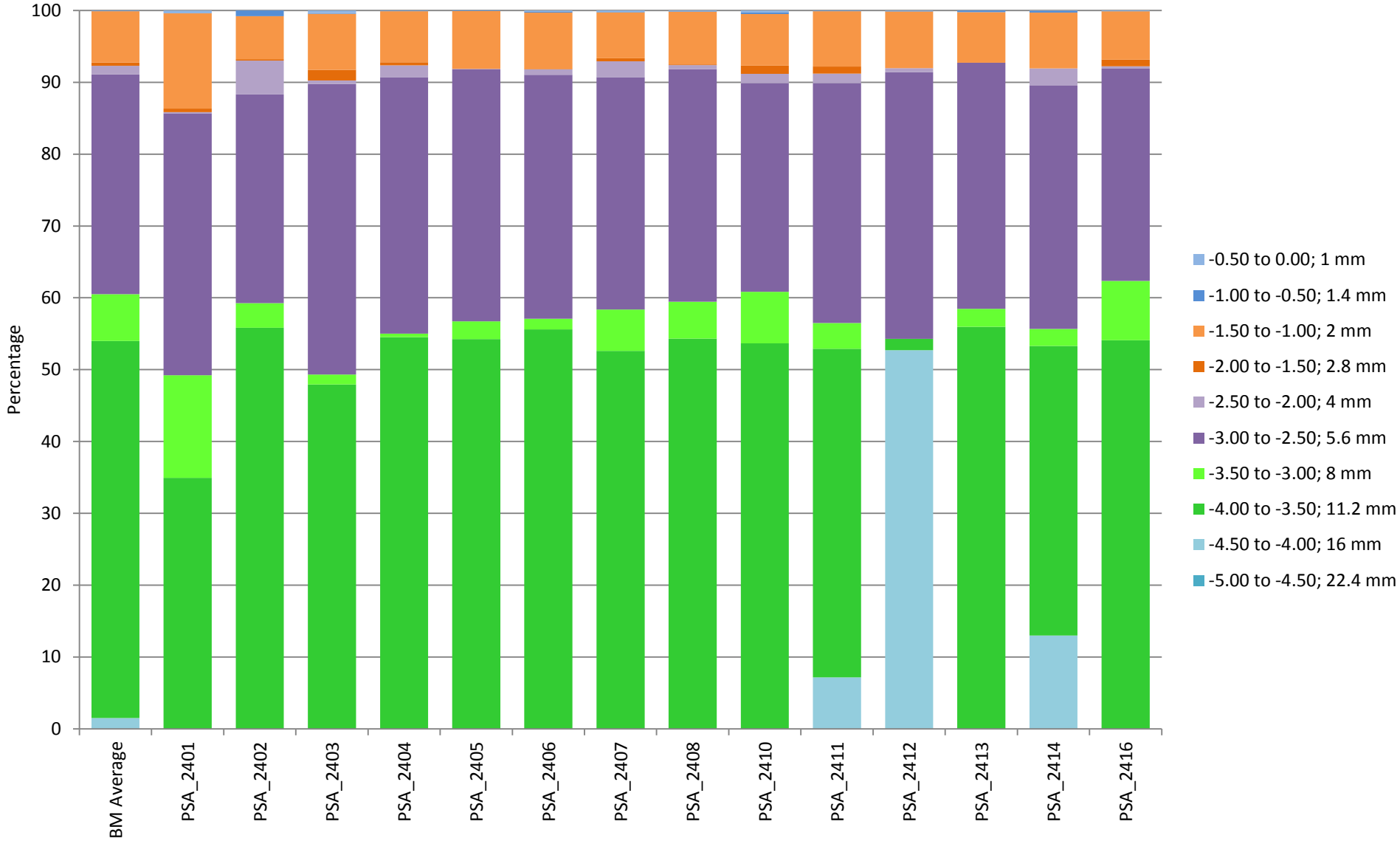
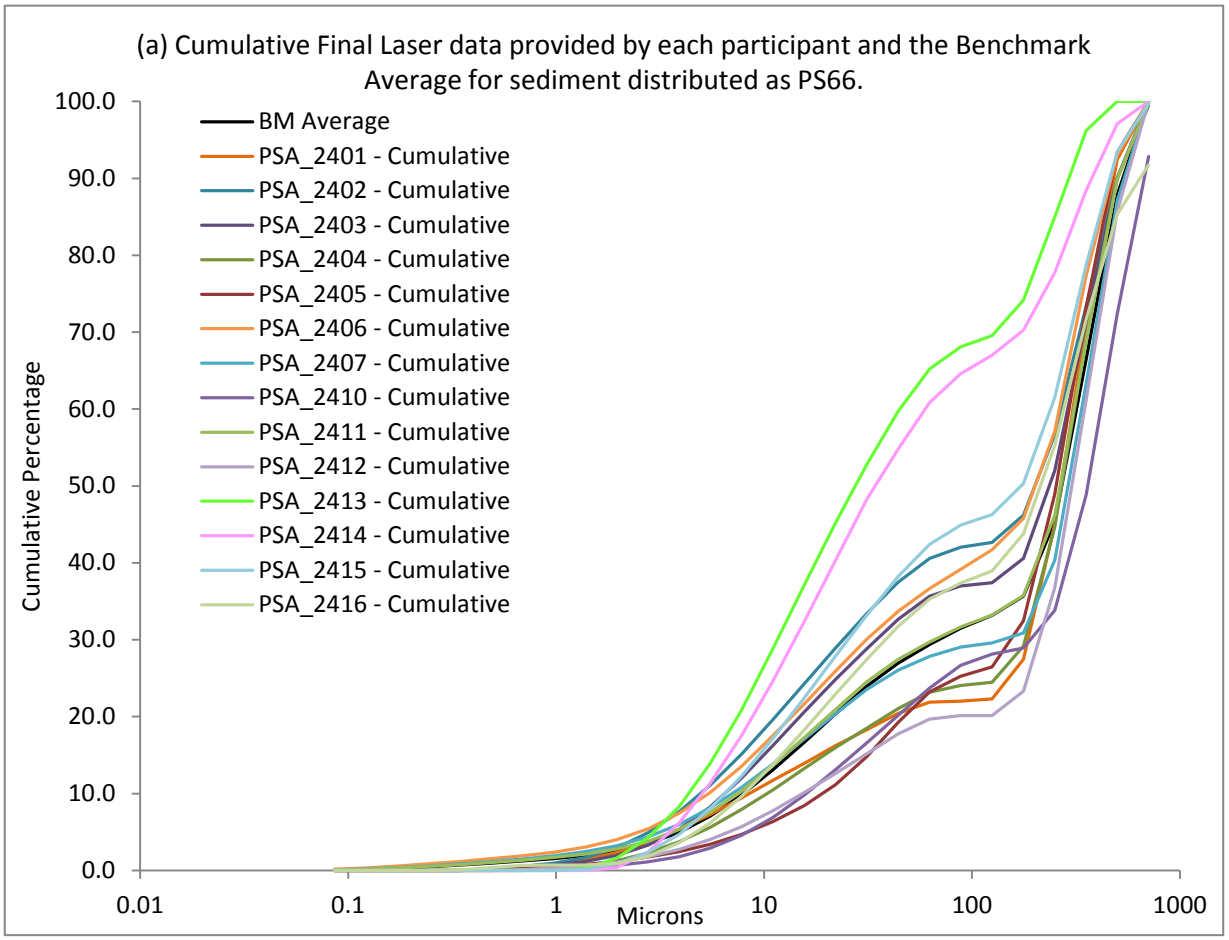


Figure 5. Final laser data provided by each participant and the Benchmark Average for sediment distributed as PS66, shown as (a) cumulative and (b) differential.



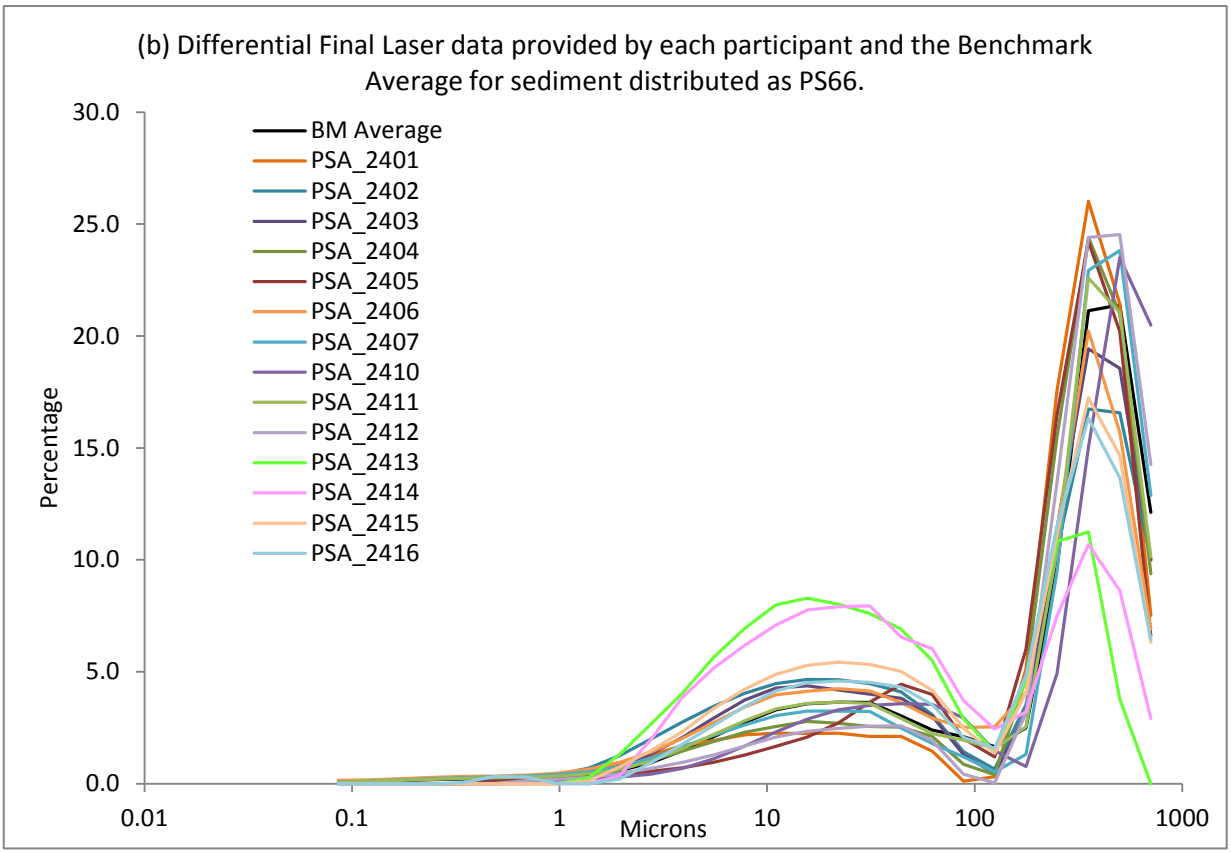


Figure 6. Particle size distribution curves from all participating laboratories and the Benchmark Average for sediment distributed as PS66.

