P-wave Velocity, Wet Bulk Density, Magnetic Susceptibility, Acoustic Impedance, and Visual Core Descriptions of Sediment Recovered During Research Cruise EW9504: Data, Techniques, and Procedures

James V. Gardner¹, Brian D. Edwards¹, Walter E. Dean², and June Wilson³

¹ U.S. Geological Survey
Branch of Pacific Marine Geology
345 Middlefield Road, MS-999
Menlo Park, CA 94025

² Branch of Sedimentary Processes
Denver Federal Center, MS-939
Denver, CO 80225

³ School of Oceanography
Oregon State University
Corvallis, OR 97331

Open-File Report 95-533

This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards. Use of trade names in this report is for descriptive purposes only and does not imply endorsement by the U.S. Government
P-wave velocity, wet bulk density, magnetic susceptibility, acoustic impedance, and visual core descriptions of sediment recovered during research cruise EW9504: Data, techniques, and procedures

Introduction

The data presented in this report catalog measured compression-wave (P-wave) velocity, wet bulk density, magnetic susceptibility and calculated acoustic impedance of sediment-core samples collected as part of the 1995 California Margin Site Survey (CMSS) cruise aboard R/V Maurice Ewing (EW9504). Visual sediment descriptions are included for ease of correlation of sediment properties with sediment facies. The project was a National Science Foundation/Ocean Drilling Program (NSF/ODP) site-survey cruise in preparation for ODP drilling along the California margin scheduled for the spring of 1996. The piston-coring sites are located along the northern Baja California, California, and southern Oregon margins (Fig. 1). The existing seismic sections in the vicinity of the coring sites are described in detail in Lyle and Galloway (1994). The cruise, conducted aboard R/V Maurice Ewing, departed San Diego, CA, on May 17, 1995, and returned to Eureka, CA, on June 7, 1995. Operations included digital 4-channel seismic-reflection profiling with dual 80-in³ water guns, an Edo Western 3.5-kHz system, a Krupp-Atlas Hydro-Sweep multibeam swath-mapping system, and bottom sampling using the Woods Hole Oceanographic Institution (WHOI) piston corer as well as an Oregon State University (OSU) Ocean Instruments Multi-Corer. All piston cores and selected multicores were logged with the USGS Multi-Sensor Logger (USGS-MSL) prior to splitting. Split sections were described for visual attributes and logged on the OSU Multi-Spectral Logger and the ODP color scanner. This report describes the physical- and acoustical-properties data generated aboard ship using the USGS Multi-Sensor Logger and also presents the visual core descriptions. The seismic-reflection and Hydro-Sweep data are described elsewhere (Lyle, et al., in prep.).

Table 1 gives location, water depth, core length, and ODP site designation for each of the 15 piston cores and 2 multicores. The WHOI piston corer is a modification of a standard marine piston corer; the major differences being a 4200 lb weight stand with steel barrels lined with standard (nominally 11.8 cm OD, 10.1 cm ID) PVC-Schedule 40 water pipe. Most trigger cores were collected using the identical liner but without an external steel corer barrel.

**Deck Handling and Core Archiving Conventions**

Each core was cut into 1.5-m (±) sections. Section 1 was designated the bottommost section of the core, thus the top section is of variable length. Each section was capped with a pre-trimmed end cap and secured in place with electrical tape. The standard size cap plug has a 7-cm-long lip that was trimmed to about 2.5 cm for improved USGS-MSL logging. Once capped, each section was stored upright until logged on the USGS-MSL. Multi-Sensor logging was the first processing station for each core.
Figure 1. Location of core stations on cruise EW9504. Cities indicated are Ensenada (EN), San Diego (SD), Los Angeles (LA), San Francisco (SF), and Eureka (EU).
R/V Maurice Ewing Laboratory

The USGS-MSL system was set up on the port side of the Dry Staging Lab aboard R/V Ewing for cruise EW9504. This location was chosen so that the $^{137}$Cs source for the gamma-ray attenuation "porosity" evaluator (GRAPE) was positioned to emit gamma rays over the side of the ship and away from any passages or personnel working in the lab. The area surrounding the entire logger operation was cordoned off and posted as a radiation area, and all personnel other than those other than those listed on the USGS-MSL Nuclear Regulatory Commission license were required to use a parallel passage away from the MSL system. The location proved ideal under operating conditions. Figure 2 shows the working layout of the lab.

USGS Multi-Sensor Logging System

The USGS-MSL system is described in detail by Kayen (1994) and Cowen et al. (1994) and many of the principles are described in Boyce (1970). The following description is excerpted from that report. The USGS-MSL consists of a 4-m-long tracking system, a compression-wave (P-wave) velocity and core-diameter sensor, a GRAPE, and a magnetic-susceptibility sensor (Fig. 3), all controlled by a Macintosh...
SE/30 driven by acquisition software written as a HyperCard© stack (Kayen and Phi, in press). Whole-core sections, up to 1.5 m in length can be logged with the MSL.

The tracking system is run by a computer-controlled stepper motor that advances the core section at a selectable interval that was set to 1 cm during the cruise. Each core section was run consecutively through the sensors, starting with the top (sediment surface) section and progressing through to the bottom of the core. The trigger-weight cores were analyzed in an identical manner.

Figure 3. Plan view of USGS Multi-Sensor Logger showing position of each device. Electronics and computer not shown.

**P-wave velocity sensor**

The P-wave velocity sensor is a two-component station. In addition to the sonic transducers, the station incorporates a very accurate (± 0.1 mm) distance-measuring sensor that measures the separation of the P-wave velocity transducers. The total travel distance is measured by two rectilinear displacement transducers, each calibrated to the face of the two acoustic transducers. The displacement transducers monitor the separation of the transducer heads, and thus can be used to measure the outside diameter of the core section.

The P-wave velocity sensor is composed of two identical 500-kHz transducers that measures travel time of a sonic pulse through the liner and the sediment. The 500-kHz pulse is produced at a pulse-repetition rate of 1 kHz. P-wave velocity is sensitive to temperature, so sediment temperature was measured just prior to, and just after, each core section was run. The system was calibrated to a water standard at a measured temperature before and after each complete core was analyzed.

The P-wave velocity of the sediment is calculated from the measured core diameter and P-wave travel time, correcting for liner thickness, electronic-signal delays, and core-liner travel time. The P-wave velocity \( V_p \) is calculated as:

\[
V_p = \frac{D-2L}{T-2T_{\text{liner}} - T_{\text{electronics}}}
\] (1)
where \( D \) is the whole core outer diameter, \( L \) is the liner thickness, \( T \) is the total travel time, \( T_{\text{liner}} \) is the liner travel time, and \( T_{\text{electronics}} \) is the electronic signal delay within the transducers, wiring, and electronics packages.

**Gamma-Ray Attenuation Porosity Evaluator (GRAPE) sensor**

The GRAPE sensor utilizes a 12 milli-curie \(^{137}\text{Cs} \) capsule (active element CsCl) to produce gamma rays at 0.662 MeV. The source capsule is housed in a 70-mm-diameter primary lead shield and collimator. The collimating hole is about 11 mm in diameter and 52-mm long. Additional lead shielding is fitted around the base of the source (Fig. 4) and, during logging operations, a lead-lined box is placed over both the detector and the source. A Harshaw-type 6S6/1.5B NaI(Tl) scintillation detector, with photo-multiplier tube and dynode chain, is used for counting gamma rays.

![Diagram of 137Cs Gamma-ray Source](image)

**Figure 4.** Exploded and assembled views showing the construction and lead shielding of the \(^{137}\text{Cs} \) source.

Core (sediment and liner) bulk density \( (\rho_b) \) is calculated as a Lambert's Law attenuation of the gamma-ray and Compton scattering of gamma rays by hydrogen (in pore water) (Whitmarsh, 1971). The number of gamma rays that pass through the core is detected during a defined time interval. This count is termed the attenuated counts \((I)\). The number of gamma rays that pass through only air is termed the unattenuated counts \((I_0)\). For a core of thickness \( d \), the attenuated gamma-ray count can be related to the unattenuated count, sediment thickness, core bulk density, and the Compton scattering coefficient \((\mu)\), by using Lambert's Law as follows:

\[
I = I_0 (\mu \rho_b d)
\]

Then, the bulk density of the core can be determined as:
\[
\rho_b = \frac{I}{\mu_d \ln \frac{I_2}{I}}
\]

However, to obtain an accurate determination of the sediment wet bulk density, corrections must be made to account for the influence of the core liner. This is done empirically using standards (water and aluminum) to determine separate Compton-scattering coefficients and, hence, a bulk-density correction for the liner. The full expression for the sediment bulk density, accounting for the core liner is:

\[
\rho_b = \frac{\ln \frac{I_2}{I} - 2L \rho_{\text{liner}} \mu_{\text{liner}}}{\mu_{\text{sed}}(D-2L)}
\]

where \( D \) is the outside diameter of the core liner, \( L \) is the liner thickness, \( \rho_{\text{liner}} \) is the liner density, \( \mu_{\text{liner}} \) is the liner Compton scattering coefficient, and \( \mu_{\text{sed}} \) is the sediment Compton scattering coefficient. Although neither calculated nor displayed in this report, porosity \( (\eta) \) can be calculated from wet bulk density \( (\rho_b) \), density of sea water \( (\rho_{\text{sw}}) \), and average grain specific gravity \( (G_s) \) by the relationship:

\[
\eta = \frac{\rho_b - G_s}{G_{\text{sw}} - G_s}
\]

**Magnetic-susceptibility sensor**

Magnetic susceptibility of the sediment is directly measured by a 140-mm diameter Bartington MS-2 transducer coil. No liner corrections are required when using non-magnetic PVC liner material. The sensor was electronically zeroed at the beginning of each section scan.

**System Calibration**

*Diameter Calibration*

The electronic distance-measuring system of the outside diameter of the liner was calibrated with a pair of stainless steel rods, one exactly 110-mm and the other 120-mm long. The calibration setting between the P-wave velocity transducers was adjusted with the shorter steel rod prior to each section scan. Periodically, the distance was checked by zeroing the distance between the transducers, then placing the longer rod and noting the reading.

*Velocity Calibrations*

Compressional-wave velocity \( (V_p) \) was calibrated to water, which has a known velocity similar to that of many fine-grained surface marine sediments. The compressional-wave velocity of distilled water at standard pressure and temperature is 1.4917 km/s. The water-filled standard used for the calibration was constructed of the same Schedule-40 core liner used for the piston core. Because compression-wave velocity is sensitive to temperature, we measured the water temperature and corrected the raw calculated velocity to an equivalent velocity at 23°C at standard pressure using known correction factors (U.S. Naval Oceanographic Office, 1962). We
empirically determined a travel-time delay \((2T_{\text{liner}} + T_{\text{electronics}})\) that corrects the measured raw compressional-wave velocity to the standard's known velocity. The empirically determined travel-time delay was applied to each measured velocity to derive a corrected sediment \(V_p\) (see equation 1 above).

**Density Calibrations**

Density measurements of the sediment were calibrated to the known densities of water and aluminum. These two standards serve as end-members that fully bracket the densities typically found for near-surface marine sediment. The density of water represents the lower bound and aluminum represents the upper bound. In addition, the respective Compton scattering coefficients of water and aluminum are similar to that of the primary sediment constituents (solid-phase alumino-silicate minerals and liquid-phase water).

The water-aluminum standard was constructed by inserting a solid cylinder of machined 6250-Aluminum into a section of the Schedule-40 core liner. The 13-cm-long aluminum cylinder was press-fit and caulked into the central part of the liner so that the uppermost section could be filled with water. The bottom-most part was left empty. A calibration run consisted of recording the number of scintillation detections per second through a) liner and water, b) liner and aluminum, c) liner and air, and d) air alone. Finally, an empirical Compton scattering coefficient was determined for the water and aluminum that gave water densities of 1.00 g/cm\(^3\) and aluminum densities of 2.70 g/cm\(^3\).

Calibration standards were repeatedly run during the cruise, as well as always prior to analyzing each piston core, between the piston core and trigger core, and after the trigger core. If the standard was found to be out of calibration, which only rarely happened, then multiple calibrations were run until we obtained acceptable values. If an out-of-calibration condition occurred, the appropriate data files were modified with the appropriate calibration adjustments to obtain corrected values.

**Magnetic Susceptibility Calibrations**

Magnetic susceptibility was calibrated before and after each core using a reference standard provided by Bartington with the sensor. The reference standard should read 390 (10\(^{-6}\)) cgs at the center of the sensor. The diameter of the WHOI core liner was so large, relative to the diameter of the susceptibility sensor, it was not possible to place the horizontal centerline of the core at the center of the susceptibility sensor. Measurements of the clearances between liner and sensor were taken with a vernier calipers and the results are shown in Figure 5. The core was offset vertically \(\sim 3.45\) mm. A distance-sensitivity test was run by placing the reference standard inside a short piece of WHOI core liner and recording measurements from 20 cm before the standard was at the middle of the sensor until the standard was 20 cm beyond the center of the sensor. This provides both an absolute reference reading at the centerline of the sensor, as well as a record of the directional sensitivity of the sensor. Figure 6 is a diagram of the device used to measure the distance-sensitivity of
Figure 5. Clearances of WHOI core liner in the Bartington 140 mm magnetic-susceptibility sensor.

Figure 6. Diagram of magnetic susceptibility calibration standard.

the magnetic-susceptibility sensor. When the calibration standard was as far as 13 cm (~1 core diameter) away from the sensor, non-zero magnetic-susceptibility readings were measured (Fig. 7). Similarly, non-zero readings were measured when the calibration standard was as far as 13 cm beyond the sensor. This relatively broad sensitivity is inherent to the Bartington magnetic-susceptibility loop and cannot be adjusted.
A calibration was run before and after each core by placing the standard at the center of the loop and recording readings for about 10 s.

Visual Core Descriptions:

The sediments recovered in each section of core (usually about 1.5-m long) were described from split cores on a standard form used by the OSU Core Lab. Sediment colors were coded using the Munsell Soil Color Chart or the Geological Society of America Rock Color Chart. Sediment components were identified using smear slides of sediment in water (but without mounting medium and coverslip) examined under a petrographic microscope. Usually at least one smear slide per section was prepared and described. The graphic and written descriptions, including smear-slide descriptions, were transferred to a 1.5-m log form on a Macintosh computer using MacDraw graphic software. Sediment lithologies and degree of bioturbation were coded on the graphic logs according to the keys in Figure 8.
Figure 8. Keys for bioturbation and lithology used on visual core description forms.

References


Lyle, Mitch and Gallaway, Philip, 1994, Preview to the ODP Pollution Prevention and Safety Panel of possible safety hazards associated with California Margin...


Results

This section contains the coring summary (Table 1), visual core description, and P-wave velocity, wet bulk density, magnetic susceptibility, and acoustic impedance plots for each core and each section of each core. The cores occur in consecutive order, starting with EW9504-02PC. Sadly, core EW9504-01PC remains stuck in the seafloor somewhere off the Baja California margin. Cores EW9504-06MC and EW9504-10MC are Ocean Instruments Multicores. Each of the Multicorer drops collected 8 tubes with approximately 45 cm of sediment, although only one or two of the tubes were logged, split, and described. Cores with PC designations are piston cores.
Table 1 (cont.) . Summary of piston (PC) and trigger (TC) core lengths and station data.

<table>
<thead>
<tr>
<th>EW9504-06MC</th>
<th>Santa Monica Basin</th>
<th></th>
<th></th>
<th></th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>section 1</td>
<td>length</td>
<td>top of section</td>
<td>bottom of section</td>
<td>end temp</td>
<td>33°</td>
<td>118°</td>
<td>855</td>
</tr>
<tr>
<td>06MC</td>
<td>47</td>
<td>0</td>
<td>47</td>
<td></td>
<td>37.88</td>
<td>46.60</td>
<td></td>
</tr>
<tr>
<td>8 samples</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EW9504-07PC</th>
<th>Santa Monica Basin</th>
<th>BA-4</th>
<th></th>
<th></th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>section 4</td>
<td>length</td>
<td>top of section</td>
<td>bottom of section</td>
<td>end temp</td>
<td>33°</td>
<td>118°</td>
<td>878</td>
</tr>
<tr>
<td>07PC</td>
<td>120</td>
<td>0</td>
<td>120</td>
<td>12.9</td>
<td>entire core run at 55 microsec delay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 3</td>
<td>151</td>
<td>120</td>
<td>271</td>
<td>13.1</td>
<td>poor to no coupling mid section; sig strength 0; no Vp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 2</td>
<td>150</td>
<td>271</td>
<td>421</td>
<td>13.7</td>
<td>Vp Sig strength zero thruout section</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 1</td>
<td>151</td>
<td>421</td>
<td>572</td>
<td>14.7</td>
<td>Vp Sig strength zero thruout section</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EW9504-08PC</th>
<th>San Nicolas Basin</th>
<th></th>
<th></th>
<th></th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>section 5</td>
<td>length</td>
<td>top of section</td>
<td>bottom of section</td>
<td>end temp</td>
<td>32°48.05°N</td>
<td>118°48.00°W</td>
<td>1442</td>
</tr>
<tr>
<td>08PC</td>
<td>115</td>
<td>0</td>
<td>115</td>
<td>12.0</td>
<td>no Vp signal...gas?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 4</td>
<td>135</td>
<td>115</td>
<td>250</td>
<td>12.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 3</td>
<td>151</td>
<td>250</td>
<td>401</td>
<td>13.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 2</td>
<td>150</td>
<td>401</td>
<td>551</td>
<td>13.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 1</td>
<td>149</td>
<td>551</td>
<td>700</td>
<td>14.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EW9504-09PC</th>
<th>Tanner Basin</th>
<th>CA-15</th>
<th></th>
<th></th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>section 5</td>
<td>length</td>
<td>top of section</td>
<td>bottom of section</td>
<td>end temp</td>
<td>32°51.51</td>
<td>119°57.48</td>
<td>1194</td>
</tr>
<tr>
<td>09PC</td>
<td>128</td>
<td>0</td>
<td>128</td>
<td>10.6</td>
<td>No Vp signal in upper part of section</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 4</td>
<td>143</td>
<td>128</td>
<td>271</td>
<td>12.3</td>
<td>No Vp signal in upper part of section</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 3</td>
<td>151</td>
<td>271</td>
<td>422</td>
<td>12.1</td>
<td>No Vp signal in upper part of section; ~490 cm begin receiving mult. overlapping wave forms-still locked on &quot;normal&quot; signal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 2</td>
<td>150</td>
<td>422</td>
<td>572</td>
<td>12.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 1</td>
<td>147</td>
<td>572</td>
<td>719</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1. Summary of piston (PC) and trigger (TC) core lengths and station data.

<table>
<thead>
<tr>
<th>Station</th>
<th>Site</th>
<th>Section</th>
<th>Length (cm)</th>
<th>Top of Section</th>
<th>Bottom of Section</th>
<th>End Temp (°C)</th>
<th>Lat</th>
<th>Lon</th>
<th>Water Depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EW9504-01PC</td>
<td>CA-2</td>
<td>Sec 6</td>
<td>19</td>
<td>0</td>
<td>19</td>
<td>13.7</td>
<td>31-25.92</td>
<td>117-35.09</td>
<td>2042</td>
</tr>
<tr>
<td>EW9504-02PC</td>
<td>CA-2</td>
<td>Sec 5</td>
<td>151</td>
<td>19</td>
<td>170</td>
<td>13.7</td>
<td>32-04.39</td>
<td>117-21.85</td>
<td>1299</td>
</tr>
<tr>
<td>EW9504-03PC</td>
<td>BA-5</td>
<td>Sec 5</td>
<td>86</td>
<td>0</td>
<td>86</td>
<td>12.9</td>
<td>32-17.01</td>
<td>118-23.73</td>
<td>1759</td>
</tr>
<tr>
<td>EW9504-04PC</td>
<td>BA-1</td>
<td>Sec 6</td>
<td>131</td>
<td>3</td>
<td>134</td>
<td>11.8</td>
<td>32-17.01</td>
<td>118-23.73</td>
<td>1759</td>
</tr>
<tr>
<td>EW9504-05PC</td>
<td>CAM-3</td>
<td>Sec 5</td>
<td>94</td>
<td>0</td>
<td>94</td>
<td>12.0</td>
<td>32° 28.55'N</td>
<td>118° 07.49'W</td>
<td>1818</td>
</tr>
</tbody>
</table>

**Notes:**
- Poor acoustic coupling 320 to 350 cm
- Actual core length 146.5; thus start for sec is 0.5 cm above physical top of section
- Broken cutting blade in top of core caused Mag Sus kick
- Top of section looks like flow-in or missing
- Bottom 23 cm is styrofoam
- Top 30 cm is styrofoam
- No velocity in top 30 cm
- No velocity (?) top 24 cm
- Den freq. drops to 1.0 g/cc; Vp const - broken sections w/ water?
Table 1 (cont.) Summary of piston (PC) and trigger (TC) core lengths and station data.

