

Quality Control Statistical Summary

Onshore Grab Sample: PB-09-BB

Sample Taken By: D. Phelps
 Sample Taken On: 01/06/09
 County: Palm Beach

Latitude: 26° 51' 24.4"
 Longitude: 80° 02' 44.1"
 Datum: WGS 84

Statistical Results: Pre-CaCO3				
	Duplicate		Original	
Mean:	1.4747	phi (0.3598 mm)	1.4745	phi (0.3598 mm)
Standard Dev:	0.5693	phi-units (0.6739 mm)	0.5179	phi-units (0.6984 mm)
Skewness:	-1.5460	dimensionless	-0.3829	dimensionless
Kurtosis:	12.3558	dimensionless	4.8546	dimensionless
5th Moment:	-68.6428	dimensionless	-10.6841	dimensionless
6th Moment:	468.9620	dimensionless	74.3803	dimensionless
RARD*:	0.3861	dimensionless	0.3512	dimensionless
Median:	1.3637	phi (0.3886 mm)	1.3537	phi (0.3913 mm)

Statistical Results: CaCO3				
	Duplicate		Original	
Mean:	1.3815	phi (0.3838 mm)	1.3876	phi (0.3822 mm)
Standard Dev:	0.6595	phi-units (0.6331 mm)	0.5723	phi-units (0.6726 mm)
Skewness:	-1.7907	dimensionless	-0.4965	dimensionless
Kurtosis:	11.5000	dimensionless	4.5116	dimensionless
5th Moment:	-57.1338	dimensionless	-11.0930	dimensionless
6th Moment:	324.6261	dimensionless	60.3964	dimensionless
RARD*:	0.4774	dimensionless	0.4124	dimensionless
Median:	1.2840	phi (0.4107 mm)	1.2734	phi (0.4137 mm)

Statistical Results: Post-CaCO3				
	Duplicate		Original	
Mean:	1.5805	phi (0.3344 mm)	1.5784	phi (0.3348 mm)
Standard Dev:	0.4556	phi-units (0.7292 mm)	0.4615	phi-units (0.7262 mm)
Skewness:	0.4834	dimensionless	0.7122	dimensionless
Kurtosis:	4.7041	dimensionless	5.6369	dimensionless
5th Moment:	10.5975	dimensionless	17.5484	dimensionless
6th Moment:	65.0811	dimensionless	103.4627	dimensionless
RARD*:	0.2883	dimensionless	0.2924	dimensionless
Median:	1.4445	phi (0.3674 mm)	1.4329	phi (0.3704 mm)

Additional Data	
Total Fines	
Original:	0.08 %
Duplicate:	0.13 %
Total Carbonates	
Original:	52.19 %
Duplicate:	51.73 %

Statistical Explanation	
Calculations based on the Method of Moments	
Skewness: 3rd Stand. Moment; Exact Gaussian = 0.0	
Kurtosis: 4th Stand. Moment; Exact Gaussian = 3.0	
Millimeter data calculated by $mm = 2^{-(\phi)}$	
* Reciprocal Absolute Relative Dispersion (RARD)	
Scale	
< 0.5	Excellent homogeneity (e.g., beaches)
0.5 to 1.0	Good homogeneity
1.0 to 1.33	Fair homogeneity
> 1.33	Poor homogeneity (e.g., glacial)

