

Quality Control Statistical Summary

Onshore Grab Sample: VO-50-SS

Sample Taken By: J. Ladner **Latitude:** 28° 51' 39.78'
Sample Taken On: 12/03/03 **Longitude:** 80° 46' 40.08'
County: Volusia **Datum:** NAD 83

Statistical Results: Pre-CaCO3		
	Duplicate	Original
Mean:	0.6966 phi (0.617 mm)	0.7088 phi (0.6118 mm)
Standard Dev:	0.9826 phi-units (0.5061 mm)	0.9820 phi-units (0.5063 mm)
Skewness:	0.5828 dimensionless	0.6517 dimensionless
Kurtosis:	2.6864 dimensionless	2.4845 dimensionless
5th Moment:	2.2852 dimensionless	2.9208 dimensionless
6th Moment:	10.8784 dimensionless	8.9467 dimensionless
RARD*:	1.4105 dimensionless	1.3853 dimensionless
Median:	0.3166 phi (0.8029 mm)	0.3146 phi (0.8041 mm)

Statistical Results: CaCO3		
	Duplicate	Original
Mean:	0.2763 phi (0.8257 mm)	0.2780 phi (0.8247 mm)
Standard Dev:	0.6969 phi-units (0.6169 mm)	0.6805 phi-units (0.624 mm)
Skewness:	0.2580 dimensionless	0.6140 dimensionless
Kurtosis:	4.1139 dimensionless	3.8324 dimensionless
5th Moment:	0.7332 dimensionless	5.4551 dimensionless
6th Moment:	30.2319 dimensionless	26.6742 dimensionless
RARD*:	2.5221 dimensionless	2.4478 dimensionless
Median:	0.0759 phi (0.9487 mm)	0.0588 phi (0.9601 mm)

Statistical Results: Post-CaCO3		
	Duplicate	Original
Mean:	1.2165 phi (0.4303 mm)	1.2263 phi (0.4274 mm)
Standard Dev:	1.0565 phi-units (0.4808 mm)	1.0497 phi-units (0.4831 mm)
Skewness:	0.1781 dimensionless	0.1202 dimensionless
Kurtosis:	1.6284 dimensionless	1.5396 dimensionless
5th Moment:	0.8378 dimensionless	0.5092 dimensionless
6th Moment:	3.8681 dimensionless	3.1572 dimensionless
RARD*:	0.8685 dimensionless	0.8560 dimensionless
Median:	0.8713 phi (0.5467 mm)	0.9638 phi (0.5127 mm)

Additional Data	
Total Fines	
Original:	0.64 %
Duplicate:	0.74 %
Total Carbonates	
Original:	54.11 %
Duplicate:	54.52 %

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 $mm = 2^{-(\phi)}$	
* 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)

