

**Onshore Grab Sample**

**Sample:** PI-14-BB  
**Sample Taken By:** D. Phelps  
**Sample Collected On:** 10/7/09  
**Splits?** N/A

**County:** Pinellas  
**Latitude:** 27° 59' 17.9"  
**Longitude:** 82° 49' 41.4"  
**Datum:** WGS 84  
**Surf. Elev:** N/A  
**Datum:** N/A

**Fine Data Summary**

Total Sample Weight 53.133 grams  
Total Fines in Sample 0.029 grams  
Total Percent Fines 0.05 %

**Dry Sieving Summary**

Total Sample Weight 53.134 grams  
Total Digested Weight 48.568 grams  
Total Carbonate Weight 4.566 grams  
Total Silica % 91.41 %  
Total Carbonate % 8.59 %  
Carbonate/Silica Ratio 0.094

**General Comments:**

None

**Description**

Worked By: M. Ladle

# Pre-Digestion Grain Size Distribution

Onshore Grab Sample

Sample: PI-14-BB

Total Sample Mass: 53.134 grams

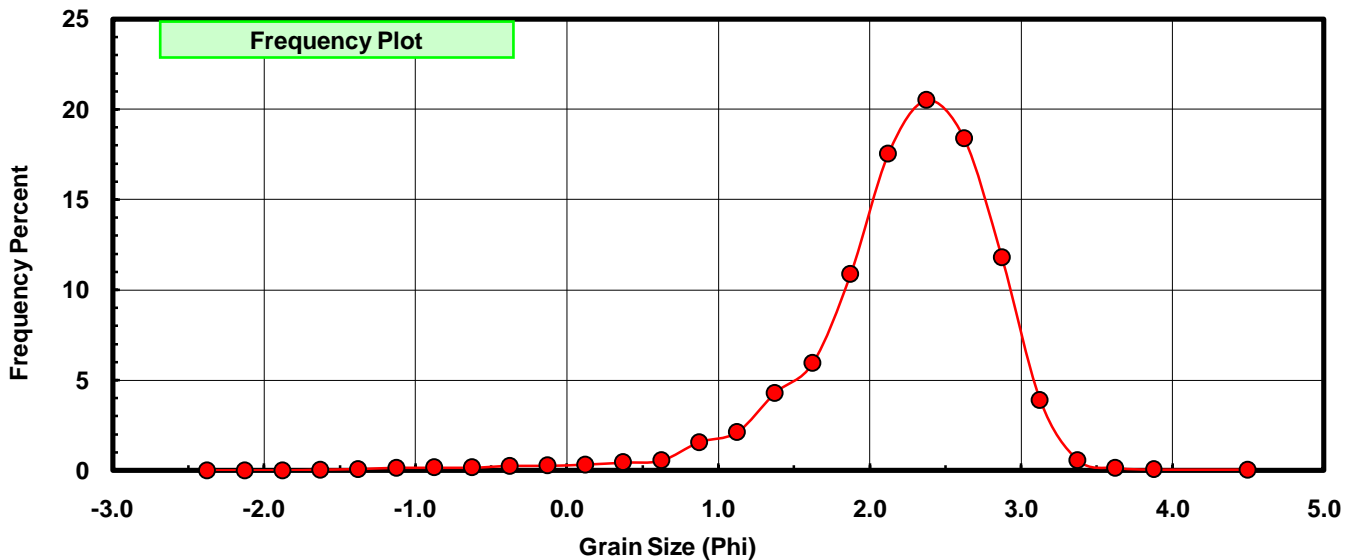
| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|----------------|---------------|---------------------|
| -2.25            | -2.375            | 0.000          | 0.000         | 0.000               |
| -2.00            | -2.125            | 0.000          | 0.000         | 0.000               |
| -1.75            | -1.875            | 0.000          | 0.000         | 0.000               |
| -1.50            | -1.625            | 0.012          | 0.023         | 0.023               |
| -1.25            | -1.375            | 0.036          | 0.068         | 0.090               |
| -1.00            | -1.125            | 0.072          | 0.136         | 0.226               |
| -0.75            | -0.875            | 0.082          | 0.154         | 0.380               |
| -0.50            | -0.625            | 0.083          | 0.156         | 0.536               |
| -0.25            | -0.375            | 0.128          | 0.241         | 0.777               |
