

**Onshore Grab Sample**

**Sample:** SL-08-BB  
**Sample Taken By:** D. Phelps  
**Sample Collected On:** 12/16/08  
**Splits?** N/A

**County:** St. Lucie  
**Latitude:** 27° 27' 44.2"  
**Longitude:** 80° 17' 18.0"  
**Datum:** WGS 84  
**Surf. Elev:** 0  
**Datum:** N/A

**Fine Data Summary**

Total Sample Weight 60.042 grams  
Total Fines in Sample 0.712 grams  
Total Percent Fines 1.17 %

**Dry Sieving Summary**

Total Sample Weight 59.430 grams  
Total Digested Weight 15.214 grams  
Total Carbonate Weight 44.216 grams  
Total Silica % 25.60 %  
Total Carbonate % 74.40 %  
Carbonate/Silica Ratio 2.906

**General Comments:**

None

**Description**

Worked By: M. Ladle

# Pre-Digestion Grain Size Distribution

Onshore Grab Sample

Sample: SL-08-BB

Total Sample Mass: 59.430 grams

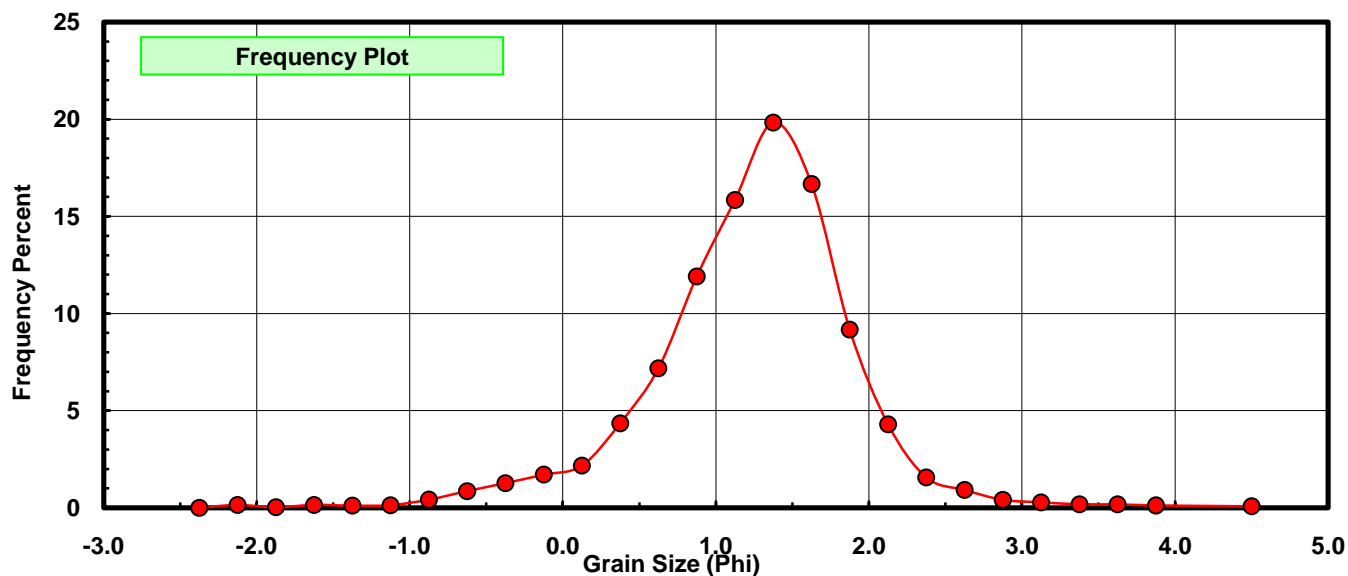
| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|----------------|---------------|---------------------|
| -2.25            | -2.375            | 0.000          | 0.000         | 0.000               |
| -2.00            | -2.125            | 0.087          | 0.146         | 0.146               |
| -1.75            | -1.875            | 0.016          | 0.027         | 0.173               |
| -1.50            | -1.625            | 0.089          | 0.150         | 0.323               |
| -1.25            | -1.375            | 0.066          | 0.111         | 0.434               |
| -1.00            | -1.125            | 0.081          | 0.136         | 0.570               |
| -0.75            | -0.875            | 0.249          | 0.419         | 0.989               |
| -0.50            | -0.625            | 0.513          | 0.863         | 1.853               |
| -0.25            | -0.375            | 0.755          | 1.270         | 3.123               |
