

Quality Control Statistical Summary

Onshore Grab Sample: LE-35-BB

Sample Taken By: D. Phelps
 Sample Taken On: 01/13/10
 County: Lee

Latitude: 26° 25' 25.6"
 Longitude: 82° 04' 5"
 Datum: WGS 84

Statistical Results: Pre-CaCO3				
	Duplicate		Original	
Mean:	2.7618	phi (0.1474 mm)	2.8116	phi (0.1424 mm)
Standard Dev:	0.8010	phi-units (0.574 mm)	0.6633	phi-units (0.6314 mm)
Skewness:	-4.3893	dimensionless	-4.4869	dimensionless
Kurtosis:	25.8080	dimensionless	31.7461	dimensionless
5th Moment:	#####	dimensionless	#####	dimensionless
6th Moment:	906.7091	dimensionless	#####	dimensionless
RARD*:	0.2900	dimensionless	0.2359	dimensionless
Median:	2.7704	phi (0.1466 mm)	2.7812	phi (0.1455 mm)

Statistical Results: CaCO3				
	Duplicate		Original	
Mean:	1.6073	phi (0.3282 mm)	2.3214	phi (0.2001 mm)
Standard Dev:	1.8864	phi-units (0.2705 mm)	1.6598	phi-units (0.3165 mm)
Skewness:	-1.0541	dimensionless	-1.6263	dimensionless
Kurtosis:	2.7195	dimensionless	4.6998	dimensionless
5th Moment:	-4.6183	dimensionless	-11.8929	dimensionless
6th Moment:	9.7366	dimensionless	31.9387	dimensionless
RARD*:	1.1736	dimensionless	0.7150	dimensionless
Median:	2.1654	phi (0.2229 mm)	2.3675	phi (0.1938 mm)

Statistical Results: Post-CaCO3				
	Duplicate		Original	
Mean:	2.9009	phi (0.1339 mm)	2.8772	phi (0.1361 mm)
Standard Dev:	0.3271	phi-units (0.7972 mm)	0.3358	phi-units (0.7923 mm)
Skewness:	-0.8224	dimensionless	-1.1201	dimensionless
Kurtosis:	7.2139	dimensionless	9.2590	dimensionless
5th Moment:	-32.6020	dimensionless	-51.0909	dimensionless
6th Moment:	256.5068	dimensionless	392.1019	dimensionless
RARD*:	0.1127	dimensionless	0.1167	dimensionless
Median:	2.7930	phi (0.1443 mm)	2.7747	phi (0.1461 mm)

Additional Data	
Total Fines	
Original:	0.32 %
Duplicate:	0.36 %
Total Carbonates	
Original:	12.74 %
Duplicate:	10.62 %

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)

