

# Quality Control Statistical Summary

Onshore Grab Sample: PB-41-BB

Sample Taken By: D. Phelps

Latitude: 26° 23' 21.7"

Sample Taken On: 01/08/09

Longitude: 80° 03' 59.0"

County: Palm Beach

Datum: WGS 84

Statistical Results: Pre-CaCO3				
	Duplicate		Original	
Mean:	1.4057	phi (0.3774 mm)	1.4032	phi (0.3781 mm)
Standard Dev:	0.4580	phi-units (0.728 mm)	0.4692	phi-units (0.7224 mm)
Skewness:	-0.3196	dimensionless	-0.2206	dimensionless
Kurtosis:	3.6946	dimensionless	3.0972	dimensionless
5th Moment:	-4.6175	dimensionless	-2.5207	dimensionless
6th Moment:	32.6400	dimensionless	18.0339	dimensionless
RARD*:	0.3258	dimensionless	0.3343	dimensionless
Median:	1.2937	phi (0.4079 mm)	1.2892	phi (0.4092 mm)

Statistical Results: CaCO3				
	Duplicate		Original	
Mean:	1.3076	phi (0.404 mm)	1.2908	phi (0.4087 mm)
Standard Dev:	0.5038	phi-units (0.7052 mm)	0.5082	phi-units (0.7031 mm)
Skewness:	-0.2541	dimensionless	-0.0545	dimensionless
Kurtosis:	3.4025	dimensionless	2.9489	dimensionless
5th Moment:	-3.9731	dimensionless	-1.1654	dimensionless
6th Moment:	23.1603	dimensionless	14.4926	dimensionless
RARD*:	0.3853	dimensionless	0.3937	dimensionless
Median:	1.1950	phi (0.4368 mm)	1.1724	phi (0.4437 mm)

Statistical Results: Post-CaCO3				
	Duplicate		Original	
Mean:	1.5099	phi (0.3511 mm)	1.5249	phi (0.3475 mm)
Standard Dev:	0.3984	phi-units (0.7587 mm)	0.4084	phi-units (0.7535 mm)
Skewness:	0.2437	dimensionless	0.1351	dimensionless
Kurtosis:	4.3618	dimensionless	3.8389	dimensionless
5th Moment:	10.8421	dimensionless	7.1824	dimensionless
6th Moment:	83.0548	dimensionless	55.9528	dimensionless
RARD*:	0.2639	dimensionless	0.2678	dimensionless
Median:	1.3876	phi (0.3822 mm)	1.4120	phi (0.3758 mm)

Additional Data	
<b>Total Fines</b>	
Original:	0.14 %
Duplicate:	0.27 %
<b>Total Carbonates</b>	
Original:	25.63 %
Duplicate:	50.61 %

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)

