

## Line 13

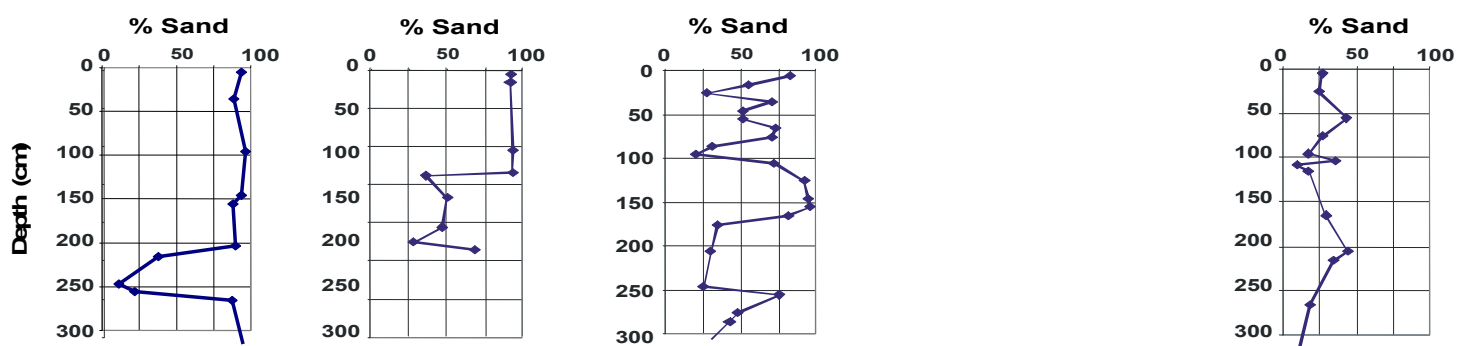


Figure 47: Fence Profile for Line 13

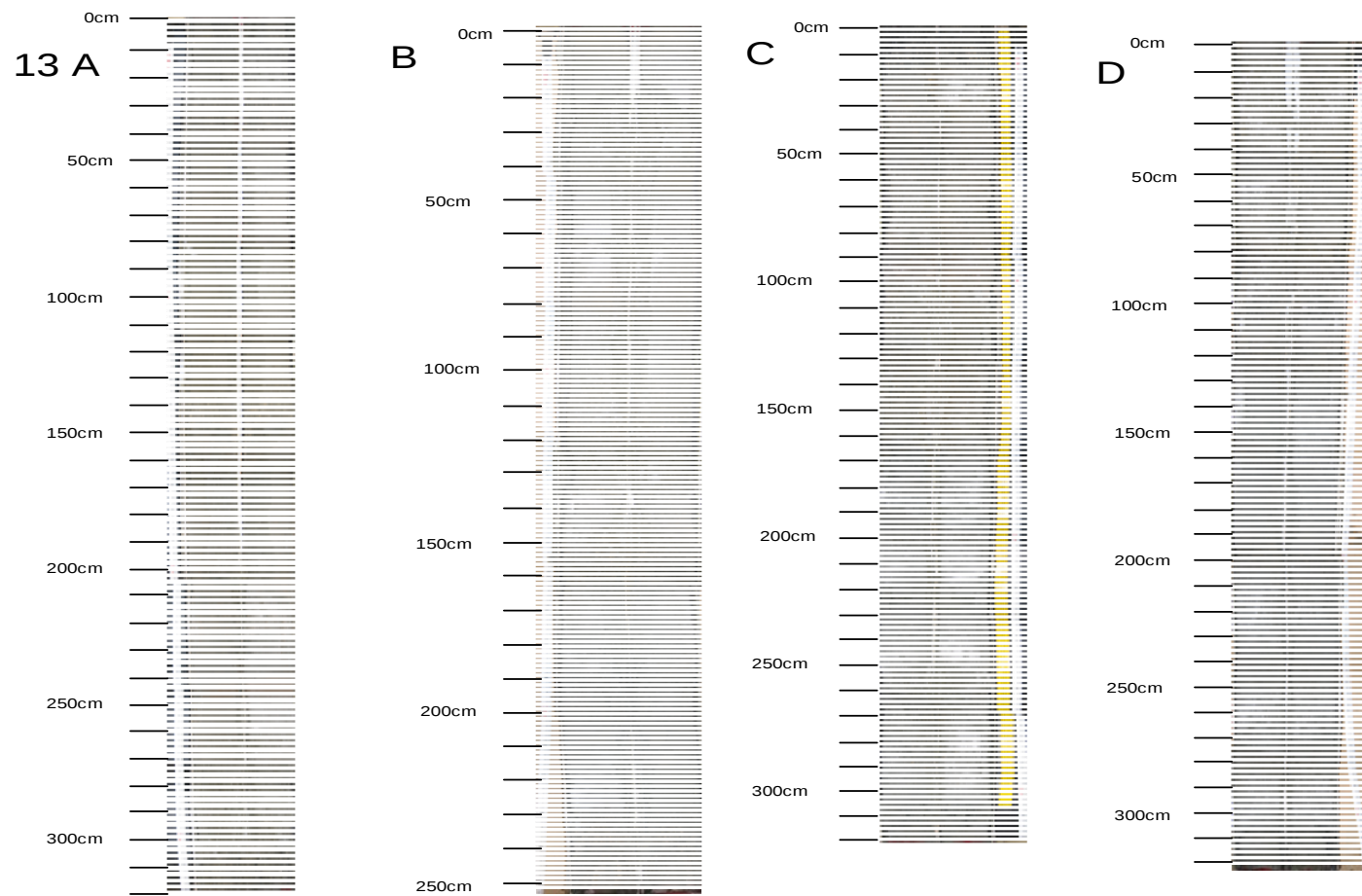


Figure 48: Core Photographs for Line 13

### **CORE 13C:**

Core 13C was and taken at a water depth of 7.6m (25ft) (Table 1) and had a total length of 318cm (125.2in) (Figures 64-67). A total of 22 grain size samples were taken at depths of 1-10cm (0.4-3.9in) , 11-20cm (4.3- 8.3in) , 21-30cm (8.3-11.8in), 31-40cm (12.2 15.7in), 41-50cm (16.1-19.7), 51-60cm (20-23.6in), 61-70cm (24-27.6in), 71-80cm(28-31.5in), 81-90cm(31.9- 35.4in), 91-100cm (35.8-39.4in), 101-111cm (39.3-43.7in), 121-130cm (47.6-51.2in), 141-150cm (55.1-59.1in), 151-160cm (59.4-63in), 171-180cm (67.3-70.9in), 201-210cm (78.7-82.7in), 241-250cm (94.8-98.4in), 251-260cm (98.8-102.4in), 271-280cm (106.7-110.2in), 281-290cm (110.6-114.2in), 301-310cm (118.5-122in). Core 13C contained many layers of sand, muddy sands, sandy mud and clays. Its overall percent sand