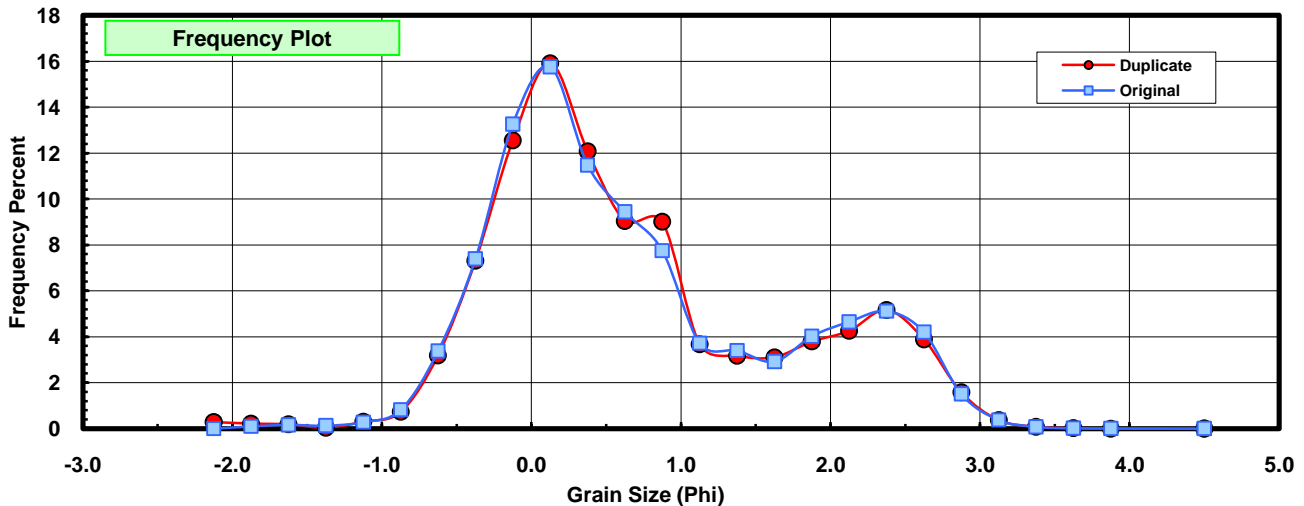
Pre-Digestion Grain Size Distribution

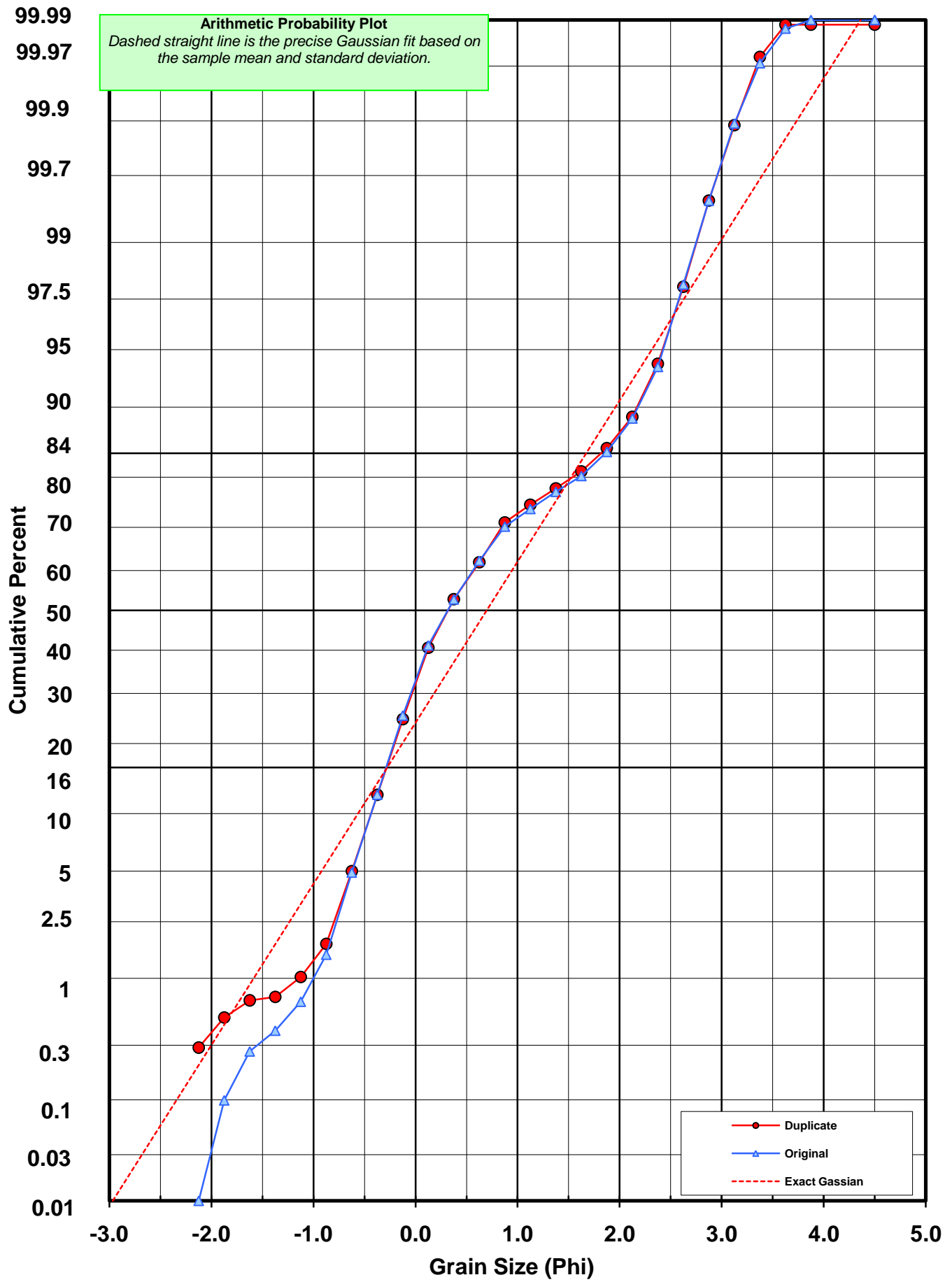
Onshore Grab Sample: VO-50-SS

Total Duplicate Sample Mass: 77.385 grams

Total Original Sample Mass: 79.972 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	0.220	0.284	0.284	0.000	0.000	0.000
-1.75	-1.875	0.172	0.222	0.507	0.079	0.099	0.099
-1.50	-1.625	0.144	0.186	0.693	0.132	0.165	0.264
-1.25	-1.375	0.034	0.044	0.737	0.105	0.131	0.395
-1.00	-1.125	0.236	0.305	1.042	0.225	0.281	0.677
-0.75	-0.875	0.568	0.734	1.776	0.658	0.823	1.499
-0.50	-0.625	2.469	3.191	4.966	2.704	3.381	4.881
-0.25	-0.375	5.656	7.309	12.275	5.916	7.398	12.279
0.00	-0.125	9.710	12.548	24.823	10.604	13.260	25.539
0.25	0.125	12.316	15.915	40.738	12.598	15.754	41.293
0.50	0.375	9.350	12.082	52.820	9.180	11.480	52.773
