

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color  | Description   |
|-------|---------------|---------|-------------|-----------|---------|--------|--------|---|
| 1     |               | 1       | Pleistocene |           | I       | I      | 5Y 7/3 | <p>UNLITHIFIED PELOIDAL WACKESTONE</p> <p>Major Lithology:<br/>Pale yellow (5Y 8/3) UNLITHIFIED PELOIDAL WACKESTONE. Dominant allochems are silt- to fine sand-sized peloids. Other allochems include benthic foraminifers, pteropods, echinoderm spines, sponge spicules, ostracodes, and rare planktonic foraminifers. The clay- to silt-size fraction, which comprises the sediment matrix, consists primarily of aragonite needles and micrite.</p> <p>Minor Lithologies:<br/>Pale yellow (5Y 7/3) UNLITHIFIED PELOIDAL WACKESTONE TO PACKSTONE occurs in Section 1.</p> <p>General Description:<br/>A gradual downward decrease in grain abundance occurs from the top of Section 1 to the base of the core.</p> |
| 2     |               | 2       |             |           |         |        |        |   |
| 3     |               | 3       |             |           |         |        |        |   |
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SITE 1009 HOLE A CORE 2H CORED 4.8 - 14.3 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color            | Description   |
|-------|---------------|---------|-------------|-----------|---------|--------|------------------|---|
| 1     |               | 1       | Pleistocene | ●         | }}      | P      | 5Y 8/3           | UNLITHIFIED PELOIDAL WACKESTONE<br><br>Major Lithology:<br>Pale yellow (5Y 8/3 to 5Y 8/2) UNLITHIFIED PELOIDAL WACKESTONE. Dominant allochems are silt- to fine sand-sized peloids. Other allochems include benthic foraminifers, pteropods, echinoderm spines, ostracodes, gastropods, bivalves, bioclasts, and planktonic foraminifers. The clay- to silt-sized fraction, which comprises the sediment matrix, consists primarily of aragonite needles and micrite. |
| 2     |               | 2       |             | ∩         | }}      |        |                  |   |
| 3     |               | 2       |             | ●         | }}      |        |                  |   |
| 4     |               | 3       |             | ∩         | }}      | I      | 5Y 8/2           | Minor Lithologies:<br>Pale yellow (5Y 8/2) to white (5Y 8/1) UNLITHIFIED PELOIDAL MUDSTONE TO WACKESTONE occurs in Section 6 and the Core Catcher.  |
| 5     |               | 3       |             | ●         | }}      |        |                  |   |
| 6     |               | 3       |             | ∩         | }}      |        |                  |   |
| 7     |               | 4       |             | ●         | }}      | P      | 5Y 8/2           |   |
| 8     |               | 4       |             | ∩         | }}      |        |                  |   |
| 9     |               | 5       |             | ●         | }}      | I      | 5Y 8/2 To 5Y 8/1 |   |
|       |               | 5       | ∩           | }}        |         |        |                  |   |
|       |               | 6       | ●           | }}        | M       |        |                  |   |
|       |               | 6       | ∩           | }}        |         |        |                  |   |
|       |               | CC      | ●           | }}        |         |        |                  |   |

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample   | Color   | Description  |
|-------|---------------|---------|-------------|-----------|---------|----------|---|--|
| 1     |               | 1       | Pleistocene |           |         | I        | 5Y 8/2  | <p>UNLITHIFIED PELOIDAL MUDSTONE</p> <p>Major Lithology:<br/>Pale yellow (5Y 8/2) to white (5Y 8/1) UNLITHIFIED PELOIDAL MUDSTONE. Dominant allochems are silt- to very fine sand-sized peloids, benthic foraminifers, and bioclasts. Minor allochems include echinoderm spines and planktonic foraminifers. Coarser grained, gray lithoclasts and phosphatic grains are also present. The clay- to silt-sized fraction, which comprises the sediment matrix, consists primarily of aragonite needles and micrite.</p> |
| 2     |               | 2       |             |           |         |          |   |  |
| 3     |               | 3       |             |           |         |          |   |  |
| 4     |               | 3       |             |           |         |          |   |  |
| 5     |               | 4       |             |           |         |          |   |  |
| 6     |               | 5       |             |           |         |          |   |  |
| 7     |               | 6       |             |           |         |          |   |  |
|       |               | 6       |             |           | P       | 2.5Y 7/2 | <p>Minor Lithologies:<br/>White (5Y 8/1) to light gray (2.5Y 7/2) UNLITHIFIED PELOIDAL MUDSTONE occurs in Section 5. Light gray (2.5Y 7/2) LITHOCLAST PACKSTONE occurs in Section 6, 0-22 cm and gray to light olive gray (5Y 6/2) LITHOCLAST FLOATSTONE occurs in Section 6, 22-44 cm.</p> <p>General Description:<br/>Grain abundance decreases downcore from the top of Section 1 to Section 5. Grain abundance and size increase gradually downcore within Section 5. The lower portion of Section 5 contains ~ 50% gray lithoclasts, some of which are encrusted with serpulid worm tubes. Allochems occurring in the clasts are pteropods, echinoderm spines, benthic and planktonic foraminifers. Lithoclasts (submarine-cemented hard layers ?) are more abundant below Section 6, 22 cm. One of these cemented layers is a 4 cm thick hardground. It contains internal geopetal cement and is encrusted at the top by bryozoans.</p> |  |