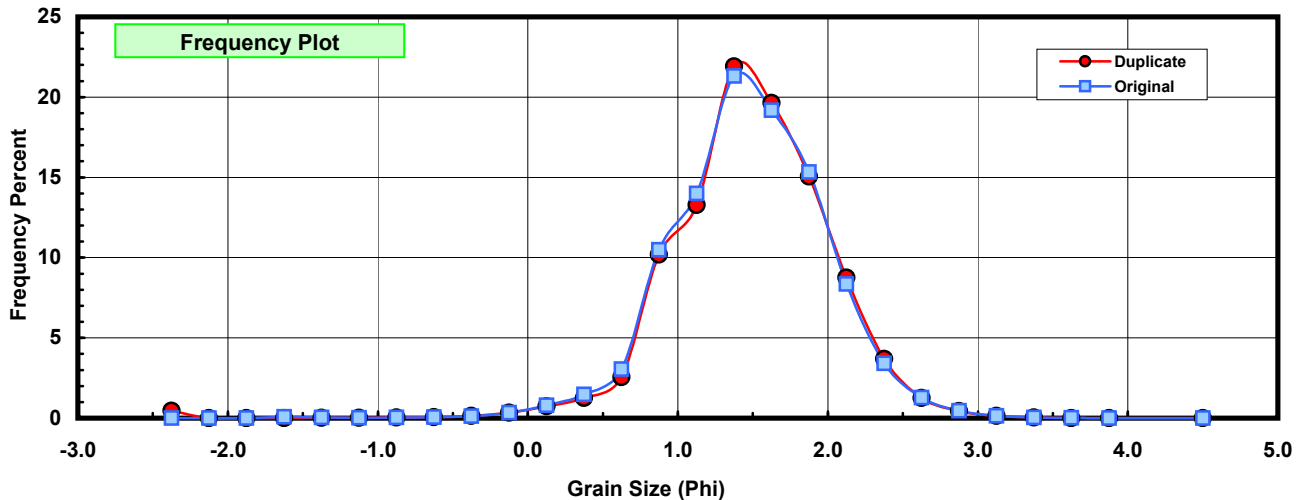
Pre-Digestion Grain Size Distribution

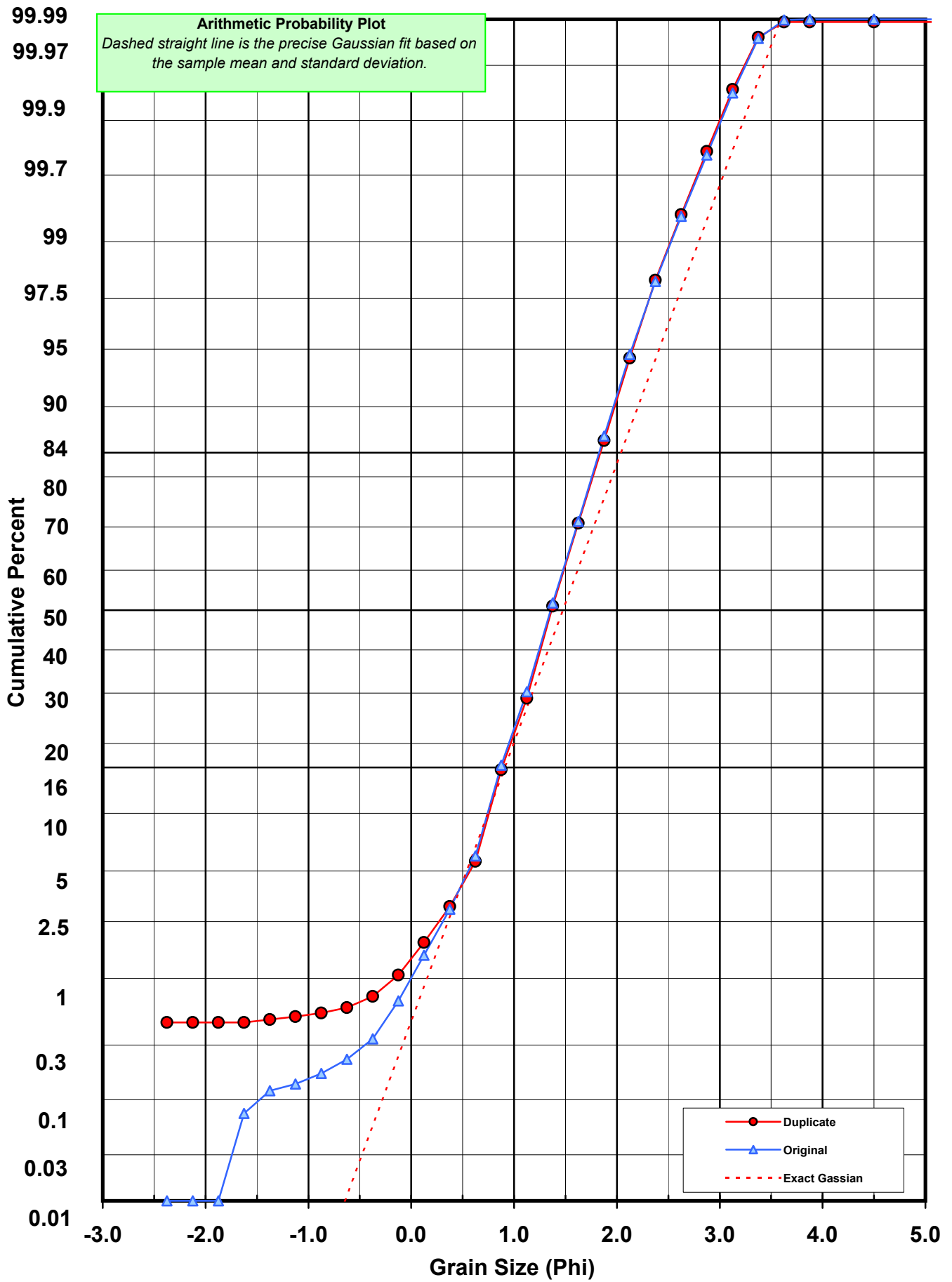
Onshore Grab Sample: PB-09-BB

Total Duplicate Sample Mass: 58.824 grams

Total Original Sample Mass: 63.434 grams

Sieve Size (phi)	Sieve Midpt (phi)	Weight of Dupl (grams)	Freq Weight %	Cumulative Weight %	Weight of Original (grams)	Freq Weight %	Cumulative Weight %
-2.25	-2.375	0.271	0.461	0.461	0.000	0.000	0.000
-2.00	-2.125	0.000	0.000	0.461	0.000	0.000	0.000
-1.75	-1.875	0.000	0.000	0.461	0.000	0.000	0.000
-1.50	-1.625	0.000	0.000	0.461	0.048	0.076	0.076
-1.25	-1.375	0.015	0.025	0.486	0.028	0.044	0.120
-1.00	-1.125	0.016	0.027	0.513	0.011	0.017	0.137
-0.75	-0.875	0.021	0.036	0.549	0.021	0.033	0.170
-0.50	-0.625	0.034	0.058	0.607	0.035	0.055	0.225
-0.25	-0.375	0.080	0.136	0.743	0.071	0.112	0.337
0.00	-0.125	0.194	0.330	1.073	0.221	0.348	0.686
