

Quality Control Statistical Summary

Onshore Grab Sample: VO-11-BB

Sample Taken By: J. Ladner Latitude: 29° 17' 46.26'
 Sample Taken On: 12/03/03 Longitude: 81° 02' 28.56'
 County: Volusia Datum: NAD 83

Statistical Results: Pre-CaCO3		
	Duplicate	Original
Mean:	2.2911 phi (0.2043 mm)	2.3102 phi (0.2016 mm)
Standard Dev:	0.4214 phi-units (0.7467 mm)	0.4102 phi-units (0.7525 mm)
Skewness:	0.1805 dimensionless	0.0436 dimensionless
Kurtosis:	4.4529 dimensionless	4.0589 dimensionless
5th Moment:	2.4067 dimensionless	0.9892 dimensionless
6th Moment:	42.7010 dimensionless	35.7872 dimensionless
RARD*:	0.1839 dimensionless	0.1776 dimensionless
Median:	2.1657 phi (0.2229 mm)	2.1863 phi (0.2197 mm)

Statistical Results: CaCO3		
	Duplicate	Original
Mean:	1.9290 phi (0.2626 mm)	2.0886 phi (0.2351 mm)
Standard Dev:	0.4796 phi-units (0.7172 mm)	0.5936 phi-units (0.6627 mm)
Skewness:	-0.1871 dimensionless	-0.1251 dimensionless
Kurtosis:	3.7854 dimensionless	2.6442 dimensionless
5th Moment:	0.0844 dimensionless	-0.3589 dimensionless
6th Moment:	27.0178 dimensionless	11.8104 dimensionless
RARD*:	0.2486 dimensionless	0.2842 dimensionless
Median:	1.8607 phi (0.2753 mm)	1.9980 phi (0.2503 mm)

Statistical Results: Post-CaCO3		
	Duplicate	Original
Mean:	2.3341 phi (0.1983 mm)	2.3334 phi (0.1984 mm)
Standard Dev:	0.4074 phi-units (0.754 mm)	0.3915 phi-units (0.7623 mm)
Skewness:	0.5624 dimensionless	0.4000 dimensionless
Kurtosis:	4.5587 dimensionless	3.9726 dimensionless
5th Moment:	8.0646 dimensionless	5.8818 dimensionless
6th Moment:	46.5228 dimensionless	35.2336 dimensionless
RARD*:	0.1746 dimensionless	0.1678 dimensionless
Median:	2.1954 phi (0.2183 mm)	2.1973 phi (0.218 mm)

Additional Data	
Total Fines	
Original:	0.36 %
Duplicate:	0.35 %
Total Carbonates	
Original:	7.45 %
Duplicate:	7.52 %

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)