SITE 1009 HOLE A CORE 4H CORED 23.8 - 33.3 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color  | Description  |
|-------|---------------|---------|-------------|-----------|---------|--------|--|--|
| 1     |               | 1       | Pleistocene |           | ---     | I      | 5Y 8/1   | UNLITHIFIED PELOIDAL WACKESTONE  |
|       |               |         |             | 5Y 8/3    |         |        | Major Lithology:<br>Light gray (5Y 7/2) to pale yellow (5Y 8/2) UNLITHIFIED PELOIDAL WACKESTONE. Dominant allochems are silt- to very fine sand-sized peloids, benthic foraminifers, and bioclasts. Minor allochems include echinoderm spines and planktonic foraminifers. Coarser grained, gray lithoclasts and phosphatic grains are also present. The clay- to silt-sized fraction, which comprises the sediment matrix, consists primarily of aragonite needles and micrite. |  |
| 2     |               | 2       |             | 5Y 7/2    |         |        | Minor Lithologies:<br>White (5Y 8/1) to light gray (5Y 7/1) PELOIDAL PACKSTONE TO WACKESTONE occurs in Section 1, 7-62 cm. In addition to peloids, fine grained allochems include benthic foraminifers, planktonic foraminifers, bioclasts, pteropods, bivalves, echinoderm fragments, and numerous black (phosphatic?) grains. The matrix consists primarily of micrite with only a minor amount of aragonite needles.  |  |
| 3     |               | 3       |             | 5Y 8/2    |         |        | Pale yellow (5Y 8/3) BIOCLASTIC FLOATSTONE with large, lithoclasts occurs in Section 1, 62-106 cm.   |  |
| 4     |               | CC      |             |           | M       |        |  | General Description:<br>A hardground layer occurs in Section 1, 85 cm. This layer is lithified, bored, and encrusted on the top with serpulid worm tubes and bryozoans. A fining-upward interval occurs above a zone of large lithoclasts in Section 1, 62-106 cm. |

SITE 1009 HOLE A CORE 5H CORED 33.3 - 38.3 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample   | Color  | Description   |
|-------|---------------|---------|-------------|-----------|---------|----------|--------|---|
| 1     |               | 1       | Pleistocene |           |         | I        | 5Y 8/1 | <p>UNLITHIFIED PELOIDAL MUDSTONE TO WACKESTONE</p> <p>Major Lithology: White (5Y 8/1), light gray (5Y 7/1), and pale yellow (5Y 8/2) UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE. Well-sorted, silt- to fine sand-sized allochems include peloids, benthic foraminifers, planktonic foraminifers, pteropods, ostracodes, and bioclasts. The clay- to silt-sized fraction, which comprises the sediment matrix, consists of up to 60% aragonite needles and 18% micrite.</p> <p>General Description: A downcore reduction in grain abundance is observed in Section 1. The entire core contains partially lithified burrows filled with coarse, gray grains.</p> |
| 2     |               | 2       |             |           |         |          |        |   |
| 3     |               | 3       |             |           |         |          |        |   |
| 4     |               | 3       |             |           |         |          |        |   |
|       |               | CC      |             |           |         | P I<br>M | 5Y 7/1 |   |

SITE 1009 HOLE A CORE 6H CORED 38.3 - 42.3 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color            | Description   |
|-------|---------------|---------|-------------|-----------|---------|--------|------------------|---|
| 1     |               | 1       | Pleistocene |           |         | M      | 5Y 8/1 To 5Y 7/1 | <p>LITHOCLAST FLOATSTONE</p> <p>Major Lithology: Light gray (5Y 7/1) LITHOCLAST FLOATSTONE. Lithified elements are 0.5-5 cm pieces of wackestone and packstone. Allochems in the lithified layer include pteropods, bioclasts, planktonic foraminifers, and peloids. Allochems between the lithoclasts include black grains (up to gravel size), bioclasts, peloids, benthic and planktonic foraminifers, echinoderm spines, and bivalve fragments.</p> |
|       |               | CC      |             |           |         |        |                  |   |

SITE 1009 HOLE A CORE 7H

CORED 42.3 - 51.8 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample         | Color  | Description  |
|-------|---------------|---------|-------------|-----------|---------|----------------|--------|--|
| 1     |               | 1       | Pleistocene | ⦿         | W       | S              | 5Y 7/3 | <p>UNLITHIFIED PELOIDAL WACKESTONE</p> <p>Major Lithology:<br/>Pale yellow (5Y 8/2 and 5Y 7/3) UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE. Dominant sand-sized allochems are peloids and benthic foraminifers. Other allochems include bioclasts, planktonic foraminifers, bivalves, and pteropods. Blackened grains (phosphatic?) are concentrated in burrows. The clay- to silt-sized fraction, which comprises the sediment matrix, consists of 15-37% micrite and 10 to 20% aragonite needles.</p> <p>Minor Lithologies:<br/>Pale yellow (5Y 7/3) UNLITHIFIED PELOIDAL WACKESTONE TO PACKSTONE occurs in Section 1. In addition to peloids, sand-sized allochems include bioclasts, benthic foraminifers, lithoclasts, pteropods, serpulids, and planktonic foraminifers.</p> |
| 2     |               | 2       |             | ⦿         | W       | I              | 5Y 8/2 |  |
| 3     |               | 3       |             | ⦿         | W       | I              |        |  |
| 4     |               | 4       |             | ⦿         | W       | I              |        |  |
| 5     |               | 5       |             | ⦿         | W       | S              | 5Y 7/3 |  |
| 6     |               | 6       |             | ⦿         | W       | P <sub>I</sub> |        |  |
| 7     |               | 7       |             | ⦿         | W       | P <sub>I</sub> |        |  |
| 8     |               | 8       |             | ⦿         | W       | P <sub>I</sub> |        |  |
| 9     |               | 9       |             | ⦿         | W       | S              | 5Y 8/2 |  |