<table>
<thead>
<tr>
<th>EW9504-09TC</th>
<th>Tanner Basin</th>
<th>CA-15</th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>09TC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>run1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>length</td>
<td>63</td>
<td>0</td>
<td>63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EW9504-10MC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10MC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 samples</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>length</td>
<td>36</td>
<td>0</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EW9504-11PC</td>
<td>west of Pt Conception</td>
<td>CA-11A</td>
<td>Lat</td>
<td>Lon</td>
<td>water depth (m)</td>
</tr>
<tr>
<td>11PC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 6</td>
<td>72</td>
<td>2</td>
<td>74</td>
<td></td>
<td>11.3</td>
</tr>
<tr>
<td>section 5</td>
<td>150</td>
<td>74</td>
<td>224</td>
<td></td>
<td>12.3</td>
</tr>
<tr>
<td>section 4</td>
<td>137</td>
<td>224</td>
<td>361</td>
<td></td>
<td>12.9</td>
</tr>
<tr>
<td>section 3</td>
<td>151</td>
<td>361</td>
<td>512</td>
<td></td>
<td>13.6</td>
</tr>
<tr>
<td>section 2</td>
<td>150</td>
<td>512</td>
<td>662</td>
<td></td>
<td>13.8</td>
</tr>
<tr>
<td>section 1</td>
<td>151</td>
<td>662</td>
<td>813</td>
<td></td>
<td>14.2</td>
</tr>
<tr>
<td>EW9504-11TC</td>
<td>west of Pt Conception</td>
<td>CA-11A</td>
<td>Lat</td>
<td>Lon</td>
<td>water depth (m)</td>
</tr>
<tr>
<td>11TC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 2</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td></td>
<td>14.3</td>
</tr>
<tr>
<td>section 1</td>
<td>143</td>
<td>100</td>
<td>243</td>
<td></td>
<td>15.5</td>
</tr>
<tr>
<td>EW9504-12PC</td>
<td>southern Santa Lucia</td>
<td>CA-9</td>
<td>Lat</td>
<td>Lon</td>
<td>water depth (m)</td>
</tr>
<tr>
<td>12PC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 7</td>
<td>96</td>
<td>0</td>
<td>96</td>
<td></td>
<td>12.1</td>
</tr>
<tr>
<td>section 6</td>
<td>151</td>
<td>96</td>
<td>247</td>
<td></td>
<td>12.8</td>
</tr>
<tr>
<td>section 5</td>
<td>151</td>
<td>247</td>
<td>398</td>
<td></td>
<td>13.4</td>
</tr>
<tr>
<td>section 4</td>
<td>143</td>
<td>398</td>
<td>541</td>
<td></td>
<td>13.5</td>
</tr>
<tr>
<td>section 3</td>
<td>151</td>
<td>541</td>
<td>692</td>
<td></td>
<td>14.5</td>
</tr>
<tr>
<td>section 2</td>
<td>150</td>
<td>692</td>
<td>842</td>
<td></td>
<td>14.9</td>
</tr>
<tr>
<td>section 1</td>
<td>151</td>
<td>842</td>
<td>993</td>
<td></td>
<td>15.3</td>
</tr>
<tr>
<td>EW9504-12TC</td>
<td>southern Santa Lucia</td>
<td>CA-9</td>
<td>Lat</td>
<td>Lon</td>
<td>water depth (m)</td>
</tr>
<tr>
<td>12TC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 2</td>
<td>57</td>
<td>0</td>
<td>57</td>
<td></td>
<td>15.6</td>
</tr>
<tr>
<td>section 1</td>
<td>150</td>
<td>57</td>
<td>207</td>
<td></td>
<td>15.9</td>
</tr>
</tbody>
</table>
Table 1 (cont.)  Summary of piston (PC) and trigger (TC) core lengths and station data.

<table>
<thead>
<tr>
<th>EW9504-13PC</th>
<th>south of Guide Smt</th>
<th>CA-8</th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13PC</td>
<td>13TC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 10</td>
<td>111</td>
<td>0</td>
<td>111</td>
<td>10.6</td>
<td></td>
</tr>
<tr>
<td>section 9</td>
<td>151</td>
<td>111</td>
<td>262</td>
<td>11.5</td>
<td></td>
</tr>
<tr>
<td>section 8</td>
<td>151</td>
<td>262</td>
<td>413</td>
<td>11.3</td>
<td></td>
</tr>
<tr>
<td>section 7</td>
<td>151</td>
<td>413</td>
<td>564</td>
<td>11.7</td>
<td></td>
</tr>
<tr>
<td>section 6</td>
<td>141</td>
<td>564</td>
<td>705</td>
<td>12.3</td>
<td>gas...no Vp</td>
</tr>
<tr>
<td>section 5</td>
<td>151</td>
<td>705</td>
<td>856</td>
<td>12.6</td>
<td>gas...no Vp</td>
</tr>
<tr>
<td>section 4</td>
<td>150</td>
<td>856</td>
<td>1006</td>
<td>13</td>
<td>gas...no Vp</td>
</tr>
<tr>
<td>section 3</td>
<td>151</td>
<td>1006</td>
<td>1157</td>
<td>13.4</td>
<td>gas...no Vp</td>
</tr>
<tr>
<td>Extruded Sect</td>
<td>5</td>
<td>1157</td>
<td>1162</td>
<td></td>
<td>5 cm bagged after being extruded from section</td>
</tr>
<tr>
<td>section 2</td>
<td>144</td>
<td>1162</td>
<td>1306</td>
<td>13.5</td>
<td>gas...no Vp</td>
</tr>
<tr>
<td>section 1</td>
<td>149</td>
<td>1306</td>
<td>1455</td>
<td>13.4</td>
<td>gas...no Vp</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EW9504-13TC</th>
<th>south of Guide Smt</th>
<th>CA-8</th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>section 2</td>
<td>124</td>
<td>0</td>
<td>124</td>
<td>13.9</td>
<td></td>
</tr>
<tr>
<td>section 1</td>
<td>143</td>
<td>124</td>
<td>267</td>
<td>14.2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EW9504-14PC</th>
<th>(no TC)</th>
<th>Pt Arena slope</th>
<th>CA-7</th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14PC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 8</td>
<td>83</td>
<td>0</td>
<td>83</td>
<td>lost to Mac bomb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 7</td>
<td>150</td>
<td>83</td>
<td>233</td>
<td>lost to Mac bomb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 6</td>
<td>152</td>
<td>233</td>
<td>385</td>
<td>11.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 5</td>
<td>150</td>
<td>385</td>
<td>535</td>
<td>12.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 4</td>
<td>141</td>
<td>535</td>
<td>676</td>
<td>12.8</td>
<td>no Vp in bottom...gas</td>
<td></td>
</tr>
<tr>
<td>section 3</td>
<td>150</td>
<td>676</td>
<td>826</td>
<td>13.0</td>
<td>no Vp in top...gas</td>
<td></td>
</tr>
<tr>
<td>section 2</td>
<td>150</td>
<td>826</td>
<td>976</td>
<td>14.8</td>
<td>no Vp in top...gas</td>
<td></td>
</tr>
<tr>
<td>section 1</td>
<td>151</td>
<td>976</td>
<td>1127</td>
<td>no Vp in top...</td>
<td>......</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EW9504-15PC</th>
<th>Delgada slope</th>
<th>CA-2</th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15PC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 8</td>
<td>36</td>
<td>0</td>
<td>36</td>
<td>12 cm</td>
<td>tape at 5.5 to 12 cm</td>
</tr>
<tr>
<td>section 7</td>
<td>150</td>
<td>36</td>
<td>186</td>
<td>operator error</td>
<td>barrel bent at ~45° angle at 2nd &amp; 3rd pipes from bottom</td>
</tr>
<tr>
<td>section 6</td>
<td>135</td>
<td>191</td>
<td>326</td>
<td>13.6</td>
<td>did not calibrate dist. measure</td>
</tr>
<tr>
<td>section 5</td>
<td>151</td>
<td>326</td>
<td>477</td>
<td>operator error</td>
<td></td>
</tr>
<tr>
<td>section 4</td>
<td>128</td>
<td>477</td>
<td>605</td>
<td>operator error</td>
<td></td>
</tr>
<tr>
<td>section 3</td>
<td>150</td>
<td>605</td>
<td>755</td>
<td>operator error</td>
<td></td>
</tr>
<tr>
<td>section 2</td>
<td>151</td>
<td>755</td>
<td>906</td>
<td>operator error</td>
<td></td>
</tr>
<tr>
<td>section 1</td>
<td>150</td>
<td>906</td>
<td>1056</td>
<td>operator error</td>
<td></td>
</tr>
</tbody>
</table>
Table 1 (cont.)  Summary of piston (PC) and trigger (TC) core lengths and station data.

<table>
<thead>
<tr>
<th>EW9504-15TC</th>
<th>Delgada slope</th>
<th>CA-2</th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15TC length</td>
<td>top of section</td>
<td>bottom of section</td>
<td>end temp</td>
<td>40°05.75'N</td>
<td>125°21.60'W</td>
</tr>
<tr>
<td>section 2</td>
<td>0</td>
<td>0</td>
<td>operator error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 1</td>
<td>0</td>
<td>0</td>
<td>operator error</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EW9504-16PC</th>
<th>Eel River Basin</th>
<th>CA-1</th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16PC length</td>
<td>top of section</td>
<td>bottom of section</td>
<td>end temp</td>
<td>41°40.08'N</td>
<td>124°49.82'W</td>
</tr>
<tr>
<td>section 10</td>
<td>24</td>
<td>24</td>
<td>12.2</td>
<td>Entire section gas charged (methane?, minor odor)</td>
<td></td>
</tr>
<tr>
<td>section 9</td>
<td>150</td>
<td>174</td>
<td>13.2</td>
<td>Extruding out bottom; some H2S odor</td>
<td></td>
</tr>
<tr>
<td>section 8</td>
<td>149</td>
<td>323</td>
<td>13.0</td>
<td>no Vp, methane</td>
<td></td>
</tr>
<tr>
<td>section 7</td>
<td>140</td>
<td>463</td>
<td>12.8</td>
<td>no Vp, methane</td>
<td></td>
</tr>
<tr>
<td>section 6</td>
<td>24</td>
<td>487</td>
<td>15.4</td>
<td>no Vp, methane</td>
<td></td>
</tr>
<tr>
<td>section 5</td>
<td>138</td>
<td>625</td>
<td>13.3</td>
<td>no Vp, methane</td>
<td></td>
</tr>
<tr>
<td>section 4</td>
<td>150</td>
<td>775</td>
<td>13.8</td>
<td>no Vp, methane</td>
<td></td>
</tr>
<tr>
<td>section 3</td>
<td>128</td>
<td>903</td>
<td>14.8</td>
<td>no Vp, methane</td>
<td></td>
</tr>
<tr>
<td>section 2</td>
<td>120</td>
<td>1023</td>
<td>14.4</td>
<td>no Vp, methane</td>
<td></td>
</tr>
<tr>
<td>section 1</td>
<td>70</td>
<td>1093</td>
<td>16.9</td>
<td>no Vp, methane</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EW9504-16TC</th>
<th>Eel River Basin</th>
<th>CA-1</th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16TC length</td>
<td>top of section</td>
<td>bottom of section</td>
<td>end temp</td>
<td>41°40.08'N</td>
<td>124°49.82'W</td>
</tr>
<tr>
<td>section 2</td>
<td>86</td>
<td>86</td>
<td>14.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 1</td>
<td>131</td>
<td>217</td>
<td>16.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EW9504-17PC</th>
<th>northern Gorda Swell</th>
<th>CA-3</th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17PC length</td>
<td>top of section</td>
<td>bottom of section</td>
<td>end temp</td>
<td>42°14.55</td>
<td>125°53.28</td>
</tr>
<tr>
<td>section 11</td>
<td>33</td>
<td>33</td>
<td>9.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 10</td>
<td>151</td>
<td>184</td>
<td>10.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 9</td>
<td>150</td>
<td>334</td>
<td>12.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 8</td>
<td>142</td>
<td>476</td>
<td>12.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 7</td>
<td>150</td>
<td>626</td>
<td>12.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 6</td>
<td>151</td>
<td>777</td>
<td>13.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 5</td>
<td>150</td>
<td>927</td>
<td>13.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 4</td>
<td>130</td>
<td>1057</td>
<td>13.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 3</td>
<td>151</td>
<td>1208</td>
<td>14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 2</td>
<td>150</td>
<td>1358</td>
<td>14.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 1</td>
<td>151</td>
<td>1509</td>
<td>14.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1 (cont.) . Summary of piston (PC) and trigger (TC) core lengths and station data.

<table>
<thead>
<tr>
<th>EW9504-17TC</th>
<th>northern Gorda Swell</th>
<th>CA-3</th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>section 2</td>
<td>124 151</td>
<td>0</td>
<td>124</td>
<td>275</td>
<td>11.9</td>
</tr>
<tr>
<td>section 1</td>
<td>124 151</td>
<td>0</td>
<td>124</td>
<td>275</td>
<td>12.3</td>
</tr>
<tr>
<td>EW9504-18PC</td>
<td>southern Gorda Swell</td>
<td>CA-4</td>
<td>Lat</td>
<td>Lon</td>
<td>water depth (m)</td>
</tr>
<tr>
<td>section 10</td>
<td>137 150 141</td>
<td>0</td>
<td>137</td>
<td>428</td>
<td>10.6</td>
</tr>
<tr>
<td>section 9</td>
<td>150 137 287</td>
<td>137 578</td>
<td>127</td>
<td>13.7</td>
<td></td>
</tr>
<tr>
<td>section 8</td>
<td>141 287</td>
<td>428 578</td>
<td>13.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Break to run Trigger Core</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 7</td>
<td>150 428</td>
<td>578 729</td>
<td>127</td>
<td>13.7</td>
<td></td>
</tr>
<tr>
<td>section 6</td>
<td>151 578</td>
<td>729 880</td>
<td>13.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 5</td>
<td>151 729</td>
<td>880 990</td>
<td>13.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 4</td>
<td>110 880</td>
<td>990 1110</td>
<td>13.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 3</td>
<td>120 990</td>
<td>1110 1231</td>
<td>13.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 2</td>
<td>121 1110</td>
<td>1231 1356</td>
<td>13.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>section 1</td>
<td>125 1231</td>
<td>1356</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EW9504-18TC</th>
<th>southern Gorda Swell</th>
<th>CA-4</th>
<th>Lat</th>
<th>Lon</th>
<th>water depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>section 2</td>
<td>72 150</td>
<td>0</td>
<td>72</td>
<td>222</td>
<td>11.4</td>
</tr>
<tr>
<td>section 1</td>
<td>150 72</td>
<td>72 222</td>
<td>11.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**EW95-04 Core: 02PC Sect.: 6 (0-19 cm)**

**Locality:** 31 25.92 N, 117 35.091 W, 2042 m

<table>
<thead>
<tr>
<th>Interval (cm)</th>
<th>Lithology</th>
<th>Color</th>
<th>FOSSILS</th>
<th>Grain Size</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>5Y3/2</td>
<td></td>
<td></td>
<td><strong>SILTY CLAY; dark olive gray; homogeneous</strong></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ss-10 cm</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>110</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>120</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>130</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>140</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:**
- X-Present
- C-Common
- B-Barren
- A-Abundant
- R-rare
- ss-smear slide
EW95-04 Core: 02PC Sect.: 5 (19-170 cm)
31 25.92 N, 117 35.091 W, 2042 m

Depth in centimeters

Interval | Lithology | Color | FOSSILS | Grain Size | Remarks
---------|-----------|-------|---------|------------|---------
20        | 5Y3/2     | 5Y3/2 | FOSSILS | sand-silt  | SILTY CLAY; dark olive gray; homogeneous
30        |           |       | FOSSILS | sand-silt  |         
40        |           |       | FOSSILS | sand-silt  |         
50        |           |       | FOSSILS | sand-silt  |         
60        |           |       | FOSSILS | sand-silt  |         
70        |           |       | FOSSILS | sand-silt  |         
80        |           |       | FOSSILS | sand-silt  |         
90        |           |       | FOSSILS | sand-silt  |         
100       |           |       | FOSSILS | sand-silt  |         
110       |           |       | FOSSILS | sand-silt  |         
120       |           |       | FOSSILS | sand-silt  |         
130       |           |       | FOSSILS | sand-silt  |         
140       |           |       | FOSSILS | sand-silt  |         
150       |           |       | FOSSILS | sand-silt  |         
160       |           |       | FOSSILS | sand-silt  |         
170       |           |       | FOSSILS | sand-silt  |         

X-Present  C-Common  B-Barren  ss-smear slide
A-Abundant  R-rare
EW95-04 Core: 02PC Sect.: 3 (320-470 cm)
31 25.92 N, 117 35.091 W, 2042 m

FOSSILS

Interval | Lithology | Color | Grain Size | Remarks
---------|-----------|-------|------------|--------------------------------------------------
320-345 cm: Turbidite: clayey, silty, micaceous fine SAND grading upward to SILTY CLAY; black
345-470 cm: SILTY CLAY; dark olive gray; mostly homogeneous with a few sili. to mod. bioturbated zones
ss-340 cm: angular silt and fine sand grains in a clay matrix; common fish debris and spicules
ss-420: angular silt grains in a predominantly clay matrix; rare fish debris and spicules

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled
 graded bed (turbidite)
 ss-smear slide
<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>470-480</td>
<td>Silty clay; dark olive gray; homogeneous; black streaks throughout but most abundant from 515-578 cm; rare shell fragments (molluscs?) throughout</td>
<td></td>
<td></td>
</tr>
<tr>
<td>490-500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>510-520</td>
<td>Angular silt grains in a predominantly clay matrix; common fish debris and spicules</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bottom of section

Fossils: X-Present  C-Common  B-Barren  A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

Graded bed (turbidite)

Smear slide
LAT: 31°25.92'N  Depth: 2042 m
LON: 117°35.091'W  Drill Site ID: CAM-2
LAT: 31°25.92'N
LON: 117°35.091'W
Depth: 2042 M
LAT: 31°25.92'N
LON: 117°35.091'W
Drill Site ID: CAM2
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 02PC
(300-450 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 31°25.92' N
LON: 117°35.091' W
Depth: 2042 M
Drill Site ID: CAM2

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 31°25.92' N  Depth: 2042 M
LON: 117°35.091' W  Drill Site ID: CAM-2

USGS

31
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 02PC
(750-767 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 31°25.92' N  Depth: 2042 M
LON: 117°35.091' W  Drill Site ID: CAM-2

USGS
EW95-04 Core: 03PC Sect.: 5 (0-86 cm)
32 04.392 N, 117 21.850 W, 1299 m

Lithology | Color | Remarks
--- | --- | ---
MARL; biogenic carbonate debris in a matrix of silty clay; olive; homogeneous
MARL; biogenic carbonate debris in a matrix of silty clay; olive; homogen.; voids between 16-19 cm & 25-28 cm
MARL; olive w/ darker burrow mottles (5Y3/2); homogeneous
MARL; dk.ol. gry.; homogenous
ss-85 cm: forams and spicules
bottom of section

Depth in centimeters
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150

Fossils: X-Present  C-Common  B-Barren  A-Abundant  R-rare
Graded bed (turbidite)
Contacts: s-sharp; g-gradational; m-mottled
ss-smear slide
EW95-04 Core: 03PC Sect.: 4 (86-221 cm)
32 04.392 N, 117 21.850 W, 1299 m

Interval | Lithology | Color | FOSSILS | Grain Size | Remarks
--- | --- | --- | --- | --- | ---
80 | | | | | top of section
90 | ss | | SY3/2 | | MARL; foram and nanno debris in a matrix of silty clay; dk. ol. gry., homogen.
100 | | | | | ss-100 cm:
110 | | | | | angular fine silt grains in a predom. fine-grained matrix (clay and nannos?);
120 | | | | | abund. carbonate frags. (foram frags.?); some coccoliths
130 | | | | | recognized in fine-grained matrix; rare fish debris and spicules
140 | | | | | ss-200 cm:
150 | | | | | angular fine silt grains in a predom. fine-grained matrix (clay and nannos?);
160 | | | | | abund. carbonate frags. (foram frags.?); some coccoliths
170 | | | | | recognized in fine-grained matrix
180 | | | | | bottom of section
190 | | | | | graded bed (turbidite)
200 | | | | | ss-smear slide
210 |
220 |
230 |

Fossils: X-Present  C-Common  B-Barren  A-Abundant  R-rare
Contacts: s-sharp; g-gradational; m-mottled
### EW95-04 Core: 03PC Sect.: 3 (221-371 cm)
32 04.392 N, 117 21.850 W, 1299 m

