

Quality Control Statistical Summary

Onshore Grab Sample: SA-33-BB

Sample Taken By: D. Phelps
 Sample Taken On: 12/16/09
 County: Sarasota

Latitude: 27° 01' 36.1"
 Longitude: 82° 25' 22.8"
 Datum: WGS 84

Statistical Results: Pre-CaCO3				
	Duplicate		Original	
Mean:	1.4838	phi (0.3575 mm)	1.6124	phi (0.327 mm)
Standard Dev:	1.1838	phi-units (0.4402 mm)	0.6923	phi-units (0.6189 mm)
Skewness:	-2.0041	dimensionless	-0.6453	dimensionless
Kurtosis:	7.1528	dimensionless	3.8297	dimensionless
5th Moment:	-21.9670	dimensionless	-7.1252	dimensionless
6th Moment:	71.8722	dimensionless	31.3318	dimensionless
RARD*:	0.7978	dimensionless	0.4294	dimensionless
Median:	1.6260	phi (0.324 mm)	1.5569	phi (0.3399 mm)

Statistical Results: CaCO3				
	Duplicate		Original	
Mean:	0.5867	phi (0.6659 mm)	1.2353	phi (0.4248 mm)
Standard Dev:	1.6698	phi-units (0.3143 mm)	0.7796	phi-units (0.5825 mm)
Skewness:	-0.8960	dimensionless	-0.5884	dimensionless
Kurtosis:	2.3033	dimensionless	3.0951	dimensionless
5th Moment:	-3.3409	dimensionless	-5.1172	dimensionless
6th Moment:	6.5940	dimensionless	18.7452	dimensionless
RARD*:	2.8462	dimensionless	0.6311	dimensionless
Median:	1.0160	phi (0.4945 mm)	1.2136	phi (0.4312 mm)

Statistical Results: Post-CaCO3				
	Duplicate		Original	
Mean:	1.8710	phi (0.2734 mm)	1.7590	phi (0.2955 mm)
Standard Dev:	0.5932	phi-units (0.6629 mm)	0.6054	phi-units (0.6573 mm)
Skewness:	-0.3040	dimensionless	-0.3415	dimensionless
Kurtosis:	3.2933	dimensionless	3.3376	dimensionless
5th Moment:	-2.8252	dimensionless	-3.2185	dimensionless
6th Moment:	20.0819	dimensionless	20.8592	dimensionless
RARD*:	0.3171	dimensionless	0.3442	dimensionless
Median:	1.7664	phi (0.2939 mm)	1.6684	phi (0.3146 mm)

Additional Data	
Total Fines	
Original:	0.17 %
Duplicate:	0.29 %
Total Carbonates	
Original:	27.66 %
Duplicate:	30.06 %

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)