SITE 1009 HOLE A CORE 8H

CORED 51.8 - 61.3 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color            | Description   |   |        |
|-------|---------------|---------|-------------|-----------|---------|--------|------------------|---|---|--------|
| 1     |               | 1       | Pleistocene | ●         | }}      | I      | 5Y 8/1           | <p>UNLITHIFIED PELOIDAL WACKESTONE</p> <p>Major Lithology:<br/>Pale yellow (5Y 8/2) to light gray (5Y 7/2) UNLITHIFIED PELOIDAL WACKESTONE. Dominant sand-sized allochems are peloids, bioclasts, and benthic foraminifers. Other allochems include planktonic foraminifers, bivalves, pteropods, and echinoderm fragments. Blackened (phosphatic?) grains are concentrated in burrows. The clay- to silt-sized fraction, which comprises the sediment matrix, consists of 40% aragonite needles and 15% micrite.</p> |   |        |
| 2     |               | 2       |             | ●         | }}      |        |                  |   | P | 5Y 8/2 |
| 3     |               | 3       |             | ○         | }}      |        |                  |   |   |        |
| 4     |               | 3       |             | ●         | }}      |        |                  |   |   |        |
| 5     |               | 4       |             | ●         | }}      | I      | 5Y 7/2 To 5Y 8/2 | <p>Minor Lithologies:<br/>White (5Y 8/1) PELOIDAL MUDSTONE TO WACKESTONE. In addition to peloids, silt- to sand-sized allochems include benthic foraminifers, bioclasts, pteropods, echinoderm fragment, and blackened (phosphatic) grains.</p>   |   |        |
| 6     |               | 4       |             | ●         | }}      |        |                  |   |   |        |
| 7     |               | 5       |             | ●         | }}      |        |                  |   |   |        |
| 8     |               | 6       |             | ●         | }}      | M      |                  |   |   |        |
| 9     |               | 7       |             | ●         | }}      |        |                  |   |   |        |
|       |               | CC      |             | }}        |         |        |                  |   |   |        |

SITE 1009 HOLE A CORE 9H CORED 61.3 - 70.8 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color  | Description   |   |  |
|-------|---------------|---------|-------------|-----------|---------|--------|--------|---|---|--|
| 1     |               | 1       | Pleistocene |           |         | I      | 5Y 8/2 | UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE<br><br>Major Lithology:<br>Pale yellow (5Y 8/2) to light gray (5Y 7/2) UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE. Dominant sand-sized allochems are peloids, bioclasts, and benthic foraminifers. Other allochems include planktonic foraminifers, ostracodes, pteropods, and echinoderm fragments. Blackened grains (phosphatic?) are concentrated in burrows. Coarse-grained lithoclasts occur in Sections 1 and 2. The clay- to silt-sized fraction, which comprises the sediment matrix, consists primarily of aragonite needles and micrite. |   |  |
| 2     |               | 2       |             |           |         |        |        |   |   |  |
| 3     |               | 3       |             |           |         |        |        |   |   |  |
| 4     |               | 3       |             |           |         |        | S      | 5Y 6/1  | Minor Lithologies:<br>Gray (5Y 6/1) FLOATSTONE containing large cemented clasts of pteropod foraminifer packstone occurs in Section 3, 68-103 cm. The interval contains also shell debris and whole gastropods and bivalves. Cemented clasts are heavily bored. White (5Y 8/1) to pale yellow (5Y 8/2) PELOIDAL MUDSTONE occurs in Section 5 to the base of the core. Peloids are the dominant allochem with lesser amounts of benthic and planktonic foraminifers, pteropods, and ostracodes. The matrix of this mudstone consists of 60-70% aragonite needles and 10-20% micrite. |  |
| 5     |               | 4       |             |           |         |        |        |   |   |  |
| 6     |               | 4       |             |           |         |        |        |   |   |  |
| 7     |               | 5       |             |           |         |        | S      | I   | 5Y 8/2  |  |
| 8     |               | 6       |             |           |         |        |        |   |   |  |
| 9     |               | 7       |             |           |         |        |        |   |   |  |
| CC    |               |         |             |           |         | M      |        |   |   |  |





