

Quality Control Statistical Summary

Onshore Grab Sample: VO-17-SS

Sample Taken By: J. Ladner **Latitude:** 29° 13' 26.82'
Sample Taken On: 12/03/03 **Longitude:** 81° 00' 19.08'
County: Volusia **Datum:** NAD 83

Statistical Results: Pre-CaCO3				
	Duplicate		Original	
Mean:	2.6930	phi (0.1546 mm)	2.7297	phi (0.1508 mm)
Standard Dev:	0.2849	phi-units (0.8208 mm)	0.2826	phi-units (0.8221 mm)
Skewness:	-0.1048	dimensionless	0.6614	dimensionless
Kurtosis:	7.9678	dimensionless	6.2256	dimensionless
5th Moment:	-25.8046	dimensionless	19.0798	dimensionless
6th Moment:	366.6527	dimensionless	125.6060	dimensionless
RARD*:	0.1058	dimensionless	0.1035	dimensionless
Median:	2.5574	phi (0.1699 mm)	2.5904	phi (0.166 mm)

Statistical Results: CaCO3				
	Duplicate		Original	
Mean:	2.9865	phi (0.1262 mm)	2.8226	phi (0.1414 mm)
Standard Dev:	0.3808	phi-units (0.768 mm)	0.4375	phi-units (0.7384 mm)
Skewness:	-4.4399	dimensionless	0.1689	dimensionless
Kurtosis:	37.5774	dimensionless	4.4370	dimensionless
5th Moment:	#####	dimensionless	6.1874	dimensionless
6th Moment:	#####	dimensionless	39.8148	dimensionless
RARD*:	0.1275	dimensionless	0.1550	dimensionless
Median:	2.8628	phi (0.1375 mm)	2.6963	phi (0.1543 mm)

Statistical Results: Post-CaCO3				
	Duplicate		Original	
Mean:	2.6831	phi (0.1557 mm)	2.7251	phi (0.1512 mm)
Standard Dev:	0.2802	phi-units (0.8235 mm)	0.2773	phi-units (0.8251 mm)
Skewness:	0.3470	dimensionless	0.6690	dimensionless
Kurtosis:	6.1170	dimensionless	6.0939	dimensionless
5th Moment:	1.8134	dimensionless	18.9234	dimensionless
6th Moment:	144.2984	dimensionless	123.6921	dimensionless
RARD*:	0.1044	dimensionless	0.1018	dimensionless
Median:	2.5441	phi (0.1714 mm)	2.5872	phi (0.1664 mm)

Additional Data	
Total Fines	
Original:	0.6 %
Duplicate:	0.51 %
Total Carbonates	
Original:	2.09 %
Duplicate:	2.02 %

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)