0.25	0.125	0.434	0.738	1.810	0.506	0.798	1.483
0.50	0.375	0.741	1.260	3.070	0.935	1.474	2.957
0.75	0.625	1.499	2.548	5.618	1.940	3.058	6.016
1.00	0.875	5.995	10.191	15.810	6.650	10.483	16.499
1.25	1.125	7.807	13.272	29.082	8.883	14.004	30.503
1.50	1.375	12.887	21.908	50.989	13.518	21.310	51.813
1.75	1.625	11.549	19.633	70.623	12.172	19.188	71.001
2.00	1.875	8.849	15.043	85.666	9.722	15.326	86.328
2.25	2.125	5.153	8.760	94.426	5.295	8.347	94.675
2.50	2.375	2.172	3.692	98.118	2.160	3.405	98.080
2.75	2.625	0.736	1.251	99.369	0.806	1.271	99.351
3.00	2.875	0.261	0.444	99.813	0.285	0.449	99.800
3.25	3.125	0.079	0.134	99.947	0.091	0.143	99.943
3.50	3.375	0.023	0.039	99.986	0.027	0.043	99.986
3.75	3.625	0.005	0.008	99.995	0.007	0.011	99.997
4.00	3.875	0.000	0.000	99.995	0.002	0.003	100.000
5.00	4.500	0.003	0.005	100.000	0.000	0.000	100.000



