

# Quality Control Statistical Summary

Onshore Grab Sample: MT-03-BB

Sample Taken By: D. Phelps                      **Latitude:** 27° 14' 12.8"  
 Sample Taken On: 12/16/08                      **Longitude:** 80° 11' 13.8"  
 County: Martin                                      **Datum:** WGS 84

Statistical Results: Pre-CaCO3				
	Duplicate		Original	
<b>Mean:</b>	1.1657	phi (0.4457 mm)	1.1126	phi (0.4625 mm)
<b>Standard Dev:</b>	0.5182	phi-units (0.6982 mm)	0.5396	phi-units (0.688 mm)
<b>Skewness:</b>	-0.2572	dimensionless	-0.6311	dimensionless
<b>Kurtosis:</b>	3.8765	dimensionless	4.9859	dimensionless
<b>5th Moment:</b>	-1.5987	dimensionless	-8.6441	dimensionless
<b>6th Moment:</b>	31.4887	dimensionless	57.3203	dimensionless
<b>RARD*:</b>	0.4445	dimensionless	0.4850	dimensionless
<b>Median:</b>	1.0581	phi (0.4803 mm)	1.0126	phi (0.4956 mm)

Statistical Results: CaCO3				
	Duplicate		Original	
<b>Mean:</b>	1.0111	phi (0.4962 mm)	0.9449	phi (0.5195 mm)
<b>Standard Dev:</b>	0.5278	phi-units (0.6936 mm)	0.5574	phi-units (0.6795 mm)
<b>Skewness:</b>	-0.2771	dimensionless	-0.7213	dimensionless
<b>Kurtosis:</b>	3.4178	dimensionless	4.6502	dimensionless
<b>5th Moment:</b>	-2.6304	dimensionless	-8.8670	dimensionless
<b>6th Moment:</b>	19.0688	dimensionless	46.2199	dimensionless
<b>RARD*:</b>	0.5220	dimensionless	0.5899	dimensionless
<b>Median:</b>	0.8764	phi (0.5447 mm)	0.8431	phi (0.5575 mm)

Statistical Results: Post-CaCO3				
	Duplicate		Original	
<b>Mean:</b>	1.3739	phi (0.3858 mm)	1.3424	phi (0.3944 mm)
<b>Standard Dev:</b>	0.4534	phi-units (0.7303 mm)	0.4373	phi-units (0.7385 mm)
<b>Skewness:</b>	0.5801	dimensionless	0.3783	dimensionless
<b>Kurtosis:</b>	5.9702	dimensionless	4.9880	dimensionless
<b>5th Moment:</b>	19.0254	dimensionless	10.8836	dimensionless
<b>6th Moment:</b>	125.4306	dimensionless	74.9534	dimensionless
<b>RARD*:</b>	0.3300	dimensionless	0.3258	dimensionless
<b>Median:</b>	1.2448	phi (0.422 mm)	1.2178	phi (0.4299 mm)

Additional Data	
<b>Total Fines</b>	
<b>Original:</b>	0.1 %
<b>Duplicate:</b>	0.2 %
<b>Total Carbonates</b>	
<b>Original:</b>	57.3 %
<b>Duplicate:</b>	56.49 %

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)