0.75	0.625	6.994	9.038	61.858	7.548	9.439	62.212
1.00	0.875	6.974	9.012	70.870	6.198	7.751	69.963
1.25	1.125	2.848	3.680	74.551	2.977	3.723	73.685
1.50	1.375	2.454	3.171	77.722	2.722	3.404	77.089
1.75	1.625	2.406	3.109	80.831	2.335	2.920	80.009
2.00	1.875	2.936	3.794	84.625	3.218	4.024	84.033
2.25	2.125	3.293	4.255	88.880	3.721	4.653	88.687
2.50	2.375	3.999	5.168	94.048	4.093	5.118	93.805
2.75	2.625	3.010	3.890	97.938	3.360	4.202	98.007
3.00	2.875	1.223	1.580	99.518	1.208	1.511	99.517
3.25	3.125	0.289	0.373	99.891	0.302	0.378	99.895
3.50	3.375	0.065	0.084	99.975	0.061	0.076	99.971
3.75	3.625	0.014	0.018	99.994	0.016	0.020	99.991
4.00	3.875	0.000	0.000	99.994	0.007	0.009	100.000
5.00	4.500	0.000	0.000	99.994	0.000	0.000	100.000
5.00	4.500	0.005	0.006	100.000	0.005	0.006	100.006