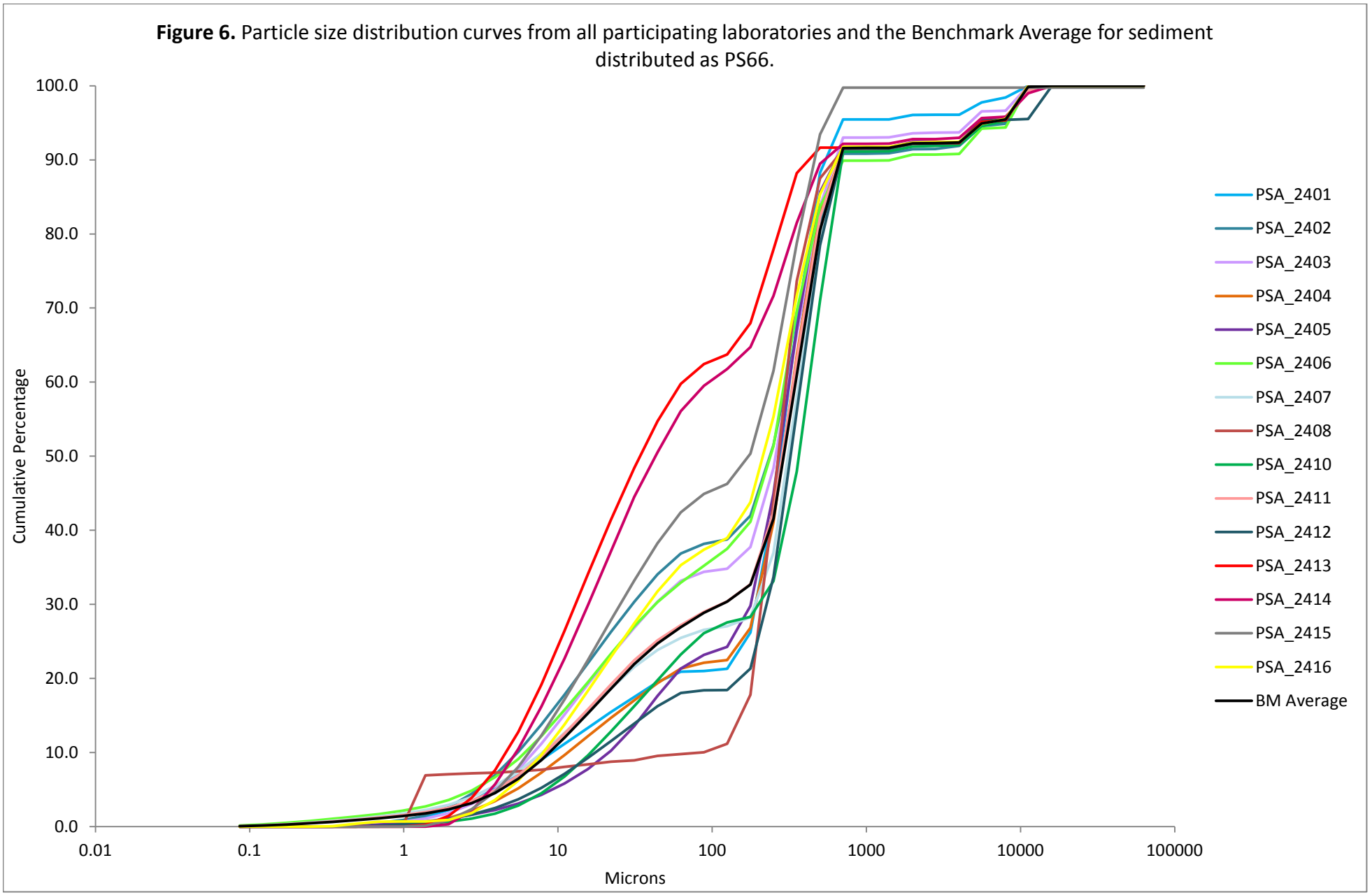
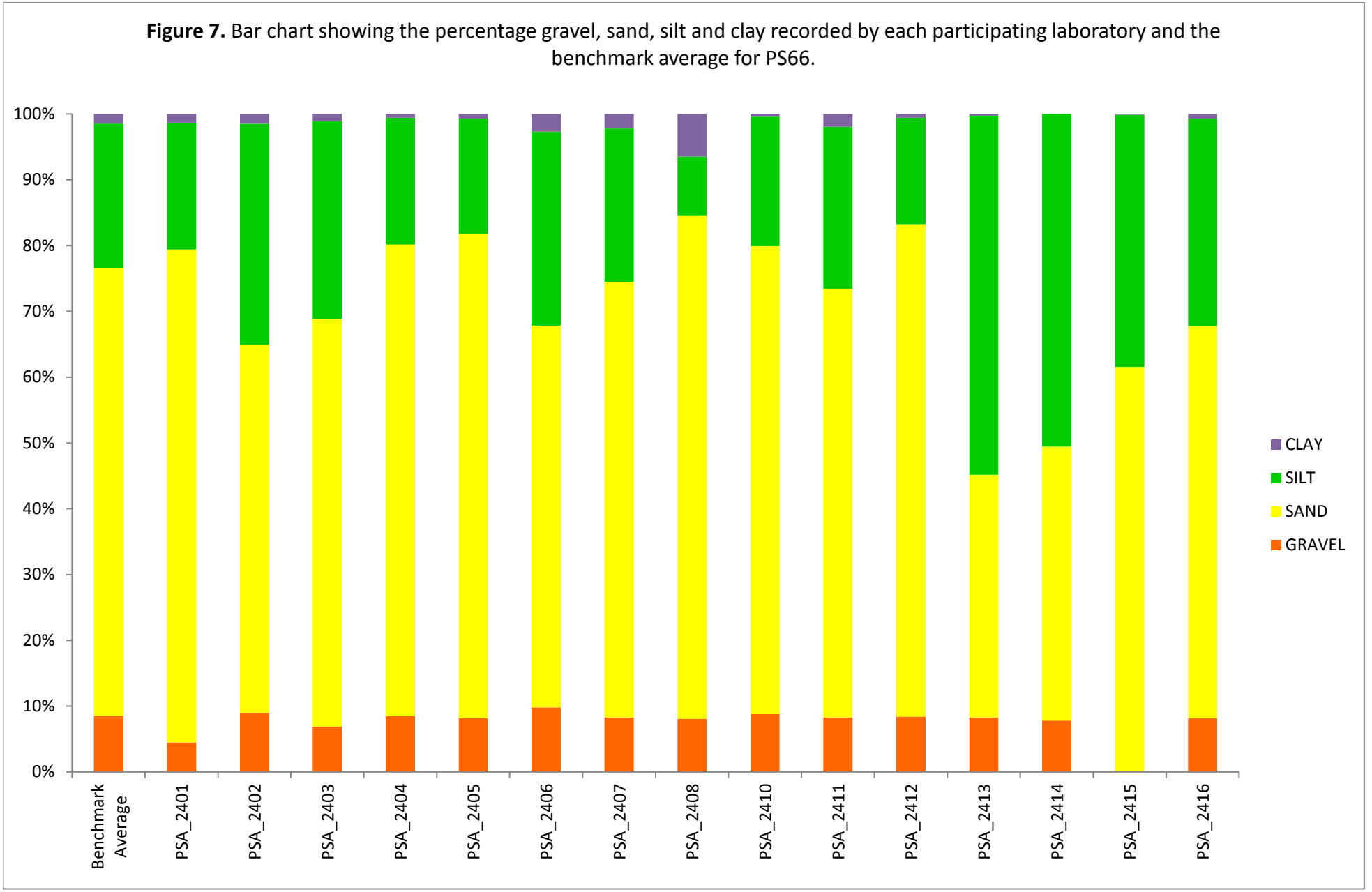


Figure 7. Bar chart showing the percentage gravel, sand, silt and clay recorded by each participating laboratory and the benchmark average for PS66.



APPENDICES

APPENDIX 1. Gradistat output of size categories based on final merged data provided by each participant and the Benchmark Average for sediment distributed as PS66 (used to create Figure 7).

