

# Quality Control Statistical Summary

Onshore Grab Sample: LE-47-BB

Sample Taken By: D. Phelps  
 Sample Taken On: 01/14/10  
 County: Lee

Latitude: 26° 24' 14.8"  
 Longitude: 81° 53' 2.2"  
 Datum: WGS 84

Statistical Results: Pre-CaCO <sub>3</sub>		
	Duplicate	Original
Mean:	2.3455 phi (0.1968 mm)	2.3184 phi (0.2005 mm)
Standard Dev:	0.8729 phi-units (0.546 mm)	0.9281 phi-units (0.5255 mm)
Skewness:	-3.2585 dimensionless	-3.0613 dimensionless
Kurtosis:	16.0184 dimensionless	13.5945 dimensionless
5th Moment:	-79.3770 dimensionless	-60.4548 dimensionless
6th Moment:	409.2301 dimensionless	280.4152 dimensionless
RARD*:	0.3722 dimensionless	0.4003 dimensionless
Median:	2.4348 phi (0.1849 mm)	2.4339 phi (0.1851 mm)

Statistical Results: CaCO <sub>3</sub>		
	Duplicate	Original
Mean:	0.8751 phi (0.5452 mm)	0.7285 phi (0.6035 mm)
Standard Dev:	1.8590 phi-units (0.2757 mm)	1.8066 phi-units (0.2859 mm)
Skewness:	-0.4208 dimensionless	-0.4493 dimensionless
Kurtosis:	1.9959 dimensionless	1.6986 dimensionless
5th Moment:	-1.8467 dimensionless	-1.5833 dimensionless
6th Moment:	4.9730 dimensionless	3.8616 dimensionless
RARD*:	2.1243 dimensionless	2.4798 dimensionless
Median:	0.8922 phi (0.5388 mm)	0.9550 phi (0.5158 mm)

Statistical Results: Post-CaCO <sub>3</sub>		
	Duplicate	Original
Mean:	2.5101 phi (0.1755 mm)	2.5450 phi (0.1713 mm)
Standard Dev:	0.4211 phi-units (0.7468 mm)	0.4230 phi-units (0.7459 mm)
Skewness:	-1.2759 dimensionless	-1.5164 dimensionless
Kurtosis:	6.8558 dimensionless	8.3271 dimensionless
5th Moment:	-25.1702 dimensionless	-35.5795 dimensionless
6th Moment:	135.6325 dimensionless	207.0904 dimensionless
RARD*:	0.1678 dimensionless	0.1662 dimensionless
Median:	2.4498 phi (0.183 mm)	2.4832 phi (0.1789 mm)

Additional Data	
<b>Total Fines</b>	
Original:	0.37 %
Duplicate:	0.33 %
<b>Total Carbonates</b>	
Original:	12.06 %
Duplicate:	10.05 %

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)