| 0.00             | -0.125            | 1.015          | 1.708         | 4.831               |
| 0.25             | 0.125             | 1.291          | 2.172         | 7.003               |
| 0.50             | 0.375             | 2.588          | 4.355         | 11.358              |
| 0.75             | 0.625             | 4.265          | 7.177         | 18.534              |
| 1.00             | 0.875             | 7.073          | 11.901        | 30.436              |
| 1.25             | 1.125             | 9.418          | 15.847        | 46.283              |
| 1.50             | 1.375             | 11.784         | 19.828        | 66.111              |
| 1.75             | 1.625             | 9.909          | 16.673        | 82.785              |
| 2.00             | 1.875             | 5.449          | 9.169         | 91.954              |
| 2.25             | 2.125             | 2.556          | 4.301         | 96.254              |
| 2.50             | 2.375             | 0.932          | 1.568         | 97.823              |
| 2.75             | 2.625             | 0.547          | 0.920         | 98.743              |
| 3.00             | 2.875             | 0.245          | 0.412         | 99.155              |
| 3.25             | 3.125             | 0.168          | 0.283         | 99.438              |
| 3.50             | 3.375             | 0.109          | 0.183         | 99.621              |
| 3.75             | 3.625             | 0.106          | 0.178         | 99.800              |
| 4.00             | 3.875             | 0.073          | 0.123         | 99.923              |
| 5.00             | 4.50              | 0.046          | 0.077         | 100.000             |