| 0.00             | -0.125            | 0.136          | 0.256         | 1.033               |
| 0.25             | 0.125             | 0.169          | 0.318         | 1.351               |
| 0.50             | 0.375             | 0.233          | 0.439         | 1.790               |
| 0.75             | 0.625             | 0.292          | 0.550         | 2.339               |
| 1.00             | 0.875             | 0.822          | 1.547         | 3.886               |
| 1.25             | 1.125             | 1.121          | 2.110         | 5.996               |
| 1.50             | 1.375             | 2.275          | 4.282         | 10.278              |
| 1.75             | 1.625             | 3.162          | 5.951         | 16.229              |
| 2.00             | 1.875             | 5.784          | 10.886        | 27.114              |
| 2.25             | 2.125             | 9.325          | 17.550        | 44.664              |
| 2.50             | 2.375             | 10.896         | 20.507        | 65.171              |
| 2.75             | 2.625             | 9.778          | 18.403        | 83.574              |
| 3.00             | 2.875             | 6.268          | 11.797        | 95.370              |
| 3.25             | 3.125             | 2.064          | 3.885         | 99.255              |
| 3.50             | 3.375             | 0.297          | 0.559         | 99.814              |
| 3.75             | 3.625             | 0.067          | 0.126         | 99.940              |
| 4.00             | 3.875             | 0.021          | 0.040         | 99.979              |
| 5.00             | 4.50              | 0.011          | 0.021         | 100.000             |