	BM Average	PSA_2401	PSA_2402	PSA_2403	PSA_2404	PSA_2405	PSA_2406	PSA_2407	PSA_2408	PSA_2409	PSA_2410	PSA_2411	PSA_2412	PSA_2413	PSA_2414	PSA_2415	PSA_2416
VERY COARSE GRAVEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
COARSE GRAVEL	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.01	0.04	0.00	0.01	0.00	0.00
MEDIUM GRAVEL	4.95	0.02	0.05	0.03	0.05	0.05	0.06	0.05	0.05		0.05	0.04	0.00	0.05	0.03	0.00	0.05
FINE GRAVEL	2.67	0.02	0.03	0.03	0.03	0.03	0.04	0.03	0.03		0.03	0.03	0.03	0.03	0.03	0.00	0.02
VERY FINE GRAVEL	0.64	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.01	0.01	0.01	0.01	0.00	0.01
VERY COARSE SAND	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
COARSE SAND	30.70	0.28	0.24	0.27	0.28	0.25	0.20	0.34	0.18		0.43	0.29	0.35	0.03	0.11	0.21	0.20
MEDIUM SAND	28.24	0.42	0.25	0.29	0.37	0.37	0.28	0.30	0.56		0.20	0.30	0.35	0.20	0.17	0.28	0.28
FINE SAND	3.81	0.05	0.04	0.03	0.05	0.07	0.06	0.02	0.08		0.02	0.04	0.03	0.06	0.05	0.05	0.06
VERY FINE SAND	4.13	0.01	0.04	0.04	0.03	0.06	0.05	0.03	0.00		0.06	0.04	0.02	0.08	0.09	0.07	0.06
VERY COARSE SILT	6.09	0.04	0.08	0.07	0.05	0.07	0.07	0.05	0.01		0.07	0.06	0.05	0.13	0.13	0.10	0.09
COARSE SILT	6.61	0.04	0.08	0.08	0.05	0.04	0.08	0.06	0.01		0.06	0.07	0.04	0.15	0.14	0.11	0.09
MEDIUM SILT	5.55	0.04	0.08	0.07	0.04	0.03	0.07	0.05	0.01		0.04	0.06	0.03	0.14	0.12	0.09	0.08
FINE SILT	3.29	0.03	0.06	0.05	0.03	0.02	0.04	0.03	0.00		0.02	0.03	0.02	0.09	0.08	0.06	0.04
VERY FINE SILT	1.40	0.02	0.03	0.02	0.02	0.01	0.02	0.02	0.00		0.01	0.02	0.01	0.04	0.02	0.02	0.01
CLAY	1.78	0.01	0.02	0.01	0.01	0.01	0.03	0.02	0.07		0.00	0.02	0.01	0.00	0.00	0.00	0.01

GRAVEL	8.39	0.05	0.09	0.07	0.09	0.08	0.10	0.08	0.09		0.09	0.08	0.08	0.08	0.08	0.00	0.08
SAND	66.89	0.76	0.57	0.63	0.72	0.74	0.60	0.68	0.82		0.71	0.66	0.75	0.37	0.42	0.62	0.60
SILT	21.53	0.20	0.34	0.30	0.19	0.18	0.30	0.24	0.10		0.20	0.25	0.16	0.55	0.51	0.38	0.32
CLAY	1.40	0.01	0.02	0.01	0.01	0.01	0.03	0.02	0.07		0.00	0.02	0.01	0.00	0.00	0.00	0.01

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2401
Sample Code:	PS662401

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm	0.0000	0.0000
-6.00 to -5.50; 45 mm	0.0000	0.0000
-5.50 to -5.00; 31.5 mm	0.0000	0.0000
-5.00 to -4.50; 22.4 mm	0.0000	0.0000
-4.50 to -4.00; 16 mm	0.0000	0.0000
-4.00 to -3.50; 11.2 mm	1.5910	11.4000
-3.50 to -3.00; 8 mm	0.6504	4.6600
-3.00 to -2.50; 5.6 mm	1.6608	11.9000
-2.50 to -2.00; 4 mm	0.0070	0.0500
-2.00 to -1.50; 2.8 mm	0.0223	0.1600
-1.50 to -1.00; 2 mm	0.6043	4.3300
-1.00 to -0.50; 1.4 mm	0.0028	0.0200
-0.50 to 0.00; 1 mm	0.0154	0.1100
0.00 to 0.50; (707 µm)	7.1812	51.4544
0.50 to 1.00; (500 µm)	20.4525	146.5466
1.00 to 1.50; (353.6 µm)	24.8348	177.9463
1.50 to 2.00; (250 µm)	16.7774	120.2135
2.00 to 2.50; (176.8 µm)	4.8980	35.0954
2.50 to 3.00; (125 µm)	0.2927	2.0969
3.00 to 3.50; (88.39 µm)	0.1057	0.7571
3.50 to 4.00; (62.5 µm)	1.3905	9.9629
4.00 to 4.50; (44.19 µm)	2.0222	14.4893
4.50 to 5.00; (31.25 µm)	2.0158	14.4439
5.00 to 5.50; (22.097 µm)	2.1542	15.4349
5.50 to 6.00; (15.625 µm)	2.1383	15.3211
6.00 to 6.50; (11.049 µm)	2.1567	15.4535
6.50 to 7.00; (7.813 µm)	2.0917	14.9871
7.00 to 7.50; (5.524 µm)	1.8413	13.1934
7.50 to 8.00; (3.906 µm)	1.6428	11.7709
8.00 to 8.50; (2.762 µm)	1.2168	8.7184
8.50 to 9.00; (1.953 µm)	0.8979	6.4337
9.00 to 9.50; (1.381 µm)	0.5550	3.9764
9.50 to 10.00; (0.977 µm)	0.3505	2.5115
10.00 to 10.50; (0.691 µm)	0.2658	1.9047
10.50 to 11.00; (0.488 µm)	0.1644	1.1780
11.00 to 11.50; (0.345 µm)	0.0000	0.0000
11.50 to 12.00; (0.244 µm)	0.0000	0.0000
12.00 to 12.50; (0.173 µm)	0.0000	0.0000
12.50 to 13.00; (0.122 µm)	0.0000	0.0000
13.00 to 13.50; (0.086 µm)	0.0000	0.0000
TOTAL	100.0000	716.5200

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2402
Sample Code:	PS662402

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams
-6.50 to -6.00; 63 mm	0.0000	
-6.00 to -5.50; 45 mm	0.0000	
-5.50 to -5.00; 31.5 mm	0.0000	
-5.00 to -4.50; 22.4 mm	0.0000	
-4.50 to -4.00; 16 mm	0.0000	
-4.00 to -3.50; 11.2 mm	5.1250	
-3.50 to -3.00; 8 mm	0.3161	
-3.00 to -2.50; 5.6 mm	2.6661	
-2.50 to -2.00; 4 mm	0.4315	
-2.00 to -1.50; 2.8 mm	0.0162	
-1.50 to -1.00; 2 mm	0.5508	
-1.00 to -0.50; 1.4 mm	0.0728	
-0.50 to 0.00; 1 mm	0.0010	
0.00 to 0.50; (707 µm)	9.0872	
0.50 to 1.00; (500 µm)	15.0446	
1.00 to 1.50; (353.6 µm)	15.2063	
1.50 to 2.00; (250 µm)	9.5112	
2.00 to 2.50; (176.8 µm)	3.2108	
2.50 to 3.00; (125 µm)	0.5935	
3.00 to 3.50; (88.39 µm)	1.2946	
3.50 to 4.00; (62.5 µm)	2.8080	
4.00 to 4.50; (44.19 µm)	3.7196	
4.50 to 5.00; (31.25 µm)	4.0652	
5.00 to 5.50; (22.097 µm)	4.2147	
5.50 to 6.00; (15.625 µm)	4.2373	
6.00 to 6.50; (11.049 µm)	4.0566	
6.50 to 7.00; (7.813 µm)	3.6713	
7.00 to 7.50; (5.524 µm)	3.1417	
7.50 to 8.00; (3.906 µm)	2.5071	
8.00 to 8.50; (2.762 µm)	1.8103	
8.50 to 9.00; (1.953 µm)	1.1398	
9.00 to 9.50; (1.381 µm)	0.6287	
9.50 to 10.00; (0.977 µm)	0.3706	
10.00 to 10.50; (0.691 µm)	0.2928	
10.50 to 11.00; (0.488 µm)	0.2085	
11.00 to 11.50; (0.345 µm)	0.0000	
11.50 to 12.00; (0.244 µm)	0.0000	
12.00 to 12.50; (0.173 µm)	0.0000	
12.50 to 13.00; (0.122 µm)	0.0000	
13.00 to 13.50; (0.086 µm)	0.0000	
TOTAL	100.0000	

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2403
Sample Code:	PS662403

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams
-6.50 to -6.00; 63 mm	0.0000	0.0000
-6.00 to -5.50; 45 mm	0.0000	0.0000
-5.50 to -5.00; 31.5 mm	0.0000	0.0000
-5.00 to -4.50; 22.4 mm	0.0000	0.0000
-4.50 to -4.00; 16 mm	0.0000	0.0000
-4.00 to -3.50; 11.2 mm	3.3569	24.9600
-3.50 to -3.00; 8 mm	0.0982	0.7300
-3.00 to -2.50; 5.6 mm	2.8297	21.0400
-2.50 to -2.00; 4 mm	0.0350	0.2600
-2.00 to -1.50; 2.8 mm	0.1049	0.7800
-1.50 to -1.00; 2 mm	0.5447	4.0500
-1.00 to -0.50; 1.4 mm	0.0081	0.0600
-0.50 to 0.00; 1 mm	0.0256	0.1900
0.00 to 0.50; (707 µm)	9.2973	69.1299
0.50 to 1.00; (500 µm)	17.2567	128.3121
1.00 to 1.50; (353.6 µm)	18.0706	134.3639
1.50 to 2.00; (250 µm)	10.6271	79.0180
2.00 to 2.50; (176.8 µm)	2.9384	21.8486
2.50 to 3.00; (125 µm)	0.4109	3.0555
3.00 to 3.50; (88.39 µm)	1.2116	9.0090
3.50 to 4.00; (62.5 µm)	2.8026	20.8391
4.00 to 4.50; (44.19 µm)	3.5548	26.4315
4.50 to 5.00; (31.25 µm)	3.7242	27.6913
5.00 to 5.50; (22.097 µm)	3.8945	28.9573
5.50 to 6.00; (15.625 µm)	4.0653	30.2278
6.00 to 6.50; (11.049 µm)	3.9676	29.5009
6.50 to 7.00; (7.813 µm)	3.4772	25.8550
7.00 to 7.50; (5.524 µm)	2.7235	20.2502
7.50 to 8.00; (3.906 µm)	1.9242	14.3074
8.00 to 8.50; (2.762 µm)	1.2417	9.2324
8.50 to 9.00; (1.953 µm)	0.7344	5.4607
9.00 to 9.50; (1.381 µm)	0.4114	3.0590
9.50 to 10.00; (0.977 µm)	0.2765	2.0562
10.00 to 10.50; (0.691 µm)	0.2403	1.7865
10.50 to 11.00; (0.488 µm)	0.1422	1.0576
11.00 to 11.50; (0.345 µm)	0.0040	0.0301
11.50 to 12.00; (0.244 µm)	0.0000	0.0000
12.00 to 12.50; (0.173 µm)	0.0000	0.0000
12.50 to 13.00; (0.122 µm)	0.0000	0.0000
13.00 to 13.50; (0.086 µm)	0.0000	0.0000
TOTAL	100.0000	743.5500