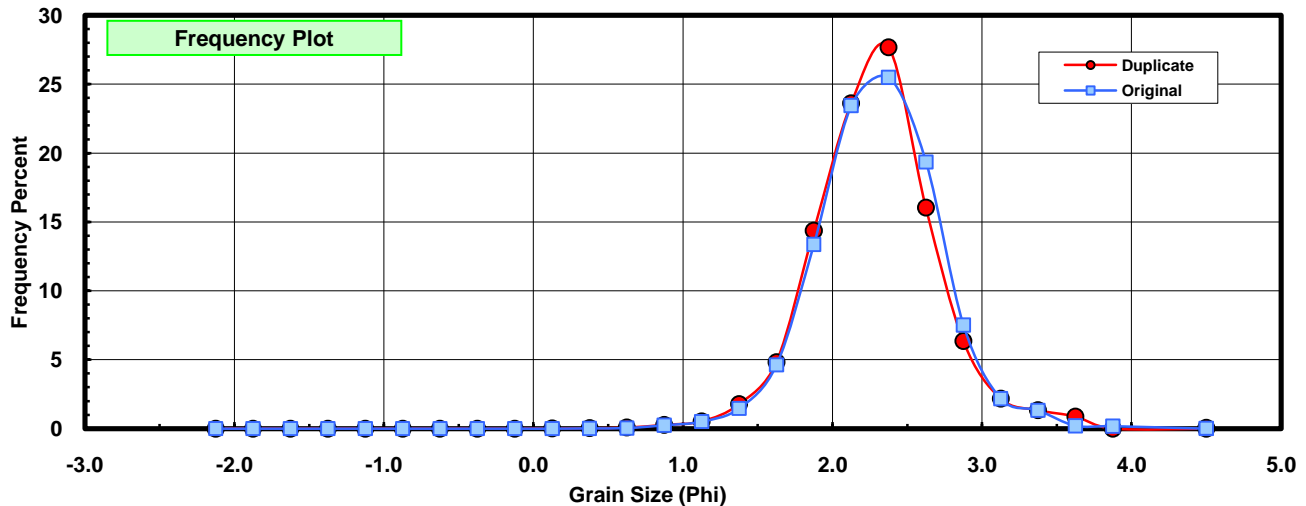
Pre-Digestion Grain Size Distribution

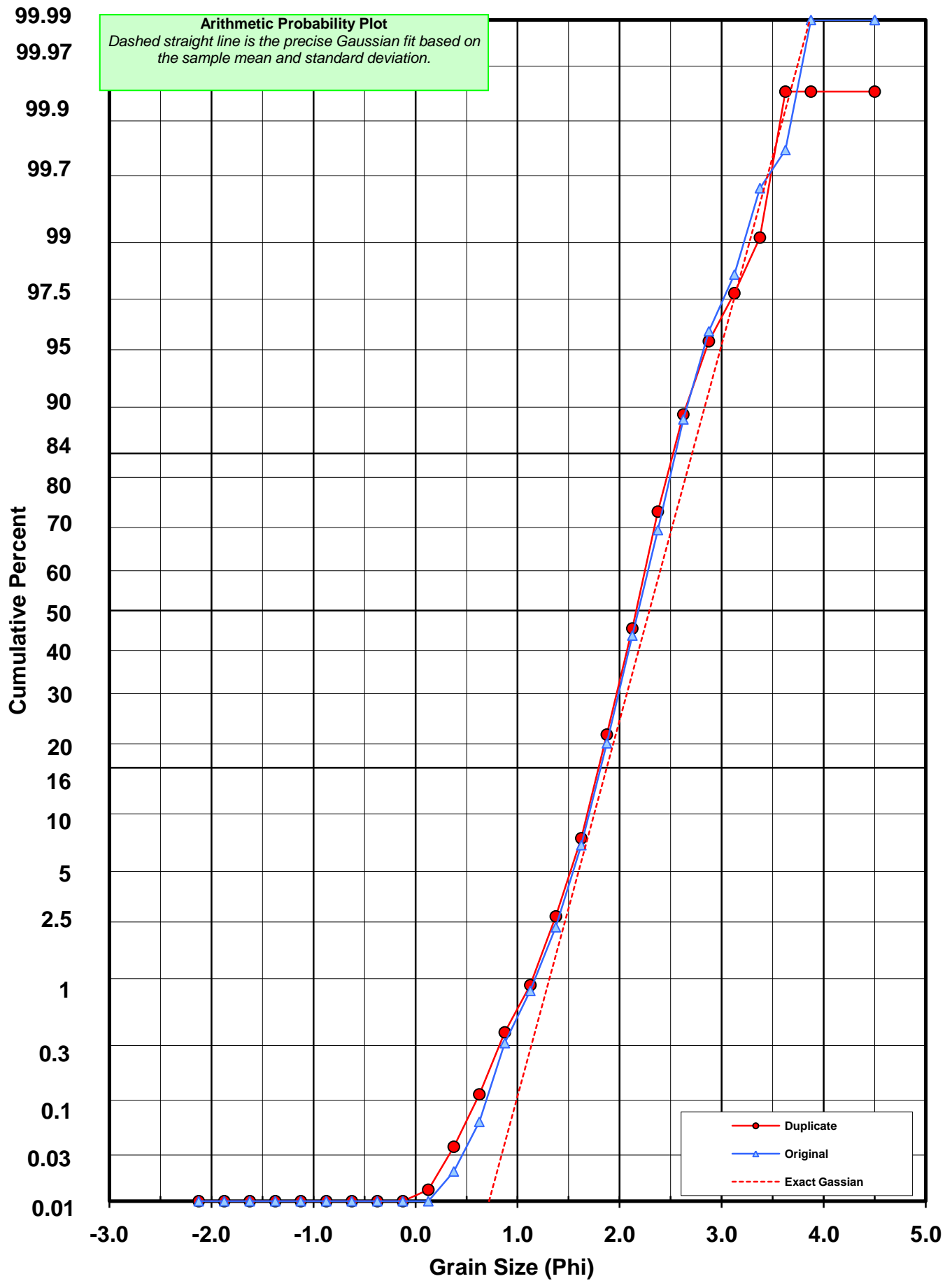
Onshore Grab Sample: VO-11-BB

Total Duplicate Sample Mass: 58.937 grams

Total Original Sample Mass: 54.691 grams

Sieve Size (phi)	Sieve Midpt (phi)	Weight of Dupl (grams)	Freq Weight %	Cumulative Weight %	Weight of Original (grams)	Freq Weight %	Cumulative Weight %
-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	0.006	0.010	0.010	0.000	0.000	0.000
0.50	0.375	0.016	0.027	0.037	0.011	0.020	0.020
0.75	0.625	0.044	0.075	0.112	0.024	0.044	0.064
1.00	0.875	0.161	0.273	0.385	0.136	0.249	0.313
1.25	1.125	0.310	0.526	0.911	0.280	0.512	0.825
1.50	1.375	1.047	1.776	2.688	0.803	1.469	2.294
1.75	1.625	2.846	4.829	7.517	2.530	4.627	6.921
2.00	1.875	8.466	14.364	21.881	7.314	13.377	20.298
2.25	2.125	13.915	23.610	45.491	12.822	23.451	43.749
2.50	2.375	16.307	27.669	73.159	13.936	25.488	69.237
2.75	2.625	9.449	16.032	89.192	10.580	19.350	88.587
3.00	2.875	3.748	6.359	95.551	4.114	7.524	96.112
3.25	3.125	1.285	2.180	97.731	1.191	2.178	98.290
3.50	3.375	0.787	1.335	99.067	0.727	1.330	99.620
3.75	3.625	0.518	0.879	99.946	0.110	0.201	99.821
4.00	3.875	0.000	0.000	99.946	0.098	0.179	100.000
5.00	4.500	0.000	0.000	99.946	0.000	0.000	100.000
5.00	4.500	0.032	0.054	100.000	0.015	0.027	100.027



