

Quality Control Statistical Summary

Onshore Grab Sample: VO-21-BB

Sample Taken By: J. Ladner Latitude: 29° 10' 35.34'
 Sample Taken On: 12/03/03 Longitude: 80° 58' 54.48'
 County: Volusia Datum: NAD 83

Statistical Results: Pre-CaCO3		
	Duplicate	Original
Mean:	2.5549 phi (0.1702 mm)	2.5869 phi (0.1664 mm)
Standard Dev:	0.3577 phi-units (0.7804 mm)	0.3708 phi-units (0.7734 mm)
Skewness:	0.5532 dimensionless	0.8714 dimensionless
Kurtosis:	6.4111 dimensionless	6.1275 dimensionless
5th Moment:	4.0371 dimensionless	10.7953 dimensionless
6th Moment:	151.4348 dimensionless	104.2647 dimensionless
RARD*:	0.1400 dimensionless	0.1433 dimensionless
Median:	2.4153 phi (0.1875 mm)	2.4388 phi (0.1844 mm)

Statistical Results: CaCO3		
	Duplicate	Original
Mean:	2.7162 phi (0.1522 mm)	2.6298 phi (0.1616 mm)
Standard Dev:	0.5724 phi-units (0.6725 mm)	0.5534 phi-units (0.6814 mm)
Skewness:	-0.8942 dimensionless	-0.4609 dimensionless
Kurtosis:	5.2720 dimensionless	4.6157 dimensionless
5th Moment:	-7.1942 dimensionless	-10.1500 dimensionless
6th Moment:	46.3815 dimensionless	71.4951 dimensionless
RARD*:	0.2107 dimensionless	0.2104 dimensionless
Median:	2.7234 phi (0.1514 mm)	2.5606 phi (0.1695 mm)

Statistical Results: Post-CaCO3		
	Duplicate	Original
Mean:	2.5595 phi (0.1696 mm)	2.5826 phi (0.1669 mm)
Standard Dev:	0.3658 phi-units (0.776 mm)	0.3566 phi-units (0.781 mm)
Skewness:	0.9776 dimensionless	1.1083 dimensionless
Kurtosis:	6.4941 dimensionless	6.0985 dimensionless
5th Moment:	9.2319 dimensionless	18.3214 dimensionless
6th Moment:	134.0225 dimensionless	87.0179 dimensionless
RARD*:	0.1429 dimensionless	0.1381 dimensionless
Median:	2.4063 phi (0.1886 mm)	2.4300 phi (0.1856 mm)

Additional Data	
Total Fines	
Original:	0.34 %
Duplicate:	0.2 %
Total Carbonates	
Original:	4.37 %
Duplicate:	4.31 %

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)

