

Quality Control Statistical Summary

Onshore Grab Sample: SA-04-BB

Sample Taken By: D. Phelps
 Sample Taken On: 12/03/09
 County: Sarasota

Latitude: 27° 20' 56"
 Longitude: 82° 36' 37.2"
 Datum: WGS 84

Statistical Results: Pre-CaCO3				
	Duplicate		Original	
Mean:	1.3701	phi (0.3869 mm)	1.4669	phi (0.3618 mm)
Standard Dev:	0.9060	phi-units (0.5337 mm)	0.8401	phi-units (0.5586 mm)
Skewness:	-0.2349	dimensionless	-0.0785	dimensionless
Kurtosis:	3.3022	dimensionless	2.8683	dimensionless
5th Moment:	-5.7436	dimensionless	-3.6326	dimensionless
6th Moment:	29.2506	dimensionless	23.7016	dimensionless
RARD*:	0.6612	dimensionless	0.5727	dimensionless
Median:	1.1505	phi (0.4505 mm)	1.2350	phi (0.4248 mm)

Statistical Results: CaCO3				
	Duplicate		Original	
Mean:	0.8694	phi (0.5474 mm)	0.9572	phi (0.5151 mm)
Standard Dev:	0.6663	phi-units (0.6301 mm)	0.5741	phi-units (0.6717 mm)
Skewness:	-0.7492	dimensionless	-0.5593	dimensionless
Kurtosis:	6.9686	dimensionless	6.5977	dimensionless
5th Moment:	-18.4271	dimensionless	-19.0152	dimensionless
6th Moment:	117.2737	dimensionless	141.8974	dimensionless
RARD*:	0.7664	dimensionless	0.5998	dimensionless
Median:	0.7597	phi (0.5906 mm)	0.8153	phi (0.5683 mm)

Statistical Results: Post-CaCO3				
	Duplicate		Original	
Mean:	2.2376	phi (0.212 mm)	2.2509	phi (0.2101 mm)
Standard Dev:	0.5377	phi-units (0.6889 mm)	0.5467	phi-units (0.6846 mm)
Skewness:	-0.7509	dimensionless	-0.7058	dimensionless
Kurtosis:	3.8117	dimensionless	4.0180	dimensionless
5th Moment:	-7.3312	dimensionless	-7.9146	dimensionless
6th Moment:	31.5407	dimensionless	39.2968	dimensionless
RARD*:	0.2403	dimensionless	0.2429	dimensionless
Median:	2.1834	phi (0.2202 mm)	2.1991	phi (0.2178 mm)

Additional Data	
Total Fines	
Original:	0.45 %
Duplicate:	0.27 %
Total Carbonates	
Original:	60.04 %
Duplicate:	63.31 %

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)