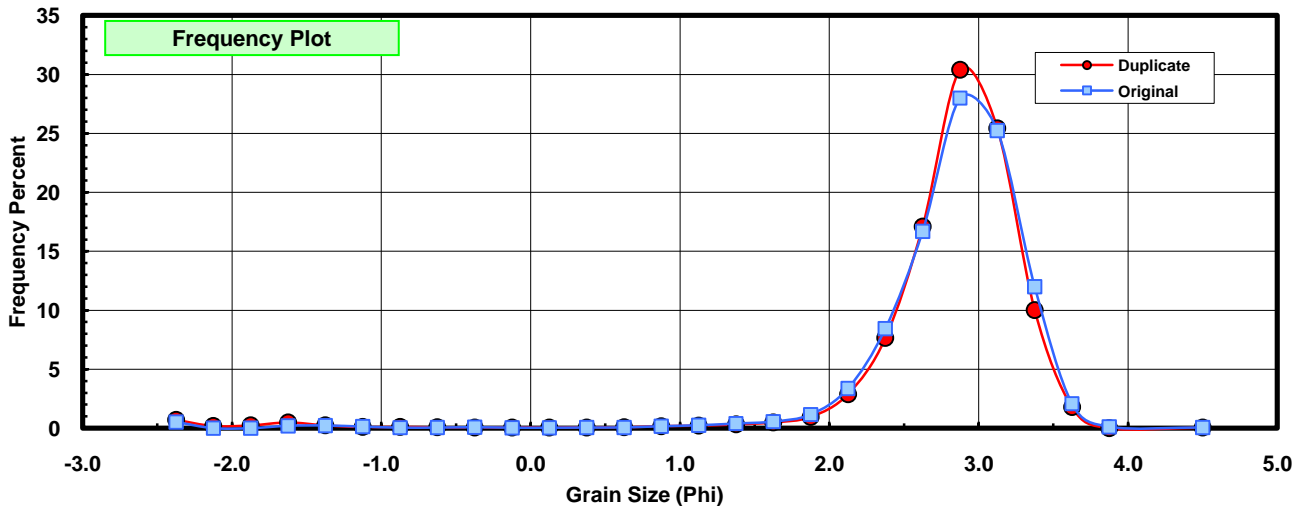
Pre-Digestion Grain Size Distribution

Onshore Grab Sample: LE-35-BB

Total Duplicate Sample Mass: 54.303 grams

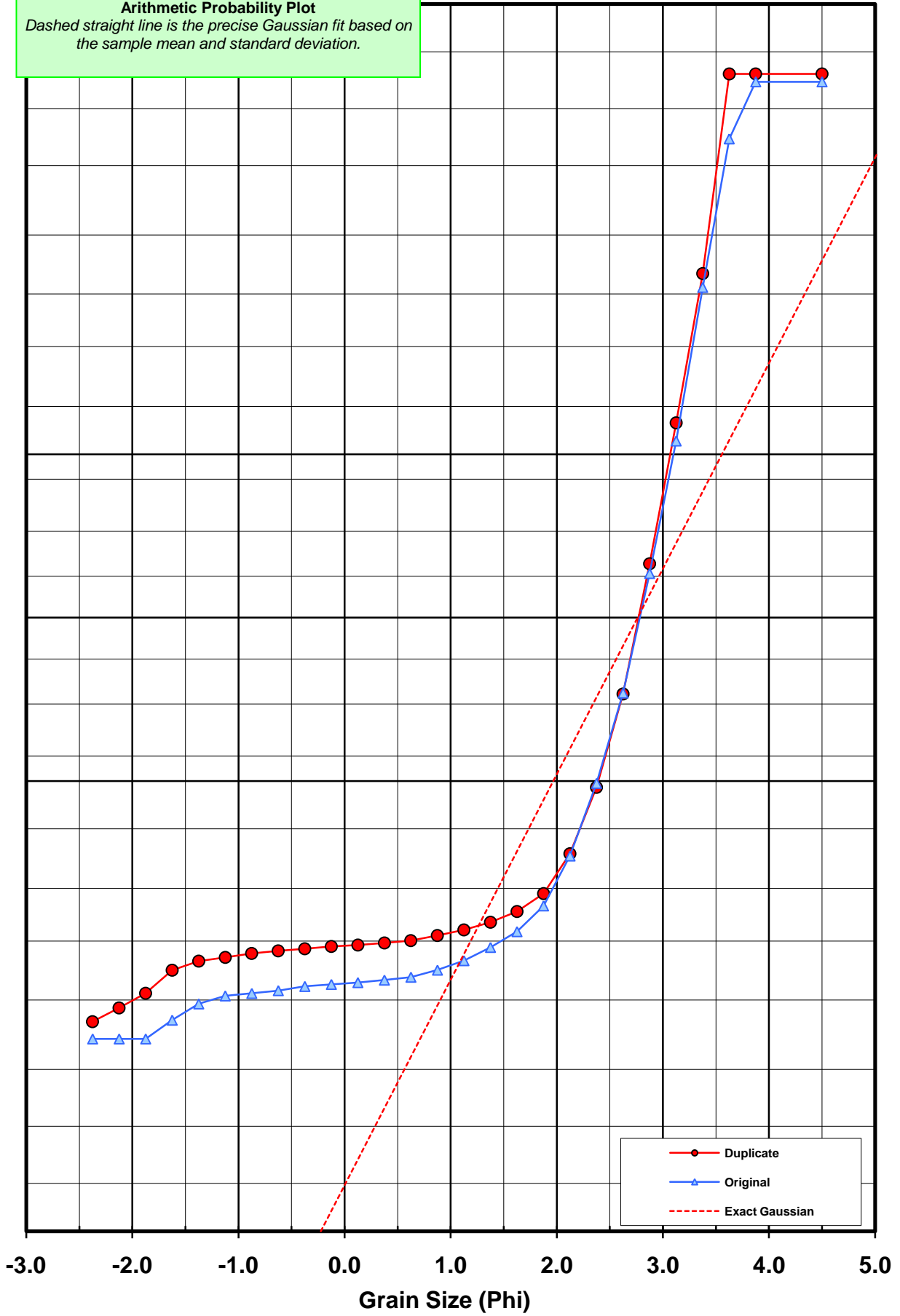
Total Original Sample Mass: 56.550 grams