| Statistical Results |          |               |             |
|---------------------|----------|---------------|-------------|
| Mean:               | 2.2255   | phi           | (0.2138 mm) |
| Standard Dev:       | 0.6198   | phi-units     | (0.6508 mm) |
| Skewness:           | -1.5164  | dimensionless |             |
| Kurtosis:           | 7.6401   | dimensionless |             |
| 5th Moment:         | -30.2714 | dimensionless |             |
| 6th Moment:         | 149.1568 | dimensionless |             |
| RARD *              | 0.2785   | dimensionless |             |
| Median              | 2.1900   | phi           | (0.2191 mm) |

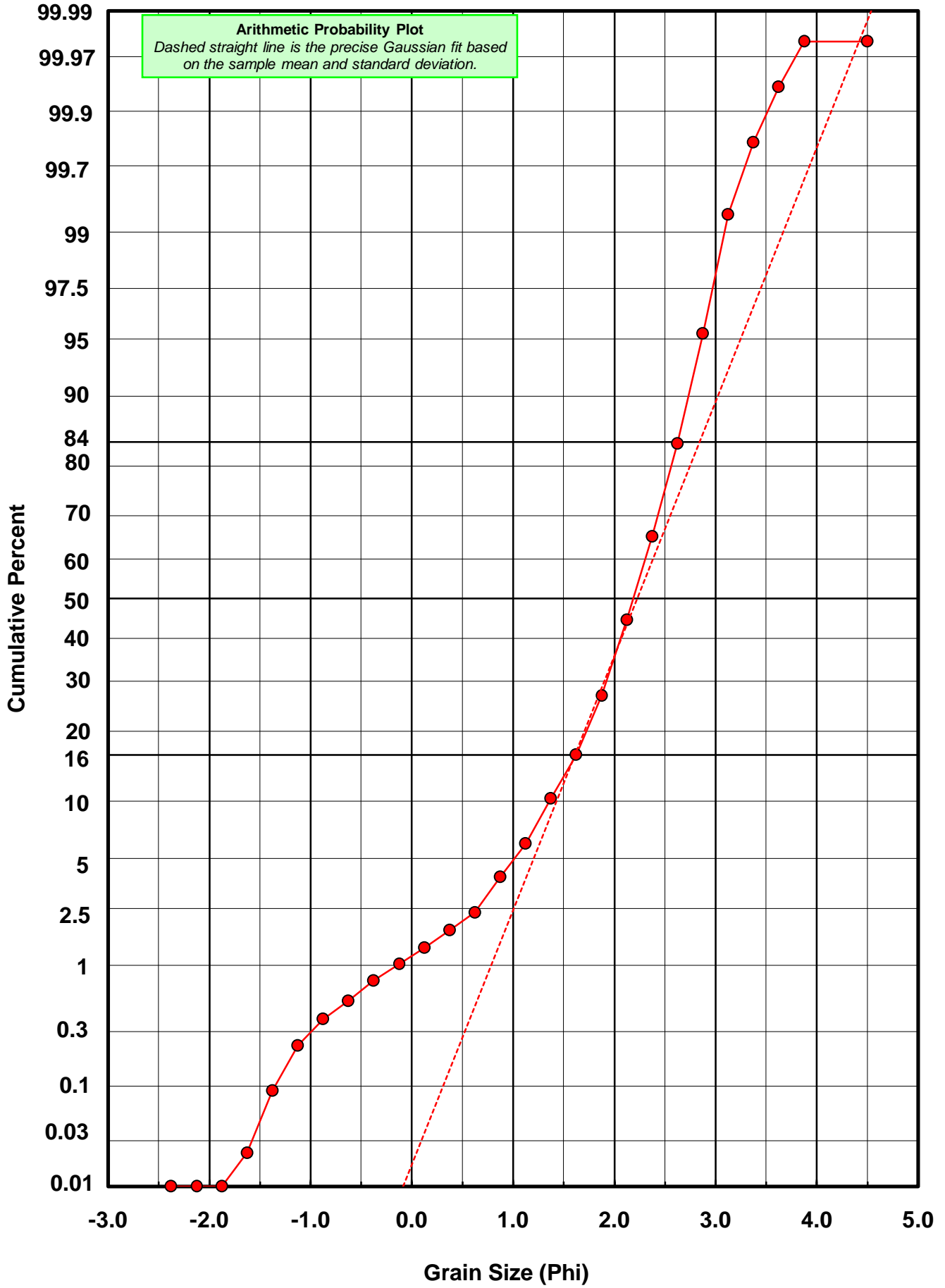
\* RARD = reciprocal absolute relative dispersion (see below)