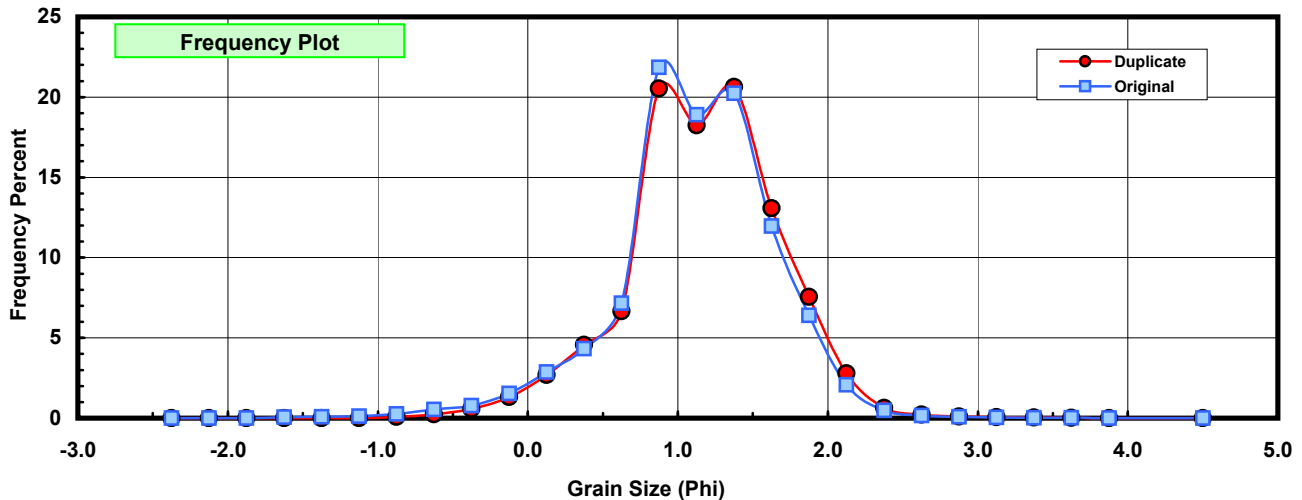
# Pre-Digestion Grain Size Distribution

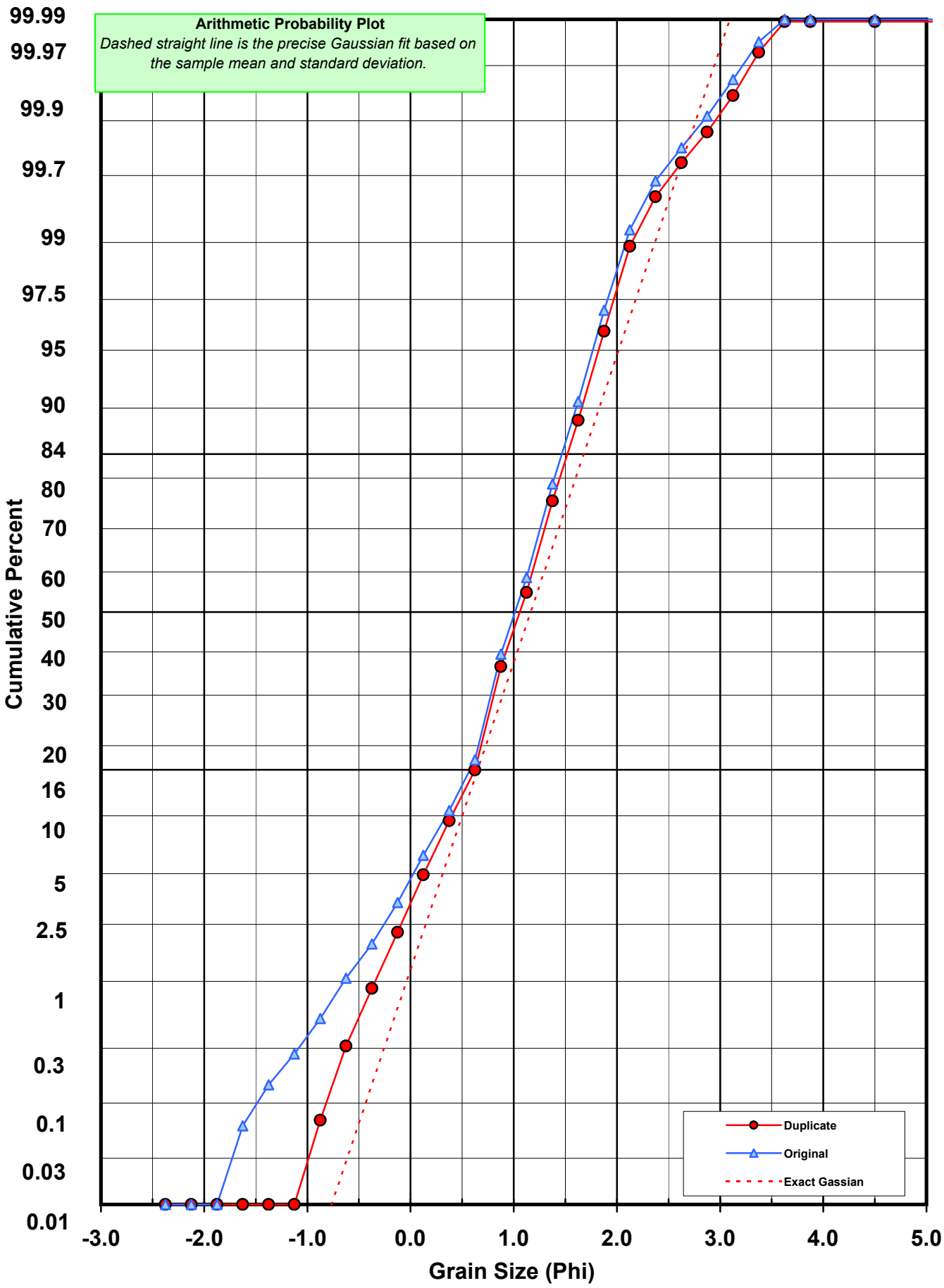
Onshore Grab Sample: MT-03-BB

Total Duplicate Sample Mass: 63.818 grams

Total Original Sample Mass: 68.450 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	0.000	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	0.043	0.063	0.063
-1.25	-1.375	0.000	0.000	0.000	0.056	0.082	0.145
-1.00	-1.125	0.000	0.000	0.000	0.084	0.123	0.267
-0.75	-0.875	0.045	0.071	0.071	0.176	0.257	0.525
-0.50	-0.625	0.154	0.241	0.312	0.373	0.545	1.069
-0.25	-0.375	0.375	0.588	0.899	0.534	0.780	1.850
0.00	-0.125	0.834	1.307	2.206	1.047	1.530	3.379
0.25	0.125	1.719	2.694	4.900	1.968	2.875	6.255
0.50	0.375	2.909	4.558	9.458	2.962	4.327	10.582
0.75	0.625	4.245	6.652	16.110	4.894	7.150	17.732
1.00	0.875	13.100	20.527	36.637	14.962	21.860	39.592
1.25	1.125	11.644	18.246	54.883	12.941	18.907	58.499
1.50	1.375	13.165	20.629	75.512	13.856	20.244	78.742
1.75	1.625	8.340	13.068	88.580	8.190	11.966	90.708
2.00	1.875	4.817	7.548	96.128	4.381	6.401	97.109
2.25	2.125	1.780	2.789	98.917	1.420	2.075	99.183
2.50	2.375	0.405	0.635	99.552	0.332	0.485	99.668
2.75	2.625	0.138	0.216	99.768	0.109	0.159	99.828
3.00	2.875	0.068	0.107	99.875	0.056	0.082	99.909
3.25	3.125	0.042	0.066	99.940	0.033	0.048	99.958
3.50	3.375	0.024	0.038	99.978	0.018	0.026	99.984
3.75	3.625	0.011	0.017	99.995	0.010	0.015	99.999
4.00	3.875	0.000	0.000	99.995	0.001	0.001	100.000
5.00	4.500	0.003	0.005	100.000	0.004	0.006	100.006