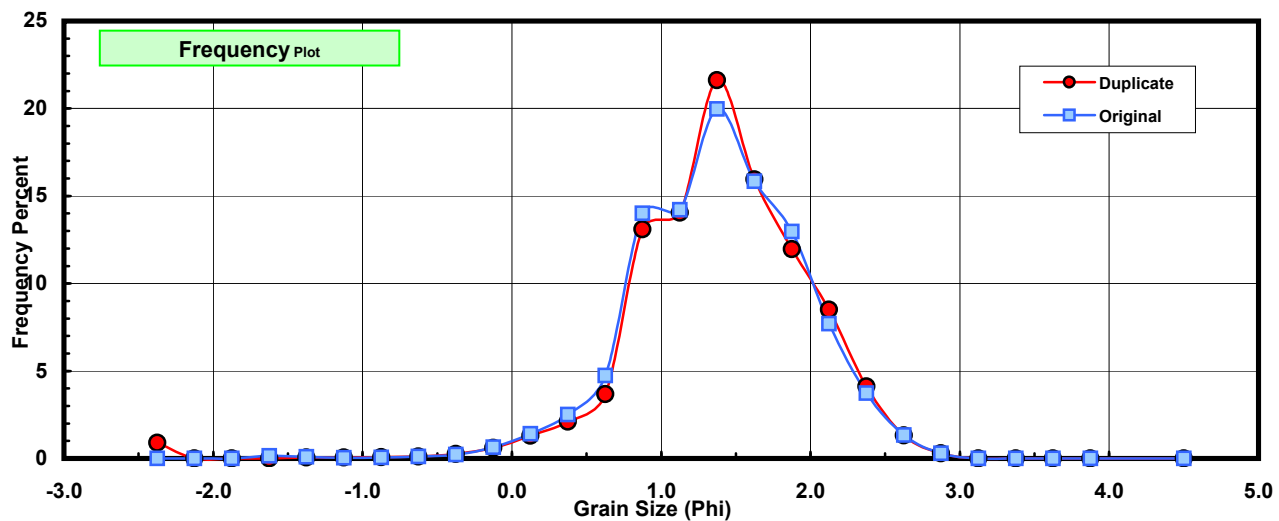


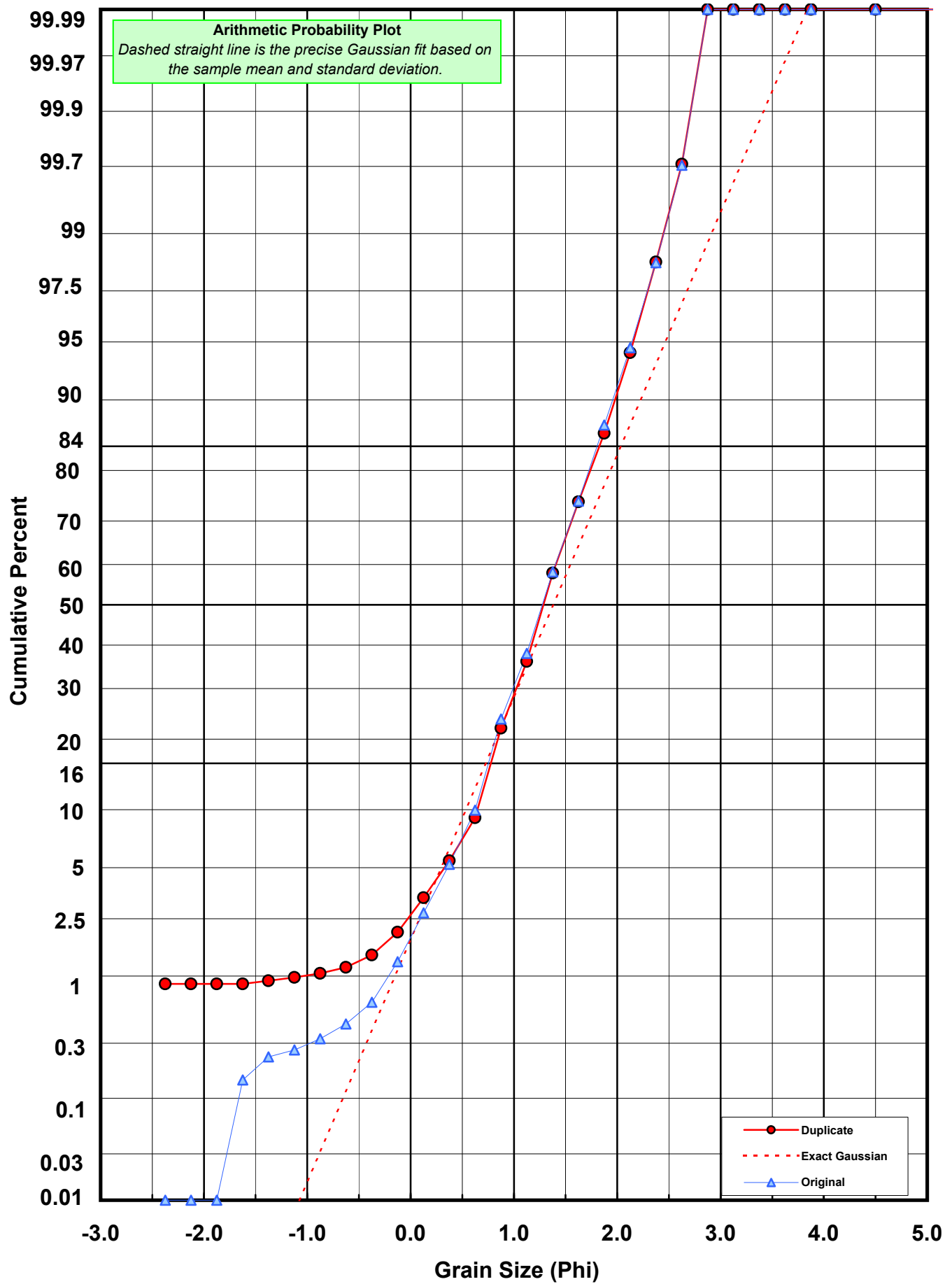
Carbonate Grain Size Distribution

Onshore Grab Sample: PB-09-BB

Total Duplicate Carbonate Mass: 30.506 grams
% Carbonate in Duplicate: 51.7 %
Total Original Carbonate Mass: 33.218 grams
% Carbonate in Original: 52.2 %