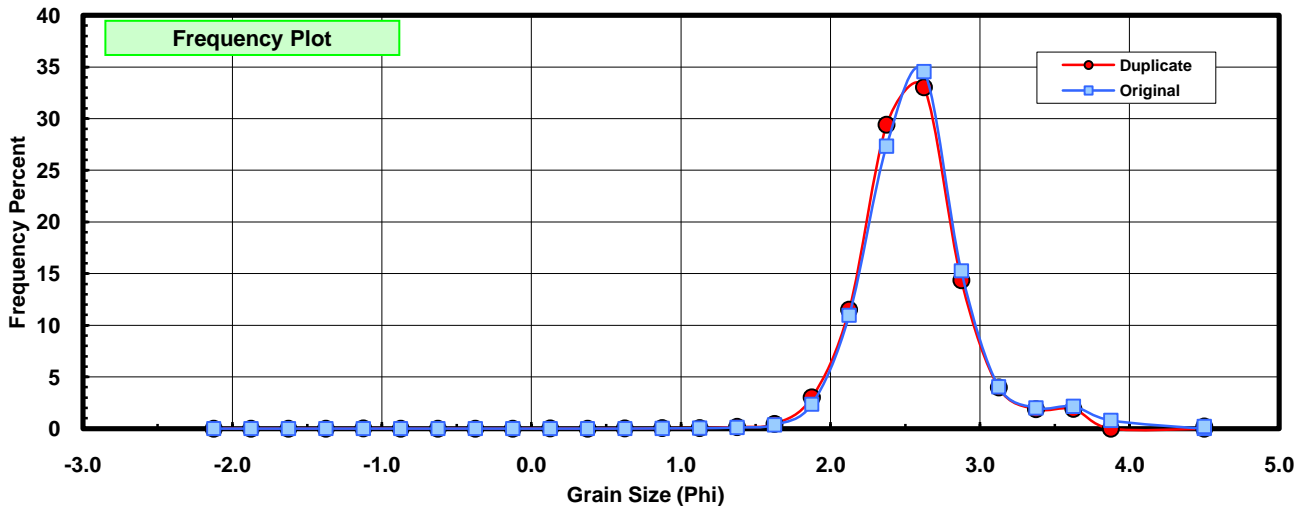
Pre-Digestion Grain Size Distribution

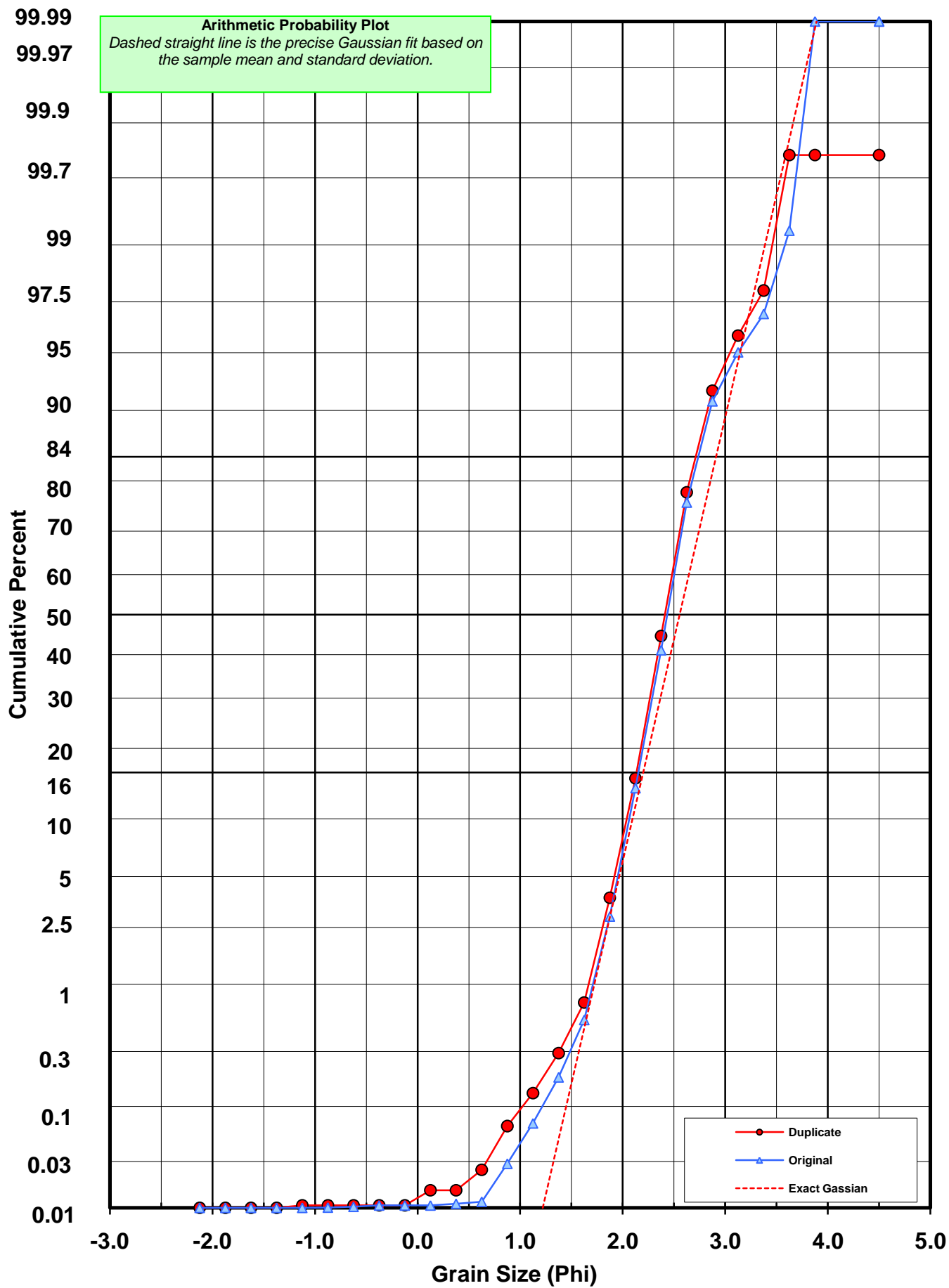
Onshore Grab Sample: VO-21-BB

Total Duplicate Sample Mass: 59.945 grams

Total Original Sample Mass: 82.347 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	0.003	0.005	0.005	0.001	0.001	0.001
-0.75	-0.875	0.000	0.000	0.005	0.001	0.001	0.002
-0.50	-0.625	0.000	0.000	0.005	0.001	0.001	0.004
-0.25	-0.375	0.000	0.000	0.005	0.001	0.001	0.005
0.00	-0.125	0.000	0.000	0.005	0.000	0.000	0.005
0.25	0.125	0.005	0.008	0.013	0.000	0.000	0.005
0.50	0.375	0.000	0.000	0.013	0.001	0.001	0.006
0.75	0.625	0.007	0.012	0.025	0.001	0.001	0.007
1.00	0.875	0.025	0.042	0.067	0.018	0.022	0.029
1.25	1.125	0.038	0.063	0.130	0.034	0.041	0.071
1.50	1.375	0.095	0.158	0.289	0.089	0.108	0.179
1.75	1.625	0.273	0.455	0.744	0.299	0.364	0.543
2.00	1.875	1.808	3.016	3.760	1.934	2.354	2.896
2.25	2.125	6.902	11.514	15.274	9.010	10.964	13.861
2.50	2.375	17.627	29.405	44.679	22.454	27.325	41.185
2.75	2.625	19.795	33.022	77.701	28.389	34.547	75.732
3.00	2.875	8.603	14.351	92.053	12.547	15.269	91.001
3.25	3.125	2.384	3.977	96.030	3.328	4.050	95.051
3.50	3.375	1.125	1.877	97.906	1.647	2.004	97.055
3.75	3.625	1.141	1.903	99.810	1.766	2.149	99.204
4.00	3.875	0.000	0.000	99.810	0.654	0.796	100.000
5.00	4.500	0.000	0.000	99.810	0.000	0.000	100.000
5.00	4.500	0.114	0.190	100.000	0.172	0.209	100.209