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>FOSSILS</th>
<th>Grain Size</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>220</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>221 cm = top of section</td>
</tr>
<tr>
<td>230</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SILTY CLAY; calcareous; dk. gry.; homogeneous</td>
</tr>
<tr>
<td>240</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SILTY CLAY; calc.; micaceous; v. dk. gry.; homogen. to mod. bioturb. w/ chondrites</td>
</tr>
<tr>
<td>250</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SILTY CLAY; calc.; dk. gry. w/ darker chondrites burrow mottles (5Y3/2) grad. upwards from v. dk. gry. at base; homogen. to mod. bioturb.</td>
</tr>
<tr>
<td>260</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ss-264: angular silt grains in clay matrix; common carb. frags., fish debris, and spicules</td>
</tr>
<tr>
<td>270</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SILTY CLAY; micaceous; v. dk. gry.; homogen.</td>
</tr>
<tr>
<td>280</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SILTY CLAY; calc.; dk. gry.; homogen. to mod. bioturb. w/ horizontal chondrites</td>
</tr>
<tr>
<td>290</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ss-338: angular silt grains in clay matrix; c., fish debris, and spicules; rare carb. frags.</td>
</tr>
<tr>
<td>300</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SILTY CLAY; micaceous; black; homogen.</td>
</tr>
<tr>
<td>310</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SILTY CLAY; calc.; dk. gry. w/ black burrow mottles; homogen. to mod. bioturb.</td>
</tr>
<tr>
<td>320</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SILTY CLAY; calc.; gry. homogen.</td>
</tr>
<tr>
<td>330</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>271 cm; bottom of section</td>
</tr>
<tr>
<td>340</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>graded bed (turbidite)</td>
</tr>
<tr>
<td>350</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ss-smear slide</td>
</tr>
</tbody>
</table>

**Graded bed**

**Contacts:** s-sharp; g-gradational; m-mottled
36

EW95-04 Core: 03PC Sect.: 2 (371-521 cm)
32 04.392 N, 117 21.850 W, 1299 m

Depth in centimeters
Interval Lithology Color
370
380
390
400
410
420
430
440
450
460
470
480
490
500
510
520

FOSSILS
Grain Size
Remarks
371 cm = top of section
MARL; foram and nanno
debris in a matrix of silty clay;
dk. ol. gry., homogen. to mod.
bioturb. w/ chondrites

ss-400 cm: angular fine silt grains
in a predom. fine-grained matrix
(clay and nannos?); common
whole foram and abundant carb.
debris (foram frags.?); rare
spicules

412-443 cm:
MARL; foram and nanno
debris in a matrix of silty clay;
ol. gry., homogen. to mod.
bioturb. w/ chondrites

MARL; foram and nanno; ol.
gry.; mod. bioturb. w/
chondrites

void

MARL; foram nanno; v. dk.
gry.; homogen.

void

bottom of section

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

\theta graded bed
(turbidite)
ss-smear slide
EW95-04 Core: 03PC Sect.: 1 (521-670 cm)
32 04.392 N, 117 21.850 W, 1299 m

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts:  s-sharp; g-gradational; m-mottled

\[\text{graded bed (turbidite)}\]
\[\text{ss-smear slide}\]

Remarks:
Entire section consists of flow-in and voids; not described
LAT: 32°04.392'N  Depth: 1299 m
LON: 117°21.850'W  Drill Site ID: BA-5
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 32°04.392' N
LON: 117°21.850' W
Depth: 1299 M
Drill Site ID: BA-5

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 03PC
(150-300 cm)

P-Wave Velocity (km/s)  Wet Bulk Density (g/cm³)  Magnetic Susceptibility (cgs/cm³)  Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 32°04.392' N  Depth: 1299 M
LON: 117°21.850' W  Drill Site ID: BA-5

USGS
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL PROPERTY LOGS

EW9504 - 03PC
(600-670 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Depth (cm):
600
625
650
675
700
725
750

Velocity (km/s):
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2

Density (g/cm³):
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6

Susceptibility (cgs/cm³):
20
40
60
80
100

Impedance (g/cm²/s):
2.0
3.0
4.0
5.0
6.0
7.0

LAT: 32°04.392' N
LON: 117°21.850' W
Depth: 1299 M
Drill Site ID: BA-5

USGS
EW95-04 Core: 04PC Sect.: 6 (3-137 cm)
32 17.01 N, 118 23.73 W, 1759 m

Interval | Lithology | Color | FOSSILS | Grain Size | Remarks
--- | --- | --- | --- | --- | ---
0 |  |  |  |  | top of section
10 | 5Y4/3 |  | |  | MARL; foram and nanno; olive; homogen. to mod. bioturb.
20 |  | 5Y3/2 | |  | ss-30 cm: common to abundant forams and nannos; rare spicules
30 |  |  | C |  | MARL; foram and nanno; dk. olive gray; homogen.
40 |  |  | C |  | ss-123 cm: abundant clay, forams and nannos; rare spicules
50 |  |  | A |  | graded bed (turbidites)
60 |  |  | A |  | ss-smear slide
70 |  |  | A |  | 
80 |  |  | A |  | 
90 |  |  | A |  | 
100 |  |  | A |  | 
110 |  |  | A |  | 
120 |  |  | A |  | 
130 |  |  | A |  | 
140 |  |  | A |  | 
150 |  |  | A |  | 

Fossils: X-Present C-Common B-Barren A-Abundant R-rare
Contacts: s-sharp; g-gradational; m-mottled
EW95-04 Core: 04PC Sect.: 5 (137-286 cm)
32 17.01 N, 118 23.73 W, 1759 m

**FOSSILS**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>130-140</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>140-150</td>
<td>5Y3/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150-160</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>160-170</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>170-180</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>180-190</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>190-200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200-210</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>210-220</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>220-230</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>230-240</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>240-250</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>250-260</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>260-270</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>270-280</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>280-286</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fossils: X-Present, C-Common, B-Barrier, A-Abundant, R-Rare
Contacts: s-sharp, g-gradational, m-mottled

137 = top of section
MARL; foram and nanno; micaceous; olive gray; homogen. to mod. bioturb.
ss-152 cm: common to abundant forams and nannos; rare spicules
286 = bottom of section
graded bed (turbidite)
ss-smear slide
EW95-04 Core: 04PC Sect.: 4 (286-425 cm)
32 17.01 N, 118 23.73 W, 1759 m

FOSSILS
Interval Lithology Color

Remarks
137 = top of section
MARL; foram and nanno; micaceous; olive gray grading to black below 388 cm; mod. bioturb. throughout

425 = bottom of section
MARL; foram and nanno; micaceous; mod. bioturb.

ss-424 cm:
common to abundant forams and nannos; rare spicules

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled
ss-smear slide

graded bed (turbidite)
EW95-04 Core: 04PC Sect.: 3 (425-575 cm)
32 17.01 N, 118 23.73 W, 1759 m

**Remarks**

425 = top of section
MARL; foram and nanno; micaceous; olive gray grading to black below 469 cm; mod. bioturb. throughout section

ss-504 cm:
common forams and nannos; rare spicules

MARL; foram and nanno; black

ss-500 cm:
common forams and nannos; rare spicules

MARL; foram and nanno; dk. ol. gry.

MARL; foram and nanno; black

void

575 = bottom of section

graded bed (turbidite)

ss-smear slide
EW95-04 Core: 04PC Sect.: 2 (575-725 cm)
32 17.01 N, 118 23.73 W, 1759 m

### FOSSILS

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>570-580</td>
<td>MARL; foram and nanno; olive gray</td>
<td>void</td>
<td>425 = top of section</td>
</tr>
<tr>
<td>580-590</td>
<td>MARL; foram and nanno; dark olive gray</td>
<td>m</td>
<td></td>
</tr>
<tr>
<td>590-600</td>
<td>ss-650 cm: common forams and nannos; rare spicules</td>
<td>C C R</td>
<td></td>
</tr>
<tr>
<td>600-610</td>
<td>MARL; foram and nanno; olive gray</td>
<td></td>
<td></td>
</tr>
<tr>
<td>610-620</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>620-630</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>630-640</td>
<td>ss-650 cm: common forams and nannos; rare spicules</td>
<td></td>
<td></td>
</tr>
<tr>
<td>640-650</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>650-660</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>660-670</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>670-680</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>680-690</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>690-700</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>700-710</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>710-720</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>720-725</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Contacts
s-sharp; g-gradational; m-mottled

### Graded bed
(turbidite)

### ss
smear slide

### Fossils
X-Present
A-Abundant
C-Common
B-Barren
R-rare
EW95-04 Core: 04PC Sect.: 1 (725-874 cm)
32 17.01 N, 118 23.73 W, 1759 m

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>FOSSILS</th>
<th>Grain Size</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>720-730</td>
<td>5Y5/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>730-740</td>
<td>5Y3/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>740-750</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>750-760</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>760-770</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>770-780</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>780-790</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>790-800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>800-810</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>810-820</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>820-830</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>830-840</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>840-850</td>
<td>ss</td>
<td></td>
<td></td>
<td></td>
<td>ss-850 cm: common forams and nannos; rare spicules</td>
</tr>
<tr>
<td>850-860</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>860-870</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>870-875</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>875 = bottom of section</td>
</tr>
</tbody>
</table>

Fossils: X-Present C-Common B-Barren A-Abundant R-rare
Contacts: s-sharp; g-gradational; m-mottled

425 = top of section
MARL; foram and nanno; olive gray; mod. bioturb. throughout section, esp. between 775 and 889 cm
MARL; foram and nanno; dk. ol. gry.

graded bed (turbidite)
ss-smear slide
LAT: 32°17.01'N Depth: 1759 m
LON: 118°23.73'W Drill Site ID: BA-1

P-wave velocity
(km/s)

Wet bulk density
(gm/cm³)

USGS
Magnetic Susceptibility
(cgs/cm³)

Acoustic Impedance
(g/cm²/s)

LAT: 32°17.01'N  Depth: 1759 m
LON: 118°23.73'W  Drill Site ID: BA-1
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 04PC
(300-450 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Depth (cm)
300 325 350 375 400 425 450

LAT: 32°17.01' N
LON: 118°23.73' W
Depth: 1759 M
Drill Site ID: BA-1

USGS
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL PROPERTY LOGS

EW9504 - 04PC
(450-600 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 32°17.01' N  Depth: 1759 M
LON: 118°23.73' W  Drill Site ID: BA-1

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 04PC
(750-847 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 32°17.01' N  Depth: 1759 M
LON: 118°23.73' W  Drill Site ID: BA-1

USGS
EW95-04 Core: 05PC Sect.: 5 (0-94 cm)
32 28.55 N, 118 07.49 W, 1818 m

Fossils: X-Present C-Common B-Barren A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

Grain Size

5Y4/2

5Y3/2

M ARL; foram and nanno; olive gray; homogeneous

ss-50 cm:
A: clay and nannol
C: forams
R: spicules

94 cm = bottom of section

graded bed (turbidite)

ss-smear slide
EW95-04 Core: 05PC Sect.: 4 (94-228 cm)
32 28.55 N, 118 07.49 W, 1818 m

Fossils: X-Present  C-Common  B-Barren  A-Abundant  R-rare

Remarks: 228 cm = bottom of section

ss-150:
A: clay and nannos
C: forams and spicules

Contacts: s-sharp; g-gradational; m-mottled

graded bed (turbidite)

ss-smear slide
EW95-04 Core: 05PC Sect.: 3 (228-378 cm)
32 28.55 N, 118 07.49 W, 1818 m

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>FOSSILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>230</td>
<td>5Y3/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>240</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>250</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>260</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>270</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>280</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>290</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>310</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>320</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>330</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>340</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>350</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>360</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>370</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>380</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Grain Size**
- Sand
- Silt
- Clay

**Remarks**
- top of section at 228 cm
- MARL; foram and nanno; dk. olive gray; mod. bioturb. throughout
- ss-250 cm:
  - A: clay and nannos
  - C: forams
  - R: spicules

**Depth in centimeters**
- 378 cm = bottom of section

**Fossils:**
- X-Present
- C-Common
- B-Barren
- A-Abundant
- R-Rare

**Contacts:**
- s-sharp; g-gradational; m-mottled

\[ \text{graded bed (turbidite)} \]

\[ \text{ss-smear slide} \]
EW95-04 Core: 05PC Sect.: 2 (378-528 cm)
32 28.55 N, 118 07.49 W, 1818 m

**FOSSILS**

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>380-390</td>
<td>5Y2.5/2</td>
<td></td>
</tr>
<tr>
<td>400-410</td>
<td>5Y3/2</td>
<td></td>
</tr>
<tr>
<td>420-430</td>
<td></td>
<td></td>
</tr>
<tr>
<td>440-450</td>
<td></td>
<td></td>
</tr>
<tr>
<td>460-470</td>
<td>5Y2.5/2</td>
<td></td>
</tr>
<tr>
<td>480-490</td>
<td>5Y3/2</td>
<td></td>
</tr>
<tr>
<td>500-510</td>
<td></td>
<td></td>
</tr>
<tr>
<td>520-530</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks**
- Top of section at 378 cm
- MARL; foram and nanno in distinct color cycles; mod. bioturb. throughout
- Black
- Dark olive gray
- Black
- Dark gray
- Dark olive gray

**Grain Size**
- Sand
- Silt
- Clay

**Contacts**
- s-sharp
- g-gradational
- m-mottled

**Fossils**
- X-Present
- C-Common
- B-Barren
- A-Abundant
- R-rare

**ss**
- ss-472 cm:
  - A: clay
  - C: nannos
  - R: forams and spicules

- ss-482 cm:
  - A: clay and nannos
  - C: forams and spicules

**528 cm = bottom of section**
Depth in centimeters

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

Remarks:

- top of section at 378 cm
- MARL; foram and nanno; predom. black
- flow-in and voids; not described

- graded bed (turbidite)
- ss-smear slide

674 cm = bottom of section
LAT: 32°28.55'N  Depth: 1818 m
LON: 118°07.49'W  Drill Site ID: CAM-3

P-wave velocity
(km/s)

Wet bulk density
(gm/cm^3)

Depth (cm)

LAT: 32°28.55'N  Depth: 1818 m
LON: 118°07.49'W  Drill Site ID: CAM-3

USGS
LAT: 32°28.55′N    Depth: 1818 m
LON: 118°07.49′W    Drill Site ID: CAM-3
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 05PC

(0-150 cm)

P-Wave Velocity (km/s)  Wet Bulk Density (g/cm³)  Magnetic Susceptibility (cgs/cm³)  Acoustic Impedance (g/cm²/s)

LAT: 32°28.55' N  Depth: 1818 M  LON: 118°07.49' W  Drill Site ID: CAM-3
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 05PC
(150-300 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm^3)
Magnetic Susceptibility (cgs/cm^3)
Acoustic Impedance (g/cm^2/s)

LAT: 32°28.55' N  Depth: 1818 M  
LON: 118°07.49' W  Drill Site ID: CAM-1

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 05PC
(300-450 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 32°28.55' N
LON: 118°07.49' W

Drill Site ID: CAM-1

Depth: 1818 M

USGS
EW95-04 Core: 06MC-7 (0-40 cm)
33 37.87N, 118 46.59 W, 879 m

Depth in centimeters

**FOSSILS**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>10YR2/1</td>
<td>m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>10YR3/1</td>
<td>m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>SS</td>
<td>m</td>
<td>C</td>
<td>C</td>
<td>R</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>10YR3/1</td>
<td>m</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>10YR3/1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>10YR2/1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:
0-40 cm (compressed on extrusion from an original length of ca. 46 cm)

alternating bands of black (10YR2/1) SILTY CLAY and v. dk. gray (10YR3/1) CLAY

ss-27 cm (lighter lithol.): A: clay C: nannos; forams; palynomorphs R: fish debris and spicules

ss-37 cm (darker lithol.): A: clay C: subangular silt grains R: nannos; forams; fish debris; spicules

Graded bed (turbidite)

ss-smear slide

Fossils: X-Present C-Common B-Barren A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled
LAT: 33°37.88' N  Depth: 855 M
LON: 118°46.60' W  Drill Site ID: BA-4 Santa Monica Basin

CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 06MC

(0-51 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

1.4 1.5 1.6 1.7 1.8 2.2

0 20 40 60 80 100

2.0 2.5 3.0 3.5 4.0

1.4 1.5 1.6 1.7 1.8 2.2

0 20 40 60 80 100

2.0 2.5 3.0 3.5 4.0

1.4 1.5 1.6 1.7 1.8

0 20 40 60 80 100

2.0 2.5 3.0 3.5 4.0

1.4 1.5 1.6 1.7 1.8

0 20 40 60 80 100

2.0 2.5 3.0 3.5 4.0

1.4 1.5 1.6

0 20 40 60 80 100

2.0 2.5 3.0 3.5 4.0

1.4 1.5

0 20 40 60 80 100

2.0 2.5 3.0 3.5 4.0

1.4

0 20 40 60 80 100

2.0 2.5 3.0 3.5 4.0

1.5

0 20 40 60 80 100

2.0 2.5 3.0 3.5 4.0

1.6

0 20 40 60 80 100

2.0 2.5 3.0 3.5 4.0

1.7

0 20 40 60 80 100

2.0 2.5 3.0 3.5 4.0

1.8

0 20 40 60 80 100

2.0 2.5 3.0 3.5 4.0

Depth: 855 M

Depth: 855 M
EW95-04  Core: 07PC Sect.: 4 (0-120 cm)
33 37.98N, 118 48.15 W, 878 m

Interval | Lithology | Color | FOSSILS | Grain Size | Remarks
---------|-----------|-------|----------|------------|------------------------
0        |           | 5Y2.5/2 | Biourb. Contact | Foram. | CLAYEY SILT; black olive gray; top 14 cm is soupy; 14-34 cm is laminated; >34 cm is homogeneous
10       |           |        | Foram. | Nanno. | ss-50:
20       |           |        | Fish debr. | Rad. | A: silt and clay
30       |           |        | Diatom | Spicule | R: forams. nannos, and spicules
40       |           |        | Plant, frag | Mol. Shell | 120 cm = bottom of section
50       |           |        | Plant, frag | Sand | graded bed
60       |           |        | Plant, frag | Silt | (turbidite)
70       |           |        | Plant, frag | Clay | ss-smear slide
80       |           |        | Plant, frag | Sand |  
90       |           |        | Plant, frag | Silt |  
100      |           |        | Plant, frag | Clay |  
110      |           |        | Plant, frag | Sand |  
120      |           |        | Plant, frag | Silt |  
130      |           |        | Plant, frag | Clay |  
140      |           |        | Plant, frag | Sand |  
150      |           |        | Plant, frag | Silt |  

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts:  s-sharp; g-gradational; m-mottled
EW95-04 Core: 07PC Sect.: 3 (120-271 cm)
33 37.98N, 118 48.15 W, 878 m

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>FOSSILS</th>
<th>Grain Size</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>130</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>140-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>160</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>170-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>190-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>210</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>220</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>230-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>240</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>250</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>260</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>270</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FOSSILS**

- A: Abundant
- X: Present
- B: Barren
- R: Rare
- C: Common
- G: Gradational
- S: Sharp
- M: Mottled
- S: Sandy, Silty, Clay; black; laminated throughout due to cm-scale silt-clay turbidites; black pyrite (?) streaks throughout; gas bubbles throughout

- ss: Smear slide

- A: Abundant
- X: Present
- B: Barren
- R: Rare
- C: Common

- A: Abundant
- X: Present
- B: Barren
- R: Rare
- C: Common

- ss-160:
  - A: Silt and clay
  - C: Rounded black grains (pyrite)
  - R: Forams, nannos, and spicules

- ss-250:
  - A: Clay
  - C: Silt
  - R: Forams, nannos, and spicules

- ss-271 cm = Bottom of section

- Graded bed (turbidite)

- ss-smear slide
**EW95-04 Core: 07PC Sect.: 2 (271-421 cm)**

33°37.98N, 118°48.15W, 878 m

**Remarks**
- 271 cm = top of section
- SILTY CLAY; black; laminated throughout due to cm-scale silt-clay turbidites, with some sand-silt-clay turbidites; gas bubbles obvious throughout

**Depth in centimeters**

**Interval**
- 270
- 280
- 290
- 300
- 310
- 330
- 340
- 350
- 360
- 370
- 380
- 390
- 400
- 410
- 420

**Lithology**
- 5Y2.5/2

**Color**
- 5Y2.5/2

**Grain Size**
- silt
- clay

**FOSSILS**
- Bioturb.
- Contact
- Foran.
- Nanno.
- Fish debr.
- Rad.
- Diatom
- Spicule
- Plant, frag
- Mol. Shell
- sand
- silt
- clay

