

Quality Control Statistical Summary

Onshore Grab Sample: CH-12-BB

Sample Taken By: D. Phelps
 Sample Taken On: 12/17/09
 County: Charlotte

Latitude: 26° 49' 30.5"
 Longitude: 82° 17' 19.1"
 Datum: WGS 84

Statistical Results: Pre-CaCO3		
	Duplicate	Original
Mean:	2.3366 phi (0.198 mm)	2.2879 phi (0.2048 mm)
Standard Dev:	0.6681 phi-units (0.6294 mm)	0.6712 phi-units (0.628 mm)
Skewness:	-2.2032 dimensionless	-2.1598 dimensionless
Kurtosis:	11.8697 dimensionless	12.5737 dimensionless
5th Moment:	-58.8736 dimensionless	-67.2158 dimensionless
6th Moment:	327.1456 dimensionless	408.2696 dimensionless
RARD*:	0.2859 dimensionless	0.2934 dimensionless
Median:	2.3286 phi (0.1991 mm)	2.2551 phi (0.2095 mm)

Statistical Results: CaCO3		
	Duplicate	Original
Mean:	1.9642 phi (0.2563 mm)	1.7451 phi (0.2983 mm)
Standard Dev:	1.1965 phi-units (0.4363 mm)	1.0640 phi-units (0.4783 mm)
Skewness:	-1.4228 dimensionless	-1.7653 dimensionless
Kurtosis:	4.4898 dimensionless	6.3365 dimensionless
5th Moment:	-11.5508 dimensionless	-19.9282 dimensionless
6th Moment:	34.0393 dimensionless	69.9964 dimensionless
RARD*:	0.6092 dimensionless	0.6097 dimensionless
Median:	2.2107 phi (0.216 mm)	1.9055 phi (0.2669 mm)

Statistical Results: Post-CaCO3		
	Duplicate	Original
Mean:	2.4123 phi (0.1879 mm)	2.3983 phi (0.1897 mm)
Standard Dev:	0.4904 phi-units (0.7118 mm)	0.5061 phi-units (0.7041 mm)
Skewness:	-0.7396 dimensionless	-0.6981 dimensionless
Kurtosis:	4.7591 dimensionless	4.5405 dimensionless
5th Moment:	-13.0016 dimensionless	-11.2095 dimensionless
6th Moment:	69.0036 dimensionless	58.8973 dimensionless
RARD*:	0.2033 dimensionless	0.2110 dimensionless
Median:	2.3484 phi (0.1964 mm)	2.3177 phi (0.2006 mm)

Additional Data	
Total Fines	
Original:	0.17 %
Duplicate:	0.13 %
Total Carbonates	
Original:	16.79 %
Duplicate:	16.68 %

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 $mm = 2^{\sqrt{-\phi}}$	
* 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)