| Statistical Results |         |               |             |
|---------------------|---------|---------------|-------------|
| Mean:               | 1.2311  | phi           | (0.426 mm)  |
| Standard Dev:       | 0.6827  | phi-units     | (0.623 mm)  |
| Skewness:           | -0.5098 | dimensionless |             |
| Kurtosis:           | 5.7110  | dimensionless |             |
| 5th Moment:         | -6.5450 | dimensionless |             |
| 6th Moment:         | 70.8702 | dimensionless |             |
| RARD *              | 0.5545  | dimensionless |             |
| Median              | 1.1719  | phi           | (0.4438 mm) |

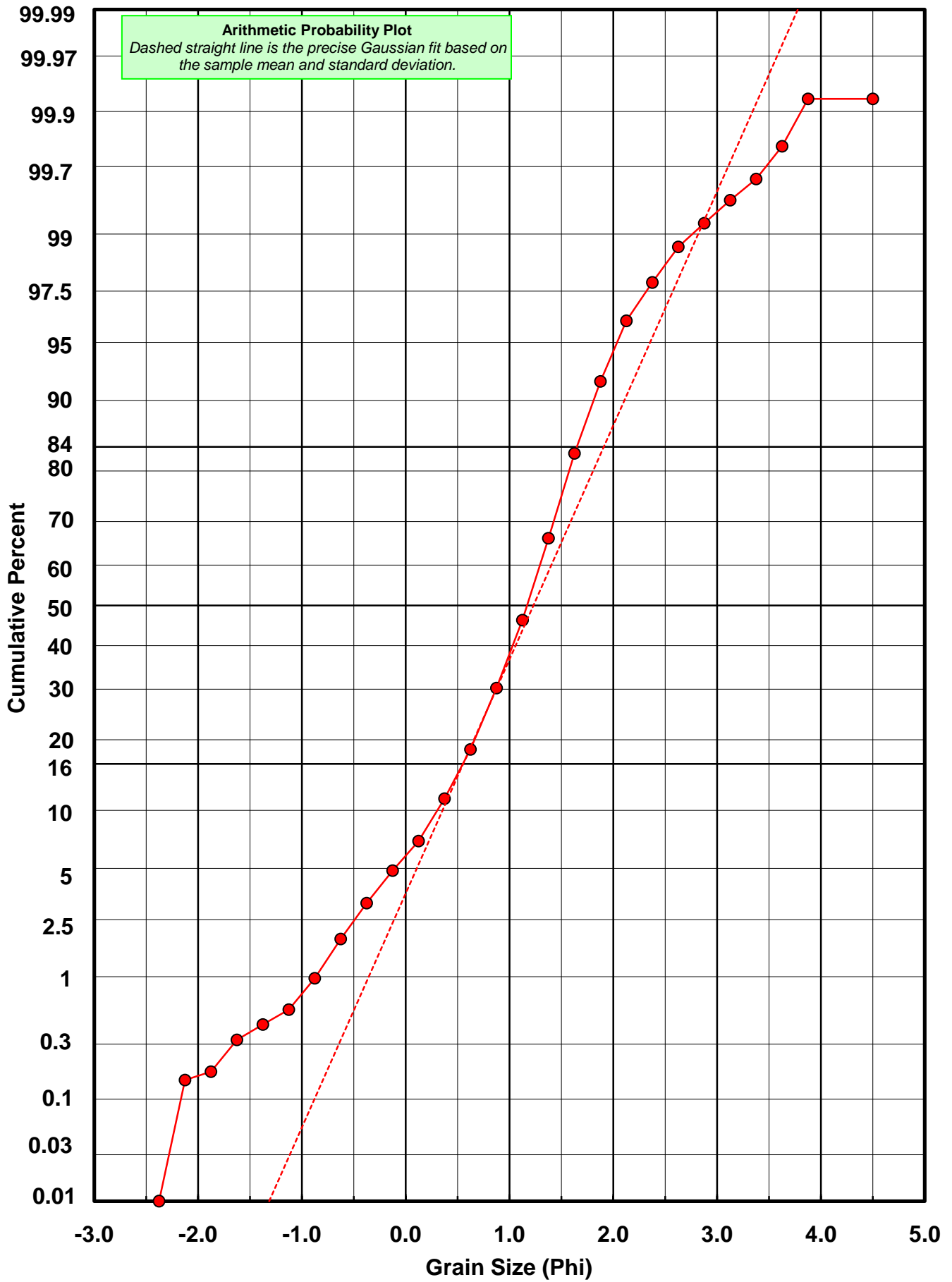
\* RARD = reciprocal absolute relative dispersion (see below)