**Fossils:**
- X-Present
- C-Common
- B-Barren
- A-Abundant
- R-ABarren

**Contacts:**
- s-sharp
- g-gradational
- m-mottled

**Remarks**
- ss-390:
  - A: silt and clay
  - R: forams, nannos, and spicules

**Graded bed (turbidite)**

**ss-smear side**
### FOSSILS

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Grain Size</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>420-430</td>
<td>Sandy, Silty, Clay; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>430-450</td>
<td>SANDY, SILTY, CLAY; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>450-460</td>
<td>SANDY, SILTY, CLAY; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>460-470</td>
<td>SANDY, SILTY, CLAY; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>470-480</td>
<td>SANDY, SILTY, CLAY; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>480-490</td>
<td>SANDY, SILTY, CLAY; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>490-500</td>
<td>SANDY, SILTY, CLAY; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>500-510</td>
<td>SANDY, SILTY, CLAY; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>510-520</td>
<td>SANDY, SILTY, CLAY; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>520-530</td>
<td>SANDY, SILTY, CLAY; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>530-540</td>
<td>SANDY, SILTY, CLAY; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>540-550</td>
<td>SANDY, SILTY, CLAY; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>550-560</td>
<td>SANDY, SILTY, CLAY; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>560-570</td>
<td>SANDY, SILTY, CLAY; black; laminated down to 512 cm due to cm-scale silt-clay turbidites; gas bubbles throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:
- ss-450:
  - A: silt and clay
  - C: rounded black grains (pyrite?)
  - R: forams, nannos, and spicules

- ss-467:
  - A: silt and clay
  - R: forams, nannos, and spicules

- ss-540:
  - A: silt and clay
  - R: forams, nannos, and spicules

- ss-smear slide

Contacts:
- s-sharp
- g-gradational
- m-mottled

Fossils: X-Present A-Abundant C-Common B-Barren R-rare
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 07TC
(0-49 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 33°37.98' N
LON: 118°48.15' W
Depth: 878 M
Drill Site ID: BA-4 Santa Monica Basin

USGS
LAT: 33°37.98'N  Depth: 878 m
LON: 118°48.15'W  Drill Site ID: BA4

CALIFORNIA MARGIN SITE SURVEY
PHYSICAL-PROPERTY LOG

P-wave velocity
(km/s)

Wet bulk density
(gm/cm³)

depth (cm)

USGS
Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 33°37.98'N  Depth: 878 m
LON: 118°48.15'W  Drill Site ID: BA4
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 07PC
(0-150 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

LAT: 33°37.98' N  Depth: 878 M
LON: 118°48.15' W  Drill Site ID: BA4

USA

USGS
P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 33°37.98' N
LON: 118°48.15' W
Depth: 878 M
Drill Site ID: BA4

USGS
P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 33°37.98' N  Depth: 878 M
LON: 118°48.15' W  Drill Site ID: BA4

USGS
EW95-04 Core: 08PC Sect.: 5 (0-115 cm)
33 48.05 N, 118 48.00 W, 1428 m

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

Remarks
SILTY CLAY; calcareous; olive gray; top 32 cm is soupy; 32-67 cm is highly disturbed from splitting; >67 cm is mostly homogeneous w/ a few Planolites burrows

Depth in centimeters
Interval  Lithology  Color
0        5Y4/2        g
10       5Y4/2        g
20
30
40
50
60
70
80
90
100
110
120
130
140
150

Grain Size

Remarks
ss-80:
A: clay
C: carb. frags. (forams?); whole forams; angular silt grains
R: forams. nannos, and spicules

115 cm = bottom of section

graded bed (turbidite)
ss-smear slide
<table>
<thead>
<tr>
<th>Depth in centimeters</th>
<th>FOSSILS</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td></td>
<td>SILTY CLAY; black; mod. bioturb.</td>
</tr>
<tr>
<td>120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>150</td>
<td></td>
<td>SILTY CLAY; black; homogen.</td>
</tr>
<tr>
<td>160</td>
<td></td>
<td>ss-170:</td>
</tr>
<tr>
<td>170</td>
<td></td>
<td>A: clay</td>
</tr>
<tr>
<td>180</td>
<td></td>
<td>C: forams; angular silt grains</td>
</tr>
<tr>
<td>190</td>
<td></td>
<td>R: nannos, and spicules</td>
</tr>
<tr>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>230</td>
<td></td>
<td></td>
</tr>
<tr>
<td>240</td>
<td></td>
<td></td>
</tr>
<tr>
<td>250</td>
<td></td>
<td>250 cm = bottom of section</td>
</tr>
<tr>
<td>260</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

graded bed (turbidite)

ss-smear slide
EW95-04 Core: 08PC Sect.: 3 (250-401 cm)
33 48.05N, 118 48.00 W, 1428 m

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

Interval Lithology Color

Depth in centimeters

Remarks

SILTY CLAY; calcareous; dk. olive gray; sli. bioturb.

ss-300:
A: clay
C: fine silt; forams; nannos

SILTY CLAY; calcareous; ol. gry. w/ burrow mottles of dk. ol. gry.; mod. bioturb.

SILTY CLAY; calcareous; homogen.

401 cm = bottom of section

graded bed (turbidite)

ss-smear slide
### EW95-04 Core: 08PC Sect.: 2 (401-551 cm)
33 48.05N, 118 48.00 W, 1428 m

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>FOSSILS</th>
<th>Grain Size</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>410-450</td>
<td>5Y2.5/2</td>
<td>g</td>
<td>Nanno.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>450-500</td>
<td>5Y3/2</td>
<td>g</td>
<td>Foram.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>500-550</td>
<td>5Y2.5/2</td>
<td>g</td>
<td>Spicule</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Lithology**: 5Y2.5/2 - gray; 5Y3/2 - gray; 5Y4/2 - gray; 5Y5/2 - gray.

**Remarks**:
- 401 cm - top of section
- 551 cm = bottom of section
- 401 cm - top of section
- SILTY CLAY; calcareous; black; strong H2S smell; homog.
- ss-425:
  - A: clay; silt
  - C: forams; nannos
  - R: spicules
- dk. ol. gry; homogeneous
- dk. ol. gry. w/ black burrow mottles; sli. bioturb.
- black; homogeneous
- black and ol. gry. horiz. burrow mottles; intens. bioturb.
- MARL; foram nanno w/ predom clay and silt; ol. gry.; mod. bioturb.
- SILTY CLAY; ol. gry. w/ sli. lighter burrow mottles; mod. bioturb.
- black; homogen.

**Fossils**:
- X-Present
- A-Abundant
- C-Common
- B-Barren
- R-rare

**Contacts**:
- s-sharp; g-gradational; m-mottled

**Remarks**:
- graded bed (turbidite)
- ss-smear slide
EW95-04  Core: 08PC Sect.: 1 (551-700 cm)
33 48.05N, 118 48.00 W, 1428 m

interval  Lithology  Color  FOSSILS  Grain Size  Remarks
550  
560  
457  
580  
590  
600  
610  
620  
630  
640  
650  
660  
670  
680  
690  
700  

Depth in centimeters

FOSSILS

Remarks
551 cm - top of section
SILTY CLAY; calcareous; dk. ol. gry.; homog.

ss-600:
A: clay
C: silt; forams; nannos
R: spicules

graded bed (turbidite)
ss-smear slide

Depth in centimeters

Fossils: X-Present  C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL PROPERTY LOGS

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

LAT: 32°48.05' N
LON: 118°48.00' W
Depth: 1442 M
Drill Site ID: BA-2 San Nicolas Basin

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

LAT: 32°48.05' N
LON: 118°48.00' W

Depth: 1442 M
Drill Site ID: BA-2 San Nicolas Basin

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Section Break
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 08PC
(600-700 cm)

LAT: 32°48.05' N
LON: 118°48.00' W
Depth: 1442 M
Drill Site ID: BA-2 San Nicolas Basin

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

1.4 1.5 1.6 1.7 1.8 1.4 1.8 2.2

(*) 10⁶

(*) 10⁵
EW95-04 Core: 09PC Sect.: 5 (0-128 cm)
33 48.05N, 118 48.00 W, 1428 m

**Interval** | **Lithology** | **Color** | **FOSSILS** | **Grain Size** | **Remarks**
---|---|---|---|---|---
0  |  |  | Bioturb. Contact | MARL; forams nannos w/ predom. clay; black; soupy; homogeneous
10 |  |  | Foram. | ss-50:
20 |  |  | Nanno. | A: clay; forams; nannos
30 |  |  | Fish, debr. | C: spicules
40 |  |  | Rad. | 128 cm = bottom of section
50 |  |  | Diatom | graded bed (turbidite)
60 |  |  | Spicule | ss-smear slide
70 |  |  | Plant. frag. |  
80 |  |  | Mol. Shell |  
90 |  |  | sand |  
100 |  |  | silt, clay |  
110 |  |  | sand |  
120 |  |  | silt, clay |  
130 |  |  | sand |  
140 |  |  | silt, clay |  
150 |  |  | sand |  

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare
Contacts: s-sharp; g-gradational; m-mottled
**FOSSILS**

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>128 cm - top of section</td>
<td>MARL; foram, nanno w/ predom. clay matrix; dom. color is dk. ol. gry. w/ sli. lighter burrow mottles; sli, bioturb. throughout</td>
<td></td>
<td></td>
</tr>
<tr>
<td>271 cm - bottom of section</td>
<td>graded bed (turbidite)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Contacts:**
- s-sharp
- g-gradational
- m-mottled

**Grain Size:**
- ss
- clay
- silt; forams; nannos
- spicules

**Remarks:**
- Fossils: X-Present C-Common A-Abundant R-rare
- Contacts: s-smear slide
 EW95-04  Core: 09PC Sect.: 3 (271-422 cm)  
33 48.05N, 118 48.00 W, 1428 m

**FOSSILS**

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>271 cm - top of section</td>
<td>MARL; foram, nanno w/ predomin. clay matrix; dom. color is dk. ol. gry. w/ sli. lighter burrow mottles; sli., bioturb. throughout</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Depth in centimeters**

- 270 cm - 280 cm: 5Y3/2, 5Y4/2
- 280 cm - 300 cm: 5Y4/2
- 300 cm - 320 cm: 5Y4/2
- 320 cm - 340 cm: 5Y4/2
- 340 cm - 360 cm: 5Y4/2
- 360 cm - 380 cm: 5Y4/2
- 380 cm - 400 cm: 5Y4/2
- 400 cm - 420 cm: 5Y4/2

**Grain Size**

- ss-344:
  - A: clay; nannos
  - C: silt; forams
  - R: spicules

**Remarks**

- graded bed (turbidite)
- ss-smear slide
### FOSSILS

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Grain Size</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>420 cm</td>
<td>ol. gry.</td>
<td>G</td>
<td></td>
<td>MARL; foram, nanno w/ predom. clay matrix; dom. color is ol. gry. w/ somewhat darker color cycles; homogen. to mod. bioturb.</td>
</tr>
<tr>
<td>430 cm</td>
<td>black</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>440 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>450 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>460 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>470 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>480 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>490 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>500 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>510 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>520 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>530 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>540 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>550 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>560 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>570 cm</td>
<td>dk. ol. gry.</td>
<td>black</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Fossils:** X-Present  C-Common  B-Barren  A-Abundant  R-rare

**Contacts:** s-sharp; g-gradational; m-mottled

ss-smear slide

graded bed (turbidite)
EW95-04 Core: 09PC Sect.: 1 (572-719 cm)
33 48.05N, 118 48.00 W, 1428 m

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>FOSSILS</th>
<th>Grain Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>570</td>
<td>5Y4/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MARL; foram, nanno w/ predom. clay matrix; subtle color of dk. ol. gry. and ol. gry; homogen.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>580</td>
<td>5Y3/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>590</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>600</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>610</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>620</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>630</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>640</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>650</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>660</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>670</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>680</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>690</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>700</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>710</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>720</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>572 cm</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>570</td>
<td>5Y2.5/2</td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>g</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>570</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ss-620:</td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A: clay; nannos; forams</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C: spicules</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R: silt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>570</td>
<td>5Y5/2</td>
<td></td>
<td>s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>s</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>570</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ss-686:</td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A: clay; nannos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C: forams; spicules</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R: silt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>570</td>
<td>5Y3/2</td>
<td></td>
<td>C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>570</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ss-smear slide</td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>graded bed (turbidite)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contacts: s-sharp; g-gradational; m-mottled</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>719 cm - bottom of section</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
LAT: 32°51.51'N  Depth: 1194 m
LON: 119°57.48'W  Drill Site ID: CA15

**Magnetic Susceptibility**
(cgs/cm³)

**Acoustic Impedance**
(g/cm²/s)
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 09PC
(150-300 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm):

150
175
200
225
250
275
300

LAT: 32°51.51' N
LON: 119°57.48' W
Depth: 1194 M
Drill Site ID: CA 15 -- Tanner Basin

USGS
105
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 09PC
(600-719 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 32°51.51' N
LON: 119°57.48' W
Depth: 1194 M
Drill Site ID: CA 15 - Tanner Basin

USGS
EW95-04  Core: 10MC-7 (0-37 cm)
32 51.64 N, 119 57.15 W, 1190 m

Depth in centimeters

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Grain Size</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-37 cm</td>
<td>2.5Y3/2</td>
<td></td>
<td></td>
<td>0-37 cm (compressed on extrusion from an original length of ca. 43 cm)</td>
</tr>
<tr>
<td></td>
<td>ss</td>
<td></td>
<td></td>
<td>CLAY; v. dk. grayish brn.; homogeneous, very soupy</td>
</tr>
<tr>
<td>ss-20 cm</td>
<td></td>
<td></td>
<td></td>
<td>ss-20 cm:</td>
</tr>
<tr>
<td></td>
<td>A: clay</td>
<td></td>
<td></td>
<td>A: clay</td>
</tr>
<tr>
<td></td>
<td>C: nannos; forams; palyromorphs</td>
<td></td>
<td></td>
<td>C: nannos; forams; palyromorphs</td>
</tr>
<tr>
<td></td>
<td>R: spicules</td>
<td></td>
<td></td>
<td>R: spicules</td>
</tr>
</tbody>
</table>

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

ss-smear slide

graded bed (turbidite)
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 10MC-2
(0-45 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

Depth: 1190 M

LAT: 32° 51.64' N
LON: 119° 57.15' W

Drill Site ID: CA-15 Tanner Basin

USGS
111
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 10MC-7
(0-150 cm)

LAT: 32° 51.64' N
LON: 119° 57.15' W
Depth: 1190 M
Drill Site ID: CA-15 Tanner Basin

USGS
EW95-04 Core: 11TC Sect.: 2 (0-100 cm)
34 29.22 N, 122 9.1 W, 3861 m

Interval | Lithology | Color | FOSSILS | Remarks
0  |  |  |  | CLAY; dk. gry. grading to v.
10 |  |  |  | dk. gry. at base of section;
20 |  |  |  | soupy; mod. bioturb. to 35 cm.
30 |  |  |  | 17-18 cm; olive layer
40 |  |  |  | 35-48 cm: open burrows
50 |  |  |  | ss-80 cm:
60 |  |  |  | A: clay
70 |  |  |  | C: nannos; subang. to
80 |  |  |  | subrounded fine silt grains;
90 |  |  |  | R: spicules; fish debris;
100 |  |  |  | forams; pine pollen and other,
|  |  |  |  | smaller palynomorphs
|  |  |  |  | 100 cm = bottom of section

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

\graded bed
(turbidite)

ss-smear slide
EW95-04 Core: 11TC Sect.: 1 (100-243 cm)
34 29.22 N, 122 9.1 W, 3861 m

FOSSILS

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-133 cm:</td>
<td>open burrows</td>
<td></td>
<td>CLAY; o.l. gry. mod. bioturb.</td>
</tr>
<tr>
<td>110-133 cm:</td>
<td>open burrows</td>
<td></td>
<td></td>
</tr>
<tr>
<td>165-212 cm:</td>
<td>long, brown plant fragments; homogeneous w/ black streaks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>243 cm = bottom of section</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fossils: X-Present  C-Common  B-Barren  A-Abundant  R-rare

Contacts:  s-sharp;  g-gradational;  m-mottled
Graded bed (turbidite)
SS-smear slide
EW95-04 Core: 11PC Sect.: 6 (0-74 cm)
34 29.22 N, 122 9.1 W, 3861 m

FOSSILS

Interval | Lithology | Color | Grain Size | Remarks
---------|-----------|-------|------------|--------
0-10     | CLAY; dk. ol. gry.; soupy; homogeneous
10-20    |
20-30    |
30-40    |
40-50    |
50-60    |
60-70    |
70-80    |
80-90    |
90-100   |
100-110  |
110-120  |
120-130  |
130-140  |
140-150  |

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

ss-smear slide

74 cm = bottom of section

Grain size:
- ss-50:
  - A: clay;
  - C: forams; nannos
  - R: spicules; rads

(turbidite)
EW95-04 Core: 11PC Sect.: 5 (74-224 cm)
34 29.22 N, 122 9.1 W, 3861 m

Depth in centimeters

Interval Lithology Color FOSSILS Grain Size Remarks
70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220

5Y3/1

Biolum. Contam. Foram. Nanno. Fish debr. Diatom Spicile Plant frag Mol. Shell slt clay 74 cm = top of section

CLAY: v. dk. ol. gry.; 74-104 cm soupy; homogeneous w/ a few black streaks (pyrite?)

ss-150:
A: clay
C: forams; nannos
R: spicules

224 cm = bottom of section

graded bed (turbidite)

ss-smear slide

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare
Contacts: s-sharp; g-gradational; m-mottled
EW95-04 Core: 11PC Sect.: 4 (224-361 cm)
34 29.22 N, 122 9.1 W, 3861 m

FOSSILS

Interval | Lithology | Color | Remarks
---|---|---|---
220 | | 5Y3/1 | 224 cm = top of section
230 | | | CLAY; v. dk. ol. gry.; homogeneous w/ a few black streaks (pyrite?); burrow @ 118-120 cm
240 | | | ss-300:
250 | | | A: clay
260 | | | C: forams; nannos
270 | | | R: spicules; fish deb.; rads; diatoms
280 | | | thin turbidite(?) @ 346 cm
290 | | | 361 cm = bottom of section
300 | | | graded bed (turbidite)
310 | | | ss-smear slide
320 | | | A-Abundant
330 | | | B-Barren
340 | | | C-Common
350 | | |
360 | | |
370 | | |

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare
Contacts: s-sharp; g-gradational; m-mottled

Grain Size

EW95-04 Core: 11PC Sect.: 3 (361-512 cm)
34 29.22 N, 122 9.1 W, 3861 m

FOSSILS

Interval  Lithology  Color  FOSSILS  Remarks
360
370
380
390
400
410
420
430
440
450
460
470
480
490
500
510

Depth in centimeters

5Y5/2
R C R R R R

5Y4/2
R C C C R

361 cm = top of section
CLAY; gry. w/ sli. lighter
burrow mottles grading to dk.
gry. at base of section; black
streaks (pyrite?) throughout;
homogeneous w/ a few black
streaks (pyrite?); mod.
bioturb. 361-430 cm w/
pedominantly chondrites @
361-417, and Planolites 417-
430 cm; sli. bioturb. 430-512
cm

ss-400 (dom. lith.):
A: clay; subround. silt
grains
C: nannos
R: spicules; forams; rads;
diatoms; pine pollen and
other, smaller
palynomorphs

ss-457 (greenish silty layer):
A: clay; subround. silt grains
C: fish deb.; nannos
R: spicules; forams

512 cm = bottom of section

~ graded bed
(turbidite)

~ ss-smear slide

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled
EW95-04 Core: 11 PC Sect.: 2 (512-662 cm)
34 29.22 N, 122 9.1 W, 3861 m

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

512 cm = top of section

CLAY; gy to dk. gry. w/ sli. lighter burrow mottles; intens. bioturb. 512-558 cm w/ chondrites and Planolites; sli. bioturb. 430-512 cm

dk. gry. w/ lighter (5Y5/1) burrow mottles; intens. bioturb. 558-624 w/ Zoophycus (subhorizontal) and planolites (subvertical)

ss-567 (dom. lith.):
A: clay
C: nannos; forams.; subroud. fine silt gains
R: spicules

dk. ol. gry; mod bioturb. 624-662, mostly w/ chondirites; horizontal black streaks

-662 cm = bottom of section
**EW95-04 Core: 11PC Sect.: 1 (662-813 cm)**
34 29.22 N, 122 9.1 W, 3861 m

<table>
<thead>
<tr>
<th>Depth in Centimeters</th>
<th>FOSSILS</th>
<th>Grain Size</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>660</td>
<td></td>
<td></td>
<td>662 cm = top of section</td>
</tr>
<tr>
<td>670</td>
<td>5Y4/2</td>
<td></td>
<td>CLAY; mottled green, black, and olive (&quot;comoflagged clay&quot;); dom. color is ol. gry. (5Y4/2); green is 10GY5/2 on GSA Rock Color Chart; black streaks throughout, esp. abundant in top 60 cm of section; mod. bioturb. w/ mostly chondites</td>
</tr>
<tr>
<td>680</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>690</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>700</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>710</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>720</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>730</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>740</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>750</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>760</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>770</td>
<td>5Y3/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>780</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>790</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>810</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>813 cm = bottom of section</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>813 cm = bottom of section</td>
</tr>
</tbody>
</table>

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare
Contacts: s-sharp; g-gradational; m-mottled

gradable bed (turbidite)

ss-smear slide
LAT: 34°29.22'N  Depth: 3861 m  
LON: 122°19.10'W  Drill Site ID: CA-11A West of Pt. Conception  
USGS
LAT: 34°29.22'N Depth: 3861 m
LON: 122°19.10'W Drill Site ID: CA-11A West of Pt. Conception
### CALIFORNIA MARGIN SITE SURVEY