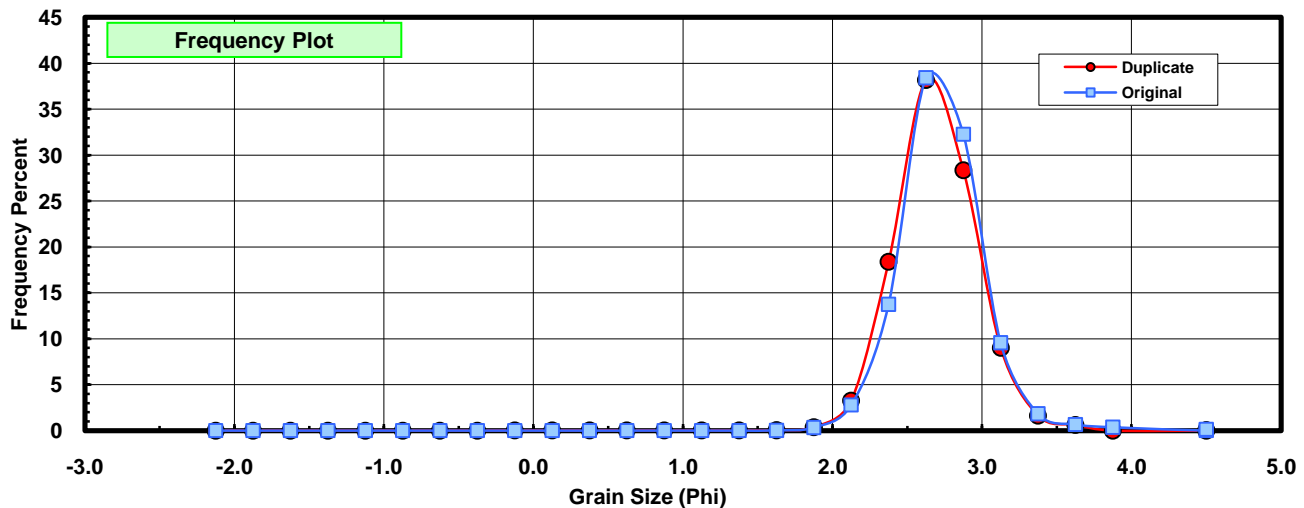
Pre-Digestion Grain Size Distribution

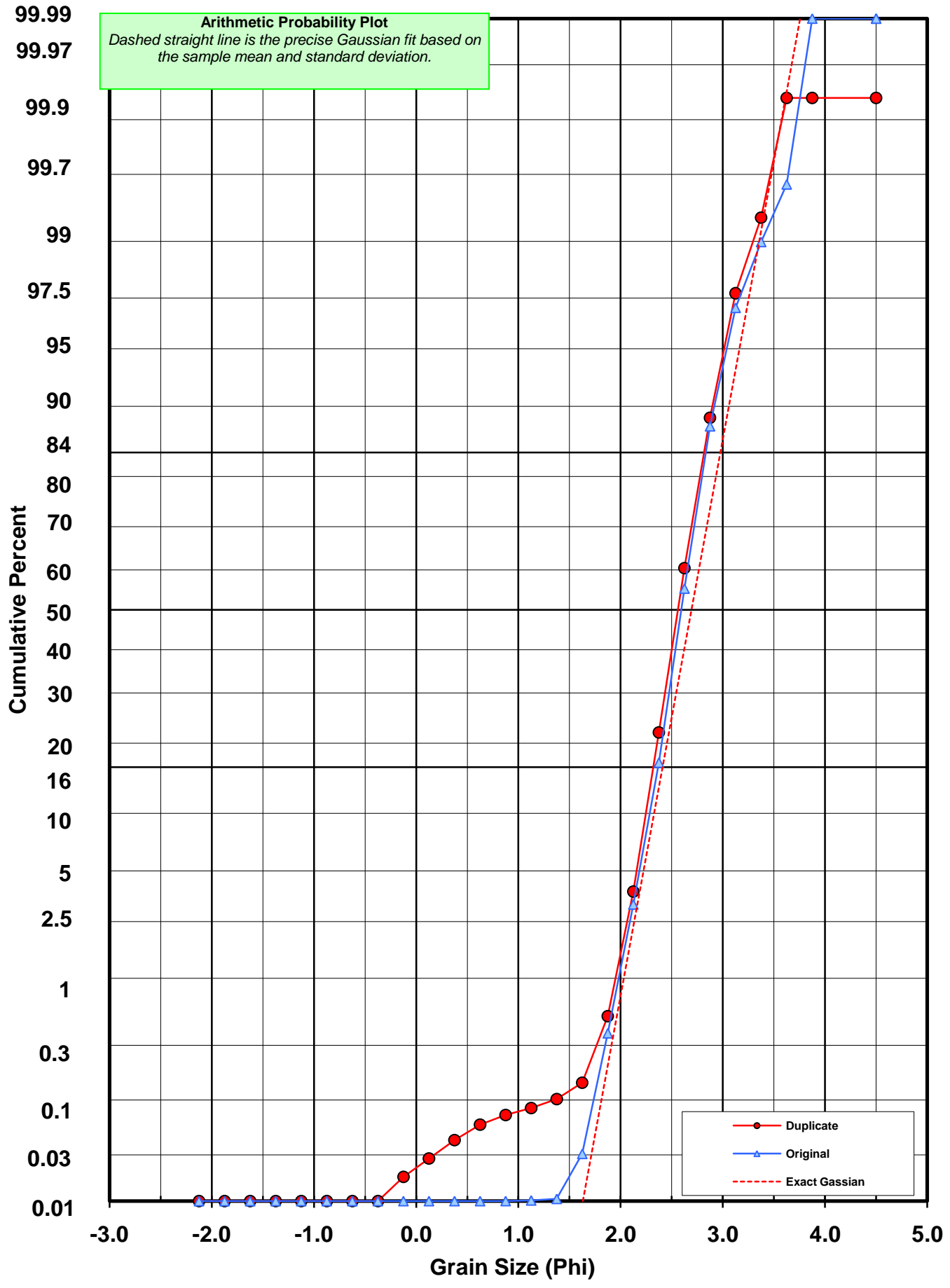
Onshore Grab Sample: VO-17-SS

Total Duplicate Sample Mass: 53.156 grams

Total Original Sample Mass: 63.336 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	0.009	0.017	0.017	0.000	0.000	0.000
0.25	0.125	0.006	0.011	0.028	0.000	0.000	0.000
0.50	0.375	0.008	0.015	0.043	0.000	0.000	0.000
0.75	0.625	0.009	0.017	0.060	0.000	0.000	0.000
1.00	0.875	0.007	0.013	0.073	0.001	0.002	0.002
1.25	1.125	0.006	0.011	0.085	0.001	0.002	0.003
1.50	1.375	0.009	0.017	0.102	0.001	0.002	0.005
1.75	1.625	0.021	0.040	0.141	0.017	0.027	0.032
2.00	1.875	0.201	0.378	0.519	0.218	0.345	0.376
2.25	2.125	1.732	3.258	3.778	1.763	2.788	3.164
2.50	2.375	9.773	18.386	22.163	8.690	13.741	16.905
2.75	2.625	20.284	38.159	60.322	24.294	38.414	55.318
3.00	2.875	15.073	28.356	88.679	20.408	32.269	87.588
3.25	3.125	4.792	9.015	97.694	6.047	9.562	97.149
3.50	3.375	0.869	1.635	99.328	1.153	1.823	98.972
3.75	3.625	0.323	0.608	99.936	0.421	0.666	99.638
4.00	3.875	0.000	0.000	99.936	0.229	0.362	100.000
5.00	4.500	0.000	0.000	99.936	0.000	0.000	100.000
5.00	4.500	0.034	0.064	100.000	0.093	0.147	100.147