| 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)      |



# SL-08-BB



# Carbonate Grain Size Distribution

Onshore Grab Sample

Sample: SL-08-BB

Total Carbonate Mass: 44.216 grams

% Carbonate: 74.4 %

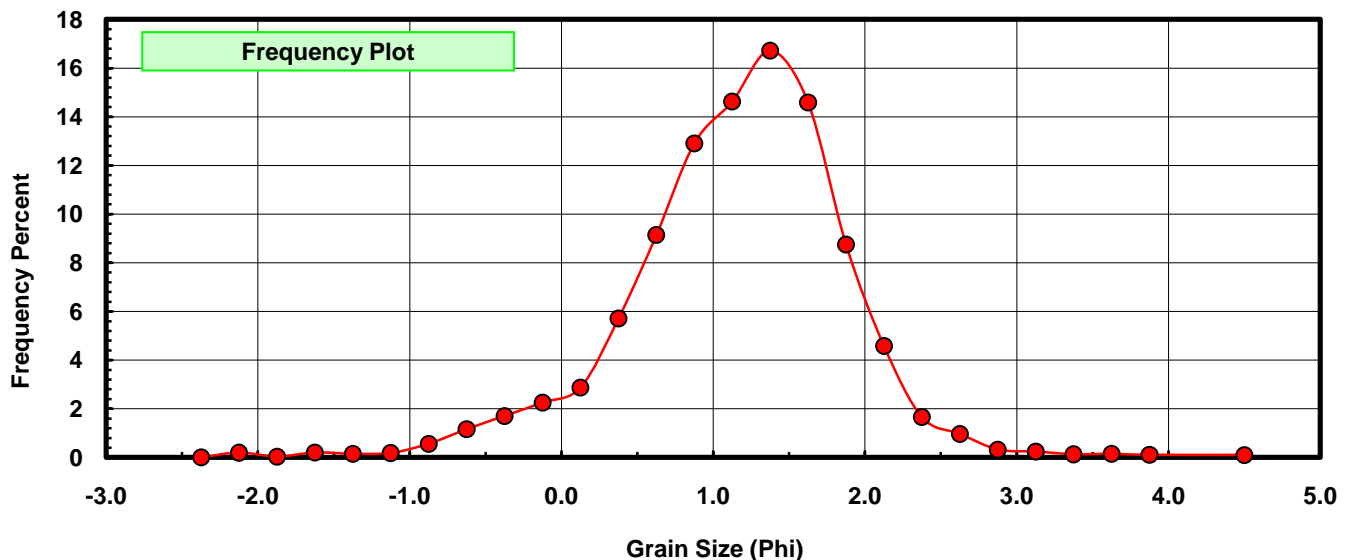
| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|----------------|---------------|---------------------|
| -2.25            | -2.375            | 0.000          | 0.000         | 0.000               |
| -2.00            | -2.125            | 0.087          | 0.197         | 0.197               |
| -1.75            | -1.875            | 0.016          | 0.036         | 0.233               |
| -1.50            | -1.625            | 0.089          | 0.201         | 0.434               |
| -1.25            | -1.375            | 0.066          | 0.149         | 0.583               |
| -1.00            | -1.125            | 0.081          | 0.183         | 0.767               |
| -0.75            | -0.875            | 0.249          | 0.563         | 1.330               |
| -0.50            | -0.625            | 0.513          | 1.160         | 2.490               |
| -0.25            | -0.375            | 0.755          | 1.708         | 4.198               |
| 0.00             | -0.125            | 0.997          | 2.255         | 6.452               |
| 0.25             | 0.125             | 1.271          | 2.875         | 9.327               |
| 0.50             | 0.375             | 2.523          | 5.706         | 15.033              |
| 0.75             | 0.625             | 4.041          | 9.139         | 24.172              |
| 1.00             | 0.875             | 5.706          | 12.905        | 37.077              |
| 1.25             | 1.125             | 6.467          | 14.626        | 51.703              |
| 1.50             | 1.375             | 7.394          | 16.722        | 68.425              |
| 1.75             | 1.625             | 6.447          | 14.581        | 83.006              |
| 2.00             | 1.875             | 3.866          | 8.743         | 91.750              |
| 2.25             | 2.125             | 2.024          | 4.578         | 96.327              |
| 2.50             | 2.375             | 0.733          | 1.658         | 97.985              |
| 2.75             | 2.625             | 0.427          | 0.966         | 98.951              |
| 3.00             | 2.875             | 0.144          | 0.326         | 99.276              |
| 3.25             | 3.125             | 0.105          | 0.237         | 99.514              |
| 3.50             | 3.375             | 0.058          | 0.131         | 99.645              |
| 3.75             | 3.625             | 0.064          | 0.145         | 99.790              |
| 4.00             | 3.875             | 0.047          | 0.106         | 99.896              |
| 5.00             | 4.500             | 0.046          | 0.104         | 100.000             |

| Statistical Results |         |               |             |
|---------------------|---------|---------------|-------------|
| Mean:               | 1.1540  | phi           | (0.4494 mm) |
| Standard Dev:       | 0.7329  | phi-units     | (0.6017 mm) |
| Skewness:           | -0.4668 | dimensionless |             |
| Kurtosis:           | 4.9918  | dimensionless |             |
| 5th Moment:         | -4.9444 | dimensionless |             |
| 6th Moment:         | 54.3426 | dimensionless |             |
| RARD *              | 0.6351  | dimensionless |             |
| Median              | 1.0959  | phi           | (0.4678 mm) |