**PHYSICAL PROPERTY LOGS**

<table>
<thead>
<tr>
<th>P-Wave Velocity (km/s)</th>
<th>Wet Bulk Density (g/cm³)</th>
<th>Magnetic Susceptibility (cgs/cm³)</th>
<th>Acoustic Impedance (g/cm²/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>25</td>
<td>1.4</td>
<td>20</td>
<td>2.0</td>
</tr>
<tr>
<td>50</td>
<td>1.5</td>
<td>40</td>
<td>2.5</td>
</tr>
<tr>
<td>75</td>
<td>1.6</td>
<td>60</td>
<td>3.0</td>
</tr>
<tr>
<td>100</td>
<td>1.7</td>
<td>80</td>
<td>3.5</td>
</tr>
<tr>
<td>125</td>
<td>1.8</td>
<td>100</td>
<td>4.0</td>
</tr>
<tr>
<td>150</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LAT:** 34°29.22' N  
**LON:** 122°19.10' W  
**Depth:** 3861 M  
**Drill Site ID:** CA-11A West of Pt. Conception  
**USGS**  
123
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 11TC
(150-243 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 34°29.22' N  Depth: 3861 M
LON: 122°19.10' W  Drill Site ID: CA-11A West of Pt. Conception

USGS
LAT: 34°29.22'N Depth: 3861 m
LON: 122°19.10'W Drill Site ID: CA-11A West of Pt. Conception
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 11PC
(150-300 cm)

LAT: 34°29.22' N
LON: 122°19.10' W
Depth: 3861 M
Drill Site ID: CA-11A West of Pt. Conception

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Section Break
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 11PC
(300-450 cm)

P-Wave Velocity
(km/s)

Wet Bulk Density
(g/cm³)

Magnetic Susceptibility
(cgs/cm³)

Acoustic Impedance
(g/cm²/s)

LAT: 34°29.22' N
LON: 122°19.10' W
Depth: 3861 M
Drill Site ID: CA-11A West of Pt. Conception

USGS
129
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 11PC
(450-600 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

LAT: 34°29.22' N  Depth: 3861 M
LON: 122°19.10' W  Drill Site ID: CA-11A West of Pt. Conception

Section Break
EW95-04 Core: 12TC Sect.: 1 (57-207 cm)
34 32.81 N, 121 00.46 W, 948 m

Remarks:
57 cm = top of section
SILTY CLAY; black.; homogen. w/ fragments of mollusc shells scattered throughout
ss-10 cm:
A: clay; angular silt grains
C: nannos; forams;
R: spicules, rads, diatoms;
fish debris, palynomorphs
207 cm = bottom of section
graded bed (turbidite)
ss-smear slide
EW95-04 Core: 12PC Sect.: 7 (0-96 cm)
34 32.81 N, 121 00.46 W, 948 m

FOSSILS

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>5Y2.5/2</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>40</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>50</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>60</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>70</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>80</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>90</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>100</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>110</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>120</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>130</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>140</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>150</td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

Remarks:
- SILTY CLAY; black.; soupy; homogen.; strong odor of H2S; black, silty, sandy turbidites at: 79 cm, 86 cm, and 94 cm; black, sandy burrow fill @ 34 cm
- ss-34 cm (blk sandy burrow fill):
  - A: clay; angular silt and fine sand grains
  - C: forams
  - R: spicules; fish debris
- ss-46 cm (dom. lithol):
  - A: clay; angular silt grains
  - C: nannos; forams
  - R: spicules; fish debris; palynolomorphs
- 96 cm = bottom of section

Fossils: X-Present  C-Common  B-Barren  A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

graded bed (turbidite)

ss-smear slide


**FOSSILS**

- **Interval Lithology Color**
- **Grain Size**
- **Remarks**

**96 cm = top of section**

SILTY CLAY; black; homogen.; strong odor of H2S; black, silty, sandy turbidites at: 108, 119, 124-126, 127-129, 138-140, 144-145, and 203-206 cm

**ss-156 cm (dom. lithol):**
- A: clay
- C: angular to subangular silt grains
- R: nannos; forams; spicules; fish debris

**ss-205 cm (blk. silty, sandy turbidite):**
- A: angular silt and sand grains
- C: clay
- R: forams; spicules; fish debris

**247 cm = bottom of section**

graded bed (turbidite) ss-smear slide
EW95-04 Core: 12PC Sect.: 5 (247-398 cm)
34 32.81 N, 121 00.46 W, 948 m

**Grain Size**

<table>
<thead>
<tr>
<th>Depth in centimeters</th>
<th>FOSSILS</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>240</td>
<td></td>
<td></td>
</tr>
<tr>
<td>250</td>
<td></td>
<td>247 cm = top of section</td>
</tr>
<tr>
<td>260</td>
<td></td>
<td>SILTY CLAY; black; homogen.; strong odor of H2S; black, silty, sandy turbidites at: 251-253, 264, 280-284, and 322-325 cm (latter contains articulated, thin-walled clam)</td>
</tr>
<tr>
<td>270</td>
<td></td>
<td></td>
</tr>
<tr>
<td>280</td>
<td></td>
<td>ss-300 cm (dom. lithol): A: clay: angular to subangular silt grains</td>
</tr>
<tr>
<td>290</td>
<td></td>
<td>C: nannos; foram R: spicules; fish debris; palynomorphs; diatoms</td>
</tr>
<tr>
<td>300</td>
<td></td>
<td>ss-325 cm (blk. silty, sandy turbidite): A: angular silt and sand grains</td>
</tr>
<tr>
<td>310</td>
<td></td>
<td>C: clay</td>
</tr>
<tr>
<td>320</td>
<td></td>
<td>R: foram; spicules; fish debris</td>
</tr>
<tr>
<td>330</td>
<td></td>
<td></td>
</tr>
<tr>
<td>340</td>
<td></td>
<td></td>
</tr>
<tr>
<td>350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>360</td>
<td></td>
<td></td>
</tr>
<tr>
<td>370</td>
<td></td>
<td></td>
</tr>
<tr>
<td>380</td>
<td></td>
<td></td>
</tr>
<tr>
<td>390</td>
<td></td>
<td>398 cm = bottom of section</td>
</tr>
</tbody>
</table>

**Interval**

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>240</td>
<td></td>
<td>5Y2.5/2</td>
</tr>
<tr>
<td>250</td>
<td></td>
<td>C C R R R</td>
</tr>
<tr>
<td>260</td>
<td></td>
<td>R R R R</td>
</tr>
<tr>
<td>270</td>
<td></td>
<td></td>
</tr>
<tr>
<td>280</td>
<td></td>
<td></td>
</tr>
<tr>
<td>290</td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>310</td>
<td></td>
<td></td>
</tr>
<tr>
<td>320</td>
<td></td>
<td></td>
</tr>
<tr>
<td>330</td>
<td></td>
<td></td>
</tr>
<tr>
<td>340</td>
<td></td>
<td></td>
</tr>
<tr>
<td>350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>360</td>
<td></td>
<td></td>
</tr>
<tr>
<td>370</td>
<td></td>
<td></td>
</tr>
<tr>
<td>380</td>
<td></td>
<td></td>
</tr>
<tr>
<td>390</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FOSSILS**

- Bioturb. Contact
- Foram. Contact
- Nannos. Contact
- Fish debris Contact
- Rad. Contact
- Diatom Contact
- Spicules Contact
- Plant. frag Contact
- Mol. Shell Contact
- Sand Contact
- Silt Contact
- Clay Contact

**Lithology**

- ss-300 cm (dom. lithol): A: clay: angular to subangular silt grains
- ss-325 cm (blk. silty, sandy turbidite): A: angular silt and sand grains

**Contacts**

- s-sharp
- g-gradational
- m-mottled

**Remarks**

- graded bed (turbidite)
- ss-smear slide
EW95-04 Core: 12PC Sect.: 4 (398-541 cm)
34 32.81 N, 121 00.46 W, 948 m

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare
Contacts:  s-sharp;  g-gradational;  m-mottled

Interval  Lithology  Color  Remarks
390
400  5Y2.5/2  398 cm = top of section
SILTY CLAY; black; homogen. w/ black streaks; on standing, surface became pock marked with methane bubbles

Depth in centimeters

ss-450 cm (dom. lithol):
A: clay
C: nannos; forams; angular to subangular silt grains
R: spicules; diatoms palynomorphs

ss-525 cm:
A: clay
C: nannos; angular to subangular silt grains
R: spicules; diatoms; forams; palynomorphs; fish debris

541 cm = bottom of section

ss-smear slide

graded bed (turbidite)
**EW95-04 Core: 12PC Sect.: 3 (541-692 cm)**

34 32.81 N, 121 00.46 W, 948 m

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>540-541 cm</td>
<td>top of section</td>
<td>5Y3/2</td>
<td>SILTY CLAY; dk. ol. gry.; homogen. w/ occasional black streaks; on standing, surface became pock marked with methane bubbles</td>
</tr>
<tr>
<td>541-ss cm</td>
<td>ss-600 cm (dom. lithol):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>541-600 cm</td>
<td>dom. lithol:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>600-692 cm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Grain Size**

- A: clay; angular to subangular silt grains
- C: nannos; forams;
- R: spicules; diatoms palynomorphs; fish debris

**FOSSILS**

- X: Present
- C: Common
- B: Barren
- A: Abundant
- R: Rare

- graded bed (turbidite)
- ss-smear slide

**Color**

- 5Y3/2

**Contacts**

- s: sharp
- g: gradational
- m: mottled

- graded bed (turbidite)

- ss-smear slide
EW95-04 Core: 12PC Sect.: 2 (692-842 cm)
334 32.81 N, 121 00.46 W, 948 m

### FOSSILS

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>690-692 cm</td>
<td>top of section</td>
<td>5Y3/2</td>
<td>SILTY CLAY; dk. ol. gry.; homogen. w/ occasional black streaks and occasional mollusc shell fragments scattered throughout; sandy turbidite? @ 742-746</td>
</tr>
</tbody>
</table>

### Grain Size

- ss-smear slide

### Depths in Centimeters

- 842 cm = bottom of section

### Fossils

- A: Abundant
- B: Barren
- C: Common
- R: Rare

### Contacts

- s: sharp
- g: gradational
- m: mottled

---

**Legend:**
- Foraminifera
- Fish teeth
- Diatom Fragments
- Plant Fragments
- Mollusk Shell
EW95-04 Core: 12PC Sect.: 1 (842-993 cm)
34 32.81 N, 121 00.46 W, 948 m

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

Interval Lithology Color

Remarks

SILTY CLAY; black; voids at 842-844 and 886-891 cm

ss-910 cm:
A: clay; silt
C: nannos; forams
R: fish debris; spicules; palynomorphs

993 cm = bottom of section

graded bed (turbidite)

ss-smear slide
LAT: 34°32.81'N  Depth: 940 m  LON: 121°06.46'W  Drill Site ID: CA-9 Southern Santa Lucia Bank
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 12TC
(0-150 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 34°32.81' N
LON: 121°06.46' W
Depth: 940 M
Drill Site ID: CA-9 Southern Santa Lucia Bank

USGS
### CALIFORNIA MARGIN SITE SURVEY

**PHYSICAL PROPERTY LOGS**

<table>
<thead>
<tr>
<th>Depth (cm)</th>
<th>P-Wave Velocity (km/s)</th>
<th>Wet Bulk Density (g/cm³)</th>
<th>Magnetic Susceptibility (cgs/cm³)</th>
<th>Acoustic Impedance (g/cm²/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>1.4</td>
<td>225</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>175</td>
<td>1.5</td>
<td>225</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>200</td>
<td>1.6</td>
<td>225</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>225</td>
<td>1.7</td>
<td>225</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>250</td>
<td>1.8</td>
<td>225</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>275</td>
<td>1.9</td>
<td>225</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>300</td>
<td>2.0</td>
<td>225</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**LAT:** 34°32.81' N  
**LON:** 121°06.46' W  
**Depth:** 940 M  
**Drill Site ID:** CA-9 Southern Santa Lucia Bank

USGS

145
LAT: 34°32.81'N  Depth: 940 m
LON: 121°06.46'W  Drill Site ID: CA-9  Southern Santa Lucia Bank
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL-PROPERTY LOG

LAT: 34°32.81'N Depth: 940 m
LON: 121°06.46'W Drill Site ID: CA-9 Southern Santa Lucia Bank

Magnetic Susceptibility
(cgs/cm³)

Acoustic Impedance
(g/cm²/s)
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 34°32.81' N
LON: 121°06.46' W

Depth: 940 M
Drill Site ID: CA-9 Southern Santa Lucia Bank

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 12PC
(300-450 cm)

LAT: 34°32.81' N  Depth: 940 M
LON: 121°06.46' W  Drill Site ID: CA-9 Southern Santa Lucia Bank

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 12PC
(600-750 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 34°32.81' N
LON: 121°06.48' W
Depth: 940 M
Drill Site ID: CA-9 Southern Santa Lucia Bank

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 34°32.81' N
LON: 121°06.46' W
Depth: 940 M
Drill Site ID: CA-9 Southern Santa Lucia Bank

USGS
153
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL PROPERTY LOGS

P-Wave Velocity (km/s)  Wet Bulk Density (g/cm³)  Magnetic Susceptibility (cgs/cm³)  Acoustic Impedance (g/cm²/s)

Depth (cm)  LAT: 34°32.81' N  Depth: 940 M  LON: 121°06.46' W  Drill Site ID: CA-9 Southern Santa Lucia Bank

USGS
EW95-04 Core: 13TC Sect.: 2 (0-124 cm)
36 59.42 N, 123 16.07 W, 2510 m

FOSSILS

Interval Lithology Color  
0 5Y2.5/2
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150

Clay; black; burrows @ 65 and 70 cm, otherwise homogeneous

ss-50 cm (dom. lithol):
A: clay
C: nannos
R: spicules; fish debris; diatoms

124 cm = bottom of section

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

graded bed (turbidite)

ss-smear slide
CLAY, v. dk. gry.; black, sandy turbidite @ 156-162 cm, and burrows @ 140, 148, and 157 cm, otherwise homogeneous w/ black streaks throughout.

NOTE: turbidite at 156-162 cm correlates with turbidite at top of 13PC, sect. 10 @ 3-4 cm; also, TC contains a double hit, with the black homogeneous layer beginning at 217 cm being equivalent to the black homogeneous unit at the top of 13TC (sect. 2).

ss-140 cm:
A: clay
C: nannos; forams; silt
R: spicules; fish debris

ss-150 cm:
A: clay
C: nannos; forams; silt
R: spicules; fish debris; palynomorphs

ss-160 cm (turbidite)
A: silt and sand
C: clay
R: forams; fish debris.

ss-250 cm:
A: clay
C: plankton;
R: spicules; diatoms

267 cm = bottom of section

A graded bed (turbidite)

Fossils: X-Present C-Common B-Barren A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

ss-smear slide
EW95-04 Core: 13PC Sect.: 10 (0-111 cm)
36 59.42 N, 123 16.07 W, 2510 m

FOSSILS

Interval Lithology Color

Remarks

Silty clay; dk. ol. gry.; soupy; homogen. w/ black flecks throughout; black, sandy burrow fill or turbidite layer disturbed by coring @ 3-4 cm

ss-40 cm (dom. lithol):
A: clay
C: nannos; forams; fine silt grains
R: spicules; fish debris; diatoms; palynomorphs

111 cm = bottom of section

Grain Size

Depth in centimeters

Fossils: X-Present C-Common B-Barren

A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

graded bed (turbidite)

ss-smear slide
**FOSSILS**

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td></td>
<td></td>
<td>111 = top of section</td>
</tr>
<tr>
<td>120</td>
<td></td>
<td>5Y3/2</td>
<td>SILTY CLAY; dk. ol. gry.; homogen. w/ black flecks throughout; 2 black, sandy turbidites separated by 1-cm-thick clay layer @ 168-173 cm; black sandy burrow fill @ 180-181</td>
</tr>
<tr>
<td>130</td>
<td></td>
<td></td>
<td>ss-150 cm (dom. lithol):</td>
</tr>
<tr>
<td>140</td>
<td></td>
<td></td>
<td>A: clay</td>
</tr>
<tr>
<td>150</td>
<td></td>
<td></td>
<td>C: nannos; forams; fine silt grains</td>
</tr>
<tr>
<td>160</td>
<td></td>
<td></td>
<td>R: spicules; fish debris; diatoms; palynomorphs</td>
</tr>
<tr>
<td>170</td>
<td></td>
<td>5Y3/2</td>
<td>ss-173 cm (sandy turbidite):</td>
</tr>
<tr>
<td>180</td>
<td></td>
<td></td>
<td>A: subangular silt and sand grains</td>
</tr>
<tr>
<td>190</td>
<td></td>
<td></td>
<td>C: clay</td>
</tr>
</tbody>
</table>

**Fossils:**
- X-Present
- A-Abundant
- B-Barren
- C-Common
- R-rare

**Contacts:**
- s-sharp
- g-gradational
- m-mottled

**Grain Size**
- sand
- silt
- clay

**Remarks**
- graded bed (turbidite)
- ss-smear slide

**Depth in centimeters**

- 262 cm = bottom of section
EW95-04 Core: 13PC Sect.: 8 (262-413 cm)
36 59.42 N, 123 16.07 W, 2510 m

FOSSILS

Interval Lithology Color
260

Depth in centimeters

270

5GY3/2

Biolurb. Contact

Grain Size

Remarks

262 = top of section

Silty Clay; strong odor of H2S; dk. ol. green (5GY3/2 on GSA Rock Color Chart; closest color on Munsell Soil Color Chart is 5Y3/2, dk. ol. gry., but this chart does not include the green hues (5G, 5GY, 10G, 10GY) that are so common in hemipelagic sediments; homogen. w/ abund. black flecks throughout; greenish black (5G2/1), sandy turbidite or burrow fill @ 338-342 cm

ss-320 cm (dom. lithol):
A: clay
C: nannos; forams; fine silt grains
R: spicules; fish debris; palynomorphs

413 cm = bottom of section

graded bed (turbidite)

ss-smear slide

Fossils: X-Present A-Abundant C-Common B-Barren

Contacts: s-sharp; g-gradational; m-mottled
EW95-04 Core: 13PC Sect.: 7 (413-564 cm)
36 59.42 N, 123 16.07 W, 2510 m

FOSSILS

Interval Lithology Color

<table>
<thead>
<tr>
<th>Depth (cm)</th>
<th>Lithology</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>410</td>
<td></td>
<td>5GY3/2</td>
</tr>
<tr>
<td>420</td>
<td></td>
<td></td>
</tr>
<tr>
<td>430</td>
<td></td>
<td></td>
</tr>
<tr>
<td>440</td>
<td></td>
<td></td>
</tr>
<tr>
<td>450</td>
<td></td>
<td></td>
</tr>
<tr>
<td>460</td>
<td></td>
<td></td>
</tr>
<tr>
<td>470</td>
<td></td>
<td></td>
</tr>
<tr>
<td>480</td>
<td></td>
<td></td>
</tr>
<tr>
<td>490</td>
<td></td>
<td>5G2/1</td>
</tr>
<tr>
<td>500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>510</td>
<td></td>
<td></td>
</tr>
<tr>
<td>520</td>
<td></td>
<td></td>
</tr>
<tr>
<td>530</td>
<td></td>
<td></td>
</tr>
<tr>
<td>540</td>
<td></td>
<td></td>
</tr>
<tr>
<td>550</td>
<td></td>
<td></td>
</tr>
<tr>
<td>560</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:
- 413 = top of section
- SILTY CLAY; strong odor of H2S; dk. ol. green (5GY3/2 on GSA Rock Color Chart; closest color on Munsell Soil Color Chart is 5Y3/2, dk. ol. gry., but this chart does not include the green hews (5G, 5GY, 10G, 10GY) that are so common in hemipelagic sediments; homogen. w/ black flecks throughout; greenish black (5G2/1), sandy turbidite @ 485-489 cm
- ss-470 cm (dom. lithol):
  - A: clay
  - C: nannos; forams; fine silt grains
  - R: spicules; fish debris; palynomorphs
- 564 cm = bottom of section
- graded bed (turbidite)
- ss-smear slide

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

Grain Size

- Bioturb.
- Contact
- Foram.
- Nannom.
- Fish debr.
- Rad.
- Diatom.
- Spicule.
- Plant frag.
- Mol.
- Shell
EW95-04 Core: 13PC Sect.: 6 (564-705 cm)
36 59.42 N, 123 16.07 W, 2510 m

564 = top of section
SILTY CLAY; black homogen.

ss-650 cm (dom. lithol):
A: clay
C: subang.-subround. fine silt grains
R: nannos; spicules; fish debris; palynomorphs; diatoms

705 cm = bottom of section

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled
\( \searrow \) graded bed (turbidite)
ss-smear slide
EW95-04 Core: 13PC Sect.: 5 (705-856 cm)
36 59.42 N, 123 16.07 W, 2510 m

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>FOSSILS</th>
<th>Grain Size</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>700-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>710-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>720-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>730-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>740-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>750-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>760-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>770-1</td>
<td>5Y2.5/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>780-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>790-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>800-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>810-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>820-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>830-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>840-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>850-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

ss-smear slide

ss-770 cm (dom. lithol):
A: clay
C: subang.-subround. fine silt grains
R: nannos; spicules; fish debris; palynomorphs; diatoms

705 = top of section
SILTY CLAY; black homogen.

