

Quality Control Statistical Summary

Onshore Grab Sample: IR-11-BB

Sample Taken By: D. Phelps
 Sample Taken On: 10/29/08
 County: Indian River

Latitude: 27° 44' 07.0"
 Longitude: 80° 22' 54.6"
 Datum: WGS 84

Statistical Results: Pre-CaCO3				
	Duplicate		Original	
Mean:	1.6069	phi (0.3283 mm)	1.6820	phi (0.3116 mm)
Standard Dev:	1.5113	phi-units (0.3508 mm)	1.2447	phi-units (0.422 mm)
Skewness:	-1.0469	dimensionless	-0.7384	dimensionless
Kurtosis:	3.7962	dimensionless	3.9630	dimensionless
5th Moment:	-7.6864	dimensionless	-7.4059	dimensionless
6th Moment:	21.2258	dimensionless	25.4775	dimensionless
RARD*:	0.9405	dimensionless	0.7400	dimensionless
Median:	1.6486	phi (0.3189 mm)	1.5636	phi (0.3383 mm)

Statistical Results: CaCO3				
	Duplicate		Original	
Mean:	0.4330	phi (0.7407 mm)	0.8329	phi (0.5614 mm)
Standard Dev:	2.0773	phi-units (0.237 mm)	1.6474	phi-units (0.3192 mm)
Skewness:	0.0222	dimensionless	-0.1731	dimensionless
Kurtosis:	1.6188	dimensionless	2.0989	dimensionless
5th Moment:	0.2493	dimensionless	-0.5529	dimensionless
6th Moment:	3.1027	dimensionless	5.6297	dimensionless
RARD*:	4.7974	dimensionless	1.9780	dimensionless
Median:	0.4004	phi (0.7577 mm)	0.9982	phi (0.5006 mm)

Statistical Results: Post-CaCO3				
	Duplicate		Original	
Mean:	2.0956	phi (0.234 mm)	2.0010	phi (0.2498 mm)
Standard Dev:	0.9309	phi-units (0.5245 mm)	0.8897	phi-units (0.5397 mm)
Skewness:	-0.0701	dimensionless	0.3235	dimensionless
Kurtosis:	2.7664	dimensionless	2.4025	dimensionless
5th Moment:	-2.8659	dimensionless	0.9048	dimensionless
6th Moment:	16.9573	dimensionless	8.2785	dimensionless
RARD*:	0.4442	dimensionless	0.4446	dimensionless
Median:	1.8260	phi (0.2821 mm)	1.6979	phi (0.3082 mm)

Additional Data	
Total Fines	
Original:	1.36 %
Duplicate:	2.23 %
Total Carbonates	
Original:	27.31 %
Duplicate:	27.64 %

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)