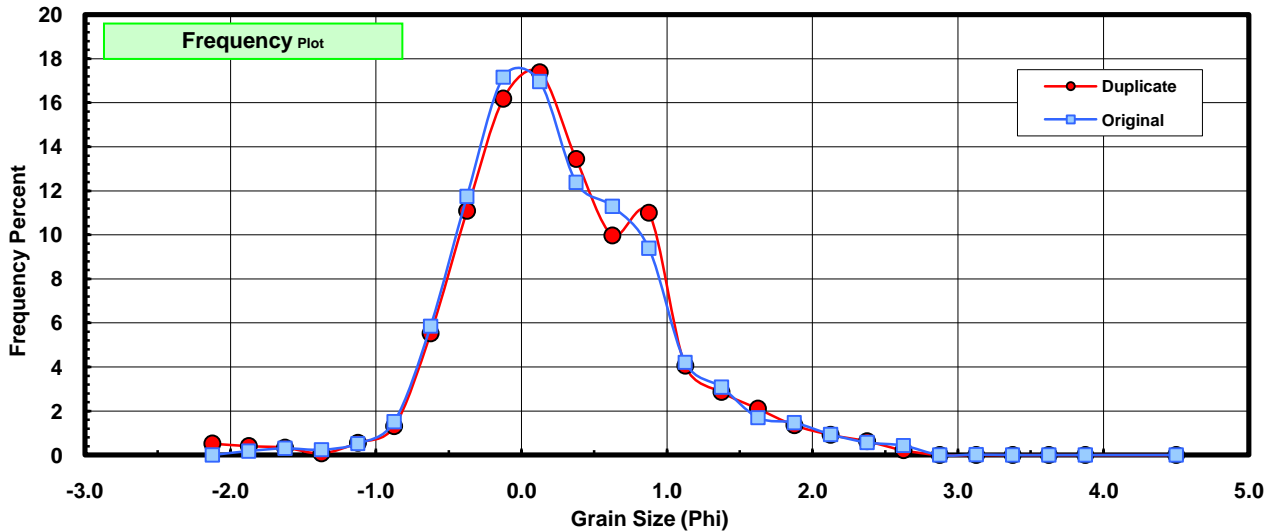


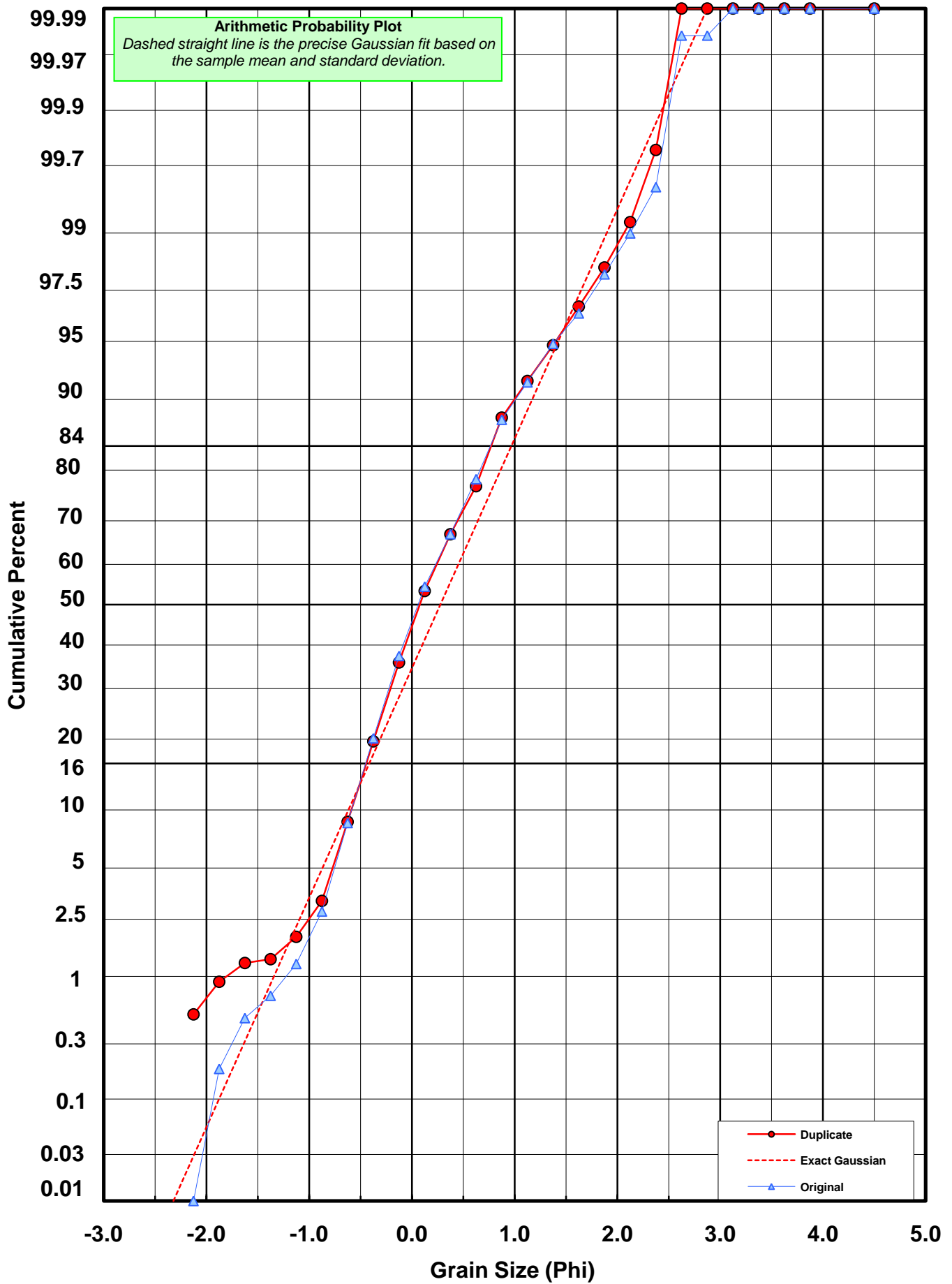
Carbonate Grain Size Distribution

Onshore Grab Sample: VO-50-SS

Total Duplicate Carbonate Mass: 42.351 grams
% Carbonate in Duplicate: 54.5 %
Total Original Carbonate Mass: 43.400 grams
% Carbonate in Original: 54.1 %