SITE 1009 HOLE A CORE 11H CORED 73.8 - 83.3 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color            | Description  |
|-------|---------------|---------|-------------|-----------|---------|--------|------------------|--|
| 1     |               | 1       | Pleistocene |           | W       | P      | 5Y 8/2 To 5Y 8/1 | <p>UNLITHIFIED PELOIDAL WACKESTONE</p> <p>Major Lithology:<br/>White (5Y 8/1) to pale yellow (5Y 8/2) UNLITHIFIED PELOIDAL WACKESTONE. Dominant allochems are fine to medium sand-sized peloids and benthic foraminifers. Planktonic foraminifers occur in minor amounts. The clay- to silt-size fraction, which comprises the sediment matrix, consists primarily of aragonite needles with minor amounts of micrite and calcareous nannofossils. Micrite abundance increases in darker parts of the core.</p> <p>General Description:<br/>This entire core is characterized by moderate to strong bioturbation, which is visible as: (1) round, structureless burrows up to 1 cm in diameter; and (2) color mottling. Some burrows contain concentrations of blackened foraminifers.</p> |
| 2     |               | 2       |             |           |         |        |                  |  |
| 3     |               | 3       |             |           |         |        |                  |  |
| 4     |               | 4       |             |           |         |        |                  |  |
| 5     |               | 5       |             |           |         |        |                  |  |
| 6     |               | 6       |             |           |         |        |                  |  |
| 7     |               | 5       |             |           |         |        |                  |  |
| 8     |               | 6       |             |           |         |        |                  |  |
| CC    |               | CC      |             |           |         | M      |                  |  |

SITE 1009 HOLE A CORE 12H

CORED 83.3 - 86.3 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color            | Description   |
|-------|---------------|---------|-------------|-----------|---------|--------|------------------|---|
| 1     |               | 1       | Pleistocene |           |         | M      | 5Y 7/2 To 5Y 7/4 | UNLITHIFIED PELOIDAL PACKSTONE<br><br>Major Lithology:<br>Light gray (5Y 7/2) to pale yellow (5Y 7/3) UNLITHIFIED PELOIDAL PACKSTONE. Dominant allochems are silt- to sand-sized peloids and benthic foraminifers. Minor components include bioclasts and ostracodes. |
|       |               |         | CC          |           |         |        |                  |   |





| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color            | Description   |
|-------|---------------|---------|-------------|-----------|---------|--------|------------------|---|
| 1     |               | 1       |             |           | W       |        | 5Y 8/1           | UNLITHIFIED MUDSTONE TO WACKESTONE, NANNOFOSSIL OOZE, UNLITHIFIED PACKSTONE, and UNLITHIFIED WACKESTONE   |
| 2     |               | 2       | X           |           | W       | S      |                  | Major Lithologies:<br>Pale yellow (5Y 8/1) to light gray (5Y 7/1) UNLITHIFIED WACKESTONE TO MUDSTONE, NANNOFOSSIL OOZE, UNLITHIFIED PACKSTONE, AND UNLITHIFIED WACKESTONE. Silt- to sand-sized grains include peloids, benthic and planktonic foraminifers, pteropods, and skeletal fragments. Peloids dominate in Sections 1, 5, 6, and the Core Catcher. Pteropods are the dominant component in Section 3, while foraminifers dominate in Sections 2 and the below 57 cm in Section 4. Grains are blackened in Sections 3, 5, 6 (40-140 cm), and the Core Catcher.   |
| 3     |               |         |             |           | W       | I      | 5Y 7/1           |   |
| 4     |               | 3       |             |           | W       |        |                  | General Description:<br>This core is marked by sharp changes in: (1) lithology; and (2) dominant components. Unlithified peloidal mudstone to wackestone in Section 1 grades downcore into nannofossil ooze in Section 2. Section 3 consists of an unlithified bioclastic packstone, which contains abundant blackened pteropods and large lithoclasts. The upper 57 cm of Section 3 consists of unlithified bioclastic grainstone (turbidite sequence), which contains fine to coarse sand-sized peloids, planktonic and benthic foraminifers, as well as encrusting foraminifers, shell fragments, and Halimeda. Below this interval in Section 4 and into Section 5, the core consists of unlithified wackestone to mudstone. Below 40 cm in Section 6, the core consists of unlithified bioclastic foraminifer packstone to grainstone. This interval contains abundant blackened grains. |
| 5     |               | 4       | Pleistocene |           | W       | S      | 2.5Y 8/2         |   |
| 6     |               |         |             |           | W       |        |                  |   |
| 7     |               | 5       |             |           | W       | S      | 5Y 8/1 To 5Y 7/1 |   |
| 8     |               |         |             |           | W       | I      |                  |   |
| 9     |               | 6       |             |           | W       | M      |                  |   |

SITE 1009 HOLE A CORE 15H CORED 105.3 - 111.8 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color    | Description   |
|-------|---------------|---------|-------------|-----------|---------|--------|----------|---|
| 1     |               | 1       | Pleistocene |           | ~       | I      | 5Y 7/1   | UNLITHIFIED PELOIDAL WACKESTONE and UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE   |
| 2     |               | 2       |             |           | ~       |        | 2.5Y 8/2 | Major Lithologies:<br>Light gray (5Y 7/1) to pale yellow (5Y 8/1 to 5Y 8/2) UNLITHIFIED PELOIDAL WACKESTONE and UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE.  |
| 3     |               | 3       |             |           | ~       |        | 5Y 8/1   | Dominant allochems are silt-sized peloids. Minor components include planktonic and benthic foraminifers. The clay- to silt-size fraction, which comprises the matrix, consists primarily of aragonite needles and minor amounts of nannofossils, micrite, and clay. |
| 4     |               | 4       |             |           | ~       |        |          | S   |
| 5     |               | 5       |             |           | ~       |        | I        |   |
| 6     |               | 6       |             |           | ~       |        |          |   |
| CC    |               | CC      |             | ~         |         |        |          |   |

