

# Quality Control Statistical Summary

Onshore Grab Sample: LE-24-BB

Sample Taken By: D. Phelps  
 Sample Taken On: 11/07/09  
 County: Lee

Latitude: 26° 30' 1"  
 Longitude: 82° 11' 19.9"  
 Datum: WGS 84

Statistical Results: Pre-CaCO3				
	Duplicate		Original	
Mean:	0.2674	phi (0.8308 mm)	0.8121	phi (0.5695 mm)
Standard Dev:	1.2343	phi-units (0.425 mm)	1.1083	phi-units (0.4638 mm)
Skewness:	-0.4195	dimensionless	-1.0260	dimensionless
Kurtosis:	2.2677	dimensionless	3.8117	dimensionless
5th Moment:	-1.9821	dimensionless	-7.5078	dimensionless
6th Moment:	7.5063	dimensionless	23.6250	dimensionless
RARD*:	4.6155	dimensionless	1.3646	dimensionless
Median:	0.3574	phi (0.7806 mm)	0.9694	phi (0.5107 mm)

Statistical Results: CaCO3				
	Duplicate		Original	
Mean:	-0.3093	phi (1.2391 mm)	0.1184	phi (0.9212 mm)
Standard Dev:	1.0722	phi-units (0.4756 mm)	1.1265	phi-units (0.458 mm)
Skewness:	-0.2012	dimensionless	-0.5618	dimensionless
Kurtosis:	2.2219	dimensionless	2.7402	dimensionless
5th Moment:	-0.7334	dimensionless	-2.6919	dimensionless
6th Moment:	7.0526	dimensionless	11.6643	dimensionless
RARD*:	3.4671	dimensionless	9.5115	dimensionless
Median:	-0.3898	phi (1.3102 mm)	0.1933	phi (0.8746 mm)

Statistical Results: Post-CaCO3				
	Duplicate		Original	
Mean:	1.4295	phi (0.3713 mm)	1.4805	phi (0.3584 mm)
Standard Dev:	0.5677	phi-units (0.6747 mm)	0.5450	phi-units (0.6854 mm)
Skewness:	-0.1670	dimensionless	-0.2626	dimensionless
Kurtosis:	5.7955	dimensionless	5.6488	dimensionless
5th Moment:	-1.8153	dimensionless	-3.7601	dimensionless
6th Moment:	65.2027	dimensionless	67.2250	dimensionless
RARD*:	0.3971	dimensionless	0.3681	dimensionless
Median:	1.3007	phi (0.4059 mm)	1.3536	phi (0.3913 mm)

Additional Data	
<b>Total Fines</b>	
Original:	0.29 %
Duplicate:	0.22 %
<b>Total Carbonates</b>	
Original:	49 %
Duplicate:	66.46 %

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)