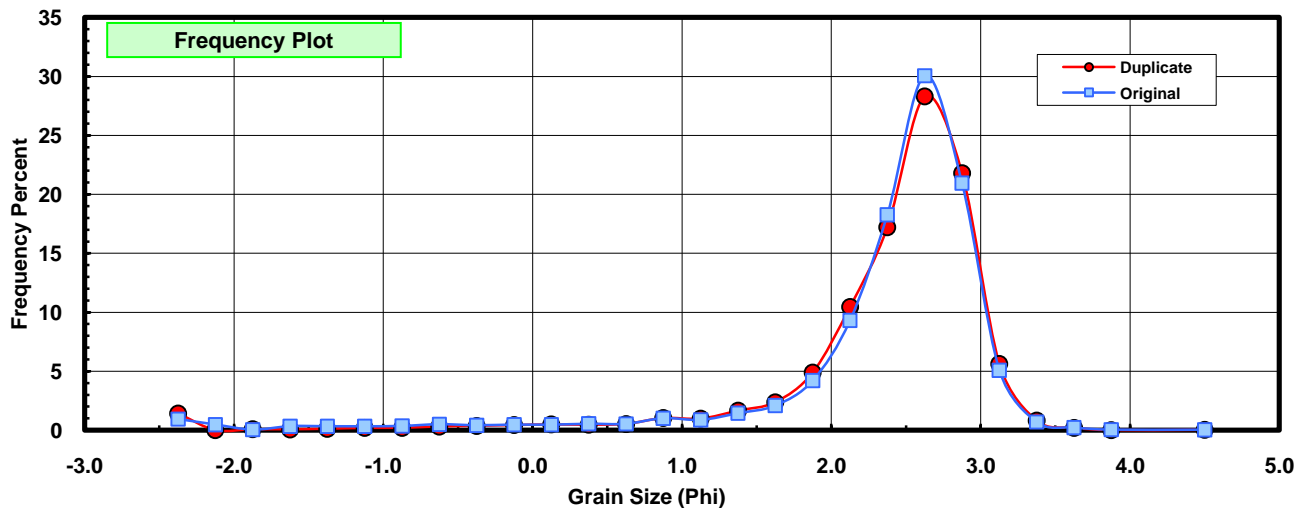
# Pre-Digestion Grain Size Distribution

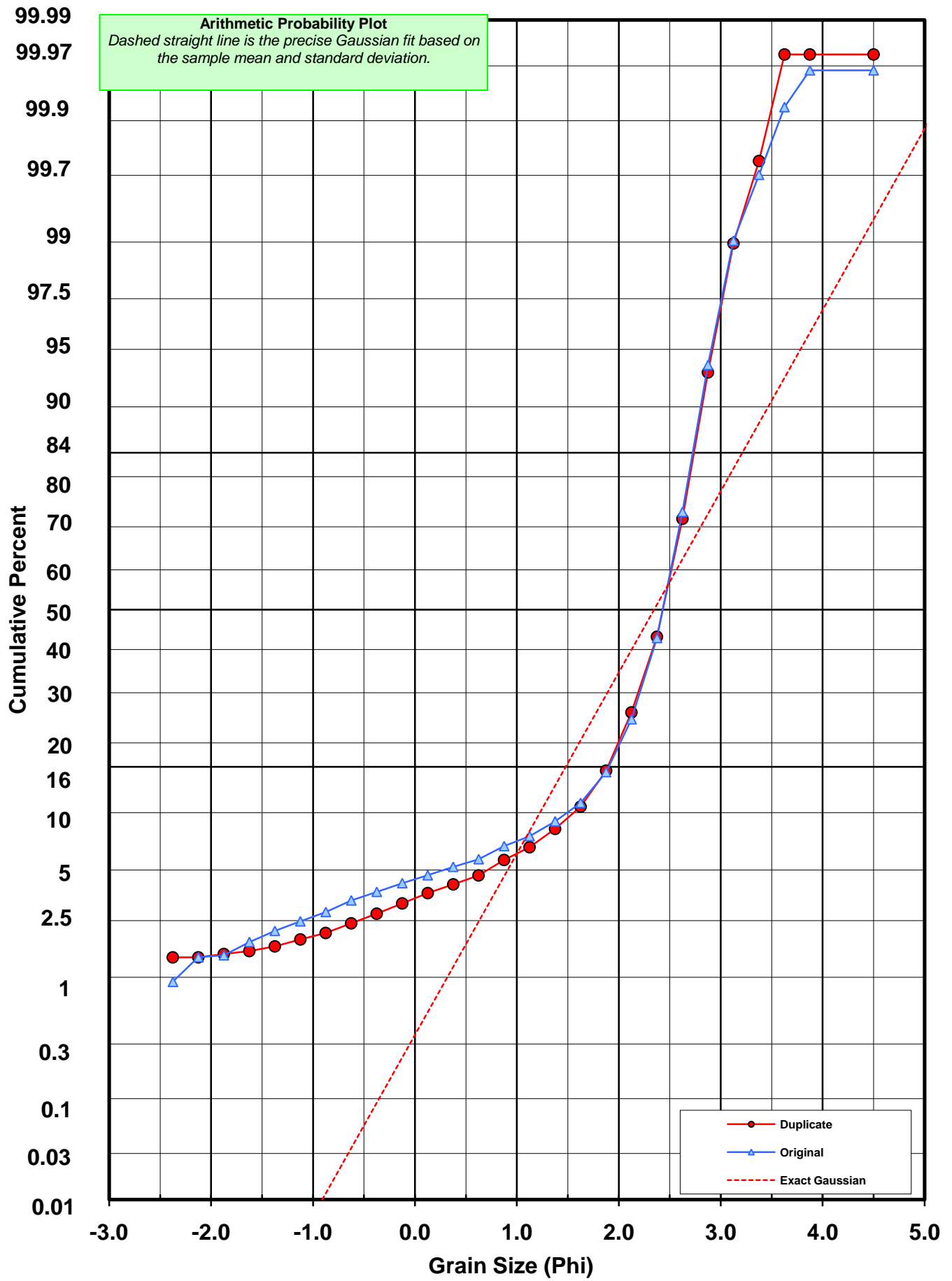
Onshore Grab Sample: LE-47-BB

Total Duplicate Sample Mass: 56.588 grams

Total Original Sample Mass: 70.195 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	0.800	1.414	1.414	0.660	0.940	0.940
-2.00	-2.125	0.000	0.000	1.414	0.333	0.474	1.415
-1.75	-1.875	0.042	0.074	1.488	0.032	0.046	1.460
-1.50	-1.625	0.040	0.071	1.559	0.236	0.336	1.796
-1.25	-1.375	0.067	0.118	1.677	0.232	0.331	2.127
-1.00	-1.125	0.108	0.191	1.868	0.228	0.325	2.452
-0.75	-0.875	0.112	0.198	2.066	0.250	0.356	2.808
-0.50	-0.625	0.178	0.315	2.380	0.350	0.499	3.307
-0.25	-0.375	0.206	0.364	2.744	0.291	0.415	3.721
0.00	-0.125	0.244	0.431	3.176	0.328	0.467	4.188
0.25	0.125	0.272	0.481	3.656	0.324	0.462	4.650