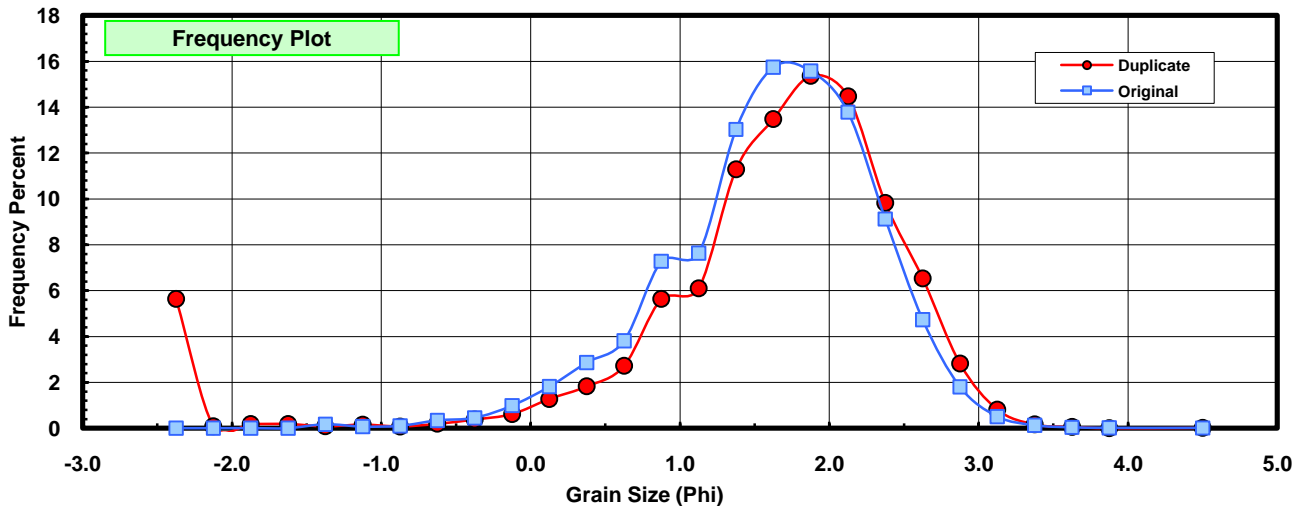
Pre-Digestion Grain Size Distribution

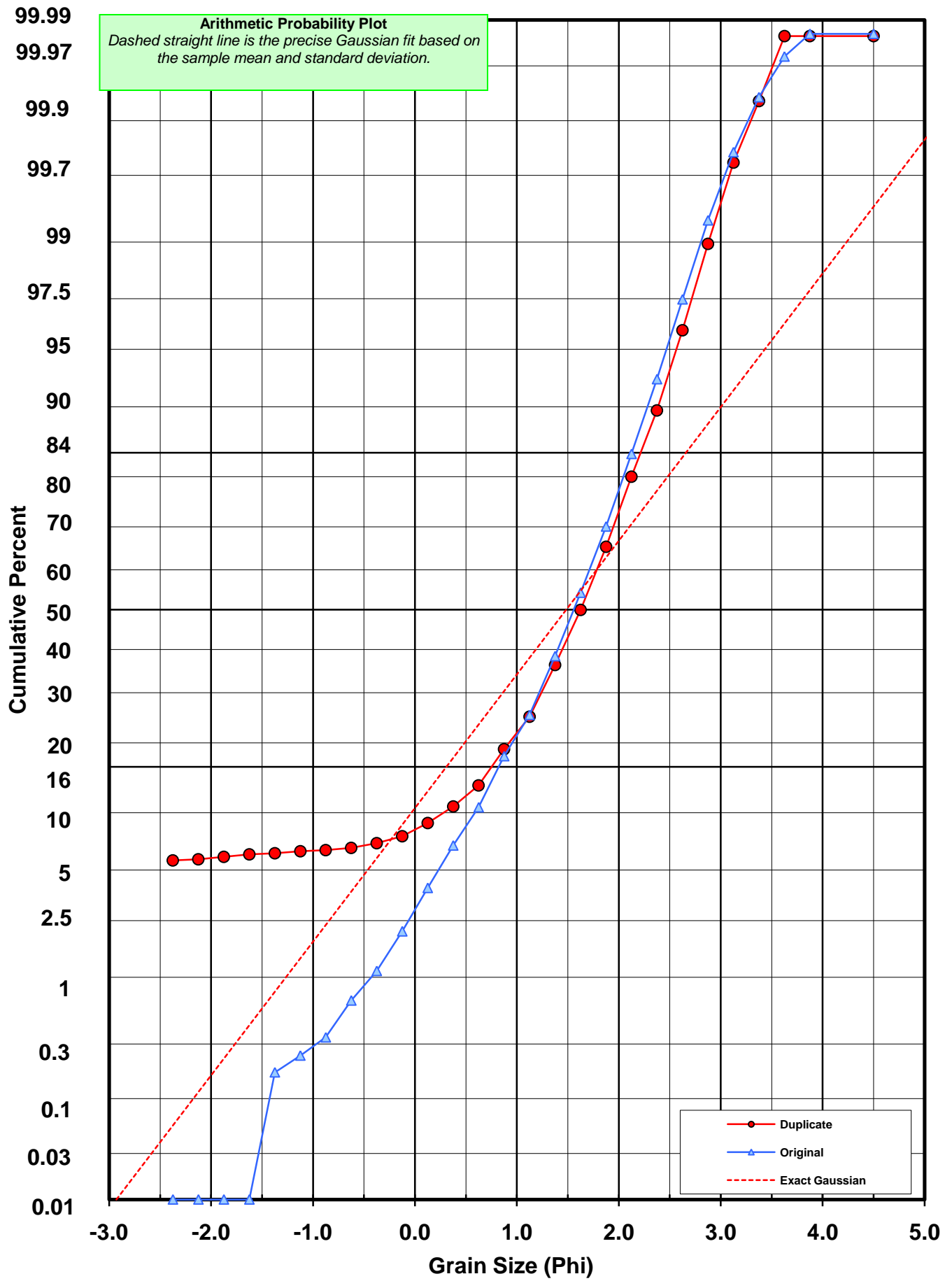
Onshore Grab Sample: SA-33-BB

Total Duplicate Sample Mass: 63.189 grams

Total Original Sample Mass: 78.342 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	3.560	5.634	5.634	0.000	0.000	0.000
-2.00	-2.125	0.057	0.090	5.724	0.000	0.000	0.000
-1.75	-1.875	0.112	0.177	5.901	0.000	0.000	0.000
-1.50	-1.625	0.116	0.184	6.085	0.000	0.000	0.000
-1.25	-1.375	0.053	0.084	6.169	0.133	0.170	0.170
-1.00	-1.125	0.100	0.158	6.327	0.053	0.068	0.237
-0.75	-0.875	0.050	0.079	6.406	0.080	0.102	0.340
-0.50	-0.625	0.121	0.191	6.598	0.265	0.338	0.678
-0.25	-0.375	0.242	0.383	6.981	0.355	0.453	1.131
0.00	-0.125	0.390	0.617	7.598	0.771	0.984	2.115
0.25	0.125	0.807	1.277	8.875	1.421	1.814	3.929