varied greatly through out the core ranging from 95 to 14% sand and had a mean grain size that varied similarly (Tables 45&46). Sand and shell weights are shown in Table 44. Percent sand, silt and clay are shown in Table 45. Median grain size, mean grain size, skewness and sorting index are shown in Table 46. Graphs of the results are located in Figures 68-71.

It was determined that core 13C had approximately 165cm (65in) of sediment contained at least 50% sand, of which 70cm (27.6in) was located shallower than 1m

(39.4) depth. The average grain size in the upper 1m (3.28ft) was determined to be 0.0480mm.

Core#: 13C  
Core Date: 7/8/05

| Date Split/subsampled | Length: 318 cm                    |
|-----------------------|-----------------------------------|
| 7/15/05               | Lat: 29 11.487<br>Long: 94 55.800 |



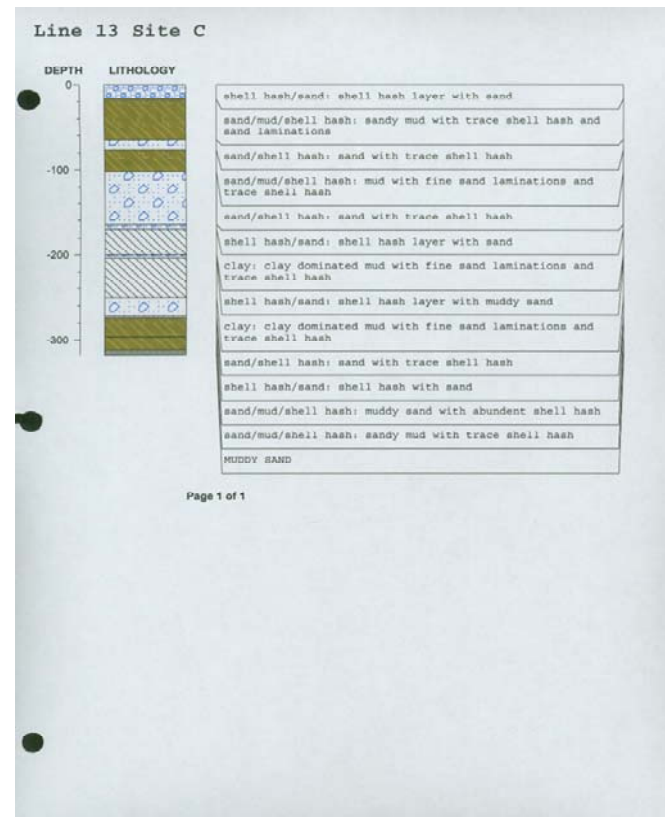


Figure 66: Core log of 13C for depths 300-318cm  
 Figure 67: Computerized core log for 13C