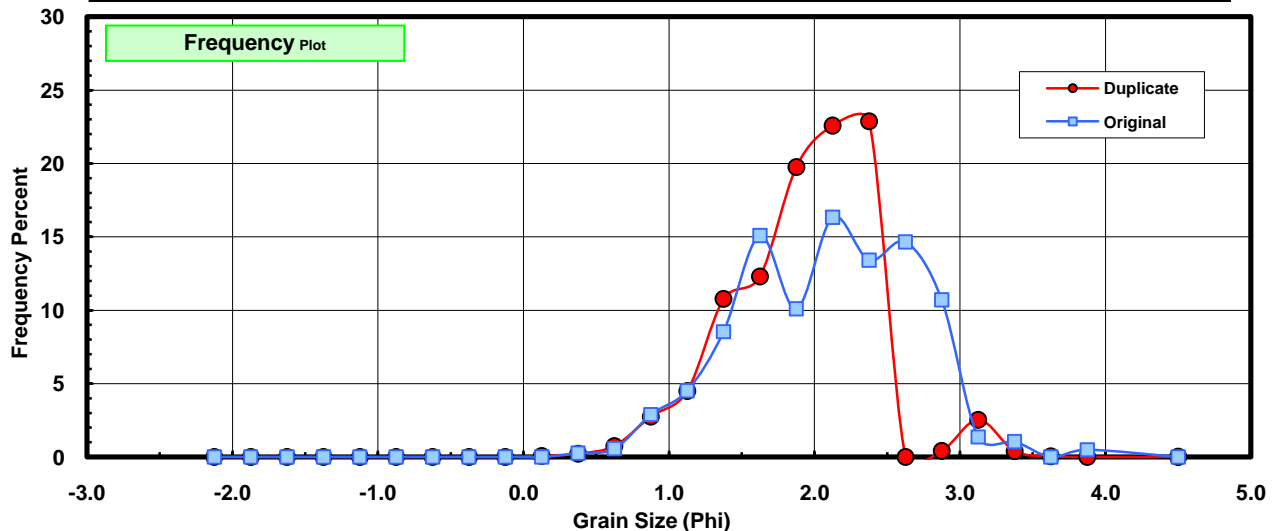


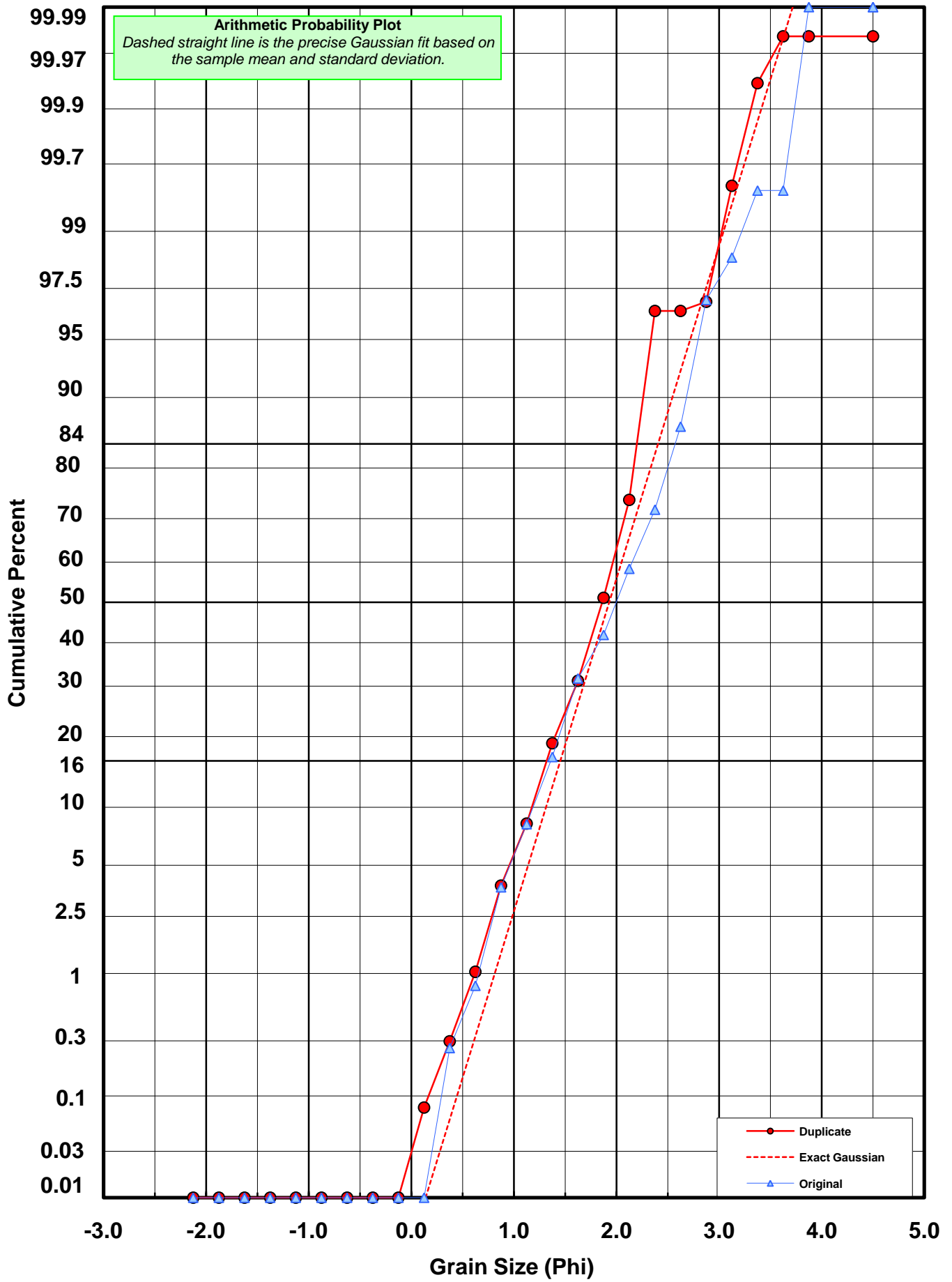
Carbonate Grain Size Distribution

Onshore Grab Sample: VO-11-BB

Total Duplicate Carbonate Mass: 5.079 grams
% Carbonate in Duplicate: 7.5 %
Total Original Carbonate Mass: 4.249 grams
% Carbonate in Original: 7.4 %