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2404
Sample Code:	PS662404

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams
-6.50 to -6.00; 63 mm	0.0000	
-6.00 to -5.50; 45 mm	0.0000	
-5.50 to -5.00; 31.5 mm	0.0000	
-5.00 to -4.50; 22.4 mm	0.0000	
-4.50 to -4.00; 16 mm	0.0000	
-4.00 to -3.50; 11.2 mm	4.6584	
-3.50 to -3.00; 8 mm	0.0434	
-3.00 to -2.50; 5.6 mm	3.0495	
-2.50 to -2.00; 4 mm	0.1398	
-2.00 to -1.50; 2.8 mm	0.0367	
-1.50 to -1.00; 2 mm	0.6083	
-1.00 to -0.50; 1.4 mm	0.0041	
-0.50 to 0.00; 1 mm	0.0041	
0.00 to 0.50; (707 µm)	8.6264	
0.50 to 1.00; (500 µm)	19.2944	
1.00 to 1.50; (353.6 µm)	22.4396	
1.50 to 2.00; (250 µm)	14.2649	
2.00 to 2.50; (176.8 µm)	4.3438	
2.50 to 3.00; (125 µm)	0.3709	
3.00 to 3.50; (88.39 µm)	0.7950	
3.50 to 4.00; (62.5 µm)	1.9405	
4.00 to 4.50; (44.19 µm)	2.3318	
4.50 to 5.00; (31.25 µm)	2.3543	
5.00 to 5.50; (22.097 µm)	2.4821	
5.50 to 6.00; (15.625 µm)	2.5577	
6.00 to 6.50; (11.049 µm)	2.3584	
6.50 to 7.00; (7.813 µm)	2.1152	
7.00 to 7.50; (5.524 µm)	1.7290	
7.50 to 8.00; (3.906 µm)	1.3447	
8.00 to 8.50; (2.762 µm)	0.9646	
8.50 to 9.00; (1.953 µm)	0.5702	
9.00 to 9.50; (1.381 µm)	0.2647	
9.50 to 10.00; (0.977 µm)	0.1788	
10.00 to 10.50; (0.691 µm)	0.1288	
10.50 to 11.00; (0.488 µm)	0.0000	
11.00 to 11.50; (0.345 µm)	0.0000	
11.50 to 12.00; (0.244 µm)	0.0000	
12.00 to 12.50; (0.173 µm)	0.0000	
12.50 to 13.00; (0.122 µm)	0.0000	
13.00 to 13.50; (0.086 µm)	0.0000	
TOTAL	100.0000	

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2405
Sample Code:	PS662405

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm	0.0000	0.0000
-6.00 to -5.50; 45 mm	0.0000	0.0000
-5.50 to -5.00; 31.5 mm	0.0000	0.0000
-5.00 to -4.50; 22.4 mm	0.0000	0.0000
-4.50 to -4.00; 16 mm	0.0000	0.0000
-4.00 to -3.50; 11.2 mm	4.4806	35.4800
-3.50 to -3.00; 8 mm	0.2033	1.6100
-3.00 to -2.50; 5.6 mm	2.8982	22.9500
-2.50 to -2.00; 4 mm	0.0051	0.0400
-2.00 to -1.50; 2.8 mm	0.0000	0.0000
-1.50 to -1.00; 2 mm	0.6643	5.2600
-1.00 to -0.50; 1.4 mm	0.0051	0.0400
-0.50 to 0.00; 1 mm	0.0013	0.0100
0.00 to 0.50; (707 µm)	6.0549	47.9464
0.50 to 1.00; (500 µm)	18.5286	146.7207
1.00 to 1.50; (353.6 µm)	22.2166	175.9244
1.50 to 2.00; (250 µm)	15.1373	119.8659
2.00 to 2.50; (176.8 µm)	5.5269	43.7652
2.50 to 3.00; (125 µm)	1.0968	8.6852
3.00 to 3.50; (88.39 µm)	1.8532	14.6745
3.50 to 4.00; (62.5 µm)	3.6635	29.0100
4.00 to 4.50; (44.19 µm)	4.0774	32.2871
4.50 to 5.00; (31.25 µm)	3.3414	26.4593
5.00 to 5.50; (22.097 µm)	2.4862	19.6871
5.50 to 6.00; (15.625 µm)	1.9194	15.1992
6.00 to 6.50; (11.049 µm)	1.5331	12.1400
6.50 to 7.00; (7.813 µm)	1.1855	9.3875
7.00 to 7.50; (5.524 µm)	0.8766	6.9417
7.50 to 8.00; (3.906 µm)	0.6514	5.1579
8.00 to 8.50; (2.762 µm)	0.5076	4.0197
8.50 to 9.00; (1.953 µm)	0.3751	2.9704
9.00 to 9.50; (1.381 µm)	0.2518	1.9937
9.50 to 10.00; (0.977 µm)	0.1865	1.4771
10.00 to 10.50; (0.691 µm)	0.1774	1.4045
10.50 to 11.00; (0.488 µm)	0.0877	0.6942
11.00 to 11.50; (0.345 µm)	0.0000	0.0000
11.50 to 12.00; (0.244 µm)	0.0000	0.0000
12.00 to 12.50; (0.173 µm)	0.0000	0.0000
12.50 to 13.00; (0.122 µm)	0.0000	0.0000
13.00 to 13.50; (0.086 µm)	0.0000	0.0000
TOTAL	99.9926	791.8016

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2406
Sample Code:	PS662406

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm		
-6.00 to -5.50; 45 mm	0.00	0.00
-5.50 to -5.00; 31.5 mm	0.00	0.00
-5.00 to -4.50; 22.4 mm	0.00	0.00
-4.50 to -4.00; 16 mm	0.00	0.00
-4.00 to -3.50; 11.2 mm	5.63	35.90
-3.50 to -3.00; 8 mm	0.15	0.96
-3.00 to -2.50; 5.6 mm	3.43	21.92
-2.50 to -2.00; 4 mm	0.08	0.49
-2.00 to -1.50; 2.8 mm	0.01	0.04
-1.50 to -1.00; 2 mm	0.79	5.05
-1.00 to -0.50; 1.4 mm	0.02	0.10
-0.50 to 0.00; 1 mm	0.02	0.10
0.00 to 0.50; (707 µm)	6.23	39.74
0.50 to 1.00; (500 µm)	14.11	90.03
1.00 to 1.50; (353.6 µm)	18.19	116.08
1.50 to 2.00; (250 µm)	10.21	65.13
2.00 to 2.50; (176.8 µm)	3.66	23.39
2.50 to 3.00; (125 µm)	2.28	14.57
3.00 to 3.50; (88.39 µm)	2.27	14.46
3.50 to 4.00; (62.5 µm)	2.64	16.84
4.00 to 4.50; (44.19 µm)	3.27	20.86
4.50 to 5.00; (31.25 µm)	3.73	23.77
5.00 to 5.50; (22.097 µm)	3.82	24.38
5.50 to 6.00; (15.625 µm)	3.71	23.70
6.00 to 6.50; (11.049 µm)	3.57	22.81
6.50 to 7.00; (7.813 µm)	3.08	19.66
7.00 to 7.50; (5.524 µm)	2.45	15.64
7.50 to 8.00; (3.906 µm)	1.82	11.63
8.00 to 8.50; (2.762 µm)	1.27	8.08
8.50 to 9.00; (1.953 µm)	0.86	5.50
9.00 to 9.50; (1.381 µm)	0.59	3.79
9.50 to 10.00; (0.977 µm)	0.43	2.72
10.00 to 10.50; (0.691 µm)	0.34	2.18
10.50 to 11.00; (0.488 µm)	0.31	1.96
11.00 to 11.50; (0.345 µm)	0.29	1.84
11.50 to 12.00; (0.244 µm)	0.26	1.65
12.00 to 12.50; (0.173 µm)	0.21	1.32
12.50 to 13.00; (0.122 µm)	0.16	1.00
13.00 to 13.50; (0.086 µm)	0.14	0.92
TOTAL	100.0000	638.2200

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2407
Sample Code:	PS662407

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm	0.0000	0.0000
-6.00 to -5.50; 45 mm	0.0000	0.0000
-5.50 to -5.00; 31.5 mm	0.0000	0.0000
-5.00 to -4.50; 22.4 mm	0.0000	0.0000
-4.50 to -4.00; 16 mm	0.0000	0.0000
-4.00 to -3.50; 11.2 mm	4.4700	34.0800
-3.50 to -3.00; 8 mm	0.4905	3.7400
-3.00 to -2.50; 5.6 mm	2.7492	20.9600
-2.50 to -2.00; 4 mm	0.1876	1.4300
-2.00 to -1.50; 2.8 mm	0.0354	0.2700
-1.50 to -1.00; 2 mm	0.5430	4.1400
-1.00 to -0.50; 1.4 mm	0.0039	0.0300
-0.50 to 0.00; 1 mm	0.0184	0.1400
0.00 to 0.50; (707 µm)	11.7850	89.8502
0.50 to 1.00; (500 µm)	21.7944	166.1630
1.00 to 1.50; (353.6 µm)	20.9783	159.9407
1.50 to 2.00; (250 µm)	8.6803	66.1795
2.00 to 2.50; (176.8 µm)	1.2057	9.1923
2.50 to 3.00; (125 µm)	0.4855	3.7015
3.00 to 3.50; (88.39 µm)	1.1026	8.4065
3.50 to 4.00; (62.5 µm)	1.6439	12.5329
4.00 to 4.50; (44.19 µm)	2.2688	17.2978
4.50 to 5.00; (31.25 µm)	2.9531	22.5146
5.00 to 5.50; (22.097 µm)	2.9711	22.6522
5.50 to 6.00; (15.625 µm)	2.9643	22.5998
6.00 to 6.50; (11.049 µm)	2.7890	21.2635
6.50 to 7.00; (7.813 µm)	2.4071	18.3519
7.00 to 7.50; (5.524 µm)	1.9732	15.0439
7.50 to 8.00; (3.906 µm)	1.5096	11.5097
8.00 to 8.50; (2.762 µm)	1.0466	7.9791
8.50 to 9.00; (1.953 µm)	0.6945	5.2948
9.00 to 9.50; (1.381 µm)	0.4888	3.7265
9.50 to 10.00; (0.977 µm)	0.3783	2.8845
10.00 to 10.50; (0.691 µm)	0.3175	2.4206
10.50 to 11.00; (0.488 µm)	0.2804	2.1381
11.00 to 11.50; (0.345 µm)	0.2467	1.8806
11.50 to 12.00; (0.244 µm)	0.2057	1.5680
12.00 to 12.50; (0.173 µm)	0.1538	1.1729
12.50 to 13.00; (0.122 µm)	0.1105	0.8424
13.00 to 13.50; (0.086 µm)	0.0672	0.5124
TOTAL	100.0000	762.4100

