

Quality Control Statistical Summary

Onshore Grab Sample: IR-21-BB

Sample Taken By: D. Phelps
 Sample Taken On: 10/30/08
 County: Indian River

Latitude: 27° 36' 19.9"
 Longitude: 80° 20' 09.0"
 Datum: WGS 84

Statistical Results: Pre-CaCO3				
	Duplicate		Original	
Mean:	1.3263	phi (0.3988 mm)	1.3059	phi (0.4045 mm)
Standard Dev:	0.6750	phi-units (0.6263 mm)	0.7361	phi-units (0.6004 mm)
Skewness:	-1.6440	dimensionless	-1.6551	dimensionless
Kurtosis:	9.1046	dimensionless	8.0369	dimensionless
5th Moment:	-36.3539	dimensionless	-28.4221	dimensionless
6th Moment:	191.1962	dimensionless	130.1813	dimensionless
RARD*:	0.5089	dimensionless	0.5637	dimensionless
Median:	1.2985	phi (0.4066 mm)	1.3063	phi (0.4044 mm)

Statistical Results: CaCO3				
	Duplicate		Original	
Mean:	1.0957	phi (0.4679 mm)	1.0424	phi (0.4855 mm)
Standard Dev:	0.8317	phi-units (0.5619 mm)	0.9063	phi-units (0.5336 mm)
Skewness:	-1.3484	dimensionless	-1.2701	dimensionless
Kurtosis:	6.0621	dimensionless	4.9707	dimensionless
5th Moment:	-19.1287	dimensionless	-13.6297	dimensionless
6th Moment:	77.2206	dimensionless	47.0097	dimensionless
RARD*:	0.7591	dimensionless	0.8694	dimensionless
Median:	1.1363	phi (0.4549 mm)	1.1267	phi (0.458 mm)

Statistical Results: Post-CaCO3				
	Duplicate		Original	
Mean:	1.5335	phi (0.3454 mm)	1.5535	phi (0.3407 mm)
Standard Dev:	0.4295	phi-units (0.7425 mm)	0.4385	phi-units (0.7379 mm)
Skewness:	0.7269	dimensionless	0.9856	dimensionless
Kurtosis:	7.5032	dimensionless	8.0242	dimensionless
5th Moment:	21.2141	dimensionless	28.1359	dimensionless
6th Moment:	165.3919	dimensionless	189.6000	dimensionless
RARD*:	0.2801	dimensionless	0.2823	dimensionless
Median:	1.3865	phi (0.3825 mm)	1.4002	phi (0.3789 mm)

Additional Data	
Total Fines	
Original:	0.43 %
Duplicate:	0.34 %
Total Carbonates	
Original:	47.78 %
Duplicate:	46.72 %

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)