| Core ID | Sample Depth (cm) | #10/<br>2.0mm<br>Screen<br>Sample<br>Weight<br>(g) | #14/<br>1.40mm<br>Screen<br>Sample<br>Weight<br>(g) | #18/<br>1.00mm<br>Screen<br>Sample<br>Weight<br>(g) | #25/<br>710µm<br>Screen<br>Sample<br>Weight<br>(g) | #35/<br>500µm<br>Screen<br>Sample<br>Weight<br>(g) | #45/<br>355µm<br>Screen<br>Sample<br>Weight<br>(g) | #60/<br>250µm<br>Screen<br>Sample<br>Weight<br>(g) | #80/<br>180µm<br>Screen<br>Sample<br>Weight<br>(g) | #125/<br>125µm<br>Screen<br>Sample<br>Weight<br>(g) | #170/<br>90µm<br>Screen<br>Sample<br>Weight<br>(g) | #200/<br>75µm<br>Screen<br>Sample<br>Weight<br>(g) | #230/<br>63µm<br>Screen<br>Sample<br>Weight<br>(g) |
|---------|-------------------|----------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|-----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|
| 13C     | 1-10              |                                                    |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |                                                    |                                                     |                                                    | 37.23                                              | 7.25                                               |
| 13C     | 11-20             | 5.53                                               | 3.83                                                | 2.26                                                | 1.46                                               | 0.73                                               | 0.45                                               | 0.89                                               | 2.70                                               | 12.15                                               | 45.94                                              | 18.60                                              | 9.21                                               |
| 13C     | 21-30             |                                                    |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |                                                    |                                                     |                                                    | 15.53                                              | 3.61                                               |
| 13C     | 31-40             |                                                    |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |                                                    |                                                     |                                                    | 37.60                                              | 4.43                                               |
| 13C     | 41-50             |                                                    |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |                                                    |                                                     |                                                    | 25.64                                              | 3.76                                               |
| 13C     | 51-60             |                                                    |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |                                                    |                                                     |                                                    | 28.91                                              | 2.39                                               |
| 13C     | 61-70             |                                                    |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |                                                    |                                                     |                                                    | 39.55                                              | 0.92                                               |
| 13C     | 71-80             | 0.00                                               | 0.03                                                | 0.03                                                | 0.04                                               | 0.04                                               | 0.11                                               | 0.24                                               | 0.56                                               | 8.08                                                | 44.22                                              | 18.39                                              | 2.85                                               |
| 13C     | 81-90             |                                                    |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |                                                    |                                                     |                                                    | 10.34                                              | 5.53                                               |
| 13C     | 91-100            |                                                    |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |                                                    |                                                     |                                                    | 5.74                                               | 1.55                                               |
| 13C     | 101-111           | 0.00                                               | 0.02                                                | 0.02                                                | 0.04                                               | 0.04                                               | 0.02                                               | 0.13                                               | 0.76                                               | 41.10                                               | 89.73                                              | 6.18                                               | 5.83                                               |
| 13C     | 121-130           | 0.05                                               | 0.01                                                | 0.02                                                | 0.04                                               | 0.05                                               | 0.04                                               | 0.15                                               | 0.33                                               | 61.52                                               | 17.23                                              | 4.70                                               | 0.51                                               |
| 13C     | 141-150           | 0.00                                               | 0.00                                                | 0.05                                                | 0.02                                               | 0.03                                               | 0.06                                               | 0.09                                               | 0.26                                               | 10.96                                               | 68.46                                              | 5.11                                               | 1.54                                               |
| 13C     | 151-160           | 0.00                                               | 0.03                                                | 0.02                                                | 0.04                                               | 0.01                                               | 0.02                                               | 0.09                                               | 0.26                                               | 30.78                                               | 35.79                                              | 3.85                                               | 0.76                                               |
| 13C     | 161-170           | 0.28                                               | 0.12                                                | 0.31                                                | 0.17                                               | 0.11                                               | 0.05                                               | 0.07                                               | 0.32                                               | 69.95                                               | 36.48                                              | 2.11                                               | 2.99                                               |
| 13C     | 171-180           |                                                    |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |                                                    |                                                     |                                                    | 23.47                                              | 4.71                                               |
| 13C     | 201-210           |                                                    |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |                                                    |                                                     |                                                    | 12.03                                              | 3.18                                               |
| 13C     | 241-250           |                                                    |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |                                                    |                                                     |                                                    | 11.18                                              | 7.97                                               |
| 13C     | 251-260           | 0.01                                               | 0.03                                                | 0.04                                                | 0.06                                               | 0.08                                               | 0.05                                               | 0.09                                               | 0.24                                               | 2.17                                                | 43.90                                              | 31.85                                              | 13.58                                              |
| 13C     | 271-280           |                                                    |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |                                                    |                                                     |                                                    | 22.54                                              | 6.38                                               |
| 13C     | 281-290           | 0.76                                               | 0.46                                                | 0.46                                                | 0.31                                               | 0.20                                               | 0.16                                               | 0.24                                               | 0.50                                               | 3.12                                                | 27.18                                              | 12.79                                              | 10.76                                              |
| 13C     | 301-310           |                                                    |                                                     |                                                     |                                                    |                                                    |                                                    |                                                    |                                                    |                                                     |                                                    | 18.38                                              | 4.76                                               |