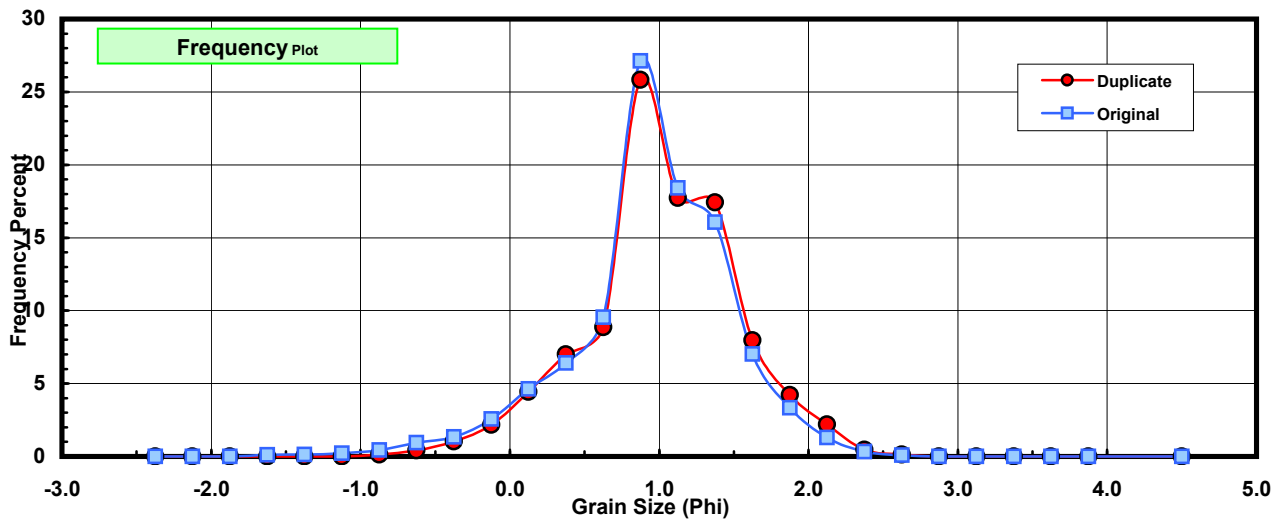


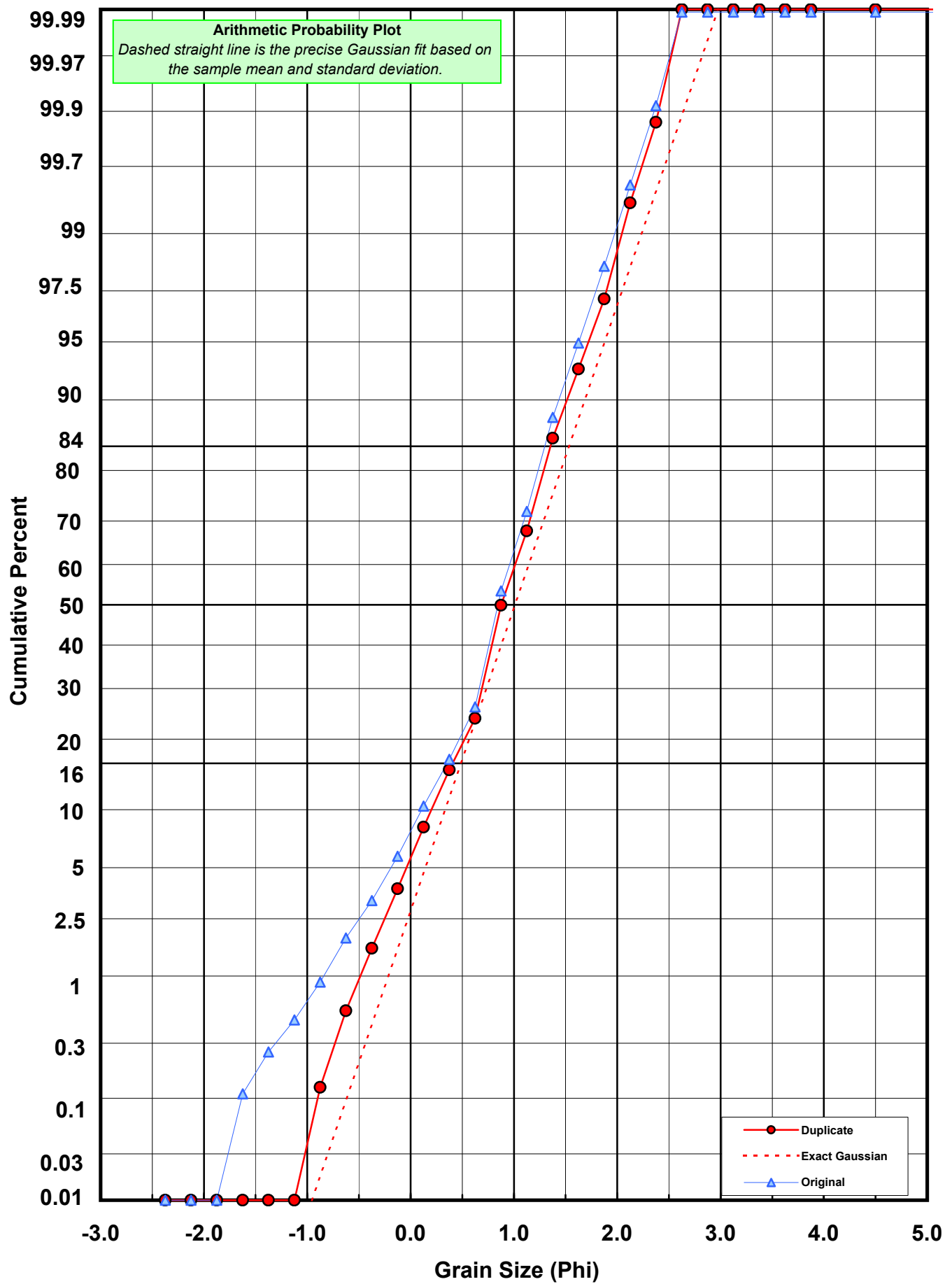
# Carbonate Grain Size Distribution

Onshore Grab Sample: MT-03-BB

**Total Duplicate Carbonate Mass:** 36.132 grams  
**% Carbonate in Duplicate:** 56.5 %  
**Total Original Carbonate Mass:** 39.278 grams  
**% Carbonate in Original:** 57.3 %