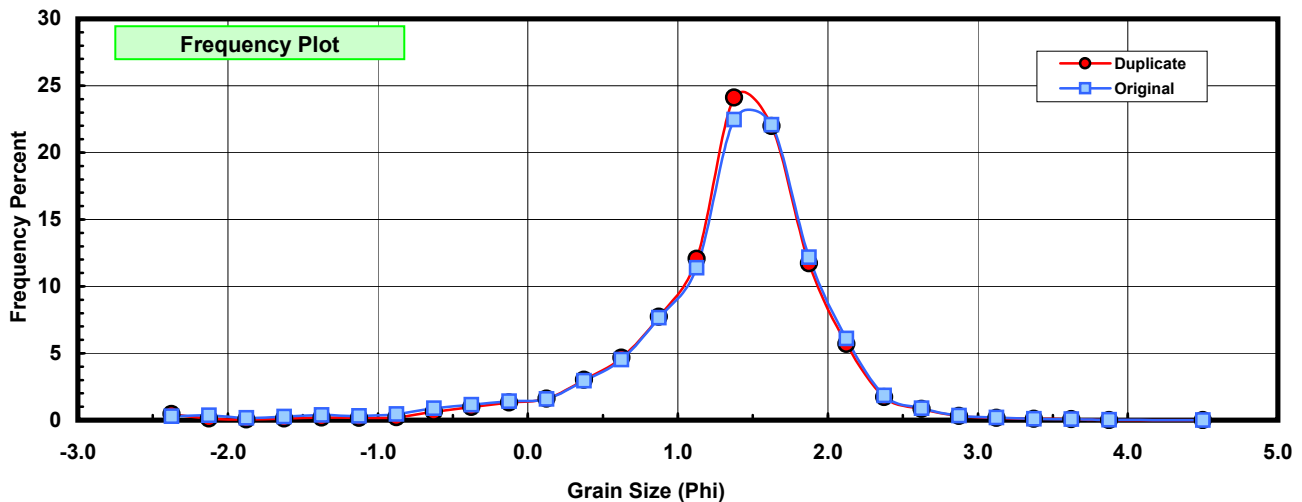
Pre-Digestion Grain Size Distribution

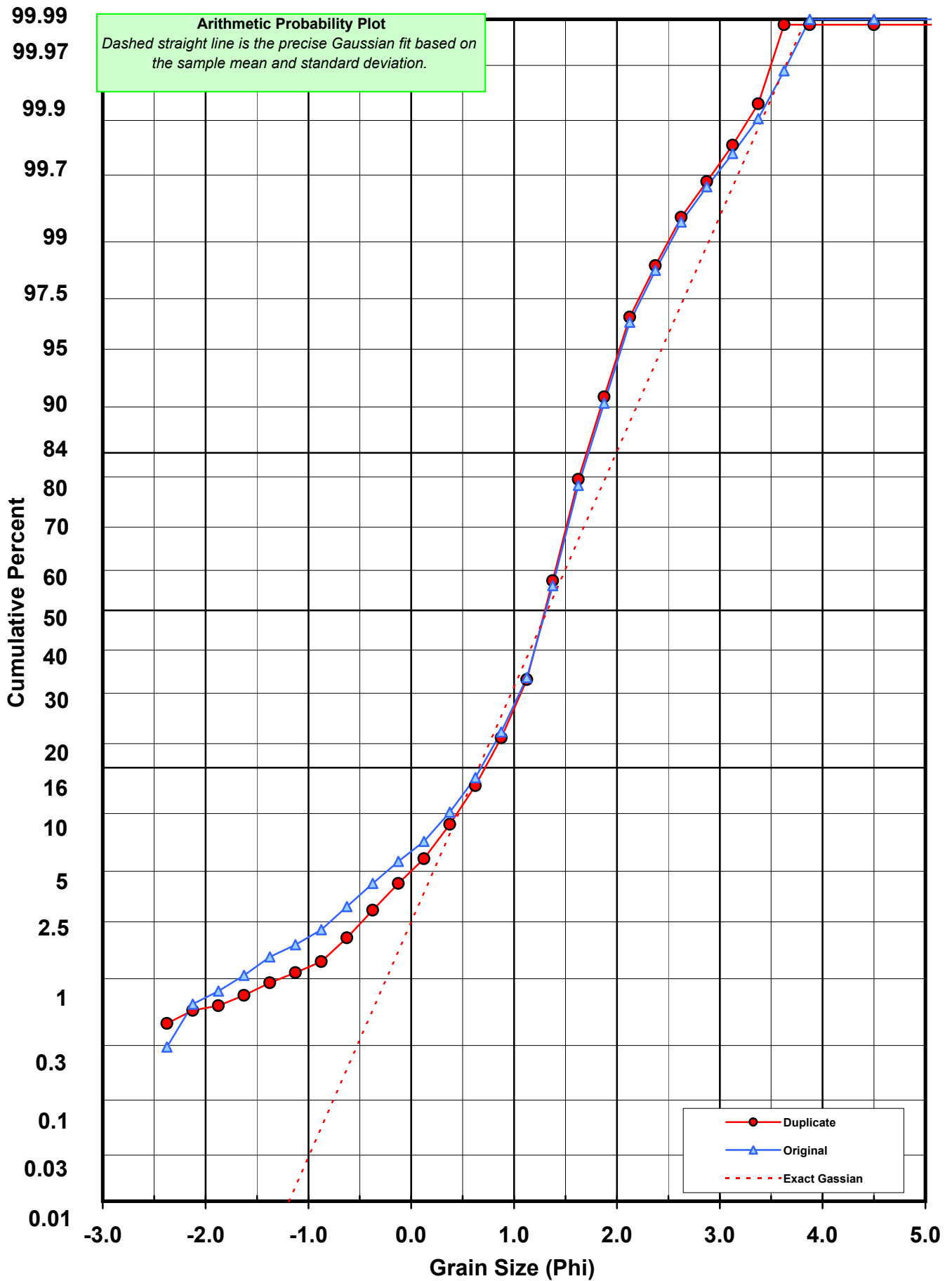
Onshore Grab Sample: IR-21-BB

Total Duplicate Sample Mass: 57.627 grams

Total Original Sample Mass: 57.165 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	0.262	0.455	0.455	0.165	0.289	0.289
-2.00	-2.125	0.072	0.125	0.580	0.207	0.362	0.651
-1.75	-1.875	0.031	0.054	0.633	0.097	0.170	0.820
-1.50	-1.625	0.073	0.127	0.760	0.144	0.252	1.072
-1.25	-1.375	0.107	0.186	0.946	0.217	0.380	1.452
-1.00	-1.125	0.101	0.175	1.121	0.174	0.304	1.756
-0.75	-0.875	0.128	0.222	1.343	0.255	0.446	2.202
-0.50	-0.625	0.352	0.611	1.954	0.505	0.883	3.086
-0.25	-0.375	0.564	0.979	2.933	0.657	1.149	4.235
0.00	-0.125	0.752	1.305	4.238	0.802	1.403	5.638
0.25	0.125	0.918	1.593	5.831	0.903	1.580	7.218