Table 42: RO-TAP data for core 13C

| Core ID                         | Sample Depth (cm) | % finer than N10/ 2.0mm/ -1.0Φ Screen | % finer than N14/ 1.40mm / -0.5Φ Screen | % finer than N18/ 1.00mm/ 0.0Φ Screen | % finer than N25/ 710µm / 0.5Φ Screen | % finer than N35/ 500µm/ 1.0Φ Screen | % finer than N45/ 355µm / 1.5Φ Screen | % finer than N60/ 250µm 2.0Φ Screen | % finer than N80/ 180µm/ 2.5 Φ Screen | % finer than N125/ 125µm/ 3.0Φ Screen | % finer than N170/ 90µm / 3.5Φ Screen | % finer than N200/ 75µm / 4.0Φ Screen | % finer than 4µm/ 8Φ |
|---------------------------------|-------------------|---------------------------------------|-----------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|-------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------|
| Observed Contents of the sample |                   | shell only                            | shell only                              | shell only                            | shell only                            | shell only                           | shell only                            | shell only                          | sand                                  | sand                                  | sand                                  | sand                                  | silt                 |
| 13C                             | 1-10              |                                       |                                         |                                       |                                       |                                      |                                       |                                     |                                       |                                       |                                       | 30.0                                  |                      |
| 13C                             | 11-20             | 96.6                                  | 94.2                                    | 92.8                                  | 91.9                                  | 91.4                                 | 91.1                                  | 90.6                                | 88.9                                  | 81.4                                  | 52.8                                  | 41.3                                  | 20.1                 |
| 13C                             | 21-30             |                                       |                                         |                                       |                                       |                                      |                                       |                                     |                                       |                                       |                                       | 77.9                                  | 44.1                 |
| 13C                             | 31-40             |                                       |                                         |                                       |                                       |                                      |                                       |                                     |                                       |                                       |                                       | 37.0                                  | 18.4                 |
| 13C                             | 41-50             |                                       |                                         |                                       |                                       |                                      |                                       |                                     |                                       |                                       |                                       | 55.3                                  | 26.5                 |
| 13C                             | 51-60             |                                       |                                         |                                       |                                       |                                      |                                       |                                     |                                       |                                       |                                       | 52.2                                  | 26.9                 |
| 13C                             | 61-70             |                                       |                                         |                                       |                                       |                                      |                                       |                                     |                                       |                                       |                                       | 28.2                                  | 16.7                 |
| 13C                             | 71-80             | 100.0                                 | 100.0                                   | 99.9                                  | 99.9                                  | 99.9                                 | 99.8                                  | 99.5                                | 99.0                                  | 91.2                                  | 48.9                                  | 31.2                                  | 16.4                 |
| 13C                             | 81-90             |                                       |                                         |                                       |                                       |                                      |                                       |                                     |                                       |                                       |                                       | 79.5                                  | 36.8                 |
| 13C                             | 91-100            |                                       |                                         |                                       |                                       |                                      |                                       |                                     |                                       |                                       |                                       | 84.2                                  | 54.6                 |
| 13C                             | 101-111           | 100.0                                 | 100.0                                   | 100.0                                 | 100.0                                 | 99.9                                 | 99.9                                  | 99.9                                | 99.5                                  | 78.8                                  | 33.7                                  | 30.6                                  | 15.7                 |
| 13C                             | 121-130           | 99.9                                  | 99.9                                    | 99.9                                  | 99.9                                  | 99.8                                 | 99.8                                  | 99.6                                | 99.2                                  | 32.2                                  | 13.4                                  | 8.3                                   | 4.2                  |
| 13C                             | 141-150           | 100.0                                 | 100.0                                   | 99.9                                  | 99.9                                  | 99.9                                 | 99.8                                  | 99.7                                | 99.4                                  | 87.4                                  | 12.2                                  | 6.6                                   | 2.6                  |
| 13C                             | 151-160           | 100.0                                 | 100.0                                   | 99.9                                  | 99.9                                  | 99.9                                 | 99.8                                  | 99.7                                | 99.4                                  | 58.0                                  | 9.8                                   | 4.6                                   | 1.8                  |
| 13C                             | 161-170           | 99.8                                  | 99.7                                    | 99.5                                  | 99.4                                  | 99.3                                 | 99.2                                  | 99.2                                | 99.0                                  | 47.9                                  | 21.3                                  | 19.7                                  | 9.0                  |
| 13C                             | 171-180           |                                       |                                         |                                       |                                       |                                      |                                       |                                     |                                       |                                       |                                       | 71.0                                  | 28.4                 |
| 13C                             | 201-210           |                                       |                                         |                                       |                                       |                                      |                                       |                                     |                                       |                                       |                                       | 76.2                                  | 30.7                 |
| 13C                             | 241-250           |                                       |                                         |                                       |                                       |                                      |                                       |                                     |                                       |                                       |                                       | 85.3                                  | 36.6                 |
| 13C                             | 251-260           | 100.0                                 | 100.0                                   | 99.9                                  | 99.9                                  | 99.8                                 | 99.8                                  | 99.7                                | 99.5                                  | 97.7                                  | 61.6                                  | 35.3                                  | 4.9                  |
| 13C                             | 271-280           |                                       |                                         |                                       |                                       |                                      |                                       |                                     |                                       |                                       |                                       | 62.4                                  | 15.4                 |
| 13C                             | 281-290           | 99.4                                  | 99.0                                    | 98.7                                  | 98.4                                  | 98.3                                 | 98.2                                  | 98.0                                | 97.6                                  | 95.2                                  | 73.9                                  | 63.9                                  | 21.1                 |
| 13C                             | 301-310           |                                       |                                         |                                       |                                       |                                      |                                       |                                     |                                       |                                       |                                       | 76.1                                  | 32.6                 |