Sieve Size (phi)	Sieve Midpt (phi)	Weight of Dupl (grams)	Freq Weight %	Cumulative Weight %	Weight of Original (grams)	Freq Weight %	Cumulative Weight %
-2.25	-2.375	0.271	0.888	0.888	0.000	0.000	0.000
-2.00	-2.125	0.000	0.000	0.888	0.000	0.000	0.000
-1.75	-1.875	0.000	0.000	0.888	0.000	0.000	0.000
-1.50	-1.625	0.000	0.000	0.888	0.048	0.144	0.144
-1.25	-1.375	0.015	0.049	0.938	0.028	0.084	0.229
-1.00	-1.125	0.016	0.052	0.990	0.011	0.033	0.262
-0.75	-0.875	0.021	0.069	1.059	0.021	0.063	0.325
-0.50	-0.625	0.034	0.111	1.170	0.035	0.105	0.430
-0.25	-0.375	0.079	0.259	1.429	0.071	0.214	0.644
0.00	-0.125	0.183	0.600	2.029	0.212	0.638	1.282
0.25	0.125	0.398	1.305	3.334	0.468	1.409	2.691
0.50	0.375	0.642	2.105	5.438	0.834	2.511	5.202
0.75	0.625	1.124	3.685	9.123	1.572	4.732	9.934
1.00	0.875	3.992	13.086	22.209	4.653	14.007	23.942
1.25	1.125	4.283	14.040	36.249	4.718	14.203	38.145
1.50	1.375	6.596	21.622	57.871	6.634	19.971	58.116
1.75	1.625	4.867	15.954	73.825	5.263	15.844	73.960
2.00	1.875	3.648	11.958	85.783	4.310	12.975	86.935
2.25	2.125	2.595	8.507	94.290	2.560	7.707	94.641
2.50	2.375	1.253	4.107	98.397	1.242	3.739	98.380
2.75	2.625	0.402	1.318	99.715	0.441	1.328	99.708
3.00	2.875	0.087	0.285	100.000	0.097	0.292	100.000
3.25	3.125	0.000	0.000	100.000	0.000	0.000	100.000
3.50	3.375	0.000	0.000	100.000	0.000	0.000	100.000
3.75	3.625	0.000	0.000	100.000	0.000	0.000	100.000
4.00	3.875	0.000	0.000	100.000	0.000	0.000	100.000
5.00	4.500	0.000	0.000	100.000	0.000	0.000	100.000





Post-Digestion Grain Size Distribution

Onshore Grab Sample: PB-09-BB

Total Duplicate Digested Mass: 28.393 grams
% Silica in Duplicate: 48.3 %
Total Original Digested Mass: 30.327 grams
% Silica in Original: 47.8 %

Sieve Size (phi)	Sieve Midpt (phi)	Weight (grams)	Freq Weight %	Cumulative Weight %	Weight of Original (grams)	Freq Weight %	Cumulative Weight %
-2.25	-2.375	0.000	0.000	0.000	0.000	0.000	0.000
-2.00	-2.125	0.000	0.000	0.000	0.000	0.000	0.000
-1.75	-1.875	0.000	0.000	0.000	0.000	0.000	0.000
-1.50	-1.625	0.000	0.000	0.000	0.000	0.000	0.000
-1.25	-1.375	0.000	0.000	0.000	0.000	0.000	0.000
-1.00	-1.125	0.000	0.000	0.000	0.000	0.000	0.000
-0.75	-0.875	0.000	0.000	0.000	0.000	0.000	0.000
-0.50	-0.625	0.000	0.000	0.000	0.000	0.000	0.000
-0.25	-0.375	0.001	0.004	0.004	0.000	0.000	0.000
0.00	-0.125	0.011	0.039	0.042	0.009	0.030	0.030
0.25	0.125	0.036	0.127	0.169	0.038	0.125	0.155
0.50	0.375	0.099	0.349	0.518	0.101	0.333	0.488
0.75	0.625	0.375	1.321	1.838	0.368	1.213	1.701
1.00	0.875	2.003	7.055	8.893	1.997	6.585	8.286
1.25	1.125	3.524	12.412	21.305	4.165	13.734	22.020
1.50	1.375	6.291	22.157	43.461	6.884	22.699	44.719
1.75	1.625	6.682	23.534	66.995	6.909	22.782	67.501
2.00	1.875	5.201	18.318	85.313	5.412	17.845	85.346
2.25	2.125	2.558	9.009	94.323	2.735	9.018	94.365
2.50	2.375	0.919	3.237	97.559	0.918	3.027	97.392
2.75	2.625	0.334	1.176	98.736	0.365	1.204	98.595
3.00	2.875	0.174	0.613	99.348	0.188	0.620	99.215
3.25	3.125	0.083	0.292	99.641	0.093	0.307	99.522
3.50	3.375	0.049	0.173	99.813	0.051	0.168	99.690
3.75	3.625	0.026	0.092	99.905	0.040	0.132	99.822
4.00	3.875	0.018	0.063	99.968	0.028	0.092	99.914
5.00	4.500	0.009	0.032	100.000	0.026	0.086	100.000