0.50	0.375	0.260	0.459	4.116	0.379	0.540	5.190
0.75	0.625	0.298	0.527	4.642	0.374	0.533	5.723
1.00	0.875	0.580	1.025	5.667	0.712	1.014	6.737
1.25	1.125	0.553	0.977	6.645	0.611	0.870	7.607
1.50	1.375	0.936	1.654	8.299	1.007	1.435	9.042
1.75	1.625	1.344	2.375	10.674	1.466	2.088	11.130
2.00	1.875	2.766	4.888	15.562	2.953	4.207	15.337
2.25	2.125	5.917	10.456	26.018	6.532	9.306	24.643
2.50	2.375	9.739	17.210	43.228	12.827	18.273	42.916
2.75	2.625	16.015	28.301	71.529	21.096	30.053	72.970
3.00	2.875	12.338	21.803	93.333	14.706	20.950	93.920
3.25	3.125	3.186	5.630	98.963	3.571	5.087	99.007
3.50	3.375	0.460	0.813	99.776	0.490	0.698	99.705
3.75	3.625	0.114	0.201	99.977	0.154	0.219	99.924
4.00	3.875	0.000	0.000	99.977	0.029	0.041	99.966
5.00	4.500	0.013	0.023	100.000	0.024	0.034	100.000