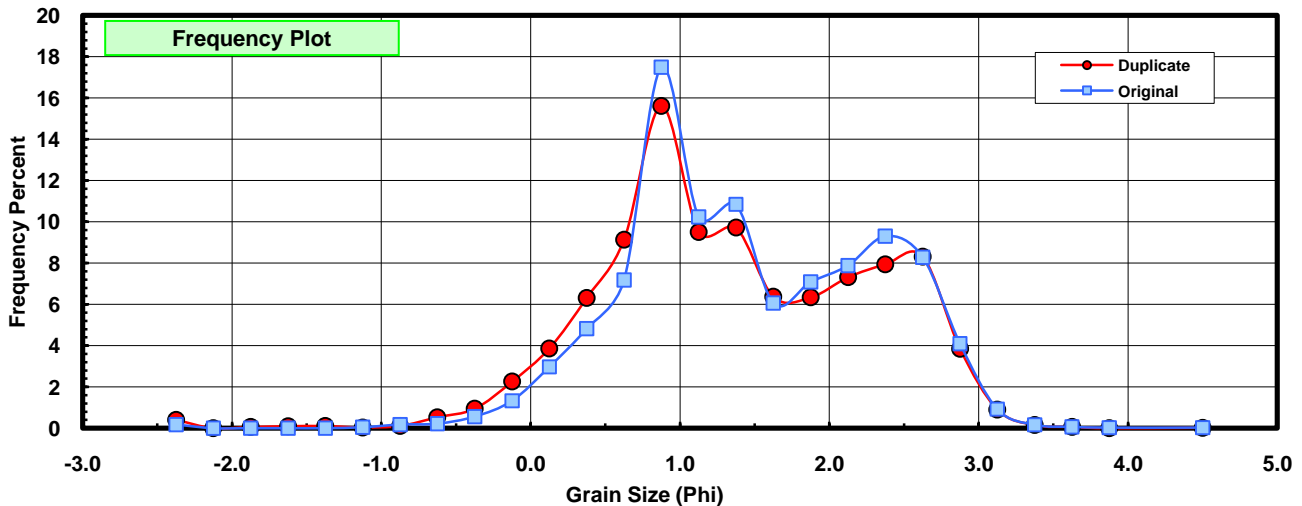
Pre-Digestion Grain Size Distribution

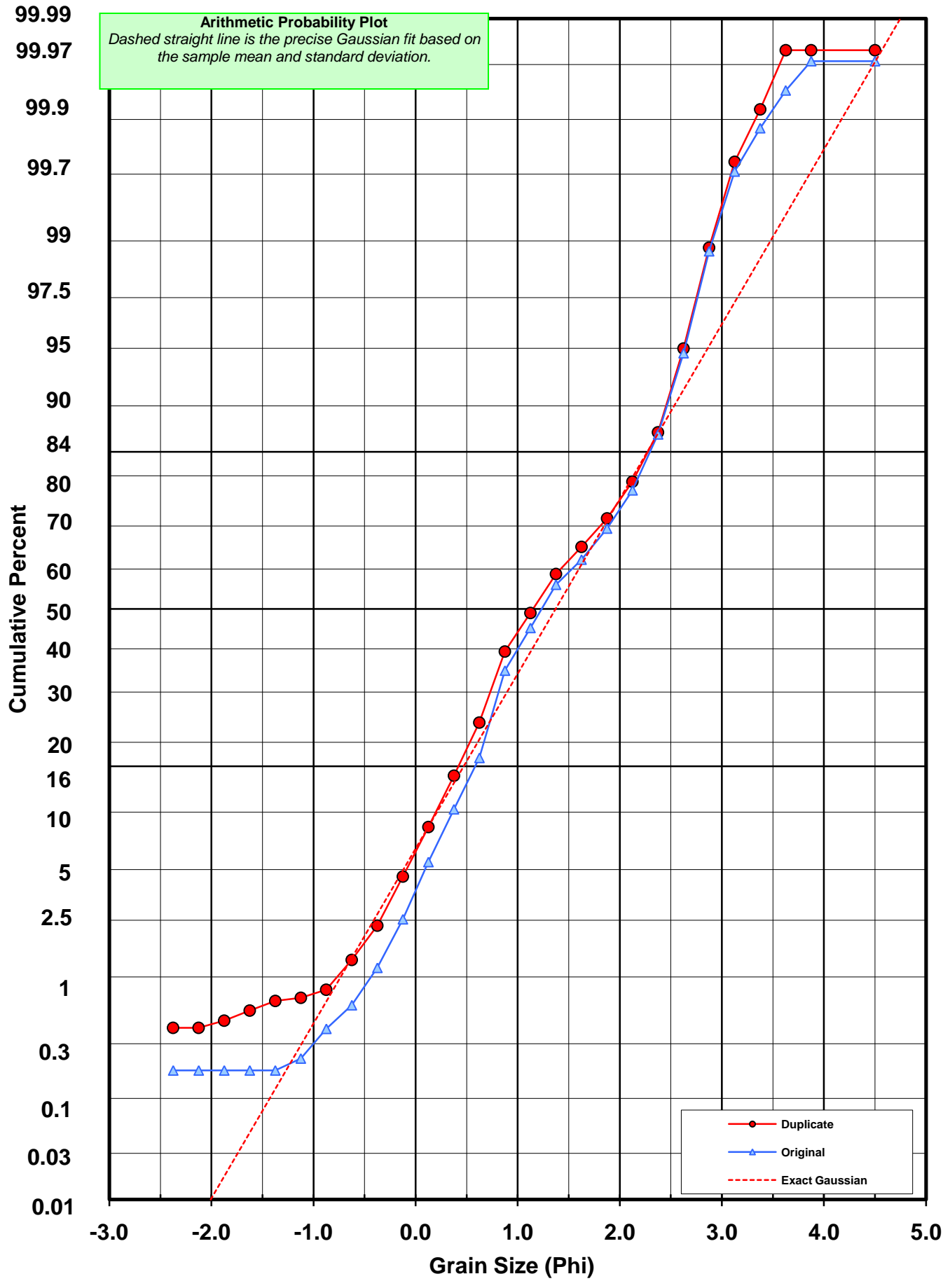
Onshore Grab Sample: SA-04-BB

Total Duplicate Sample Mass: 51.783 grams

Total Original Sample Mass: 52.987 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	0.210	0.406	0.406	0.093	0.176	0.176
-2.00	-2.125	0.000	0.000	0.406	0.000	0.000	0.176
-1.75	-1.875	0.031	0.060	0.465	0.000	0.000	0.176
-1.50	-1.625	0.050	0.097	0.562	0.000	0.000	0.176
-1.25	-1.375	0.055	0.106	0.668	0.000	0.000	0.176
-1.00	-1.125	0.020	0.039	0.707	0.025	0.047	0.223
-0.75	-0.875	0.057	0.110	0.817	0.093	0.176	0.398
-0.50	-0.625	0.275	0.531	1.348	0.117	0.221	0.619
-0.25	-0.375	0.488	0.942	2.290	0.299	0.564	1.183
0.00	-0.125	1.170	2.259	4.550	0.705	1.331	2.514
0.25	0.125	2.004	3.870	8.420	1.576	2.974	5.488
0.50	0.375	3.271	6.317	14.736	2.558	4.828	10.316