Table 43: Percent finer table for core 13C

| Core ID | Sample Depth (cm) | shell weight | 200+ weight | 200-230 weight | sand + shell |
|---------|-------------------|--------------|-------------|----------------|--------------|
| 13C     | 1-10              |              | 37.23       | 7.25           | 37.23        |
| 13C     | 11-20             | 14.26        | 80.28       | 9.21           | 94.54        |
| 13C     | 21-30             |              | 15.53       | 3.61           | 15.53        |
| 13C     | 31-40             |              | 37.60       | 4.43           | 37.60        |
| 13C     | 41-50             |              | 25.64       | 3.76           | 25.64        |
| 13C     | 51-60             |              | 28.91       | 2.39           | 28.91        |
| 13C     | 61-70             |              | 39.55       | 0.92           | 39.55        |
| 13C     | 71-80             | 0.25         | 71.49       | 2.85           | 71.74        |
| 13C     | 81-90             |              | 10.34       | 5.53           | 10.34        |
| 13C     | 91-100            |              | 5.74        | 1.55           | 5.74         |
| 13C     | 101-111           | 0.14         | 137.90      | 5.83           | 138.04       |
| 13C     | 121-130           | 0.21         | 83.93       | 0.51           | 84.14        |
| 13C     | 141-150           | 0.16         | 84.88       | 1.54           | 85.04        |
| 13C     | 151-160           | 0.12         | 70.77       | 0.76           | 70.89        |
| 13C     | 161-170           | 1.04         | 108.93      | 2.99           | 109.97       |
| 13C     | 171-180           | 0.00         | 23.47       | 4.71           | 23.47        |
| 13C     | 201-210           | 0.00         | 12.03       | 3.18           | 12.03        |
| 13C     | 241-250           | 0.00         | 11.18       | 7.97           | 11.18        |
| 13C     | 251-260           | 0.27         | 78.25       | 13.58          | 78.52        |
| 13C     | 271-280           | 0.00         | 22.54       | 6.38           | 22.54        |
| 13C     | 281-290           | 2.35         | 43.83       | 10.76          | 46.18        |
| 13C     | 301-310           | 0.00         | 18.38       | 4.76           | 18.38        |