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color            | Description   |
|-------|---------------|---------|-------------|-----------|---------|--------|------------------|---|
| 1     |               | 1       | Pleistocene |           |         | M      | 5Y 7/1 To 5Y 8/1 | <p>UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE and UNLITHIFIED PELOIDAL WACKESTONE</p> <p>Major Lithologies:<br/>Light gray (5Y 7/1) to pale yellow (5Y 8/2) UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE and UNLITHIFIED PELOIDAL WACKESTONE. In addition to peloids, fine sand-sized components include planktonic foraminifers, benthic foraminifers, and bioclasts. Blackened lithoclasts occur in the upper 17 cm of Section 1.</p> <p>Minor Lithologies:<br/>Light gray (5Y 7/1) FORAMINIFER PACKSTONE TO WACKESTONE occurs in Section 1, 17-23 cm. Components include planktonic foraminifers, benthic foraminifers, and blackened lithoclasts. This interval represents a marine hardground.</p> |







| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color  | Description  |
|-------|---------------|---------|-------------|-----------|---------|--------|--------|--|
| 1     |               | 1       | Pleistocene | ◆         | ○       | I      | 5Y 8/2 | <p>UNLITHIFIED BIOCLASTIC WACKESTONE</p> <p>Major Lithology:<br/>Pale yellow (5Y 8/2) UNLITHIFIED BIOCLASTIC WACKESTONE. Dominant components are silt-sized bioclasts. Minor components include silt-sized planktonic and benthic foraminifers, peloids, and sand-sized lithoclasts. The silt- to clay-size fraction, which comprises the matrix, consists primarily of aragonite needles with minor amounts of calcareous nannofossils and micrite.</p> <p>General Description:<br/>Pervasive moderate bioturbation is visible as color mottling and round, structureless burrows containing concentrations of lithoclasts. A clast of foraminifer wackestone occurs at the top of Section 2.</p> |
| 2     |               | 2       |             | ◆         | ○       |        |        |  |
|       |               | CC      |             | ◆         | W       |        |        |  |

SITE 1009 HOLE A CORE 19X CORED 132.9 - 142.5 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color  | Description  |
|-------|---------------|---------|-------------|-----------|---------|--------|--------|--|
| 1     |               | 1       | Pleistocene | ⌘         | ~~~~~   | S      | 5Y 7/2 | PARTIALLY LITHIFIED BIOCLASTIC WACKESTONE and UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE  |
| 2     |               | 2       |             |           |         |        |        | Major Lithologies:<br>Light gray (5Y 7/2) PARTIALLY LITHIFIED BIOCLASTIC WACKESTONE and white (5Y 8/1) UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE. Dominant allochems in partially lithified bioclastic wackestone are silt-sized bioclasts. Components in unlithified peloidal wackestone to mudstone are dominated by silt-sized peloids.   |
| 3     |               | 3       |             |           |         |        |        | General Description:<br>Partially lithified bioclastic wackestone is characterized only by slight bioturbation, which is visible as round, structureless burrows. Unlithified peloidal wackestone to mudstone is moderately bioturbated, visible as color mottles, and is faintly laminated in Section 5. Just below the contact between the two lithologies in this core (Section 4, 68 cm), coral debris, benthic foraminifers (Amphistegina), pteropods, and blackened lithoclasts occur. |
| 4     |               | 4       |             |           |         |        |        |  |
| 5     |               | 5       |             |           |         |        |        |  |
| 6     |               | 6       |             | I         | 5Y 8/1  |        |        |  |
| 7     |               | 7       |             | S         |         |        |        |  |
|       |               | CC      |             |           | M       |        |        |  |

| Meter   | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color  | Description   |
|---|---------------|---------|-------------|-----------|---------|--------|--------|---|
| 1   |               | 1       | Pleistocene |           |         | S      | 5Y 8/2 | UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE and PARTIALLY LITHIFIED FORAMINIFER WACKESTONE TO MUDSTONE  |
| 2   |               | 2       |             |           |         | I      | 5Y 8/1 | Major Lithologies:<br>Pale yellow (5y 8/2) to white (5Y 8/1) UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE AND PARTIALLY LITHIFIED FORAMINIFER WACKESTONE TO MUDSTONE. Dominant silt- to sand-sized allochems include peloids, bioclasts, benthic and planktonic foraminifers, echinoderm fragments, and black (phosphatic?) grains. The silt- to clay-size fraction, which comprises the matrix, consists of 40% micrite, 30% aragonite needles, and 5% nannofossils.  |
| 3   |               | 3       |             |           |         |        |        |   |
| 4   |               | 4       |             |           |         |        |        |   |
| 5   |               | CC      |             |           |         |        |        |   |
|   |               |         |             |           |         | M      | 5Y 7/1 | Minor Lithologies:<br>White (5Y 8/1) PARTIALLY LITHIFIED BIOCLASTIC PACKSTONE TO WACKESTONE occurs in the lower portion of Section 3. Dominant allochems include silt- to sand-sized planktonic and benthic foraminifers, gastropods, echinoderm spines, pteropods, peloids, shell fragments, crab debris, and numerous black (phosphatic?) grains. The matrix constituents include 25% micro spar, 25% micrite, and 10-15% calcareous nannofossils. Light gray (5Y 7/1) PARTIALLY LITHIFIED PELOIDAL PACKSTONE occurs in Section 4 and the Core Catcher. |
| <p>General Description:<br/>A downward increase in grain size, grain abundance, and the quantity of gray grains in Section 3 to Section 4. Carbonate nodules (3 cm) occur in Section 4, 15-25 cm.</p> |               |         |             |           |         |        |        |   |