0.75	0.625	4.733	9.140	23.877	3.805	7.181	17.497
1.00	0.875	8.089	15.621	39.498	9.268	17.491	34.988
1.25	1.125	4.926	9.513	49.010	5.425	10.238	45.226
1.50	1.375	5.032	9.717	58.728	5.748	10.848	56.074
1.75	1.625	3.299	6.371	65.099	3.214	6.066	62.140
2.00	1.875	3.283	6.340	71.439	3.755	7.087	69.226
2.25	2.125	3.789	7.317	78.756	4.176	7.881	77.108
2.50	2.375	4.109	7.935	86.691	4.931	9.306	86.414
2.75	2.625	4.307	8.317	95.008	4.391	8.287	94.701
3.00	2.875	1.996	3.855	98.863	2.169	4.093	98.794
3.25	3.125	0.468	0.904	99.766	0.489	0.923	99.717
3.50	3.375	0.079	0.153	99.919	0.087	0.164	99.881
3.75	3.625	0.031	0.060	99.979	0.034	0.064	99.945
4.00	3.875	0.000	0.000	99.979	0.014	0.026	99.972
5.00	4.500	0.011	0.021	100.000	0.015	0.028	100.000





Carbonate Grain Size Distribution

Onshore Grab Sample: SA-04-BB

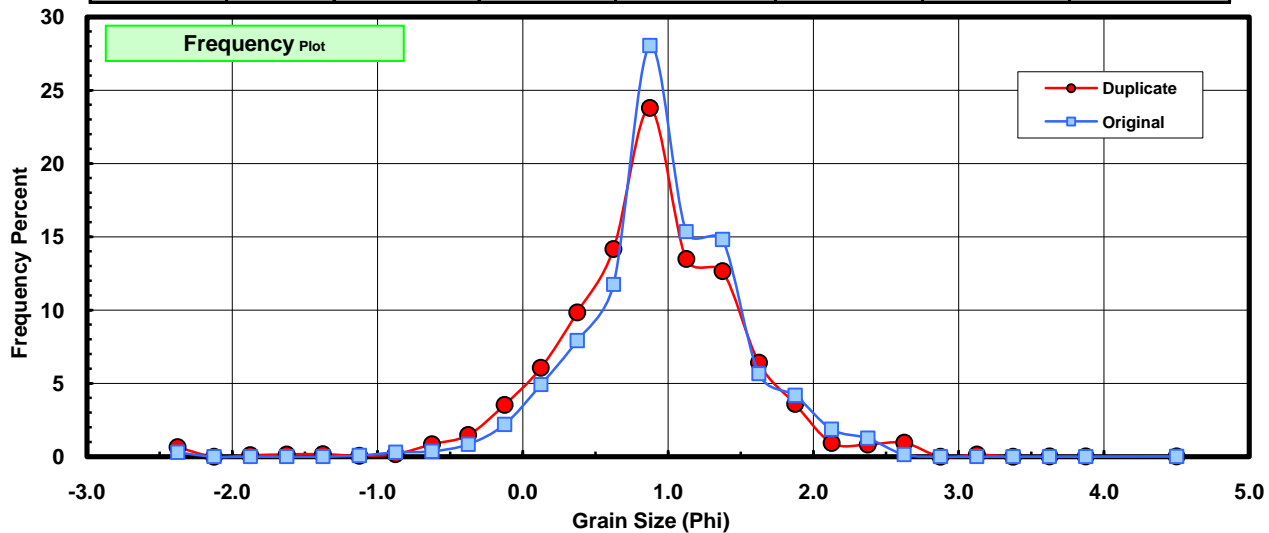
Total Duplicate Carbonate Mass: 32.791 grams