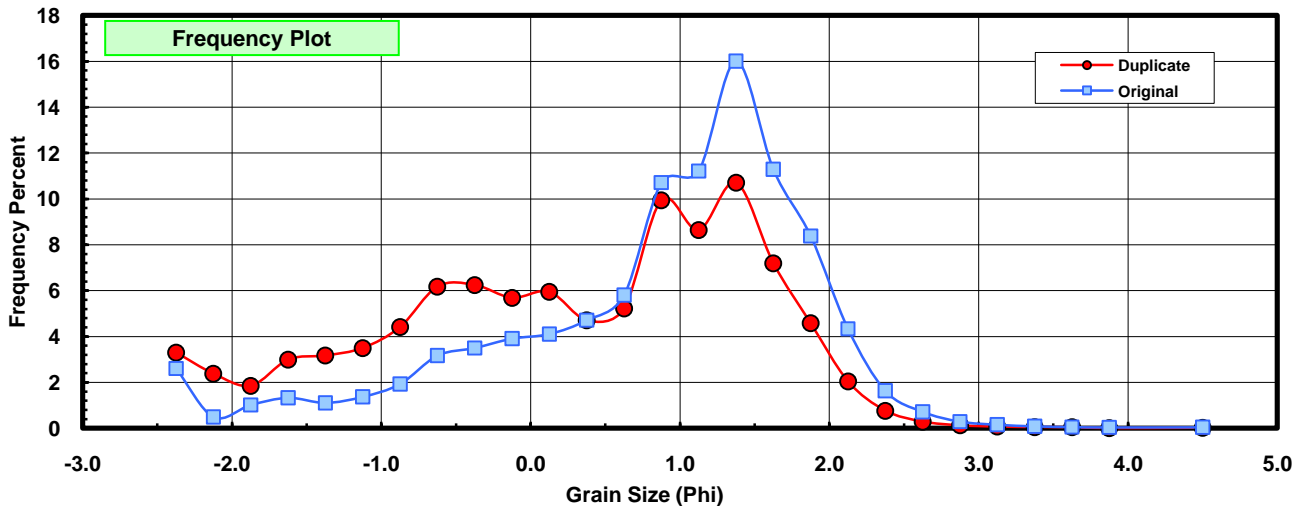
# Pre-Digestion Grain Size Distribution

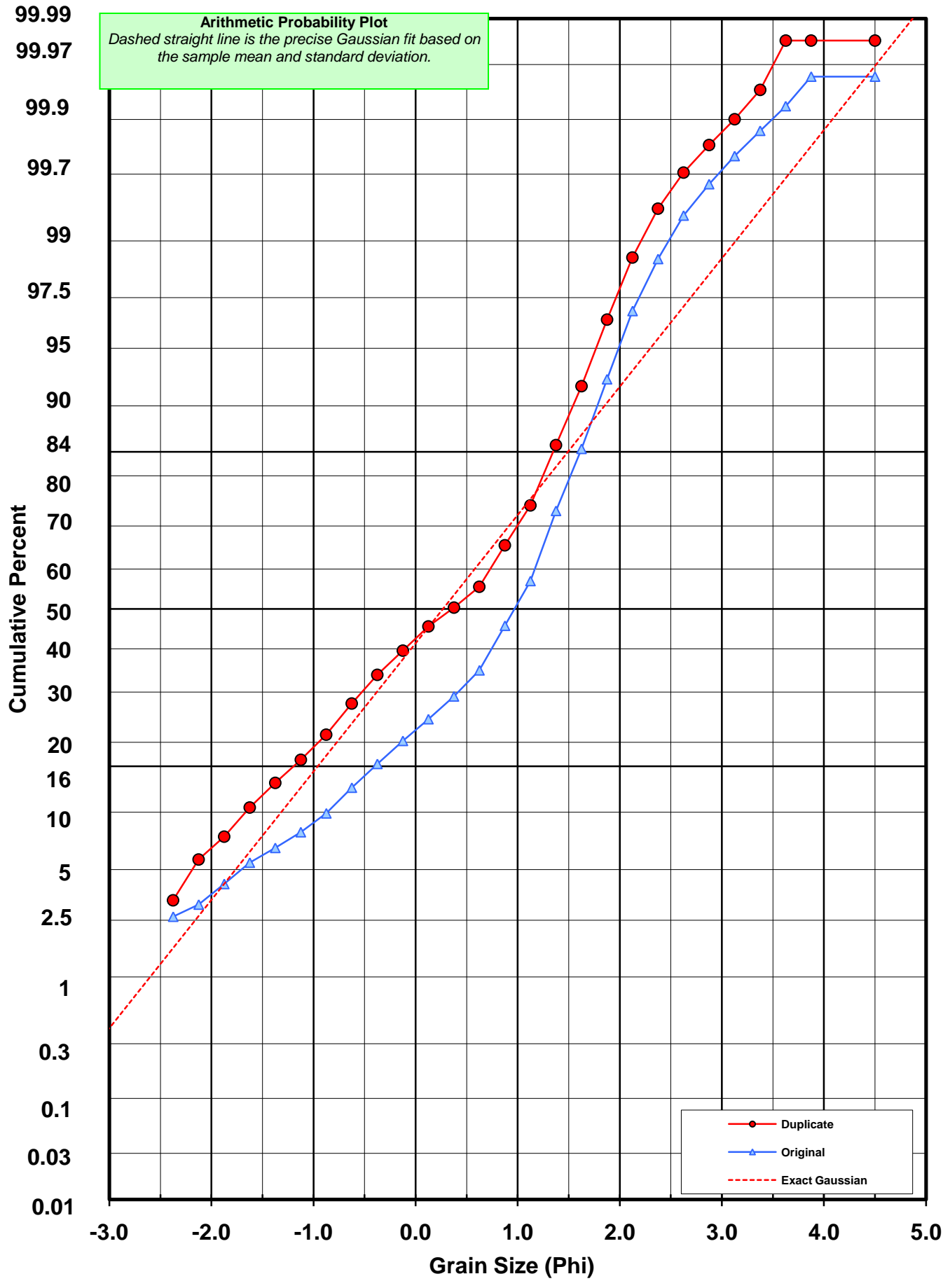
Onshore Grab Sample: LE-24-BB

Total Duplicate Sample Mass: 44.343 grams

Total Original Sample Mass: 56.616 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	1.462	3.297	3.297	1.476	2.607	2.607
-2.00	-2.125	1.055	2.379	5.676	0.279	0.493	3.100
-1.75	-1.875	0.820	1.849	7.525	0.575	1.016	4.115
-1.50	-1.625	1.326	2.990	10.516	0.751	1.326	5.442
-1.25	-1.375	1.404	3.166	13.682	0.627	1.107	6.549
-1.00	-1.125	1.550	3.495	17.177	0.776	1.371	7.920
-0.75	-0.875	1.956	4.411	21.589	1.092	1.929	9.849
-0.50	-0.625	2.737	6.172	27.761	1.793	3.167	13.016
-0.25	-0.375	2.769	6.245	34.005	1.981	3.499	16.515
0.00	-0.125	2.520	5.683	39.688	2.213	3.909	20.424
0.25	0.125	2.635	5.942	45.631	2.326	4.108	24.532