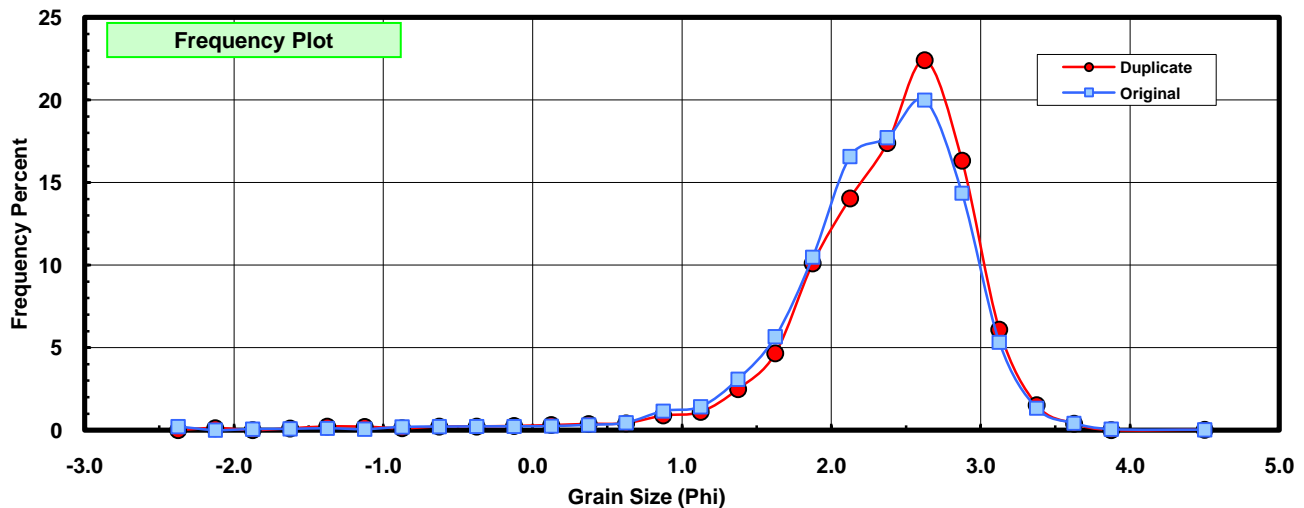
Pre-Digestion Grain Size Distribution

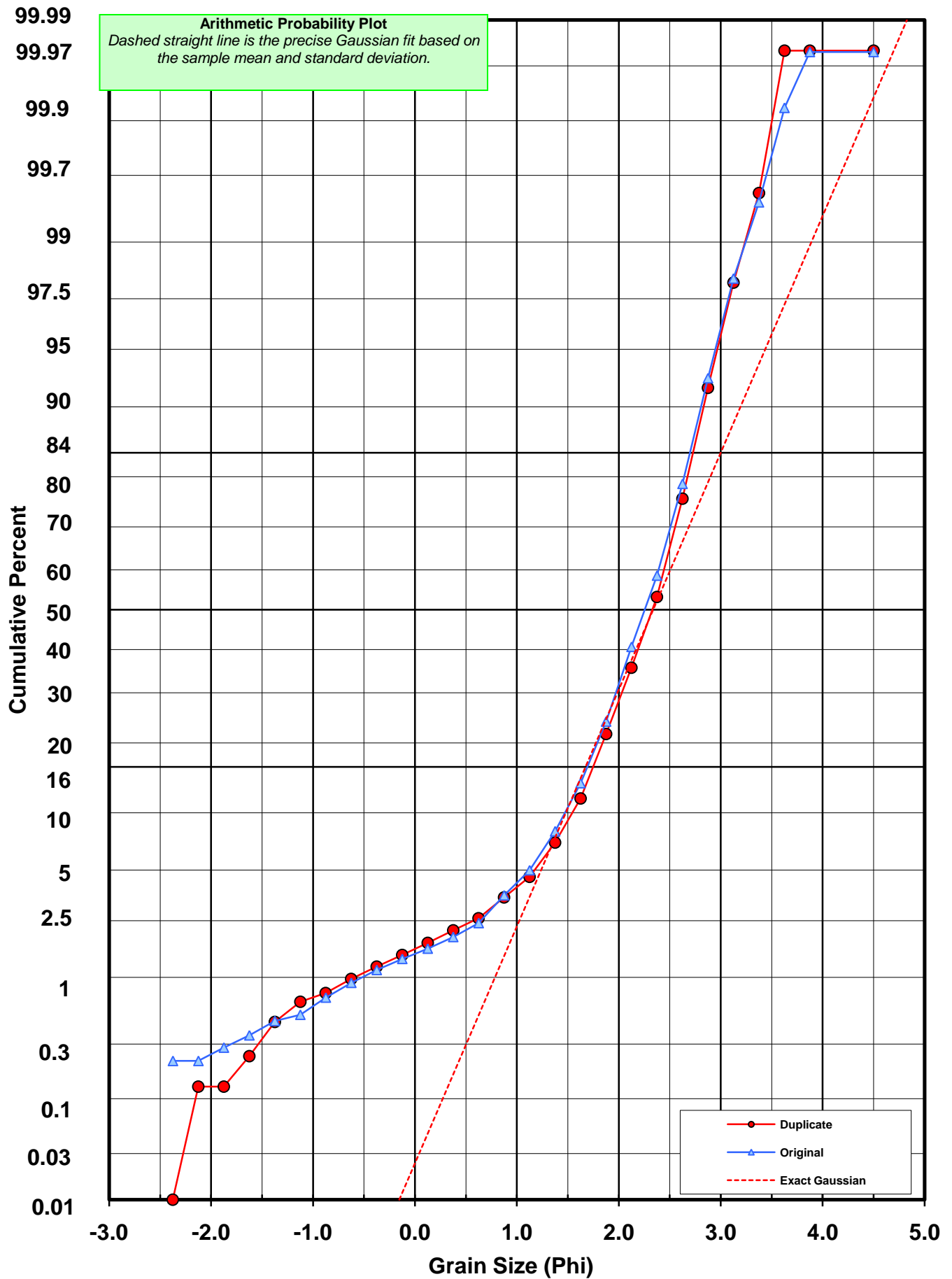
Onshore Grab Sample: CH-12-BB

Total Duplicate Sample Mass: 62.626 grams

Total Original Sample Mass: 74.452 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	0.000	0.000	0.000	0.159	0.214	0.214
-2.00	-2.125	0.080	0.128	0.128	0.000	0.000	0.214
-1.75	-1.875	0.000	0.000	0.128	0.048	0.064	0.278
-1.50	-1.625	0.067	0.107	0.235	0.056	0.075	0.353
-1.25	-1.375	0.139	0.222	0.457	0.083	0.111	0.465
-1.00	-1.125	0.129	0.206	0.663	0.043	0.058	0.522
-0.75	-0.875	0.071	0.113	0.776	0.143	0.192	0.715
-0.50	-0.625	0.135	0.216	0.992	0.157	0.211	0.925
-0.25	-0.375	0.141	0.225	1.217	0.167	0.224	1.150
0.00	-0.125	0.158	0.252	1.469	0.170	0.228	1.378
0.25	0.125	0.191	0.305	1.774	0.182	0.244	1.623