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2408
Sample Code:	PS662408

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams
-6.50 to -6.00; 63 mm		
-6.00 to -5.50; 45 mm		
-5.50 to -5.00; 31.5 mm		
-5.00 to -4.50; 22.4 mm		
-4.50 to -4.00; 16 mm		
-4.00 to -3.50; 11.2 mm	4.6974	35.7100
-3.50 to -3.00; 8 mm	0.4436	3.3720
-3.00 to -2.50; 5.6 mm	2.7981	21.2710
-2.50 to -2.00; 4 mm	0.0489	0.3720
-2.00 to -1.50; 2.8 mm	0.0092	0.0700
-1.50 to -1.00; 2 mm	0.6323	4.8070
-1.00 to -0.50; 1.4 mm	0.0057	0.0430
-0.50 to 0.00; 1 mm	0.0107	0.0810
0.00 to 0.50; (707 µm)	3.8329	29.1380
0.50 to 1.00; (500 µm)	13.8734	105.4660
1.00 to 1.50; (353.6 µm)	29.8838	227.1770
1.50 to 2.00; (250 µm)	25.9679	197.4080
2.00 to 2.50; (176.8 µm)	6.6152	50.2890
2.50 to 3.00; (125 µm)	1.1596	8.8150
3.00 to 3.50; (88.39 µm)	0.2239	1.7020
3.50 to 4.00; (62.5 µm)	0.2512	1.9100
4.00 to 4.50; (44.19 µm)	0.5983	4.5480
4.50 to 5.00; (31.25 µm)	0.1847	1.4040
5.00 to 5.50; (22.097 µm)	0.3641	2.7680
5.50 to 6.00; (15.625 µm)	0.3215	2.4440
6.00 to 6.50; (11.049 µm)	0.4057	3.0840
6.50 to 7.00; (7.813 µm)	0.2094	1.5920
7.00 to 7.50; (5.524 µm)	0.1800	1.3680
7.50 to 8.00; (3.906 µm)	0.0789	0.6000
8.00 to 8.50; (2.762 µm)	0.1458	1.1080
8.50 to 9.00; (1.953 µm)	0.1305	0.9920
9.00 to 9.50; (1.381 µm)	6.9274	52.6620
9.50 to 10.00; (0.977 µm)	0.0000	
10.00 to 10.50; (0.691 µm)		
10.50 to 11.00; (0.488 µm)		
11.00 to 11.50; (0.345 µm)		
11.50 to 12.00; (0.244 µm)		
12.00 to 12.50; (0.173 µm)		
12.50 to 13.00; (0.122 µm)		
13.00 to 13.50; (0.086 µm)		
TOTAL	100.0000	760.2010

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2409
Sample Code:	PS662409

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams
-6.50 to -6.00; 63 mm		
-6.00 to -5.50; 45 mm		
-5.50 to -5.00; 31.5 mm		
-5.00 to -4.50; 22.4 mm		
-4.50 to -4.00; 16 mm		
-4.00 to -3.50; 11.2 mm		
-3.50 to -3.00; 8 mm		
-3.00 to -2.50; 5.6 mm		
-2.50 to -2.00; 4 mm		
-2.00 to -1.50; 2.8 mm		
-1.50 to -1.00; 2 mm		
-1.00 to -0.50; 1.4 mm		
-0.50 to 0.00; 1 mm		
0.00 to 0.50; (707 µm)		
0.50 to 1.00; (500 µm)		
1.00 to 1.50; (353.6 µm)		
1.50 to 2.00; (250 µm)		
2.00 to 2.50; (176.8 µm)		
2.50 to 3.00; (125 µm)		
3.00 to 3.50; (88.39 µm)		
3.50 to 4.00; (62.5 µm)		
4.00 to 4.50; (44.19 µm)		
4.50 to 5.00; (31.25 µm)		
5.00 to 5.50; (22.097 µm)		
5.50 to 6.00; (15.625 µm)		
6.00 to 6.50; (11.049 µm)		
6.50 to 7.00; (7.813 µm)		
7.00 to 7.50; (5.524 µm)		
7.50 to 8.00; (3.906 µm)		
8.00 to 8.50; (2.762 µm)		
8.50 to 9.00; (1.953 µm)		
9.00 to 9.50; (1.381 µm)		
9.50 to 10.00; (0.977 µm)		
10.00 to 10.50; (0.691 µm)		
10.50 to 11.00; (0.488 µm)		
11.00 to 11.50; (0.345 µm)		
11.50 to 12.00; (0.244 µm)		
12.00 to 12.50; (0.173 µm)		
12.50 to 13.00; (0.122 µm)		
13.00 to 13.50; (0.086 µm)		
TOTAL	0.0000	0.0000
Notes:		

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2410
Sample Code:	PS662410

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm	0.0000	0.0000
-6.00 to -5.50; 45 mm	0.0000	0.0000
-5.50 to -5.00; 31.5 mm	0.0000	0.0000
-5.00 to -4.50; 22.4 mm	0.0000	0.0000
-4.50 to -4.00; 16 mm	0.0000	0.0000
-4.00 to -3.50; 11.2 mm	4.7695	35.7600
-3.50 to -3.00; 8 mm	0.6349	4.7600
-3.00 to -2.50; 5.6 mm	2.5835	19.3700
-2.50 to -2.00; 4 mm	0.1134	0.8500
-2.00 to -1.50; 2.8 mm	0.1014	0.7600
-1.50 to -1.00; 2 mm	0.6389	4.7900
-1.00 to -0.50; 1.4 mm	0.0213	0.1600
-0.50 to 0.00; 1 mm	0.0227	0.1700
0.00 to 0.50; (707 µm)	20.1186	150.8413
0.50 to 1.00; (500 µm)	23.0788	173.0358
1.00 to 1.50; (353.6 µm)	14.7683	110.7267
1.50 to 2.00; (250 µm)	4.8454	36.3291
2.00 to 2.50; (176.8 µm)	0.7500	5.6228
2.50 to 3.00; (125 µm)	1.4343	10.7540
3.00 to 3.50; (88.39 µm)	2.8861	21.6388
3.50 to 4.00; (62.5 µm)	3.4649	25.9785
4.00 to 4.50; (44.19 µm)	3.5043	26.2740
4.50 to 5.00; (31.25 µm)	3.4307	25.7221
5.00 to 5.50; (22.097 µm)	3.2333	24.2423
5.50 to 6.00; (15.625 µm)	2.8331	21.2417
6.00 to 6.50; (11.049 µm)	2.2669	16.9965
6.50 to 7.00; (7.813 µm)	1.6507	12.3761
7.00 to 7.50; (5.524 µm)	1.0955	8.2136
7.50 to 8.00; (3.906 µm)	0.6711	5.0315
8.00 to 8.50; (2.762 µm)	0.4146	3.1084
8.50 to 9.00; (1.953 µm)	0.2869	2.1507
9.00 to 9.50; (1.381 µm)	0.2268	1.7007
9.50 to 10.00; (0.977 µm)	0.1485	1.1133
10.00 to 10.50; (0.691 µm)	0.0056	0.0420
10.50 to 11.00; (0.488 µm)	0.0000	0.0000
11.00 to 11.50; (0.345 µm)	0.0000	0.0000
11.50 to 12.00; (0.244 µm)	0.0000	0.0000
12.00 to 12.50; (0.173 µm)	0.0000	0.0000
12.50 to 13.00; (0.122 µm)	0.0000	0.0000
13.00 to 13.50; (0.086 µm)	0.0000	0.0000
TOTAL	100.0000	749.7600

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2411
Sample Code:	PS662411

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm	0.0000	0.0000
-6.00 to -5.50; 45 mm	0.0000	0.0000
-5.50 to -5.00; 31.5 mm	0.0000	0.0000
-5.00 to -4.50; 22.4 mm	0.0000	0.0000
-4.50 to -4.00; 16 mm	0.6065	4.6200
-4.00 to -3.50; 11.2 mm	3.8686	29.4700
-3.50 to -3.00; 8 mm	0.3045	2.3200
-3.00 to -2.50; 5.6 mm	2.8250	21.5200
-2.50 to -2.00; 4 mm	0.1116	0.8500
-2.00 to -1.50; 2.8 mm	0.0814	0.6200
-1.50 to -1.00; 2 mm	0.6537	4.9800
-1.00 to -0.50; 1.4 mm	0.0053	0.0400
-0.50 to 0.00; 1 mm	0.0026	0.0200
0.00 to 0.50; (707 µm)	9.2729	70.6391
0.50 to 1.00; (500 µm)	19.2680	146.7799
1.00 to 1.50; (353.6 µm)	20.6712	157.4694
1.50 to 2.00; (250 µm)	9.5898	73.0531
2.00 to 2.50; (176.8 µm)	2.3295	17.7456
2.50 to 3.00; (125 µm)	1.4331	10.9169
3.00 to 3.50; (88.39 µm)	1.7831	13.5836
3.50 to 4.00; (62.5 µm)	2.0537	15.6449
4.00 to 4.50; (44.19 µm)	2.6746	20.3747
4.50 to 5.00; (31.25 µm)	3.2896	25.0592
5.00 to 5.50; (22.097 µm)	3.3320	25.3823
5.50 to 6.00; (15.625 µm)	3.2794	24.9819
6.00 to 6.50; (11.049 µm)	3.0619	23.3253
6.50 to 7.00; (7.813 µm)	2.5814	19.6647
7.00 to 7.50; (5.524 µm)	2.0121	15.3279
7.50 to 8.00; (3.906 µm)	1.4407	10.9750
8.00 to 8.50; (2.762 µm)	0.9340	7.1149
8.50 to 9.00; (1.953 µm)	0.5852	4.4578
9.00 to 9.50; (1.381 µm)	0.4016	3.0592
9.50 to 10.00; (0.977 µm)	0.3184	2.4258
10.00 to 10.50; (0.691 µm)	0.2776	2.1149
10.50 to 11.00; (0.488 µm)	0.2495	1.9007
11.00 to 11.50; (0.345 µm)	0.2191	1.6692
11.50 to 12.00; (0.244 µm)	0.1823	1.3884
12.00 to 12.50; (0.173 µm)	0.1376	1.0480
12.50 to 13.00; (0.122 µm)	0.1004	0.7647
13.00 to 13.50; (0.086 µm)	0.0621	0.4730
TOTAL	100.0000	761.7800