0.50	0.375	2.084	4.700	50.330	2.667	4.711	29.243
0.75	0.625	2.318	5.227	55.558	3.288	5.808	35.050
1.00	0.875	4.410	9.945	65.503	6.065	10.713	45.763
1.25	1.125	3.832	8.642	74.145	6.350	11.216	56.979
1.50	1.375	4.749	10.710	84.854	9.066	16.013	72.992
1.75	1.625	3.189	7.192	92.046	6.391	11.288	84.280
2.00	1.875	2.028	4.573	96.620	4.746	8.383	92.663
2.25	2.125	0.906	2.043	98.663	2.454	4.334	96.997
2.50	2.375	0.338	0.762	99.425	0.925	1.634	98.631
2.75	2.625	0.127	0.286	99.711	0.406	0.717	99.348
3.00	2.875	0.054	0.122	99.833	0.164	0.290	99.638
3.25	3.125	0.030	0.068	99.901	0.087	0.154	99.792
3.50	3.375	0.020	0.045	99.946	0.047	0.083	99.875
3.75	3.625	0.017	0.038	99.984	0.028	0.049	99.924
4.00	3.875	0.000	0.000	99.984	0.020	0.035	99.959
5.00	4.500	0.007	0.016	100.000	0.023	0.041	100.000