| 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 |  |
| For Further Explanation, See Basille et al. 2002  |  |
| 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)      |



# PI-14-BB



# Carbonate Grain Size Distribution

Onshore Grab Sample

Sample: PI-14-BB

Total Carbonate Mass: 5.478 grams

% Carbonate: 8.6 %

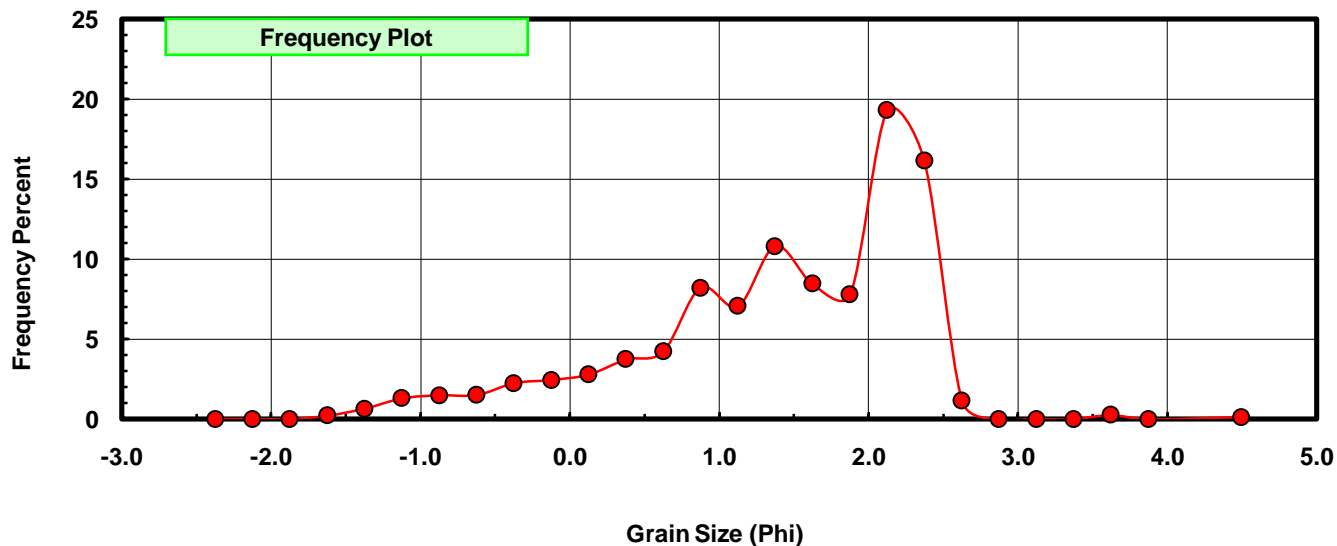
| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|----------------|---------------|---------------------|
| -2.25            | -2.375            | 0.000          | 0.000         | 0.000               |
| -2.00            | -2.125            | 0.000          | 0.000         | 0.000               |
| -1.75            | -1.875            | 0.000          | 0.000         | 0.000               |
| -1.50            | -1.625            | 0.012          | 0.219         | 0.219               |
| -1.25            | -1.375            | 0.036          | 0.657         | 0.876               |
| -1.00            | -1.125            | 0.072          | 1.314         | 2.191               |
| -0.75            | -0.875            | 0.082          | 1.497         | 3.687               |
| -0.50            | -0.625            | 0.083          | 1.515         | 5.203               |
| -0.25            | -0.375            | 0.123          | 2.245         | 7.448               |
| 0.00             | -0.125            | 0.134          | 2.446         | 9.894               |
| 0.25             | 0.125             | 0.153          | 2.793         | 12.687              |
| 0.50             | 0.375             | 0.205          | 3.742         | 16.429              |
| 0.75             | 0.625             | 0.232          | 4.235         | 20.664              |
| 1.00             | 0.875             | 0.450          | 8.215         | 28.879              |
| 1.25             | 1.125             | 0.387          | 7.065         | 35.944              |
| 1.50             | 1.375             | 0.592          | 10.807        | 46.751              |
| 1.75             | 1.625             | 0.464          | 8.470         | 55.221              |
| 2.00             | 1.875             | 0.427          | 7.795         | 63.016              |
| 2.25             | 2.125             | 1.057          | 19.295        | 82.311              |
| 2.50             | 2.375             | 0.884          | 16.137        | 98.448              |
| 2.75             | 2.625             | 0.063          | 1.150         | 99.598              |
| 3.00             | 2.875             | 0.000          | 0.000         | 99.598              |
| 3.25             | 3.125             | 0.000          | 0.000         | 99.598              |
| 3.50             | 3.375             | 0.000          | 0.000         | 99.598              |
| 3.75             | 3.625             | 0.015          | 0.274         | 99.872              |
| 4.00             | 3.875             | 0.000          | 0.000         | 99.872              |
| 5.00             | 4.500             | 0.007          | 0.128         | 100.000             |

| Statistical Results |         |               |             |
|---------------------|---------|---------------|-------------|
| Mean:               | 1.4055  | phi           | (0.3775 mm) |
| Standard Dev:       | 0.9379  | phi-units     | (0.522 mm)  |
| Skewness:           | -0.9102 | dimensionless |             |
| Kurtosis:           | 3.4711  | dimensionless |             |
| 5th Moment:         | -6.2087 | dimensionless |             |
| 6th Moment:         | 20.8749 | dimensionless |             |
| RARD *              | 0.6673  | dimensionless |             |
| Median              | 1.4709  | phi           | (0.3608 mm) |