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2412
Sample Code:	PS662412

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm	0.0000	0.0000
-6.00 to -5.50; 45 mm	0.0000	0.0000
-5.50 to -5.00; 31.5 mm	0.0000	0.0000
-5.00 to -4.50; 22.4 mm	0.0000	0.0000
-4.50 to -4.00; 16 mm	4.4740	34.4390
-4.00 to -3.50; 11.2 mm	0.1337	1.0290
-3.50 to -3.00; 8 mm	0.0000	0.0000
-3.00 to -2.50; 5.6 mm	3.1527	24.2680
-2.50 to -2.00; 4 mm	0.0469	0.3610
-2.00 to -1.50; 2.8 mm	0.0000	0.0000
-1.50 to -1.00; 2 mm	0.6705	5.1610
-1.00 to -0.50; 1.4 mm	0.0042	0.0320
-0.50 to 0.00; 1 mm	0.0070	0.0540
0.00 to 0.50; (707 µm)	13.0451	100.4164
0.50 to 1.00; (500 µm)	22.4483	172.7995
1.00 to 1.50; (353.6 µm)	22.3355	171.9306
1.50 to 2.00; (250 µm)	12.3387	94.9788
2.00 to 2.50; (176.8 µm)	2.8971	22.3007
2.50 to 3.00; (125 µm)	0.0325	0.2502
3.00 to 3.50; (88.39 µm)	0.3863	2.9734
3.50 to 4.00; (62.5 µm)	1.7607	13.5534
4.00 to 4.50; (44.19 µm)	2.3648	18.2035
4.50 to 5.00; (31.25 µm)	2.3588	18.1571
5.00 to 5.50; (22.097 µm)	2.2617	17.4094
5.50 to 6.00; (15.625 µm)	2.1457	16.5168
6.00 to 6.50; (11.049 µm)	1.9024	14.6443
6.50 to 7.00; (7.813 µm)	1.5453	11.8952
7.00 to 7.50; (5.524 µm)	1.1814	9.0938
7.50 to 8.00; (3.906 µm)	0.8785	6.7628
8.00 to 8.50; (2.762 µm)	0.6312	4.8591
8.50 to 9.00; (1.953 µm)	0.4227	3.2537
9.00 to 9.50; (1.381 µm)	0.2644	2.0352
9.50 to 10.00; (0.977 µm)	0.1820	1.4013
10.00 to 10.50; (0.691 µm)	0.1281	0.9859
10.50 to 11.00; (0.488 µm)	0.0000	0.0000
11.00 to 11.50; (0.345 µm)	0.0000	0.0000
11.50 to 12.00; (0.244 µm)	0.0000	0.0000
12.00 to 12.50; (0.173 µm)	0.0000	0.0000
12.50 to 13.00; (0.122 µm)	0.0000	0.0000
13.00 to 13.50; (0.086 µm)	0.0000	0.0000
TOTAL	100.0000	769.7650

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2413
Sample Code:	PS662413

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams
-6.50 to -6.00; 63 mm	0.0000	
-6.00 to -5.50; 45 mm	0.0000	
-5.50 to -5.00; 31.5 mm	0.0000	
-5.00 to -4.50; 22.4 mm	0.0000	
-4.50 to -4.00; 16 mm	0.0000	
-4.00 to -3.50; 11.2 mm	4.6662	
-3.50 to -3.00; 8 mm	0.2076	
-3.00 to -2.50; 5.6 mm	2.8564	
-2.50 to -2.00; 4 mm	0.0000	
-2.00 to -1.50; 2.8 mm	0.0000	
-1.50 to -1.00; 2 mm	0.5877	
-1.00 to -0.50; 1.4 mm	0.0175	
-0.50 to 0.00; 1 mm	0.0015	
0.00 to 0.50; (707 µm)	0.0000	
0.50 to 1.00; (500 µm)	3.4558	
1.00 to 1.50; (353.6 µm)	10.3154	
1.50 to 2.00; (250 µm)	9.9253	
2.00 to 2.50; (176.8 µm)	4.2349	
2.50 to 3.00; (125 µm)	1.3037	
3.00 to 3.50; (88.39 µm)	2.6644	
3.50 to 4.00; (62.5 µm)	5.0385	
4.00 to 4.50; (44.19 µm)	6.3269	
4.50 to 5.00; (31.25 µm)	6.9645	
5.00 to 5.50; (22.097 µm)	7.3556	
5.50 to 6.00; (15.625 µm)	7.6001	
6.00 to 6.50; (11.049 µm)	7.3241	
6.50 to 7.00; (7.813 µm)	6.3687	
7.00 to 7.50; (5.524 µm)	5.1770	
7.50 to 8.00; (3.906 µm)	3.7104	
8.00 to 8.50; (2.762 µm)	2.4475	
8.50 to 9.00; (1.953 µm)	1.2079	
9.00 to 9.50; (1.381 µm)	0.2424	
9.50 to 10.00; (0.977 µm)	0.0000	
10.00 to 10.50; (0.691 µm)	0.0000	
10.50 to 11.00; (0.488 µm)	0.0000	
11.00 to 11.50; (0.345 µm)	0.0000	
11.50 to 12.00; (0.244 µm)	0.0000	
12.00 to 12.50; (0.173 µm)	0.0000	
12.50 to 13.00; (0.122 µm)	0.0000	
13.00 to 13.50; (0.086 µm)	0.0000	
TOTAL	100.0000	0.0000

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2414
Sample Code:	PS662414

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm	0.0000	0.0000
-6.00 to -5.50; 45 mm	0.0000	0.0000
-5.50 to -5.00; 31.5 mm	0.0000	0.0000
-5.00 to -4.50; 22.4 mm	0.0000	0.0000
-4.50 to -4.00; 16 mm	1.0181	7.3700
-4.00 to -3.50; 11.2 mm	3.1607	22.8800
-3.50 to -3.00; 8 mm	0.1865	1.3500
-3.00 to -2.50; 5.6 mm	2.6538	19.2100
-2.50 to -2.00; 4 mm	0.1879	1.3600
-2.00 to -1.50; 2.8 mm	0.0000	0.0000
-1.50 to -1.00; 2 mm	0.6092	4.4100
-1.00 to -0.50; 1.4 mm	0.0180	0.1300
-0.50 to 0.00; 1 mm	0.0055	0.0400
0.00 to 0.50; (707 µm)	2.6907	19.4778
0.50 to 1.00; (500 µm)	7.9628	57.6409
1.00 to 1.50; (353.6 µm)	9.8551	71.3393
1.50 to 2.00; (250 µm)	6.9188	50.0836
2.00 to 2.50; (176.8 µm)	2.9665	21.4738
2.50 to 3.00; (125 µm)	2.2534	16.3122
3.00 to 3.50; (88.39 µm)	3.4265	24.8039
3.50 to 4.00; (62.5 µm)	5.5536	40.2015
4.00 to 4.50; (44.19 µm)	6.0358	43.6916
4.50 to 5.00; (31.25 µm)	7.3254	53.0274
5.00 to 5.50; (22.097 µm)	7.2868	52.7479
5.50 to 6.00; (15.625 µm)	7.1597	51.8275
6.00 to 6.50; (11.049 µm)	6.5391	47.3355
6.50 to 7.00; (7.813 µm)	5.6999	41.2604
7.00 to 7.50; (5.524 µm)	4.7612	34.4654
7.50 to 8.00; (3.906 µm)	3.5511	25.7058
8.00 to 8.50; (2.762 µm)	1.8364	13.2930
8.50 to 9.00; (1.953 µm)	0.3370	2.4396
9.00 to 9.50; (1.381 µm)	0.0004	0.0029
9.50 to 10.00; (0.977 µm)	0.0000	0.0000
10.00 to 10.50; (0.691 µm)	0.0000	0.0000
10.50 to 11.00; (0.488 µm)	0.0000	0.0000
11.00 to 11.50; (0.345 µm)	0.0000	0.0000
11.50 to 12.00; (0.244 µm)	0.0000	0.0000
12.00 to 12.50; (0.173 µm)	0.0000	0.0000
12.50 to 13.00; (0.122 µm)	0.0000	0.0000
13.00 to 13.50; (0.086 µm)	0.0000	0.0000
TOTAL	100.0000	723.8800