0.50	0.375	1.734	3.009	8.840	1.679	2.937	10.155
0.75	0.625	2.686	4.661	13.501	2.580	4.513	14.668
1.00	0.875	4.453	7.727	21.228	4.372	7.648	22.316
1.25	1.125	6.943	12.048	33.276	6.515	11.397	33.713
1.50	1.375	13.890	24.103	57.379	12.839	22.460	56.172
1.75	1.625	12.663	21.974	79.353	12.628	22.090	78.263
2.00	1.875	6.759	11.729	91.082	6.957	12.170	90.433
2.25	2.125	3.281	5.694	96.776	3.490	6.105	96.538
2.50	2.375	0.996	1.728	98.504	1.057	1.849	98.387
2.75	2.625	0.481	0.835	99.339	0.511	0.894	99.281
3.00	2.875	0.186	0.323	99.662	0.197	0.345	99.626
3.25	3.125	0.100	0.174	99.835	0.103	0.180	99.806
3.50	3.375	0.054	0.094	99.929	0.056	0.098	99.904
3.75	3.625	0.037	0.064	99.993	0.035	0.061	99.965
4.00	3.875	0.000	0.000	99.993	0.020	0.035	100.000
5.00	4.500	0.004	0.007	100.000	0.000	0.000	100.000