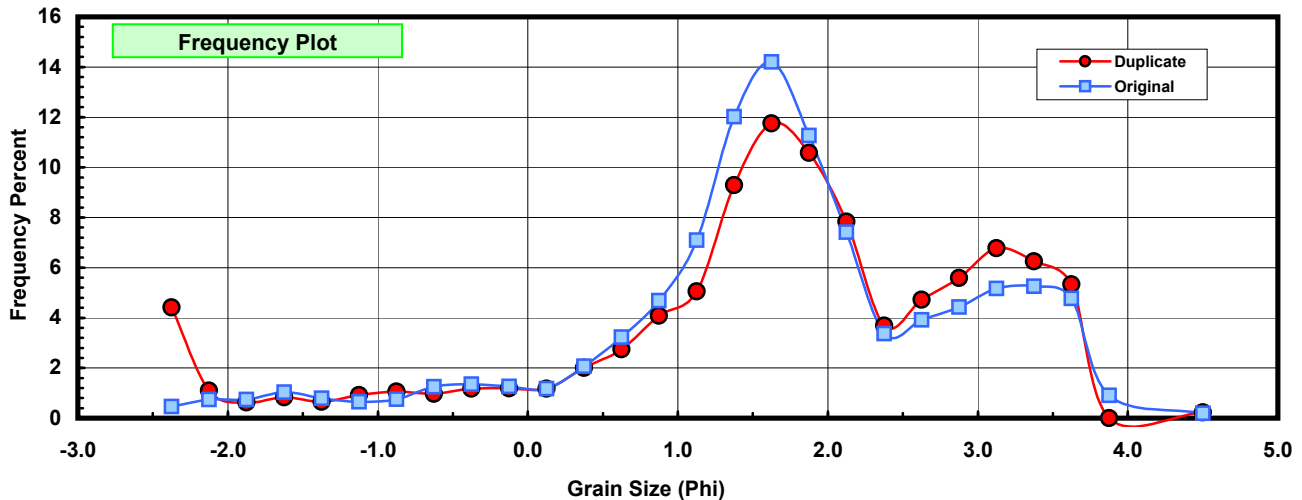
Pre-Digestion Grain Size Distribution

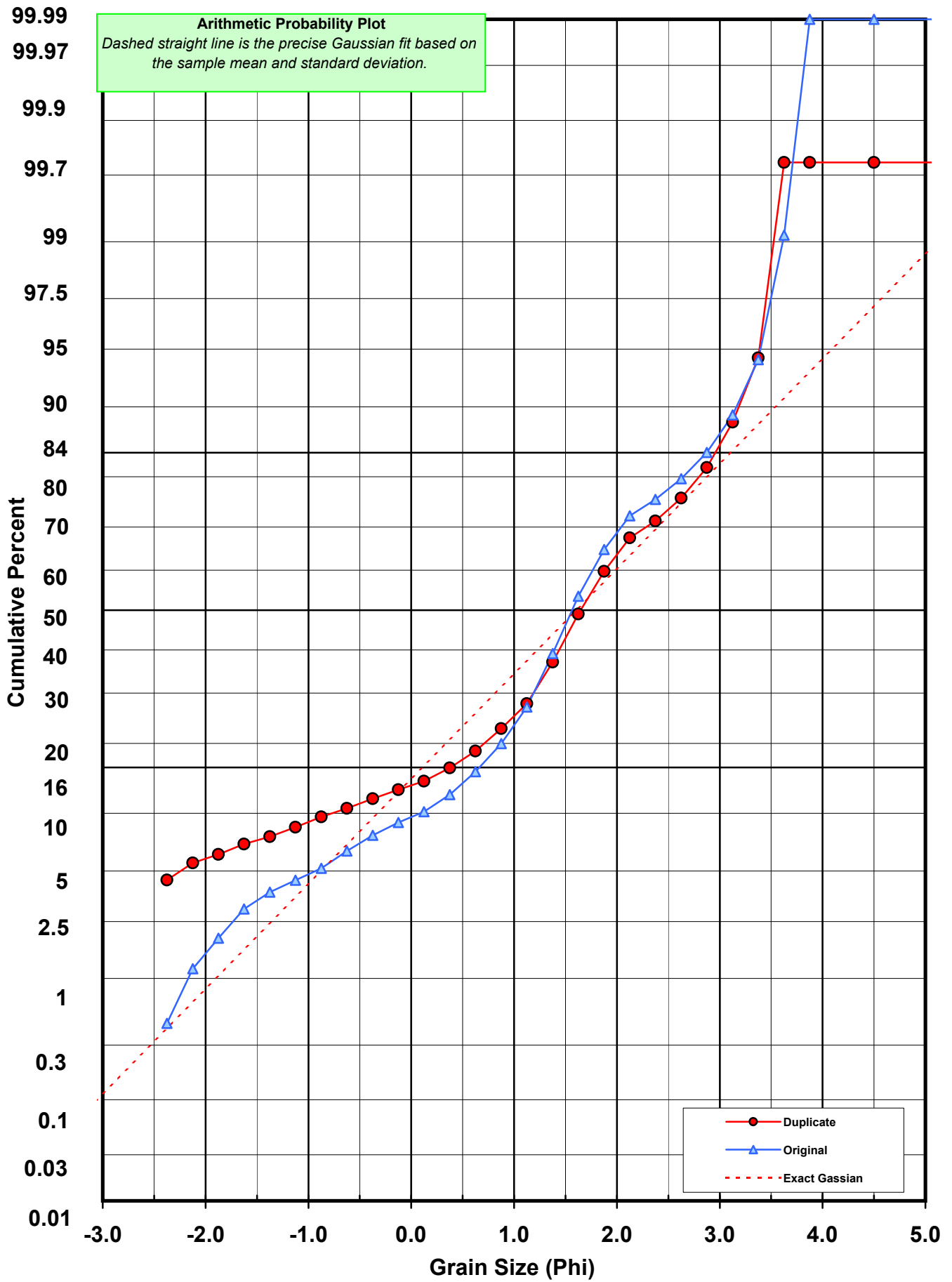
Onshore Grab Sample: IR-11-BB

Total Duplicate Sample Mass: 46.763 grams

Total Original Sample Mass: 51.235 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	2.063	4.412	4.412	0.232	0.454	0.454
-2.00	-2.125	0.516	1.103	5.515	0.378	0.739	1.193
-1.75	-1.875	0.290	0.620	6.135	0.380	0.743	1.936
-1.50	-1.625	0.389	0.832	6.967	0.528	1.033	2.969
-1.25	-1.375	0.306	0.654	7.621	0.402	0.786	3.755
-1.00	-1.125	0.428	0.915	8.537	0.330	0.645	4.400
-0.75	-0.875	0.493	1.054	9.591	0.383	0.749	5.149
-0.50	-0.625	0.451	0.964	10.555	0.640	1.252	6.401
-0.25	-0.375	0.551	1.178	11.734	0.690	1.349	7.750
0.00	-0.125	0.552	1.180	12.914	0.647	1.265	9.015
0.25	0.125	0.549	1.174	14.088	0.598	1.169	10.185