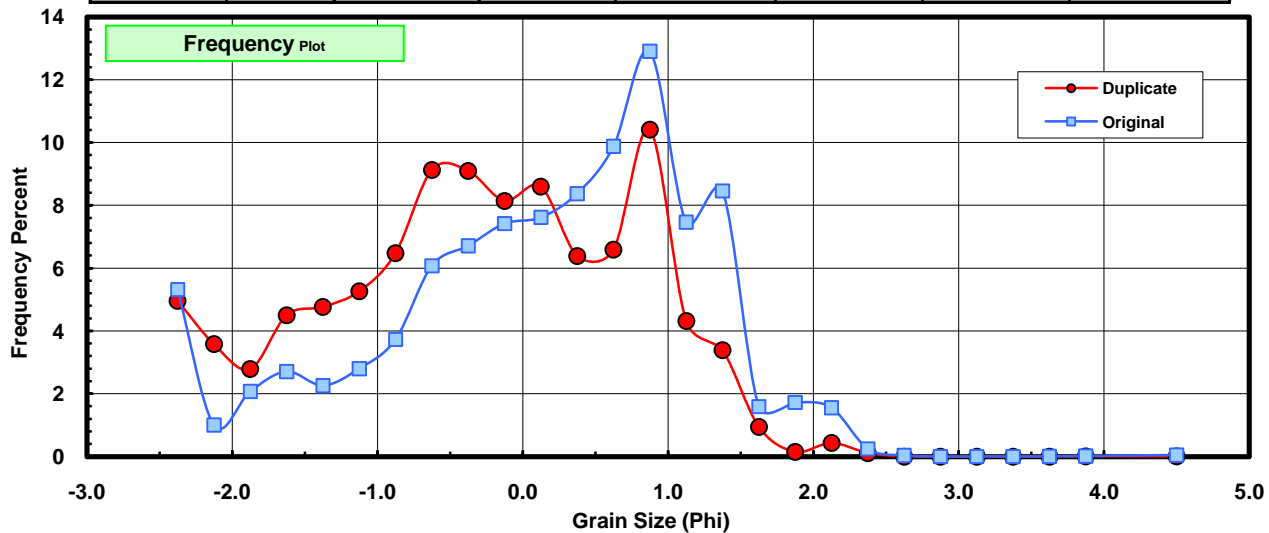


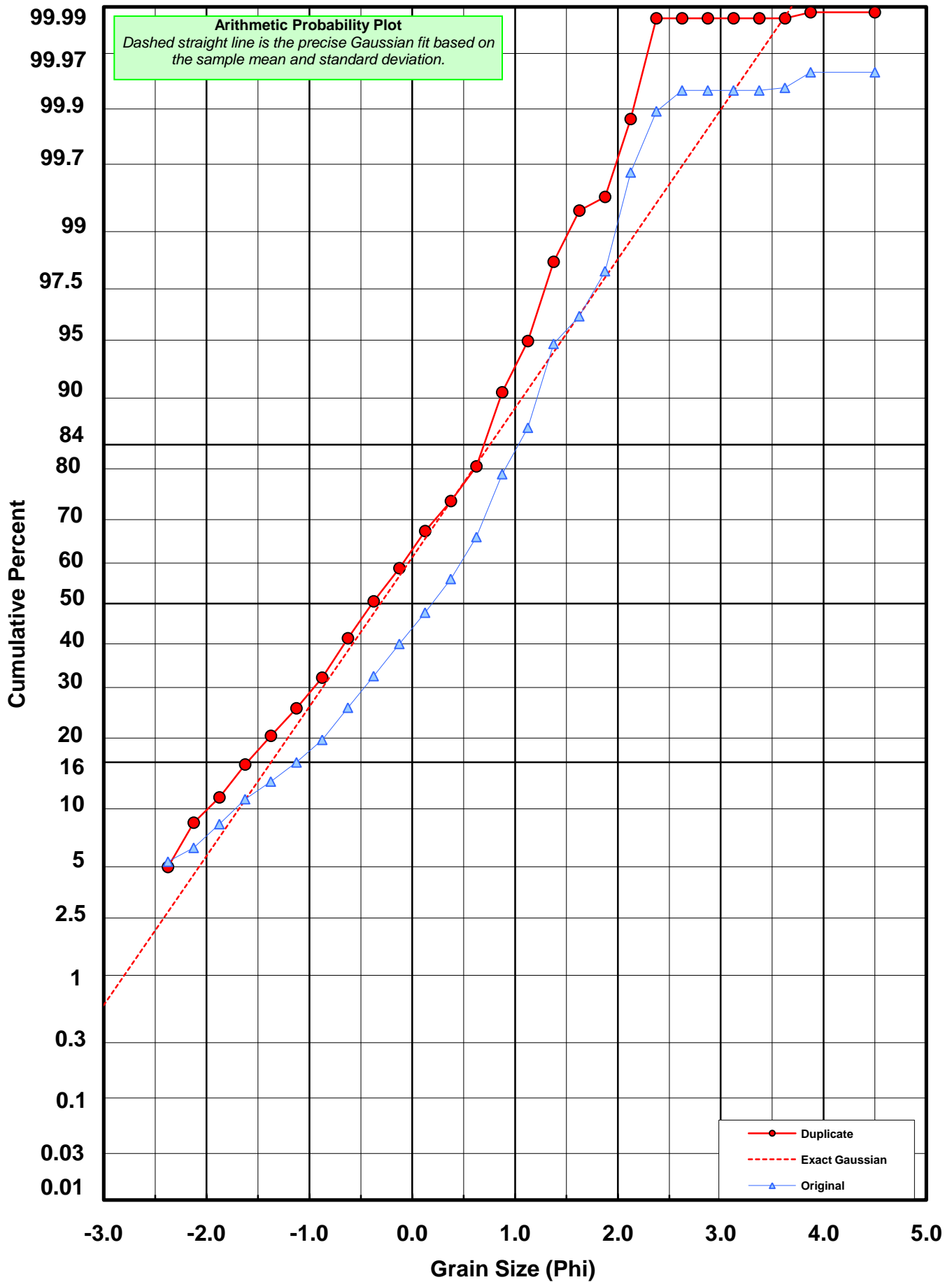
# Carbonate Grain Size Distribution

Onshore Grab Sample: LE-24-BB

**Total Duplicate Carbonate Mass:** 29.475 grams  
**% Carbonate in Duplicate:** 66.5 %  
**Total Original Carbonate Mass:** 27.741 grams  
**% Carbonate in Original:** 49.0 %