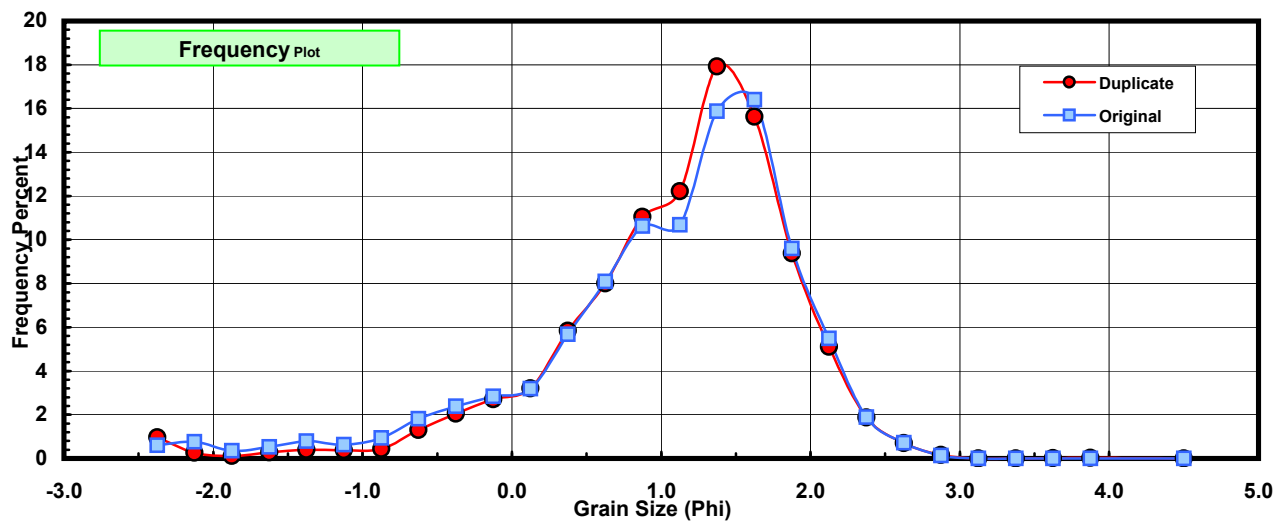


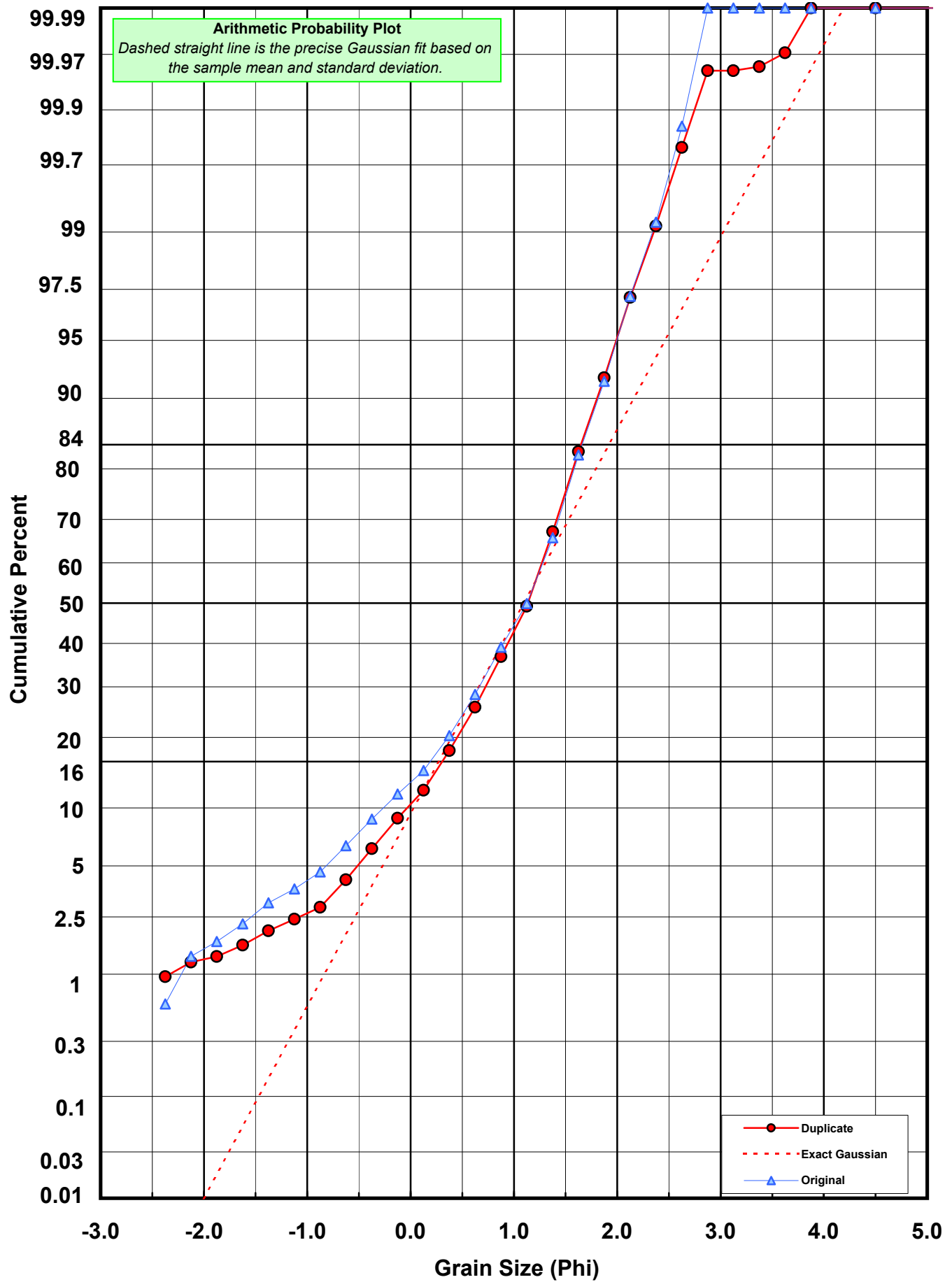
Carbonate Grain Size Distribution

Onshore Grab Sample: IR-21-BB

Total Duplicate Carbonate Mass: 26.963 grams
% Carbonate in Duplicate: 46.7 %
Total Original Carbonate Mass: 27.377 grams
% Carbonate in Original: 47.8 %