Table 44: Shell and Sand Weights for core 13C

| Core ID | sample id | mid sample depth | % shell | % sand | %silt | %clay | total % |
|---------|-----------|------------------|---------|--------|-------|-------|---------|
| 13C     | 1-10      | 5.5              |         | 70.0   | 22.4  | 7.7   | 100     |
| 13C     | 11-20     | 15.5             | 8.9     | 49.9   | 21.1  | 20.1  | 100     |
| 13C     | 21-30     | 25.5             |         | 22.1   | 33.8  | 44.1  | 100     |
| 13C     | 31-40     | 35.5             |         | 63.0   | 18.6  | 18.4  | 100     |
| 13C     | 41-50     | 45.5             |         | 44.7   | 28.8  | 26.5  | 100     |
| 13C     | 51-60     | 55.5             |         | 47.8   | 25.3  | 26.9  | 100     |
| 13C     | 61-70     | 65.5             |         | 71.8   | 11.6  | 16.7  | 100     |
| 13C     | 71-80     | 75.5             | 0.2     | 68.5   | 14.8  | 16.4  | 100     |
| 13C     | 81-90     | 85.5             |         | 20.5   | 42.7  | 36.8  | 100     |
| 13C     | 91-100    | 95.5             |         | 15.8   | 29.7  | 54.6  | 100     |
| 13C     | 101-111   | 105.5            | 0.1     | 69.3   | 14.9  | 15.7  | 100     |
| 13C     | 121-130   | 125.5            | 0.2     | 91.5   | 4.1   | 4.2   | 100     |
| 13C     | 141-150   | 145.5            | 0.2     | 93.2   | 3.9   | 2.6   | 100     |
| 13C     | 151-160   | 155.5            | 0.2     | 95.2   | 2.8   | 1.8   | 100     |
| 13C     | 161-170   | 165.5            | 0.8     | 79.5   | 10.7  | 9.0   | 100     |
| 13C     | 171-180   | 175.5            |         | 29.0   | 42.6  | 28.4  | 100     |
| 13C     | 201-210   | 205.5            |         | 23.8   | 45.5  | 30.7  | 100     |
| 13C     | 241-250   | 245.5            |         | 14.7   | 48.7  | 36.6  | 100     |
| 13C     | 251-260   | 255.5            | 0.2     | 64.4   | 30.4  | 4.9   | 100     |
| 13C     | 271-280   | 275.5            |         | 37.6   | 47.0  | 15.4  | 100     |
| 13C     | 281-290   | 285.5            | 1.8     | 34.2   | 42.9  | 21.1  | 100     |
| 13C     | 301-310   | 305.5            |         | 23.9   | 43.5  | 32.6  | 100     |

Table 45: Percent Shell, Sand, Silt and Clay for core 13C

| Station ID    | Average Depth | Median Grain Size | Median Grain Size | Mean Grain Size | Mean Grain Size | Skewness | Sorting Index |
|---------------|---------------|-------------------|-------------------|-----------------|-----------------|----------|---------------|
|               | (cm)          | (phi)             | (mm)              | (phi)           | (mm)            |          |               |
| CC13C/1-10    | 5.5           |                   |                   |                 |                 |          |               |
| CC13C/11-20   | 15.5          | 3.551             | 0.0849            | 5.6756          | 0.0024          | 0.6064   | 3.9741        |
| CC13C/21-30   | 25.5          |                   |                   |                 |                 |          |               |
| CC13C/31-40   | 35.5          |                   |                   |                 |                 |          |               |
| CC13C/41-50   | 45.5          |                   |                   |                 |                 |          |               |
| CC13C/51-60   | 55.5          |                   |                   |                 |                 |          |               |
| CC13C/61-70   | 65.5          |                   |                   |                 |                 |          |               |
| CC13C/71-80   | 75.5          | 3.488             | 0.0887            | 4.8960          | 0.0334          | 0.8555   | 2.5037        |
| CC13C/81-90   | 85.5          |                   |                   |                 |                 |          |               |
| CC13C/91-100  | 95.5          |                   |                   |                 |                 |          |               |
| CC13C/101-111 | 106           | 3.285             | 0.1022            | 3.8032          | 0.0713          | 0.7882   | 2.092         |
| CC13C/121-130 | 125.5         | 2.862             | 0.137             | 2.9378          | 0.1264          | 0.6055   | 0.9437        |
| CC13C/141-150 | 145.5         | 3.236             | 0.1057            | 3.2411          | 0.1053          | 0.2179   | 0.2701        |
| CC13C/151-160 | 155.5         | 3.069             | 0.1187            | 3.0713          | 0.1185          | 0.0714   | 0.3315        |
| CC13C/161-170 | 165.5         | 2.979             | 0.1263            | 3.2719          | 0.0263          | 0.7519   | 1.7801        |
| CC13C/171-180 | 175.5         |                   |                   |                 |                 |          |               |
| CC13C/201-210 | 205.5         |                   |                   |                 |                 |          |               |
| CC13C/241-250 | 245.5         |                   |                   |                 |                 |          |               |
| CC13C/251-260 | 255.5         | 3.601             | 0.082             | 3.7302          | 0.0750          | 0.4059   | 0.5665        |
| CC13C/271-280 | 275.5         |                   |                   |                 |                 |          |               |
| CC13C/281-290 | 285.5         | 4.188             | 0.0546            | 6.3075          | 0.0125          | 0.7735   | 3.582         |
| CC13C/301-310 | 305.5         |                   |                   |                 |                 |          |               |

PINK=Upper sand area

Table 46: Median grain size, Mean grain size, Skewness and Sorting Index for core 13C