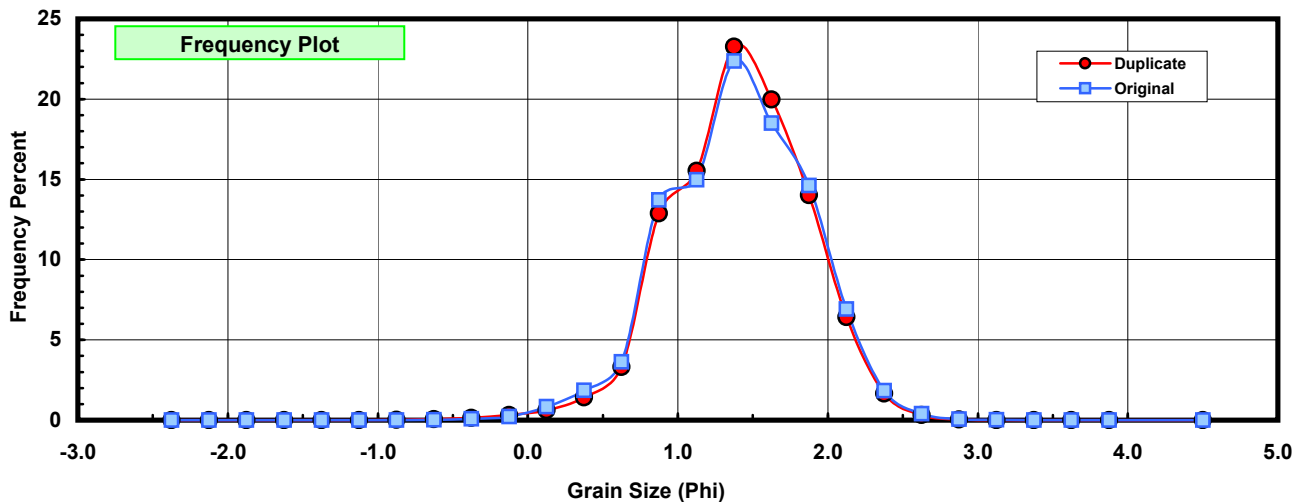
# Pre-Digestion Grain Size Distribution

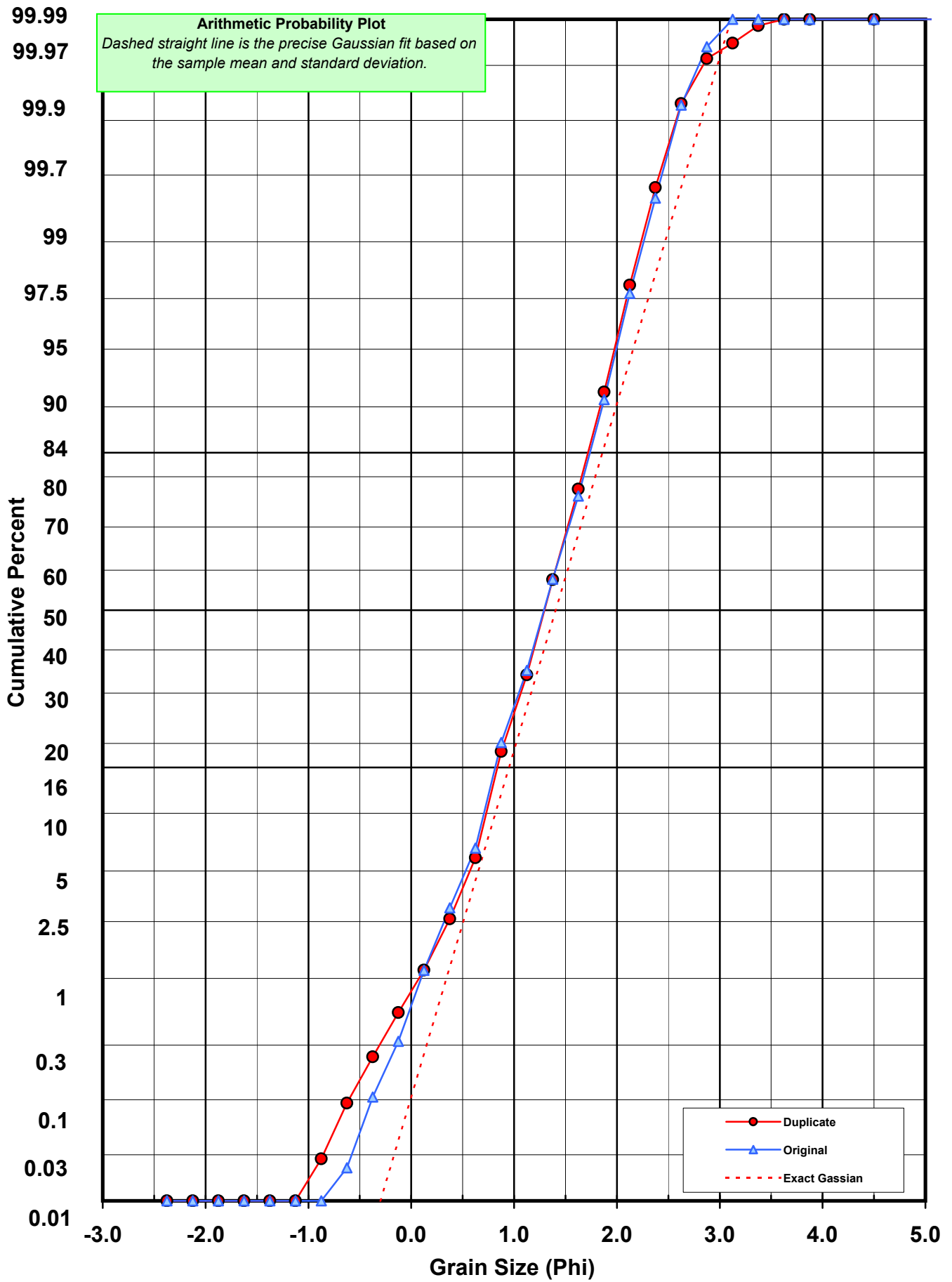
Onshore Grab Sample: PB-41-BB

Total Duplicate Sample Mass: 53.675 grams

Total Original Sample Mass: 58.815 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	0.000	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	0.015	0.028	0.028	0.000	0.000	0.000
-0.50	-0.625	0.035	0.065	0.093	0.013	0.022	0.022
-0.25	-0.375	0.077	0.143	0.237	0.049	0.083	0.105
0.00	-0.125	0.171	0.319	0.555	0.127	0.216	0.321
0.25	0.125	0.327	0.609	1.164	0.493	0.838	1.160
0.50	0.375	0.756	1.408	2.573	1.089	1.852	3.011
0.75	0.625	1.780	3.316	5.889	2.132	3.625	6.636
1.00	0.875	6.909	12.872	18.761	8.068	13.718	20.354
1.25	1.125	8.338	15.534	34.295	8.800	14.962	35.316
1.50	1.375	12.492	23.273	57.569	13.152	22.362	57.677
1.75	1.625	10.717	19.966	77.535	10.880	18.499	76.176
2.00	1.875	7.526	14.021	91.557	8.593	14.610	90.786
2.25	2.125	3.444	6.416	97.973	4.070	6.920	97.706
2.50	2.375	0.884	1.647	99.620	1.075	1.828	99.534
2.75	2.625	0.166	0.309	99.929	0.231	0.393	99.927
3.00	2.875	0.024	0.045	99.974	0.032	0.054	99.981
3.25	3.125	0.005	0.009	99.983	0.011	0.019	100.000
3.50	3.375	0.005	0.009	99.993	0.000	0.000	100.000
3.75	3.625	0.003	0.006	99.998	0.000	0.000	100.000
4.00	3.875	0.000	0.000	99.998	0.000	0.000	100.000
5.00	4.500	0.001	0.002	100.000	0.000	0.000	100.000