0.50	0.375	0.938	2.006	16.094	1.059	2.071	12.256
0.75	0.625	1.282	2.741	18.835	1.649	3.225	15.481
1.00	0.875	1.908	4.080	22.916	2.395	4.684	20.164
1.25	1.125	2.362	5.051	27.967	3.628	7.095	27.259
1.50	1.375	4.342	9.285	37.252	6.149	12.025	39.284
1.75	1.625	5.494	11.749	49.000	7.264	14.206	53.490
2.00	1.875	4.947	10.579	59.579	5.763	11.270	64.760
2.25	2.125	3.664	7.835	67.414	3.788	7.408	72.168
2.50	2.375	1.723	3.685	71.099	1.722	3.368	75.535
2.75	2.625	2.206	4.717	75.816	2.002	3.915	79.450
3.00	2.875	2.612	5.586	81.402	2.267	4.433	83.884
3.25	3.125	3.168	6.775	88.177	2.643	5.169	89.053
3.50	3.375	2.926	6.257	94.434	2.691	5.263	94.315
3.75	3.625	2.494	5.333	99.767	2.443	4.778	99.093
4.00	3.875	0.000	0.000	99.767	0.464	0.907	100.000
5.00	4.500	0.109	0.233	100.000	0.100	0.196	100.196