856 cm = bottom of section

graded bed (turbidite)
### Lithology and Color

<table>
<thead>
<tr>
<th>Interval (cm)</th>
<th>Lithology</th>
<th>Color</th>
<th>FOSSILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>850</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>860</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>870</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>880</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>890</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>900</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>910</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>920</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>930</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>940</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>950</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>960</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>970</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>980</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>990</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
<tr>
<td>1000</td>
<td>clay</td>
<td>5Y2.5/2</td>
<td>no fossils</td>
</tr>
</tbody>
</table>

### Remarks

- **856** = top of section
- **SILTY CLAY**; black homogen.

**Fossils:**
- X-Present
- C-Common
- B-Barren
- A-Abundant
- R-rare
- ss-smear slide

**Contacts:**
- s-sharp
- g-gradational
- m-mottled

**Grain Size:**
- sand
- silt
- clay

**Histology:**
- Bioturb.
- Contact.
- Foram.
- Nanno.
- Fish debris.
- Red.
- Diatom.
- Spicule.
- Plant frag.
- Mol.
- Shell.

**Lithology and Color:**
- 5Y2.5/2

**Remarks:**
- ss-950 cm (dom. lithol):
  - A: clay
  - C: diatoms (mostly resting spores of Chaetoceros)
  - R: nannos; spicules; fish debris; palynomorphs

**Contacts:**
- s-sharp; g-gradational; m-mottled

**Fossils:**
- X-Present
- C-Common
- B-Barren
- A-Abundant
- R-rare

**Grain Size:**
- sand
- silt
- clay
EW95-04 Core: 13PC Sect.: 3 (1006-1157 cm)
36 59.42 N, 123 16.07 W, 2510 m

1006 = top of section
SILTY CLAY; dark ol. gry., homogen.; sandy turbidite @ 1116 cm

ss-1050 cm (dom. lithol):
A: clay
C: fine silt grains
R: nannos; spicules; fish debris; palynomorphs; diatoms

ss-1116 cm (sandy turbidite)
A: silt and sand grains
C: clay
R: spicules; diatoms

1157 cm = bottom of section
\( \triangledown \) graded bed (turbidite)
ss-smear slide
**EW95-04 Core: 13PC Sect.: 2 (1162-1306 cm)**

**36 59.42 N, 123 16.07 W, 2510 m**

### FOSSILS

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1160</td>
<td></td>
<td>5Y3/2</td>
</tr>
<tr>
<td>1170</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1180</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1190</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1190</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1230</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1240</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1260</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1270</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1280</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1290</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1300</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks**

1162 = top of section  
(note: 5 cm of section between sects. 3 and 2, i.e. 1157-1162 cm, was bagged)

SILTY CLAY; dark ol. gry. w/ a few lighter mottles; homogen.

**ss-1250 cm (dom. lithol):**

- A: clay
- C: fine silt grains
- R: nannos; spicules; palynomorphs; diatoms

1306 cm = bottom of section

**Fossils:** X-Present C-Common B-Barren A-Abundant R-rare

**Contacts:** s-sharp; g-gradational; m-mottled

graded bed (turbidite)

ss-smear slide
EW95-04 Core: 13PC Sect.: 1 (1306-1455 cm)
36 59.42 N, 123 16.07 W, 2510 m

**FOSSILS**

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1310</td>
<td></td>
<td>5Y3/2</td>
</tr>
<tr>
<td>1320</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1330</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1340</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1360</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1370</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1380</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1390</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1410</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1420</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1430</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1440</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1450</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Grain Size**

- Sand
- Silt
- Clay

**Remarks**

- 1306 = top of section
- SILTY CLAY; dark ol. gry. w/ a few faint, lighter mottles; burrows @ 1355, 136, and 1390 cm; generally homogen.

- ss-1400 cm (dom. lithol):
  - A: clay
  - C: diatoms (predom. Chaetoceros resting spores)
  - R: rannos; spicules; palynomorphs; fish debris

- 1455 cm = bottom of section
- graded bed (turbidite)
- ss-smear slide
P-wave velocity (km/s)

Wet bulk density (gm/cm³)

LAT: 36°59.42'N  Depth: 2510 m
LON: 123°16.07'W  Drill Site ID: CA-8 South of Guide Seamount
LAT: 36°59.42'N  Depth: 2510 m
LON: 123°16.07'W  Drill Site ID: CA-8 South of Guide Seamount
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 13TC
(0-150 cm)

LAT: 36°59.42' N
LON: 123°16.07' W
Depth: 2510 M
Drill Site ID: CA-8 South of Guide Seamount

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

Section Break

USGS

169
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 13TC
(150-267 cm)

LAT: 36°59.42' N
LON: 123°16.07' W
Depth: 2510 M
Drill Site ID: CA-8 South of Guide Seamount

Presumed Double Penetration
LAT: 36°59.42'N Depth: 2510 m
LON: 123°16.07'W Drill Site ID: CA8 South of Guide Seamount
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL-PROPERTY LOG

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 36°59.42'N  Depth: 2510 m
LON: 123°16.07'W  Drill Site ID: CA8 South of Guide Seamount
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL PROPERTY LOGS

P-Wave Velocity

Wet Bulk Density

Magnetic Susceptibility

Acoustic Impedance

LAT: 36°59.42' N
LON: 123°16.07' W
Depth: 2510 M
Drill Site ID: CA-8 South of Guide Seamount

USGS 173
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 36°59.42' N  Depth: 2510 M
LON: 123°16.07' W  Drill Site ID: CA-8 South of Guide Seamount
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

LAT: 36°59.42' N
LON: 123°16.07' W
Depth: 2510 M
Drill Site ID: CA-8 South of Guide Seamount

EW9504 - 13PC
(300-450 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Section Break
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 13PC
(450-600 cm)

P-Wave Velocity (km/s)  
Wet Bulk Density (g/cm³)  
Magnetic Susceptibility (cgs/cm³)  
Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 36°59.42' N  
LON: 123°16.07' W

Depth: 2510 M  
Drill Site ID: CA-8 South of Guide Seamount

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 13PC

(600-750 cm)

LAT: 36°59.42' N
LON: 123°16.07' W
Depth: 2510 M
Drill Site ID: CA-8 South of Guide Seamount

USGS
177
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL PROPERTY LOGS

EW9504 - 13PC
(750-900 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Depth (cm)

750
775
800
825
850
875
900

1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2

LAT: 36°59.42' N
LON: 123°16.07' W
Depth: 2510 M
Drill Site ID: CA-8 South of Guide Seamount

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 13PC
(900-1050 cm)

**P-Wave Velocity (km/s)**

**Wet Bulk Density (g/cm³)**

**Magnetic Susceptibility (cgs/cm³)**

**Acoustic Impedance (g/cm²/s)**

LAT: 36°59.42' N  
LON: 123°16.07' W  
Depth: 2510 M  
Drill Site ID: CA-8  
South of Guide Seamount

USGS 179
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY Logs

EW9504 - 13PC

(1050-1200 cm)

LAT: 36°59.42' N
LON: 123°16.07' W
Depth: 2510 M
Drill Site ID: CA-8 South of Guide Seamount

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 13PC
(1200-1350 cm)

1. P-Wave Velocity (km/s)
2. Wet Bulk Density (g/cm³)
3. Magnetic Susceptibility (cgs/cm³)
4. Acoustic Impedance (g/cm²/s)

 Depth (cm) | P-Wave Velocity (km/s) | Wet Bulk Density (g/cm³) | Magnetic Susceptibility (cgs/cm³) | Acoustic Impedance (g/cm²/s)
---|---|---|---|---
1200 | 1225 | 1250 | 1275 | 1300
1.200 | 1.225 | 1.250 | 1.275 | 1.300
| | | | | |

LAT: 36°59.42' N  
LON: 123°16.07' W  
Depth: 2510 M  
Drill Site ID: CA-8  
South of Guide Seamount  

USGS
### FOSSILS

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-50 cm</td>
<td>Silty Clay; black; soupy; homogen.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Grain Size**

- sand
- silt
- clay

**Fossils:**
- X-Present
- C-Common
- B-Barren
- A-Abundant
- R-rare

**Remarks:**
- ss-50 cm (dom. lithol):
  - A: clay
  - C: nannos; forams; subang. to subround. fine silt grains
  - R: spicules; fish debris; palynomorphs

**Contacts:**
- s-sharp
- g-gradational
- m-mottled

**Graded Bed:**
- (turbidite)

**Smear Slide:**
- ss-smear slide
EW95-04 Core: 14PC Sect.: 7 (83-233 cm)
39 23.44 N, 124 09.07 W, 889 m

FOSSILS

<table>
<thead>
<tr>
<th>Interval (cm)</th>
<th>Lithology</th>
<th>Color</th>
<th>Grain Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-233</td>
<td>Silty clay; black; homogen. except for turbidites @ 183, 187, 200-205 cm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 83 cm = top of section
- 233 cm = bottom of section
- ss-150 cm (dom. lithol):
  - A: clay
  - C: ; subang. to subround.
    fine silt grains
  - R: nannos; forams;
    spicules; diatoms
    (Chaetoceros)

- Contacts: s-sharp; g-gradational; m-mottled
- \( \wedge \) graded bed (turbidite)
- ss-smear slide
SILTY CLAY; black; homogen. except for turbidites @ 246, 282, 301-303, 314, 321-322, and 380 cm

Fossils: X-Present  C-Common  B-Barren
A-Abundant   R-rare

Contacts: s-sharp; g-gradational; m-mottled

Remarks

Interval Lithology Color Grain Size Remarks

233 cm = top of section

SILTY CLAY; black; homogen. except for turbidites @ 246, 282, 301-303, 314, 321-322, and 380 cm

ss-310 cm (dom. lithol): A: clay
C: subang. to subround. fine silt grains
R: nannos; forams; spicules; diatoms (Chaetoceros); fish debris, palynomorphs

385 cm = bottom of section

ss-smear slide

graded bed (turbidite)
EW95-04 Core: 14PC Sect.: 5 (385-535 cm)
39 23.44 N, 124 09.07 W, 889 m

**FOSSILS**

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Grain Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>380</td>
<td></td>
<td>5Y2.5/2</td>
<td></td>
</tr>
<tr>
<td>390 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>400 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>410 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>420 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>430 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>440 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>450 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>460 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>470 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>480 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>490 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>500 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>510 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>520 -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>530 -</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks**

- 385 cm = top of section
- SILTY CLAY; strong odor of H2S; black; homogen. except for turbidites @ 246, 282, 301-303, 314, 321-322, and 380 cm
- ss-430 cm (dom. lithol):
  - A: clay
  - C: nannos; subang. to subround. fine silt grains
  - R: spicules; fish debris

**Contacts**

- s-sharp; g-gradational; m-mottled
- graded bed (turbidite)
- ss-smear slide
EW95-04 Core: 14PC Sect.: 4 (535-676 cm)
39 23.44 N, 124 09.07 W, 889 m

Fossils: X-Present  C-Common  B-Barren
         A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

Grain Size

Remarks

535 cm = top of section

SILTY CLAY; strong odor of H2S; dk. grn. gry. on GSA Chart; homogen. except for turbidite @ 589-590 cm

ss-600 cm (dom. lithol):  
A: clay  
C: subang. to subround.  
fine silt grains  
R: nannos; spicules; fish debris; diatoms; palynomorphs

676 cm = bottom of section

ss-smear slide
EW95-04 Core: 14PC Sect.: 3 (676-826 cm)
39 23.44 N, 124 09.07 W, 889 m

Interval | Lithology | Color | FOSSILS | Grain Size | Remarks
---------|-----------|-------|---------|------------|--------------------------------------------------
670-1    |           |       |         |            | 676 cm = top of section
670-1    | 5GY4/1    |       |         |            | SILTY CLAY; dk. grn. gry. on GSA Chart; homogen. except for sandy intervals (not discrete beds) @ 730-732, 735-737, and 740-742 cm
670-1    |           |       |         |            | ss-802 cm (dom. lithol):
670-1    |           |       |         |            | A: clay
670-1    |           |       |         |            | C: subang. to subround.
670-1    |           |       |         |            | fine silt grains
670-1    |           |       |         |            | R: nannos; forams;
670-1    |           |       |         |            | spicules; fish debris;
670-1    |           |       |         |            | diatoms; palynomorphs
670-1    |           |       |         |            | 826 cm = bottom of section
670-1    |           |       |         |            | graded bed (turbidite)
670-1    |           |       |         |            | ss-smear slide

Fossils: X-Present C-Common B-Barren A-Abundant R-rare
Contacts: s-sharp; g-gradational; m-mottled
EW95-04 Core: 14PC Sect.: 2 (826-976 cm)
39 23.44 N, 124 09.07 W, 889 m

FOSSILS

Interval | Lithology | Color | Grain Size | Remarks
---|---|---|---|---
820 | | | | 826 cm = top of section
830 | | | | SILTY CLAY (828-870 cm);
840 | | | | SANDY, SILTY CLAY (870-
850 | | | | 976 cm); dk. grn. gry. on GSA
860 | | | | Chart; homogen.
870 | | | | ss-850 cm (dom. lithol):
880 | | | | A: clay
890 | | | | C: subang. to subround.
900 | | | | fine-silt grains
910 | | | | R: nannos; forams; fish
920 | | | | debris; palynomorphs
930 | | | | 976 cm = bottom of section
940 | | | | graded bed
950 | | | | (turbidite)
960 | | | | ss-smear slide
970 | | | | Fossils: X-Present  C-Common  B-Barren
980 | | | | A-Abundant  R-rare
990 | | | | Contacts:  s-sharp; g-gradational; m-mottled
EW95-04 Core: 14PC Sect.: 1 (976-1127 cm)
39 23.44 N, 124 09.07 W, 889 m

FOSSILS

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>970</td>
<td>void</td>
<td>5Y2.5/2</td>
</tr>
<tr>
<td>980</td>
<td></td>
<td></td>
</tr>
<tr>
<td>990</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1040</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1050</td>
<td>ss-1050 cm (dom. lithol):</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A: clay</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C: subang. to subround.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>fine silt grains</td>
</tr>
<tr>
<td></td>
<td></td>
<td>R: nannos; forams;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>spicules; palynomorphs</td>
</tr>
<tr>
<td>1060</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1070</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1080</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1090</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1120</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks

976 cm = top of section
SILTY CLAY; black; homogen; void 976-980.

1127 cm = bottom of section

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

graded bed (turbidite)
ss-smear slide
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL-PROPERTY LOG

P-wave velocity (km/s)

Wet bulk density (gm/cm³)

LAT: 39°23.44'N  Depth: 889 m
LON: 124°09.07'W  Drill Site ID: CA-7 Pt Arena Slope

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 14PC
(0-150 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

LAT: 39°23.44’ N
LON: 124°09.07’ W
Depth: 889 M
Drill Site ID: CA-7 Pt Arena Slope

LAT: 39°23.44’ N
LON: 124°09.07’ W
Depth: 889 M
Drill Site ID: CA-7 Pt Arena Slope

USGS
193
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 14PC
(150-300 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth: 889 M

LAT: 39°23.44' N
LON: 124°09.07' W

Drill Site ID: CA-7 Pt Arena Slope

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 14PC
(300-450 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 39°23.44' N  
LON: 124°09.07' W  
Depth: 889 M  
Drill Site ID: CA-7 Pt Arena Slope
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 14PC
(450-600 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 39°23.44' N
LON: 124°09.07' W
Depth: 889 M
Drill Site ID: CA-7 Pt Arena Slope
P-Wave Velocity (km/s) | Wet Bulk Density (g/cm³) | Magnetic Susceptibility (cgs/cm³) | Acoustic Impedance (g/cm²/s)

LAT: 39°23.44' N  Depth: 889 M  Drill Site ID: CA-7 Pt Arena Slope
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 14PC
(750-900 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

750
775
800
825
850
875
900

1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.5 3.0 3.5 4.0

LAT: 39°23.44' N
LON: 124°09.07' W
Depth: 889 M
Drill Site ID: CA-7 Pt Arena Slope
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 14PC
(900-1050 cm)

LAT: 39°23.44' N
LON: 124°09.07' W
Depth: 889 M
Drill Site ID: CA-7 Pt Arena Slope

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

900 925 950 975 1000 1025 1050

1.4 1.5 1.6 1.7 1.8 2.2 3.0 3.5 4.0

(*) 10² (*) 10⁻⁸

Section Break
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 14PC
(1050-1127 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 39°23.44' N

LON: 124°09.07' W

Depth: 889 M

Drill Site ID: CA-7 Pt Arena Slope

USGS
EW95-04 Core: 15TC Sect.: 1 (0-127 cm)
40 05.75 N, 125 21.6 W, 2241 m

FOSSILS

Interval | Lithology | Color | Grain Size | Remarks
0        | 5Y3/1     | C     | Sand       | SILTY CLAY; top 60 cm very soupy; dk.gry. w/ black sandy burrow fill throughout but especially below 40 cm; large sandy burrows between 54 and 66 cm
10       | 5Y2.5/2   | C     | Clay       | ss-20 cm (lighter lithol.):
20       | SS        | C     | Fine silt  | A: clay
30       |           | C     | Grains     | C: fine silt grains
40       |           | C     | Nannos     | R: nannos; forams; spicules; fish debris; diatoms
50       |           | C     | Forams     | ss-60 cm (darker, sandy lithol.):
60       |           | C     | Rad.       | A: clay; subrounded silt and sand grains
70       |           | C     | Diatom     | C: forams
80       |           | C     | Spicule    | R: spicules
90       |           | C     | Plant, frag|
100      |           | C     | Mol. Shell | 127 cm = bottom of section
110      |           | C     | Sand       |
120      |           | C     | Clay       |
130      |           | C     | Span       |
140      |           | C     | Silt       |
150      |           | C     | Clay       |

Fossils: X-Present  C-Common  B-Barren  A-Abundant  R-rare
Contacts: s-sharp; g-gradational; m-mottled
\[\text{graded bed (turbidite)}\]
ss-smear slide
EW95-04 Core: 15PC Sect. 8: (0-36 cm)
32 51.64 N, 119 57.15 W, 1190 m

**FOSSILS**

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Grain Size</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>SILTY CLAY; v. dk. gray w/ some darker mottles throughout; mod. bioturb.</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td>ss-30 cm:</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td>A: clay</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td>C: subround. silt grains</td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td>R: spicules</td>
</tr>
</tbody>
</table>

Depth in centimeters

- **Depth**
  - 0 cm
  - 10 cm
  - 20 cm
  - 30 cm
  - 40 cm
  - 50 cm
  - 60 cm
  - 70 cm
  - 80 cm
  - 90 cm
  - 100 cm
  - 110 cm
  - 120 cm
  - 130 cm
  - 140 cm
  - 150 cm

- **Fossils**
  - X-Present
  - C-Common
  - B-Barren
  - A-Abundant
  - R-rare

- **Contacts**
  - s-sharp
  - g-gradational
  - m-mottled

- **Remarks**
  - graded bed (turbidite)
  - ss-smear slide
36 cm = top of section

36-117 cm:
SILTY CLAY; dom. color is ol. gry (5Y4/2) w/ lighter (5Y5/2) and darker (10Y4/2) burrow fill, and w/ black (5Y2.5/1) SAND layers (turbidites?) and burrow fill? (= one or more bioturbidated turbidites?)

ss-80 cm (dom. lithol):
A: clay
C: nannos; forams;
subang. silt grains
R: palynomorphs

36-117 cm:
CLAY; "camouflage clay"; burrow-mottled green and olive; dom. color is ol. gry. (5Y4/2) w/ grayish ol. (10Y4/2) and darker (dk. ol. gry., 5Y3/2) burrow mottles

ss-150 cm (dom. lithol):
A: clay
C: nannos
R: forams; palynomorphs; fish debris

v. dk. gry.