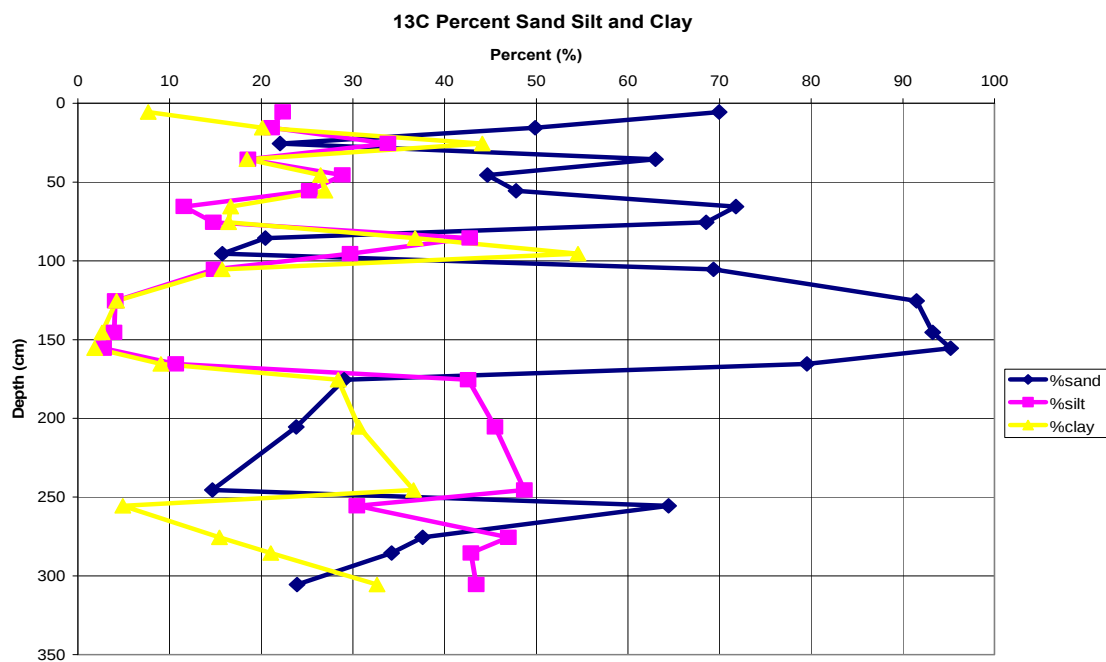


Figure 68: Percent Sand, Silt and Clay graph for core 13C

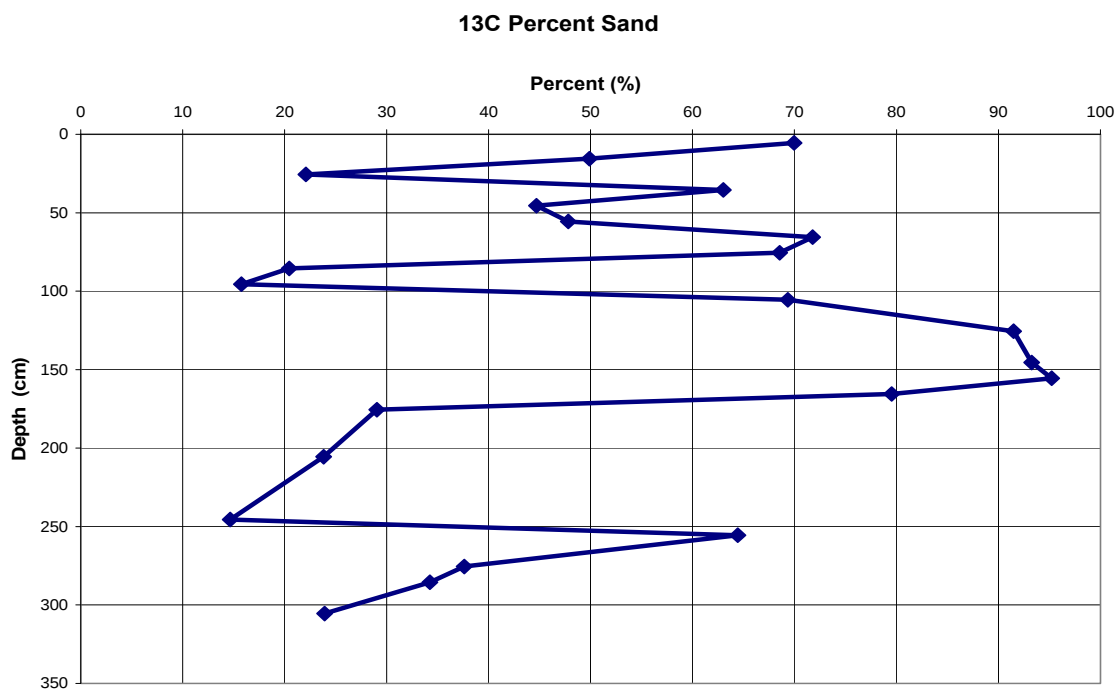


Figure 69: Percent Sand graph for core 13C