0.50	0.375	1.153	1.825	10.700	2.243	2.863	6.792
0.75	0.625	1.719	2.720	13.420	2.988	3.814	10.606
1.00	0.875	3.564	5.640	19.060	5.702	7.278	17.884
1.25	1.125	3.858	6.105	25.166	5.979	7.632	25.516
1.50	1.375	7.132	11.287	36.453	10.209	13.031	38.548
1.75	1.625	8.521	13.485	49.937	12.334	15.744	54.291
2.00	1.875	9.711	15.368	65.306	12.201	15.574	69.865
2.25	2.125	9.144	14.471	79.777	10.798	13.783	83.649
2.50	2.375	6.207	9.823	89.599	7.145	9.120	92.769
2.75	2.625	4.130	6.536	96.135	3.709	4.734	97.503
3.00	2.875	1.781	2.819	98.954	1.412	1.802	99.306
3.25	3.125	0.515	0.815	99.769	0.397	0.507	99.812
3.50	3.375	0.104	0.165	99.934	0.099	0.126	99.939
3.75	3.625	0.034	0.054	99.987	0.029	0.037	99.976
4.00	3.875	0.000	0.000	99.987	0.010	0.013	99.989
5.00	4.500	0.008	0.013	100.000	0.009	0.011	100.000