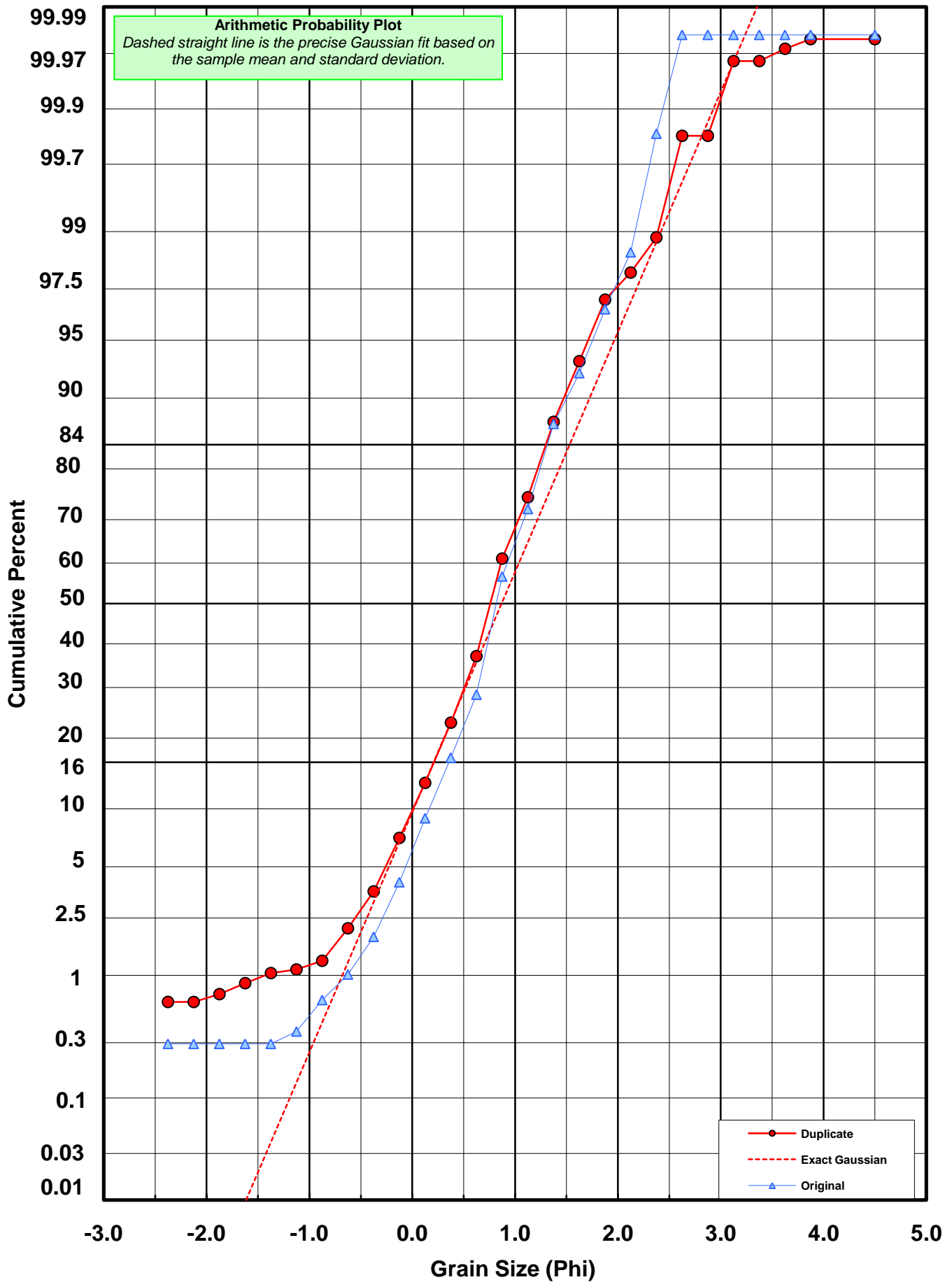
% Carbonate in Duplicate: 63.3 %

Total Original Carbonate Mass: 31.813 grams

% Carbonate in Original: 60.0 %

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	0.210	0.640	0.640	0.093	0.292	0.292
-2.00	-2.125	0.000	0.000	0.640	0.000	0.000	0.292
-1.75	-1.875	0.031	0.095	0.735	0.000	0.000	0.292
-1.50	-1.625	0.050	0.152	0.887	0.000	0.000	0.292
-1.25	-1.375	0.055	0.168	1.055	0.000	0.000	0.292
-1.00	-1.125	0.020	0.061	1.116	0.025	0.079	0.371
-0.75	-0.875	0.057	0.174	1.290	0.093	0.292	0.663
-0.50	-0.625	0.275	0.839	2.129	0.117	0.368	1.031
-0.25	-0.375	0.482	1.470	3.599	0.269	0.846	1.877
0.00	-0.125	1.159	3.535	7.133	0.699	2.197	4.074
0.25	0.125	1.984	6.050	13.183	1.562	4.910	8.984
0.50	0.375	3.226	9.838	23.022	2.520	7.921	16.905
0.75	0.625	4.645	14.165	37.187	3.738	11.750	28.655
1.00	0.875	7.800	23.787	60.974	8.922	28.045	56.700
1.25	1.125	4.420	13.479	74.453	4.884	15.352	72.052
1.50	1.375	4.150	12.656	87.109	4.711	14.808	86.861
1.75	1.625	2.104	6.416	93.526	1.800	5.658	92.519
2.00	1.875	1.177	3.589	97.115	1.332	4.187	96.706
2.25	2.125	0.308	0.939	98.054	0.596	1.873	98.579
2.50	2.375	0.271	0.826	98.881	0.400	1.257	99.837
2.75	2.625	0.311	0.948	99.829	0.046	0.145	99.981
3.00	2.875	0.000	0.000	99.829	0.000	0.000	99.981
3.25	3.125	0.044	0.134	99.963	0.000	0.000	99.981
3.50	3.375	0.000	0.000	99.963	0.000	0.000	99.981