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	0.262	0.972	0.972	0.165	0.603	0.603
-2.00	-2.125	0.072	0.267	1.239	0.207	0.756	1.359
-1.75	-1.875	0.031	0.115	1.354	0.097	0.354	1.713
-1.50	-1.625	0.073	0.271	1.624	0.144	0.526	2.239
-1.25	-1.375	0.107	0.397	2.021	0.217	0.793	3.032
-1.00	-1.125	0.101	0.375	2.396	0.174	0.636	3.667
-0.75	-0.875	0.120	0.445	2.841	0.255	0.931	4.599
-0.50	-0.625	0.352	1.305	4.146	0.496	1.812	6.410
-0.25	-0.375	0.551	2.044	6.190	0.652	2.382	8.792
0.00	-0.125	0.730	2.707	8.897	0.778	2.842	11.634
0.25	0.125	0.864	3.204	12.102	0.872	3.185	14.819
0.50	0.375	1.574	5.838	17.939	1.555	5.680	20.499
0.75	0.625	2.158	8.004	25.943	2.215	8.091	28.590
1.00	0.875	2.977	11.041	36.984	2.909	10.626	39.215
1.25	1.125	3.292	12.209	49.193	2.923	10.677	49.892
1.50	1.375	4.831	17.917	67.110	4.345	15.871	65.763
1.75	1.625	4.213	15.625	82.736	4.492	16.408	82.171
2.00	1.875	2.529	9.380	92.115	2.627	9.596	91.767
2.25	2.125	1.376	5.103	97.218	1.504	5.494	97.260
2.50	2.375	0.503	1.866	99.084	0.515	1.881	99.142
2.75	2.625	0.190	0.705	99.789	0.197	0.720	99.861
3.00	2.875	0.045	0.167	99.955	0.038	0.139	100.000
3.25	3.125	0.000	0.000	99.955	0.000	0.000	100.000
3.50	3.375	0.001	0.004	99.959	0.000	0.000	100.000
3.75	3.625	0.003	0.011	99.970	0.000	0.000	100.000
4.00	3.875	0.008	0.030	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: IR-21-BB

Total Duplicate Digested Mass: 30.718 grams
% Silica in Duplicate: 53.3 %
Total Original Digested Mass: 29.854 grams
% Silica in Original: 52.2 %

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	0.008	0.026	0.026	0.000	0.000	0.000
-0.50	-0.625	0.000	0.000	0.026	0.009	0.030	0.030
-0.25	-0.375	0.013	0.042	0.068	0.005	0.017	0.047
0.00	-0.125	0.022	0.072	0.140	0.024	0.080	0.127
0.25	0.125	0.054	0.176	0.316	0.031	0.104	0.231
0.50	0.375	0.160	0.521	0.837	0.124	0.415	0.646
0.75	0.625	0.528	1.719	2.556	0.365	1.223	1.869
1.00	0.875	1.476	4.805	7.361	1.463	4.901	6.770
1.25	1.125	3.651	11.886	19.246	3.592	12.032	18.802
1.50	1.375	9.059	29.491	48.737	8.494	28.452	47.253
1.75	1.625	8.450	27.508	76.245	8.136	27.253	74.506
2.00	1.875	4.230	13.770	90.016	4.330	14.504	89.010
2.25	2.125	1.905	6.202	96.217	1.986	6.652	95.662
2.50	2.375	0.493	1.605	97.822	0.542	1.816	97.478
2.75	2.625	0.291	0.947	98.769	0.314	1.052	98.530
3.00	2.875	0.141	0.459	99.228	0.159	0.533	99.062
3.25	3.125	0.105	0.342	99.570	0.109	0.365	99.427
3.50	3.375	0.053	0.173	99.743	0.060	0.201	99.628
3.75	3.625	0.034	0.111	99.854	0.052	0.174	99.802
4.00	3.875	0.023	0.075	99.928	0.024	0.080	99.883
5.00	4.500	0.022	0.072	100.000	0.035	0.117	100.000