0.50	0.375	0.235	0.375	2.149	0.238	0.320	1.942
0.75	0.625	0.263	0.420	2.569	0.335	0.450	2.392
1.00	0.875	0.555	0.886	3.455	0.863	1.159	3.551
1.25	1.125	0.690	1.102	4.557	1.057	1.420	4.971
1.50	1.375	1.558	2.488	7.045	2.298	3.087	8.058
1.75	1.625	2.913	4.651	11.696	4.216	5.663	13.720
2.00	1.875	6.328	10.104	21.801	7.804	10.482	24.202
2.25	2.125	8.794	14.042	35.843	12.340	16.574	40.777
2.50	2.375	10.887	17.384	53.227	13.192	17.719	58.495
2.75	2.625	14.034	22.409	75.636	14.887	19.995	78.491
3.00	2.875	10.228	16.332	91.968	10.689	14.357	92.848
3.25	3.125	3.813	6.089	98.057	3.963	5.323	98.171
3.50	3.375	0.954	1.523	99.580	0.990	1.330	99.500
3.75	3.625	0.250	0.399	99.979	0.315	0.423	99.923
4.00	3.875	0.000	0.000	99.979	0.041	0.055	99.979
5.00	4.500	0.013	0.021	100.000	0.016	0.021	100.000