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2415
Sample Code:	PS662415

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams
-6.50 to -6.00; 63 mm		
-6.00 to -5.50; 45 mm		
-5.50 to -5.00; 31.5 mm		
-5.00 to -4.50; 22.4 mm		
-4.50 to -4.00; 16 mm		
-4.00 to -3.50; 11.2 mm		
-3.50 to -3.00; 8 mm		
-3.00 to -2.50; 5.6 mm		
-2.50 to -2.00; 4 mm		
-2.00 to -1.50; 2.8 mm		
-1.50 to -1.00; 2 mm		
-1.00 to -0.50; 1.4 mm		
-0.50 to 0.00; 1 mm		
0.00 to 0.50; (707 µm)	6.3166	
0.50 to 1.00; (500 µm)	14.6636	
1.00 to 1.50; (353.6 µm)	17.2374	
1.50 to 2.00; (250 µm)	11.1887	
2.00 to 2.50; (176.8 µm)	4.0720	
2.50 to 3.00; (125 µm)	1.3629	
3.00 to 3.50; (88.39 µm)	2.4798	
3.50 to 4.00; (62.5 µm)	4.1801	
4.00 to 4.50; (44.19 µm)	5.0176	
4.50 to 5.00; (31.25 µm)	5.3250	
5.00 to 5.50; (22.097 µm)	5.4283	
5.50 to 6.00; (15.625 µm)	5.2899	
6.00 to 6.50; (11.049 µm)	4.8894	
6.50 to 7.00; (7.813 µm)	4.2319	
7.00 to 7.50; (5.524 µm)	3.3567	
7.50 to 8.00; (3.906 µm)	2.3359	
8.00 to 8.50; (2.762 µm)	1.4788	
8.50 to 9.00; (1.953 µm)	0.7531	
9.00 to 9.50; (1.381 µm)	0.1338	
9.50 to 10.00; (0.977 µm)	0.0000	
10.00 to 10.50; (0.691 µm)	0.0000	
10.50 to 11.00; (0.488 µm)	0.0000	
11.00 to 11.50; (0.345 µm)	0.0000	
11.50 to 12.00; (0.244 µm)	0.0000	
12.00 to 12.50; (0.173 µm)	0.0000	
12.50 to 13.00; (0.122 µm)	0.0000	
13.00 to 13.50; (0.086 µm)	0.0000	
TOTAL	99.7413	0.0000

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2416
Sample Code:	PS662416

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm		0.0000
-6.00 to -5.50; 45 mm		0.0000
-5.50 to -5.00; 31.5 mm		0.0000
-5.00 to -4.50; 22.4 mm		0.0000
-4.50 to -4.00; 16 mm		0.0000
-4.00 to -3.50; 11.2 mm	4.4511	35.0900
-3.50 to -3.00; 8 mm	0.6799	5.3600
-3.00 to -2.50; 5.6 mm	2.4317	19.1700
-2.50 to -2.00; 4 mm	0.0266	0.2100
-2.00 to -1.50; 2.8 mm	0.0761	0.6000
-1.50 to -1.00; 2 mm	0.5531	4.3600
-1.00 to -0.50; 1.4 mm	0.0013	0.0100
-0.50 to 0.00; 1 mm	0.0089	0.0700
0.00 to 0.50; (707 µm)	6.4378	723.4800
0.50 to 1.00; (500 µm)	13.6633	
1.00 to 1.50; (353.6 µm)	16.3322	
1.50 to 2.00; (250 µm)	11.5411	
2.00 to 2.50; (176.8 µm)	4.8378	
2.50 to 3.00; (125 µm)	1.5838	
3.00 to 3.50; (88.39 µm)	2.0656	
3.50 to 4.00; (62.5 µm)	3.5322	
4.00 to 4.50; (44.19 µm)	4.3189	
4.50 to 5.00; (31.25 µm)	4.5322	
5.00 to 5.50; (22.097 µm)	4.5867	
5.50 to 6.00; (15.625 µm)	4.5156	
6.00 to 6.50; (11.049 µm)	4.1478	
6.50 to 7.00; (7.813 µm)	3.4556	
7.00 to 7.50; (5.524 µm)	2.6033	
7.50 to 8.00; (3.906 µm)	1.7667	
8.00 to 8.50; (2.762 µm)	0.9356	
8.50 to 9.00; (1.953 µm)	0.2167	
9.00 to 9.50; (1.381 µm)	0.0000	
9.50 to 10.00; (0.977 µm)	0.0100	
10.00 to 10.50; (0.691 µm)	0.2956	
10.50 to 11.00; (0.488 µm)	0.3233	
11.00 to 11.50; (0.345 µm)	0.0600	
11.50 to 12.00; (0.244 µm)	0.0000	
12.00 to 12.50; (0.173 µm)	0.0000	
12.50 to 13.00; (0.122 µm)	0.0000	
13.00 to 13.50; (0.086 µm)	0.0000	
TOTAL	99.9901	788.3500

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2426
Sample Code:	Benchmark Replicate 1

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm	0.0000	0.0000
-6.00 to -5.50; 45 mm	0.0000	0.0000
-5.50 to -5.00; 31.5 mm	0.0000	0.0000
-5.00 to -4.50; 22.4 mm	0.0000	0.0000
-4.50 to -4.00; 16 mm	0.0000	0.0000
-4.00 to -3.50; 11.2 mm	4.3621	33.5500
-3.50 to -3.00; 8 mm	0.9192	7.0700
-3.00 to -2.50; 5.6 mm	2.2818	17.5500
-2.50 to -2.00; 4 mm	0.0962	0.7400
-2.00 to -1.50; 2.8 mm	0.0520	0.4000
-1.50 to -1.00; 2 mm	0.6059	4.6600
-1.00 to -0.50; 1.4 mm	0.0078	0.0600
-0.50 to 0.00; 1 mm	0.0039	0.0300
0.00 to 0.50; (707 µm)	11.3153	87.0280
0.50 to 1.00; (500 µm)	19.5276	150.1908
1.00 to 1.50; (353.6 µm)	19.0961	146.8719
1.50 to 2.00; (250 µm)	8.8914	68.3857
2.00 to 2.50; (176.8 µm)	2.3109	17.7733
2.50 to 3.00; (125 µm)	1.5243	11.7236
3.00 to 3.50; (88.39 µm)	1.9875	15.2862
3.50 to 4.00; (62.5 µm)	2.2631	17.4056
4.00 to 4.50; (44.19 µm)	2.7880	21.4431
4.50 to 5.00; (31.25 µm)	3.3505	25.7697
5.00 to 5.50; (22.097 µm)	3.3433	25.7136
5.50 to 6.00; (15.625 µm)	3.2922	25.3207
6.00 to 6.50; (11.049 µm)	3.0482	23.4445
6.50 to 7.00; (7.813 µm)	2.5234	19.4079
7.00 to 7.50; (5.524 µm)	1.9272	14.8228
7.50 to 8.00; (3.906 µm)	1.3505	10.3868
8.00 to 8.50; (2.762 µm)	0.8572	6.5928
8.50 to 9.00; (1.953 µm)	0.5298	4.0745
9.00 to 9.50; (1.381 µm)	0.3630	2.7917
9.50 to 10.00; (0.977 µm)	0.2883	2.2175
10.00 to 10.50; (0.691 µm)	0.2506	1.9273
10.50 to 11.00; (0.488 µm)	0.2239	1.7217
11.00 to 11.50; (0.345 µm)	0.1953	1.5023
11.50 to 12.00; (0.244 µm)	0.1613	1.2407
12.00 to 12.50; (0.173 µm)	0.1209	0.9295
12.50 to 13.00; (0.122 µm)	0.0876	0.6734
13.00 to 13.50; (0.086 µm)	0.0539	0.4143
TOTAL	100.0000	769.1200

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2427
Sample Code:	Benchmark Replicate 2

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm	0.0000	0.0000
-6.00 to -5.50; 45 mm	0.0000	0.0000
-5.50 to -5.00; 31.5 mm	0.0000	0.0000
-5.00 to -4.50; 22.4 mm	0.0000	0.0000
-4.50 to -4.00; 16 mm	0.0000	0.0000
-4.00 to -3.50; 11.2 mm	4.5528	35.4800
-3.50 to -3.00; 8 mm	0.0167	0.1300
-3.00 to -2.50; 5.6 mm	3.0592	23.8400
-2.50 to -2.00; 4 mm	0.0513	0.4000
-2.00 to -1.50; 2.8 mm	0.0372	0.2900
-1.50 to -1.00; 2 mm	0.5415	4.2200
-1.00 to -0.50; 1.4 mm	0.0064	0.0500
-0.50 to 0.00; 1 mm	0.0038	0.0300
0.00 to 0.50; (707 µm)	11.1614	86.9807
0.50 to 1.00; (500 µm)	19.8220	154.4730
1.00 to 1.50; (353.6 µm)	19.3101	150.4834
1.50 to 2.00; (250 µm)	8.8009	68.5854
2.00 to 2.50; (176.8 µm)	2.2555	17.5773
2.50 to 3.00; (125 µm)	1.5309	11.9305
3.00 to 3.50; (88.39 µm)	1.9541	15.2281
3.50 to 4.00; (62.5 µm)	2.2023	17.1626
4.00 to 4.50; (44.19 µm)	2.7780	21.6491
4.50 to 5.00; (31.25 µm)	3.3349	25.9887
5.00 to 5.50; (22.097 µm)	3.3417	26.0421
5.50 to 6.00; (15.625 µm)	3.2747	25.5200
6.00 to 6.50; (11.049 µm)	3.0253	23.5765
6.50 to 7.00; (7.813 µm)	2.5083	19.5469
7.00 to 7.50; (5.524 µm)	1.9175	14.9427
7.50 to 8.00; (3.906 µm)	1.3453	10.4836
8.00 to 8.50; (2.762 µm)	0.8575	6.6823
8.50 to 9.00; (1.953 µm)	0.5330	4.1540
9.00 to 9.50; (1.381 µm)	0.3661	2.8530
9.50 to 10.00; (0.977 µm)	0.2906	2.2644
10.00 to 10.50; (0.691 µm)	0.2528	1.9699
10.50 to 11.00; (0.488 µm)	0.2268	1.7673
11.00 to 11.50; (0.345 µm)	0.1992	1.5527
11.50 to 12.00; (0.244 µm)	0.1662	1.2950
12.00 to 12.50; (0.173 µm)	0.1261	0.9827
12.50 to 13.00; (0.122 µm)	0.0924	0.7203
13.00 to 13.50; (0.086 µm)	0.0574	0.4477
TOTAL	100.0000	779.3000

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2428
Sample Code:	Benchmark Replicate 3