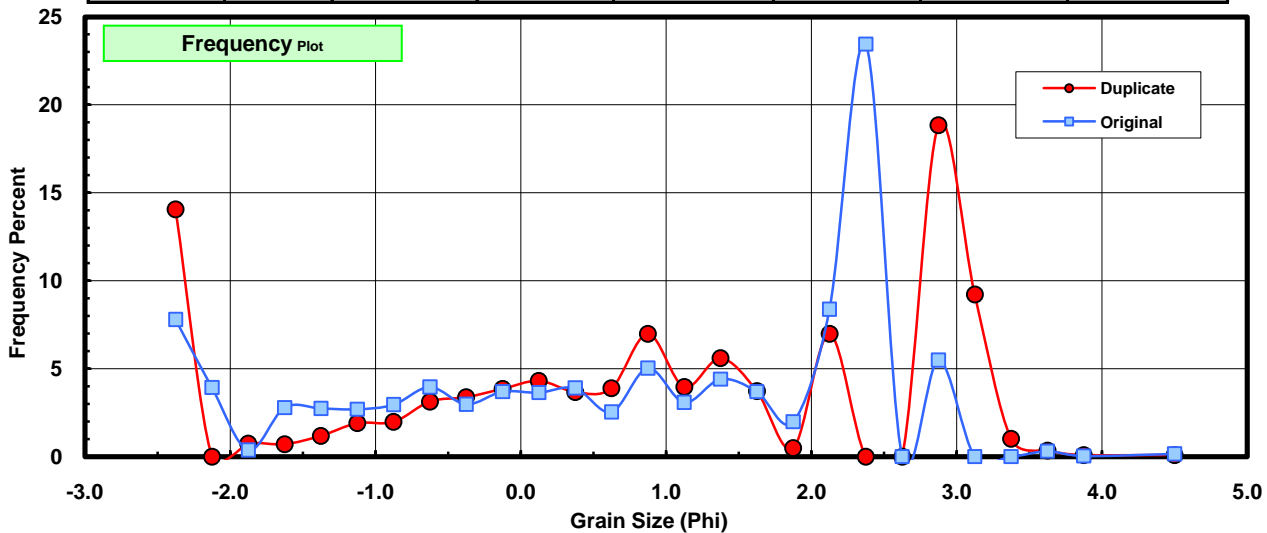


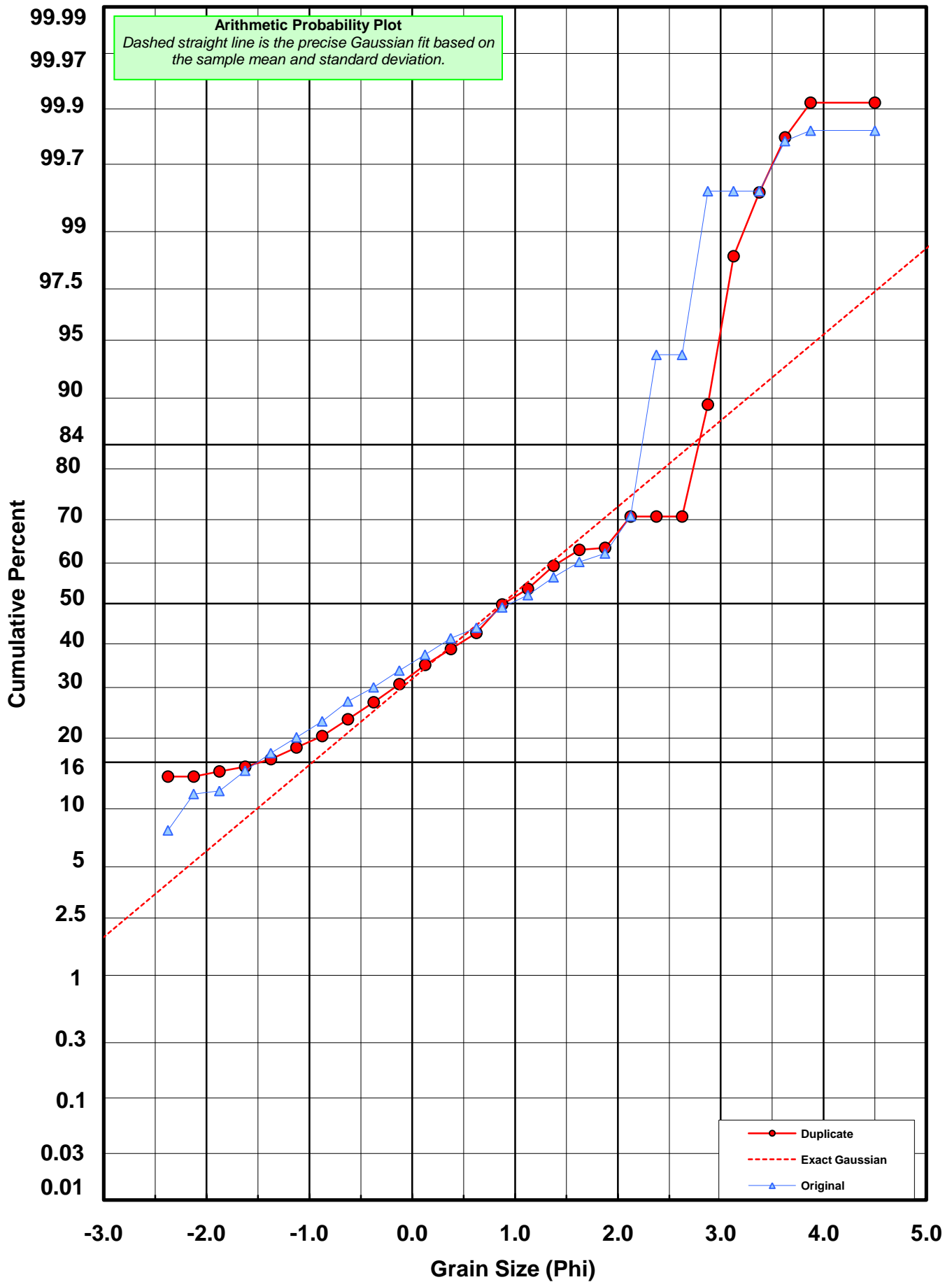
# Carbonate Grain Size Distribution

Onshore Grab Sample: LE-47-BB

Total Duplicate Carbonate Mass: 5.691 grams  
 % Carbonate in Duplicate: 10.1 %  
 Total Original Carbonate Mass: 8.467 grams  
 % Carbonate in Original: 12.1 %