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	0.385	0.709	0.709	0.296	0.523	0.523
-2.00	-2.125	0.100	0.184	0.893	0.000	0.000	0.523
-1.75	-1.875	0.131	0.241	1.134	0.000	0.000	0.523
-1.50	-1.625	0.265	0.488	1.622	0.115	0.203	0.727
-1.25	-1.375	0.129	0.238	1.860	0.129	0.228	0.955
-1.00	-1.125	0.055	0.101	1.961	0.075	0.133	1.088
-0.75	-0.875	0.063	0.116	2.077	0.025	0.044	1.132
-0.50	-0.625	0.042	0.077	2.155	0.029	0.051	1.183
-0.25	-0.375	0.038	0.070	2.225	0.046	0.081	1.264
0.00	-0.125	0.038	0.070	2.295	0.023	0.041	1.305
0.25	0.125	0.028	0.052	2.346	0.021	0.037	1.342
0.50	0.375	0.039	0.072	2.418	0.030	0.053	1.395
0.75	0.625	0.043	0.079	2.497	0.036	0.064	1.459
1.00	0.875	0.097	0.179	2.676	0.094	0.166	1.625
1.25	1.125	0.119	0.219	2.895	0.139	0.246	1.871
1.50	1.375	0.175	0.322	3.217	0.224	0.396	2.267
1.75	1.625	0.268	0.494	3.711	0.317	0.561	2.828
2.00	1.875	0.521	0.959	4.670	0.657	1.162	3.989
2.25	2.125	1.571	2.893	7.563	1.910	3.378	7.367
2.50	2.375	4.151	7.644	15.207	4.776	8.446	15.813
2.75	2.625	9.290	17.108	32.315	9.444	16.700	32.513
3.00	2.875	16.509	30.402	62.717	15.829	27.991	60.504
3.25	3.125	13.803	25.418	88.135	14.275	25.243	85.747
3.50	3.375	5.442	10.022	98.157	6.785	11.998	97.745
3.75	3.625	0.974	1.794	99.950	1.174	2.076	99.821
4.00	3.875	0.000	0.000	99.950	0.068	0.120	99.942
5.00	4.500	0.027	0.050	100.000	0.033	0.058	100.000



99.99
99.97
99.9
99.7
99
97.5
95
90
84
80
70
60
50
40
30
20
16
10
5
2.5
1
0.3
0.1
0.03
0.01

Arithmetic Probability Plot
Dashed straight line is the precise Gaussian fit based on the sample mean and standard deviation.



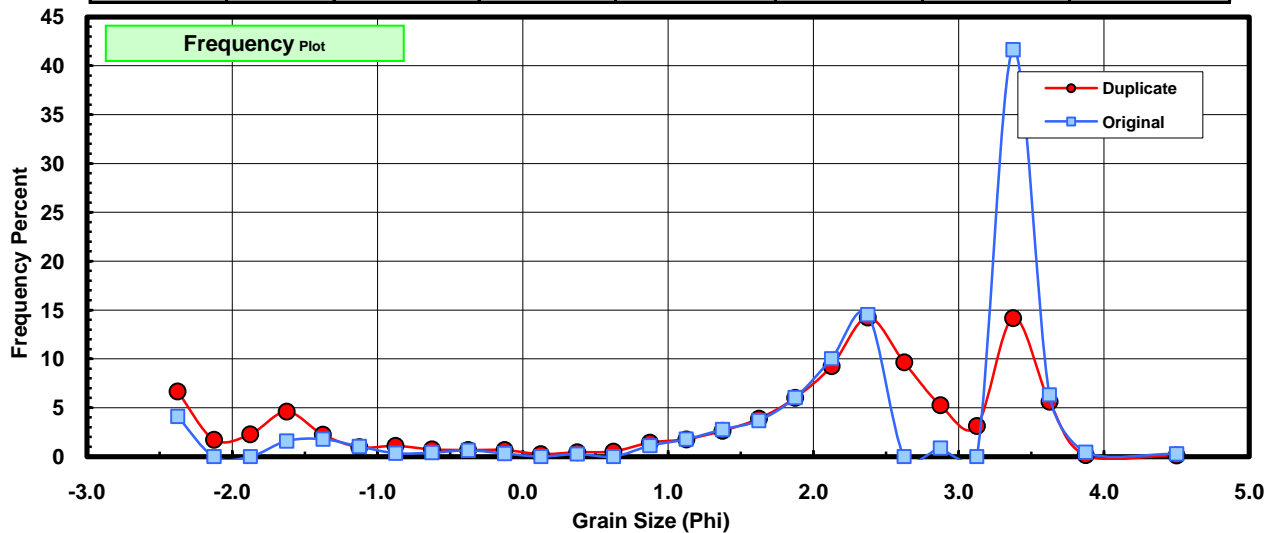
● Duplicate
▲ Original
- - - Exact Gaussian