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	0.220	0.519	0.519	0.000	0.000	0.000
-1.75	-1.875	0.172	0.406	0.926	0.079	0.182	0.182
-1.50	-1.625	0.144	0.340	1.266	0.132	0.304	0.486
-1.25	-1.375	0.034	0.080	1.346	0.105	0.242	0.728
-1.00	-1.125	0.236	0.557	1.903	0.225	0.518	1.247
-0.75	-0.875	0.553	1.306	3.209	0.658	1.516	2.763
-0.50	-0.625	2.340	5.525	8.734	2.541	5.855	8.618
-0.25	-0.375	4.700	11.098	19.832	5.098	11.747	20.364
0.00	-0.125	6.856	16.189	36.020	7.448	17.161	37.525
0.25	0.125	7.366	17.393	53.413	7.364	16.968	54.493
0.50	0.375	5.698	13.454	66.867	5.375	12.385	66.878
0.75	0.625	4.224	9.974	76.841	4.904	11.300	78.177
1.00	0.875	4.664	11.013	87.854	4.078	9.396	87.574
1.25	1.125	1.721	4.064	91.918	1.828	4.212	91.786
1.50	1.375	1.212	2.862	94.779	1.340	3.088	94.873
1.75	1.625	0.891	2.104	96.883	0.737	1.698	96.571
2.00	1.875	0.573	1.353	98.236	0.639	1.472	98.044
2.25	2.125	0.389	0.919	99.155	0.406	0.935	98.979
2.50	2.375	0.265	0.626	99.780	0.248	0.571	99.551
2.75	2.625	0.093	0.220	100.000	0.187	0.431	99.982
3.00	2.875	0.000	0.000	100.000	0.000	0.000	99.982
3.25	3.125	0.000	0.000	100.000	0.008	0.018	100.000
3.50	3.375	0.000	0.000	100.000	0.000	0.000	100.000
3.75	3.625	0.000	0.000	100.000	0.000	0.000	100.000
4.00	3.875	0.000	0.000	100.000	0.000	0.000	100.000
5.00	4.500	0.000	0.000	100.000	0.000	0.000	100.000
5.00	4.500	0.000	0.000	100.000	0.000	0.000	100.000





Post-Digestion Grain Size Distribution

Onshore Grab Sample: VO-50-SS

Total Duplicate Digested Mass: 35.203 grams
% Silica in Duplicate: 45.5 %
Total Original Digested Mass: 36.696 grams
% Silica in Original: 45.9 %

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	0.015	0.043	0.043	0.000	0.000	0.000
-0.50	-0.625	0.129	0.366	0.409	0.163	0.444	0.444
-0.25	-0.375	0.956	2.716	3.125	0.818	2.229	2.673
0.00	-0.125	2.854	8.107	11.232	3.156	8.600	11.274
0.25	0.125	4.950	14.061	25.293	5.234	14.263	25.537
0.50	0.375	3.652	10.374	35.667	3.805	10.369	35.906
0.75	0.625	2.770	7.869	43.536	2.644	7.205	43.111
1.00	0.875	2.310	6.562	50.098	2.120	5.777	48.888
1.25	1.125	1.127	3.201	53.299	1.149	3.131	52.019
1.50	1.375	1.242	3.528	56.828	1.382	3.766	55.785
1.75	1.625	1.515	4.304	61.131	1.598	4.355	60.140
2.00	1.875	2.363	6.712	67.844	2.579	7.028	67.168
2.25	2.125	2.904	8.249	76.093	3.315	9.034	76.202
2.50	2.375	3.734	10.607	86.700	3.845	10.478	86.680
2.75	2.625	2.917	8.286	94.986	3.173	8.647	95.326
3.00	2.875	1.253	3.559	98.546	1.308	3.564	98.891
3.25	3.125	0.300	0.852	99.398	0.294	0.801	99.692
3.50	3.375	0.066	0.187	99.585	0.064	0.174	99.866
3.75	3.625	0.019	0.054	99.639	0.024	0.065	99.932
4.00	3.875	0.120	0.341	99.980	0.018	0.049	99.981
5.00	4.500	0.000	0.000	99.980	0.000	0.000	99.981
5.00	4.500	0.007	0.020	100.000	0.007	0.019	100.000