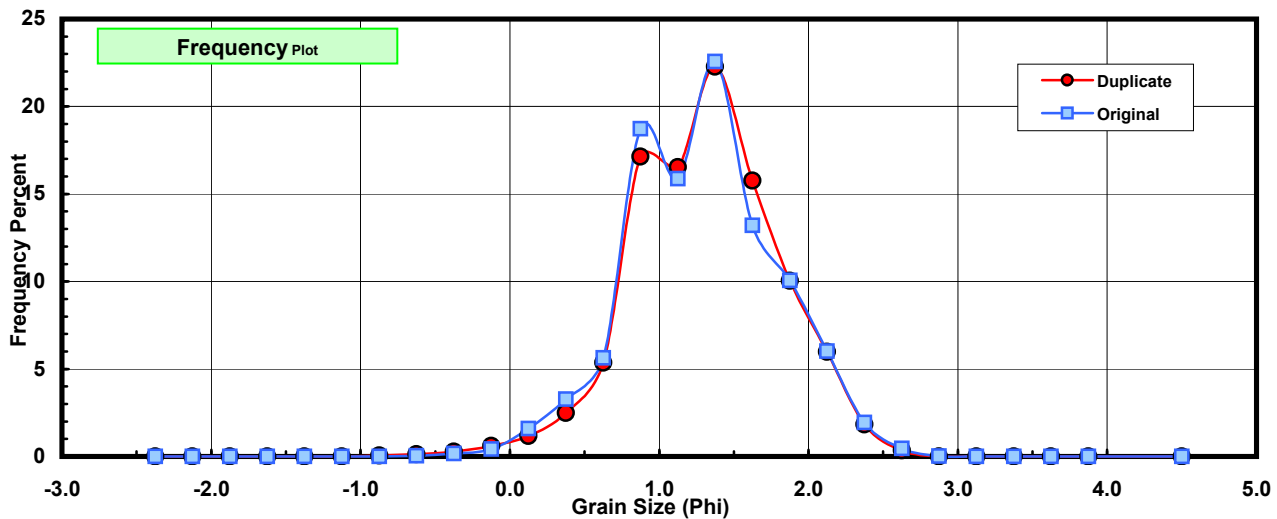


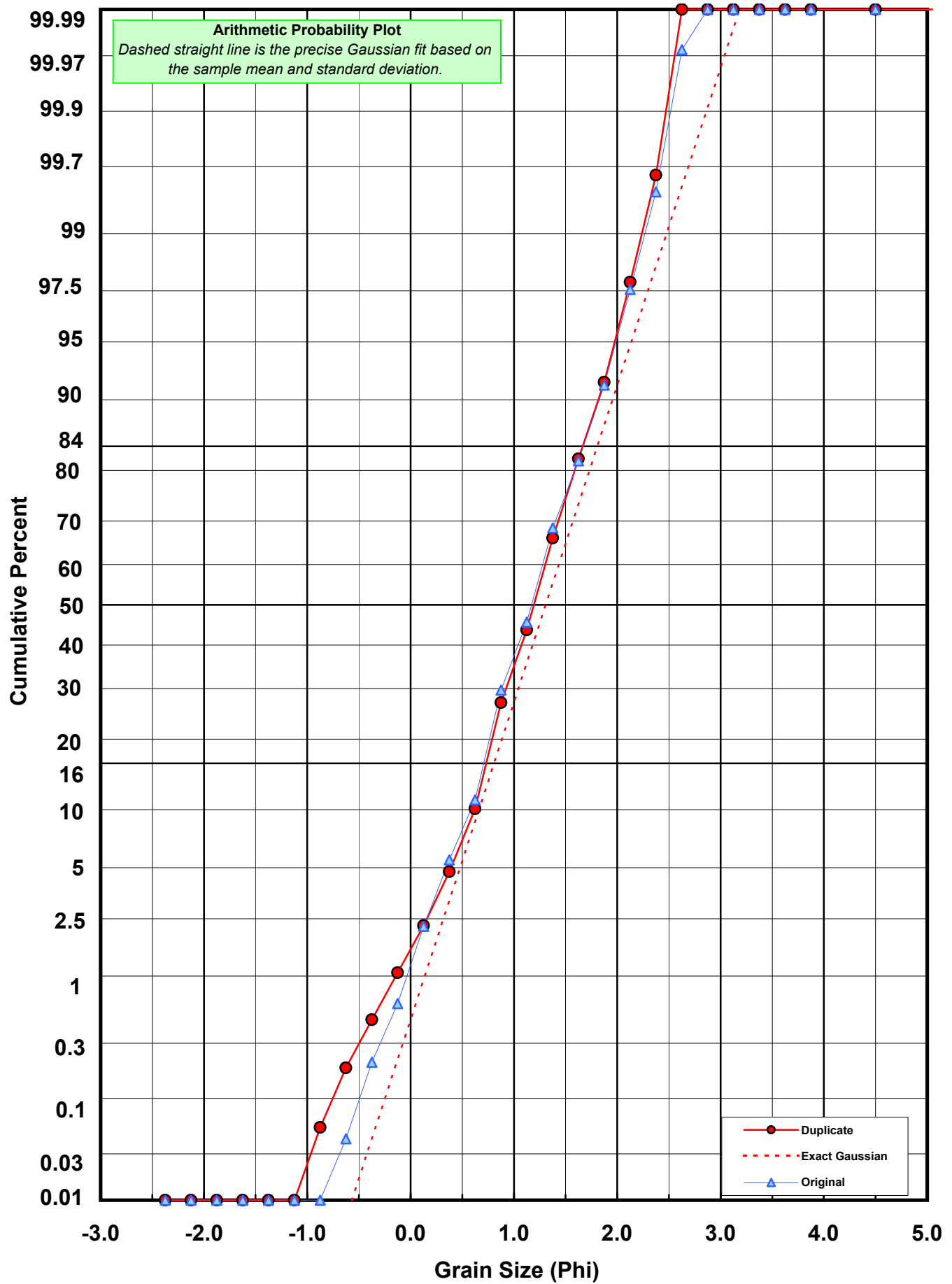
# Carbonate Grain Size Distribution

Onshore Grab Sample: PB-41-BB

**Total Duplicate Carbonate Mass:** 27.210 grams  
**% Carbonate in Duplicate:** 50.6 %  
**Total Original Carbonate Mass:** 30.148 grams  
**% Carbonate in Original:** 25.6 %

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	0.000	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	0.015	0.055	0.055	0.000	0.000	0.000
-0.50	-0.625	0.035	0.129	0.184	0.013	0.043	0.043
-0.25	-0.375	0.077	0.283	0.467	0.049	0.163	0.206
0.00	-0.125	0.165	0.606	1.073	0.127	0.421	0.627
0.25	0.125	0.317	1.165	2.238	0.480	1.592	2.219
0.50	0.375	0.677	2.488	4.726	0.988	3.277	5.496
0.75	0.625	1.459	5.362	10.088	1.699	5.636	11.132
1.00	0.875	4.664	17.141	27.229	5.645	18.724	29.856
1.25	1.125	4.498	16.531	43.760	4.783	15.865	45.721
1.50	1.375	6.062	22.279	66.038	6.802	22.562	68.283
1.75	1.625	4.288	15.759	81.797	3.980	13.202	81.485
2.00	1.875	2.734	10.048	91.845	3.034	10.064	91.548
2.25	2.125	1.625	5.972	97.817	1.815	6.020	97.569
2.50	2.375	0.498	1.830	99.647	0.587	1.947	99.516
2.75	2.625	0.096	0.353	100.000	0.138	0.458	99.973
3.00	2.875	0.000	0.000	100.000	0.008	0.027	100.000
3.25	3.125	0.000	0.000	100.000	0.000	0.000	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