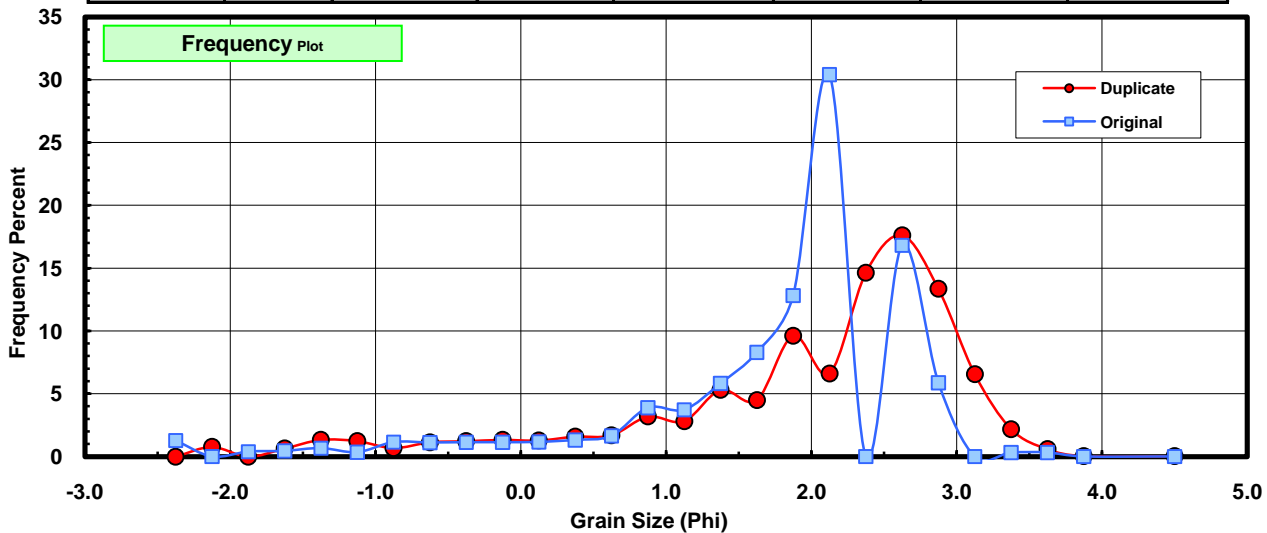


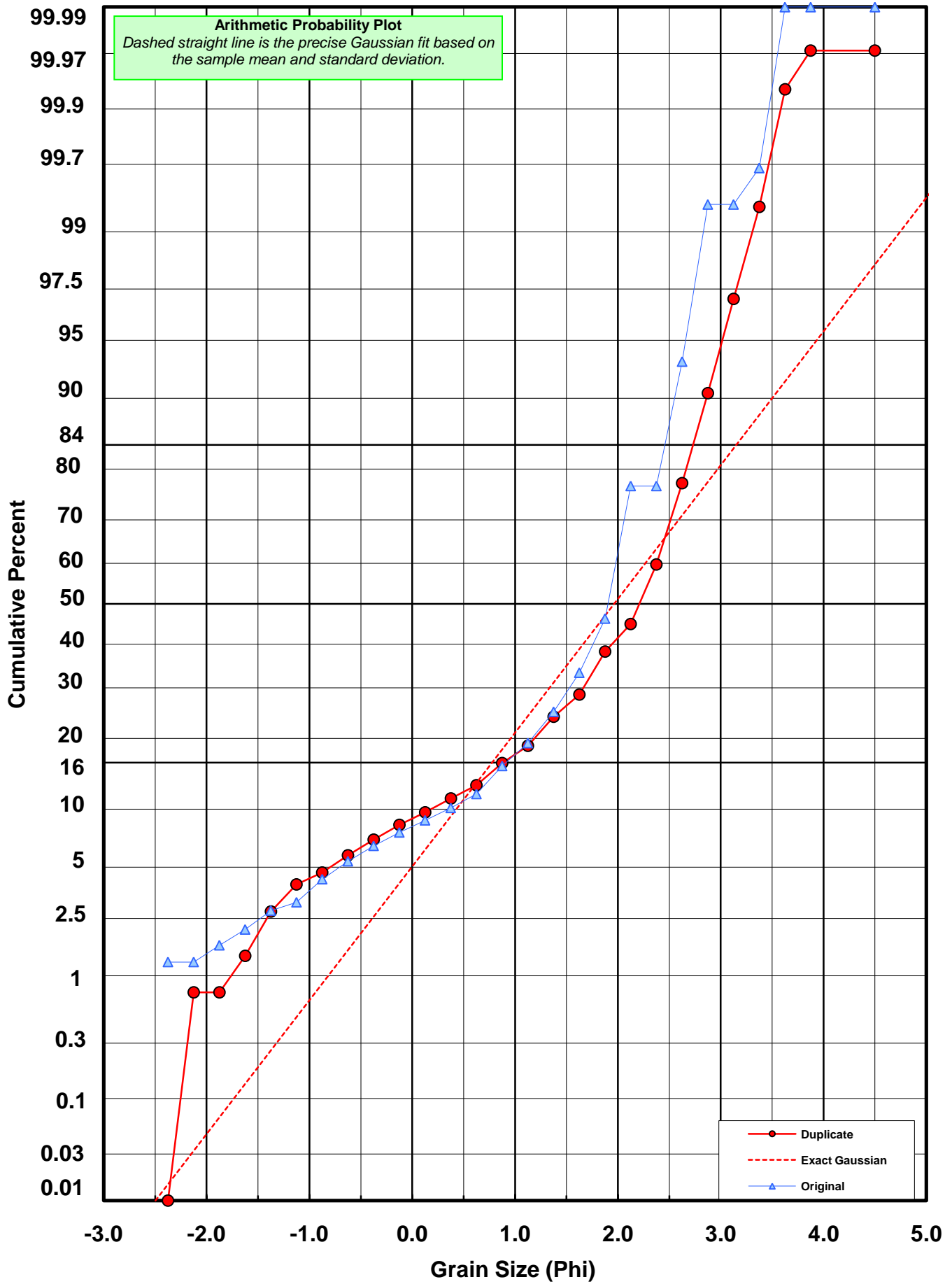
Carbonate Grain Size Distribution

Onshore Grab Sample: CH-12-BB

Total Duplicate Carbonate Mass: 10.450 grams
% Carbonate in Duplicate: 16.7 %
Total Original Carbonate Mass: 12.498 grams
% Carbonate in Original: 16.8 %