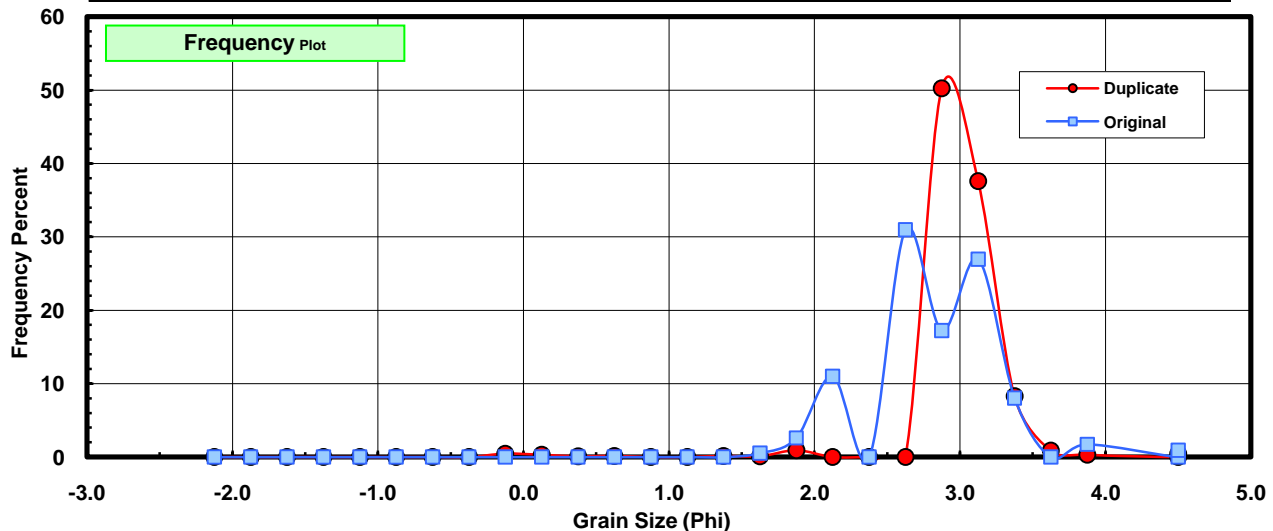


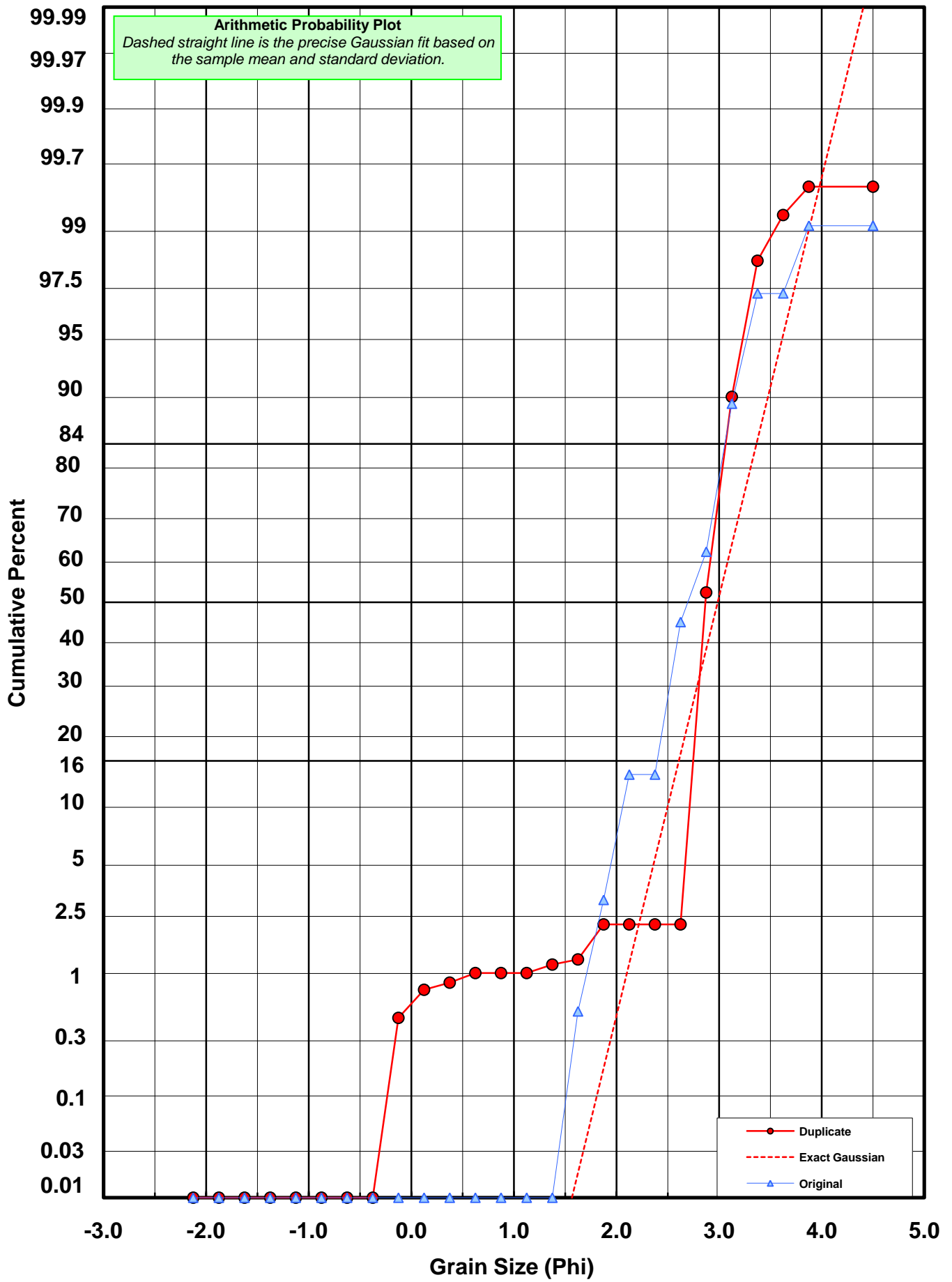
Carbonate Grain Size Distribution

Onshore Grab Sample: VO-17-SS

Total Duplicate Carbonate Mass: 1.954 grams
% Carbonate in Duplicate: 2.0 %
Total Original Carbonate Mass: 1.728 grams
% Carbonate in Original: 2.1 %

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	0.009	0.461	0.461	0.000	0.000	0.000
0.25	0.125	0.006	0.307	0.768	0.000	0.000	0.000
0.50	0.375	0.002	0.102	0.870	0.000	0.000	0.000
0.75	0.625	0.003	0.154	1.024	0.000	0.000	0.000
1.00	0.875	0.000	0.000	1.024	0.000	0.000	0.000
1.25	1.125	0.000	0.000	1.024	0.000	0.000	0.000
1.50	1.375	0.003	0.154	1.177	0.000	0.000	0.000
1.75	1.625	0.002	0.102	1.279	0.009	0.521	0.521
2.00	1.875	0.018	0.921	2.201	0.045	2.604	3.125
2.25	2.125	0.000	0.000	2.201	0.190	10.995	14.120
2.50	2.375	0.000	0.000	2.201	0.000	0.000	14.120
2.75	2.625	0.000	0.000	2.201	0.535	30.961	45.081
3.00	2.875	0.982	50.256	52.456	0.298	17.245	62.326
3.25	3.125	0.735	37.615	90.072	0.466	26.968	89.294
3.50	3.375	0.162	8.291	98.362	0.139	8.044	97.338
3.75	3.625	0.017	0.870	99.232	0.000	0.000	97.338
4.00	3.875	0.006	0.307	99.539	0.030	1.736	99.074
5.00	4.500	0.000	0.000	99.539	0.000	0.000	99.074