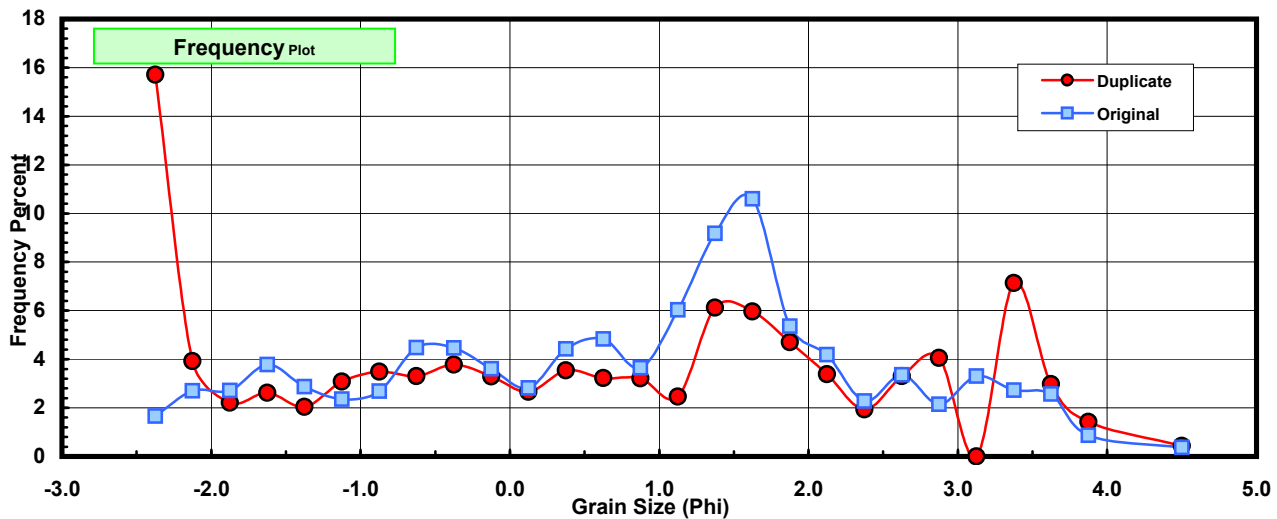


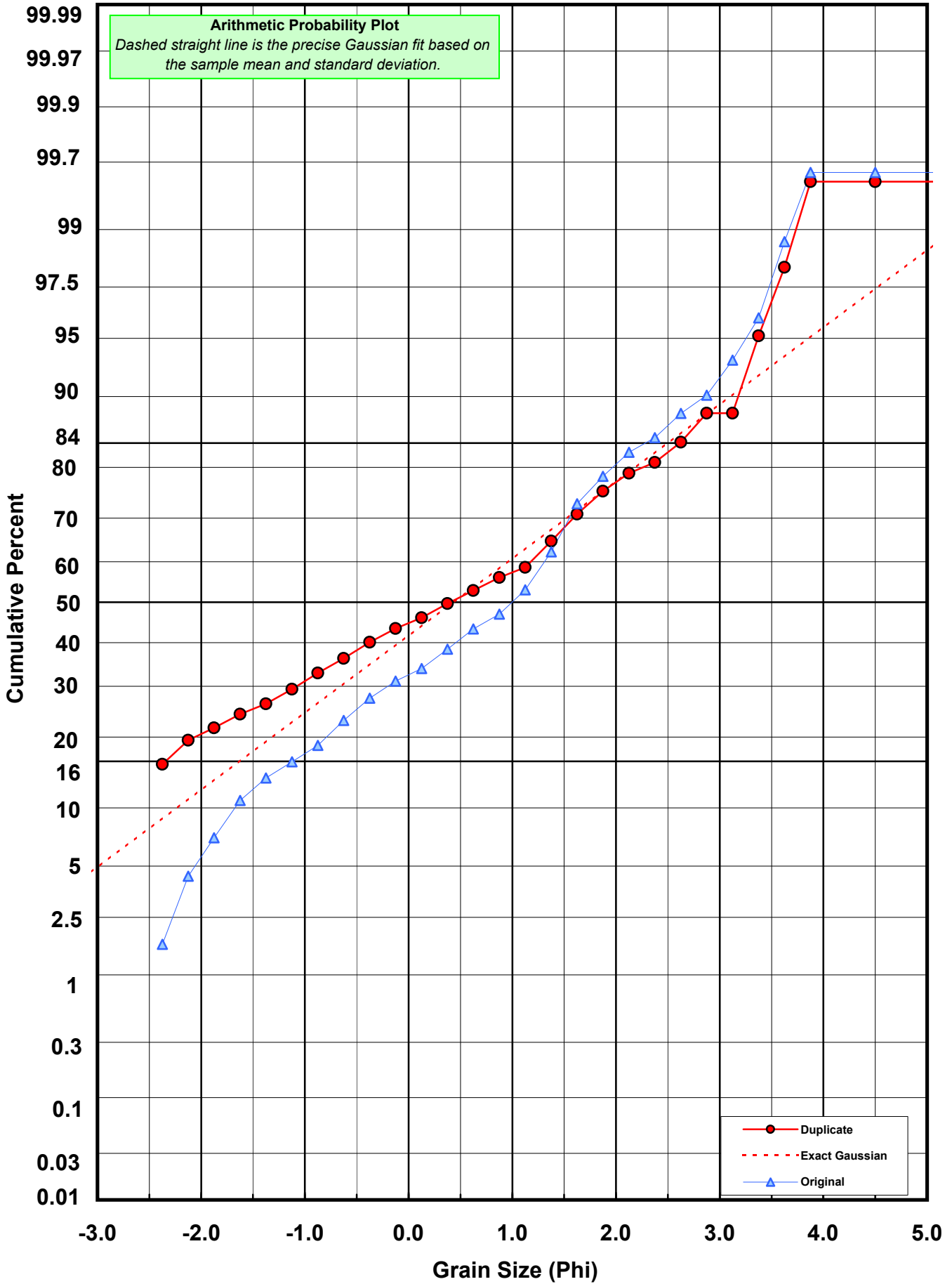
Carbonate Grain Size Distribution

Onshore Grab Sample: IR-11-BB

Total Duplicate Carbonate Mass: 13.134 grams
% Carbonate in Duplicate: 27.6 %
Total Original Carbonate Mass: 13.992 grams
% Carbonate in Original: 27.3 %