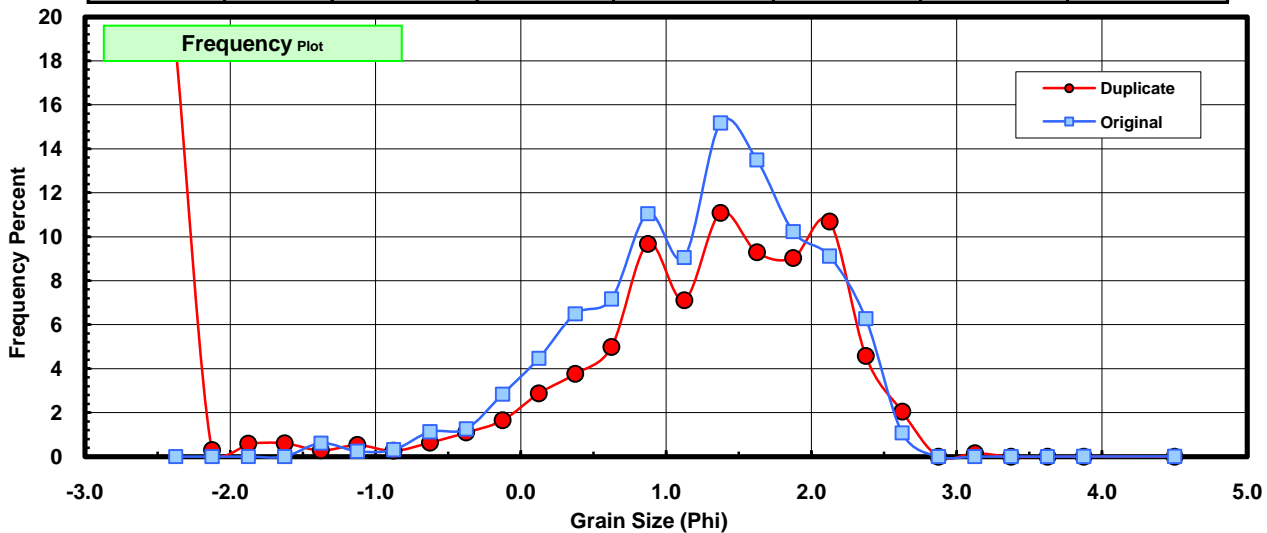


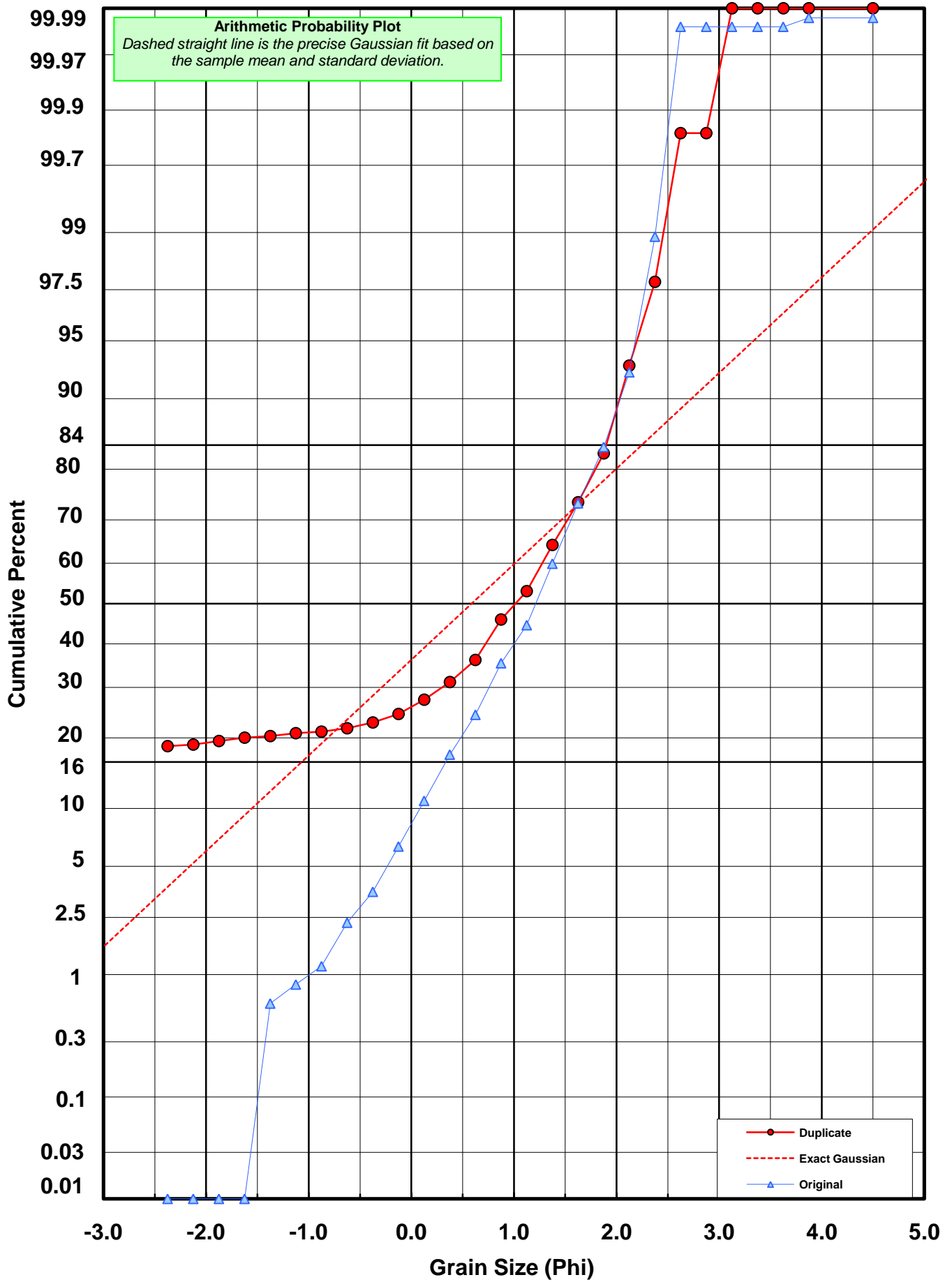
Carbonate Grain Size Distribution

Onshore Grab Sample: SA-33-BB

Total Duplicate Carbonate Mass: 18.999 grams
% Carbonate in Duplicate: 30.1 %
Total Original Carbonate Mass: 21.668 grams
% Carbonate in Original: 27.7 %