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	0.800	14.057	14.057	0.660	7.795	7.795
-2.00	-2.125	0.000	0.000	14.057	0.333	3.933	11.728
-1.75	-1.875	0.042	0.738	14.795	0.032	0.378	12.106
-1.50	-1.625	0.040	0.703	15.498	0.236	2.787	14.893
-1.25	-1.375	0.067	1.177	16.675	0.232	2.740	17.633
-1.00	-1.125	0.108	1.898	18.573	0.228	2.693	20.326
-0.75	-0.875	0.112	1.968	20.541	0.250	2.953	23.279
-0.50	-0.625	0.178	3.128	23.669	0.335	3.957	27.235
-0.25	-0.375	0.192	3.374	27.043	0.252	2.976	30.211
0.00	-0.125	0.219	3.848	30.891	0.313	3.697	33.908
0.25	0.125	0.245	4.305	35.196	0.308	3.638	37.546
0.50	0.375	0.209	3.672	38.868	0.330	3.897	41.443
0.75	0.625	0.221	3.883	42.752	0.215	2.539	43.983
1.00	0.875	0.397	6.976	49.728	0.426	5.031	49.014
1.25	1.125	0.225	3.954	53.681	0.261	3.083	52.096
1.50	1.375	0.318	5.588	59.269	0.373	4.405	56.502
1.75	1.625	0.212	3.725	62.994	0.313	3.697	60.198
2.00	1.875	0.027	0.474	63.469	0.168	1.984	62.183
2.25	2.125	0.397	6.976	70.445	0.709	8.374	70.556
2.50	2.375	0.000	0.000	70.445	1.986	23.456	94.012
2.75	2.625	0.000	0.000	70.445	0.000	0.000	94.012
3.00	2.875	1.072	18.837	89.281	0.465	5.492	99.504
3.25	3.125	0.524	9.208	98.489	0.000	0.000	99.504
3.50	3.375	0.057	1.002	99.490	0.000	0.000	99.504
3.75	3.625	0.019	0.334	99.824	0.026	0.307	99.811
4.00	3.875	0.005	0.088	99.912	0.003	0.035	99.846
5.00	4.500	0.005	0.088	100.000	0.013	0.154	100.000





# Post-Digestion Grain Size Distribution

Onshore Grab Sample: LE-47-BB

Total Duplicate Digested Mass: 52.196 grams  
 % Silica in Duplicate: 92.2 %  
 Total Original Digested Mass: 63.513 grams  
 % Silica in Original: 90.5 %

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	0.000	0.000	0.000
-0.50	-0.625	0.000	0.000	0.000	0.015	0.024	0.024
-0.25	-0.375	0.014	0.027	0.027	0.039	0.061	0.085
0.00	-0.125	0.025	0.048	0.075	0.015	0.024	0.109
0.25	0.125	0.027	0.052	0.126	0.016	0.025	0.134
0.50	0.375	0.051	0.098	0.224	0.049	0.077	0.211
0.75	0.625	0.077	0.148	0.372	0.159	0.250	0.461
1.00	0.875	0.183	0.351	0.722	0.286	0.450	0.912
1.25	1.125	0.328	0.628	1.351	0.350	0.551	1.463
1.50	1.375	0.618	1.184	2.535	0.634	0.998	2.461
1.75	1.625	1.132	2.169	4.703	1.153	1.815	4.276
2.00	1.875	2.739	5.248	9.951	2.785	4.385	8.661
2.25	2.125	5.520	10.576	20.526	5.823	9.168	17.829
2.50	2.375	10.408	19.940	40.467	10.841	17.069	34.898
2.75	2.625	16.620	31.842	72.308	22.168	34.903	69.801
3.00	2.875	11.266	21.584	93.892	14.241	22.422	92.224
3.25	3.125	2.662	5.100	98.992	4.178	6.578	98.802
3.50	3.375	0.403	0.772	99.764	0.596	0.938	99.740
3.75	3.625	0.095	0.182	99.946	0.128	0.202	99.942
4.00	3.875	0.020	0.038	99.985	0.026	0.041	99.983
5.00	4.500	0.008	0.015	100.000	0.011	0.017	100.000