5.00	4.500	0.009	0.461	100.000	0.016	0.926	100.000





Post-Digestion Grain Size Distribution

Onshore Grab Sample: VO-17-SS

Total Duplicate Digested Mass: 52.226 grams
% Silica in Duplicate: 98.0 %
Total Original Digested Mass: 62.011 grams
% Silica in Original: 97.9 %

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	0.000	0.000	0.000	0.000	0.000	0.000
0.50	0.375	0.006	0.011	0.011	0.000	0.000	0.000
0.75	0.625	0.006	0.011	0.023	0.000	0.000	0.000
1.00	0.875	0.009	0.017	0.040	0.001	0.002	0.002
1.25	1.125	0.007	0.013	0.054	0.001	0.002	0.003
1.50	1.375	0.006	0.011	0.065	0.001	0.002	0.005
1.75	1.625	0.019	0.036	0.101	0.008	0.013	0.018
2.00	1.875	0.183	0.350	0.452	0.173	0.279	0.297
2.25	2.125	1.761	3.372	3.824	1.573	2.537	2.833
2.50	2.375	9.921	18.996	22.820	9.078	14.639	17.473
2.75	2.625	20.980	40.172	62.992	23.759	38.314	55.787
3.00	2.875	14.091	26.981	89.972	20.110	32.430	88.217
3.25	3.125	4.057	7.768	97.741	5.581	9.000	97.217
3.50	3.375	0.707	1.354	99.094	1.014	1.635	98.852
3.75	3.625	0.306	0.586	99.680	0.436	0.703	99.555
4.00	3.875	0.142	0.272	99.952	0.199	0.321	99.876
5.00	4.500	0.000	0.000	99.952	0.000	0.000	99.876
5.00	4.500	0.025	0.048	100.000	0.077	0.124	100.000