# Post-Digestion Grain Size Distribution

Onshore Grab Sample: PB-41-BB

**Total Duplicate Digested Mass:** 26.508 grams  
**% Silica in Duplicate:** 49.4 %  
**Total Original Digested Mass:** 28.716 grams  
**% Silica in Original:** 48.8 %

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	0.000	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	0.006	0.023	0.023	0.000	0.000	0.000
0.25	0.125	0.010	0.038	0.060	0.013	0.045	0.045
0.50	0.375	0.079	0.298	0.358	0.101	0.352	0.397
0.75	0.625	0.321	1.211	1.569	0.433	1.508	1.905
1.00	0.875	2.245	8.469	10.038	2.423	8.438	10.343
1.25	1.125	3.840	14.486	24.525	4.017	13.989	24.331
1.50	1.375	6.430	24.257	48.781	6.350	22.113	46.444
1.75	1.625	6.429	24.253	73.035	6.900	24.028	70.473
2.00	1.875	4.792	18.078	91.112	5.559	19.359	89.831
2.25	2.125	1.819	6.862	97.974	2.255	7.853	97.684
2.50	2.375	0.386	1.456	99.430	0.488	1.699	99.384
2.75	2.625	0.070	0.264	99.694	0.093	0.324	99.707
3.00	2.875	0.024	0.091	99.785	0.024	0.084	99.791
3.25	3.125	0.019	0.072	99.857	0.020	0.070	99.861
3.50	3.375	0.016	0.060	99.917	0.019	0.066	99.927
3.75	3.625	0.010	0.038	99.955	0.011	0.038	99.965
4.00	3.875	0.006	0.023	99.977	0.006	0.021	99.986
5.00	4.500	0.006	0.023	100.000	0.004	0.014	100.000