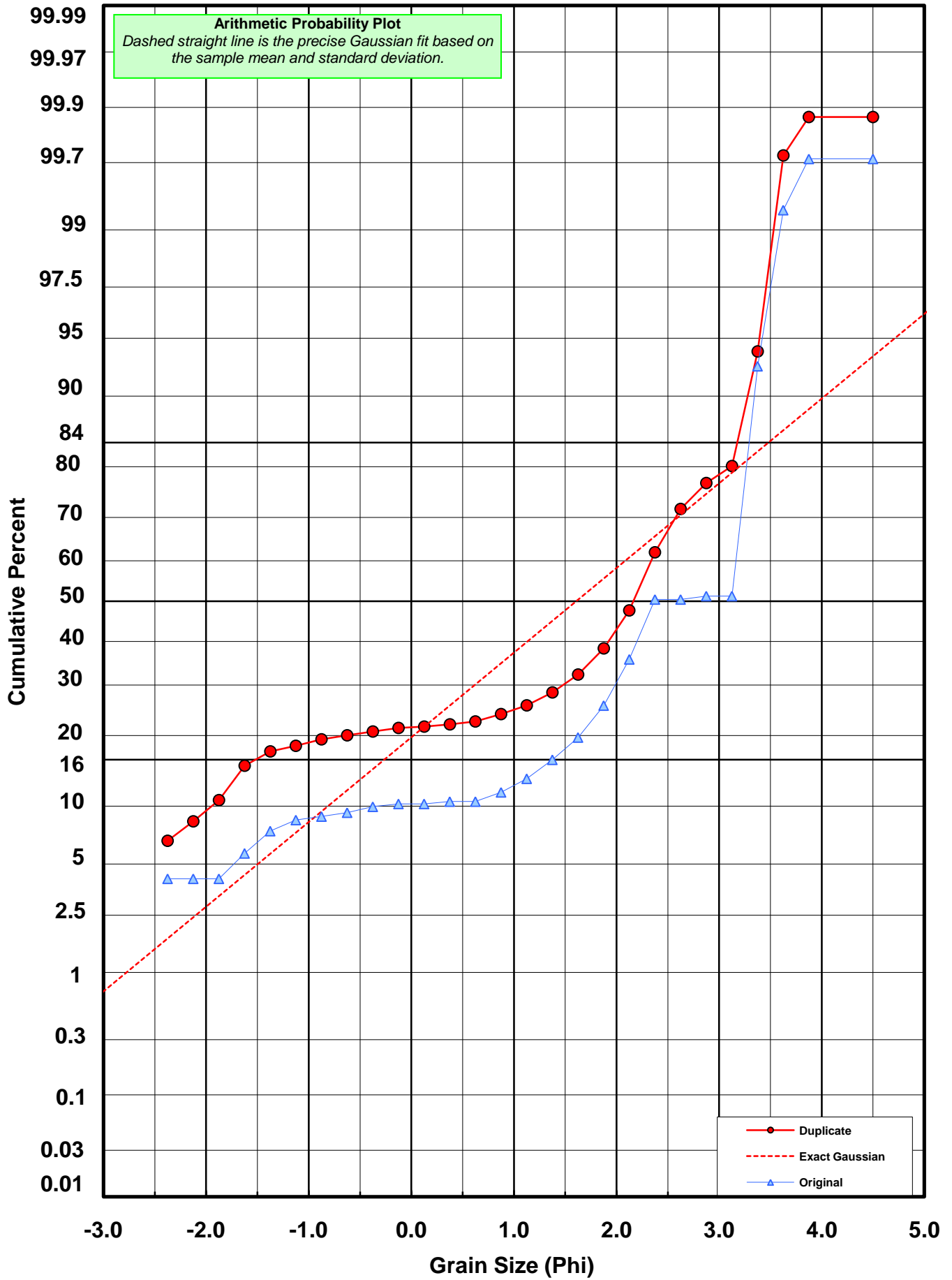
Carbonate Grain Size Distribution

Onshore Grab Sample: LE-35-BB

Total Duplicate Carbonate Mass: 5.778 grams
% Carbonate in Duplicate: 10.6 %
Total Original Carbonate Mass: 7.207 grams
% Carbonate in Original: 12.7 %