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	3.560	18.738	18.738	0.000	0.000	0.000
-2.00	-2.125	0.057	0.300	19.038	0.000	0.000	0.000
-1.75	-1.875	0.112	0.590	19.627	0.000	0.000	0.000
-1.50	-1.625	0.116	0.611	20.238	0.000	0.000	0.000
-1.25	-1.375	0.053	0.279	20.517	0.133	0.614	0.614
-1.00	-1.125	0.100	0.526	21.043	0.053	0.245	0.858
-0.75	-0.875	0.050	0.263	21.306	0.067	0.309	1.168
-0.50	-0.625	0.121	0.637	21.943	0.244	1.126	2.294
-0.25	-0.375	0.208	1.095	23.038	0.273	1.260	3.554
0.00	-0.125	0.313	1.647	24.686	0.615	2.838	6.392
0.25	0.125	0.546	2.874	27.559	0.968	4.467	10.859
0.50	0.375	0.715	3.763	31.323	1.407	6.493	17.353
0.75	0.625	0.947	4.984	36.307	1.553	7.167	24.520
1.00	0.875	1.839	9.679	45.987	2.394	11.049	35.569
1.25	1.125	1.352	7.116	53.103	1.962	9.055	44.623
1.50	1.375	2.106	11.085	64.188	3.288	15.174	59.798
1.75	1.625	1.766	9.295	73.483	2.924	13.495	73.292
2.00	1.875	1.717	9.037	82.520	2.217	10.232	83.524
2.25	2.125	2.032	10.695	93.215	1.975	9.115	92.639
2.50	2.375	0.869	4.574	97.789	1.359	6.272	98.911
2.75	2.625	0.390	2.053	99.842	0.233	1.075	99.986
3.00	2.875	0.000	0.000	99.842	0.000	0.000	99.986
3.25	3.125	0.030	0.158	100.000	0.000	0.000	99.986
3.50	3.375	0.000	0.000	100.000	0.000	0.000	99.986
3.75	3.625	0.000	0.000	100.000	0.000	0.000	99.986
4.00	3.875	0.000	0.000	100.000	0.001	0.005	99.991
5.00	4.500	0.000	0.000	100.000	0.002	0.009	100.000





Post-Digestion Grain Size Distribution

Onshore Grab Sample: SA-33-BB

Total Duplicate Digested Mass: 44.229 grams
 % Silica in Duplicate: 70.0 %
 Total Original Digested Mass: 56.772 grams
 % Silica in Original: 72.5 %

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	0.013	0.023	0.023
-0.50	-0.625	0.000	0.000	0.000	0.021	0.037	0.060
-0.25	-0.375	0.034	0.077	0.077	0.082	0.144	0.204
0.00	-0.125	0.077	0.174	0.251	0.156	0.275	0.479
0.25	0.125	0.261	0.590	0.841	0.453	0.798	1.277
0.50	0.375	0.438	0.990	1.831	0.836	1.473	2.750
0.75	0.625	0.772	1.745	3.577	1.435	2.528	5.277
1.00	0.875	1.725	3.900	7.477	3.308	5.827	11.104
1.25	1.125	2.506	5.666	13.143	4.017	7.076	18.180
1.50	1.375	5.026	11.364	24.507	6.921	12.191	30.371
1.75	1.625	6.755	15.273	39.779	9.410	16.575	46.946
2.00	1.875	7.994	18.074	57.853	9.984	17.586	64.532
2.25	2.125	7.112	16.080	73.933	8.823	15.541	80.073
2.50	2.375	5.338	12.069	86.002	5.786	10.192	90.265
2.75	2.625	3.740	8.456	94.458	3.476	6.123	96.387
3.00	2.875	1.792	4.052	98.510	1.457	2.566	98.954
3.25	3.125	0.485	1.097	99.607	0.422	0.743	99.697
3.50	3.375	0.110	0.249	99.855	0.114	0.201	99.898
3.75	3.625	0.038	0.086	99.941	0.042	0.074	99.972
4.00	3.875	0.016	0.036	99.977	0.009	0.016	99.988
5.00	4.500	0.010	0.023	100.000	0.007	0.012	100.000