Sieve Size (phi)	Sieve Midpt (phi)	Weight of Dupl (grams)	Freq Weight %	Cumulative Weight %	Weight of Original (grams)	Freq Weight %	Cumulative Weight %
-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	0.004	0.079	0.079	0.000	0.000	0.000
0.50	0.375	0.011	0.217	0.295	0.011	0.259	0.259
0.75	0.625	0.038	0.748	1.044	0.024	0.565	0.824
1.00	0.875	0.140	2.756	3.800	0.123	2.895	3.719
1.25	1.125	0.228	4.489	8.289	0.192	4.519	8.237
1.50	1.375	0.547	10.770	19.059	0.363	8.543	16.780
1.75	1.625	0.625	12.306	31.364	0.641	15.086	31.866
2.00	1.875	1.004	19.768	51.132	0.429	10.096	41.963
2.25	2.125	1.147	22.583	73.715	0.694	16.333	58.296
2.50	2.375	1.162	22.879	96.594	0.570	13.415	71.711
2.75	2.625	0.000	0.000	96.594	0.623	14.662	86.373
3.00	2.875	0.021	0.413	97.007	0.455	10.708	97.082
3.25	3.125	0.129	2.540	99.547	0.058	1.365	98.447
3.50	3.375	0.020	0.394	99.941	0.045	1.059	99.506
3.75	3.625	0.002	0.039	99.980	0.000	0.000	99.506
4.00	3.875	0.000	0.000	99.980	0.021	0.494	100.000
5.00	4.500	0.000	0.000	99.980	0.000	0.000	100.000
5.00	4.500	0.001	0.020	100.000	0.000	0.000	100.000





Post-Digestion Grain Size Distribution

Onshore Grab Sample: VO-11-BB

Total Duplicate Digested Mass: 54.660 grams
% Silica in Duplicate: 92.5 %
Total Original Digested Mass: 50.617 grams
% Silica in Original: 92.6 %

Sieve Size (phi)	Sieve Midpt (phi)	Weight (grams)	Freq Weight %	Cumulative Weight %	Weight of Original (grams)	Freq Weight %	Cumulative Weight %
-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	0.002	0.004	0.004	0.000	0.000	0.000
0.50	0.375	0.005	0.009	0.013	0.000	0.000	0.000
0.75	0.625	0.006	0.011	0.024	0.000	0.000	0.000
1.00	0.875	0.021	0.038	0.062	0.013	0.026	0.026
1.25	1.125	0.082	0.150	0.212	0.088	0.174	0.200
1.50	1.375	0.500	0.915	1.127	0.440	0.869	1.069
1.75	1.625	2.221	4.063	5.190	1.889	3.732	4.801
2.00	1.875	7.462	13.652	18.842	6.885	13.602	18.403
2.25	2.125	12.768	23.359	42.201	12.128	23.960	42.363
2.50	2.375	15.145	27.708	69.909	13.366	26.406	68.769
2.75	2.625	10.056	18.397	88.306	9.957	19.671	88.441
3.00	2.875	3.727	6.819	95.124	3.659	7.229	95.669
3.25	3.125	1.156	2.115	97.239	1.133	2.238	97.908
3.50	3.375	0.767	1.403	98.643	0.682	1.347	99.255
3.75	3.625	0.516	0.944	99.587	0.284	0.561	99.816
4.00	3.875	0.195	0.357	99.943	0.077	0.152	99.968
5.00	4.500	0.000	0.000	99.943	0.000	0.000	99.968
5.00	4.500	0.031	0.057	100.000	0.016	0.032	100.000