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	0.000	0.000	0.000	0.159	1.272	1.272
-2.00	-2.125	0.080	0.766	0.766	0.000	0.000	1.272
-1.75	-1.875	0.000	0.000	0.766	0.048	0.384	1.656
-1.50	-1.625	0.067	0.641	1.407	0.056	0.448	2.104
-1.25	-1.375	0.139	1.330	2.737	0.083	0.664	2.768
-1.00	-1.125	0.129	1.234	3.971	0.043	0.344	3.112
-0.75	-0.875	0.071	0.679	4.651	0.143	1.144	4.257
-0.50	-0.625	0.119	1.139	5.789	0.139	1.112	5.369
-0.25	-0.375	0.128	1.225	7.014	0.142	1.136	6.505
0.00	-0.125	0.139	1.330	8.344	0.142	1.136	7.641
0.25	0.125	0.134	1.282	9.627	0.145	1.160	8.801
0.50	0.375	0.166	1.589	11.215	0.165	1.320	10.122
0.75	0.625	0.177	1.694	12.909	0.206	1.648	11.770
1.00	0.875	0.333	3.187	16.096	0.486	3.889	15.659
1.25	1.125	0.295	2.823	18.919	0.465	3.721	19.379
1.50	1.375	0.556	5.321	24.239	0.727	5.817	25.196
1.75	1.625	0.471	4.507	28.746	1.036	8.289	33.485
2.00	1.875	1.006	9.627	38.373	1.601	12.810	46.295
2.25	2.125	0.691	6.612	44.986	3.799	30.397	76.692
2.50	2.375	1.529	14.632	59.617	0.000	0.000	76.692
2.75	2.625	1.841	17.617	77.234	2.101	16.811	93.503
3.00	2.875	1.395	13.349	90.584	0.733	5.865	99.368
3.25	3.125	0.686	6.565	97.148	0.000	0.000	99.368
3.50	3.375	0.229	2.191	99.340	0.039	0.312	99.680
3.75	3.625	0.062	0.593	99.933	0.040	0.320	100.000
4.00	3.875	0.004	0.038	99.971	0.000	0.000	100.000
5.00	4.500	0.003	0.029	100.000	0.000	0.000	100.000





Post-Digestion Grain Size Distribution

Onshore Grab Sample: CH-12-BB

Total Duplicate Digested Mass: 52.215 grams
% Silica in Duplicate: 83.3 %
Total Original Digested Mass: 62.282 grams
% Silica in Original: 83.7 %

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	0.016	0.031	0.031	0.018	0.029	0.029
-0.25	-0.375	0.013	0.025	0.056	0.025	0.040	0.069
0.00	-0.125	0.019	0.036	0.092	0.028	0.045	0.114
0.25	0.125	0.057	0.109	0.201	0.037	0.059	0.173
0.50	0.375	0.069	0.132	0.333	0.073	0.117	0.291
0.75	0.625	0.086	0.165	0.498	0.129	0.207	0.498
1.00	0.875	0.222	0.425	0.923	0.377	0.605	1.103
1.25	1.125	0.395	0.756	1.680	0.592	0.951	2.054
1.50	1.375	1.002	1.919	3.599	1.571	2.522	4.576
1.75	1.625	2.442	4.677	8.275	3.180	5.106	9.682
2.00	1.875	5.322	10.192	18.468	6.203	9.960	19.641
2.25	2.125	8.103	15.519	33.986	8.541	13.713	33.355
2.50	2.375	9.358	17.922	51.908	13.447	21.591	54.945
2.75	2.625	12.193	23.352	75.260	12.786	20.529	75.474
3.00	2.875	8.833	16.917	92.177	9.956	15.985	91.460
3.25	3.125	3.127	5.989	98.165	4.031	6.472	97.932
3.50	3.375	0.725	1.388	99.554	0.951	1.527	99.459
3.75	3.625	0.188	0.360	99.914	0.275	0.442	99.900
4.00	3.875	0.035	0.067	99.981	0.046	0.074	99.974
5.00	4.500	0.010	0.019	100.000	0.016	0.026	100.000