1009A-21X NO RECOVERY



SITE 1009 HOLE A CORE 22X CORED 161.5 - 170.8 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color            | Description   |
|-------|---------------|---------|-------------|-----------|---------|--------|------------------|---|
| 1     |               | 1       | Pleistocene |           |         | S      | 5Y 6/3           | PARTIALLY LITHIFIED BIOWACKESTONE, UNLITHIFIED PELOIDAL WACKESTONE and PARTIALLY LITHIFIED PELOIDAL WACKESTONE TO PACKSTONE   |
| 2     |               | 2       |             |           |         | I      | 5Y 7/3 To 5Y 7/2 | Major Lithologies: Pale olive (5Y 6/3) PARTIALLY LITHIFIED BIOWACKESTONE, and pale yellow (5Y 7/3) to light gray (5Y 7/2) UNLITHIFIED PELOIDAL WACKESTONE and PARTIALLY LITHIFIED PELOIDAL WACKESTONE TO PACKSTONE. Allochems include bioclasts, benthic and planktonic foraminifers, peloids, and echinoderm spines. Some grains are covered with a brownish coating. The clay- to silt-size fraction, which comprises the matrix, consists of micrite, and minor amounts of aragonite needles and calcareous nannofossils. Moderate to intense bioturbation is pervasive. |
| 3     |               | 3       |             |           |         |        |                  |   |
| 4     |               | 4       |             |           |         |        |                  |   |
| 5     |               | 4       |             |           |         | S      |                  |   |
|       |               | CC      |             |           |         | M      |                  |   |

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color    | Description   |
|-------|---------------|---------|-------------|-----------|---------|--------|----------|---|
| 1     |               | 1       | Pleistocene |           | ~       | S      | 2.5Y 8/2 | <p>PARTIALLY LITHIFIED PELOIDAL WACKESTONE TO MUDSTONE and UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE</p> <p>Major Lithologies:<br/>Pale yellow (2.5Y 8/2) PARTIALLY LITHIFIED PELOIDAL WACKESTONE TO MUDSTONE and UNLITHIFIED PELOIDAL WACKESTONE TO MUDSTONE. In addition to fine sand-sized peloids, allochems include bioclasts, planktonic foraminifers, intraclasts, sponge spicules, and echinoderm spines. The clay- to silt-size fraction, which comprises the matrix, consists of aragonite needles and micrite with minor amounts of calcareous nannofossils.</p> |
| 2     |               | 2       |             |           | ~       |        |          |   |
| 3     |               | 3       |             |           | ~       |        |          |   |
| 4     |               | 4       |             |           | ~       |        |          |   |
| 5     |               | 5       |             |           | ~       |        |          |   |
| 6     |               | 6       |             |           | ~       |        |          |   |
| 7     |               | 7       |             |           | ~       | I      |          | <p>Minor Lithologies:<br/>Pale yellow (2.5Y 8/2) PARTIALLY LITHIFIED PELOIDAL WACKESTONE TO Light gray (5Y 7/1) PARTIALLY LITHIFIED BIOFLOATSTONE occurs in Section 5, 80-121 cm. Components include pteropods, lithoclasts, planktonic and benthic foraminifers, and echinoderm spines. Clasts of pale yellow (2.5Y 8/2) FORAMINIFER WACKESTONE occur in the Core Catcher.</p>   |
| 8     |               | 8       |             |           | ~       | M      |          | <p>General Description:<br/>A turbidite occurs in Section 5, 80 - 121 cm. Associated components include pteropods, gray lithoclasts, planktonic and benthic foraminifers, and echinoderm spines.</p>  |

SITE 1009 HOLE A CORE 24X CORED 180.1 - 189.4 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color | Description  |
|-------|---------------|---------|-------------|-----------|---------|--------|-------|--|
| 1     |               | 1       | Pleistocene |           |         |        |       | <p>UNLITHIFIED PELOIDAL BIOWACKESTONE TO MUDSTONE, PARTIALLY LITHIFIED PELOIDAL BIOWACKESTONE TO MUDSTONE and PARTIALLY LITHIFIED BIOWACKESTONE</p> <p>Major Lithologies:<br/>Pale yellow (2.5Y 8/2) UNLITHIFIED PELOIDAL BIOWACKESTONE TO MUDSTONE, PARTIALLY LITHIFIED PELOIDAL BIOWACKESTONE TO MUDSTONE, and PARTIALLY LITHIFIED BIOWACKESTONE. In addition to peloids, dominant allochems include fine to medium sand-sized bioclasts, benthic foraminifers, and planktonic foraminifers. Some grains are blackened.</p> <p>General Description:<br/>Moderate bioturbation is pervasive, and visible as round, structureless burrows. Some burrows are partially lithified.</p> |
| 2     |               | 2       |             |           |         |        |       |  |
| 3     |               | 3       |             |           |         |        |       |  |
| 4     |               | 4       |             |           |         |        |       |  |
| 5     |               | 5       |             |           |         |        |       |  |
| 6     |               | 6       |             |           |         |        |       |  |
| 7     |               | 7       |             |           |         |        |       |  |
| 8     |               | 8       |             |           |         | I      |       |  |
| 9     |               | 9       |             |           |         |        |       |  |
|       |               |         |             |           |         | M      |       |  |