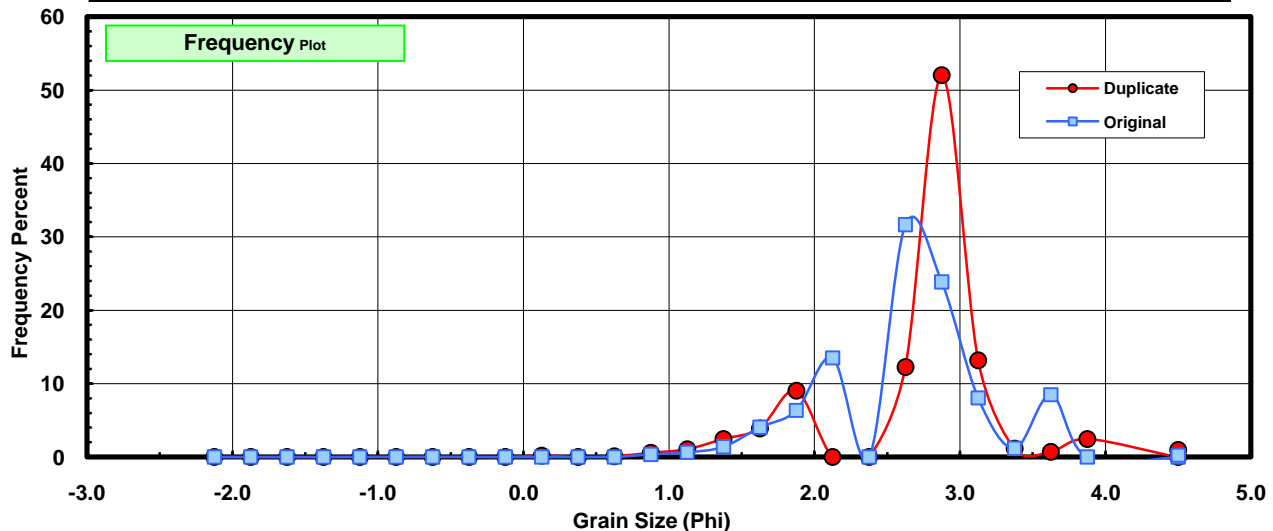


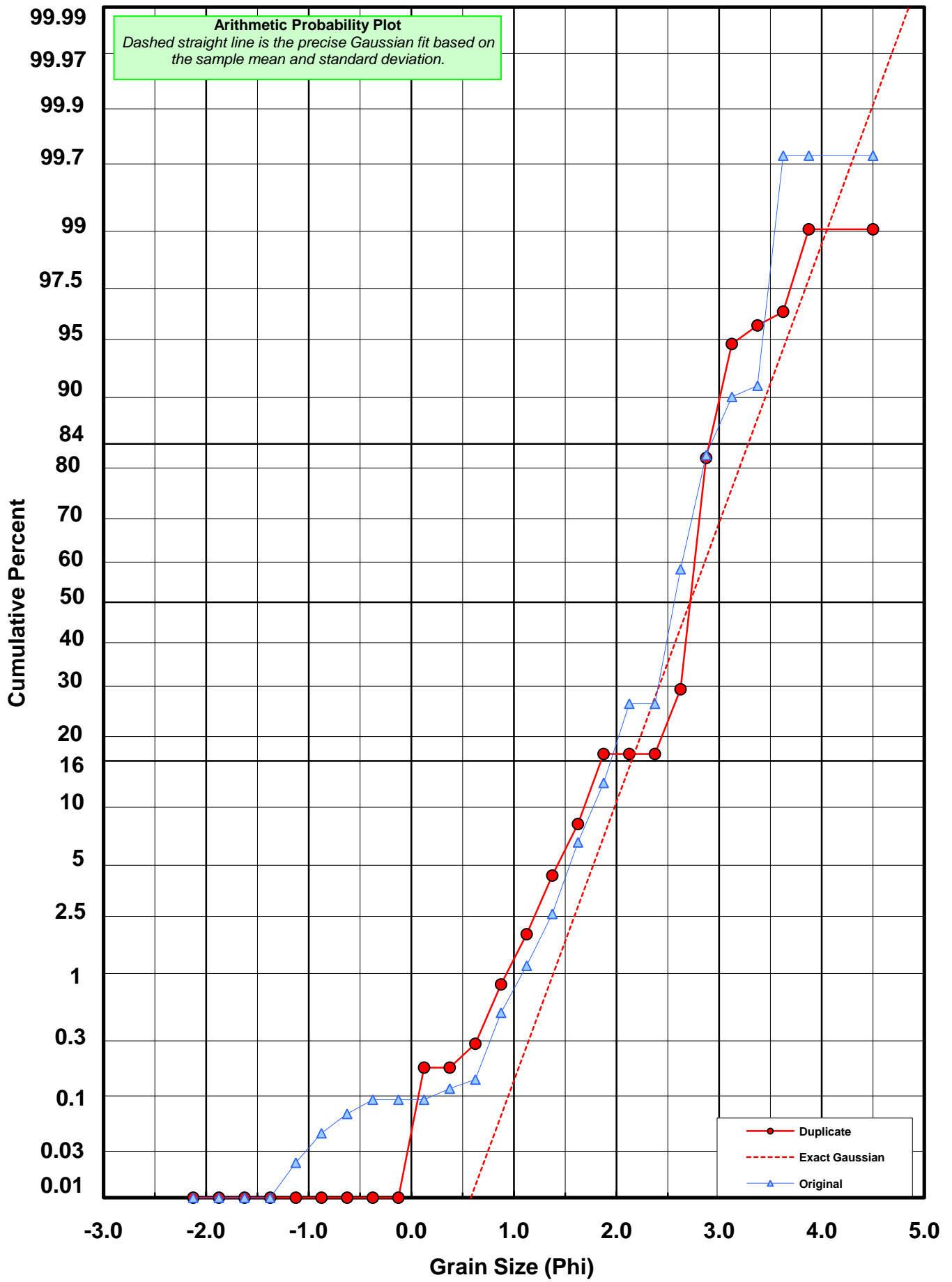
Carbonate Grain Size Distribution

Onshore Grab Sample: VO-21-BB

Total Duplicate Carbonate Mass: 2.849 grams
% Carbonate in Duplicate: 4.3 %
Total Original Carbonate Mass: 4.331 grams
% Carbonate in Original: 4.4 %