3.75	3.625	0.003	0.009	99.973	0.000	0.000	99.981
4.00	3.875	0.002	0.006	99.979	0.000	0.000	99.981
5.00	4.500	0.007	0.021	100.000	0.006	0.019	100.000





Post-Digestion Grain Size Distribution

Onshore Grab Sample: SA-04-BB

Total Duplicate Digested Mass: 19.050 grams
% Silica in Duplicate: 36.8 %
Total Original Digested Mass: 21.677 grams
% Silica in Original: 40.9 %

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	0.006	0.031	0.031	0.030	0.138	0.138
0.00	-0.125	0.011	0.058	0.089	0.006	0.028	0.166
0.25	0.125	0.020	0.105	0.194	0.014	0.065	0.231
0.50	0.375	0.045	0.236	0.430	0.038	0.175	0.406
0.75	0.625	0.088	0.462	0.892	0.067	0.309	0.715
1.00	0.875	0.289	1.517	2.409	0.346	1.596	2.311
1.25	1.125	0.506	2.656	5.066	0.541	2.496	4.807
1.50	1.375	0.882	4.630	9.696	1.037	4.784	9.591
1.75	1.625	1.195	6.273	15.969	1.414	6.523	16.114
2.00	1.875	2.106	11.055	27.024	2.423	11.178	27.292
2.25	2.125	3.481	18.273	45.297	3.580	16.515	43.807
2.50	2.375	3.838	20.147	65.444	4.531	20.902	64.709
2.75	2.625	3.996	20.976	86.420	4.345	20.044	84.753
3.00	2.875	2.026	10.635	97.055	2.505	11.556	96.309
3.25	3.125	0.424	2.226	99.281	0.565	2.606	98.916
3.50	3.375	0.095	0.499	99.780	0.151	0.697	99.612
3.75	3.625	0.028	0.147	99.927	0.057	0.263	99.875
4.00	3.875	0.010	0.052	99.979	0.018	0.083	99.958
5.00	4.500	0.004	0.021	100.000	0.009	0.042	100.000