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm	0.0000	0.0000
-6.00 to -5.50; 45 mm	0.0000	0.0000
-5.50 to -5.00; 31.5 mm	0.0000	0.0000
-5.00 to -4.50; 22.4 mm	0.0000	0.0000
-4.50 to -4.00; 16 mm	0.0000	0.0000
-4.00 to -3.50; 11.2 mm	4.5760	35.6600
-3.50 to -3.00; 8 mm	0.4363	3.4000
-3.00 to -2.50; 5.6 mm	2.6126	20.3600
-2.50 to -2.00; 4 mm	0.0757	0.5900
-2.00 to -1.50; 2.8 mm	0.0231	0.1800
-1.50 to -1.00; 2 mm	0.6185	4.8200
-1.00 to -0.50; 1.4 mm	0.0077	0.0600
-0.50 to 0.00; 1 mm	0.0038	0.0300
0.00 to 0.50; (707 µm)	11.3924	88.7795
0.50 to 1.00; (500 µm)	19.9277	155.2943
1.00 to 1.50; (353.6 µm)	19.6100	152.8189
1.50 to 2.00; (250 µm)	8.7495	68.1839
2.00 to 2.50; (176.8 µm)	2.2312	17.3878
2.50 to 3.00; (125 µm)	1.4923	11.6291
3.00 to 3.50; (88.39 µm)	1.8999	14.8054
3.50 to 4.00; (62.5 µm)	2.1886	17.0556
4.00 to 4.50; (44.19 µm)	2.7286	21.2639
4.50 to 5.00; (31.25 µm)	3.3082	25.7804
5.00 to 5.50; (22.097 µm)	3.2796	25.5573
5.50 to 6.00; (15.625 µm)	3.2114	25.0261
6.00 to 6.50; (11.049 µm)	2.9562	23.0374
6.50 to 7.00; (7.813 µm)	2.4399	19.0138
7.00 to 7.50; (5.524 µm)	1.8635	14.5224
7.50 to 8.00; (3.906 µm)	1.3081	10.1937
8.00 to 8.50; (2.762 µm)	0.8326	6.4883
8.50 to 9.00; (1.953 µm)	0.5156	4.0181
9.00 to 9.50; (1.381 µm)	0.3536	2.7558
9.50 to 10.00; (0.977 µm)	0.2814	2.1933
10.00 to 10.50; (0.691 µm)	0.2452	1.9106
10.50 to 11.00; (0.488 µm)	0.2193	1.7092
11.00 to 11.50; (0.345 µm)	0.1916	1.4932
11.50 to 12.00; (0.244 µm)	0.1588	1.2373
12.00 to 12.50; (0.173 µm)	0.1197	0.9328
12.50 to 13.00; (0.122 µm)	0.0873	0.6805
13.00 to 13.50; (0.086 µm)	0.0541	0.4213
TOTAL	100.0000	779.2900

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2429
Sample Code:	Benchmark Replicate 4

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm	0.0000	0.0000
-6.00 to -5.50; 45 mm	0.0000	0.0000
-5.50 to -5.00; 31.5 mm	0.0000	0.0000
-5.00 to -4.50; 22.4 mm	0.0000	0.0000
-4.50 to -4.00; 16 mm	0.0000	0.0000
-4.00 to -3.50; 11.2 mm	4.6393	35.9600
-3.50 to -3.00; 8 mm	0.5290	4.1000
-3.00 to -2.50; 5.6 mm	2.5184	19.5200
-2.50 to -2.00; 4 mm	0.1600	1.2400
-2.00 to -1.50; 2.8 mm	0.0645	0.5000
-1.50 to -1.00; 2 mm	0.5948	4.6100
-1.00 to -0.50; 1.4 mm	0.0052	0.0400
-0.50 to 0.00; 1 mm	0.0026	0.0200
0.00 to 0.50; (707 µm)	9.7611	75.6593
0.50 to 1.00; (500 µm)	18.6355	144.4454
1.00 to 1.50; (353.6 µm)	19.6538	152.3383
1.50 to 2.00; (250 µm)	9.3387	72.3854
2.00 to 2.50; (176.8 µm)	2.4158	18.7252
2.50 to 3.00; (125 µm)	1.5535	12.0414
3.00 to 3.50; (88.39 µm)	1.9579	15.1759
3.50 to 4.00; (62.5 µm)	2.2516	17.4525
4.00 to 4.50; (44.19 µm)	2.8668	22.2208
4.50 to 5.00; (31.25 µm)	3.4193	26.5034
5.00 to 5.50; (22.097 µm)	3.4605	26.8225
5.50 to 6.00; (15.625 µm)	3.4095	26.4273
6.00 to 6.50; (11.049 µm)	3.1630	24.5166
6.50 to 7.00; (7.813 µm)	2.6454	20.5044
7.00 to 7.50; (5.524 µm)	2.0460	15.8588
7.50 to 8.00; (3.906 µm)	1.4546	11.2745
8.00 to 8.50; (2.762 µm)	0.9369	7.2622
8.50 to 9.00; (1.953 µm)	0.5838	4.5248
9.00 to 9.50; (1.381 µm)	0.3987	3.0907
9.50 to 10.00; (0.977 µm)	0.3149	2.4411
10.00 to 10.50; (0.691 µm)	0.2742	2.1252
10.50 to 11.00; (0.488 µm)	0.2469	1.9134
11.00 to 11.50; (0.345 µm)	0.2176	1.6863
11.50 to 12.00; (0.244 µm)	0.1815	1.4068
12.00 to 12.50; (0.173 µm)	0.1371	1.0629
12.50 to 13.00; (0.122 µm)	0.1001	0.7757
13.00 to 13.50; (0.086 µm)	0.0618	0.4793
TOTAL	100.0000	775.1100

Notes:

APPENDIX 2. Final Merged Data sheets (with comments) as supplied by participating laboratories (arranged by LabCode) and the Benchmerk Replicates for sediment distributed as PS66.

Exercise Code:	PS66
LabCode:	PSA_2430
Sample Code:	Benchmark Replicate 5

Phi interval (explicit) + sieve mesh (theoretical sieves shown in brackets)	Percentage (mark as "0" for no material or not analysed)	Grams (mark as "0" for no material or not analysed)
-6.50 to -6.00; 63 mm	0.0000	0.0000
-6.00 to -5.50; 45 mm	0.0000	0.0000
-5.50 to -5.00; 31.5 mm	0.0000	0.0000
-5.00 to -4.50; 22.4 mm	0.0000	0.0000
-4.50 to -4.00; 16 mm	0.6439	4.9200
-4.00 to -3.50; 11.2 mm	3.8959	29.7700
-3.50 to -3.00; 8 mm	0.8428	6.4400
-3.00 to -2.50; 5.6 mm	2.3700	18.1100
-2.50 to -2.00; 4 mm	0.1060	0.8100
-2.00 to -1.50; 2.8 mm	0.0249	0.1900
-1.50 to -1.00; 2 mm	0.6308	4.8200
-1.00 to -0.50; 1.4 mm	0.0065	0.0500
-0.50 to 0.00; 1 mm	0.0026	0.0200
0.00 to 0.50; (707 µm)	11.8987	90.9229
0.50 to 1.00; (500 µm)	20.0526	153.2303
1.00 to 1.50; (353.6 µm)	19.1101	146.0280
1.50 to 2.00; (250 µm)	8.6395	66.0177
2.00 to 2.50; (176.8 µm)	2.2338	17.0695
2.50 to 3.00; (125 µm)	1.5092	11.5322
3.00 to 3.50; (88.39 µm)	1.8495	14.1324
3.50 to 4.00; (62.5 µm)	2.1094	16.1190
4.00 to 4.50; (44.19 µm)	2.6825	20.4979
4.50 to 5.00; (31.25 µm)	3.2076	24.5106
5.00 to 5.50; (22.097 µm)	3.2374	24.7379
5.50 to 6.00; (15.625 µm)	3.1895	24.3720
6.00 to 6.50; (11.049 µm)	2.9582	22.6046
6.50 to 7.00; (7.813 µm)	2.4629	18.8198
7.00 to 7.50; (5.524 µm)	1.8889	14.4340
7.50 to 8.00; (3.906 µm)	1.3268	10.1387
8.00 to 8.50; (2.762 µm)	0.8431	6.4425
8.50 to 9.00; (1.953 µm)	0.5215	3.9850
9.00 to 9.50; (1.381 µm)	0.3585	2.7396
9.50 to 10.00; (0.977 µm)	0.2868	2.1917
10.00 to 10.50; (0.691 µm)	0.2511	1.9187
10.50 to 11.00; (0.488 µm)	0.2256	1.7238
11.00 to 11.50; (0.345 µm)	0.1978	1.5118
11.50 to 12.00; (0.244 µm)	0.1645	1.2568
12.00 to 12.50; (0.173 µm)	0.1242	0.9493
12.50 to 13.00; (0.122 µm)	0.0908	0.6937
13.00 to 13.50; (0.086 µm)	0.0562	0.4295
TOTAL	100.0000	764.1400

Notes:

APPENDIX 3. Laser Metadata and sample notes provided by the Benchmark Lab.

	REP 1	REP 2	REP 3	REP 4	REP 5
If laser used, provide manufacturer/model:	Beckman Coulter LS 13 320				
Dispersion unit:	Aqueous Liquid Module (ALM)				

Analysis model:	Mie theory
Dispersant used:	Water RI - 1.33
Particle Refractive Index:	1.55
Particle Absorption Index:	0.1
Fines extension	PIDS system

Obscuration (average):	10	11	12	12	12

Pump speed (% or rpm)	80%
Stirrer speed (% or rpm)	n/a
Ultrasonic duration (seconds)	10 secs before, then during runs
Ultrasonic level (eg %, unit as described by instrument manual	Level 2 (lowest level)

Fit assessment (weighted residual (%)):	0.66	0.72	0.86	0.66	1.22

Background duration (seconds)	60
Measurement duration (seconds)	60
Measurement time delay (seconds)	20
Number of runs	3 x 3

In-house reference standards completed:	Yes
If Yes, frequency of use of in-house reference standards:	Weekly
Certified reference standards completed:	Yes
If Yes, frequency of use of certified reference standards:	3 Monthly

Benchmark Notes

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