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	0.001	0.023	0.023
-0.75	-0.875	0.000	0.000	0.000	0.001	0.023	0.046
-0.50	-0.625	0.000	0.000	0.000	0.001	0.023	0.069
-0.25	-0.375	0.000	0.000	0.000	0.001	0.023	0.092
0.00	-0.125	0.000	0.000	0.000	0.000	0.000	0.092
0.25	0.125	0.005	0.176	0.176	0.000	0.000	0.092
0.50	0.375	0.000	0.000	0.176	0.001	0.023	0.115
0.75	0.625	0.003	0.105	0.281	0.001	0.023	0.139
1.00	0.875	0.016	0.562	0.842	0.016	0.369	0.508
1.25	1.125	0.030	1.053	1.895	0.028	0.647	1.154
1.50	1.375	0.070	2.457	4.352	0.061	1.408	2.563
1.75	1.625	0.111	3.896	8.249	0.176	4.064	6.627
2.00	1.875	0.257	9.021	17.269	0.275	6.350	12.976
2.25	2.125	0.000	0.000	17.269	0.585	13.507	26.483
2.50	2.375	0.000	0.000	17.269	0.000	0.000	26.483
2.75	2.625	0.349	12.250	29.519	1.372	31.679	58.162
3.00	2.875	1.482	52.018	81.537	1.033	23.851	82.013
3.25	3.125	0.376	13.198	94.735	0.349	8.058	90.072
3.50	3.375	0.032	1.123	95.858	0.051	1.178	91.249
3.75	3.625	0.020	0.702	96.560	0.368	8.497	99.746
4.00	3.875	0.070	2.457	99.017	0.000	0.000	99.746
5.00	4.500	0.000	0.000	99.017	0.000	0.000	99.746
5.00	4.500	0.028	0.983	100.000	0.011	0.254	100.000





Post-Digestion Grain Size Distribution

Onshore Grab Sample: VO-21-BB

Total Duplicate Digested Mass: 57.934 grams
% Silica in Duplicate: 95.7 %
Total Original Digested Mass: 78.750 grams
% Silica in Original: 95.6 %

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	0.003	0.005	0.005	0.000	0.000	0.000
-0.75	-0.875	0.000	0.000	0.005	0.000	0.000	0.000
-0.50	-0.625	0.000	0.000	0.005	0.000	0.000	0.000
-0.25	-0.375	0.000	0.000	0.005	0.000	0.000	0.000
0.00	-0.125	0.000	0.000	0.005	0.000	0.000	0.000
0.25	0.125	0.000	0.000	0.005	0.000	0.000	0.000
0.50	0.375	0.005	0.009	0.014	0.000	0.000	0.000
0.75	0.625	0.004	0.007	0.021	0.000	0.000	0.000
1.00	0.875	0.009	0.016	0.036	0.002	0.003	0.003
1.25	1.125	0.008	0.014	0.050	0.006	0.008	0.010
1.50	1.375	0.025	0.043	0.093	0.028	0.036	0.046
1.75	1.625	0.162	0.280	0.373	0.123	0.156	0.202
2.00	1.875	1.551	2.677	3.050	1.659	2.107	2.309
2.25	2.125	6.960	12.014	15.064	8.425	10.698	13.007
2.50	2.375	17.802	30.728	45.792	23.185	29.441	42.448
2.75	2.625	19.446	33.566	79.358	27.017	34.307	76.756
3.00	2.875	7.121	12.292	91.649	11.514	14.621	91.377
3.25	3.125	2.008	3.466	95.115	2.979	3.783	95.159
3.50	3.375	1.093	1.887	97.002	1.596	2.027	97.186
3.75	3.625	1.121	1.935	98.937	1.398	1.775	98.961
4.00	3.875	0.530	0.915	99.852	0.657	0.834	99.796
5.00	4.500	0.000	0.000	99.852	0.000	0.000	99.796
5.00	4.500	0.086	0.148	100.000	0.161	0.204	100.000