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	0.000	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	0.043	0.109	0.109
-1.25	-1.375	0.000	0.000	0.000	0.056	0.143	0.252
-1.00	-1.125	0.000	0.000	0.000	0.084	0.214	0.466
-0.75	-0.875	0.045	0.125	0.125	0.176	0.448	0.914
-0.50	-0.625	0.154	0.426	0.551	0.373	0.950	1.864
-0.25	-0.375	0.375	1.038	1.589	0.525	1.337	3.200
0.00	-0.125	0.787	2.178	3.767	1.005	2.559	5.759
0.25	0.125	1.598	4.423	8.189	1.821	4.636	10.395
0.50	0.375	2.529	6.999	15.189	2.516	6.406	16.801
0.75	0.625	3.207	8.876	24.065	3.748	9.542	26.343
1.00	0.875	9.335	25.836	49.900	10.652	27.120	53.462
1.25	1.125	6.404	17.724	67.624	7.228	18.402	71.865
1.50	1.375	6.296	17.425	85.049	6.308	16.060	87.925
1.75	1.625	2.878	7.965	93.015	2.762	7.032	94.956
2.00	1.875	1.520	4.207	97.221	1.308	3.330	98.287
2.25	2.125	0.790	2.186	99.408	0.506	1.288	99.575
2.50	2.375	0.169	0.468	99.875	0.132	0.336	99.911
2.75	2.625	0.045	0.125	100.000	0.033	0.084	99.995
3.00	2.875	0.000	0.000	100.000	0.000	0.000	99.995
3.25	3.125	0.000	0.000	100.000	0.000	0.000	99.995
3.50	3.375	0.000	0.000	100.000	0.000	0.000	99.995
3.75	3.625	0.000	0.000	100.000	0.000	0.000	99.995
4.00	3.875	0.000	0.000	100.000	0.000	0.000	99.995
5.00	4.500	0.000	0.000	100.000	0.002	0.005	100.000





# Post-Digestion Grain Size Distribution

Onshore Grab Sample: MT-03-BB

**Total Duplicate Digested Mass:** 27.766 grams  
**% Silica in Duplicate:** 43.5 %  
**Total Original Digested Mass:** 29.229 grams  
**% Silica in Original:** 42.7 %

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	0.000	0.000	0.000	0.000	0.000	0.000
-0.25	-0.375	0.000	0.000	0.000	0.009	0.031	0.031
0.00	-0.125	0.047	0.169	0.169	0.042	0.144	0.174
0.25	0.125	0.121	0.436	0.605	0.147	0.503	0.677
0.50	0.375	0.380	1.369	1.974	0.446	1.526	2.203
0.75	0.625	1.038	3.738	5.712	1.146	3.921	6.124
1.00	0.875	3.765	13.560	19.272	4.310	14.746	20.870
1.25	1.125	5.240	18.872	38.144	5.713	19.546	40.415
1.50	1.375	6.869	24.739	62.883	7.548	25.824	66.239
1.75	1.625	5.462	19.672	82.554	5.428	18.571	84.810
2.00	1.875	3.297	11.874	94.428	3.073	10.514	95.323
2.25	2.125	0.990	3.566	97.994	0.914	3.127	98.450
2.50	2.375	0.236	0.850	98.844	0.200	0.684	99.134
2.75	2.625	0.093	0.335	99.179	0.076	0.260	99.394
3.00	2.875	0.073	0.263	99.442	0.058	0.198	99.593
3.25	3.125	0.060	0.216	99.658	0.051	0.174	99.767
3.50	3.375	0.047	0.169	99.827	0.038	0.130	99.897
3.75	3.625	0.020	0.072	99.899	0.018	0.062	99.959
4.00	3.875	0.011	0.040	99.939	0.010	0.034	99.993
5.00	4.500	0.017	0.061	100.000	0.002	0.007	100.000