186 cm = bottom of section
EW95-04 Core: 15PC Sect.: 6 (191-326 cm)
40 05.75 N, 125 21.6 W, 2241 m

Interval | Lithology | Color | FOSSILS | Grain Size | Remarks
---|---|---|---|---|---
190 | void | 5Y3/2 | Bioturb. | sand | 191 cm = top of section
200 | 5Y2.5/1 | Contact | Foram. | silty | NOTE: 5 cm of sediment between bottom of sect. 7 and top of sect. 6 was bagged (186-191 cm)
210 | 5GY3/2 | Nanno. | Fish debr. | sand | 195-251 cm:
220 | 10Y4/2 | Rad. | Diatom | silty | CLAY; "camouflage clay"; dom. color is dk. ol. (5Y3/2) w/ grayish ol. (10Y4/2), grayish ol. grn. (5GY3/2), and black (5Y2.5/1) burrow fill
230 | | Spicule | Plant frag | | 251-266 cm:
240 | | Mold Shell | | | SAND, black burrow fills (= bioturbated turbitte?)
250 | 5Y3/2 | | | | 266-326 cm:
260 | 5Y2.5/1 | | | | "camouflage" CLAY, similar to 195-251 cm
270 | | | | | ss-288 cm (dom. lithol):
280 | | | | | A: clay
290 | | | | | C: fine silt grains
300 | | | | | R: nannos; forams;
310 | | | | | spicules; palynomorphs;
320 | | | | | fish debris
326 cm = bottom of section
330
340

Fossils: X-Present    C-Common    B-Barren
A-Abundant    R-rare
Contacts: s-sharp; g-gradational; m-mottled

\[\text{graded bed (turbidite)}\]

ss-smear slide
### EW95-04 Core: 15PC Sect.: 5 (326-477 cm)
40 05.75 N, 125 21.6 W, 2241 m

#### Remarks
- **326 cm = top of section**
  - CLAY; dom. color is grayish ol. (10Y4/2 from GSA Chart), w/ somewhat lighter (ol. gry., 5Y4/2) and darker (black, 5Y2.5/1) burrow mottles; black is mainly in small chondrites burrows, particularly concentrated in bottom 2 cm; mod. bioturbated throughout; void, 401-403 cm

- **477 cm = bottom of section**
  - graded bed (turbidite)
  - ss-smear slide

### Interval Lithology

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
</tr>
</thead>
<tbody>
<tr>
<td>326 cm</td>
<td>top of section</td>
</tr>
<tr>
<td>326 cm</td>
<td>CLAY; dom. color is grayish ol. (10Y4/2 from GSA Chart), w/ somewhat lighter (ol. gry., 5Y4/2) and darker (black, 5Y2.5/1) burrow mottles; black is mainly in small chondrites burrows, particularly concentrated in bottom 2 cm; mod. bioturbated throughout; void, 401-403 cm</td>
</tr>
</tbody>
</table>

### FOSSILS

<table>
<thead>
<tr>
<th>Interval</th>
<th>FOSSILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>326 cm</td>
<td>X-Present</td>
</tr>
<tr>
<td>326 cm</td>
<td>C-Common</td>
</tr>
<tr>
<td>326 cm</td>
<td>B-Barren</td>
</tr>
</tbody>
</table>

### Grain Size

<table>
<thead>
<tr>
<th>Interval</th>
<th>Grain Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>326 cm</td>
<td>X-Present</td>
</tr>
<tr>
<td>326 cm</td>
<td>C-Common</td>
</tr>
<tr>
<td>326 cm</td>
<td>B-Barren</td>
</tr>
</tbody>
</table>

### Color

<table>
<thead>
<tr>
<th>Interval</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>326 cm</td>
<td>10Y4/2</td>
</tr>
<tr>
<td>326 cm</td>
<td>5Y4/2</td>
</tr>
<tr>
<td>326 cm</td>
<td>5Y2.5/1</td>
</tr>
</tbody>
</table>

### Remarks

- ss-350 cm (dom. lithol):
  - A: clay
  - C: fine silt grains
  - R: nannos; forams; fish debris

### Contacts

- **ss**-350 cm (dom. lithol): a transition to finer grained sediment.
EW95-04 Core: 15PC Sect.: 4 (477-605 cm)
40 05.75 N, 125 21.6 W, 2241 m

477 cm = top of section

CLAY; burrow mottled with moderate bioturbation throughout; dom. color is grayish ol. (10Y4/2 from GSA Chart), w/ somewhat lighter (ol. gry., 5Y4/2) and darker (black, 5Y2.5/1) burrow mottles

ss-550 cm (dom. lithol):
A: clay
C: nannos; forams
R: spicules; fish debris; diatoms; palynomorphs

stratigraphy assumes that first mud above bent pipe (sect. 5) is contiguous with top of mud below bent pipe (sect. 4)

605 cm = bottom of section

Graded bed (turbidite)

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

ss-smear slide
EW95-04 Core: 15PC Sect.: 3 (605-755 cm)
40 05.75 N, 125 21.6 W, 2241 m

**Interval** | **Lithology** | **Color** | **FOSSILS** | **Remarks**
--- | --- | --- | --- | ---
605 cm = top of section

600 | | | |
610 | | 5Y3/2 | |
620 | | | |
630 | | | |
640 | | | |
650 | | | |
660 | | | |
670 | | | |
680 | | | |
690 | | | |
700 | | | |
710 | | | |
720 | | | |
730 | | | |
740 | | | |
750 | | | |

**Grain Size** | **Remarks**
--- | ---
sand | ss-smear slide
silt | graded bed (turbidite)
clay | 755 cm = bottom of section

**Contacts:** s-sharp; g-gradational; m-mottled

**Fossils:** X-Present C-Common B-Barren

A-Abundant R-rare

CLAY; dom. color is dk. ol. gry. w/ darker (black, 5Y2.5/1) burrow mottles throughout; mod. bioturb.

ss-650 cm (dom. lithol):

A: clay
C: nannos; forams; subround. silt grains
R: spicules; diatoms (mostly *Chaetoceros* resting spores w/ some centrics); silicoflag.; palynomorphs
### Interval Lithology Color

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>750-760</td>
<td>void</td>
<td>5Y3/2</td>
</tr>
<tr>
<td>770-780</td>
<td></td>
<td>CC</td>
</tr>
<tr>
<td>790-800</td>
<td></td>
<td>R</td>
</tr>
<tr>
<td>810-820</td>
<td></td>
<td>R</td>
</tr>
<tr>
<td>830-840</td>
<td></td>
<td></td>
</tr>
<tr>
<td>850-860</td>
<td></td>
<td></td>
</tr>
<tr>
<td>870-880</td>
<td></td>
<td></td>
</tr>
<tr>
<td>890-900</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Remarks

- **755 cm** = top of section
  - SILTYCLAY; dom. color is dk. ol. gry.; homogen. w/ darker (black, 5Y2.5/1) streaks throughout, but particularly abundant in bottom 40 cm of section

- **ss-800 cm** (dom. lithol):
  - **A**: clay
  - **C**: nannos; forams; subang. to subround. silt grains
  - **R**: diatoms (mostly Chaetoceros resting spores w/ some centrics); palynomorphs

- **906 cm** = bottom of section
  - graded bed (turbidite)
EW95-04 Core: 15PC Sect.: 1 (906-1056 cm)
40 05.75 N, 125 21.6 W, 2241 m

**FOSSILS**

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Grain Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>900-910</td>
<td>void</td>
<td></td>
<td></td>
</tr>
<tr>
<td>910-920</td>
<td>5Y3/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>920-930</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>930-940</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>940-950</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>950-960</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>960-970</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>970-980</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>980-990</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>990-1000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000-1010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1010-1020</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1020-1030</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1030-1040</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1040-1050</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1050-1056</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks**

906 cm = top of section
MARL; nanno-foram in a predominantly silty clay matrix; dom. color is dk. ol. gry. w/darker, coarser grained burrow mottles throughout

ss-970 cm (lighter lithol.):
A: clay
C-A: nannos; foram
C: subang. to subround. silt grains
R: spicules; fish debris; palynomorphs

ss-1000 cm (darker lithol.):
A: clay; subangular silt and sand grains
C: foram
R: spicules; fish debris

1056 cm = bottom of section
graded bed (turbidite)
ss-smear slide

Fossils: X-Present
A-Abundant
B-Barren
C-Common
R-rare

Contacts: s-sharp; g-gradational; m-mottled
P-wave velocity (km/s) and Wet bulk density (gm/cm³) profiles for CALIFORNIA MARGIN SITE SURVEY. LAT: 40° 05.75'N  Depth: 2241 m  LON: 125° 21.60'W  Drill Site ID: CA-2 Delgada Slope
LAT: 40°05.75'N  Depth: 2241 m
LON: 125°21.60'W  Drill Site ID: CA-2 Delgada Slope
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 15PC (0-150 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 40° 05.75' N  Depth: 2241 M
LON: 125° 21.60' W  Drill Site ID: CA-2 Delgada Slope
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 40°05.75' N
LON: 125°21.60' W
Depth: 2241 M
Drill Site ID: CA-2 Delgada Slope

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 15PC
(300-450 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 40°05.75' N
LON: 125°21.60' W
Depth: 2241 M
Drill Site ID: CA-2 Delgada Slope

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 15PC

(600-750 cm)

P-Wave Velocity (km/s):

Wet Bulk Density (g/cm³):

Magnetic Susceptibility (cgs/cm³):

Acoustic Impedance (g/cm²/s):

LAT: 40°05.75' N
LON: 125°21.60' W

Depth: 2241 M

Drill Site ID: CA-2 Delgada Slope

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 15PC
(900-1050 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 40°05.75' N  Depth: 2241 M
LON: 125°21.60' W  Drill Site ID: CA-2 Delgada Slope

USGS
P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 40°05.75' N
LON: 125°21.60' W

Depth: 2241 M
Drill Site ID: CA-2 Delgada Slope

USGS 221
EW95-04 Core: 16TC Sect.: 2 (0-86 cm)
41 40.08 N, 124 49.82 W, 901 m

FOSSILS

Interval Lithology Color

CLAY; dk. ol. gry. (5Y3/2); homogen.; large piece of redwood between 36 & 44 cm (placed in separate bag in D-tube)

86 cm = bottom of section

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

graded bed (turbidite)

ss-smear slide
EW95-04  Core: 16TC Sect.: 1 (86-217 cm)
41 40.08 N, 124 49.82 W, 901 m

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare
Contacts: s-sharp; g-gradational; m-mottled
\( \triangledown \) graded bed (turbidite)
ss-smear slide

Depth in centimeters

Interval Lithology Color FOSSILS Grain Size Remarks

86 = top of section
CLAY; dk. ol. gry. (5Y3/2); homogen.

217 cm = bottom of section
**EW95-04 Core: 16PC Sect.: 10 (0-24 cm)**

41 40.08 N, 124 49.82 W, 901 m

<table>
<thead>
<tr>
<th>Interval (Depth in centimeters)</th>
<th>Lithology</th>
<th>Color</th>
<th>FOSSILS</th>
<th>Grain Size</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>5Y3/2</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>SILTY CLAY; dom. color is dk. ol. gry (5Y3/2) w/ v. dk. gry. (5Y3/1) to black (5Y2./1) SAND turbidites</td>
</tr>
<tr>
<td>10</td>
<td>5Y3/1</td>
<td>C</td>
<td>C</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>5Y2.5/1</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>5Y3/1</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td></td>
</tr>
</tbody>
</table>

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

graded bed (turbidite)

ss-smear slide
EW95-04 Core: 16PC Sect.: 9 (24-174 cm)
41 40.08 N, 124 49.82 W, 901 m

**Fossils**
- Foram.
- Nanno.
- Fish debr.
- Rad.
- Diatom
- Spicule
- Plant, frag

**Grain Size**
- Mud
- Fine silt
- Silt
- Sand

**Remarks**
- 24 cm = top of section
- CLAY; strong odor of H2S; dom. color is dk. ol. gry (5Y3/2) w/ black (5Y2.5/1)
- SILTY SAND turbidites

**Interval Lithology Color**

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td></td>
<td>g</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>g</td>
</tr>
<tr>
<td>40</td>
<td></td>
<td>g</td>
</tr>
<tr>
<td>50</td>
<td></td>
<td>g</td>
</tr>
<tr>
<td>60</td>
<td></td>
<td>s</td>
</tr>
<tr>
<td>70</td>
<td></td>
<td>g</td>
</tr>
<tr>
<td>80</td>
<td></td>
<td>g</td>
</tr>
<tr>
<td>90</td>
<td>SS</td>
<td>g</td>
</tr>
<tr>
<td>100</td>
<td></td>
<td>s</td>
</tr>
<tr>
<td>110</td>
<td>SS</td>
<td>g</td>
</tr>
<tr>
<td>120</td>
<td></td>
<td>g</td>
</tr>
<tr>
<td>130</td>
<td></td>
<td>s</td>
</tr>
<tr>
<td>140</td>
<td></td>
<td>g</td>
</tr>
<tr>
<td>150</td>
<td></td>
<td>g</td>
</tr>
<tr>
<td>160</td>
<td></td>
<td>g</td>
</tr>
<tr>
<td>170</td>
<td></td>
<td>g</td>
</tr>
</tbody>
</table>

**Depth in centimeters**

- 174 cm = bottom of section

**Fossils:**
- X-Present
- C-Common
- B-Barren

**Contacts:**
- s-sharp
- g-gradational
- m-mottled

**Graded bed (turbidite) ss-smear slide**
EW95-04 Core: 16PC Sect.: 8 (174-323 cm)
41 40.08 N, 124 49.82 W, 901 m

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Fossils</th>
<th>Grain Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>170</td>
<td>5Y2.5/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>180</td>
<td>5Y3/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>190</td>
<td>5Y2.5/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>5Y3/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>210</td>
<td>5Y2.5/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>220</td>
<td>5Y2.5/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>230</td>
<td>5Y3/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>240</td>
<td>5Y3/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>250</td>
<td>5Y2.5/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>260</td>
<td>5Y3/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>270</td>
<td>5Y2.5/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>280</td>
<td>5Y3/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>290</td>
<td>5Y2.5/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>5Y2.5/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>310</td>
<td>5Y3/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>320</td>
<td>5Y2.5/1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks:
- 174 cm = top of section
- 174-175 cm = void
- CLAY; dom. color is dk. ol. gry. (5Y3/2) w/ black (5Y2.5/1)
- SILTY SAND turbidites; large shell frags. @183 and 211 cm;
- dk. ol. gry. clay sections contain abundant, intense black streaks of sulfides, especially from 226 cm to the bottom of the section

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

323 cm = bottom of section

ss-218 cm (turbidite):
- A: clay;
- C: subang. to subround. silt grains; nannos; forams
- R: spicules; fish deb.; diatoms

ss-240 cm (clay):
- A: clay
- C: nannos; forams;
- subang. silt grains
- R: spicules

ss-255 cm (turbidite):
- A: clay; angular to subang. silt and sand grains
- R: nannos; forams;
- spicules; pine pollen and other palynomorphs

graded bed (turbidite)

ss-smear slide
EW95-04 Core: 16PC Sect.: 7 (323-463 cm)
41 40.08 N, 124 49.82 W, 901 m

323 cm = top of section

CLAY; dom. color is dk. ol. gry. (5Y3/2) w/ black (5Y2.5/1)
SILTY SAND turbidites; dk. ol. gry. clay sections contain abundant, intense black streaks of sulfides

ss-380 cm (turbidite):
A: clay; subang. silt and sand grains
R: nannos; forams; spicules; fish deb.

ss-400 cm (clay):
A: clay
C: nannos
R: forams; spicules; diatoms; palynomorphs

463 cm = bottom of section

Graded bed (turbidite)

ss-smear slide

Depth in centimeters

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled
EW95-04 Core: 16PC Sect.: 6 (463-487 cm)
41 40.08 N, 124 49.82 W, 901 m

Interval | Lithology | Color  | FOSSILS | Grain Size | Remarks
--------|-----------|--------|---------|------------|--------
460      | CLAY      | 5Y3/2  | Present | sand       | 463 cm = top of section
         |           |        | C       | clay        | CLAY; dom. color is dk. ol. gry. (5Y3/2) w/ abundant, intense black sulfides
470      |           |        | B       |            |        
480      |           |        | A       |            |        
490      |           |        | B       |            |        

487 cm = bottom of section

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

graded bed (turbidite)
ss-smear slide
EW95-04 Core: 16PC Sect.: 5 (487-625 cm)  
41 40.08 N, 124 49.82 W, 901 m

Depth in centimeters

Interval  Lithology  Color  FOSSILS  Grain Size

480
490
500
510
520
530
540
550
560
570
580
590
600
610
620
630

5Y3/2  5Y2.5/1  5Y3/2  5Y3/2  5Y2.5/1  5Y2.5/1  5Y3/2  5Y3/2  5Y2.5/1  5Y3/2  5Y3/2  5Y3/2  5Y3/2  5Y3/2

Biobur.  Contact  Foram.  Nanno.  Fish debr.  Rad.  Diatom  Spicule  Plant, frag  Mod.  Shell  sand  silt  clay

487 cm = top of section  
487-488 = gap

CLAY; dom. color is dk. ol.  
gry. (5Y3/2) w/ black (5Y2.5/1)
SILTY SAND turbidites; dk. ol.
gry. clay sections contain  
abundant, intense black  
streaks of sulfides

ss-526 cm (clay):  
A: clay
R: nannos; forams;
spicules; diatoms;
palynomorphs

ss-600 cm (turbidite):  
A: clay; subang. silt and  
sand grains
R: nannos; forams; fish
deb.

625 cm = bottom of section  

Fossils: X-Present  C-Common  B-Barren  A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

graded bed
(turbidite)

ss-smear slide
EW95-04 Core: 16PC Sect.: 4 (625-775 cm)
41°40.08' N, 124°49.82' W, 901 m

**FOSSILS**

**Lithology**

**Color**

**Remarks**

625 cm = top of section
625-633: broken up; disturbed

CLAY; dom. color is v. dk. gry. (5Y3/1) w/ black streaks and mottles, especially 633-705 cm

ss-670 cm (clay):
A: clay
C: subround. fine silt grains
R: nannos; spicules; diatoms; palynomorphs

CLAY; dom. color is v. dk. gry. (5Y3/1); more homogeneous than above

ss-750 cm (clay):
A: clay
C: subround. fine silt grains
R: nannos; fish deb.; spicules; palynomorphs

775 cm = bottom of section

Graded bed (turbidite)

ss-smear slide

**Grain Size**

**Contacts**

s-sharp; g-gradational; m-mottled

**Fossils**

X-Present  C-Common  B-Barren
A-Abundant  R-rare

%present  %common  %abundant  %rare

---

620  630  640  650  660  670  680  690  700  710  720  730  740  750  760  770

Depth in centimeters

---

5Y3/1  5Y3/1  5Y3/1  5Y3/1  5Y3/1  5Y3/1  5Y3/1  5Y3/1  5Y3/1  5Y3/1  5Y3/1  5Y3/1  5Y3/1  5Y3/1  5Y3/1  5Y3/1
**EW95-04 Core: 16PC Sect.: 3 (775-903 cm)**

41 40.08 N, 124 49.82 W, 901 m

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>770</td>
<td>CM</td>
<td>5Y3/2</td>
<td>775 cm = top of section</td>
</tr>
<tr>
<td>770-780</td>
<td>CLAY; dk. ol. gry. (5Y3/2); homogen. w/ very little silt; a few black streaks throughout; small gas cracks developed on surface after standing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>780</td>
<td>R</td>
<td></td>
<td>ss-830 cm (clay): A: clay R: nannos; spicules; diatoms; palynomorphs; fish debris</td>
</tr>
<tr>
<td>790-820</td>
<td>R R R R R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>830</td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>840-903</td>
<td>R</td>
<td></td>
<td>graded bed (turbidite) ss-smear slide</td>
</tr>
<tr>
<td>903 cm</td>
<td>B</td>
<td></td>
<td>903 cm = bottom of section</td>
</tr>
<tr>
<td>910-920</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

Grain Size: sand, silt, clay

Biota: P. bivalve; F. Foraminifera; R. Red; D. Diatoms; P. Palynomorphs; F. Fish debris

Plant Fragments: Mol. Shell, sand, silt, clay

Notes: graded bed (turbidite) ss-smear slide
EW95-04 Core: 16PC Sect.: 2 (903-1023 cm)
41 40.08 N, 124 49.82 W, 901 m

---

**Interval** | **Lithology** | **Color** | **Remarks**
--- | --- | --- | ---
900 | | | 903 cm = top of section
910 | 5Y3/2 | | CLAY; dk. ol. gry. (5Y3/2); homogen.; a few black streaks throughout; large gas cracks developed @ 910, 975, 985, and 1006 cm
920 | | | ss-950 cm (clay): A: clay R: nannos; forams; spicules; diatoms; palynomorphs; fish debris
930 | | | 940 | | | 950 | ss | | 960 | | | 970 | | | 980 | | | 990 | | | 1000 | | | 1010 | | | 1020 | | | 1023 cm = bottom of section
1030 | | | 1100 | | | 1200 | |

**FOSSILS**
- Bioturb.
- Contact
- Foram.
- Nanno.
- Fish debr.
- Rad.
- Diatom.
- Spicule.
- Plant frag.
- Mol. Shell.
- sand
- silt
- silt (arg.