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color    | Description   |
|-------|---------------|---------|-------------|-----------|---------|--------|----------|---|
| 1     |               | 1       | Pleistocene |           | ~       | I      | 2.5Y 8/2 | <p>PARTIALLY LITHIFIED BIOWACKESTONE and PARTIALLY LITHIFIED BIOWACKESTONE TO MUDSTONE</p> <p>Major Lithologies:<br/>Pale yellow (2.5Y 8/2) PARTIALLY LITHIFIED BIOWACKESTONE and BIOWACKESTONE TO MUDSTONE. In addition to bioclasts, dominant allochems include fine sand-sized peloids, lithoclasts, benthic foraminifers, and planktonic foraminifers. Some grains are blackened.</p> <p>General Description:<br/>Pervasive moderate bioturbation is visible as faint color mottles, and as round, structureless burrows filled with grayish or whitish sediment. Faint, mm-scale laminations are visible throughout the entire core.</p> |
| 2     |               | 2       |             |           |         |        |          |   |
| 3     |               | 3       |             |           |         |        |          |   |
| 4     |               | 4       |             |           |         |        |          |   |
| 5     |               | 5       |             |           |         |        |          |   |
| 6     |               | 6       |             |           |         |        |          |   |
| 7     |               | 7       |             |           |         |        |          |   |
| 8     |               | 8       |             |           |         |        |          |   |
| 9     |               | 9       |             |           |         |        |          |   |
| CC    |               | CC      |             |           |         | M      |          |   |

SITE 1009 HOLE A CORE 26X CORED 198.5 - 207.6 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color    | Description   |
|-------|---------------|---------|-------------|-----------|---------|--------|----------|---|
| 1     |               | 1       | Pleistocene |           |         | S      | 2.5Y 8/2 | <p>PARTIALLY LITHIFIED BIOWACKESTONE, PARTIALLY LITHIFIED BIOWACKESTONE TO PACKSTONE and PARTIALLY LITHIFIED BIOWACKESTONE TO MUDSTONE</p> <p>Major Lithologies:<br/>                     Pale yellow (2.5Y 8/2) PARTIALLY LITHIFIED BIOWACKESTONE, PARTIALLY LITHIFIED BIOWACKESTONE TO PACKSTONE, and PARTIALLY LITHIFIED BIOWACKESTONE TO MUDSTONE. In addition to bioclasts, dominant allochems include fine sand-sized peloids, benthic foraminifers, planktonic foraminifers, ostracodes, and rare bivalve fragments. Some grains are blackened. The clay- to silt-size fraction, which comprises the matrix, consists of subequal amounts of micrite and aragonite needles.</p> <p>General Description:<br/>                     Pervasive moderate bioturbation is visible as faint color mottles, and as round, structureless burrows filled with greenish sediment. Lithology changes reflect changes in grain abundance.</p> |
| 2     |               | 2       |             |           |         | S      |          |   |
| 3     |               | 3       |             |           |         | S      |          |   |
| 4     |               | 3       |             |           |         | I      |          |   |
| 5     |               | 4       |             |           |         | I      |          |   |
| 6     |               | 4       |             |           |         | I      |          |   |
| 7     |               | 5       |             |           |         | S      |          |   |
|       |               | CC      |             |           | M       |        |          |   |