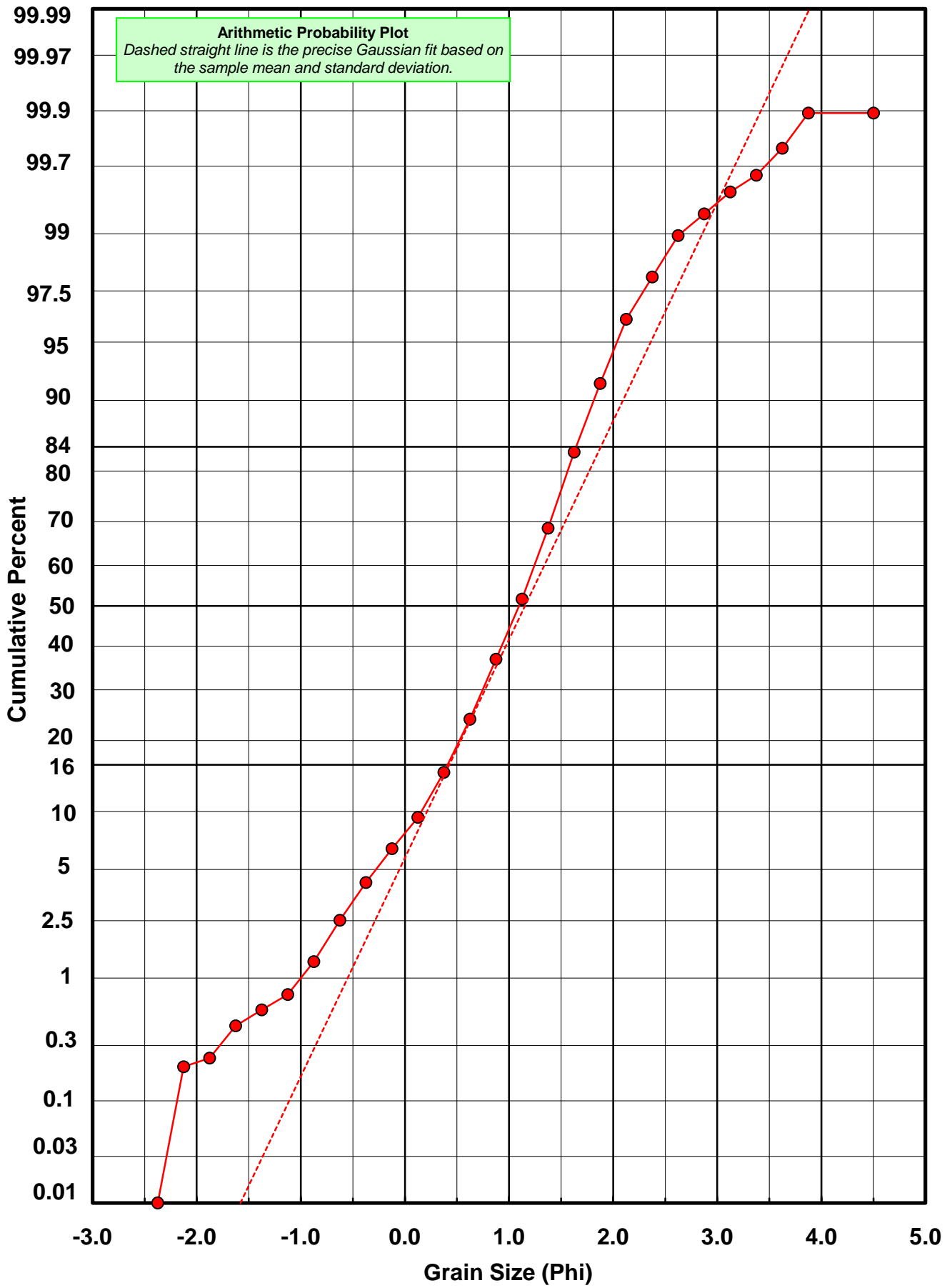
\* RARD = reciprocal absolute relative dispersion (see below)