**Grain Size**

**Depth in centimeters**

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

\[graded \text{ bed (turbidite)}\]

ss-smear slide
Fossils: X-Present  C-Common  B-Barren  A-Abundant  R-rare
Contacts:  s-sharp; g-gradational; m-mottled

\[ \text{graded bed (turbidite)} \]

\[ \text{ss-smear slide} \]
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL PROPERTY LOGS

P-Wave Velocity
(km/s)

Wet Bulk Density
(g/cm³)

Magnetic Susceptibility
(cgs/cm³)

Acoustic Impedance
(g/cm²/s)

LAT: 41° 40.08' N
LON: 124° 049.82' W
Depth: 901 M
Drill Site ID: CA-1 Eel River Basin

LAT: 41° 40.08' N
LON: 124° 049.82' W
Depth: 901 M
Drill Site ID: CA-1 Eel River Basin

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 41° 40.08' N
LON: 124° 49.82' W
Depth: 901 M
Drill Site ID: CA-1 Eel River Basin

USGS 235
Magnetic Susceptibility
\(10^6\text{ cgs}\)

Acoustic Impedance
\(\text{gm/cm}^2/\text{s}\)

LAT: 41° 40.08'N  Depth: 901 m
LON: 124° 49.82'W  Drill Site ID: CA-1 Eel River Basin

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 16PC
(0-150 cm)

LAT: 41° 40.08' N
LON: 124° 49.82' W
Depth: 901 M
Drill Site ID: CA-1 Eel River Basin

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 41° 40.08' N
LON: 124° 49.82' W
Depth: 901 M
Drill Site ID: CA-1 Eel River Basin

USGS
P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 41° 40.08' N
LON: 124° 49.82' W

Depth: 901 M
Drill Site ID: CA-1 Eel River Basin

USGS
239
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 16PC
(600-750 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 41° 40.08' N
LON: 124° 49.82' W
Depth: 901 M
Drill Site ID: CA-1 Eel River Basin

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 16PC

(750-900 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 41°40.08' N
LON: 124°49.82' W

Depth: 901 M
Drill Site ID: CA-1 Eel River Basin

USGS

243
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL PROPERTY LOGS

EW9504 - 16PC
(900-1050 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Lat: 41° 40.08' N
Lon: 124° 49.82' W
Depth: 901 M
Drill Site ID: CA-1 Eel River Basin

USGS
EW95-04 Core: 17TC Sect.: 2 (0-124 cm)
42 14.55 N, 125 49.82 W, 2671 m

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>5Y3/2</td>
</tr>
</tbody>
</table>

Remarks:
- CLAY; dk. ol. gry. (5Y3/2); homogen. w/ a few black specks throughout
- ss-70 cm...
  - A: clay
  - C: diatoms (*Chaetoceros* and other centrics); fine silt grains
  - R: nannos; spicules; palynomorphs; fish debris
- 124 cm = bottom of section

Fossils: X-Present  C-Common  B-Barren
A-Abundant  R-rare

Contacts: s-sharp; g-gradational; m-mottled

graded bed (turbidite)

ss-smear slide
EW95-04 Core: 17TC Sect.: 1 (124-275 cm)
42 14.55 N, 125 49.82 W, 2671 m

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare
Contacts: s-sharp; g-gradational; m-mottled

Grain Size

Remarks

124 cm = top of section
CLAY; dk. ol. gry. (5Y3/2); homogen. w/a few black specks throughout and faint burrow mottles @ 285-188

ss-200 cm:
A: clay
C: fine silt grains
R: nannos; forams; spicules; diatoms (Chaetoceros and other centrics); fish debris; palynomorphs

275 cm = bottom of section
graded bed (turbidite)
ss-smear slide
EW95-04 Core: 17PC Sect.: 11 (0-33 cm)
42 14.55 N, 125 49.82 W, 2671 m

Interval | Lithology | Color | FOSSILS | Grain Size | Remarks
---------|-----------|-------|---------|------------|--------
          |           |       | Bioturb. | Contact    |        |
          |           |       | Foram.   | Nanno.     |        |
          |           |       | Fish debr.| Rad.       |        |
          |           |       | Diatom   | Spicule    |        |
          |           |       | Plant. frg.| Moll. Shell|        |
          |           |       | sand      | silt, clay |        |
          |           |       |           |            | CLAY; dk. ol. gry. (5Y3/2); homogen.; very soupy|
          |           |       |           |            | 33 cm = bottom of section|
          |           |       |           |            | ss-22 cm:|
          |           |       |           |            | A: clay|
          |           |       |           |            | C: forams; diatoms (Chaetoceros and other centricts); fine silt grains|
          |           |       |           |            | R: palynomorphs; spicules; rads|

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare
Contacts: s-sharp; g-gradational; m-mottled
\[\text{graded bed (turbidite)}\]
\[\text{ss-smear slide}\]
EW95-04 Core: 17PC Sect.: 10 (33-184 cm)
42 14.55 N, 125 53.28 W, 2671 m

FOSSILS

Interval Lithology Color § f

5Y3/2

33 cm = top of section
CLAY; dk. ol. gry.; homogen. w/ a few black streaks throughout

ss-100 cm:
A: clay
C: fine silt grains;
diatoms (Chaetoceros and other centrics)
R: nannos; forams;
spicules; fish debris;
palynomorphs

184 cm = bottom of section
graded bed
(turbidite)

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled
ss-smear slide
EW95-04 Core: 17PC Sect.: 9 (184-334 cm)
42 14.55 N, 125 53.28 W, 2671 m

Interval | Lithology | Color | FOSSILS | Grain Size | Remarks
--- | --- | --- | --- | --- | ---
180 |  |  |  |  | 184 cm = top of section
190 |  | 5Y3/2 |  |  | CLAY; dk. ol. gry.; homogen. w/a few black streaks throughout; turbidite @ 312-314 cm
200 |  |  |  |  | ss-250 cm:
210 |  |  |  |  | A: clay
220 |  |  |  |  | C: nannos; fine silt grains; diatoms (Chaetoceros and other centrics)
230 |  |  |  |  | R: spicules; fish debris; palynomorphs
240 |  |  |  |  | 334 cm = bottom of section
250 |  |  |  |  | graded bed (turbidite)
260 |  |  |  |  | ss-smear slide
270 |  |  |  |  |  
280 |  |  |  |  |  
290 |  |  |  |  |  
300 |  |  |  |  |  
310 |  |  |  |  |  
320 |  |  |  |  |  
330 |  |  |  |  |  

Fossils: X-Present C-Common B-Barren A-Abundant R-rare
Contacts: s-sharp; g-gradational; m-mottled
EW95-04 Core: 17PC Sect.: 8 (334-476 cm)
42 14.55 N, 125 53.28 W, 2671 m

<table>
<thead>
<tr>
<th>Interval</th>
<th>Lithology</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>330</td>
<td></td>
<td></td>
</tr>
<tr>
<td>340</td>
<td></td>
<td>5Y3/1</td>
</tr>
<tr>
<td>350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>360</td>
<td></td>
<td></td>
</tr>
<tr>
<td>370</td>
<td></td>
<td></td>
</tr>
<tr>
<td>380-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>390</td>
<td></td>
<td></td>
</tr>
<tr>
<td>400-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>410-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>420-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>430</td>
<td></td>
<td></td>
</tr>
<tr>
<td>440</td>
<td></td>
<td></td>
</tr>
<tr>
<td>450</td>
<td></td>
<td></td>
</tr>
<tr>
<td>460</td>
<td></td>
<td></td>
</tr>
<tr>
<td>470</td>
<td></td>
<td></td>
</tr>
<tr>
<td>480</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks**

- 334 cm = top of section
- CLAY: v. dk. gry.; homogen. w/ a few black streaks throughout

**Grain Size**

- sand
- silt
- clay

**FOSSILS**

- Bioturb. Contact
- Foram.
- Fish deb.
- Rad.
- Diatom
- Spicule
- Plant. frag.
- Mol. Shell

**Contacts**

- s-sharp
- g-gradational
- m-mottled

**Remarks**

- ss-400 cm:
  - A: clay
  - C: nannos; forams; fine silt grains
  - R: spicules; fish debris; palynomorphs; diatoms (Chaetoceros)

- 476 cm = bottom of section

**Graded Bed**

- (turbidite)

**Smear Slide**

- ss-smear slide

**Fossils**

- X-Present
- C-Common
- B-Barren
- A-Abundant
- R-rare
EW95-04 Core: 17PC Sect.: 7 (476-626 cm)
42 14.55 N, 125 53.28 W, 2671 m

FOSSILS

Interval Lithology Color 1 1

470

480 5Y3/1

490

500

510

520

530

540

550

560

570

580

590

600

610

620

Depth in centimeters

Fossils: X-Present C-Common B-Barren A-Abundant R-rare
Contacts: s-sharp; g-gradational; m-mottled

Grain Size

Remarks

476 cm = top of section
CLAY; v. dk. gry.; homogen. w/ a few black streaks throughout

ss-550 cm:
A: clay
C: nannos; forams; fine silt grains
R: spicules; fish debris; palynomorphs; diatoms (mostly Chaetoceros)

626 cm = bottom of section
graded bed (turbidite)

ss-smear slide
EW95-04 Core: 17PC Sect.: 6 (626-777 cm)
42 14.55 N, 125 53.28 W, 2671 m

**FOSSILS**

- Depth in centimeters
- Interval
- Lithology
- Color
- Remarks

**Grain Size**
- Clay: v. dk. gry.; homogen. w/ a few black streaks throughout

**Fossils:**
- X-Present
- C-Common
- B-Barren

**Contacts:**
- s-sharp; g-gradational; m-mottled

**Remarks:**
- 626 cm = top of section
- ss-700 cm:
  - A: clay
  - C: nannos; forams; fine silt grains
  - R: spicules; fish debris; palynomorphs; diatoms (mostly Chaetoceros)
- 777 cm = bottom of section
EW95-04 Core: 17PC Sect.: 5 (777-927 cm)
42 14.55 N, 125 53.28 W, 2671 m

Depth in centimeters

Interval  Lithology  Color  FOSSILS  Grain Size  Remarks
770  
780  5Y3/1  
790  
800  
810  
820  
830  
840  
850  5S  
860  
870  
880  
890  
900  
910  
920  5S  
927 cm = bottom of section

777 cm = top of section

CLAY; v. dk. gry.; a few black streaks throughout; homogen.
777-815 cm; slt. bioturb. 815-900 cm; mod. bioturb. 900-927 cm;
burrows filled with dk. green. gry. (5GY4/1) material

ss-850 cm:
A: clay
C: forams; forams; fine silt grains
R: spicules; fish debris; palynomorphs; diatoms

Fossils: X-Present  C-Common  B-Barren  A-Abundant  R-rare
Contacts: s-sharp; g-gradational; m-mottled

graded bed (turbidite)
ss-smear slide
EW95-04 Core: 17PC Sect.: 4 (927-1057 cm)
42 14.55 N, 125 53.28 W, 2671 m

FOSSILS

Interval Lithology Color

927 cm = top of section
CLAY; v. dk. gry.; a few black streaks throughout; sli. bioturb.
927-1000 cm; homogen.
1000-1057 cm

ss-1000 cm:
A: clay
C: nannos; fine silt grains
R: spicules; fish debris;
forams; palynomorphs;
diatoms

1057 cm = bottom of section

graded bed
(turbidite)

ss-smear slide
EW95-04 Core: 17PC Sect.: 3 (1057-1208 cm)
42 14.55 N, 125 53.28 W, 2671 m

Interval | Lithology | Color | FOSSILS | Grain Size | Remarks
--- | --- | --- | --- | --- | ---
1050 | | | | | 1057 cm = top of section
1060 | 5Y3/1 | | | | CLAY; v. dk. gry.; homogen. w/ a few black streaks throughout
1070 | | | | | 1208 cm = bottom of section
1080 | | | | | graded bed (turbidite)
1090 | | | | | ss-smear slide
1100 | | | | | |
1110 | | | | | |
1120 | | | | | |
1130 | | | | | |
1140 | | | | | |
1150 | | | | | |
1160 | | | | | |
1170 | | | | | |
1180 | | | | | |
1190 | | | | | |
1200 | | | | | |

Fossils: X-Present A-Abundant C-Common B-Barren
Contacts: s-sharp; g-gradational; m-mottled

Depth in centimeters
EW95-04 Core: 17PC Sect.: 2 (1208-1358 cm)
42 14.55 N, 125 53.28 W, 2671 m

FOSSILS
Interval
1210-1220
1220-1230
1230-1240
1240-1250
1250-1260
1260-1270
1270-1280
1280-1290
1290-1300
1300-1310
1310-1320
1320-1330
1330-1340
1340-1350
1350-1360
1360-1370

Lithology Color

5Y3/1

CO O

Grain Size

Remarks

1208 cm = top of section
CLAY; v. dk. gry.; homogen. w/ a few black streaks throughout

ss-1300 cm:
A: clay
C: fine silt grains
R: spicules; fish debris; nannos; forams; palynomorphs

1358 cm = bottom of section

graded bed (turbidite)
ss-smear slide
EW95-04 Core: 17PC Sect.: 1 (1358-1509 cm)
42 14.55 N, 125 53.28 W, 2671 m

FOSSILS

Interval Lithology Color 1
1360
1370
1380
1390
1400
1410
1420
1430
1440
1450
1460
1470
1480
1490
1500
1510
Depth in centimeters


Remarks
1358 cm = top of section
CLAY; v. dk. gry.; homogen. w/ a few black streaks throughout

ss-1500 cm:
A: clay
C: fine silt grains
R: spicules; fish debris; nannos; forams; palynomorphs; diatoms

1509 cm = bottom of section

Fossils: X-Present C-Common B-Barren
A-Abundant R-rare

Contacts: s-sharp; g-gradational; m-mottled

\( \triangle \) graded bed (turbidite)
ss-smear slide
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 17TC
(0-150 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 42°14.55' N Depth: 2671 M
LON: 125°53.28' W Drill Site ID: CA-3 northern Gorda Swell

USGS

259
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL PROPERTY LOGS

EW9504 - 17TC
(150-275 cm)

P-Wave Velocity (km/s) | Wet Bulk Density (g/cm³) | Magnetic Susceptibility (cgs/cm³) | Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 42°14.55' N  Depth: 2671 M
LON: 125°53.28' W  Drill Site ID: CA-3 northern Gorda Swell

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 17PC
(0-150 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 42° 14.55' N
LON: 125° 53.28' W

Depth: 2671 M
Drill Site ID: CA-3 northern Gorda Swell

USGS 263
CALIFORNIA MARGIN SITE SURVEY

EW9504 - 17PC

(150-300 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

150

175

200

225

250

275

300

1.4

1.5

1.6

1.7

1.8

1.9

2.0

2.1

2.2

2.3

2.4

2.5

2.6

2.7

2.8

2.9

3.0

3.1

3.2

3.3

3.4

3.5

3.6

3.7

3.8

3.9

4.0

LAT: 42° 14.55' N

LON: 125° 53.28' W

Depth: 2671 M

Drill Site ID: CA-3 northern Gorda Swell

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 17PC
(300-450 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Depth (cm)
300
325
350
375
400
425
450
1.4 1.5 1.6 1.7 1.8 1.9 2.0 1.4 1.5 1.6 1.7 1.8 2.0 40 60 80 100 2.0 2.5 3.0 3.5 4.0

LAT: 42°14.55' N  Depth: 2671 M
LON: 125°53.28' W  Drill Site ID: CA-3 northern Gorda Swell

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 42° 14.55' N
LON: 125° 53.28' W
Drill Site ID: CA-3 northern Gorda Swell

Depth: 2671 M

LAT: 42° 14.55' N
Depth: 2671 M

USGS
LAT: 42° 14.55' N  Depth: 2671 M
LON: 125° 53.28' W  Drill Site ID: CA-3 northern Gorda Swell
P-Wave Velocity (km/s)

Depth (cm)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Section Break

LAT: 42°14.55' N
LON: 125°53.28' W
Depth: 2671 M
Drill Site ID: CA-3 northern Gorda Swell

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 17PC
(1200-1350 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 42°14.55' N
LON: 125°53.28' W

Depth: 2671 M
Drill Site ID: CA-3 northern Gorda Swell

USGS 271
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL PROPERTY LOGS

EW9504 - 17PC
(1350-1500 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 42°14.55' N Depth: 2671 M
LON: 125°53.28' W Drill Site ID: CA-3 northern Gorda Swell
Core 18PC was not described
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 18TC
(150-222 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 41°00.04' N
LON: 126°26.11' W
Depth: 3075 M
Drill Site ID: CA-4 southern Gorda Swell

USGS
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL PROPERTY LOGS

EW9504 - 18PC
(0-150 cm)

LAT: 41°00.04' N
LON: 126°26.11' W
Depth: 3075 M
Drill Site ID: CA-4 southern Gorda Swell

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Depth (cm)

1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2
0 10 20 30 40 50 60 70 80 90 100

1.0 1.4 1.8
0 20 40 60 80 100 120 140 160 180

2.2 2.5 3.0 3.5 4.0
0 10 20 30 40 50 60 70 80 90 100

(*) 10^6 (*) 10^5

Section Break
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 18PC
(150-300 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 41°00.04' N
Depth: 3075 M
LON: 126°26.11' W
Drill Site ID: CA-4 southern Gorda Swell
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL PROPERTY LOGS

P-Wave Velocity (km/s)  | Wet Bulk Density (g/cm³)  | Magnetic Susceptibility (cgs/cm³)  | Acoustic Impedance (g/cm²/s)

LAT: 41°00.04' N  Depth: 3075 M  
LON: 126°26.11' W  Drill Site ID: CA-4 southern Gorda Swell

USGS 281
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 18PC

(450-600 cm)

P-Wave Velocity (km/s)  Wet Bulk Density (g/cm³)  Magnetic Susceptibility (cgs/cm³)  Acoustic Impedance (g/cm²/s)

LAT: 41°00.04' N  Depth: 3075 M  LON: 126°26.11' W  Drill Site ID: CA-4 southern Gorda Swell

USGS
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 18PC
(600-750 cm)

P-Wave Velocity (km/s)

Wet Bulk Density (g/cm³)

Magnetic Susceptibility (cgs/cm³)

Acoustic Impedance (g/cm²/s)

LAT: 41°00.04’ N
LON: 126°26.11’ W
Depth: 3075 M
Drill Site ID: CA-4 southern Gorda Swell

USGS
283
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 18PC
(750-900 cm)

P-Wave Velocity
(km/s)

Wet Bulk Density
(g/cm³)

Magnetic Susceptibility
(cgs/cm³)

Acoustic Impedance
(g/cm²/s)

Depth (cm)

LAT: 41°00.04' N  Depth: 3075 M
LON: 126°26.11' W  Drill Site ID: CA-4 southern Gorda Swell

USGS
CALIFORNIA MARGIN SITE SURVEY
PHYSICAL PROPERTY LOGS

EW9504 - 18PC
(900-1050 cm)

P-Wave Velocity (km/s)
Wet Bulk Density (g/cm³)
Magnetic Susceptibility (cgs/cm³)
Acoustic Impedance (g/cm²/s)

Depth (cm)

LAT: 41°00.04' N
LON: 126°26.11' W
Depth: 3075 M
Drill Site ID: CA-4 southern Gorda Swell

USGS
285
CALIFORNIA MARGIN SITE SURVEY

PHYSICAL PROPERTY LOGS

EW9504 - 18PC
(1050-1200 cm)

P-Wave Velocity (km/s)  Wet Bulk Density (g/cm³)  Magnetic Susceptibility (cgs/cm³)  Acoustic Impedance (g/cm²/s)

Depth (cm):
1050 1075 1100 1125 1150 1175 1200

P-Wave Velocity:
1 1.2 1.4 1.6 1.8 2.0 2.2

Wet Bulk Density:
1.4 1.5 1.6 1.7 1.8 1.9 2.0

Magnetic Susceptibility:
0 50 100 150 200 250 300

Acoustic Impedance:
2.0 2.5 3.0 3.5 4.0

LAT: 41°00.04' N  Depth: 3075 M
LON: 126°26.11' W  Drill Site ID: CA-4 southern Gorda Swell

USGS
CALIFORNIA MARGIN SITE SURVEY

EW9504 - 18PC
(1200-1350 cm)

PHYSICAL PROPERTY LOGS

<table>
<thead>
<tr>
<th>Depth (cm)</th>
<th>P-Wave Velocity (km/s)</th>
<th>Wet Bulk Density (g/cm³)</th>
<th>Magnetic Susceptibility (cgs/cm³)</th>
<th>Acoustic Impedance (g/cm²/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1200</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1225</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1250</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1300</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1350</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LAT: 41°00.04' N
LON: 126°26.11' W
Depth: 3075 M
Drill Site ID: CA-4 southern Gorda Swell
<table>
<thead>
<tr>
<th>Depth (cm)</th>
<th>P-Wave Velocity (km/s)</th>
<th>Wet Bulk Density (g/cm³)</th>
<th>Magnetic Susceptibility (cgs/cm³)</th>
<th>Acoustic Impedance (g/cm²/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1350</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1375</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1425</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1450</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1475</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1500</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LAT: 41°00.04' N  Depth: 3075 M  
LON: 126°26.11' W  Drill Site ID: CA-4 southern Gorda Swell

USGS