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	2.063	15.707	15.707	0.232	1.658	1.658
-2.00	-2.125	0.516	3.929	19.636	0.378	2.702	4.360
-1.75	-1.875	0.290	2.208	21.844	0.380	2.716	7.075
-1.50	-1.625	0.345	2.627	24.471	0.528	3.774	10.849
-1.25	-1.375	0.268	2.041	26.511	0.402	2.873	13.722
-1.00	-1.125	0.405	3.084	29.595	0.330	2.358	16.081
-0.75	-0.875	0.459	3.495	33.090	0.375	2.680	18.761
-0.50	-0.625	0.434	3.304	36.394	0.627	4.481	23.242
-0.25	-0.375	0.497	3.784	40.178	0.624	4.460	27.702
0.00	-0.125	0.433	3.297	43.475	0.504	3.602	31.304
0.25	0.125	0.349	2.657	46.132	0.394	2.816	34.119
0.50	0.375	0.465	3.540	49.673	0.619	4.424	38.543
0.75	0.625	0.424	3.228	52.901	0.676	4.831	43.375
1.00	0.875	0.422	3.213	56.114	0.511	3.652	47.027
1.25	1.125	0.323	2.459	58.573	0.844	6.032	53.059
1.50	1.375	0.805	6.129	64.702	1.284	9.177	62.236
1.75	1.625	0.784	5.969	70.672	1.484	10.606	72.842
2.00	1.875	0.617	4.698	75.369	0.749	5.353	78.195
2.25	2.125	0.444	3.381	78.750	0.585	4.181	82.376
2.50	2.375	0.254	1.934	80.684	0.318	2.273	84.648
2.75	2.625	0.434	3.304	83.988	0.470	3.359	88.007
3.00	2.875	0.533	4.058	88.046	0.301	2.151	90.159
3.25	3.125	0.000	0.000	88.046	0.462	3.302	93.461
3.50	3.375	0.937	7.134	95.180	0.382	2.730	96.191
3.75	3.625	0.390	2.969	98.150	0.360	2.573	98.764
4.00	3.875	0.186	1.416	99.566	0.122	0.872	99.636
5.00	4.500	0.057	0.434	100.000	0.051	0.364	100.000





Post-Digestion Grain Size Distribution

Onshore Grab Sample: IR-11-BB

Total Duplicate Digested Mass: 34.225 grams
% Silica in Duplicate: 72.4 %
Total Original Digested Mass: 37.243 grams
% Silica in Original: 72.7 %

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	0.044	0.129	0.129	0.000	0.000	0.000
-1.25	-1.375	0.038	0.111	0.240	0.000	0.000	0.000
-1.00	-1.125	0.023	0.067	0.307	0.000	0.000	0.000
-0.75	-0.875	0.034	0.099	0.406	0.008	0.021	0.021
-0.50	-0.625	0.017	0.050	0.456	0.013	0.035	0.056
-0.25	-0.375	0.054	0.158	0.614	0.066	0.177	0.234
0.00	-0.125	0.119	0.348	0.961	0.143	0.384	0.618
0.25	0.125	0.200	0.584	1.546	0.204	0.548	1.165
0.50	0.375	0.473	1.382	2.928	0.440	1.181	2.347
0.75	0.625	0.858	2.507	5.435	0.973	2.613	4.959
1.00	0.875	1.486	4.342	9.776	1.884	5.059	10.018
1.25	1.125	2.039	5.958	15.734	2.784	7.475	17.493
1.50	1.375	3.537	10.335	26.069	4.865	13.063	30.556
1.75	1.625	4.710	13.762	39.831	5.780	15.520	46.076
2.00	1.875	4.330	12.652	52.482	5.014	13.463	59.539
2.25	2.125	3.220	9.408	61.890	3.203	8.600	68.139
2.50	2.375	1.469	4.292	66.183	1.404	3.770	71.909
2.75	2.625	1.772	5.178	71.360	1.532	4.114	76.022
3.00	2.875	2.079	6.075	77.435	1.966	5.279	81.301
3.25	3.125	3.227	9.429	86.863	2.181	5.856	87.157
3.50	3.375	1.989	5.812	92.675	2.309	6.200	93.357
3.75	3.625	2.104	6.148	98.822	2.083	5.593	98.950
4.00	3.875	0.351	1.026	99.848	0.342	0.918	99.868
5.00	4.500	0.052	0.152	100.000	0.049	0.132	100.000