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	1.462	4.960	4.960	1.476	5.321	5.321
-2.00	-2.125	1.055	3.579	8.539	0.279	1.006	6.326
-1.75	-1.875	0.820	2.782	11.321	0.575	2.073	8.399
-1.50	-1.625	1.326	4.499	15.820	0.751	2.707	11.106
-1.25	-1.375	1.404	4.763	20.584	0.627	2.260	13.366
-1.00	-1.125	1.550	5.259	25.842	0.776	2.797	16.164
-0.75	-0.875	1.909	6.477	32.319	1.035	3.731	19.895
-0.50	-0.625	2.690	9.126	41.445	1.685	6.074	25.969
-0.25	-0.375	2.680	9.092	50.538	1.862	6.712	32.681
0.00	-0.125	2.399	8.139	58.677	2.058	7.419	40.099
0.25	0.125	2.532	8.590	67.267	2.112	7.613	47.713
0.50	0.375	1.883	6.388	73.656	2.323	8.374	56.087
0.75	0.625	1.941	6.585	80.241	2.740	9.877	65.964
1.00	0.875	3.067	10.405	90.646	3.579	12.901	78.865
1.25	1.125	1.271	4.312	94.958	2.070	7.462	86.327
1.50	1.375	0.999	3.389	98.348	2.346	8.457	94.784
1.75	1.625	0.279	0.947	99.294	0.441	1.590	96.374
2.00	1.875	0.045	0.153	99.447	0.478	1.723	98.097
2.25	2.125	0.127	0.431	99.878	0.431	1.554	99.650
2.50	2.375	0.033	0.112	99.990	0.068	0.245	99.895
2.75	2.625	0.000	0.000	99.990	0.010	0.036	99.932
3.00	2.875	0.000	0.000	99.990	0.000	0.000	99.932
3.25	3.125	0.000	0.000	99.990	0.000	0.000	99.932
3.50	3.375	0.000	0.000	99.990	0.000	0.000	99.932
3.75	3.625	0.000	0.000	99.990	0.001	0.004	99.935
4.00	3.875	0.001	0.003	99.993	0.005	0.018	99.953
5.00	4.500	0.002	0.007	100.000	0.013	0.047	100.000





# Post-Digestion Grain Size Distribution

Onshore Grab Sample: LE-24-BB

**Total Duplicate Digested Mass:** 15.048 grams  
**% Silica in Duplicate:** 33.9 %  
**Total Original Digested Mass:** 28.911 grams  
**% Silica in Original:** 51.1 %

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	0.047	0.312	0.312	0.057	0.197	0.197
-0.50	-0.625	0.047	0.312	0.625	0.108	0.374	0.571
-0.25	-0.375	0.089	0.591	1.216	0.119	0.412	0.982
0.00	-0.125	0.121	0.804	2.020	0.155	0.536	1.518
0.25	0.125	0.103	0.684	2.705	0.214	0.740	2.259
0.50	0.375	0.201	1.336	4.040	0.344	1.190	3.449
0.75	0.625	0.377	2.505	6.546	0.548	1.895	5.344
1.00	0.875	1.343	8.925	15.470	2.486	8.599	13.943
1.25	1.125	2.561	17.019	32.489	4.280	14.804	28.747
1.50	1.375	3.750	24.920	57.410	6.720	23.244	51.991
1.75	1.625	2.910	19.338	76.748	5.950	20.580	72.571
2.00	1.875	1.983	13.178	89.926	4.268	14.763	87.334
2.25	2.125	0.779	5.177	95.102	2.023	6.997	94.331
2.50	2.375	0.305	2.027	97.129	0.857	2.964	97.295
2.75	2.625	0.188	1.249	98.379	0.396	1.370	98.665
3.00	2.875	0.101	0.671	99.050	0.184	0.636	99.301
3.25	3.125	0.062	0.412	99.462	0.099	0.342	99.644
3.50	3.375	0.040	0.266	99.728	0.051	0.176	99.820
3.75	3.625	0.029	0.193	99.920	0.027	0.093	99.914
4.00	3.875	0.007	0.047	99.967	0.015	0.052	99.965
5.00	4.500	0.005	0.033	100.000	0.010	0.035	100.000