| 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)      |



# SL-08-BB



# Post-Digestion Grain Size Distribution

Onshore Grab Sample

Sample: SL-08-BB

Total Digested Mass: 15.214 grams

% Silica: 25.6 %

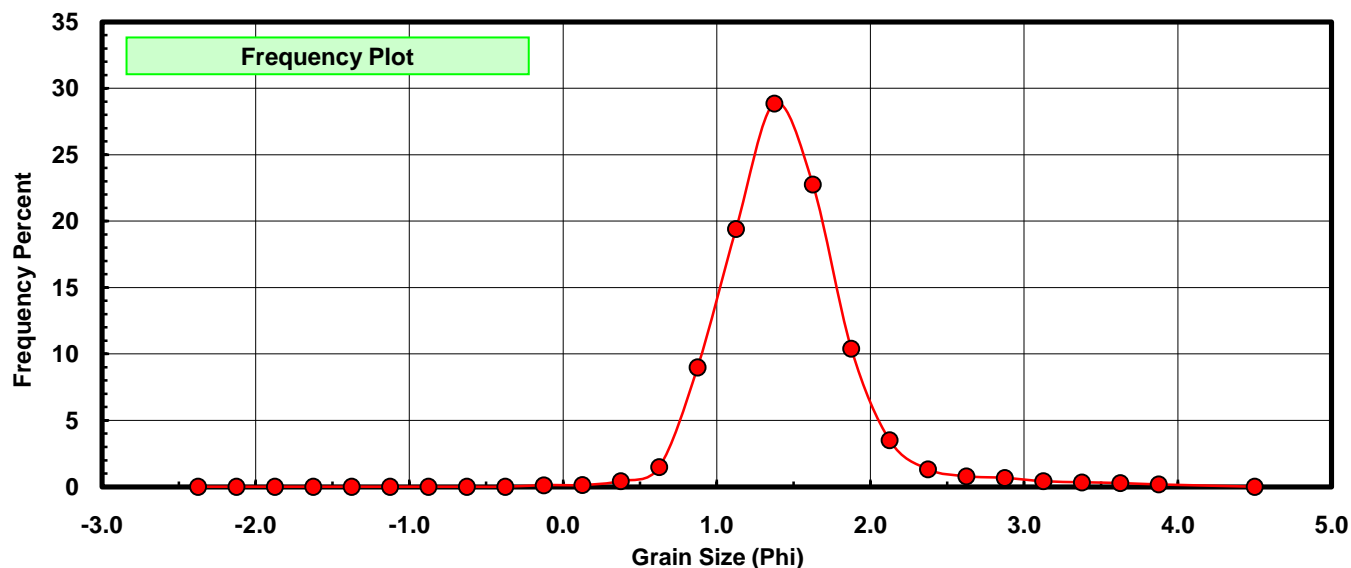
| Sieve Size (phi) | Sieve Midpt (phi) | Weight (grams) | Freq Weight % | Cumulative Weight % |
|------------------|-------------------|----------------|---------------|---------------------|
| -2.25            | -2.375            | 0.000          | 0.000         | 0.000               |
| -2.00            | -2.125            | 0.000          | 0.000         | 0.000               |
| -1.75            | -1.875            | 0.000          | 0.000         | 0.000               |
| -1.50            | -1.625            | 0.000          | 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            | 0.000          | 0.000         | 0.000               |
| 0.00             | -0.125            | 0.018          | 0.118         | 0.118               |
| 0.25             | 0.125             | 0.020          | 0.131         | 0.250               |
| 0.50             | 0.375             | 0.065          | 0.427         | 0.677               |
| 0.75             | 0.625             | 0.224          | 1.472         | 2.149               |
| 1.00             | 0.875             | 1.367          | 8.985         | 11.134              |
| 1.25             | 1.125             | 2.951          | 19.397        | 30.531              |
| 1.50             | 1.375             | 4.390          | 28.855        | 59.386              |
| 1.75             | 1.625             | 3.462          | 22.755        | 82.141              |
| 2.00             | 1.875             | 1.583          | 10.405        | 92.546              |
| 2.25             | 2.125             | 0.532          | 3.497         | 96.043              |
| 2.50             | 2.375             | 0.199          | 1.308         | 97.351              |
| 2.75             | 2.625             | 0.120          | 0.789         | 98.140              |
| 3.00             | 2.875             | 0.101          | 0.664         | 98.804              |
| 3.25             | 3.125             | 0.063          | 0.414         | 99.218              |
| 3.50             | 3.375             | 0.051          | 0.335         | 99.553              |
| 3.75             | 3.625             | 0.042          | 0.276         | 99.829              |
| 4.00             | 3.875             | 0.026          | 0.171         | 100.000             |
| 5.00             | 4.500             | 0.000          | 0.000         | 100.000             |

| Statistical Results |          |               |             |
|---------------------|----------|---------------|-------------|
| Mean:               | 1.4553   | phi           | (0.3647 mm) |
| Standard Dev:       | 0.4585   | phi-units     | (0.7277 mm) |
| Skewness:           | 1.2240   | dimensionless |             |
| Kurtosis:           | 7.1655   | dimensionless |             |
| 5th Moment:         | 23.7708  | dimensionless |             |
| 6th Moment:         | 117.0308 | dimensionless |             |
| RARD *              | 0.3150   | dimensionless |             |
| Median              | 1.2937   | phi           | (0.4079 mm) |

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

| Statistical Explanation                           |  |
|---|--|
| Calculations based on the Method of Moments       |  |
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| Kurtosis: 4th Stand. Moment; Exact Gaussian = 3.0 |  |
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