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	0.385	6.663	6.663	0.296	4.107	4.107
-2.00	-2.125	0.100	1.731	8.394	0.000	0.000	4.107
-1.75	-1.875	0.131	2.267	10.661	0.000	0.000	4.107
-1.50	-1.625	0.265	4.586	15.247	0.115	1.596	5.703
-1.25	-1.375	0.129	2.233	17.480	0.129	1.790	7.493
-1.00	-1.125	0.055	0.952	18.432	0.075	1.041	8.533
-0.75	-0.875	0.063	1.090	19.522	0.025	0.347	8.880
-0.50	-0.625	0.042	0.727	20.249	0.029	0.402	9.283
-0.25	-0.375	0.038	0.658	20.907	0.046	0.638	9.921
0.00	-0.125	0.038	0.658	21.565	0.023	0.319	10.240
0.25	0.125	0.014	0.242	21.807	0.000	0.000	10.240
0.50	0.375	0.025	0.433	22.240	0.019	0.264	10.504
0.75	0.625	0.030	0.519	22.759	0.000	0.000	10.504
1.00	0.875	0.082	1.419	24.178	0.080	1.110	11.614
1.25	1.125	0.102	1.765	25.943	0.128	1.776	13.390
1.50	1.375	0.152	2.631	28.574	0.200	2.775	16.165
1.75	1.625	0.224	3.877	32.451	0.266	3.691	19.856
2.00	1.875	0.347	6.006	38.456	0.435	6.036	25.891
2.25	2.125	0.534	9.242	47.698	0.722	10.018	35.910
2.50	2.375	0.823	14.244	61.942	1.047	14.528	50.437
2.75	2.625	0.557	9.640	71.582	0.000	0.000	50.437
3.00	2.875	0.303	5.244	76.826	0.062	0.860	51.297
3.25	3.125	0.180	3.115	79.941	0.000	0.000	51.297
3.50	3.375	0.819	14.174	94.116	3.002	41.654	92.951
3.75	3.625	0.325	5.625	99.740	0.456	6.327	99.278
4.00	3.875	0.008	0.138	99.879	0.032	0.444	99.722
5.00	4.500	0.007	0.121	100.000	0.020	0.278	100.000





Post-Digestion Grain Size Distribution

Onshore Grab Sample: LE-35-BB

Total Duplicate Digested Mass: 48.606 grams
% Silica in Duplicate: 89.4 %
Total Original Digested Mass: 50.687 grams
% Silica in Original: 89.6 %

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	0.000	0.000	0.000
0.00	-0.125	0.000	0.000	0.000	0.000	0.000	0.000
0.25	0.125	0.014	0.029	0.029	0.040	0.079	0.079
0.50	0.375	0.014	0.029	0.058	0.011	0.022	0.101
0.75	0.625	0.013	0.027	0.084	0.040	0.079	0.180
1.00	0.875	0.015	0.031	0.115	0.014	0.028	0.207
1.25	1.125	0.017	0.035	0.150	0.011	0.022	0.229
1.50	1.375	0.023	0.047	0.198	0.024	0.047	0.276
1.75	1.625	0.044	0.091	0.288	0.051	0.101	0.377
2.00	1.875	0.174	0.358	0.646	0.222	0.438	0.815
2.25	2.125	1.037	2.133	2.779	1.188	2.344	3.159
2.50	2.375	3.328	6.847	9.626	3.729	7.357	10.516
2.75	2.625	8.733	17.967	27.593	10.570	20.853	31.369
3.00	2.875	16.206	33.342	60.935	15.767	31.107	62.476
3.25	3.125	13.623	28.027	88.962	14.470	28.548	91.023
3.50	3.375	4.623	9.511	98.473	3.783	7.463	98.487
3.75	3.625	0.649	1.335	99.809	0.718	1.417	99.903
4.00	3.875	0.073	0.150	99.959	0.036	0.071	99.974
5.00	4.500	0.020	0.041	100.000	0.013	0.026	100.000