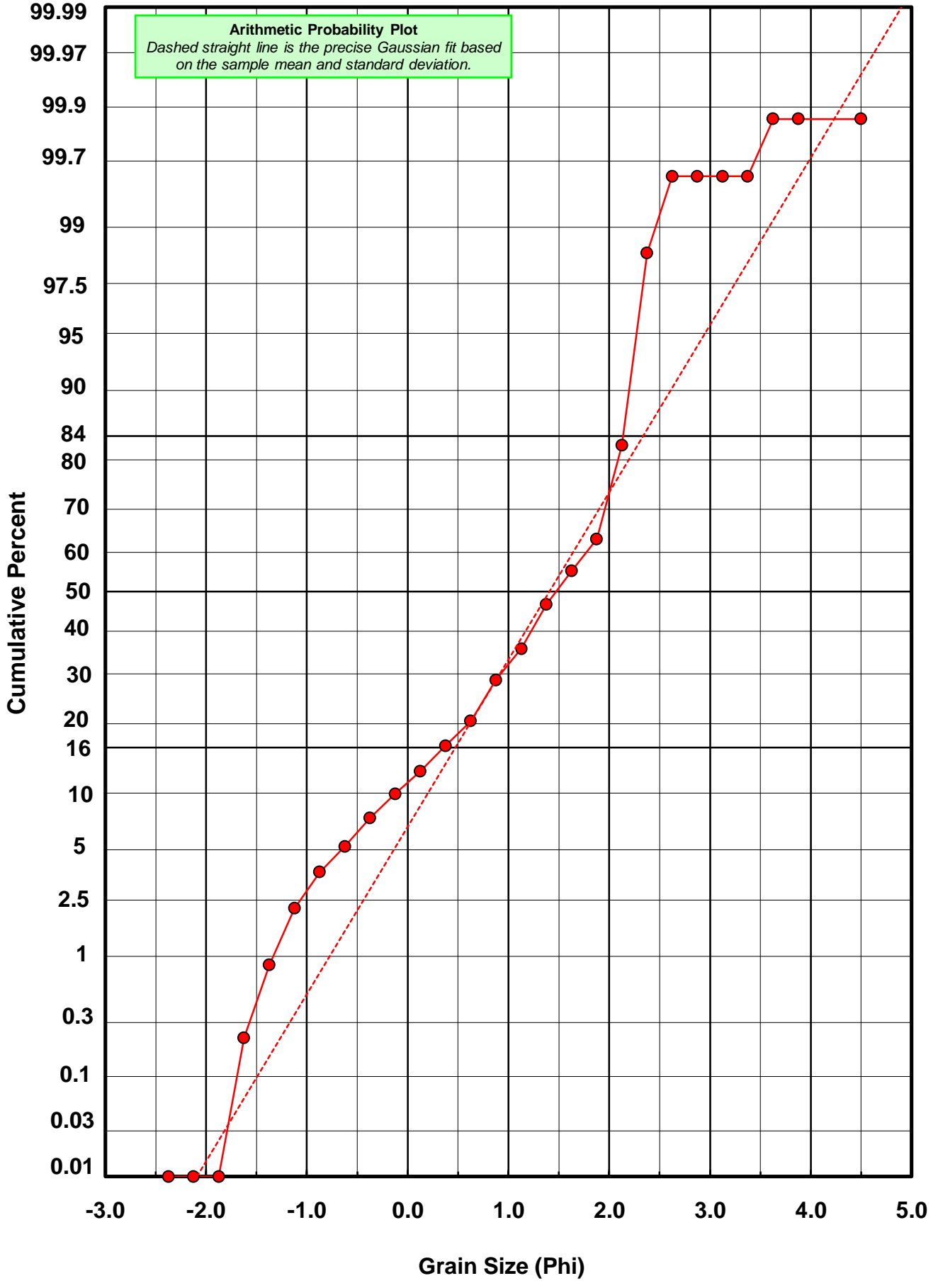
\* RARD = reciprocal absolute relative dispersion (see below)

| 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 |  |
| For Further Explanation, See Basille et al. 2002  |  |
| 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)      |