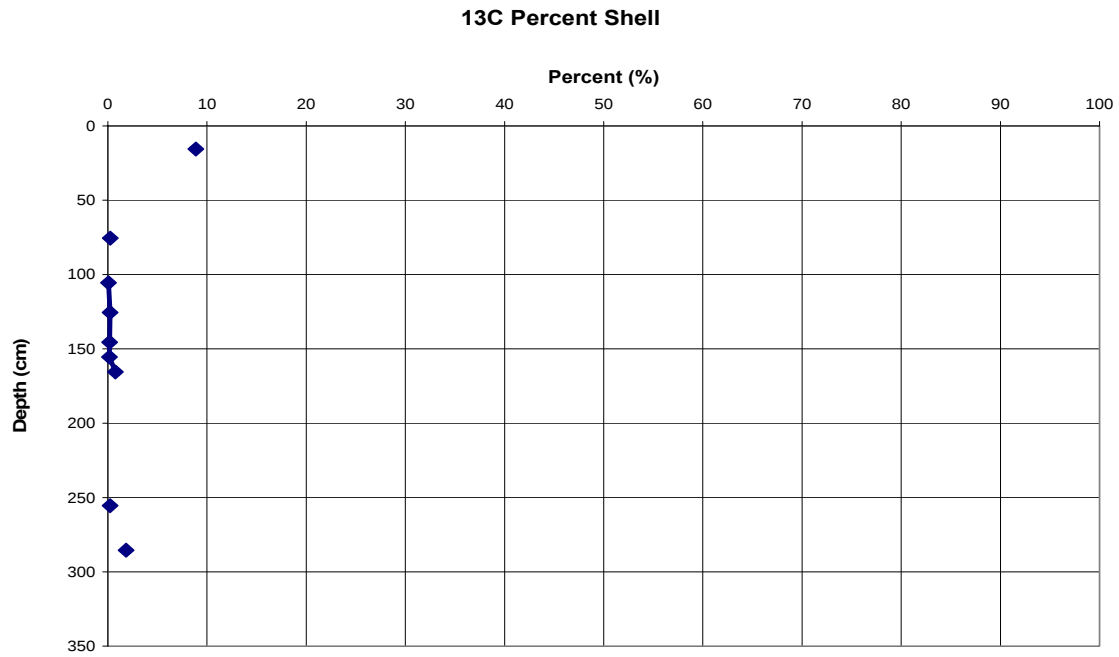


Figure 70: Percent Shell for core 13C

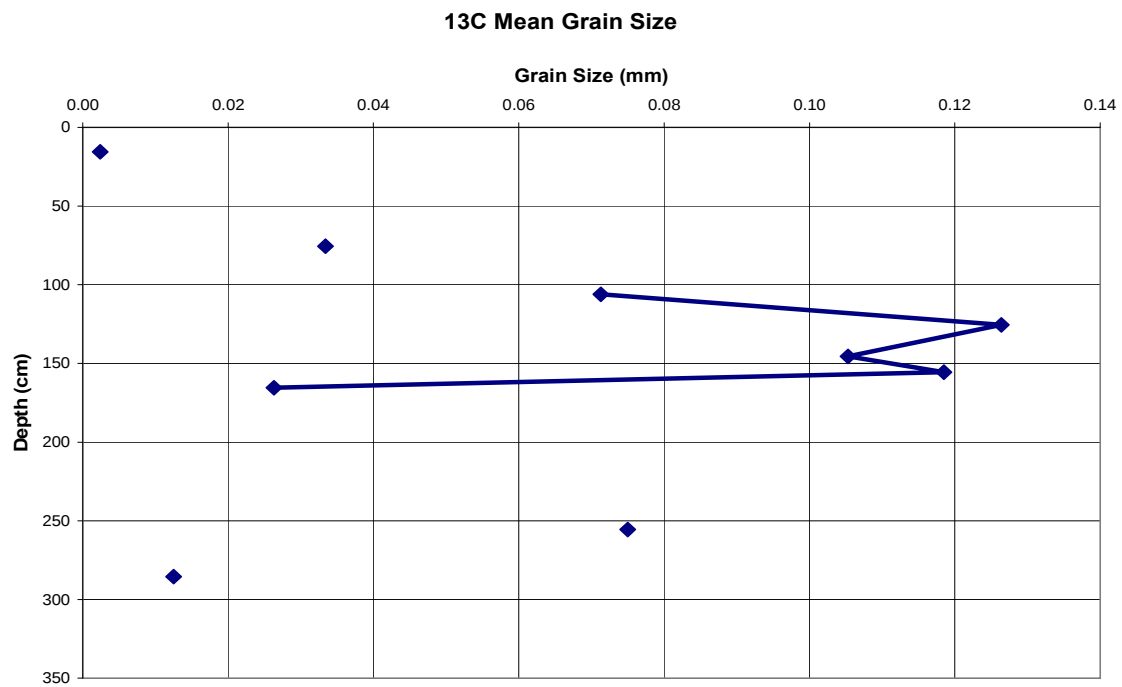


Figure 71: Mean grain size for core 13C