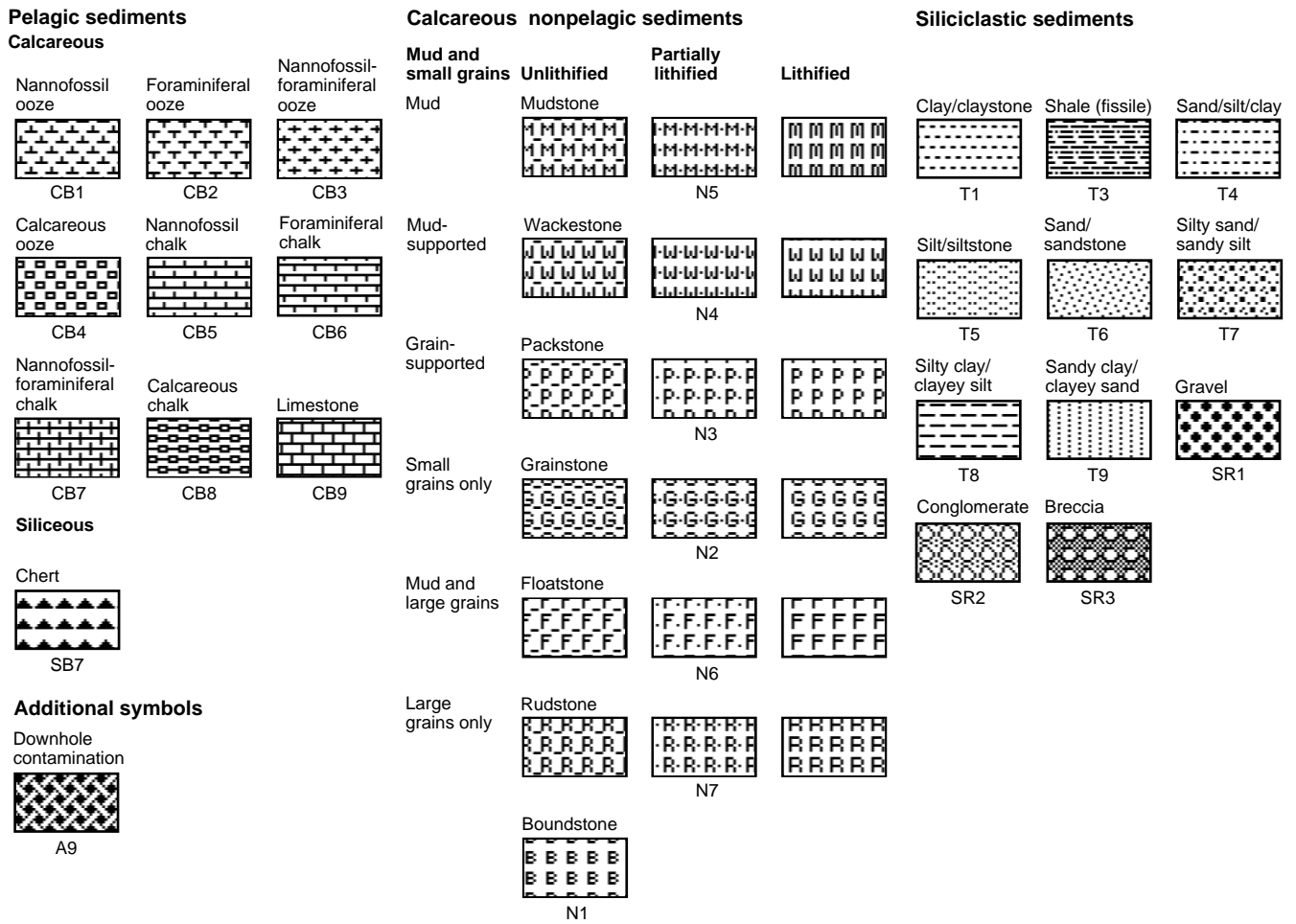


| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color | Description  |
|-------|---------------|---------|-------------|-----------|---------|--------|-------|--|
| 1     |               | 1       |             |           | ~       |        |       | <p>PARTIALLY LITHIFIED BIOWACKESTONE and PARTIALLY LITHIFIED BIOWACKESTONE TO MUDSTONE</p> <p>Major Lithologies:<br/>White (2.5Y 8/1) PARTIALLY LITHIFIED BIOWACKESTONE and PARTIALLY LITHIFIED BIOWACKESTONE TO MUDSTONE. In addition to bioclasts, dominant allochems include fine sand-sized peloids, ostracodes, benthic foraminifers, planktonic foraminifers, and echinoderm spines. Some grains are covered with a brown coating. The clay- to silt-size fraction, which comprises the matrix, consists of subequal amounts of micrite and aragonite needles.</p> <p>General Description:<br/>Pervasive moderate bioturbation is visible as faint color mottles, and as round, structureless burrows filled with greenish sediment. Lithology changes reflect changes in grain abundance.</p> |
| 2     |               | 2       |             |           | ~       | S      |       |  |
| 3     |               | 3       |             |           | ~       |        |       |  |
| 4     |               | 3       |             |           | ~       |        |       |  |
| 5     |               | 4       | Pleistocene |           | ~       | I      |       |  |
| 6     |               | 4       |             |           | ~       |        |       |  |
| 7     |               | 5       |             |           | ~       |        |       |  |
| 8     |               | 6       |             |           | ~       |        |       |  |
| 9     |               | 7       |             |           | ~       |        |       |  |
| CC    |               |         |             |           | ~       | M      |       |  |

SITE 1009 HOLE A CORE 28X CORED 216.7 - 226.1 mbsf

| Meter | Graphic Lith. | Section | Age         | Structure | Disturb | Sample | Color  | Description  |
|-------|---------------|---------|-------------|-----------|---------|--------|--------|--|
| 1     |               | 1       | Pleistocene |           | ~       |        |        | PARTIALLY LITHIFIED BIOWACKESTONE and PARTIALLY LITHIFIED BIOWACKESTONE TO MUDSTONE  |
| 2     |               | 2       |             |           | ~       |        | 5Y 8/2 | Major Lithologies: White (2.5Y 8/1) PARTIALLY LITHIFIED BIOWACKESTONE and PARTIALLY LITHIFIED BIOWACKESTONE TO MUDSTONE. In addition to bioclasts, dominant allochems include fine sand-sized peloids, ostracodes, benthic foraminifers, planktonic foraminifers, and echinoderm spines. Some grains are covered with a brown coating. The clay- to silt-size fraction, which comprises the matrix, consists of subequal amounts of micrite and aragonite needles. |
| 3     |               | 3       |             |           | ~       |        | 5Y 8/1 | General Description: Pervasive moderate bioturbation is visible as faint color mottles, and as round, structureless burrows filled with greenish sediment. Lithology changes reflect changes in grain abundance.   |
| 4     |               | 4       |             |           | ~       |        | 5Y 7/1 |  |
| 5     |               | 4       |             |           | ~       |        | 5Y 8/3 |  |
| 6     |               | 5       |             | ~         | I       |        |        |  |
| 7     |               | 5       |             | ~         |         | 5Y 7/2 |        |  |
|       |               | CC      |             |           | M       |        |        |  |

**Figure 1 (Chapter 4). Key to lithologic symbols used in graphic lithology column on core description forms.**



**Figure 2 (Chapter 4). Symbols showing drilling disturbance and sedimentary structures used for core descriptions.**