# PI-14-BB



# Post-Digestion Grain Size Distribution

Onshore Grab Sample

Sample: PI-14-BB

Total Digested Mass: 48.568 grams

% Silica: 91.4 %

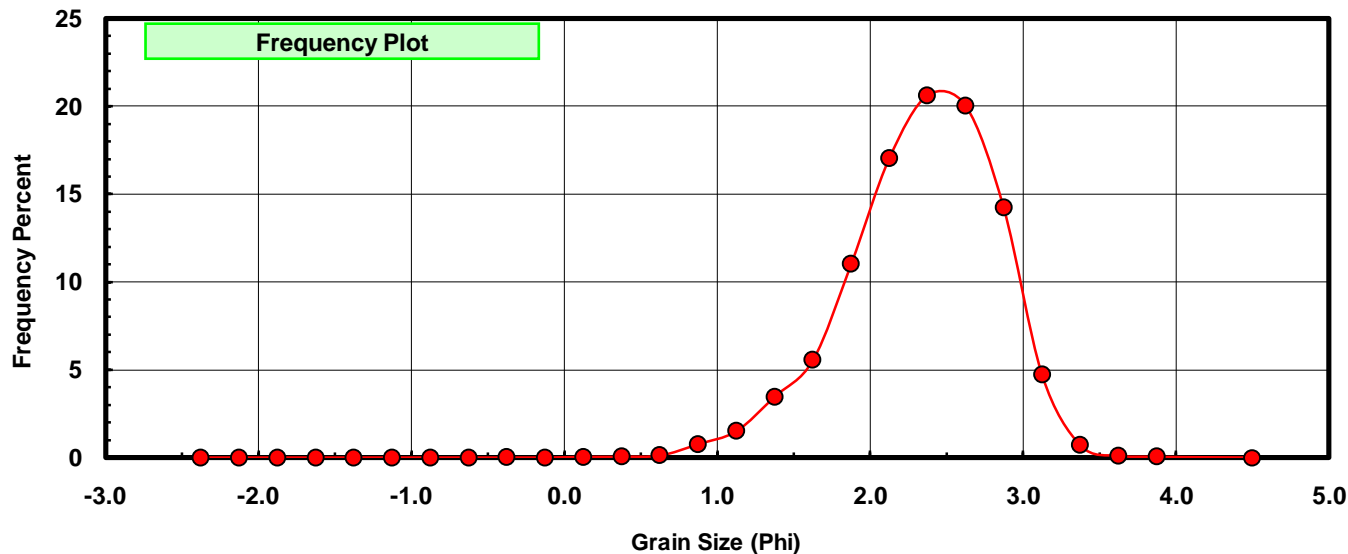
| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|----------------|---------------|---------------------|
| -2.25            | -2.375            | 0.000          | 0.000         | 0.000               |
| -2.00            | -2.125            | 0.000          | 0.000         | 0.000               |
| -1.75            | -1.875            | 0.000          | 0.000         | 0.000               |
| -1.50            | -1.625            | 0.000          | 0.000         | 0.000               |
| -1.25            | -1.375            | 0.000          | 0.000         | 0.000               |
| -1.00            | -1.125            | 0.000          | 0.000         | 0.000               |
| -0.75            | -0.875            | 0.000          | 0.000         | 0.000               |
| -0.50            | -0.625            | 0.000          | 0.000         | 0.000               |
| -0.25            | -0.375            | 0.005          | 0.010         | 0.010               |
| 0.00             | -0.125            | 0.002          | 0.004         | 0.014               |
| 0.25             | 0.125             | 0.016          | 0.033         | 0.047               |
| 0.50             | 0.375             | 0.028          | 0.058         | 0.105               |
| 0.75             | 0.625             | 0.060          | 0.124         | 0.229               |
| 1.00             | 0.875             | 0.372          | 0.766         | 0.994               |
| 1.25             | 1.125             | 0.734          | 1.511         | 2.506               |
| 1.50             | 1.375             | 1.683          | 3.465         | 5.971               |
| 1.75             | 1.625             | 2.698          | 5.555         | 11.526              |
| 2.00             | 1.875             | 5.357          | 11.030        | 22.556              |
| 2.25             | 2.125             | 8.268          | 17.024        | 39.580              |
| 2.50             | 2.375             | 10.012         | 20.614        | 60.194              |
| 2.75             | 2.625             | 9.715          | 20.003        | 80.197              |
| 3.00             | 2.875             | 6.904          | 14.215        | 94.412              |
| 3.25             | 3.125             | 2.289          | 4.713         | 99.125              |
| 3.50             | 3.375             | 0.344          | 0.708         | 99.833              |
| 3.75             | 3.625             | 0.052          | 0.107         | 99.940              |
| 4.00             | 3.875             | 0.025          | 0.051         | 99.992              |
| 5.00             | 4.500             | 0.004          | 0.008         | 100.000             |

| Statistical Results |         |               |             |
|---------------------|---------|---------------|-------------|
| Mean:               | 2.3320  | phi           | (0.1986 mm) |
| Standard Dev:       | 0.4916  | phi-units     | (0.7112 mm) |
| Skewness:           | -0.5545 | dimensionless |             |
| Kurtosis:           | 3.4430  | dimensionless |             |
| 5th Moment:         | -5.5530 | dimensionless |             |
| 6th Moment:         | 25.3212 | dimensionless |             |
| RARD *              | 0.2108  | dimensionless |             |
| Median              | 2.2514  | phi           | (0.21 mm)   |

\* RARD = reciprocal absolute relative dispersion (see below)

| Statistical Explanation                           |  |
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# PI-14-BB

